

Wild cares: on hedgehogs, killing and kindness

Author:

McLauchlan, Laura

Publication Date:

2018

DOI:

<https://doi.org/10.26190/unsworks/3611>

License:

<https://creativecommons.org/licenses/by-nc-nd/3.0/au/>

Link to license to see what you are allowed to do with this resource.

Downloaded from <http://hdl.handle.net/1959.4/61307> in <https://unsworks.unsw.edu.au> on 2022-08-19

Wild Cares: On Hedgehogs, Killing and Kindness

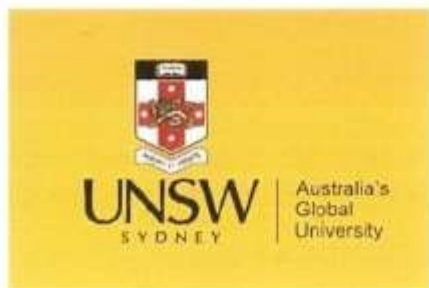
Laura McLauchlan

A thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy



School of Social Sciences
Faculty of Arts and Social Sciences

December 2018



Thesis/Dissertation Sheet

Surname/Family Name	: McLauchlan
Given Name/s	: Laura
Abbreviation for degree as give in the University calendar	: PhD
Faculty	: Faculty of Arts and Social Sciences
School	: School of Humanities and Languages
Thesis Title	: Wild Cares: On hedgehogs, killing and kindness

Abstract 350 words maximum: (PLEASE TYPE)

In a time in which there are few spaces not immensely impacted by humans, our cares matter greatly for the lives of other species. In this thesis, I examine the everyday practices of making and undoing cares for hedgehogs—a critter largely beloved yet in decline in the United Kingdom and increasingly hailed as an invasive predator and targeted for culling in Aotearoa/New Zealand. This thesis contributes to scholarship analysing the complex and often ambiguous nature of multispecies caring (Puig de la Bellacasa 2017).

Based in Bristol in the UK and Dunedin and Wellington in Aotearoa/New Zealand, this thesis employs multi-sited, multispecies and auto-ethnographic methodologies (Marcus 1995; Kirksey and Helmreich 2010). I conducted interviews and participant observation with hedgehog rehabilitators and both professional and volunteer conservationists. I also attended to my bodily attunement with hedgehogs who found themselves in rehabilitation centres and rambled through backyard wilds (Despret 2004).

In this thesis, I document everyday practices of care in conservation. I examine the ways in which coming to care is a result of particular stories, histories and material influences as well as the work that is done to establish cares as 'common sense'. In contrast to mainstream individualist approaches to conservation, I find that making liveable space for hedgehogs requires multi-agential mobilisations. I also find that public discourses of conservation often fail to reflect the ways in which caring is a work of attentive experimentation in which actions are often ambiguous and outcomes uncertain. I also attend to instances of private kindness and public, categorical, hatred of particular species.

Through charting the complexities of caring for and killing hedgehogs, this thesis documents the shadowy nature of cares: they both harm and help. I argue that recognizing the ambiguity and uncertainty of cares often led conservationists to act in more attentive, considerate ways. Ultimately, this thesis argues that modes of careful, humble, experimentation and practices of 'wild' caring—that is, caring in ways which attend to the larger social and material worlds of one's cares—are vital for living as kindly as possible with those with whom we share our earth.

Declaration relating to disposition of project thesis/dissertation

I hereby grant to the University of New South Wales or its agents the right to archive and to make available my thesis or dissertation in whole or in part in the University libraries in all forms of media, now or here after known, subject to the provisions of the Copyright Act 1968. I retain all property rights, such as patent rights. I also retain the right to use in future works (such as articles or books) all or part of this thesis or dissertation.

I also authorise University Microfilms to use the 350 word abstract of my thesis in Dissertation Abstracts International (this is applicable to doctoral theses only).

..... Signature Witness Signature Date

The University recognises that there may be exceptional circumstances requiring restrictions on copying or conditions on use. Requests for restriction for a period of up to 2 years must be made in writing. Requests for a longer period of restriction may be considered in exceptional circumstances and require the approval of the Dean of Graduate Research.

FOR OFFICE USE ONLY Date of completion of requirements for Award:

ORIGINALITY STATEMENT

I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been accepted for the award of any other degree or diploma at UNSW or any other educational institution, except where due acknowledgement is made in the thesis. Any contribution made to the research by others, with whom I have worked at UNSW or elsewhere, is explicitly acknowledged in the thesis. I also declare that the intellectual content of this thesis is the product of my own work, except to the extent that assistance from others in the project's design and conception or in style, presentation and linguistic expression is acknowledged.

Signed

Date

COPYRIGHT STATEMENT

'I hereby grant the University of New South Wales or its agents the right to archive and to make available my thesis or dissertation in whole or part in the University libraries in all forms of media, now or here after known, subject to the provisions of the Copyright Act 1968. I retain all proprietary rights, such as patent rights. I also retain the right to use in future works (such as articles or books) all or part of this thesis or dissertation.

I also authorise University Microfilms to use the 350 word abstract of my thesis in Dissertation Abstract International (this is applicable to doctoral theses only).

I have either used no substantial portions of copyright material in my thesis or I have obtained permission to use copyright material; where permission has not been granted I have applied/will apply for a partial restriction of the digital copy of my thesis or dissertation.'

Signed

Date

AUTHENTICITY STATEMENT

'I certify that the Library deposit digital copy is a direct equivalent of the final officially approved version of my thesis. No emendation of content has occurred and if there are any minor variations in formatting, they are the result of the conversion to digital format.'

Signed

Date

INCLUSION OF PUBLICATIONS STATEMENT

UNSW is supportive of candidates publishing their research results during their candidature as detailed in the UNSW Thesis Examination Procedure.

Publications can be used in their thesis in lieu of a Chapter if:

- The student contributed greater than 50% of the content in the publication and is the "primary author", ie. the student was responsible primarily for the planning, execution and preparation of the work for publication
- The student has approval to include the publication in their thesis in lieu of a Chapter from their supervisor and Postgraduate Coordinator.
- The publication is not subject to any obligations or contractual agreements with a third party that would constrain its inclusion in the thesis

Please indicate whether this thesis contains published material or not.

- This thesis contains no publications, either published or submitted for publication*
- Some of the work described in this thesis has been published and it has been documented in the relevant Chapters with acknowledgement*
- This thesis has publications (either published or submitted for publication) incorporated into it in lieu of a chapter and the details are presented below*

CANDIDATE'S DECLARATION

I declare that:

- I have complied with the Thesis Examination Procedure
- where I have used a publication in lieu of a Chapter, the listed publication(s) below meet(s) the requirements to be included in the thesis.

Name
Laura McLauchlan

Contents

Acknowledgements	8
List of Figures	10
Introduction: On coming to care.....	12
Aims: Considering care	13
Keeping the cares together: Attachment and care.....	16
Fieldwork approaches	18
Anthropocene cares	22
Material Considerations.....	25
Thesis Structure	26
Chapter 1: Feral considerations: Shadowy cares and unsettled storying in hedgehog-human worlds.....	27
Chapter 2: Wild Cares and crafts of unmastery in a multispecies city.....	28
Chapter 3: Wild disciplines and careful distances of hedgehog rehabilitation.....	29
Chapter 4: Sadness and the noir of urban hedgehog conservation	29
Chapter 5: Well-aligned cares: Making and undoing conservation common sense	30
Chapter 6: Utopian (de)fences.....	31
Chapter 1. Feral considerations: Shadowy cares and unsettled storying in hedgehog-human worlds.....	33
1. Storyed welcomes and colonial distances	36
2. Backyard bodies	46
3. Changing hedgehog worlds	62
Discussion: Shadowy cares.....	70
Transitions: Welcome cares.....	74
Chapter 2. Wild cares and crafts of unmastery in a multispecies city.....	77
1. Bristol, Green Capital: Urban wildlife accommodations.....	79
Making together and waiting alone	94
Care as attentive tinkering.....	101
Discussion: Expert cares and the politics of rambling love	111
Chapter 3. Wild disciplines and careful distances of hedgehog rehabilitation.....	114
1. Hedgehog rehabilitation in the South West UK.....	116
2. Wild cares: The labours of keeping critters wild	118

Straining against connection: ‘Fucking cuddlers’	122
Umwelt distances.....	125
3. Revolutions forestalled: shame and quarantines of care.....	130
Radical cares	134
4. Keeping on: Wild sustainable cares	138
Forceful cuteness and keeping one’s cares together	139
Getting care-free: Sustainable detachments	144
Discussion: Care smuggling and quarantines of care.....	149
Chapter 4. Sadness and the noir of urban hedgehog conservation	153
Introduction	154
1. Hedgehog champions and the Anthropocene noir.....	156
2. Neighbourly deaths and isolated cares.....	164
3. The sadness of (dis)connection	171
Banned sadness	178
4. The bearable lightness of becoming	183
Discussion: Care formations and implicated cares	188
Chapter 5. Well-aligned cares: Making and undoing conservation common sense	191
1. Wellington: Aotearoa/New Zealand’s natural capital.....	193
2. Feeling Strange: Alien affects at the Pest Fest.....	197
3. Coming to care and coming to kill	206
Undoing cares.....	209
4. Estranged loves and well-aligned cares.....	214
Deadly Articulations.....	217
Well-aligned cares.....	220
5. Presence and Absence: Technologies of making-killable.....	224
Discussion: Caring for cares	230
Interlude: Wondering on affinity.....	233
Chapter 6: Utopian (de)fences.....	243
1: Or, how I came to love the fence.....	245
2: Beyond the sanctuary: Zealandia as concrete utopia.....	249
Worldly Utopias.....	253
3. Fenced hopes and the shifting social licence to kill.....	257
4. Tragic gaps.....	262

Responsibility and boundaries.....	265
5. Killing me softly	270
Discussion: Keeping the cares together	276
Concluding Reflections: On keeping the cares together.....	280
1. Wild cares and rambling loves.....	283
Alignments and distributed responsibilities.....	286
Learning how to care	288
2. Shadowy cares and ecologies of kindness.....	290
3. Careful experiments and questioning conservation	292
4. On hedgehogs and reservations.....	295
References.....	300

Acknowledgements

With deepest thanks to my supervisor, co-supervisor and finishing supervisor: Eben Kirksey, Thom van Dooren and Judy Motion. Thank you for all of your hours of editing, encouragement, patience, humour, reading lists and inspiration. Eben, without you this project wouldn't exist. I'm so grateful to you for believing in this strange urban critter quest. Thank you too, so much, for encouraging me to draw and follow my nose and take risks and for re-jigging my brain with a whole new realm of scholarship. Thom, thank you deeply for helping me to see that care was at the centre of my interests all along and for modelling the sort of story-telling scholarship I'm so grateful for. To Judy Motion for your brilliance, tenacity and powerful kindness in getting me across the finish line.

Gratitude to everyone at the Environmental Humanities department at UNSW and the Anthropology Department at the University of Auckland. I'm so grateful for these two wonderful academic homes.

To fellow post-grads, particularly Sophie Chao, Kate Judith, Sophie Adams, Tom Wickert, H el ene Alberger Le Deunff, Serena McClellan, Sandra Laight, Jacqueline Dalziell and Anna-Katharina Laboissier for the conversations, encouragements, challenges, reading solidarity and love. Karin Bolender, my PhD sister from the outset, you've been an on-going inspiration, thank you so much.

Thank you to Composting Feminisms group in Sydney, particularly Astrida Neimanis and Jen Hamilton, Susie Pratt and Sue Reid for creating such an inspiring, radical and generous academic collective.

Briony Neilson for such grace and kindness and the very best politics. Jo Lamb for being such an inspiration and amazing quest buddy. To the Blue Mountains and beyond crew of Alice Blackwood, Kate Baker, Ariana Russell, Annabel Petit and Axel-Nathaniel Rose for being such a force of love. Breana Macpherson-Rice for challenging me to (re?) discover my politics. Tracy Sorenson, for both academic and personal solidarity. You've called me back, again and again, to what matters. Thank you.

Mira Taitz for your fierce support—without you I wouldn't have done my Masters and don't see how I ever would have thought of doing a PhD with pictures. To Sarah Treadwell, Lisa Samuels and Julie Park for believing in me and changing what felt possible for this kid who didn't think she would be allowed to graduate primary school. To Stephanie Croft for grounding, challenging and encouraging me for my entire adult life. To Jamie Vunivesilevu for the ferocity and positivity your friendship models. Harriet Brown, for expanding my horizons and re-introducing the possibility of sensible decadence to my life. Mythily Meher, I can't believe how much we've been through. So much love and gratitude. Onwards! And with three-piece velvet suits. Tracey Pahor, thank you for providing me with love, half-glasses of beer, housing and wonderful friendship at vital—and vulnerable—stages of this thesis.

To Paul Veart for the weird awesomeness that we continue have. I love you so much.

To my housemates Ellen Harvey, Sara Kolijin and Laurie Hopkins for taking me on in the dark part of thesis writing. I look forward to returning some of the many, many favours and kindnesses you've shown me when I'm not in horrendous sleep debt.

Kylie Morse, I'm so grateful for your ongoing support, wisdom and warm humour in the ongoing work of finding gold in the shadows.

A big shout out to the dream-team of Tracey Pahor, Joanna Lamb, Paul Veart, Jamie Vunivesilevu, Tracy Sorenson, Philip Wills, Kate Judith, Mythily Meher and Briony Nielson for last-minute editing services, I am truly so grateful and will remember this favour owed (it's here, in writing!).

And, finally, deep and humble thanks to everyone who so generously contributed to this project. Thank you for the interviews, for your time, for inviting me into your lives. There have been times when I have hurt with gratitude for the kindness and generosity you showed me. Thank you so much for the generosity of allowing me to think and learn alongside your lives and cares. I deeply hope that, as you read these pages, you will feel I have understood at least something of the work you are doing. It has been a life-changing privilege to think and learn with you.

List of Figures

Figure 1: A sketch based on Yuriy Norshteyn’s 1975 film Hedgehog-in-the-Fog. This is the sort of pensive little hedgehog who helps keep my cares together	12
Figure 2: A limited bodily politeness: a mystery hedgehog and me in the back-neighbour’s yard, after I decide to stop stalking and start sitting	33
Figure 3: <i>Beatrix Potter’s Mrs Tiggywinkle: Kind, cute and, some would argue, helping make Aotearoa/New Zealand hedgehogs hard to kill</i>	36
Figure 4: Observation encouragement and somewhat idiosyncratic hedgehog feeding advice from the 1983 Wildtrack Book (Weston 1983)	42
Figure 5: Our Dunedin cottage and surrounding hedgehog thoroughfares	46
Figure 6: Hedgehog moods	47
Figure 7: <i>Umwelt mysteries: hog and human senses</i>	49
Figure 8: Tracing initial journeys of hedgehogs from the UK to Aotearoa/New Zealand as well as current contrasts in human attitudes towards hogs in the two countries	74
Figure 9: <i>Major hedgehog care centres in the South West of the United Kingdom</i>	117
Figure 10: <i>Wobbly’s mysterious attraction to something about this old blue synthetic dress. Enthralling and gappy.</i>	129
Figure 11: <i>Rejuvenating objectifications? A sketch inspired by the sort of pensive Hedgehog-in-the-Fog (Yuriy Norshteyn) type figure who helps keep my cares together</i>	140
Figure 12: <i>June not being bitten by Pumpkin, Nov 2014</i>	142
Figure 13: <i>Street art by Herakut in Bedminster, South Bristol</i>	153
Figure 14: <i>Badgers are a contentious suspect in the line-up of who-or-what-is-to-blame-for-the-decline-in-hedgehog-numbers</i>	156
Figure 15: <i>A badger in the line-up? A missing hedgehog painting, complete with looming badger, on a garage door in Glastonbury.</i>	158
Figure 16: <i>Props for Yvonne’s talk on threats for hedgehogs</i>	162
Figure 17: <i>Something of the entanglements of hedgehog care worlds--the cares which kill but also deliver supplies and transport needy hogs, the rubbish and chemicals which poison and clean, and the industrial farming which both feeds and starves hedgehogs.</i>	163
Figure 18: <i>It really does seem impossible to extract one’s self from being implicated in the plight of hedgehogs. I spotted this dead hedgehog as I was leaving a day course on hedgehog ecology and conservation at St Tiggywinkle’s animal hospital in Haddenham, Buckinghamshire. All of us who had attended the course had used this road.</i>	164
Figure 19: <i>Steffi’s hog welcoming garden with mealworm and sunflower heart feeding station (left) and many natural feeding areas, such as this log and leaf pile (right), encouraging insects and also supplying hog living quarters.</i>	167
Figure 20: <i>I found myself surprised to learn that the lawn mower was only invented in 1830. The widespread popularity of lawns followed this invention. I find it almost impossible to imagine the world without a vast coverage of lawn, particularly in the suburbs.</i>	170
Figure 21: <i>Linking properties through putting holes in fences is a major emphasis of all hedgehog conservation campaigns (as shown on the left from Hedgehog Street’s 2014 pamphlet on how to help hogs). However social disconnection between neighbours makes breaking down these physical barriers very difficult.</i>	172
Figure 22: <i>Pest Fest 2015, Wellington, New Zealand—an employee of a kill-trap manufacturer explains the workings of a rat and stoat kill-trap to a young boy</i>	191
Figure 23: <i>A Goodnature trap in action, particularly demonstrating both the auto-reset aspect of the trap and the tendency for there to be no carcasses left behind due to scavenging.</i>	195
Figure 24: <i>The DoC 150, 200 and 250 trap mechanisms (left) and typical example of a fully set up DoC 250 trap (right).</i>	195
Figure 25: <i>A standard ‘Victor’ rattrap with a shroud to encourage animals to enter the trap head on, an addition to increase the likelihood of clean kills, particularly for mustelids (left) and a fully set up Victor</i>	

trap in a box to keep cats and birds safe, as well as to attempt to encourage animals to approach the traps head on.	195
<i>Figure 26: A taxidermied magpie, used to by the Wellington City Council to illustrate one of many 'pest' species targeted in culling programmes</i>	199
<i>Figure 27: A view of the Pest Fest from the top of the Ferris wheel</i>	205
Figure 28: The dead hedgehog caught in the final trap of the line	229
Figure 29: Rabbit the cat sitting with me as I wait for the hedgehog to emerge.....	233
Figure 30: Hedgehog in the bathtub overnight.....	236
Figure 31: Meeting Timothy on the way back from Zealandia. Because I was returning from planned fieldwork, I also happened to have a camera.	239
Figure 32: Timothy in his room under the stairs.....	240
Figure 33: Timothy's release site, behind the tree I found him in	241
Figure 34: A hog I assume to have been Timothy eating at release site	241
<i>Figure 35: A possum outside the Zealandia fence</i>	243
<i>Figure 36: The steep part of section 5 of the Zealandia fence line</i>	245
<i>Figure 37: Zealandia fence check flier</i>	247
<i>Figure 38: A Wellington green gecko sunbathing on the Zealandia fence (drawn from photograph by Tim Wills)</i>	278
Figure 39: One of the hoglets from my backyard in Dunedin, Aotearoa/New Zealand.....	280

Introduction: On coming to care



Figure 1: A sketch based on Yuriy Norshteyn's 1975 film *Hedgehog-in-the-Fog*. This is the sort of pensive little hedgehog who helps keep my cares together

I want to tell you a story about hedgehogs. About how cute and funny and bumbling they are. I want to tell you about the magic of bumping into one, usually not too long after the sun has gone down and the air has gone cool and you hear a rustle and wonder if it might, maybe, be a hedgehog. And there might be a star or two out, or perhaps tonight it's the moon. But there's that rustle and you wonder. And sometimes it's not a hedgehog, it's just a rustle or, if it was a hedgehog, they've gone off elsewhere, staying under cover so you are never quite sure if it was. But sometimes it is and there's that wave of delight and it's hard not to gasp a little or let out a laugh of joy when that little spikey creature comes snuffling out of the bushes. And the wonder of it that now there's a strange, lovely little thing just snuffling about in the darkness or in the half-light thrown by the moon or a house. And then there is always that feeling, that magic of knowing that this little critter is a wild thing but somehow she doesn't seem to mind at all that you are there. She just potters about, sniffing up into the air occasionally before sticking her nose back into the leaf litter. And you realise you're holding your breath, already knowing that soon she will trundle off on the next part of her journey for the night. But, for now, you find yourself with that warm, almost impossibly wonderful little hope, the humble wonder that somehow, even though you're a human and potentially such a threat, particularly to what

is really a very small, vulnerable creature that, somehow, this little wild mammal is not scared of you. And you find yourself feeling hopeful, feeling that maybe everything really could be different.

I really did want to give you a story to make you love hedgehogs, so that you might get it, this thing about them. But it quickly gets more complicated than this and it becomes hard to keep my cares together. And I find myself with new stories about the critters hedgehogs kill and the ways hedgehogs, too, are killed, and things soon just look impossibly complicated. I find I can't just tell you a story neat and wistful about hedgehogs like I once wanted to. Instead, there are other critters in the shadows, or the absence of them. And perhaps they are absent because of the hedgehogs. It could well be. And there are infrastructures—from backyard fences and roads, to processes of urban development which seem so hard to move against, so hard to redirect to make life kinder for any of us. And I know, increasingly, that if I really pay attention, as openly as I can, that the complications are just too much to ever tell an easy story again. I will tell you stories about hedgehogs, but I want to be honest with you: nothing ever gets resolved once and for all.

Aims: Considering care

This thesis focuses on the care and conservation of hedgehogs in the United Kingdom and the killing of them in aid of endangered native species in Aotearoa/New Zealand¹. It is not an evaluation of such practices. Instead, my intention is to attend to the day-to-day ways in which care is enacted (Mol 2008). In doing so, cares emerge as deeply complicated and

¹ The group of islands in the southern Pacific known, in English, as New Zealand in English are most commonly referred to as Aotearoa in the Māori language. There is still some debate about this, with Aotearoa, which translates as 'the land of the long white cloud', originally referring to the North Island. Today, however, the North Island is generally known as Te Ika a Maui, the fish of Maui, with Aotearoa in widespread usage to refer to the entire country. In recognition of the nation's bilingual status, the country is increasingly referred to as Aotearoa/New Zealand. This is the term I will be using throughout this thesis.

fundamentally relational (Gilligan 1987: 24). In attending to how it is that we come to care (and how those cares may, at times, be encouraged to shift), cares emerge as both immeasurably powerful and deeply vulnerable. What we care about and how we enact these cares is vital for how we respond to the world, what we maintain and what we overlook. Tracing the ways in which our cares are made reveals the deep contingency of our lives. Our cares are collaborations, the products of combinations of human story-telling and framing labours, of the bodily realities of being human, and of the infrastructures which influence our lives, encourage some ways of interacting and noticing and not others. In recognising both that our cares shape worlds and that we are partly responsible for those cares, the politics of even very simple everyday conversations of calling someone to care emerge as political acts. It can be uncomfortable to think about how our attachments to the world, to those others we love, are contingent upon particular histories. It is potentially disturbing to think that, had things been different, had we been told different stories, been born earlier or later, had we grown up in a different country, we would care quite differently to how we do now.

Cares are also ambiguous. The question of what makes for 'good' care is—as medical philosopher Annemarie Mol notes—always political, always relational, it always depends (2002). What 'good' care might be makes sense in the doing, when you see what happened. Caring thus means “trying, tinkering, struggling, failing, and trying again” (Mol 2002: 177). And our cares will also actively hurt others. Or, at the very least, caring for particular aspects of life necessarily means a lesser emphasis on others. As Maria Puig de la Bellacasa notes, “we cannot possibly care for everything...there is no life without some kind of death” (2012: 204). While public framings may cast particular cares as purely good, in reality our

cares both harm and help, create and destroy (van Dooren 2014a; Puig de la Bellacasa 2012: 204). And yet, in coming to see the ways in which our cares might do harm, we have the potential to enact greater kindness, even if we are unable to ever claim an easy, harmless state of being 'good' in any simple sense (Guggenbuhl-Craig 2015; Shotwell 2016).

Particularly through a consideration of the multispecies nature of our worlds, the question of how we might care as well as possible is immense (Puig de la Bellacasa 2015: 220).

Through paying ethnographic attention to the complexities of multispecies care in practice, this thesis thus becomes a catalogue of cares: charting the sometimes shadowy, collective, lonely, structural, complicated, harmful, well-aligned, quarantined, contagious, smuggled and disciplined work of creating, sustaining and shifting our attachments to the world.

The six chapters of this thesis follow my fieldwork among hedgehog lives and deaths in both the United Kingdom and in Aotearoa/New Zealand. Through each chapter, I consider what it is to care: how we come to care, how we maintain our cares, the ways in which such cares also shape us. Throughout this thesis, I argue that there is no straightforward recipe for how best to care (Puig de la Bellacasa 2012: 211). Instead, care requires consideration: for whom are we caring and how and with what effects? (Leigh Star in Kirksey and Helmreich 2010; van Dooren 2014a: 293). In a multispecies context, such considerations of care must also take into account species differences, as well as the impossibility of ever understanding all of the impacts of even one's most careful actions (Kirksey 2015: 201; Latour 2012).

In attending to the creation, maintenance and undoing of cares, I am interested in the ways our cares are not simply given, but are, instead, the active, ever-relational products of particular histories and materialities. Throughout this thesis I analyse the ways in which

stories, histories and infrastructures play out in the creation, maintenance and conflicts within our cares. I intend that the journey of this thesis not only follows my own physical travels from Aotearoa/New Zealand to the United Kingdom and back again, but that, in doing so, it also charts a particular trajectory of cares, variously following the shifts in my own cares as I become differently attached to the world in response to different social and physical environments. Ultimately, then, I ask how we might better recognise and work with the multiple agencies at play in creating the worlds we care for. This gives rise to new responsibilities as we find that we are actively—yet diffusely—part of the making of the worlds in which we live (van Dooren et al. 2016; Tsing 2015). This thesis argues that both the humility and responsibility which comes with recognising our ongoing part in such collaborations is a vital positionality for our times. It is these kinds of conversations which this thesis hopes to cultivate.

Keeping the cares together: Attachment and care

This thesis is situated within a growing body of scholarship on care within the environmental humanities, feminist studies and medical sociology/anthropology (see, for example: Rose 1983, 1994; Kittay and Feder 2002; Tronto 1993: 103; Puig de la Bellacasa 2010, 2011, 2012, 2017; Probyn 2014, van Dooren 2014a, 2014b; Mol 2002, 2008). In particular, Maria Puig de la Bellacasa's triumvirate framing of care as "a vital affective state, an ethical obligation and a practical labour" operates as a theoretical frame as well as methodological guide for this thesis through its emphasis on care as embodied, storied, social and technological (2012: 197). Framing my attempt to stay close to my ethnographic material, Puig de la Bellacasa reads care through Donna Haraway's 'situated knowledges' (1988), arguing that, in the manner of relational questions, care cannot be approached in the

abstract but, instead, requires consideration of concrete and specific practices of caring (2017: 1).

My thesis is also shaped by the work of a range of scholars working in the posthumanities, STS and feminist studies who critique notions “of coherent and masterful subjectivity”, emphasising instead the fundamental relationality of living (Haraway 2004: 48). Challenging the ideal of the Modern human as an independent actor, Bruno Latour argues that it is in fact our attachments to the world which allow us to think and become able and to belong in the world (1999). Awareness that we are never ourselves alone can encourage a deep sense of care for the impossibly intricate relationality which is life (Morton 2010a, 2010b, 2012). However, in social worlds which lionise notions of self-made, independent and rationally-acting humans, awareness of such interdependence and co-constitution can be deeply uncomfortable. As Judith Butler argues, there is likely to be some level of humiliation when we realise that in matters of love, rather than “exercising judgement” we are, in many ways, living out the patterns of loving we learned as children, before our “will” was formed (2014). Rather than our attachments being a product of our autonomy, it is instead that our autonomy is formed inside our relations and attachments (Butler 2014: 26).

Seeking to pull together scholarship on the obligatory, affective and practical labours of care with the ways in which we are constituted by our attachments to the world, I use the term ‘cares’ throughout this thesis. In the singular, care is both a verb expressing the act of being concerned or of helping and a noun describing a state of worry or concern. While my intention is to retain such meanings, in my use of the plural noun, I hope to make additionally present both the objects of one’s cares as well as our affective and self-

constituting attachments to such objects as things to be considered in their own right. In talking about ‘cares’, I am thus talking about the labours and affects of care, the objects themselves to which we are attached, as well as the attachments themselves.

I take my interest in ‘cares’ themselves and, indeed, the very use of ‘cares’ in the plural, from medical anthropologist, Janelle S. Taylor. In her 2008 paper, “On Recognition, Caring, and Dementia”, she attends to her relationship with her mother. Taylor’s mother has dementia and, throughout the paper, Taylor attends to the ways in which, without recognition as we might more commonly conceive of it, care nonetheless remains at the core of both her relationship with her mum and her mother’s relationship with the world. In one particularly haunting and fascinating passage, Taylor describes finding a letter written by her then-deceased great uncle. On the top of the letter, her mother had written a note:

Licends—Please try to keep cares together!
We will try to keep Diana, Janelle, Mike and Pat. Will try to keep the
cares together (Taylor 2008).

In this note, referring to her grown children as “the cares” and pledging to somehow keep these cares together, Taylor’s mother brings cares themselves, and their animating force, to the fore. What these ‘cares’ *are* seems both simultaneously vital and yet almost incidental. The notion of trying to “keep the cares together” makes me feel deeply protective of “the cares” themselves, whatever it is that these cares might be *for*. This interest in attachments—in cares—themselves, runs throughout this thesis.

Fieldwork approaches

Recognition of the relational nature of our cares and its role in the formation of our selves also informs my fieldwork practice. As Alexis Shotwell argues, coming to notice and care for

others ties us into particular communities, as we attune to and are affected by such worlds (2016: 98). This inseparability of knowing and being is at the heart of anthropological approaches, which recognise the ways in which “knowledge grows from the crucible of lives lived with others” (Ingold 2014: 387). This is both the promise and the “risk” of fieldwork, in which entering into “subject forming entanglements” with one’s informants becomes the start of a small, risky adventure of being, knowing and caring differently (Haraway 2008: 313). This is a risk which “challenges previous stabilities, convictions, or ways of being of many kinds” (Haraway 1997: 190). My own entanglements and experiences thus play a fundamental part in my ethnographic work. I use autoethnographic methods in order to chart these changes in my own orientations and cares (Behar 1996).

This thesis also takes a multispecies ethnographic approach (Kirksey and Helmreich 2010). At the heart of such a methodology is the conviction that hard divisions between ethnography and ethology reflect notions of human exceptionalism more than the realities of paying attention to other lives. This by no means overlooks the vast differences between species. Instead, multispecies approaches require attention to how it is that we come to notice and get a feel for other species. Such multispecies emphasis on being “attentive to diverse ways of life” (van Dooren et al 2016: 1; see also Watson 2014) requires particular awareness of the limitations of our insights into each other.

In prioritising the materialities of life, multispecies approaches are in accord with what feminist scholars have been staying for decades: that bodies matter. In attending to the biological aspects of my own research (what and whom am I able to recognise and notice? What might I not be capable of sensing? How does my world differ from hedgehogs?) my thesis is particularly influenced by the work of material feminist scholars such as Stacy

Alaimo (2016) and Donna Haraway (1988) who have emphasised the importance of attending to the particularities of our materiality. That is, as Haraway notes, that we do not study and learn from a disembodied nowhere. Rather, we “learn in our bodies, endowed with primate color and stereoscopic vision” so that rigorous scholarship must attend to the realities of our embodiment—both the limitations and the affordances of our particular bodies (1988: 582). Throughout this thesis—as much as my own embodiment allows—I attend to the slippages and surprising interconnections and of being a human attending to radially-other forms of life.

As a diurnal, vision-focused, and (somewhat) gregarious critter attending to another who is nocturnal, smell-oriented and solitary, much of hedgehog lifeways are beyond my ability to sense, let alone comprehend. Yet, throughout this study I am also committed to questions of attunement, to the ways in which our bodies come to know other bodies, as we ever-partially respond to and become-with one another (Despret 2004; 2013: 71; Chapter 1 and 2). Finding ourselves in relationship in such ways also, as Haraway argues, causes us to become response-able, rendering us both able to respond to the other and establishing the ties which continue to call us to do so (2008: 36). I am interested in the way in which such relationships, and the ensuing ethical demands play out in particular situations.

This thesis also makes use of multi-sited ethnographic practices, retracing the colonial flows which first brought hedgehogs to Aotearoa/New Zealand (Marcus 1995; Brockie 1975). Following an initial month of multispecies ethnography with backyard hedgehogs, I move from Aotearoa/New Zealand to the UK. From mid-2014 until November 2015, I conducted participant observation and interviews with hedgehog rehabilitators, ecologists and volunteer urban conservationists in Bristol, UK (commonly referred to as ‘hedgehog

champions’). I conducted interviews and participant observation in Wellington from Nov 2015 to Feb 2016. Here, in particular, I followed the work of conservationists involved in city-wide kill-trapping programmes—programmes which increasingly include hedgehogs, a shift which often requires undoing the fondness which many people have for hogs (see Chapter 5).

Practices of drawing and painting are core methods throughout this project. Illustrations of cares—both mine and those of others—are used not only for purposes of visual representation, but also as a vital method of attending to affect. While the illustrations are informational, they also carry traces of the emotional labours of this thesis. They are, at times, works of giving space to the difficult emotions of caring for a species which is struggling. At other times, drawing became an art of re-stitching myself to the work I was doing—for example, it was regularly the practice of drawing which worked to sustain my cares for hedgehogs during difficult periods of rehabilitation work. Drawing also functioned as a practice of noticing, of closely attending to the worlds around me (Tsing 2011). While often I drew from life (at times prompted by my own photographs), in periods when I was unable to spend time directly with critters, drawing from the photographs of others (whether from field guides or the internet) also played a vital part in coming to care and becoming attached (see Honegger 2001). Particularly within the Aoteaora/New Zealand based chapters of this thesis, drawing native species was a way to attempt to enter into the cares of conservationists and to begin to get a feeling for native birds.

At other times, drawing also functioned as a way of considering particular problems without forcing resolutions. Such sketching functioned as modes of attending to seemingly inescapable contradictions, such as the ways in which caring for hedgehogs also generates

the sorts of waste which harms hedgehogs. The ability to make space for indeterminacy and uncertainty is a particular affordance of artistic practice, which is one of the key reasons for including such images throughout this project (Cixous 2005:16-17). While, throughout this thesis, the illustrations mostly go uncommented upon within the text, I intend that they offer suggestions as to the unwritten considerations shaping each chapter, as they detail what mattered to me, what I was consumed with at the time.

Anthropocene cares

Challenging the assumption that our cares are in any way a simple 'given' is vital as we find ourselves in situations in which we must make choices about the lives of others. While entanglement and relationality has surely always been the nature of being alive, in our present moment the landscapes in which we live and the lives of those with whom we share our planet are actively threatened by the actions of predominantly Western, capitalist, humans (Gan et al. 2017).² This impact is such that many scholars have argued we are in a new epoch in which (particular) humans have become a planetary-level force (Haraway 2015). While debates continue as to whether we should thus rename our current time the 'Anthropocene', 'Capitalocene', 'Plantationocene' or whether, instead, we might more accurately see ourselves as remaining within the Holocene, we are undoubtedly in a time of immense environmental crisis (Castree 2014). Current extinction rates are up to ten times the

² Here and throughout my thesis, I follow Gan et al. (2017:1) in the using the term 'landscapes' to refer to the "overlaid arrangements of human and nonhuman living spaces." As touched on in Chapter 1, however, in my use of this term, I am thinking of living *places* rather than spaces—with the concomitant emphasis on the ways in which it is the meaning attached to a certain locale which shifts it from space to place (Philo and Wilbert 2000). Extending such meaning-making to the nonhuman realm, in using this term, I am also thinking with Deborah Bird Rose and Thom van Dooren's attention to the ways in which environments are also meaning-filled places for other-than-human critters (2012). I am thus imagining landscapes as the "overlaid arrangements of human and nonhuman living-places."

background level, oceans are increasingly clogged with plastic, lifeforms are forced to contend with the introduction of toxins into the earth, waterways and air, and a layer of radioactive debris now covers the planet (Pievani 2014; Harding 2010). Of those critters able to eke out lives under such conditions, many are struggling, with lives more impacted by humans and human infrastructure than they might otherwise wish (Collard 2014). In all of this, human cares *matter*, with acts and attentions of caring shaping our shared worlds (van Dooren 2014a: 294). This is so, even as we discover that we can never fully enact such cares as simple individual, or even collective, human decisions (Tsing 2015: 257).

In this time of crisis and extinction there are widespread calls for action and urgency in saving species and ecosystems *now*. However, this thesis argues that taking time to consider cares is vital. How is it that we come to feel a sense of responsibility towards certain others? What might it be to recognise—and even care for—the lives of those critters one kills in the name of saving others? (Haraway 2008; Butler 2014). How do we maintain such cares, how do we change them? What sorts of subjectivities might we need to hold such difficult tensions? With which forces might we connect to shape the landscapes our cares need?

That human cares influence the lives of critters is certainly the case for hedgehogs, both in Aotearoa/New Zealand and in the United Kingdom. The European hedgehogs, *Erinaceus europaeus*, which travel through this thesis mean very different things to different people. In the UK, hedgehogs are in decline. From an estimated 36.5 million in the 1950s, studies suggest there are fewer than a million hedgehogs in the UK today (Wilson and Wembridge 2018). Hedgehogs are, however, widely loved in the UK, winning a range of polls of ‘most loved’ British animal and even being put forth in Parliament to be officially adopted as the UK’s national animal (Hoare 2013). Thus, it is unsurprising that there are a

multitude of campaigns being run UK-wide to attempt to reverse the fortune of hedgehogs. In this thesis, I follow several such campaigns as they play out in the city of Bristol, a city well-known for its 'green' tendencies.

In my home country of Aotearoa/New Zealand, current human cares are very differently affecting hog lives. There, hedgehogs are thriving but are increasingly targeted for culling. Referred to during the colonial period as "The Britain of the South" (Hursthouse 1861), Aotearoa/New Zealand has inherited a strong legacy of Britishness through its colonisation, including a general fondness for hedgehogs. However, following increasing understanding of the damage that introduced predator species do to native insect, reptile and ground-nesting bird populations, accompanied by work to encourage the appreciation of such threatened native critters, moves are afoot by both paid and volunteer conservationists to encourage people to not only lend moral support to the culling of introduced predators, but to actively participate in it.

In both the UK and Aotearoa/New Zealand, as detailed in Chapter 1, human cares for hedgehogs have shifted greatly under different regimes of storying. The power of stories has been noted by several key theorists of the environmental humanities. As Thom van Dooren notes, stories draw people into the lives of other species, weaving people into care and a sense of accountability (2014:10). Haraway has argued that stories are forms of worlding, the work of calling into being that which is not yet, and which "might still be otherwise" (2010, np). Strong stories may also not only change how we see the world, but also call us to act (Benterrak, Muecke and Roe 1984: 234). As noted in Chapter 5, the work of making others recognisable in particular ways has immensely important impacts on how they are treated (Bulter 2014).

Material Considerations

Stories are never independent from the material world but, rather, are “always imbricated in that world from which it takes its forms and on which it produced its effects” (Gruen and Weil 2010: 130). Thus, within this thesis, I also explore the infrastructures, multiple life forms, chemicals, everyday mysteries and aspirations which, alongside (and within) stories, make and sustain the landscapes in which hogs find themselves. In Bristol, I follow such tensions present in humans’ often unintentional support of economic and infrastructural landscapes which makes life a struggle for hogs (Chapter 4). In Aotearoa/New Zealand, where hogs are flourishing alongside human lives and infrastructure, attitudes towards hogs are, at least in part, being shifted by material structures, such as the Goodnature traps (Chapter 5) and the Zealandia ecosanctuary (Chapter 6).

Throughout this thesis, it becomes apparent that our cares also require cooperation with radically other-than-human forces. Despite the reality that the harms hedgehogs face are largely human-created, human interventions on behalf of hogs are greatly limited and, to date, have produced minimal benefits for hedgehogs (Chapter 4). This is particularly due to the difficulty of mobilising around infrastructural challenges. As has been noted in much Anthropocene analysis, while we find ourselves implicated in “impossibly complex presents”, we see we can’t just choose our ways to the liveable futures we might want (Shotwell 2016: 8). In taking seriously the agency of the multiple forces which shape the landscapes in which we find ourselves, this thesis attends to not only the meanings and cares at play in such work, but also the materialities of conservation—a reality which requires cooperation with forces which are more-than-human.

Stories and meanings, however, are always already entangled (Barad 2003). In this thesis, then, I attend to the ways in which stories shape matter, the ways matter shapes our modes of storying and, at other times, the inseparability of the two. The current materialities hedgehogs face in both Aotearoa/New Zealand and the United Kingdom are shaped by old cares, such as the fondness for hedgehogs which brought hogs out to the new country in the first place. In this way, I address the world as always already material-discursive as suggested by Karen Barad (2003). Indeed, following Barad, I recognise that in making such cuts between materialities and meanings, in referring to them as separable (if always interrelated) factors, I am not reflecting a reality somehow 'out there'. As Barad notes, our categories of measurement necessarily cause cuts—that is, they separate phenomena which are fundamentally relational: in the case of this thesis, the agential cut which separates materials and stories, enables us to think such things separately (2007: 140). As I will return to throughout this thesis, operating within such contingency raises the questions of our responsibility and co-creation as we make cuts which matter, shaping how we recognise and work with our worlds.

Thesis Structure

The structure of this thesis follows the chronological movements of my research, beginning in Chapter 1 with multispecies ethnographic explorations with the hedgehogs in my backyard in Dunedin, Aotearoa/New Zealand. Chapters 2 to 4 are based in Bristol, UK, where I undertook fieldwork with urban hedgehog champions, rehabilitators, ecologists and, of course, hedgehogs. Finally, in Chapters 5 and 6, I return to Aotearoa/New Zealand to work with Wellington-based conservationists attempting to eradicate introduced predator species, including hedgehogs.

Chapter 1: Feral considerations: Shadowy cares and unsettled storying in hedgehog-human worlds

Set in what was then my hometown of Dunedin, Aotearoa/New Zealand, I look at both the storied and physical aspects of coming to care for another species. In Dunedin, while I was waiting on university permissions to start fieldwork in the UK, my research was interrupted by real-life hedgehogs living under my rented cottage. This chapter has three distinct aspects, the first of which is a history of hedgehogs in Aotearoa/New Zealand. In doing so, in place of a 'natural' history, I offer a 'material-discursive' (Barad 2003) emphasis, attending to both the stories and the physical realities (and their inter-relations) of the experience of hogs in my home country. The second story I attend to in this chapter is of the ways in which my body learned to be in the presence of hedgehogs. Thinking particularly with both the work of Vincianne Despret (2013) on inter-species attunement, I begin to consider what it is to have a sense of hog lifeways, when several hogs took up residence under my Dunedin cottage. During this period of hanging out with backyard hedgehogs, however, hedgehogs were increasingly—and publicly—being recognised as major predators of many native and endangered species of birds and insects. When a television news show covered the story of a hedgehog being killed as part of a Wellington-based rat-killing campaign, public debate erupted about the status of hedgehogs. In the final section of this chapter, from this new position of entanglement, and with the backdrop of a radically changing place for hogs in Aotearoa/New Zealand, I begin to attend to the ways that having a feel for another species entangles us in a sense of responsibility (Haraway 2008). In this, I begin the work of considering the ways in which our harms in our cares—that is, the ways in which our cares cast shadows.

Chapter 2: Wild Cares and crafts of unmastery in a multispecies city

In Chapter 2, after travelling to Bristol, UK, I attend to the ways in which hedgehog champions make space for hog lives. In particular, I look at the notion of ‘wildness’ as a vital encouragement of *how* to care for wild hedgehogs. In categorising hedgehogs as ‘wild’, champions were not stating that hogs should be *independent* from humans. Indeed, much of hedgehog conservation in such settings was about active human intervention: in particular, champions regularly offered food and water and physically altered their backyards with hedgehogs’ needs in mind. Concepts of ‘wildness’ were, instead, statements of the right of hedgehogs to come and go freely: hedgehogs’ ‘wildness’ meant they were not to be captured. Wildness became a statement of an appropriate way to love hogs: a mode of disciplined love which allowed hogs to escape (Kirksey 2015; Collard 2014): hogs must be free to forage and wander. This mode of loving also led champions to fall in love with hedgehog’s wider environments, environments which champions saw as both threat to ‘their’ hogs, but also as vital for their survival. In this way, such wild cares seem to offer a radical decentring of the human within champion’s conception of the city (Alaimo 2007: 33). Hedgehog ‘wildness’ was also a statement of the impossibility of champions ever being able to fully anticipate all of what a hog might need to flourish. Yet, despite the vital importance of well-informed uncertainty and the concomitant humble attention to unintended consequences practiced by both amateur and professional hedgehog conservationists, such realities were rarely shared in public. Both in this chapter, and throughout this thesis, I attend to what such absenting of uncertainty does both for our construction of authority and expertise as well as for how (and whether) we care for life in its emergent reality (Kirksey 2015).

Chapter 3: Wild disciplines and careful distances of hedgehog rehabilitation

Each year in the UK, several thousand wild hogs pass through rehabilitation centres, making rehab a significant aspect of wild hog lifeways. I conducted participant observation at three different centres—one, a large professional multispecies centre, a second which was volunteer-run, medium-sized, and catered only for hedgehogs, and a third centre which was hedgehog-only and largely run by a solo volunteer. Building on Chapter 2, I look at the ways in which an affective sense of ‘holding back’ or creating and maintaining affective distance was a vital aspect of caring (c.f. van Dooren 2015a: 14). Such ‘holding back’—often carried out under the notion of maintaining a critter’s ‘wildness’—served to stop many animals from becoming potentially comfortable with human contact. In rehabilitation spaces, however, wildness meant more than the non-capture commitment of wildness in a championing context. Here, I argue that, while such notions of wildness potentially allowed critters the affective and physical space they needed to avoid undue stress (Collard 2014), notions of ‘wildness’ and its concomitant affective distancing also allowed rehabilitators to avoid exposing their cares as such, allowing them to instead frame their work as a rational response to the struggles of wild animals, rather than as an act of kindness. In this way, such cares are able to be smuggled into dominant discourses of rationality (Plumwood 1991; Baker 2000; Lorimer 2005: 49). Smuggling cares into a more socially acceptable form also obfuscates the reality that the manner in which we come to love critters is always particular and historically-shaped, even for those who might be able to hide such contingency under authoritative scientific discourse.

Chapter 4: Sadness and the noir of urban hedgehog conservation

In this chapter, I return to questions raised in Chapter 2 concerning how to make safe urban homes for hedgehogs. Specifically, I focus on the need for holes in fences and the difficulty of mobilising the collectives needed for such work. Amidst upbeat public rhetoric I encountered the reality that hedgehog numbers have continued to decline in the UK despite many individuals' best efforts. In both interviews and fieldwork, I attend to moments of sadness of many hedgehog conservationists and rehabilitators who privately felt that the individualist focus of hedgehog conservation meant the campaigns they were working on were ultimately hopeless. This sense of hopelessness, however, was largely absent from public discourse, despite the wisdom that sad doubts might have to offer in redirecting this project of urban hedgehog conservation. Using the example of the British Hedgehog Preservation Society's letter writing campaign which successfully convinced McDonald's to redesign their McFlurry lids, as well as the success of a tea party in mobilising neighbours to look out for hogs, I consider the possibilities of forming human and non-human collectives in non-spectacular yet effective ways. Working outside of individualist-consumer models, such collective modes of addressing problems are, I argue, rarely considered in mainstream conservation. Yet our cares, in both their formation and fruition, are inherently the product of collectives. In this chapter, I argue that recognising and actively working with the larger connectivities of which we are already a part is a vital strategy for hedgehog conservation.

Chapter 5: Well-aligned cares: Making and undoing conservation common sense

In Chapter 5, I return to Aotearoa/New Zealand to find a radically different conservation mood to that of the UK. Here, among pest trappers and children's education campaigns in and around Wellington, was a hopefulness—both public and private—about the conservation task at hand: creating a country free of introduced predators. I found myself

deeply out of sync with this joy of killing. Reflecting on the comparative ease and welcome of my UK fieldwork, I attend to what it is to have cares which are not well-aligned with public common sense. Despite the extensive, active, labour involved in undoing and creating cares, cares which are well-aligned with such common sense are simultaneously taken to be self-evident and simply 'correct' (Bourdieu 1977: 169). In comparison, and as I find in Aotearoa/New Zealand, life is potentially difficult for those who find themselves outside of such apparently rational attachments (Probyn 2014; Ahmed 2010). Developing on Chapters 3 and 4, I attend to the various ways in which some cares become invisible as they are smuggled into social norms. In particular, I follow a range of interrelated forces of normalisation, including framing, powerful story-telling, articulation-based approaches, as well as the material forces of new, more "humane," technologies of killing (Butler 2009; Hall 1986). With both the care-shaping powers of technologies and of storying in mind, I reflect on the multiple agencies at play in care and killing as I find myself setting a kill trap.

Chapter 6: Utopian (de)fences

In this final chapter, I consider questions of boundaries, engagement and the ways in which cares do and don't become contagious. Despite my difficulties with much of the public positivity and violent fervour around the culling of introduced predators in Aotearoa/New Zealand, the widespread mobilisation around the predator free goal was remarkably powerful. As attended to in Chapter 5, there are many elements to this success, including the articulation and framing work being done by conservationists, as well as the distancing materialities of trapping itself. In this chapter, I primarily focus on the effect of the Zealandia eco-sanctuary on this mobilisation. I argue that the fenced sanctuary acts as what Davina Cooper refers to as an 'everyday utopia', a concrete example of what is possible: in this case,

a predator-free Aotearoa/New Zealand (2014). Utopian-thinking has often been associated with a tendency to overlook the welfare of the present in favour of committing to a desired future (Harvey 2000). While public conservation discourse did, indeed, often take such totalising approaches, in practice, some conservationists held a difficult but vital tension between desired predator-free futures and the lives of critters—including introduced predators—in the present. Occupying what Parker Palmer calls the “tragic gap” between reality and one’s dreams offers not only a sustainable positionality from which to work towards what one hopes for, but also seems to be vital in discouraging the sorts of violence which seems to be associated with simplistic framings of introduced predators as ‘bad’ (Lidström et al. 2015). Throughout this chapter I also think with the fence, both physically and metaphorically, wondering what it is to value both our own cares and those of others even as we continue to fight for what we love.

Finally, in a short concluding chapter, I reflect on the overall journey of my fieldwork. I attend to the ambiguities and shadows of our cares, in particular addressing the potentially disconcerting ‘madness’ of our cares; the need for humble, multi-agential mobilisations if we are to support the lives we care for; and the difficulty of holding conflicting cares. I argue that recognition of the limits of our ability to do or know ‘the good’ potentially opens us to great consideration of, and kindness, to other critters. Ultimately, this thesis argues for the importance of caring wildly, of letting our love and delight follow the lives of those we care for out into greater ecologies of care. Such wild cares will lead us to intractable conflicts and uncertainties. However, this thesis argues that such impasses and ambiguities are part of the vital humilities we need to embrace if we are to live as kindly and attentively as we might with those with whom we share our earth.

Chapter 1. Feral considerations: Shadowy cares and unsettled storying in hedgehog-human worlds

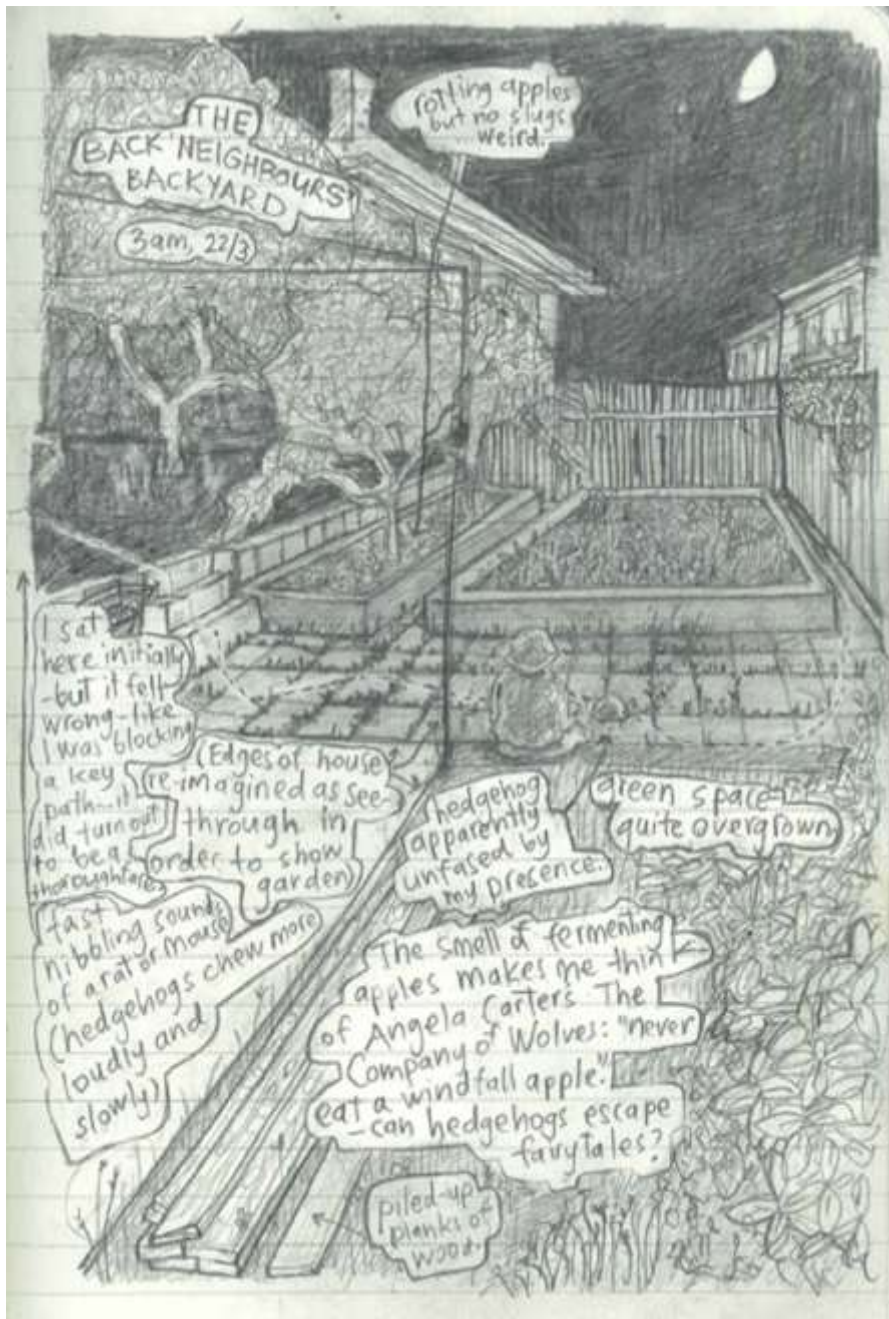


Figure 2: A limited bodily politeness: a mystery hedgehog and me in the back-neighbour's yard, after I decide to stop stalking and start sitting

On a quiet and slightly dismal Saturday night in Dunedin, Aotearoa/New Zealand, I convinced my partner, Paul, that we were in need of an uplifting dose of David Attenborough. We found a box set of *Planet Earth* at our local DVD rental store and returned home to settle in for the night with popcorn and oolong tea. During the second episode, in a segment which followed five puma doing it hard in the fierce high Andes, we heard a rustling outside. I ran to the window, imagining some suspicious human stalking through our tiny garden but found myself laughing with relief as I spotted the culprit: an intently snuffling hedgehog, meandering about the roseleaf litter, sniffing loudly and stopping regularly to scratch. In the faint light from our bedroom window, I could make out the hedgehog's spines (dark brown at the base, fading out to tawny ends) as well as his or her tiny clawed paws—seemingly far too small to hold up such a well-rounded body. Attenborough's commentary faded to background hum as I was transfixed by the hog's investigations of leaf litter. After 20 minutes or so, the hedgehog headed off around the corner and out of sight and I started to imagine the threats waiting out there for a little hedgehog—the dogs and cars and poisons of Dunedin.

At the time of meeting this hedgehog, I had been in something of a holding pattern, itching to leave Dunedin for the United Kingdom to start my fieldwork among people making space for hedgehogs in Bristol. Attending to local hogs hadn't been on my mind. At this stage I was fond of hedgehogs but not wildly so—non-human primates, dolphins, seals, sloths, rats, snails, dogs, foxes, horses, cows, sheep and elephants would all have rated more highly on my non-human animal ranking lists. In terms of simple preferences, even today, this list might not be much changed. Instead, my focus on hedgehogs as a research topic was largely to due to my interest in the work of British humans were doing to make hog-friendly

backyard spaces: questions of human kindness towards other species and the willingness to make space for them were my primary concern, rather than hogs themselves. However, through this and subsequent backyard meetings with hedgehogs, I would find myself tied into hedgehog lifeways in complex ways, my body learning to (partially) respond to hedgehogs in ways which would alter the path of both my thesis and my cares (Despret 2013; 2004). This is, as I will argue throughout this thesis, the work of what Vincianne Despret refers to as attunement: the work of becoming sensitised to the rhythms of another way of life, of finding oneself, ever-partially, able to respond well to them (2013: 71).

In this chapter, as I spend time in relationships with backyard hedgehogs, I also attend to the shifting ways in which hedgehogs are framed in Aotearoa/New Zealand (Butler 2009). I argue that modes of storying hogs and the materialities of landscapes, including hogs and humans ourselves, are vital for understanding the positionality of hogs (and other critters). That is, our attachments are directed by both stories and our physical words—with the storied and the material, indeed, always already entangled (Barad 2009; Alaimo 2014). As Stacy Alaimo argues, in accord with other new materialist scholars, we are always already “thinking from within and as part of the material world” (2014: 20). Our worlds are thus ‘material-discursive’ (Barad 2003). In the case of hedgehogs arriving in Aotearoa/New Zealand—shipped to the country both for fondness and in the hope of helping control garden ‘pests’—new climates, new nutrients, different infrastructures and interactions with new communities of lifeforms shape hog’s bodies and lifeways. They become smaller, more prolific breeders, flea-less and, in parts of the country, stop hibernating. In this new world, hedgehogs become ecological trouble. This trouble, however, only becomes fully recognised with the development of new technologies of monitoring native species. With such shifts in

the material-discursive worlds of hedgehogs developing around me, I find myself caught oddly between stories—carrying childhood images of hedgehogs as I both become physically more attuned to the lives of backyard hedgehogs and as I increasingly see the potentially shadowy realities of my cares.

1. Storied welcomes and colonial distances



Figure 3: Beatrix Potter's *Mrs Tiggywinkle*: Kind, cute and, some would argue, helping make Aotearoa/New Zealand hedgehogs hard to kill

Despite having long been fond of hedgehogs, this fondness initially involved little curiosity for the lifeways of the actual spiny critters named *Erinaceus europaeus* in binomial nomenclature. I largely viewed hedgehogs through the lens of their representation as a cute and doddering helpful garden-dweller. As a kid, like many children growing up in this “Britain of the South” (Hursthouse 1861), the eccentric and kindly Mrs Tiggywinkle, the hedgehog-washerwoman character created in 1905 by English author, illustrator and amateur lichen scientist, Beatrix Potter, was a major factor in my view of hedgehogs.

While, as noted throughout this thesis, conservationists in Aotearoa would blame the persisting love of many humans for hedgehogs on the small shoulders of “Mrs Tiggywinkle, serial killer” (Jones 2011), the character herself emerged out of a more general early Victorian shift in the framing of British hedgehogs. Such a mode of framing hedgehogs is by

no means universal. Storyings of hogs globally have included a range of different interpretations, with hedgehogs being variously framed as animals of both good and bad luck, of transformation, of vengeance, of wit and reincarnation. In the UK, hedgehogs had been associated with witchcraft in the medieval period and, even up until the 19th Century, were thought of as troublesome milk and fruit thieves (Warwick 2014: 52-53). However, as hedgehog ecologist Hugh Warwick argues, as naturalist practices of observation developed from the Victorian era onwards, exonerating hedgehogs from crimes of milk and fruit theft, the framing of hogs shifted towards something more charming and doddering in the fashion of the Mrs Tiggywinkle-figure we know today (Warwick 2014: 56). Hedgehogs' shift in reputation seems likely to also be linked to increasing urbanisation in the UK, in which hedgehogs were no longer a threat to the eggs of chickens and ground-nesting game birds but, instead, operated as a helpful garden visitor, eating insects and even being brought into homes to deal with cockroach infestations (Morris 2014: 12).

As colonisation of Aotearoa/New Zealand by British settlers began in earnest from the 1840s, it was this sort of hedgehog fondness—a notion of hedgehogs as something like a bumbling, sweet, somewhat forgetful little critter—which colonists seem to have brought with them. It was, at least in part, such views which led to the introduction of hedgehogs. Indeed, early Aotearoa/New Zealand newspaper reports demonstrate the presence of a pre-Mrs Tiggywinkle hedgehog fondness: one, from 1883, arguing for the protection of hedgehogs on the basis that they are “comical and docile”, neither “wild” nor “timorous” (“Notes”, Timaru Herald). In the late 19th century, Acclimatisation Societies arranged for shipments of British hogs to Aotearoa/New Zealand.

Alongside fondness, reasons of pest control were also a key reason for such introductions. Slugs and snails had been accidentally introduced and the societies hoped—with a swallow-the-spider-to-catch-the-fly sort of logic that also brought the stoats, weasels and ferrets to hunt rabbits—that hedgehogs would keep these garden pests at bay. In this, the colonization of Aotearoa/New Zealand by humans was—as elsewhere—accompanied by a host of flora and fauna (Crosby 1986). As Val Plumwood notes, for biota in settler nations more generally, such moves were associated with a devaluing of native biota, preferring to instead import the imagined order of known species (2002: 14).

Such importations were by no means easy for hogs. It took multiple, unsuccessful, attempts between 1869 and 1885—and hundreds of hedgehog deaths—before a hedgehog population was established in Aotearoa/New Zealand.³ Although official Acclimatisation Society attempts were largely unsuccessful, other, unrecorded introductions must have taken place as, by the 1890s, sightings of hedgehogs were recorded throughout the Otago region. Shortly after, hedgehogs became established in Canterbury when a shipment of 12 English hedgehogs escaped from a private garden (Brockie 1975: 446). Hedgehog liberations then seem to have taken place throughout the country, as hedgehogs were soon spotted in towns throughout the North Island. By the 1930s, there were hedgehogs living in all suitable ecosystems (Jones and Sanders 2005). Hedgehogs thus found themselves joining a larger assemblage of partially transplanted British worlds of humans, critters, and flora (including

³ The records of these shipments are patchy. The fortunes of the two (of four) hedgehogs to arrive in Wellington from the UK in 1869 are not recorded, and neither is that of the single hedgehog of 24 to survive the 1871 shipment for the Canterbury Acclimatisation Society. Ninety seven of 100 hedgehogs brought from the UK by the Otago Acclimatisation Society in 1885 died and, of these survivors (two males and one female) the female died not long after being released in the Dunedin Botanical Gardens (Long 2003: 47).

familiar slugs, snails, lawns and hedges) variously killing, accommodating, transforming and being transformed by the ecosystems they met (Isern 2004: 234).

Like many introduced species, hedgehogs also changed in response to Aotearoa/New Zealand landscapes and did not behave as they had in Britain. One transformation at least is detrimental to hogs. Seemingly due to the founder effect in which the genetic makeup of founding animals introduced to an area become over-represented in the subsequent population, hedgehogs in Aotearoa/New Zealand have dental abnormalities (including missing teeth at birth) at much higher rates than their British ancestors (Brockie 1964). Many other changes, however, seem to enable hedgehogs to flourish in this new land, particularly that the warmer climate of Aotearoa means that hogs do not have to put on so much bulk to get through the winter. Aotearoa/New Zealand hogs are thus smaller than their British equivalents and have an additional litter or two each year. In the north of the North Island, they also do not need to hibernate at all and, thus, can fit in an extra two litters (Parkes and Brockie 1977). A lack of predators and an abundance of insect life, as well as a relative lack of fencing and roads to fragment habitat, seem to have all contributed to the flourishing of hedgehogs in Aotearoa/New Zealand.

Jamie Lorimer writes that non-human charisma is intimately tied up with both the “agency of the nonhuman being witnessed and the social structure in which the witness is enmeshed” (2009: 324). These two factors—critter agency (that is, their physical presence and its effect on humans) and the socio-cultural worlds in which the subject and witnessing critters find themselves—are so tightly wound as to be inseparable. The physical tendencies of hedgehogs are understood through particular stories. British and, until more recently, Aotearoa/New Zealand views of hogs emphasise the gentle and helpful aspects of hedgehog

behaviour; behaviours which, in human terms, could be considered well-mannered (particularly in a British sense of good manners as being non-invasive). Indeed, such behaviours can be seen to meet basic minimum standards of politeness: hedgehogs do not come into your home without being invited, they cannot climb up into one's roof and scuttle about, they don't make quick, startling, movements and, generally, they don't bite humans. Unlike rats, or mice, having one hedgehog generally also means having just one hedgehog: they are solitary creatures and, even if they have babies, these offspring will eventually move off to find new homes.

My relationship to hedgehogs is intimately tied to Aotearoa/New Zealand's settler colonial history—both the physical presence of hedgehogs and the positive imaginaries of them are British inheritances. As a child of older parents with particularly British imaginaries, I suspect my childhood was even more hog-positive than for other kids of my generation, with many hedgehog characters, often portrayed as markedly eccentric, helpful and/or gently melancholic, snuffling through the books and films of my childhood. Like many Aotearoa/New Zealand kids, I have early memories of putting out milk and bread for hedgehogs. I remember the excitement of being quietly outside in the cool night after a hot day, the air scented by introduced Australian Eucalyptus trees, as my maternal grandmother and I watched a visiting hog munch through the offerings we had left out. This curious creature, who was wild, yet so close, had seemed magical. British hedgehog ecologist and author Hugh Warwick writes that one of the most remarkable things about hedgehogs is the way in which they allow the close approach of humans (2010: xv-xvi). Despite this physical proximity, however, the then-standard meal of milk and bread we had supplied—a deeply unsuitable offering considering hedgehogs' dairy and gluten intolerance—suggests that we

had paid little attention to the biological needs of actually-existing hedgehogs (Morris 2014: 187). Milk and bread is surely a meal more appropriate for an image of a gentle hedgehog washerwoman of simple tastes than the actual small insectivores we had in front of us.

However, such interpretations of hogs as well-mannered aren't static. Both hog agency, and the sociocultural worlds they find themselves in, shift in ever-entangled ways. Active promotion of hogs as a critter to love was already waning by the time of my childhood in the late '80s and early '90s. A vague feeling that hedgehogs were out of place (Douglas 2002 [1966]) was already beginning to settle in. The 'Wildtrack' enterprise—a weekly children's conservation tv show with an offshoot book—was a staple of conservation in the 1980s and 90s in Aotearoa/New Zealand. While the 1983 *Wildtrack Book* gives instructions as to how to care for backyard hedgehogs, the subsequent edition of the *Wildtrack Book*—the one I grew up with, published in 1994—doesn't mention hedgehogs, though it does point out a range of introduced species who are a threat to native species, particularly stoats, weasels and ferrets. While hogs were not celebrated in this edition, neither does this book yet cast them among the problematic species.

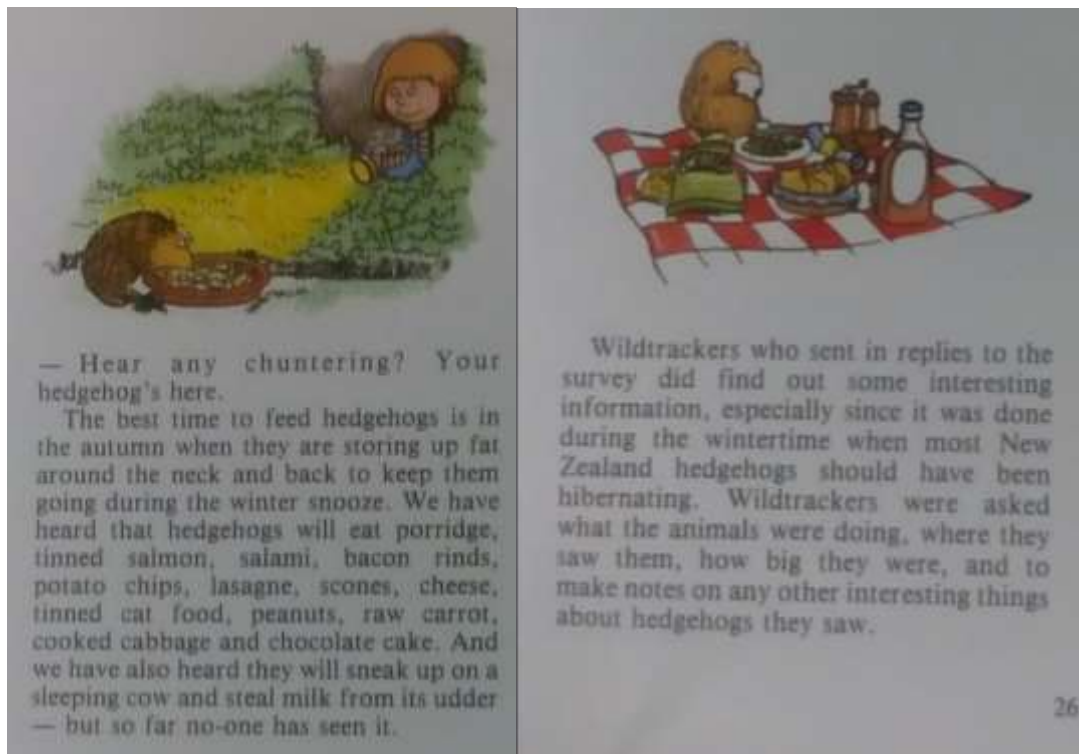


Figure 4: Observation encouragement and somewhat idiosyncratic hedgehog feeding advice from the 1983 Wildtrack Book (Weston 1983)

Some degree of anti-hedgehog sentiment had, however, been around for some time. From the 1930s onwards, when it was recognised that hedgehogs were eating the eggs and chicks of introduced game birds in Aotearoa/New Zealand, notions of hedgehogs as diseased start to enter newspaper discussions. In modes with possible parallel with human modes of marking out foreigners as “diseased”, hedgehogs were held to carry typically unnamed but apparently powerful, hedgehog ‘diseases’ (Chaloub 1993). Notions of hedgehogs as diseased play out in hedgehog-human interactions. While British people show little fear of picking up hedgehogs, Aotearoa/New Zealanders are warned of such behaviour from a young age. I have early memories of my father on two occasions carefully lifting sick, out-in-the-daytime hedgehogs using a shovel and laying them carefully under the shelter of a shady bush. Though he wished them well, he was careful to not touch them directly. While hedgehogs do often get mange, it is species-specific, as are hedgehog fleas. Unlike their

British relations, however, Aotearoa/New Zealand hedgehogs do not have fleas. The reason for this is not clear, though is perhaps a result of hedgehogs being de-fleaed before being shipped to the Antipodes. However, hedgehogs do carry ringworm and, sometimes, TB. I asked a New Zealand hedgehog carer whether I should be concerned. She confirmed that hedgehogs do indeed carry ringworm, but no more so than cats, and that she has never contracted it, despite having cared for hundreds of hedgehogs.⁴ Despite having similar disease profiles, British hogs do not have a reputation as disease-carrying.

An odd fondness for hedgehogs, however, generally remained alongside this diseased reputation. In 1959, it was suggested that there was no evidence that hedgehogs were a threat (Brockie 1959). While there was some investigation into possible harm to native bird populations in the 1970s (Clarke 1970; Moors 1979), in 1983, it was still possible for the Aotearoa/New Zealand historian of introduced species, Joan Druett, to write:

In the drama of biological control in Aotearoa/New Zealand, the hedgehog snuffles furtively in the darkness, crushing his prey in the depths of the night; prickly customer he may be, but certainly not the villain of the extermination squad (Druett 1983: 186).

Throughout the 1990s and into the 2000s, however, particularly with the development of video monitoring of native critters, it became increasingly apparent that hedgehogs were a major predator of many native insects, including wētā—a genera of insects related to grasshoppers—several species of ground-nesting birds as well as skinks and geckos (Cameron et al. 2005; Maloney and Murray 1999; Jones and Norbury 2011; Berry 1999; Moss and Sanders 2001). However, one GPS study of hedgehogs at another riverbed site with low

⁴ Despite these reassurances, I did actually end up contracting ringworm, likely from hedgehogs in the UK, as noted in Chapter 5.

levels of riparian cover, suggested that hedgehogs avoid river systems (Recio et al. 2013). A 5-year video monitoring study found that 20% of nest predation of the endangered black-fronted terns and critically endangered black stilts was due to hedgehogs (Sanders and Maloney 2002). This suggests that both the degree of riparian cover and, perhaps also the degree of learning matters in terms of hedgehog's likelihood of preying on river-nesting birds (Recio et al. 2013). The vulnerability of many native birds and insects in Aotearoa/New Zealand is due to the extreme isolation of this collection of islands where, for eighty-five million years, until the first humans, rats, and dogs arrived in around the thirteenth century, the country had no mammals apart from bats and marine mammals (Anderson 2004: 28). Such a long period of evolution in the absence of mammalian predators left many native critters with few defences from predators. As the majority of predators were birds, large numbers of these species neither fly nor flee from introduced threats but, rather, freeze, as tends to be a better defence from predatory birds (Te Ara 2007). In addition, many birds are ground-nesting, meaning their eggs and chicks are easily accessed by hedgehogs.

During this time, too, moves towards encouraging appreciation of native critters developed. As a girl, I fell in love with wētā largely through my faithful *Wildtrack Book* which framed them as a “shy, unique, gentle” insect, despite its “fearsome appearance” (Bryant and Roil 1994: 12). Children's picture books celebrating native animals, such as *Charlie the Cheeky Kea* by Jack Lasenby (1995) or *Old Blue: The Rarest Bird in the World* (1994) also began to spring up in greater numbers from the mid-90s. This turn towards appreciating and protecting that which is distinctly 'kiwi' is tied into a more general education movement in Aotearoa to unhitch the colonial. The emergence of such books, for

example, coincided with the release of the first “Kiwi Kid Songs” albums to be sung in primary schools—a collection of songs celebrating life in Aotearoa, including its flora and fauna (Faherty 2018). While local publications, such as *The School Journal* had been publishing Aotearoa/New Zealand stories since 1907, it was from the mid-90s that songs and stories attending to local and national identities would really take off. These educational strategies are, in many ways, related to the shift towards the national which began in the 1970s in Aotearoa/New Zealand as well as Australia as a response to the diminishing economic and military force of Britain and the growing critique of colonisation (Doig 2013).

The material-storying of hedgehogs in Aotearoa, however, were changing again during the time of my backyard meetings with hogs. As outlined in Chapter 6, several sanctuaries throughout the country sparked people’s imagination as to what a ‘predator free’ Aotearoa could look like. With the concurrent development of new technologies of trapping, as I attend to in more detail in Chapter 5, such a future has begun to seem more possible for the country (Russell et al. 2015). It was at this time—when hog discourses were changing markedly, with hogs beginning to be recognised for the first time as generalised ‘pests’—that I became more deeply entangled in their lifeways.

discover that hedgehogs have about 5000 spikes and that their famous tendency to ball up in the face of danger is, actually, analogous to a human frown. This frowning motion pulls their spikes down from the posture of a relaxed hedgehog (Figure 6a) to a position of slight caution in which spikes come down to cover the hedgehog's forehead (Figure 6b), through to a full, quick, startled frown which will roll a hedgehog into a full, spike-armoured ball. In this fully-protected state (which, in the wild, typically only badgers can prise apart), a hedgehog might stay for just a moment, or for hours if he or she is unconvinced that danger has passed (Figure 6c). However, it wasn't until I began to spend time among hogs that I would really get a feel for the subtleties of hedgehog moods and the effect they would have on me.

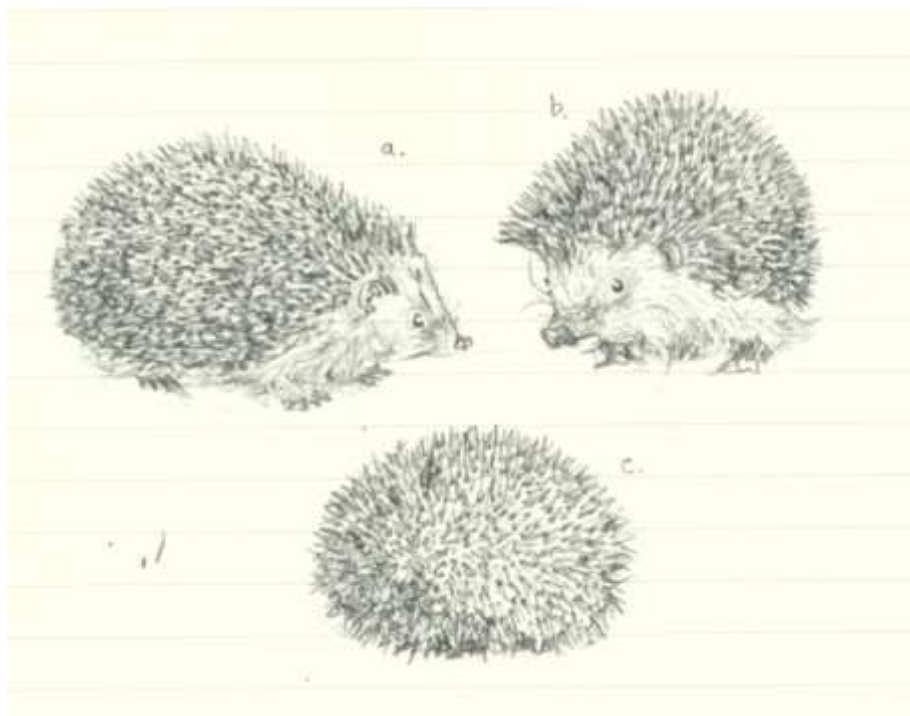


Figure 6: Hedgehog moods

My awareness of precisely what is going on for hedgehogs, however, is greatly limited by our physical differences. The question of hedgehog and human *umwelten*, of the meaningful worlds in which our bodies perceive and act, offer particular challenges for

hedgehog-human relatings (von Uexküll 2010 [1934]). Such differences have immense effects in terms of how we each interact with and experience our environments, with smell and hearing guiding much of hedgehogs' navigation of the world, in ways difficult to comprehend by those of us who are visually-oriented (Figure 7). Our *umwelt* differences hugely shape our interactions and the many slippages between us (von Uexküll 2010 [1934]). While the differences in our senses of course play a large part in our lack of easy communication I also wonder how carrying their armour on their backs contributes to the mystery hedgehogs are to me. A poem by Denise Levertov called "Come into Animal Presence" mentions the presence of an armadillo, and I find myself thinking that carrying one's armour with oneself—whether that armour is plated like an armadillo's or is, instead, hedgehog-spikey—must change how one responds to threats:

What joy when the insouciant
armadillo glances at us and doesn't
quicken his trotting
across the track into the palm brush (Levertov 1983).

I have felt what I imagine to be a similar joy at being apparently ignored by hedgehogs as they head off to do other business. British freelance ecologist and hedgehog expert Hugh Warwick would seem to suggest something of this sort when he says that hedgehogs are "by nature defensive" and that this tendency, to neither run nor attack, "allows initial contact between themselves and other species" (2014: 178). It is also these bodily differences, however, which make hogs particularly susceptible to getting tangled up in infrastructure, as the cushioning pocket of air underneath their spikes—as well as their spikes themselves—

mean that hedgehogs tend to suffer little damage from low falls (Morris 2014). This complacency about tumbling may be one of the reasons for hedgehogs' penchant to fall into things they shouldn't.

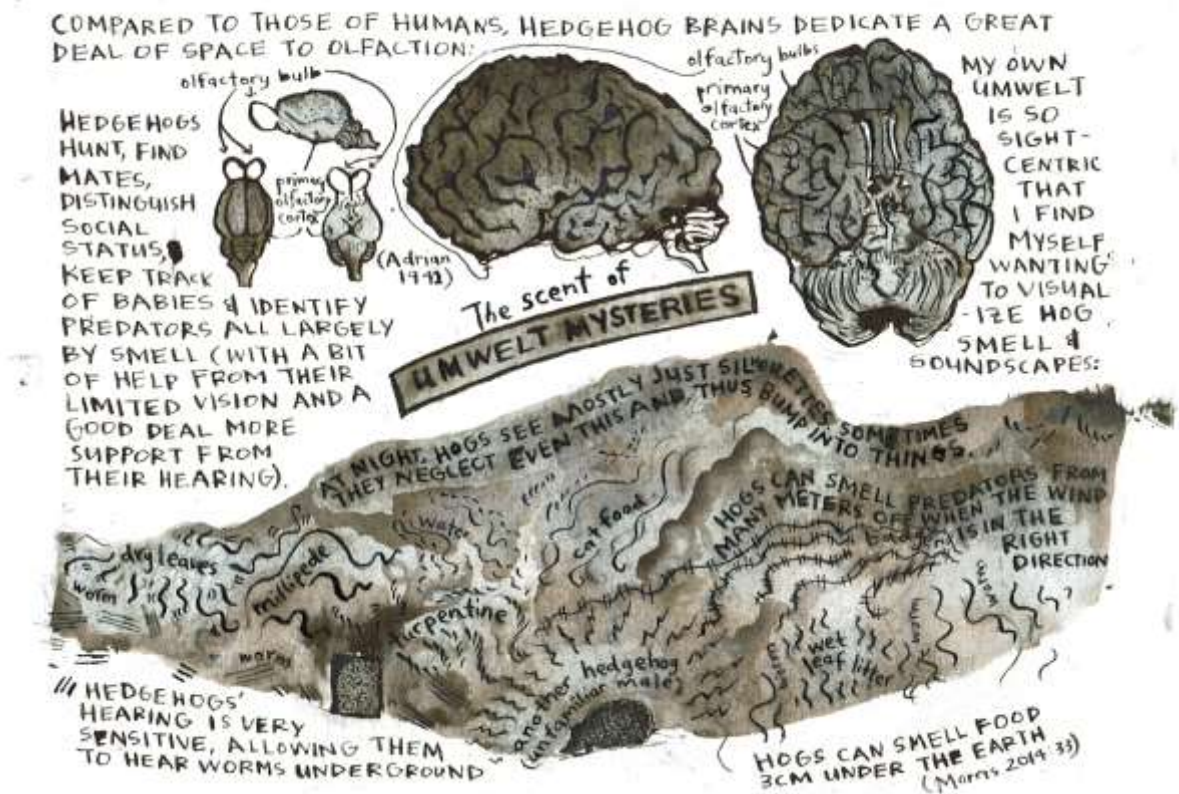


Figure 7: Umwelt mysteries: hog and human senses

Despite the many bodily differences between species, however, some communication is possible. Franklin Ginn reminds us to follow von Uexküll beyond the notion of an organism's *umwelt* as a closed bubble of fixed capabilities of acting upon and recognising the environments to recognising the potential for fluidity and responsiveness between organisms. Uexküll himself insists, "every organism spins out beyond itself into a wider mesh of existence, and thus is never alone" (2010 [1934]: 132). Thus, *umwelt* might be understood more as a "field of possibilities", allowing all critters to "exercise creativity in transcending their species-specific immersions and in forming interspecies associations and

bonds" (Lestel et al 2014:135). Hedgehogs and humans, particularly those who have come to attune to one another, do surely share in webs of meaning and action, their *umwelten* stretching towards one another. As we attend to the lives of other critters, whether human or otherwise, we come to notice our own surroundings differently, so that their very contents and meanings subtly shift (also see Hinchcliffe et al. 2005). In this process of spending time with and attending to backyard hogs, in multisensory ways, I "learned to be affected" by hogs and their worlds; in ever-limited, partial ways, I came to not only get a feel for hogs themselves, but also to comprehend differently the night-time world of my neighbourhood (Lorimer 2015: 35; Despret 2013). Indeed, both my experience of the night and of hogs themselves shifted through such interactions, entangling and sensitising me in ways which never went back to how they were before.

My home at the time was in an area of dense housing in a rise west of the centre of Dunedin. This small city in the south of the South Island is a university town with 80 thousand human residents in the often-chilly summers and 120 thousand through the university year.⁵ Although I hadn't moved to the city for hedgehogs, it should have been no surprise that there were hogs nearby. Not only was the region the first place in Aotearoa/New Zealand in which hedgehogs were successfully introduced, but both the planning of the city and its unplanned lack of wealth was well-suited to hogs. Early town

⁵ The residues of industry are scattered all over Central Dunedin backyards. Rumours suggest that lead levels are among the worst in the country, with industrial pollution supplemented by the use of leaded paints on homes until the use of white lead in paint was banned in 1979. After hearing of this, I stopped eating herbs from my garden. The backyard critters, the rats and hedgehogs, insects and bacteria, however, couldn't so easily avoid the pollution in this soil. I came to see my backyard as a tiny brownfields habitat; polluted, but still supporting life. But while hedgehogs and rats seem to stand up well to this poison, I do wonder what it does to them. Certainly, studies show that UK hedgehog bodies have high rates of rat poison (Dowding et al. 2010). Dwelling near humans might mean gaining access to some of our tasty wastes, but it also means taking a share in our poisons.

planning in the 1850s protected large areas of green space, including an extensive green belt. The financial decline of Dunedin following the 1870s gold boom may have contributed to the retention of those spaces, as there was never high demand for development. Today, Dunedin's limited conservation funds have been largely used for trapping predators around the nesting grounds of endangered coastal birds such as the Royal Albatross and the Yellow Eyed Penguin. Without funds for trapping, the greenbelt above our house was thus a good place to be a hedgehog (though not a ground-nesting bird or flightless insect). High numbers of renters along with the relative poverty of this university town also seem likely to have influenced the state of fencing around private property, which tended to be ramshackle and full of gaps, allowing hogs easy passage.

The hedgehog who had rustled his or her way into my noticing that Saturday night turned out to sleep under the rose bush just across from our bedroom window. Though I would later discover that hedgehogs typically move nests regularly, this hog seemed to be sleeping in one place for some months. Paul and I named the hog Scratchy on the simple account of his or her tendency to scratch a lot upon waking every evening. Scratchy was particularly easy to follow because of this, as the little hog would stop every few minutes or so to scratch vigorously with his or her back legs. This would go on for around 20 minutes, giving me plenty of time to catch the sounds of the hedgehog waking. In retrospect, however, this scratching—however convenient for research—might have warranted a vet's appraisal. Later, a hedgehog whom we named Biggie Smalls on account of her relative (to hedgehogs) bigness, and comparative (to humans) smallness, made a home under our cottage, which she accessed via one of the small holes at the edge our back doorstep. Each night as she left and morning as she returned, the sound of her spikes grated loudly as she

forced her way through the gap, making this hog also difficult to miss. Shortly after, with the emergence of three baby hedgehogs, Biggie's largeness was revealed to have been pregnancy. As one cannot tell a hedgehog's gender easily from sight, it was only the emergence of babies that identified her as female (despite the seeming abundance of cute hedgehog co-parenting imagery, it is female hogs who do the raising of litters).

In an attempt to keep my distance from the hogs, not wanting to scare them off or somehow harm them, I had at first enrolled my house as a 'hide', spying out the windows at the movements of the hedgehogs outside. However, such viewing turned out to be extremely limited, allowing me to only capture glimpses of hogs as they crossed in front of windows. My first bodily moves outside of my hide-home were particularly inspired by tales of primatologists who forewent being rocks to attempt to become part of primate communities (Haraway 2008: 24, Strum 1987, Smuts 1985). Barbara Smuts, in particular, found that her attempts to remain a peripheral observer of baboon society largely only succeeded in making baboons suspicious of her. Rather than attempting to be a rock, as ethological ideals would have her become, she found that putting the baboons at ease required something like good baboon manners, learning to groom and make appropriate gestures of submission (1985).

Impressed by Smuts' experiences, I decided to avoid rock or distanced ethnographer/primatologist impersonations and instead work at being an active hog ethnographer, pottering about with hedgehogs through the night. I waited each evening until, at about 10pm, I would hear the rustling of a hedgehog (usually Biggie), and head outside. Although I didn't attempt to mimic hedgehog behaviours precisely (leaving insect hunting to the spikey professionals) I did try to move as they did, pottering quietly through

the evening. However, while Smut's baboons prevented her from pretending to be a rock, I found that the hedgehogs urged me to become something more like one—or, at least, to become something calm and relatively still. Trying to act like a hedgehog caused many disturbances. When a hedgehog realised I was following, he or she would typically freeze or, if I had been more startling, the hedgehog would either curl up slightly or make a dash under a nearby bush. The hedgehogs would then stay frozen/curled/hidden until (it seemed to me) the world became sufficiently still and quiet again, and they would move off.

There was something physically distressing in causing these critters to curl up or freeze or run off. A range of feeling would run through me in these moments. One was something like shame at not being skilled enough to follow with sufficient stealth, another, a feeling of having hurt someone who is vulnerable and to whom one owes care. A major feeling was a curious sense of sadness—even a feeling of rejection—of having my intentions misconstrued. But, stronger perhaps than all of these was a feeling of also being startled, almost as if my body was mimicking the hedgehog's movements, also wanting to quickly find a place to hide away, to likewise become a spikey ball or scoot off. Attuning with another being is the work of sensitising, of getting a feel for the ways of someone else (Despret 2013: 71). Such a relationship is shaped both by one's interest in coming into rhythm—acting *with*—with another body but also by the physicalities of the bodies in question (2013: 71). While, as noted, there are many gaps in the possible connections between hogs and humans, there is something curiously familiar about the tendency to ball up. If you tightly shut your eyes as if to hide from a threat, you will feel something like this motion and, indeed, some of the same muscles are being used (see Figure 6).

After a week or two of the quiet distress of startling hedgehogs, however, I resolved to stop following hedgehogs and, instead, to sit and wait, attending to hedgehogs only if they happened by.⁶ On the first night that I committed to this approach, I set myself up in the back-neighbour's garden (Figure 2). Initially, I sat on the small flight of stairs leading down into the courtyard, but, upon sitting there, I had the unsettled feeling that the stairs would be a likely hedgehog thoroughfare—the surrounding concrete garden walls were low, but still too high for a hedgehog to get down, so I assumed that the stairs would be the hedgehog path-of-choice. I left the stairs entirely and sat instead on the edge of an overgrown side-garden tucked at the edge of the house but looking towards the courtyard and main garden (Figure 2). With my pencil and paper and, feeling calmer at the thought I wasn't in anyone's way, I waited. Within an hour or so, to my delight, a hedgehog did, indeed, come along—a hog I didn't recognise. She or he plopped down the stairs and wandered around the little courtyard and garden, snuffling and paying me no heed other than what I imagined to be a small sniff in my direction. I kept on quietly sketching, still trying to convince myself that—though I might be sitting relatively still—I wasn't pretending to be stone. And, for the next couple of hours, the hedgehog attended to his or her business of hunting out insects as I sketched.

In this way, my desire to not frighten the backyard hedgehogs led their bodies to teach mine how to move in a way which didn't disturb them. I soon found that I could sit and move quietly in ways which didn't elicit startle responses from hogs. For me, such sensitivity was based in wanting to form a particular sort of relationship with hedgehogs—

⁶ This (non) approach was also informed by Traci Warkentin's work on dolphin etiquette. Warkentin argues for the ethics of not touching or cornering dolphins during swim-with-the-dolphins experiences but, rather, letting the dolphins come to you, if they choose (Warkentin 2011).

one in which I might both come to develop some feel for hog lifeways (requiring some degree of closeness) while at the same time maintaining sufficient distance as to not frighten them off. This suggests the necessity for considering the sorts of attunement at play in a particular setting; the ways in which bodies become sensitive to one another in order to forge a particular mode of relating.

While it is common to think of the behaviours of other-than-human animals being shaped by human training in a one-directional way, in reality, as Vincianne Despret argues, our bodies undergo mutual modification (2004). As one such example, Despret uses the case of Clever Hans, the horse who became famous in Germany in the early 1900s for appearing to be able to solve arithmetic and other problems, to which he tapped out answers on the ground. After much puzzlement, the scientists investigating this phenomenon identified that Hans' true talent was not maths, but the possession of a great sensitivity to the body language of his questioners. Small, unintentional movements from these questioners urged Hans to start tapping his foot while other unwitting motions urged him to stop. Despret notes, however, that the articulation at play was not just that of Hans reading his questioners' bodies, but also of Hans teaching the questioners' bodies how to speak with his. With investigators being aware that Hans' owner, Mr van Osten, was unintentionally giving Hans clues, strangers were instead invited to take over the questioning of Hans. Although he was initially unable to correctly answer their maths questions, after a few attempts, without knowing what they were doing, the human questioners were able to elicit correct results. Here, Despret argues that Hans' body articulated with those of his questioners', teaching their bodies which cues would move him, the desires of horse and human to succeed in this 'game' sensitised their bodies to each other (2013). Such attunements are, as

Despret notes, always the expression of a particular relationship (2013: 71). As I will note throughout this thesis, in coming into rhythm with one another, our bodies are not attuning to one another neat, but are also responding to and incorporating particular values, desires and histories carried by and created between the bodies entering into such relationships.

In order to maintain this sort of balanced avoidant-nearness, hedgehog bodies thus seemed to demand of mine something like ‘inter-patience’ (Candea 2010: 244), a term which makes visible the work often required to form and maintain respectfully detached, and—in this way—attuned, relationships. Matei Candea coined this term to describe the relationships which emerged between meerkats and volunteers on the Kalahari Meerkat Project (KMP) where the apparent non-relationship of meerkats ignoring human volunteers within particular settings was actually the result of a long a process of mutual modification (Candea 2010: 249). Unlike Candea’s meerkats, however, the hedgehogs did not seem to need to *learn* to ignore me. Even baby hedgehogs seemed to have the knack of it. From the first time we shared backyard space, Biggie’s three babies (whom Paul’s cousin Mickey named ‘the Smalls’), took no apparent notice of me as I sat on the back step of the cottage while they snuffled about in the side garden of our house, digging through freshly-laid compost, or trying out foods we left out for them. They did not even sniff in my direction.

However, while the hedgehogs typically did not obviously react to my presence, I find it difficult to think that the hedgehogs did not recognize my presence at all. Hedgehogs are known to have poor night vision for nocturnal critters, but, as discussed in Chapter 2, hedgehog olfaction is so keen that it is difficult to comprehend the sorts of smell-scapes a hedgehog can sense (Jones and Sanders 2005). And, indeed, on occasions, I (or my smells) apparently became curiously interesting to hedgehogs as they attended to things I usually

would not—even cannot—notice. One night in my backyard, I found a place to kneel in the grass while Biggie went about her business of eating snails in the nasturtium patch. There was space either side of me for Biggie to move and, to my right in particular, the reassuring-looking shelter (as I imagined it to be from a hedgehog perspective) of rhubarb leaves and forget-me-nots overhanging the low garden wall. I had on an old blue dress which I had been wearing for the last three days (a result of both distraction and convenience). Just before midnight, Biggie emerged out of the nasturtium patch. About a metre away from me, she raised her nose up into the air and sniffed. I caught my breath as she moved straight towards me—I assumed that, at any moment, she would veer off to her left to walk alongside the sheltered wall. She didn't. Rather, she continued straight towards me and came to stand beside my right knee, sniffing the material of my dress and nudging her nose under my thigh. She kept this up for 30 seconds or so, pushing as if she was somehow trying to burrow under me. She then stopped and bit my dress, chewing on it for about a minute. I was stunned and amused and stayed very still. Her chewing was enthusiastic and I wondered if she might bite my skin, but she didn't. Next, to my astonishment, she stopped chewing and lent over and spread white frothy saliva onto the quills on her right shoulder. She then went back to chewing my dress before spreading more saliva onto the quills on her left shoulder. My final sight of her that night was when she moved out into the middle of the lawn, sniffed towards me a few times, and then headed off, under a rambunctious pelargonium bush towards the compost bin, where she snuffled about for a minute or so before setting off down the path along the side of the cottage.

On a later occasion, again as I was sitting in my back garden, one of the Smalls chewed on my shoelaces and socks. He or she did not self-anoint but chewed

enthusiastically. Again, I am aware of just how partial my perspective is (was this a missed opportunity for play or were we already playing and I just did not realise?⁷ Or did some mysterious substance on my shoes simply smell like something good for chewing?). This was the first night I had worn those particular sneakers, so I suspected that might have had something to do with it. But was it the smell or the material which interested the Small? I wore the sneakers again on subsequent nights, but no one tried to chew on them again.

There is currently no conclusive answer as to why hedgehogs self-anoint, but it is acknowledged to be a response which hedgehogs sometimes have to new smells. The main theories are that it could be a way for hedgehog babies to make themselves easily identifiable to their mothers and that, for adult hedgehogs, it might be a way to attract mates (Jones and Sanders 2005). Other arguments have suggested it might be a form of defence in which the hedgehog creates a poison with which to lace his or her spines (Brockie 1976: 88, Jones and Sanders 2005). Regardless of theory, zoologists agree that self-anointing is a very stinky activity. Here, however, the limits to my olfaction are plain. I couldn't smell anything from her self-anointing. Furthermore, I assumed from Biggie's enthusiastic sniffing that it was the smell of something on my dress that appealed to her. However, after she headed off down the path, continuing on her night, I sniffed the material—still damp from her chewing—but could not smell anything in particular. Nor could I smell anything on the dry-ish area of material surrounding the chew-zone. A range of spills and stains covered this

⁷ I have been searching for a hedgehog equivalent of a canine play bow—a way in which to respectfully initiate play—but I am yet to find it, or even develop any idea of what hedgehog play might involve. Later, in my UK fieldwork, conversations with hedgehog rehabilitators, as well as my own experience, would suggest that hedgehogs don't really play. However, that their cousins, the African Pygmy Hedgehog—a critter kept as a pet in the United States—seem to have some sense of play raises questions about the limited opportunities we might be giving hogs to display such possibilities. What behaviours might European hedgehogs display if asked different questions? (Despret 2015).

dress from the previous few days of wear, so it could have really been anything which attracted Biggie. If hedgehogs and I are to rely on my olfaction for our communicatory possibilities, our affinities will certainly be very partial—my difficulties with nocturnality seem like minor limitations, in contrast.⁸ Acknowledgement (and even celebration) of the partiality of these “just-barely-possible” affinities and connections is vital to avoid slipping into territories of appropriation or claiming to know or feel as the other (Haraway 1991: 61). As Despret argues, we are frequently unaware of our bodies, and the many ways in which critters come to be aware of and engage with them. Our stories of other critters are necessarily partial (2004).

Although, from my perspective, the hedgehogs and I were largely inter-passive, inter-patiently ignoring one another, I was changed by my interactions with the hedgehogs. To my surprise, my body emerged as an active player in hedgehogs’ olfactory worlds; Biggie and the Smalls introduce me to my body as a carrier of active smell and taste. I find myself wondering about the ways in which our bodies were somehow otherly-acting together, giving messages through smell without my otherwise knowing it, the hedgehogs and I recognising different versions of one another than those we recognise in ourselves.

In spending time with hedgehogs, I became differently oriented to the night-time. Invited or not, I began, in tiny ways, to take my cues from them as to how to respond in the urban night. When they were about, I no longer startled at the sounds of rats or loud night-

⁸ The limitations of my diurnality are still very present, however. Although I initially switched to living fully nocturnally, after just a few days of this, my diurnal body struggled and I started to feel myself become somewhat unhinged, so I scaled back to a somewhat crepuscular rhythm, awake until 2am, sleeping till 5am and then napping through the day from 11am to 4pm. Though this compromise kept me feeling well and relatively sane, the anxiety, and even guilt, about “missing something” stayed with me (c.f.Despret 2013: 63).

time humans. Along with the hedgehogs, I became skittish and shy on windy nights when it was hard to be sure who was out there. To a small extent, I imagined myself also becoming oriented to what it might be for me to become a polite human among hedgehogs. Calmness was important. But just how truly 'still' this calmness is, I'm not really sure—I'm not sure how far my smell might travel, even when I am apparently stationary. Although the hedgehogs seemed to ignore me in ways that the cats and rats who travel through and find sustenance in our shared backyard did not, they also met me in ways that these critters didn't, so that I found parts of me being addressed in ways I was not used to (nor even particularly prepared for). I was reintroduced to myself as a critter of smells: a carrier of stains and stink, of tuggable clothes and laces. Even as their lives in Aotearoa/New Zealand are increasingly precarious, the nights are full of hedgehog stories.

And such storyings and attunements are also partial in the ways in which they orient us towards particular forms of life and not others. Peripherally, however, I became aware of other critters sharing the night. The rat (or rats) whom I often heard chewing would stop each time I stepped nearer, or even when I slowly turned my head to look in the direction of the sounds. I saw the rat, my almost constant garden companion, only once—or, perhaps it was that I saw *a* rat only once, but was surrounded by many such companions, with my imagining there to be only one rat a way of avoiding just how much of this backyard space I don't have control of (cf Fudge 2011). The rat and I caught one another's eye as she stepped into a pool of light from the bathroom window. She held still for a moment and then shot off back into the night. The two cats whom I bumped into occasionally were both young and new to me; the local cat scene, following human owners as it does, was in almost constant flux in our neighbourhood as people moved in and out of rental properties. The cats eyed

me, an oddly-still person, and often seemed to take wary, hesitant, steps in my presence. Attempting to be considerate to hedgehogs, it seems, means being rude (or at least being weird) to cats. The cats, like Smut's baboons, were apparently disturbed at my stillness. But my commitment was to consideration of hedgehogs. Or, at least, to not freaking out the hedgehogs. So I stayed quiet and still, and the cats slunk back out of the garden. Aligning myself with one critter may mean distancing from another. As Maria Puig de la Bellacasa notes, one cannot care for everything, but instead, one's cares make cuts, aligning oneself with some ways of life rather than others (Maria Puig de la Bellacasa 2011: 204).

Even with one's considerations trained on just one other species, however, such considerations are surely imperfect. Questions of the experiences of other species are deeply challenging (c.f. Nagel 1974; von Uexkull 2010 [1934]). During this time, I came to wonder about what this world might look (or smell) like to a hedgehog. What had the first hedgehogs to arrive in Aotearoa experienced? How had subsequent generations experienced the growth of cities around them? In his 1997 'Fort Ross meditation', Jim Clifford asks what he calls the "absurd question" of how the industrialisation-related changes in the area might be experienced by the generations of sea otters who have lived there (1997: 325). He wonders about the rhythms which might shape sea otter consciousness, considering as candidates: "Days and nights? Tides? Seasons and currents? The life cycles of kelp and other food? Reproduction? Birth and death?" (1997: 326). What of the experiences of the newly-released British hedgehogs as they—or at least those who survived the journey—came out into an entirely new climate and into a landscape of which they had no experience? While hogs' large range in Europe shows their adaptability as a species, I wonder about the immense shift of the particular hogs who arrived in Aotearoa and who stopped hibernating, instead

remaining conscious for an extra four months in the year – whether it was first generation hogs who did this I have not been able to discover from my research. And what of other changes? How did hog stomachs adapt to the new foods available? How did they experience making nests with new plant materials? The landscapes of Aotearoa /New Zealand have continued to change—massively impacted as they have been by the growth of industry and now, in Dunedin, industrial decay. Cares for species are also, as I would soon discover, radically shifting and changing the landscapes for hedgehogs in Aotearoa/New Zealand.

In the face of the impossibility of so many of these questions, my work of attempting to take into consideration the intentions and wants of hedgehogs is deeply limited. However, as Despret argues, becoming responsible to other-than-humans—that is, both being able to respond to them, and to respond with consideration for their needs and intentions—is fundamentally a question of embodied relationships (2013: 71, see also Haraway 2008). Though always a work in progress, consideration of another emerges as not just thinking of what another might need, but also the work of “making the body available for the response of another being” (Despret 2013: 71). New modes of whole-body listening emerge in me as my body starts to orient to hedgehogs, starting to learn what it might be to move in ways which don’t disturb them.

3. Changing hedgehog worlds

During this time of semi-nocturnality as I sat with hogs in my backyard, a public debate broke out highlighting the shifting position of hedgehogs in Aotearoa/New Zealand. While I had known for some time that hedgehogs were increasingly being recognised as a threat to native critter populations, at the time of starting my thesis, I had managed to largely tune this out, my thoughts instead largely tuned towards Bristolian hedgehog worlds. However,

at the same time as I was finding myself newly engaged with backyard hedgehogs, and increasingly entangled and interested in their lifeways, the framing of hedgehogs in Aotearoa was beginning to shift markedly. Challenging my easy enjoyment of time spent with hogs, the cares of many Aotearoa/New Zealanders were beginning to be redirected towards the struggles of the native critters such as wētā and ground-nesting birds. For many such critters, hedgehogs are increasingly being shown to be major predators, adding to the threat of extinction for several native species (Jones and Sanders 2005).

In April 2014, in an attempt to get students involved in the predator free movement, Wellingtonian economist and self-styled conservationist Gareth Morgan⁹ advertised that he would give a free beer in exchange for each dead rat brought to a Wellington student pub. This promotion was part of Morgan's *Enhancing the Halo* (<http://halo.org.nz/>) campaign, aiming to transform Wellington into a world-leading conservation city, free of introduced predators, in which native birds can flourish. The story had been picked up by the *The Paul Henry Show*, a 10:30pm weeknight news programme hosted by 'outspoken' right-wing presenter Paul Henry. Henry's shock-jock style often plays along social fault lines in Aotearoa/New Zealand, and has previously involved sexist, homophobic and anti-asylum seeker comments.

The segment began with footage of the young interviewer, Jesse Peach, surrounded by four students who each looked to be in their mid-20s. Each student held one or two rat carcasses. Periodically, the students jiggled the rats for the camera and one held a dead rat over Jesse's head. Jesse was attracted by something out of shot:

⁹ Morgan would also later create a political party which would include Aotearoa/New Zealand becoming 'predator free' as one of its main goals.

[Jessie]: And excuse me for asking, but what on earth is this?

[John, the head student conservationist]: This is a little pet hedgehog – he’s not really a pet – he’s a temporary pet called Hodge and you can have a little look there [the camera zooms in on Hodge who is being held facing the camera. Hodge slightly curls up]. He came in on the live trap, we’ve got a live trap for a related project –

[Jessie]: Hold on, wait wait, what are you going to do with him?

[John]: Well unfortunately he’s gotta be culled because they’re predators as well. They do almost more damage than rats – they eat pretty much everything that’s native.

[Jessie]: Okay? Bu- w- that’s outrageous! I mean, do you really have to kill him?

[John]: Well, this is part of conservation in Aotearoa/New Zealand. We’ve made a decision, really, that we have to control these introduced predators in order to protect our native wildlife (Peach 2014b).

The *Paul Henry Show* follow-up revealed that, despite viewer protests, Hodge had been killed. To align one’s self with native birds and insects is cast here as requiring deathly opposition to “introduced predators” such as hedgehogs. Returning to the news segment, the programme cuts to Kevin Hackwell from Forest and Bird, Aotearoa/New Zealand’s largest independent conservation organisation. Kevin is shown standing on a forest track with his arms folded.

[Jesse in voice-over]: So, how bad are these spiny creatures? Conservationist Kevin Hackwell says they’re absolutely catastrophic. He concedes hedgehogs are killers, impacting on native insects and ground nesting birds.

[Jesse]: Are they really that bad?

[Kevin]: Actually, surprisingly, yes. They actually eat an awful lot of insects, any eggs from any ground-nesting birds, chicks, and the insects - they're eating the food of things like kiwis.

[Jesse]: Narelle and Jacqui [two hedgehog carers] argue that hedgehogs are fine in urban areas, and that's where they release them. Hackwell says that, while it's not as bad as the bush, unfortunately, hedgehogs need to be eradicated everywhere.¹⁰

As the discussion went back to the studio, however, Jesse—in perhaps something of a breach of journalistic integrity—reports a conversation which took place after the filming, in which Hackwell told him about a hedgehog who used to live in the garden of his family home. It lived there for years and Hackwell, along with his family, fed it nightly. Jesse had asked Hackwell whether he shouldn't have just “eradicated it”, but Hackwell replied that he couldn't, as his family had all loved it too much. Here, although Hackwell cares for the native species hogs eat, he cannot bring himself to kill his backyard hedgehog. In this, questions of framing also matter deeply: the hedgehog we have a relationship with is not the same horrible killer as the hedgehog out in the bush or braided river system, chomping their way through native critters. Such differences in response suggest, too, the limitations and simplifications of much conservation discourse, in which critters are framed in terms of simple goods and bads suggested by ‘invasive species’ categorisation (Lidström et al. 2015). In reality, as will be returned to throughout this thesis, many of our relationships with critters—and their relationships with their environments—reveal deep ambiguities and contradictions. Indeed, at the end of the television segment, Jesse concludes that “there's a

¹⁰ Hedgehog ‘eradication’ in Aotearoa /New Zealand mostly occurs through kill-trapping. Some 1080-related deaths may also occur, but it seems that 1080 poison (widely used to kill other pest mammals in Aotearoa /New Zealand) is not particularly damaging to hedgehogs, although repeated consumption of 1080, and/or of insects who have eaten the poison, may be a potential killer of hedgehogs (Berry 1999).

lot of people loving and hating hedgehogs". "Mixed messages," Jesse and Paul Henry agree, "mixed messages" (Peach 2014a). And, indeed, cares for hogs *are* mixed. In theory, abstractly, hedgehogs are recognised as a problem for many indigenous species. However, particularly for those older New Zealanders who, like me, grew up with pro-hedgehog framings, such cares can be remarkably stubborn. Off the record, as Jesse notes, it can be hard not to love hedgehogs: even when you also love birds and recognise the danger hogs pose.

Returning to the story of Hodge, Paul Henry finishes the interview by saying to Jesse, who is holding a hedgehog: "Ring worm. Riddled with ringworm, Jesse you better go have inoculations and God knows what else—and launder the suit" (Peach 2014a). I was quietly impressed by Henry's disease-specificity. Unlike my childhood experience of hedgehogs noted as broadly and somehow mysteriously 'diseased', 'ringworm', Henry directly named as the threat hogs potentially carry. With this as a new final word on hedgehogs—at least as offered in the story of Hodge—no conclusion was made about whether Hodge's killing was justified or humane, or of the status of hedgehogs as either pest or harmless introduction. Instead, however, a particular story was both reinforced and updated: not only are hedgehogs "diseased", but here the disease is specifically named to be ringworm—an image which conjures up notions of poverty, contagion and disgust.

More broadly, although official government policy marks the hedgehog as a pest in Aotearoa/New Zealand, for some New Zealanders, killing hedgehogs is contested and regretted. This contrasts greatly to the deaths of stoats, weasels, ferrets, rats, and possums, those similarly introduced species but who, being "disliked and actively vilified" may, as Deborah Bird Rose and Thom van Dooren note, be disregarded and "be specifically targeted

for death" (2011: 1). While, within the news segment, the nameless rats' deaths are unquestioningly celebrated, the ethics of Hodge's death are discussed and considered at a national level. In this way, hedgehogs also contrast greatly with possums. Jesse reports that hedgehog carer Narelle – while framing Hodge's death as a murder – reportedly "hates possums". She confirms that, to her, possums *are* a problem: "I do believe a possum is a pest, that's my personal opinion." Possums were originally introduced from neighbouring Australia for their fur. They are villainized in Aotearoa/New Zealand and their deaths on roads are celebrated in several Aotearoa/New Zealand television commercials. Brushtail possums are often the target of vicious actions. The worst case of animal abuse identified by the Society for the Prevention of Cruelty to Animals list in 2014 was a man who filmed himself "mutilating possums by nailing them to trees and chopping off their limbs" (Ryan 2014). Many rural schools in Aotearoa/New Zealand have instituted public possum kill days as fundraisers. In 2011, one school even hosted a day in which students were encouraged to bring along possum carcasses in fancy dress (McQueeney 2012; Martin 2011). There is comparatively little glee at the killing of hedgehogs, and no framing which currently actually demonises them in the ways which possums are.

This "loving and hating" hedgehogs which Henry points out, however, may be starting to tip more decisively toward hate, or at least solid dislike. Aotearoa/New Zealand hedgehog expert Dr Bob Brockie, who has been studying the species since the 1950s, argues that things are changing for the hedgehog.¹¹ During his time working for the ecology division of a now-dissolved governmental research agency, the Department of Scientific and Industrial Research, Bob received many letters from householders wondering about how to

¹¹ Personal communication, April 12, 2014.

attract hedgehogs to their gardens, or how to best look out for those already visiting.

Recently, however, he has noted less hedgehog enthusiasm amongst younger Aotearoa/New Zealanders, finding that Rachel and John, the young conservationists, are increasingly in favour of eradication. Such conservationists, in their late 20s, grew up under different material-discursive regimes, with all of their primary schooling occurring in the post mid-90s period from which time onwards native critters have been enthusiastically-storied in schools.

For those of us, however, who are attached to various critters, such cares can be difficult to budge. There can be much difficulty in shifting attachments to critters for those of us who have them. Dr Chris Jones, a biologist with Landcare Aotearoa/New Zealand (a government research institute for environmental sustainability and biodiversity) has spoken out publicly several times about the hedgehog situation in Aotearoa/New Zealand saying, as noted at the outset of this chapter, that the “endearing “Mrs Tiggywinkle” image created of hedgehogs has stopped Aotearoa/New Zealanders from getting behind hedgehog eradication (Jones 2014). Jones has said that stoats, ferrets, and possums are “like the bad guys in balaclavas during a bank heist”, while “hedgehogs are the guys in the background, quietly opening the safe” (Jones cited in Rilkoff 2011). In such framings, as I will return to in Chapter 5, the possibility that hedgehogs might be both lovable and problematic is foreclosed. I increasingly wonder what it might be to kill without demonising and of the sorts of subjectivities which might allow us to hold such ambiguous tensions.

Despite acknowledging the damage hedgehogs do to many native critter populations, Chris Jones warned against attacking “any hedgehog snuffling around your garden at the first opportunity” (2014). He expressed both pragmatism about the financial constraints on

conservation in Aotearoa/New Zealand and concern for killing well. Jones acknowledges that hedgehogs “are remarkably difficult to dispatch quickly and humanely and the death of an individual hedgehog is likely to achieve negligible conservation benefit” (Jones 2014). As outlined in Chapters 5 and 6, this would later change in Aotearoa/New Zealand, as emerging trapping technologies made urban eradication of hedgehogs increasingly seem possible. At this point in time, however, before the set-up of coordinated suburb-wide trapping campaigns, such a possibility seemed remote. Hedgehog carer Jacqui’s view that the city is an acceptable space for hedgehogs is in line with agreed best-practice for Aotearoa/New Zealand hedgehog carers (Loague 2011). Another Aotearoa/New Zealand hedgehog carer has told me that the assurance that rehabilitated hedgehogs will only be re-released in urban areas largely kept the Department of Conservation happy. For some people, the urban was still an acceptable home for hedgehogs in Aotearoa/New Zealand; for this moment, at least, it was a place in which some humans would turn a blind eye to their presence.

In this shifted mood, things are precarious for hedgehog rehabilitators. Unlike in the UK, there are few Aotearoa/New Zealanders offering assistance to wounded or sick hedgehogs. In conversation with a handful of Aotearoa/New Zealanders who are engaged in hedgehog rehabilitation, there was a sense of the Department of Conservation (DoC), one of whose jobs it is to protect native species, turning a blind eye: so long as carers do not cause trouble and don’t release into areas with large numbers of ground-nesting birds such as braided river systems, DoC will look the other way. Although carers such as Narelle and Jacqui publicly expressed horror at Hodge’s death, there was feeling among some hedgehog carers that staging too public or too aggressive a protest might draw unwanted attention to

their work and perhaps cause a backlash—either from DoC or from conservation-minded members of the public—and that it was therefore better to stay relatively quiet (personal communication, March 29, 2014). Such cares stay hidden and increasingly quarantined as the understandings and storyings of hedgehogs held by such carers are either framed as eccentric or are entirely kept from public hearing.

Discussion: Shadowy cares

My last few weeks of night-time with the backyard hogs before I left for the UK were precious and fraught. I started buying cat biscuits to help the hoglets put on weight. The Smalls weren't yet of the grapefruit size which promises survival through the winter and I worried for them. Who would rent the cottage after us? Should I leave a note out for them, or might the hoglets fare better if they went unnoticed by the new owners? For the first time I wished they weren't quite so noisy in their entry and exit from under the house. For the first time, too, I didn't want to leave Aotearoa/New Zealand and this backyard hedgehog-oriented world to which I'd become sensitised. My body had become comfortable in the presence of hogs, used to their presence. Having begun to become aware of the richness and charm of this night-time hog world, it was particularly worrying to see it increasingly threatened. Although there was no coordinated trapping campaign in Dunedin, I worried for these little critters and how they would fare in a world in which the stories and materialities around them were seemingly shifting so rapidly.

And changes did seem to be coming to Dunedin. Before I left for the UK, I went to visit a friend of a friend who had recently moved to the city with his wife. They were both conservationists in their mid-30s. I arrived after dinner to share a cup of tea. Their dinner bowls still sat on the solid wooden table, containing the left-overs of a simple and healthy-

looking meal: I spotted watercress, mizuna, toasted pumpkin and sunflower seeds and brown rice. We chatted about standard Dunedin matters: Otago university students, the need for good, warm, jerseys in this part of the country and the low cost of living in Dunedin. However, it wasn't long before our conversation turned to hedgehogs, and he paused. He and his wife had been working with DoC long enough to know the damage they did. "I can understand they're cute", he said, gently, but seriously, "but they really do a great amount of damage". Shamefaced, I said that I knew. He went on, detailing the eggs and chicks that hedgehogs eat and as well as the avidity of their wētā-eating. Being reminded of the deep vulnerability of these native critters left me feeling disturbed and somewhat chastened. What was I doing? My cares for wētā—that odd, ugly insect I learned to love as a kid—left me with the sort of fraught care that would stay with me throughout this project. In this way, my own cares began to emerge as shadowy—as cares which also carry harm.

It is through such conversations that I began to experience myself differently—I haven't again experienced myself as 'good' in any easy way, a shift which I have since seen in other people working in conservation. As I will return to throughout this thesis, our cares make space for some lives rather than others: our cares cast shadows (Puig de la Bellacasa 2011: 204; Mol 2008: 75). Both Val Plumwood and Carl Jung have written—in very different contexts—about ways in which humans neglect the harms we cause. Plumwood, writing of shadow places, notes the ways in which the attachment of Western humans to one home place can encourage one to overlook the many other places which support one's lifestyle (2008). Many such places become dumping grounds, the forgotten 'sacrifice zones' which support our lifestyles. Following Aboriginal Australian practices, Plumwood suggests that,

rather than the answer being self-sufficiency, that we might instead practice gratitude and care for the many places which grow and support us (2008). Jungian shadow work argues, in a not dissimilar fashion, that very often humans will fail to claim the darker parts of our own selves, instead projecting our 'shadows' onto others, imagining other people to be the killers, or to be the selfish people or the greedy ones. Such projections Jung sees as a major cause of interpersonal conflict, as one person or group of people finds their negative traits in others rather than themselves (1951). For both Plumwood and Jung, the answer to such shadow problems is for us to claim our shadows. As I will return to throughout this thesis, recognising that cares are shadowy, necessarily light and dark, is vital if one is to care well. As with adding shadow places into the places one cares for—tracing and claiming the harms of one's cares—claiming the shadows of one's care is vital. This, however, requires a fundamental challenge to the notion of our cares—and indeed ourselves—as ever simply or purely 'good' (Shotwell 2016). Yet, perhaps ironically, it is through such increasingly shadowy self-concepts that there is the possibility that we might do less harm, refusing to overlook the sorts of damage our cares do.

Sitting with the shadowy realities of our cares is not enough; there are greater considerations of harms required. However, at least the night following that conversation, it was all I could do. Later that evening, sitting outside watching the hedgehogs in the literal shadows and still hoping that the little ones were big enough to make it through the winter that we would be abandoning them to, I had the feeling of supporting something elicited, monstrous even. Both them and I, killers. But all the death present in their cat food, and the deaths they would create if they survived, as well as the absence of so many native critters which would be maintained by their presence, would disappear as I found myself in easy

rhythm with them, my body comfortable in hedgehog presence as they pottered through the night around me. I had found myself quietly yet deeply entangled with a creature that many would rather see killed. And I was about to travel half way around the world to learn how to actively care for other members of their species.

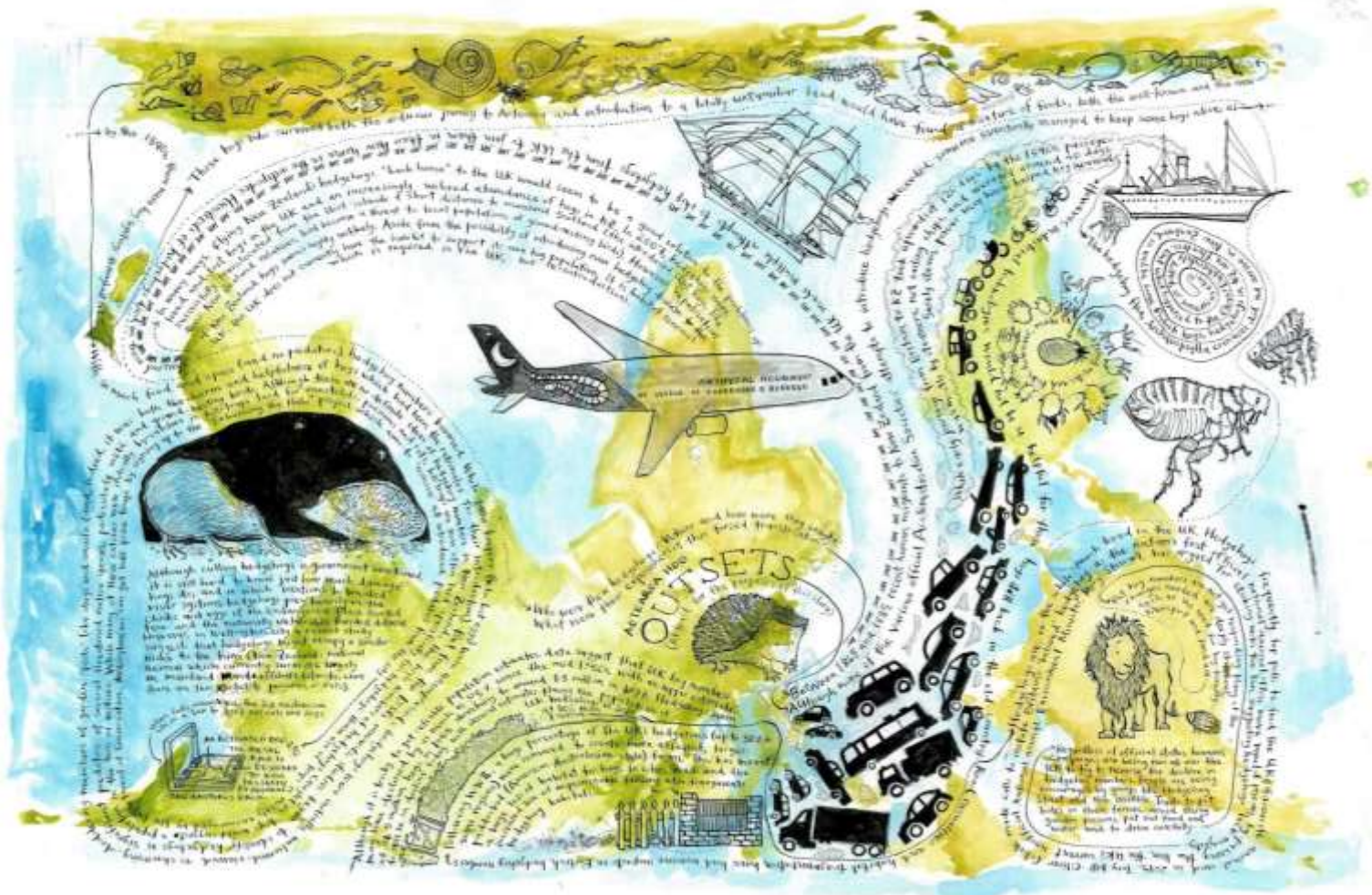


Figure 8: Tracing initial journeys of hedgehogs from the UK to Aotearoa/New Zealand as well as current contrasts in human attitudes towards hogs in the two countries

Transitions: Welcome cares

My arrival in the United Kingdom was marked from the outset by the depth of concern some humans expressed for hedgehogs. Even my initial arrival in the country was assisted by my welcomed cares for hogs. Excited to have arrived in the UK, I gushed to the customs officer that I was arriving to do fieldwork for my PhD. She stiffened and, with a suddenly formal tone, informed me that I was on the wrong visa for such work.

“What are you studying?” she asked with a frown, her eyes fixed on me.

“Aah, hedgehogs...” I said, going suddenly numb as I realised I might not be allowed in the country, that my thesis might be over before it had begun. Mindlessly, I kept talking, “...umm, you know, I’m just here for a first round of research, on hedgehogs and conservation, and sort of, um, how it all works and the challenges and things.”

To my amazement, she visibly softened as I rambled on, her eyebrows raising as she leaned in. “Hedgehogs! Oh, I love hedgehogs!” She looked wistful and concerned all at once. “They’re in decline, aren’t they?”

“Yeah, around 95% since the 1950s.”

“You shouldn’t really be here on that visa. Just make sure you don’t leave and try to re-enter on it—you might not get back in. And when you do return, make sure you’ve got your paperwork in order.” She pointed through the customs blockade and into the main body of the airport. “Now go, get in there and save some hedgehogs!”

I thanked her and, feeling a great wave of relief, walked through the blockade. Lifting my eyes, apparently to the great hedgehog in the sky, I whispered, “Thanks.”

I had landed in a country in which my research subject was widely adored. This would make much of my UK fieldwork, from which the following three chapters are drawn, remarkably smooth and welcoming. However, despite this fierce and relatively widespread (though not universal) love of hogs in the UK, hedgehogs themselves were struggling. In this, I had moved from the relative flourishing of hedgehogs in Aotearoa/New Zealand—a flourishing which continued despite emerging societal opposition to the presence of these spikey critters—to a country in which hogs are much loved yet in which people have—as yet—been unable to forge the sorts of landscapes these critters seem to need.

There is a certain ease—a happiness, to use Sarah Ahmed’s framing—of having one’s cares align with those of the humans with whom one spends time. Ahmed recalls that the root of ‘happiness’ is the Middle English ‘hap’ or chance (2010: 22). Our happiness, she notes, is shaped by our various alignments, be they race, gender, class or nationality. Thus, “the world ‘houses’ some bodies more than others, such that some bodies do not experience the world as resistant” (2010: 11). Such a lack of resistance is the good luck of finding oneself well-aligned. This ‘invisible knapsack’ of unearned gifts is perhaps most apparent in race and gender (McIntosh 1988). However, cares, it seems, might also influence one’s hap. In Bristolian hedgehog worlds, my well-aligned cares seemed to do the quiet work of helping things run more smoothly. Even my initial arrival in the country was assisted by these lucky cares.

Chapter 2. Wild cares and crafts of unmastery in a multispecies city

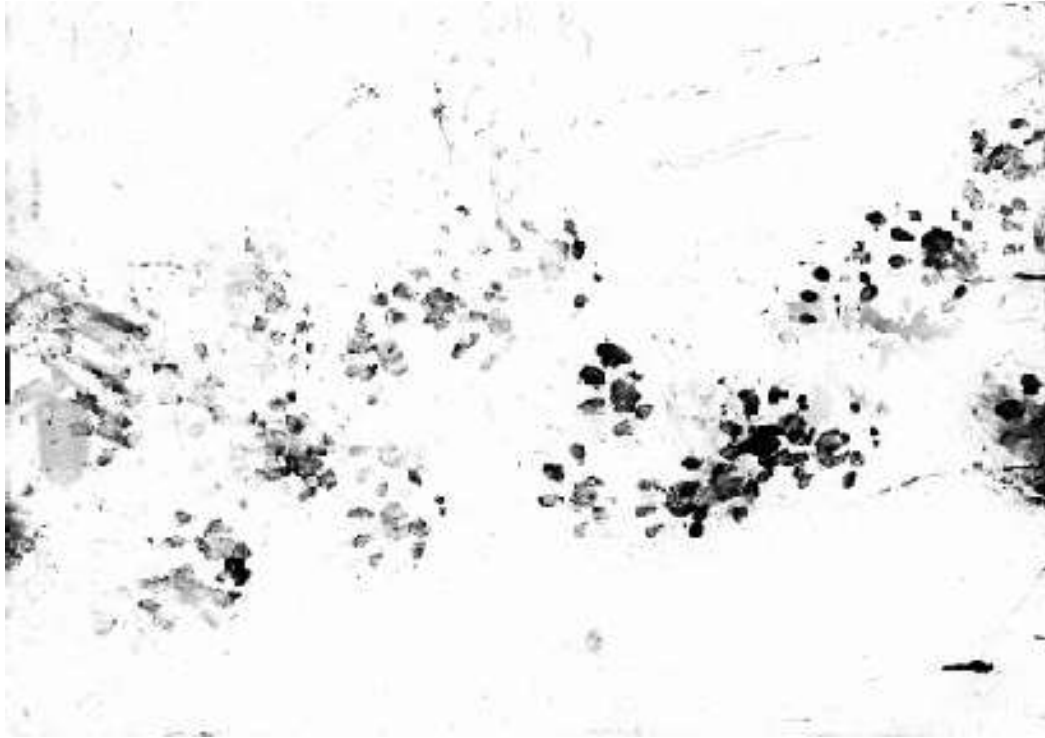


Figure 10: Hedgehog footprints from Redcliffe, Bristol City.

In contrast to the flourishing of hedgehogs in New Zealand, across the United Kingdom, people have been noticing the lack of hedgehogs for some time now. A largely beloved and once-common critter in night-time gardens, hedgehogs are now a rare sight in many parts. Studies of road deaths of hedgehogs suggest the British population of *Erinaceus europaeus* has declined from a mid-1950s estimate of more than 30 million to perhaps less than a million today (Wilson and Wembridge 2018). Cars, poisons, impermeable fencing, gardening preferences for deathly tidiness and the reduction of habitat through concreting, new building developments and roads seem to be key elements in this multi-factorial decline. As hedgehogs typically roam up to 2km a night to forage and find mates, a landscape can quickly be segmented into smaller-than-liveable blocks. In this, the tidy,

structurally-sound tendencies of Bristolian (and, more generally, British) fencing, contrasts markedly to the Dunedin cityscapes I'd left behind, where fences are gappy at best, allowing for easy hedgehog passage. It seems that, here in the UK, badgers also play a part in the struggles of hedgehogs, though why they should be such a worry now, when the two species have long survived together, raises further questions about the extent and effect of habitat loss (Warwick 2014: 187-88).

Based in Bristol, in the southwest of the United Kingdom, this chapter follows the uncertain, attentive cares of humans attempting to create hog-friendly urban backyard landscapes. Such hedgehog championing requires humans to develop new skills of attending to and working with the limits of our perception and—if we are to help shape viable homes for hedgehogs—to find ways to collaborate well with forces outside of our awareness. In this chapter, I look at how notions of 'wildness' play out in backyard hedgehog-human relationships and, in particular, respect for the ways hedgehogs need to come and go—and the disciplines of non-possessive loving this requires—leads to larger considerations of neighbourhood landscapes. Through loving a critter who rambles, champions seem to find themselves more broadly attentive to the environments which comprise their neighbourhoods. This dual 'wildness' of champions' 'wild cares' is not the wildness of the masculinist wilderness but, rather, is this wildness of non-possession and of letting one's cares proliferate. Such vital yet humble backyard wildness is, as I argue throughout this chapter, a vital aspect of sustaining one's cares for hedgehogs. At times, such wild cares require much patience and discipline. In particular, looking out for backyard hogs requires carefully-experimental disciplines of making well-informed offerings and then waiting and seeing, attending to what seems to work (Mol 2002: 177). Not everything runs to

plan; in a world of fundamental relationality, of co-composition, “unintended consequences” are, as Bruno Latour argues, “quite normal—indeed, the most expected thing on earth!” (2012: np). Yet, despite the necessity of working well with uncertainty, and despite the ways in which professional ecologists, too, conduct their work in a mode of well-informed attentive doubt, the carefully-experimental realities of hedgehog conservation are frequently omitted in public discussions. In this chapter, I consider what this public absencing of doubt does for the construction of authority and expertise as well as for questions of how we might best care for life in its emergent reality (Kirksey 2015).

1. Bristol, Green Capital: Urban wildlife accommodations



Figure 11: The Bristol 1 pound note, a local currency aiming to encourage people to shop locally. The note depicts iconic and flourishing Bristolian critters—magpies, foxes and bicycles.

Bristol, where my UK fieldwork was largely based, is home to a range of local campaigns targeting carbon emissions, encouraging cycling, increasing the energy efficiency of homes and attempting to increase biodiversity. Many of these environmental strategies also made use of Bristolian tendencies towards creativity and community-mindedness. In recognition of this, it was voted European Green Capital in 2015. Signs of biodiversity conservation

efforts were apparent throughout the city. New building designs and nesting boxes had encouraged swifts back to Bristol and people regularly pointed out sparrow hawks, a bird of prey whose return to the city reflected an overall increase in bird numbers. Throughout Bristol, people offered a lush range of food to wild birds, the seeds and freeze-dried larvae shipped into the city from farms dedicated to growing it. In 2000, local campaigners, after much work, secured an abandoned railway lot as a new 'urban commons', a space which now flourishes with a mixture of native plants and plant species which have blown across from surrounding allotment gardens. 'Bio blitzes' are held around the city where people are asked to count all the species in an area in a 48 hour period, celebrating and documenting the diversity of critters around us, and making plans for how to welcome more. Schools encourage kids to think of "minibeasts" (an inclusive term covering insects, arachnids, worms and molluscs) in their daily worlds, and bat and hedgehog experts are welcomed guests in classrooms. City-wide, various folks have planted flowering species in their gardens in response to serious warnings about the decline in many pollinator species. Despite a lack of funding, groups of volunteers fiercely defend and improve local parks for wildlife. However, hedgehogs, members of a species which requires habitat connection on the ground, continue to struggle, despite many individual offerings of food and shelter.



Figure 12: The "My Wild City" campaign tent at the 2015 Bristol Festival of Nature, demonstrating a hedgehog-friendly garden including a vital hole in the fence.

It is not, however, the fact of living in human-forged worlds which makes life difficult for hogs in Bristol and throughout much of the UK. Indeed, hedgehogs will often actively seek out particular human-built aspects of their surroundings such as quiet sheds, chicken coops, compost heaps, wood piles and, most famously, hedges. Hedges, a human-manipulated landscape feature, mimic the sorts of woodland edge habitat for which hedgehogs are best adapted (Warwick 2014). Far from acting as a barrier, for hogs, hedges provide not only shelter and nesting material, but also the possibility of safe travel under cover from badgers who are the only British animal strong enough to prize apart (and thus eat) a curled-up hedgehog (Hof et al. 2012; Warwick 2014: 185-6). Indeed, hedgehogs' success in this human-made land-feature is so great that this little critter's name was changed to incorporate it. The very name 'hedgehog' seems to have first emerged in the Tudor period, during which time hedges were planted across the British Isles as part of the first wave of the Enclosure movement, segmenting what had been commonly-held grazing

land into smaller, privately-owned paddocks (Beresford 1998: 28). Previous to this, hedgehogs had largely been referred to as 'urchins' (Hoad 2003). Here, while the Enclosure movement displaced many poor farmers, for hogs it offered a new home.

However, agricultural industrialization has rendered the British countryside a relatively inhospitable landscape for hogs. Since the end of World War Two, almost half of Britain's hedges have been removed in order to create larger, more efficient paddocks (Roberts, Atkins and Simmons 1998). While small hedge resurgences are taking place across the country—and hedging is currently subsidized by a range of national funds—hedge-laying and maintenance is labour intensive, and the total length of hedges in the UK is just holding even (RSPB 2015). Combined with increases in pesticide use, mono-cropping and the destruction of over 90 per cent of the UK's wildflower meadows—a vital source of larvae and beetles—since the 1950s, the infrastructural paradigms of industrial farming have left hedgehogs struggling in much of the contemporary rural UK, even more than in suburbs and villages (Warwick 2014: 186-7).

In light of the lack of hog-sustenance provided by farmland, it is human dwellings that provide the greatest hopes for hog survival in the UK and where the majority of hedgehog conservation campaigns have been based. However, even with the greater provision of food and shelter, contemporary human-infrastructural paradigms in urban spaces are causing hedgehogs difficulties. Susan Leigh Star coined the phrase, 'orphans of infrastructure' to refer to "those individuals, groups and forms of social and professional practice that fit uneasily or not at all within the emerging infrastructural paradigm" (cited in Carusi and Jirotko 2010: 293). The particularities of hedgehog bodies make them especially unsuited to navigating modern human infrastructure. Their predilection for falling into almost any

available cattle-grid or open drain is likely to be influenced by their poor eyesight and may also be partially due to hogs' relative lack of concern about falling, as their spikes are reasonably good shock absorbers for minor tumbles (Morris 2014: 156). Hedgehogs' habit of curling into a ball when frightened is also famously unhelpful when contending with cars, and their combination of short legs and wide nightly range make brick and concrete walls particularly problematic. While hedgehogs can scabble through gaps of about five square inches and haul themselves up steps (and sometimes stone walls), they are not nimble like foxes or deer, or as forceful as badgers. It also means that many of the emerging urban architectural interventions which provide homes and feeding stations for more mobile critters such as bees and birds are impossible for hogs, who need ground-level access to such offerings (see Campkin 2010). Hogs need a world which yields to them in particular ways, which offers movement for a largely grounded critter. They need gaps in fences, rot and quiet roads (or, better yet, no roads).

Within the built environment of the UK, hedgehogs seem to be particularly accident-prone. While the rotten fencing of Dunedin, for example, was easily able to be navigated by hogs, in Bristol, fencing tends to be concrete and solid. Much modern infrastructure in the UK is impermeable or ungenerous to hedgehog bodies in just such ways. The greater density of human habitation and construction seems to make the UK more hazardous for hogs than New Zealand, where, although hedgehogs are regularly killed on the roads (and are increasingly caught deliberately in traps), they seem to get caught unintentionally in human infrastructure less frequently. However, it is difficult to draw absolute conclusions. The greater density of humans in the UK, and particularly of humans who are fond of

hedgehogs, also means that British hogs in trouble are more likely to be found by a human, picked up and taken to rehab.

Many people in Bristol, however, are yet to see a hedgehog. My own street in Bristol was decidedly 'hedgehogless'. Like many streets in the country, our rows of terraced houses sported paved front yards as well as back-gardens almost entirely closed-in by hog-impenetrable concrete walls (Low and Heyden 2015). One group of kids who lived on the street had never seen a living hog, but were very keen to. From both Somali and Caribbean backgrounds, the children told me their parents didn't like hedgehogs, but they had learned about them in school. Their classes had oriented them to what hogs need in order to thrive and they explained to me that all the cars around our neighbourhood and the fact there aren't many bushes and growing things in our street meant there probably wouldn't be any hedgehogs around. However, they still expressed longing that one day they might encounter one in our neighbourhood. Indeed, before I met these kids or told any neighbours about my hedgehog project, I heard them from my upstairs bedroom one afternoon as they yelled "Hedgehog! Look, a hedgehog!" Elated that maybe there was an *Erinaceous* presence in the street, I flew down the stairs. By the time I reached the street, the kids had realized their hog was next door's bristly shoe-cleaner. From time-to-time the little team of kids left offerings of hedgehog nesting material at my front door, and once even a plastic-bottle hedgehog (Figure 1)—likely to be the only hedgehog in St Agnes, unless we somehow find a way to become part of an urchin-welcoming infrastructural paradigm shift.

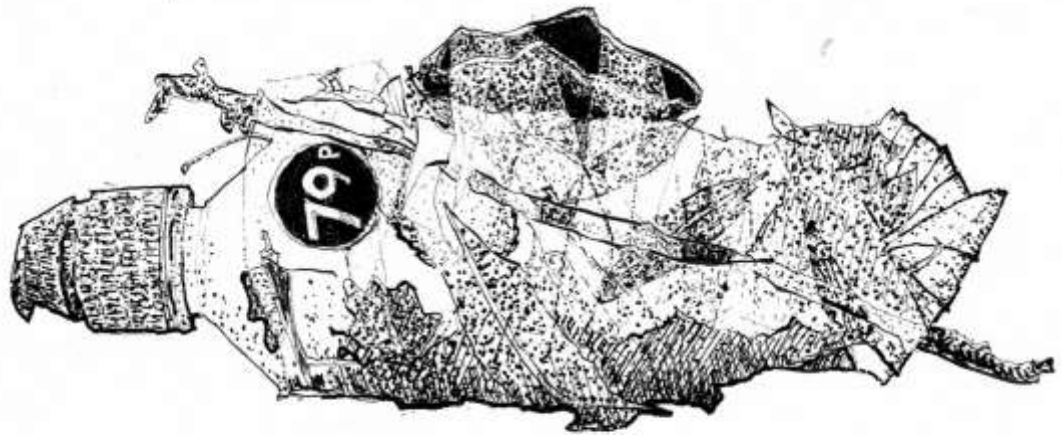


Figure 13: The St Agnes hedgehog

Hedgehogs do not often make homes in the centres of large, busy cities. London has recently been addressing the loss of its last population of hogs (Smith 2017). I never saw a hedgehog in inner-city Bristol. With farmland also problematic, hedgehogs tend to be best able to make a living in suburban areas and villages.

A small survey of my home street revealed that, apart from one Welsh couple who were self-described “animal nuts”, the rest of my street were not fussed. It was largely suburban infrastructural matters which hedgehog-supporting organizations targeted. Such organisations include the nation-wide network of Wildlife Trusts, the Royal Horticultural Society, the Royal Society for the Protection of Birds and Hedgehog Street—a program created by the British Hedgehog Preservation Society and the People’s Trust for Endangered Species. Such campaigns typically encourage people to think about the drains, fences, roads, litter, paving and poisons which hinder and, at times, preclude or end hedgehog lives. As of May 2014, Hedgehog Street—the largest of the hedgehog conservation campaigns and the one that I worked with most closely—had signed up over 30 thousand ‘champions’, with

similar campaigns run by local Wildlife Trusts, encouraging thousands more people to get involved (PTES 2014). There are also currently around 800 hedgehog rehabilitators throughout the country who are often also campaigners for the sorts of environmental changes hogs need. Between August 2014 and November 2015, I located myself in several hog-focused worlds, interviewing and spending time with local 'hedgehog champions', and/or hedgehog rehabilitators across the greater Bristol area, and hedgehog ecologists nationwide.¹²

¹² The majority of hedgehog champions were signed up with Hedgehog Street, who coined the phrase 'hedgehog champion'. Several people I came to interview and spend time with were not official Hedgehog Street hedgehog champions, but had been inspired to similar actions through different means, including other conservation agencies as well as television shows, such as BBC's *Spring Watch* and *Autumn Watch*.

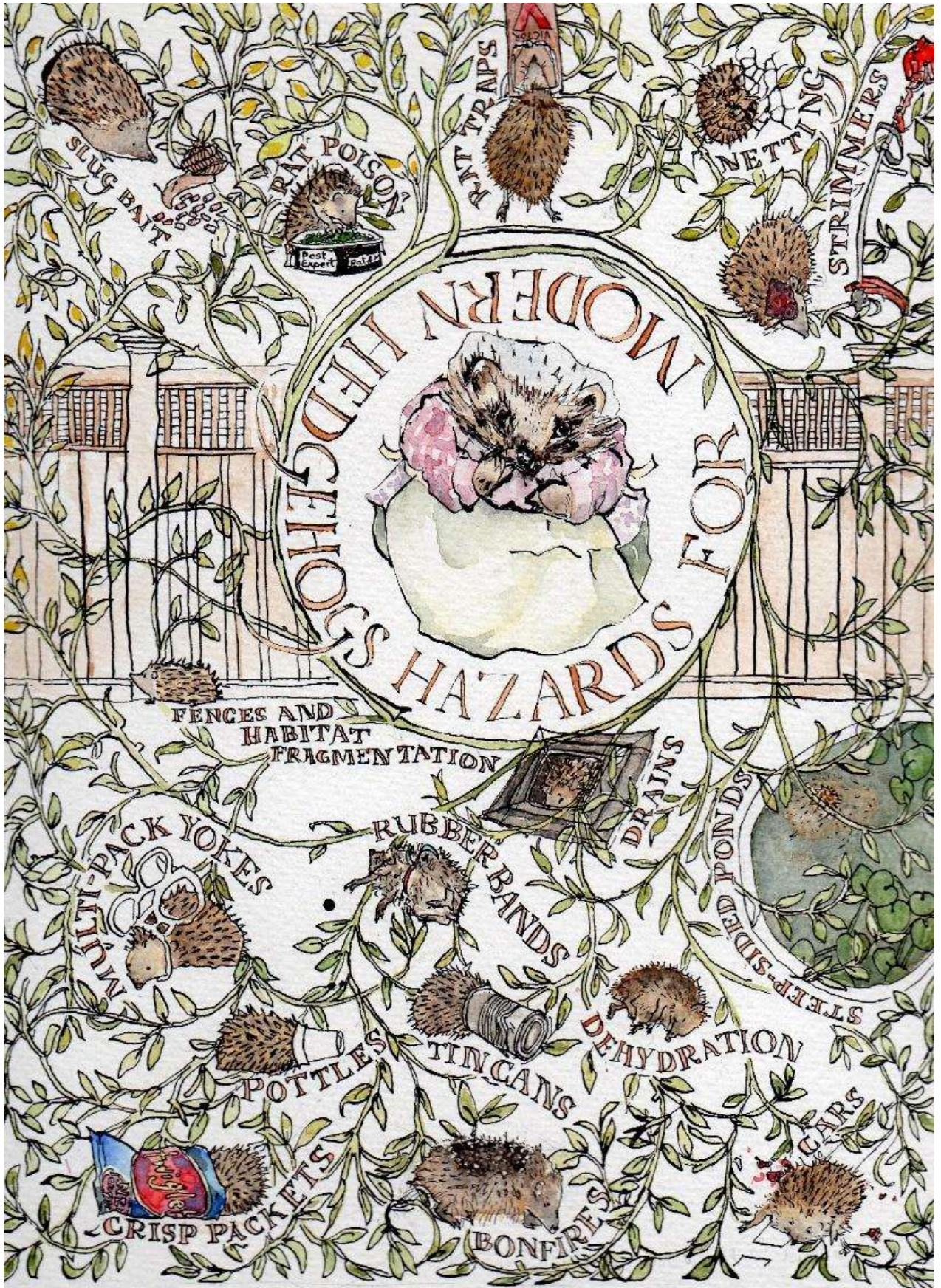


Figure 14: Hazards for modern hedgehogs: some of the many dangers hedgehogs face when living near humans.

2. Caring for Wildness

I met hedgehog champions through several different avenues, some via the Hedgehog Street project and others through an ad I placed in a local newsletter (*Figure 15*). Mostly, however, I met people who were championing hogs through getting involved with local park groups and through volunteering as a hedgehog carer at several centres in and around Bristol. I met many champions through volunteering once a week at Prickles Hedgehog Rescue. This sanctuary was based in Cheddar, two hours' cycle south-west of Bristol,¹³ with hogs arriving at Prickles from all over Somerset. At Prickles, a steady stream of champions called up to get advice, while others brought in sick hogs or came to pick up hogs who had been cared back to health and were ready to be released. Along with many conversations about hedgehogs with people from all around the Bristol region, I undertook 32 in-depth interviews, several of which led to friendships and backyard hangings-out with champions and their hogs.

Have hedgehogs ever visited your garden?

Have you tried to encourage hedgehogs into your garden, but to no avail?

Have your neighbours ever alerted you to the presence of hedgehogs in your street?



If so, I would love to talk with you! I'm an anthropology PhD looking at the human aspects of hedgehog conservation. As hedgehog numbers decline in the UK, I'm interested in the ways urban people are doing to welcome hedgehogs into their gardens, as well as the challenges people have experienced along the way. If you've got an hour or so to spare to take part in an interview, get in touch.

Laura McLauchlan mclauchlan.laura@gmail.com 07585654581

Figure 15: The picture and text of my ad in Bishopston Matters

¹³ For the record, I never biked to Cheddar. It was 1.5 hours on the bus (with one change, since the old direct bus was suspended), and about 40 minutes, when I scabbed a lift by car. This estimate comes from Google Maps.

I met hedgehog rehabilitator, Yvonne Cox, Founder of Yate Hedgehog Rescue, through finding her website and offering to volunteer. Yvonne would become both one of my primary informants and dearest friends in Bristol, and it was from her that I first learned the importance of the notion of 'wildness' in championing hedgehogs, in creating distances which matter. To support her rehabilitation work, Yvonne regularly held a fundraising stall selling hedgehog merchandise, offering hedgehog-themed activities, giving out fliers on hedgehog conservation supplied by the British Hedgehog Preservation Society and answering people's hedgehog queries during local environmental events in Bristol. Tagging along with Yvonne once a month or so, I quickly became familiar with one particular question: "How do I get a hedgehog?" Tirelessly, warmly, Yvonne would explain that you can't (or shouldn't) 'get' a hedgehog. "They are wild".

'Wildness', as used by carers and champions, does not mean being free of humans (e.g. Anderson 1997; Thorpe 2012) or being part of some imagined pristine wilderness (Cronon 1996). Instead, this particular use was an urging that hedgehogs are not to be captured: as a 'wild' animal, hedgehogs must be free to come and go as they choose, even if such movement is through obviously human-influenced landscapes. Such a concept shares much with Rosemary Collard's use of the term "wild life" to refer to "uncaptive" lives—that is, those members of other species who, though still "fundamentally entangled" in the particular relations they are constituted by, are able to move about, find food and shelter of their own accord and relate to others (2014: 154). As with Collard's use of the term, champions' use of 'wildness' contains room for extensive (though not unproblematic) interactions with humans. These wild critters move through people's back gardens, and might make their homes in wooden or plastic hedgehog boxes, and consume offerings of

water and commercial hedgehog food left out by humans and, if required, even be occasionally taken into care. It is not necessarily a complete emotional distancing, either — hogs are also seen as friends. A hedgehog is commonly referred to as a ‘somebody’ rather than a ‘something’ in a way which initially threw me off. Champions often pointed out the presence of a hedgehog with comments along the lines of “someone is in the garden.” I took several weeks before I stopped assuming the presence of a human intruder. The assertion, then, that hedgehogs are ‘wild’ is not a stipulation of where they might or should be found, or how they might properly eke out a living, or even how we might think of them and their distances from humans, but is, rather, a fierce statement of refusal to contain or control.

Such refusal to capture takes discipline. It can be tempting to try to contain those little spikey bodies, to have them, to keep them locked up safely in one’s own backyard. But hedgehogs are ramblers. Not unlike the British human Ramblers, a society of keen walkers whose excursions involve both maintaining and, at times, traversing private property to reclaim ancient rights of way throughout the UK (Ramblers 2018), given the choice hedgehogs will merrily disregard the boundaries of human ownership to enjoy remarkably wide territories. Indeed, as noted at the outset of this chapter, it is precisely this propensity to ramble which causes so many troubles for hogs who live in worlds where cars and roads and fences make extensive wandering difficult.

It can be worrying to have hogs leave one’s property. But they need to go, to do all the other often mysterious things that hedgehogs seem to need to do. I sat one night with Steffi, as hogs came and went from her garden. As we sat and imagined where they were off to, the whole neighbourhood became part of our cares. I had had similar thoughts in Dunedin as I worried after visiting hogs. Where might there be poisons or good nesting sites or a lush

patch of rot and insects? In the face of the discipline of not containing hogs, in the worry of it, it seemed that champions' love likewise rambled out into neighbouring backyards. Here champions instead came to express their love through the desire to work to help to create greater chances of good 'hap' for these beloved critters (Ahmed 2010: 22). As noted in Chapter 4, however, connecting with one's neighbours was often easier said than done.

Through caring for another critter, our cares may go wild, following them as they go and leading us to attend to the world differently. Stacy Alaimo argues that the possibility for transforming urban spaces into flourishing homes for wildlife rests on biophilic pleasures, on humans delighting in the presence of various critters enlivening the urban (2007: 33). It is these joys, Alaimo argues, which are vital for sustaining the sorts of modes of inhabiting the world which allow humans to relinquish illusions of mastery and instead to open up in ways which help to make liveable spaces for others (2007: 39). However, not all humans share in the joy of having hedgehogs around. Snæbjörnsdóttir and Wilson point out that, for many of us, our comfort with the closeness of critters is related to the security of our own dwellings: when we are socially marginal, we might want strong borders and walls against other-than-human critters (2011). There are also questions about how safe living closely to humans is for hedgehogs and other critters (Collard 2014). However, for many humans who did care for hogs, their delight in hedgehogs did lead to a radical shift in how they considered the backyard ecosystems in which they dwelt.

The other way in which the notion of 'wildness' functioned was to navigate a sense of not quite knowing what hogs might need and yet finding oneself in the position of having to provide for them. Having some access to 'wild' (non-packaged) foods was typically seen as necessary in hedgehog diets, as who knows what hogs might need to really thrive? Was cat

food really enough? The necessity of hedgehogs' nightly travels was thus a vital aspect of concepts of hedgehog wildness, where, in the humility of facing this 'wild-as-not-fully-knowable' critter, people felt that hogs needed to be given space to gather the foods and materials they needed.

Other concerns for 'wildness' as (relative) freedom of movement were based on considerations of what hogs themselves simply seem to want. This was particularly apparent among people who had been given 'unreleasable' hedgehogs to have in their backyards. These were hogs who, often for reasons of blindness (but also, as discussed in Chapter 3, potentially for being overly tame), were released into enclosed gardens rather than being set free to roam the suburban 'wilds'. While some people felt such hogs had seemed quite happy, others noted that the hogs would spend much time scrabbling at gates and trying to escape, leaving them wondering about what these hogs were missing and, often, feeling deep concern for their hog's lack of 'wildness'.¹⁴

In many ways, technologies enable both the intimacy and the distance of wild caring. Steffi would check her wildlife cameras each morning to see who had been visiting, the camera allowing her to follow hog movements and check on their well-being without interrupting their evenings. Another simple but effective technology for allowing both intimacy and distance is the window, quickly turning a house into an effective hide. Such intimacy at a distance is part of the work of sustaining cares in the face of necessary distances of wildness (Metcalf 2008).

¹⁴ As will be discussed in Chapter 3, there was much debate as to whether such practices of backyard release were, in fact, humane. Some rehabilitators preferred to euthanise hogs instead of release them in this way.



Figure 16: Left, a hog is captured on Steffi's wildlife camera as he or she squeezes under the back fence

3. Crafts of unmastery

While we live in a time marked by the expansion of human influence over much of the world, it is also becoming apparent that our ability to know precisely how to provide for our planetary others is greatly limited. Living and building well in our contemporary world, when other critters find themselves living closer to us than they might prefer, is no easy feat. In attending to hogs, in following their curious movements and responses, hedgehog champions catch suggestions of scents and possibly-meaningful backyard formations that seem, somehow, to matter, but that are not fully comprehensible. Yet, these not-quite registered smells, constructions, movements and histories may be part of what make hedgehog lives possible. Outside of these almost-graspable worlds, however, are realms of greater mystery, the vital matterings we can't even see the shadows of, connections of which we are not aware. It is into such necessary mystery that we build and care. Such humans are only too aware that they don't know everything that matters to hedgehogs. I find myself

encouraged by their crafts of unmastery, of attentive tinkering and making space for potentially vital unknowns.

Making together and waiting alone

Championing hogs seems to require crafts of offering hopefully helpful infrastructure and watching, waiting. At times, this also means letting hogs make the decisions. Responding to hedgehogs' wisdoms about their own best place to be is a vital act of humility in hog championing. This was also part of the advice which Yvonne would give on public education days. Such days were typically part of a larger conservation education day or neighbourhood event. Yvonne's stall sold hedgehog soft toys, merchandise and information pamphlets and also offered free clay hedgehog making and colouring of cute pictures of hedgehogs. Throughout each day the stall ran, Yvonne also did the work of encouraging people to consider the needs of hedgehogs. After explaining about hedgehogs being wild, Yvonne would encourage inquirers to just do all the right things: put holes in your fences, get a log pile, make a good compost, stop using poisons and encourage your neighbours to do all of the same—and wait. Sometimes I would add the joke, "if you build it, they will come", but few laughed—many had already been waiting for some time and it seemed that hedgehogs had never reached these gardens to discover the care which was being offered. While, occasionally, rehabilitators might have a hedgehog who couldn't be released back to where he or she came from (perhaps because of badgers or unusually fierce and hedgehog-oriented dogs in the area), rehabilitators strongly prefer to release into areas where there are already hedgehogs (though also with a quiet eye to not over-populating any one area).

In many cases, these small, tactful proposals are not met with any sort of response from hogs—despite best efforts, best offerings of fence gaps and food and shelter, no

hedgehog arrives. There may simply be no hedgehogs in the area, with the local environment unable to support a hog population or hogs being blocked from such areas by roadways or housing developments. Other times, there may be something mysterious making the garden unappealing. Who knows why hedgehogs aren't living in a particular quiet, leafy suburb which looks like it would be ideal habitat? What threats, what lacks, what blockages can't we see? People at times wondered about the neighbour's dogs or the general rowdiness of their street. Mostly, in the face of this, people gave up. Here, there are timescales of human hopes which are perhaps not in sync with that of hog population dynamics. Spatially, too, as addressed in Chapter 4, actions require the scaling up of interventions to the city level in order to truly make one's garden hog accessible.

There are questions here about the work of sustaining one's cares. Both here and in Aotearoa/New Zealand (as I focus on in Chapter 6), the sense of possibility that one's ultimate goal is reachable, as well the encouragement drawn from the presence of the object of one's cares, seems to matter deeply in keeping people actively engaged in the work of caring. While it is true that "if you build it, they will come", it is difficult to maintain the necessary building (and in the case of hedgehogs, also demolishing) work without actual hogs to inspire one's action. Perhaps tellingly, although all of my interview requests included invitations for those who did not have a hedgehog visiting, it was only those with actually-visiting hogs who contacted me. For those who did have hedgehogs present, however, this presence inspired active care and mobilisation to make hedgehog-safe spaces. Many interviewees said it was actively having a hog which was their greatest motivator in getting involved in wild gardening—a way of thinking about their gardens which often

entailed a radical shift in their relationships with both their neighbourhoods and their gardens.

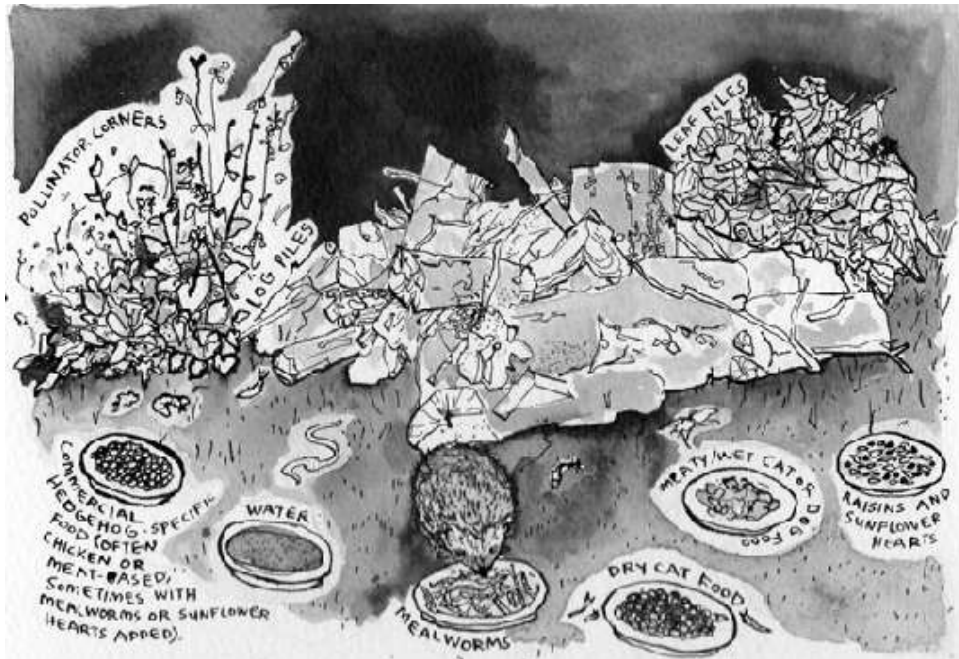


Figure 17: Common backyard hedgehog food sources: Pollinator corners, log and leaf piles (all encouraging beetles and caterpillars) as well as commercial animal foods.

In practices of wildlife gardening, central to hedgehog championing, human gardeners are, in an apparent oxymoron, encouraged to make wild gardens. Again, however, the ‘wild’ at play here is a gesture at a ‘wait-and-see’ relinquishing of control. The consideration granted to those living beings designated ‘wild’ is primarily of space, of the right to emerge as they will. Wild gardeners are encouraged to leave ‘wild’ over-grown corners, to grow hog-nest construction materials, such as hawthorn, apple and cherry trees, and to leave piles of pruning for hedgehogs to use (Wild About Gardens 2016: 13). A good deal of the building and rearranging is thus done by hedgehogs themselves. Hogs will nudge open and scratch out holes where necessary (though they seem to prefer their holes preformed, whether by

humans, badgers, or rot), and many backyards quietly contain hog constructions, if you know where to look.

Human roles in wildlife gardening are thus often about giving hedgehogs—and other forces—space to get on with the work of shaping the environments they seem to need, and looking out for and respecting their movements. Many human gardeners also gave space for the liveliness of rot, appreciative of the curiously vital worlds decay creates. Some champions left old logs to rot down, coming to accept and even enjoy the sorts of gardening they had previously considered ‘unsightly’ as they admired these piles’ ability to encourage beetles and woodlice for hedgehogs to eat. Rot is actively encouraged in wildlife gardening, where mulching garden beds with compost is noted to encourage “plenty of earthworms, woodlice and beetles as it begins to rot down!” (Wild About Gardens 2016: 13). Just as fermentation helps us to see “that the chef may not always be human” (Radin 2015), attending to rot in built worlds allows us to see that architects needn’t be human, either, or even have a spine or brain. Encouraging rot shares much with composting practices in which, to compost well, one must learn to collaborate with “[c]reatures lurking in the cosmos beyond the narrow purview of our understanding” (Kirksey 2015: 201). It is such collaborations, our partnership in creations which we may only be partly aware of, which is the very stuff of life (Tsing 2015: 26; Kirksey 2015: 245).

In champions’ backyards, sleeping sites are often co-created, with hogs filling human-supplied nesting boxes with apparently very particularly-chosen items, including prunings and leaves from all over a neighbourhood, such as in the abandoned hibernaculum of figure 12. In such homes, hedgehogs weave liveable spaces from the forces and materials around them, marrying together garden offerings and the forces of containment of the box (Ingold

2013: 42). While, in summer, hogs will often just sleep in long grass or under a bush, hedgehogs' winter homes—their hibernacula—are (usually) carefully constructed. Hedgehogs craft a hibernaculum by piling leaves, twigs, and sometimes paper and other materials into a relatively enclosed space (where the enclosure holds the material together). Entering into the pile, the hedgehog turns in circles, its spikes combing the materials into an orb with a hedgehog-sized cavity in the middle. Successful hibernacula have up to 10cm of insulation, protecting hibernating hedgehogs from both the cold and potentially disruptive sharp rises in temperature (Morris 2014: 134). Hibernaculum failures do happen, though. In spending six winters with West London hogs, hedgehog ecologist Pat Morris noted that some hibernacula may fall apart during the winter, requiring the hogs to wake up and build a new nest: "building good nests needs practice" (Morris 2014: 133). Such building practices require hedgehogs to become responsive to their materials, learning how to select and knit together the various elements of their nests—skills which hogs don't learn from their parents, but from engagement with materials (c.f. Ingold 2000: 354).



Figure 18: An abandoned hibernaculum built inside a hedgehog house from the back garden of hedgehog champion, Kay.

These small backyard havens offered to hedgehogs by their champions evince many humble re-orientations. Welcoming hogs often meant learning to use space differently, taking one's cues from the hedgehogs themselves. In an inner-city Bristol suburb, backing onto expansive allotment gardens, a young bus driver, Jonas, allowed me to spend several evenings hanging out with the hedgehogs who visited his well-kept backyard. He explained to me that, in many ways, hedgehogs are very convenient, noting that they are tidy and unobtrusive and require very little care. However, in coming to share space with hedgehogs, Jonas, who was not signed up with any formal campaigns, began changing his backyard. Worried about the hogs, he stopped using slug bait and began making nightly offerings of water and hedgehog food (there are several brands available in Bristol, but Jonas used a mixture of sunflower hearts and mealworms, sold by Tesco as "The Right Food for

Hedgehogs")¹⁵. Making a welcoming space for hogs also meant moving quietly in his backyard, leaving it still at night-time as he came to think of this space as belonging to the hedgehogs after dark. Many other champions similarly avoided using their yards at night, lest they disturb the hogs and their curious night-time business. Hedgehog preferences also reshaped other aspects of champions' gardens. One hedgehog champion reported leaving a disliked bamboo patch which previous owners had planted, because it seemed to be a favourite sleeping spot of some of the hogs who visited his garden. Another champion left a scraggly hedge which she felt her hogs made good use of, while a third left a broken piece of fencing which hedgehogs seemed to prefer as a thoroughfare over her carefully cut hedgehog-hole.

There can be great joy in working with such mystery. While, at times, champions laughed to me about the mess or worried about their human neighbours' take on their urban wilds, many people also spoke about the delight they took in the surprises offered by their wildlife gardens. During the 30th anniversary celebrations of Bristol's Avon Wildlife Trust, representatives spoke about how, initially, there had been complaints as local parks began to embrace wildlife gardening principles. 30 years on, the messiness is generally seen as a sign

¹⁵ While in Aotearoa/New Zealand there are no commercially available hedgehog foods, in the United Kingdom there are several brands. Spikes' hedgehog food was the first (created in 1997) and is chicken-based. The Tesco brand "Right Food for Hedgehogs" as well as the "Love Hedgehogs" brand (created by the manufacturers of Spikes), contain mealworms and sunflower hearts which seem to make them less attractive to cats. Cat and dog foods are also put out for hedgehogs, and may be more nutritionally suitable than mealworms alone (due to the poor phosphorous/calcium balance of mealworms). However, feeding stations with elaborate chicanes are required in order to discourage cats and dogs from sharing these meals. As with bird feeding, common-place around the UK (the RSPB has recently estimated that 50% of UK residents put out food for birds), hedgehog foods offer an artificial fertility and abundance for wild animals in the city. A recent campaign by Hedgehog Street in concert with the Wildlife Trusts and the Royal Horticultural Society have emphasised the importance of creating gardens which encourage beetles, while suggesting that food could be put out just during lean times.

of vibrancy, something to celebrate. This is the work of much of hedgehog championing and, rather than being cause for sorrow, realizing that we don't have control over everything that matters can be curiously delightful.

Care as attentive tinkering

Many of the hedgehog champions and rehabilitators I spent time with were deeply attentive to everyday hedgehog lifeways, open to being surprised by hogs. They showed me that hedgehogs didn't always obey textbooks. June, now retired from two decades of work as a nurse and three as a nurse trainer, had remarkable skills of attending to, and being with, hogs. In her work as a rehabilitator, June had a great deal of contact with the hogs and humans living in her Somerset village of Cheddar. Her attention to the curious everyday of hog lifeways often led her to query established thought, although she was also very attentive to, and appreciative of, scientific studies of hedgehog health and behaviour. On one of our first meetings, she took me to meet Jan, a local Cheddar woman who had eight to 10 regularly visiting hogs. Jan explained to me that, in her back garden, she had 10 hedgehog nesting boxes and while, on warm nights, the hogs would tend to sleep separately, on cooler evenings they would pile in, two to four hogs a box, presumably enjoying the extra warmth. "They're no fools," Jan said. June turned to me, a twinkle in her eye, "You don't read about that in the text books, do you?" While June was joking about the textbooks, they do loom as vital authorities. These guides make species-levels pronouncements about the qualities of hedgehogs: that they are, for example, strictly solitary. In contrast, this moment seemed to be marked by a respectful openness about what hedgehogs might be or what they might become: in high-hedgehog density areas, like Jan's backyard, where her feeding practices meant several visitors each night, why wouldn't they

potentially learn to enjoy the warmth of other hedgehogs at night-time? If humans can learn different ways of being, if we can be responsive to our environments, why not hogs?

Living alongside hogs, however, it is not a case of free-wheeling experimentation or self-satisfied uncertainty at play. This is not a case of Keatsian celebratory “negative capability”, a dwelling in uncertainty “without any irritable reaching after fact and reason” (Serpell 2014: 131). Knowing as much and as well as possible was a deeply desired goal for most and, like June, people are regularly reaching for the best, and most up-to-date information available. Steffi, a warm and vibrant Bristol-based hedgehog champion in her early 60s, responded daily to the needs of the critters visiting her garden, reading the advice from the British Hedgehog Preservation Society (BHPS) and Hedgehog Street. Duncan, a champion based in a village just south of Bristol, and who had been introducing his son to his love of hogs, has hedgehog knowledge which is greatly informed by Pat Morris’ classic, *Hedgehogs* (1983), and regularly used it to think-through his hog’s behaviours and needs. However, the daily, attentive job of care was never straight-forward.

While a good deal is known about what makes a suitable hedgehog habitat, experienced rehabilitators and champions know that even the best studies aren’t recipes. Championing hogs instead seems to require crafts of making offerings one hopes might be a help and watching, waiting, and being willing to be surprised. Of applying the best knowledge one has but also knowing that sometimes things are simply more difficult than this. The density of human occupation in Bristol requires more intimate sharing of space between humans and hedgehogs than tends to be the case in Aotearoa/New Zealand. Thus, different practices are needed, including supplying extra shelter and food which small plots of land don’t sufficiently provide on their own.

Finding themselves directly responsible for provisioning hedgehogs, both champions and rehabilitators were, it seemed, regularly asking themselves a range of questions about how to shape healthy environments for hogs. There was often a great deal of uncertainty around best practice. Why might a hedgehog feel safe to come into one garden, and not another? What is it that matters to hedgehogs? Could store-bought hedgehog foods create dietary problems we don't currently know about, or could they be just the offering to see a hog through the winter? Or might feeding encourage too many hogs, and perhaps also badgers? On the other hand, could 'wild' foods, like slugs, give hedgehogs lungworm? One young champion with hogs visiting out the back killed the slugs who also tried to eat the hedgehogs' food using beer traps. He had heard about the awful deaths from lung worm. Others just kept an eye out for ill hogs, ready to sweep them off to a rehabilitator should they seem to develop a lungworm-indicating cough.

The attentive, uncertain arts of hedgehog championing thus speak to the sorts of engaged, experimental care which Annemarie Mol refers to as doctoring (Mol 2008). In her 2008 book, *The Logic of Care*, Mol reinvigorates the term to describe the deeply careful and attentive forms of experimentation which are part of the everyday of living with diabetes. Diabetes treatment is not a simple matter of applying a 'cure' – rather, exercise, insulin, food and surprises must be somehow held together, in an ever-shifting experiment of living. Nurses, doctors, and patients, Mol argues, know that there are a myriad of tiny adjustments to make because, in practice, treatments are not as confident as labels on bottles. In diabetes care, Mol argues "Even idealised practice is not ideal. It is a matter of trying things out and of being willing to revisit what has been done before. There is always something that fails" (2008: 56). In responding to the ever-emergent nature of being alive, experimentation is a

necessity. However, in such experiments, the experimental subject — often one’s own self — is non-expendable (the continued existence of the subject is, in fact, the very objective of this experiment). This is where doctoring comes in, as a grounded, attentive, everyday sort of experimentation where lives matter. In ‘doctoring’, the subjects of experiments aren’t expendable, though they may still die. It is this sort of doctoring, this sort of experimental living-with that I see among hedgehog champions.

As I attend to in Chapter 3, at some point in their lives, many British hogs end up in rehabilitation. For champions, however, knowing when to send them was a source of concern; people generally didn’t want to send hogs into care unnecessarily, as they worried about the stress this might cause them. However, many also noted that they didn’t want to leave sick hedgehogs untreated. Champions and rehabilitators tended to closely check information from Hedgehog Street and the British Hedgehog Preservation Society but still found themselves facing questions of just what ‘their’ visiting hogs might need. Most champions knew what to look out for — particularly that hogs out in the day-time were likely to be sick. However, in practice, even this apparently simple rule was not always clear-cut. Several champions noted that a hedgehog, or hedgehogs, visited their backyard before dusk and seemed to have nothing unusual about them other than enjoying the late afternoon. Other champions told me stories of hedgehogs out and about in the middle of the day who turned out to be pregnant and hungry rather than ill. A few champions had caught these apparently unwell hogs and taken them to rehabilitators only to have them be returned later with hoglets. One such champion, embarrassed at having assumed her pregnant hog was unwell, said that she now knows the difference: a pregnant hog out in the day has a sense of purpose about her — she is out to get food. It’s the dawdling ones you need to worry about.

This champion explained to me that some uncertainty is just about not having had enough experience and that, more and more, she is getting a feel for what is going on with the hogs who visit her garden.

4. Public confidence and mistaken authorities?

Before I started interviewing professional UK hedgehog ecologists, meeting them only through their public pronouncements via internet sites, news segments and newspaper articles, I found myself intimidated by their authoritative certainty in such platforms—their clear bold statements of what hedgehogs needed seemed so markedly different from the everyday experiences of the volunteers I'd been working with. However, in meeting actually-existing hedgehog ecologists, I've come to wonder about the uncertainties and relationalities such scientists can't publicly talk about, and the burden of having to supply definitive answers.

I met Simon, the Hedgehog Officer at Warwickshire Wildlife Trust, not long after he took up the job: he had a background in ecological research and enthusiastically described to me the intensely interconnected webs of interaction in which hedgehog lives play out. Such relationality, however, is not often part of public discussion. Rather, publicly, such relationships are most commonly reduced to a set of discrete 'factors' required by hedgehogs, or a list of actions, such avoiding poisons, putting holes in fences, encouraging bugs. While this can be helpful by offering people discrete things they can do, in reality, as Simon said, almost as if to himself while tweaking a Power Point presentation due to be given the next day, it is impossible to ever identify precise, independent, bounded 'factors'. He stopped to answer the phone which turned out to be a member the public reporting a hedgehog sighting. They were running a survey, trying to get an idea of hedgehog numbers,

but it's always so hard, in that, in populated areas you tend to get higher estimates simply because there are more people around to see the hedgehogs. He recorded the sighting onto a spreadsheet on his computer, then returned to discussing the problems with factors. I could see now why he'd brought this up—on his computer was a slide listing a number of 'factors' influencing hog numbers. He pointed out three: habitat loss, lack of food and poisons. "We treat them separately here because, the abstractions, the factors, do help us to explain, and people want that—a clear answer, a something particular to *do*. But, in reality they overlap and they all affect each other. Habitat loss often means less food," he explained, "which means hogs are in worse condition, which means poisons affect them more, but poisons can also mean less food, and so on and so on, so that the 'factors' we identify aren't really separable at all." He went on to note that ecology was all about interactions, that actually nothing is disconnected. He explained that it was these connectivities which are so vital for us to attempt to understand, as it's that impossibility of just how relational things are which means that sometimes things are just not what you'd think, and you don't know why. He explained this immense complexity without a sense sadness or frustration but, rather, almost of wonder.

As Simon was talking, I got the curious feeling of being with someone holding the world with great attentiveness. My feeling would grow over the following days—I've felt something similar around other ecologists since: a slight sense of isolation which I imagine as part of the reality of attending to connections the rest of us don't often think of. I thought to myself that it seemed something like being a vicar in a not very religious parish, in which you are holding a vital theology which could be of such benefit for those around you, but others are happy to have this transformative understanding stay with you. Emboldened by

leaving, I asked Simon about my analogy before I left and he laughed and said he could almost see what I meant. But, unlike a vicar, he noted, he generally didn't tell people how he saw the world. To point out the ways in which litter impacts on other lives, he said, just seems too heavy for most people. Typing this now, it seems curious that we should have an unwritten rule against proselytization when it comes to attending to connections. And so these cares—cares for connections—are effectively quarantined; ecologists are isolated in their understanding of our fundamental relationality. There is little space for thinking relationality and connectivity in societies which imagine—and assert—both the possibility and the ideal of discreteness and separability (c.f. Latour 2012).

Uncertainty, too, turned out to be a major part of Simon's work which remained private. In talking about the Wildlife Trust's local plans for creating hedgehog-friendly landscapes, he noted the difficulty of extrapolating from particular studies into different terrains where there are always other variables—not least, the very complicated effects of local humans and their ways. However, despite the particularities of studies, they can be translated, and often with much success. But such translations always include little gaps in surety, there are always little leaps to be made. It's with this imperfect, ever-shifting knowledge that we somehow must *do* something. While scientists themselves tend to be deeply attentive to the subtleties of their work, aware that their findings are valid for particular times and places, curiously, 'science' as it emerges publicly, is often stripped of its particularity.

At a talk later that morning, Simon addressed a group of retired people about what they could perhaps do to halt the hedgehog decline. A man asked, "isn't there something we are missing?"—his almost-aggressive tone suggesting that there must got to be *a* something.

Simon said later that this was a common question—that there must be a single ‘thing’ we can pin down and do. And, indeed, Simon was well-prepared for this particular demand. He explained about the need for holes in fences, the need for wild areas of gardens, and for putting out water in dry times. Though he did manage to emphasise the multi-factorial nature of the problem, I wondered what was lost in this seemingly necessary translation, and what might have happened had he been able to talk about the informed mystery of complex inter and intra-actions of living well with others who have radically different lifeways, needs, and desires (Barad 2007). The magic, it seemed, had gone.

Some weeks earlier, I’d arranged to travel with Avon (Bristol) Wildlife Trust Urban Conservation Officer, Matt Collis, to visit Beryl Casey, a hedgehog carer in Portishead, five miles north-west of Bristol. Beryl had offered to help Matt get a sense of where hogs were in Bristol. Somehow the local BBC news station, BBC Points West turned up, hijacking our afternoon, but also being interesting. In the car, as we all drove back from a key hedgehog release site to Beryl’s to meet with the crew, Matt joked that he’d only get to make a couple of points, which were never the full picture, and then he’d have to answer the perennial question: “Why should we care about declines in hedgehogs?”

“Surely they won’t ask that?” I questioned from the back seat, assuming that, unlike in Aotearoa/New Zealand, loving hedgehogs was obvious. But they did ask, and Matt answered in the way that he said he would—that the reason we should save hedgehogs was that they were a like a canary in a mine, their decline was a sign of larger problems and that improving things for them would be good for urban ecosystems generally. Love, apparently, was not enough to justify working hard to keep these critters around. The uncertainty in why we are doing what we’re doing, too, seems to get forced into tidy answers—answers

which overlook the strange accident of coming to love particular critters. In such ecosystemic answers we return to the rational-masculinist mode of justifying our care for others. From there, the interview whizzed along. “Give me a couple of things that people at home can do,” the reporter asked, and Matt encouraged the imagined viewers to stop using poisons, and explained about cutting holes in fences, so that hedgehogs can move through backyards. We spent the rest of the afternoon in Beryl’s back garden trying to secure cute footage of hoglets, who are often active in the day time.



Figure 19: Matt and the reporter from BBC Points West securing hedgehog footage in Beryl’s garden.

At the end of 2016, I met up with Matt again, now in Wellington, as he took a sabbatical tour around Aotearoa/New Zealand conservation and eco-tourist sites. We chatted on a street corner, me now at the end of my fieldwork, starting to get obsessive about uncertainty, and the ways that it doesn’t get expressed publicly, the ways he had been made to say things so concretely. “What I said was all true,” he said. “If we make things good for hogs we *do* make things good for other species, too. And there is a lot we know about what makes good hedgehog habitat.” I agreed. However, he acknowledged, it wasn’t the full truth of it, it didn’t capture the reality of the ways in which you never quite know,

the ways that, even when you have the best studies to work from, every site is different. The ways that you don't fully know what the world is like for a hedgehog. But, he finished, "people are looking for that assurance. They look to you for some sort of authority."

I thought back to Simon's talk, and how his audience member seemed to demand of him a clean, clear answer. It seems to me now that these certain factors, presented with the authority of an ecologist, had washed the audience of the burden of needing to attend to the worlds they were creating as they addressed the recommended 'factors'. Applying simple factors, it seems to me, is a less considerate way of caring, a mode which imagines that one might be able to apply a certain set of rules, rather than to need to become radically reoriented to one's landscape and neighbourhood, to, perhaps, have to radically reconsider how one lives and with whom.

While such attempts to make clear-cut knowledge easily available are, in many ways, understandable, they were often unsettling for champions. Many times, champions compared their experiences of backyard care to the apparent surety of such pronouncements. Such certainties also left little room to acknowledge the skills of attention and interpretation required in shifting scientific data into local best practice. Champions and rehabilitators worked daily with these vital arts of careful translation and action, but they have little public voice. Rather than being seen, and seeing themselves, as experts of their own emergent backyards, champions tended to frame themselves as tinkerers, potterers, as if such arts weren't that of living itself. If we were having these conversations publicly, we would know that such considerations of and cooperation with uncertainty are at the heart of good science.

And yet, in their awareness of the need for careful practices of working with uncertainty, the care-filled experimentation required if we are to live well with others, champions and ecologists held much in common. Ecologists not only know the limits of their data and the limits of generalisability but, on several occasions, expressed love for these subtleties of knowing. And, also like champions, they know the necessity of acting with imperfect, but ever-striving, understanding. It is all, always, tentative. Yet in translation into media worlds, this knowledge gets shored up in palatable ways. Certainty, it seems, may tend to forget the grace and attentiveness that is the reality of attempting to live well alongside others. At times, such false certainties may create and gird authoritative scientist-guardians reinforcing their responsibility for decision-making. Such scientist-experts are both privileged and burdened with knowledge of the reality of the uncertain and relational data they are working with. The Modernist story of the possibility of independence and scientific certainty is perpetuated by such scientists—and at times enforced by their audiences—through the quarantining of relationality, attachments and unintended consequences (Latour 2012). Such vital matters are relegated to the private realm.

Discussion: Expert cares and the politics of rambling love

The backyards of hedgehog champions were a regular delight—curious places in which it became clear that making liveable landscapes is a work of collaboration (Gan et al. 2007). In coming to attend to hog lives, in giving space to the wildness of hedgehogs, the relationships of hedgehog champions to their gardens changed. They owned their properties just a little bit less, offering a little more room for the lives of others. Hog champions become engaged in considerations of whom we live with and how: love seemed to flow throughout gardens

and neighbourhoods, with locations which supported hogs becoming objects of gratitude. A sense of wonder was also an important factor in hedgehog championing. Champions' often held a curious sense of delight in not quite knowing everything which might be happening in their gardens. As Anna Tsing argues in *The Mushroom at the End of the World*, living well with others, perhaps particularly in our current times, requires that we develop new skills of knowing and being—recognizing and working with uncertainty and precarity rather than attempting to maintain illusions of mastery (Tsing 2015: 5). Such arts, I would argue, shape much of hedgehog championing, where the everyday work of making good spaces for others requires facing some degree of the unknown. This is part of the disciplines of wild cares, of refusing to capture the objects of one's cares. As these cares travel along with a rambling critter, one comes to love a neighbourhood more broadly, coming to consider the multiple backyards and sources of both harm and sustenance a wider territory provides for the wandering object of one's attentions. There is thus expansion within the vital sense of caring for wild critters as requiring a degree of 'holding back' (van Dooren 2014). Respecting wildness as not only requiring the freedom to move, but also the humility of being not fully knowable. This wild-as-not-fully-knowable thus encourages the sorts of waiting and seeing and being attentive which, curiously, are a vital part of caring for others more generally, regardless of how domestic the object of one's affections is (Mol 2008). There is mystery in caring for life in its emergence. And perhaps the strangest thing is that it can be so oddly joyful, this sense of not quite knowing.

And yet, for its delight, uncertainty emerges as a curiously uncomfortable topic. I think of my interview with Steffi in which she talked about some recent changes she'd made to her garden, including adding a large pile of tree clippings. She explained that, though she

hadn't been sure, she imagined what a hedgehog's point of view of the garden might be: "I thought, if I was a hedgehog, I wouldn't want to live there, I would want much more greenery. So I put in the compost and that big pile of tree cuttings down the back. I am mad, honestly. I am so stupid." In the face of not knowing exactly what to do, such attunement-based hunches become vital. Getting a sense of those for whom one is caring is vital. And, certainly, at Steffi's house, the hogs did seem to love this area. Such work is similar to the kinds of interventions I saw ecologists implementing: careful experiments based on best knowledge and hunches of what something might look like if one "was a hedgehog". And because you don't quite know how things are interconnected or how they might play out, you need to then also wait and see. Rather than discussion of interconnection, however, it seems that it is *lists* which are demanded from those who are authorities on hedgehogs. While, as Sheila Jasanoff argues, expertise often brings a sense of radical uncertainty, our constructions of authority make the sorts of informed uncertainty and actual practices of attentive consideration required to care well difficult to pitch (2007). That is, our notions of expertise frequently exclude the sorts of radical uncertainty which expertise actually tends to bring (Jasanoff 2007). In attending to the needs of another, we start to see the sorts of radical interconnectedness on which life is built. The humble skills of working with such emergence and connection are, I would argue, the *real* expertise of champions and ecologists: the arts of working with the radical uncertainty of care.

Chapter 3. Wild disciplines and careful distances of hedgehog rehabilitation

Each year in the UK, several thousand hedgehogs will spend some time in a hedgehog or wildlife rescue centre, largely receiving treatment for wounds and parasites. Orphaned hogs are fed until they are large and old enough to survive on their own and the odd pregnant hog, accidentally scooped up for her strange, out-in-the-day behaviours, will give birth in care. For some UK-based ecologists, the work of hedgehog rehabilitators raises concerns that some hogs may become captive to the needs of lonely and less-than-rigorous humans.

Initially sharing such worries, I planned to avoid studying care centres and focus instead on hedgehog conservation as practiced by hedgehog champions. However, in focusing on champions and the free-roaming hedgehogs moving through their backyards, it became clear that the skills and labours of rehabilitators were a significant aspect of many hedgehog champions' experiences. While only some champions had sent hogs to rescues, all I spoke with had, at some stage, wondered whether or not to take an unwell-looking hog to a rehabilitator, expressing relief that there was someone who knew what to do, and who could take responsibility. It became apparent that rehabilitation centres were an important element of maintaining urban wilds.

In this chapter, I address the ways in which negotiations of distance—particularly through concepts of wildness—shape the attunements between humans and hedgehogs in rehabilitation. As noted in Chapter 2, for hedgehog champions, the notion of 'wildness' served to reinforce the idea that hedgehogs are not for capture and that they might have

needs which we cannot anticipate. Though the notion of 'wildness' was also vital to the work of rehabilitators, it functioned differently. Unlike the champion's use of 'wild' to both refer to critter to needs to be able to come and go at will and who cannot be entirely known, when used by rehabilitators, the term 'wild' emphasised an ideal behaviour: that such critters would actively avoiding humans. The 'wild' in rehabilitation, therefore, tended to emphasise the importance of not 'taming' critters. The possibility of taming hedgehogs had not been a concern for champions. As detailed in this chapter, rehabilitators' notions of 'wildness' disciplined the ways in which they interacted with and spoke about the critters in their care. Unable to gain affective connection through cuddling or play their wards—a restriction arising both because of the requirements of such wild distance, as well the nature of the critters in their care—rehabilitators had to find other ways to sustain their cares, including taking pleasure in their skills of rehabilitation, finding joy in the end goal of release and, for some carers, finding renewal in imagery of the object of their cares. While, to varying extents, the creation of suitably 'wild' (that is, human-avoidant) critters is important for their survival following release, in this chapter I also consider the ways in which such emphasis on 'wildness' is also an important defence against the accusations of sentimentality which can be directed towards rehabilitators—particularly towards those caring for critters such as hedgehogs, which have cute, domestic, associations (Lorimer 2015: Barker 2000). Following my own work as a rehabilitator, I attend to the joys, and the overwhelming aspects of this work and consider the sorts of careful distances needed to sustain cares.

1. Hedgehog rehabilitation in the South West UK

There are over 800 registered hedgehog rehabilitators UK-wide, taking in sick and injured hedgehogs, and ‘over-wintering’ those who have been assessed to be too small to make it through hibernation (under 600g seems to be the most common standard for this).¹⁶ The vast majority of care centres are small-scale operations, run by individuals or couples who are signed up with the British Hedgehog Preservation Society (BHPS) and who have the capacity to care for one or two hedgehogs at a time. Other operations, which tend to be run by small teams of volunteers—some of whom hog-care full-time—might easily care for hundreds of hogs throughout the year. Nation-wide there are also dozens of multispecies wildlife centres, all of which offer care for hedgehogs, typically seeing several hundred hogs a year, and some a great deal more than this. For example, the Vale Wildlife Hospital and Rehabilitation Centre sees between 700 and 1,000 each year, and St Tiggywinkles typically sees 3,000. These numbers are perhaps most startling considering the relatively small population of hedgehogs in the UK, which is thought to be under a million. A loose, conservative estimate of 5,000 hogs entering care annually would suggest that, at some stage, 1 in every 200 hogs in the UK ends up in a care centre. Due to memorable injuries or markings, some of these hogs are recognised as returning customers, a reality which might lower the ratio of hogs who have received care. However, while exact numbers are uncertain, it is clear that rehabilitation plays a substantial role in the ecology of hedgehogs in the United Kingdom.

¹⁶ BHPS, personal communication.

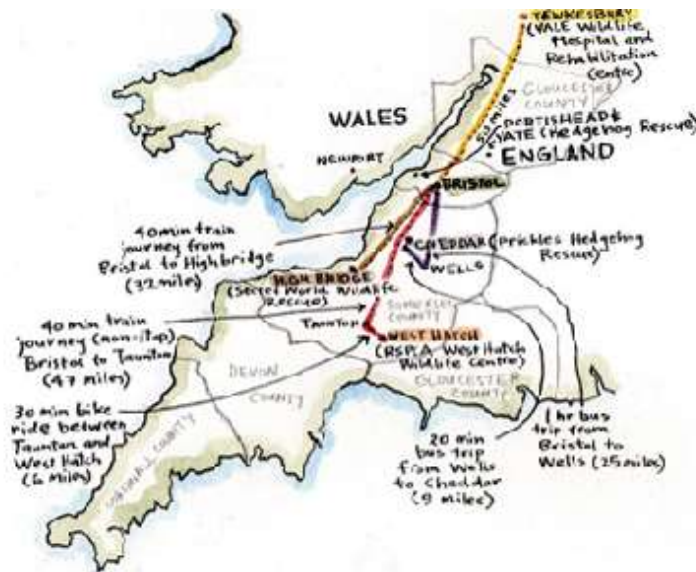


Figure 9: Major hedgehog care centres in the South West of the United Kingdom

Hedgehogs seem to be particularly entangled in networks of rehabilitation. The large number of hedgehog-specific care centres in the UK is rivalled only by bird sanctuaries, of which there are also several hundred. Other species-specific animal rescues are scattered throughout the nation, but at much lower numbers, with fox, badger, bat, seal, otter and terrapin rescues in either single or low double digits. The reasons for such a large number of hedgehog-specific rehabilitation centres seems to be a product of several factors, including British peoples' love of hedgehogs and their willingness to care for them (I have not yet, for example, found a UK rat rehabilitation centre), hedgehogs' propensity to get caught up in things, or hit by things, or cut by things, their apparent tendency "to suffer from just about every infection going", as well as the relative ease of spotting, catching, and handling hogs.¹⁷

While almost all rehabilitation work is done by people without veterinary training, all rehabilitators are required to work closely with a vet in order to be registered by the British Hedgehog Preservation Society. Many of the multispecies rescues have full or part-time

¹⁷ <http://www.valewildlife.org.uk/#/hedgehogs/4539806780> retrieved 10 June 2015.

vets, but people who run hog-only establishments instead form informal but vital relationships with local vets, ideally finding one who will donate their time for free, leaving the rehabilitator to pay for 'only' the drugs. Many of these rehabilitators will have gone through Vale Wildlife Hospital's "Hedgehog Basic First Aid, Care & Rehabilitation" day course—a course fully endorsed by the BHPS (who offer part-funding for those who sign up to be on the national hedgehog rehabilitator list). This course covers much of the vital work of hedgehog caring, including giving injections, analysing poo samples under a microscope, treating parasites, tick and maggot removal, and basic wound care. When hogs are brought to rehabilitators by members of the public, these sorts of conditions are often dealt with directly, using drugs previously acquired from vets for other hogs.¹⁸ For matters outside of this (such as broken bones and complex wounds), rehabilitators will take hedgehogs to their local vet, who will either euthanize the hog (which rehabilitators tend to refer to as being "put to sleep", or, even more commonly being "PTS") or operate and return the hog to the rehabilitator for any postoperative care or on-going treatments. Within all such care, however, an ongoing and active sense of physical and affective 'holding back' (van Dooren 2015a: 14) in order to maintain a sense of wildness or distance has been a major concern of hedgehog rehabilitation.

2. Wild cares: The labours of keeping critters wild

¹⁸ Legally, the question of rehabilitators diagnosing and treating animals with previously acquired drugs is a *very* grey area. It is particularly tricky in that none of the drugs given to hogs are actually licenced for them, so many of the protocols have been established by private rehabilitators, though Vale Hospital's Caroline Gould has been working with her vet to create national standards for hedgehog drug administration. Hedgehog Street are also currently working with Manchester University to try to create an impartial register of care regimes and try to establish national standards of best practice.

For almost a year, I volunteered one day a week at Prickles Hedgehog Rescue in Cheddar, a hog-only centre, staffed by 50 something part-time volunteers and two full-time (but still volunteer) coordinators. During this time, I also spent my Wednesdays for around nine months at West Hatch RSPCA, a large multi-species centre, staffed mostly by paid rehabilitators, but with some assistance from volunteers. Throughout my time in Bristol, I also spent the odd day assisting at Hedgehog Rescue in Yate, a rescue run by a single volunteer out of her home, but which was tied into a network of individual volunteer rehabilitators across the greater Bristol area. None of the centres were open to public visits.

Daily rhythms in the different centres shared extensive commonalities. Each morning, hog crates needed to be cleaned out, hogs weighed, food and water added. Required medications would be administered. In the evening, fresh food and water would typically be supplied. Though West Hatch RSPCA cared for a wide range of wild species, their hog routines were almost identical to Prickles', with the only difference being the style of the hogs' crates and the preferred pattern for laying out newspaper. Throughout these interactions, the concept of 'wildness' guided the respect-distances of rehabilitators' interactions with hog bodies.

'Wildness' as used by rehabilitators was not identical to the wildness which directed the work of champions. In care centres, respecting the 'wildness' of a critter was not only a statement that hogs are not to be contained by humans (though they are confined during rehabilitation). Instead, 'wildness' was used as a reminder that such animals were not to be made tame, that they were not to become comfortable with being near humans. Ensuring that animals to be released would avoid humans where possible was part of an explicit

discourse of safety for both the released animals and for humans. While post-release studies are still relatively limited, with less than 50% of large rehabilitation centres monitoring released animals, the studies which do exist suggest that becoming adjusted to the presence of humans reduces survival rates of all native British mammals (Llewellyn 2003; Mullineaux 2014). Although hedgehogs do not tame easily, hedgehogs who are too bold and relaxed around humans have been found to have significantly higher post-release mortality rates (Morris 1995).

The majority of the deaths of accidentally-tamed animals are due to an increased propensity to be killed by both predators and human-made hazards (Mullineaux 2014: 298; Robertson & Harris 1995; Ben-David et al. 2002; Tribe et al. 2005, Jule et al. 2008). However, tame larger mammals such as foxes and badgers were also killed by euthanasia at veterinary clinics, RSPCAs and other wildlife rehabilitation centres following human complaints about encroachment. While rehabilitators lamented any such deaths, the anger over such outcomes was typically placed on the practices of rehabilitation, rather than on the societal attitudes which rendered 'encroaching' animals killable. As human worlds were often cast as fundamentally dangerous for non-human animals, for safety from both human infrastructure and human values, rehabilitators thus fiercely took up the work of ensuring that animals did not get tamed in care.

For hedgehogs, however, the question of tameness was somewhat subtle. At the care centres I attended, a hog staying relaxed rather than balling-up when handled was generally held to be a sign of both good hog-handling technique and a laid-back, comfortable hedgehog, rather than of a hog becoming tame. Though I never saw volunteers actively encouraged to learn to pick up a hog in such a way (and certainly I never saw anyone be

frowned upon for causing a hedgehog to ball-up), in the absence of anaesthetics (generally only available at veterinary clinics), being able to keep a hog relaxed was typically commended as being very handy for check-ups. However, hogs who had become so relaxed that they never, or very seldom, balled-up were generally considered a worry, though less so than hogs who actively came out to meet rehabilitators. While I never met a hog who did such greetings, rehabilitators had all said such hogs were not fit for release.

The repercussions of such behaviours, however, changed between institutions. Some, typically the smaller, volunteer-based organisations found homes for accidentally-tamed hogs within enclosed backyards, deeming it unsafe for such hogs to roam. Larger institutions tended to have policies of euthanasia, on the grounds that confinement was cruel for a critter who roams widely. While there was, at times, fierce disagreement between those who held these different viewpoints on tame hogs, they agreed that tame hogs were not fit for full release (Mullineaux 2014). In conversations with rehabilitators, a range of reasons were offered for this, with the majority expressing concern that such hogs would be harmed through their lack of wariness. Many rehabilitators, however, were also highly cognisant of the importance of a species' reputation for their welfare in the wild and feared that the reputation and safety of an entire species could be under threat if tamed animals were let loose. During my time at West Hatch, for example, there was great concern over the reputation of foxes as public debate broke out about urban foxes and the possibility they might—or indeed had—harmed human children (Cockerell 2013). Rehabilitators expressed frustration over the feeding of foxes, a practice which tended to encourage them to encroach upon spaces both putting individual foxes in harm's way, while also potentially damaging the reputation of the species.

Additionally, however, rehabilitators' sense of responsibility for releasing suitably 'wild' critters is reflected in legal constructions of responsibility for wild releases in the UK. Under the Wildlife Act (1981), it is held that any animal to be released into the 'wild' must have a good chance of survival. However, perhaps curiously, such animals are also, for all intents and purposes, the responsibility of the 'owner'. These newly domesticated critters are thus also representing their 'owners' skill through their performance (or lack of it) post-release. Such ownership also renders the rehabilitator liable, should the animal suffer unduly or cause damage due to improper rehabilitation.

Upon asking rehabilitators whether it was possible to un-tame such critters, they universally answered with a sad resignation that it was potentially possible, but that methods of re-wilding animals are unreliable. Moreover, considering the limits on resources, it was just too cost-and-labour intensive a programme to undertake (see also Collard 2014 on the violence of 'untaming' wild animals rescued from the pet trade). Rehabilitators thus focused on the work of creating a particular form of 'wildness' to help defend the critters in their care and themselves from social and infrastructural threats.

Straining against connection: 'Fucking cuddlers'

A range of social pressures supported the work of defending wildness. Stories of habituated animals who went on to cause havoc served as regular cautions. Many of these stories were stronger at West Hatch, presumably because the threat of becoming tame is higher for many of the other species cared for at this multi-species centre. Foxes were perhaps the biggest such worry, being notorious for easily becoming tame, but badgers and corvids were also

particular concerns.¹⁹ I heard stories of otters developing a taste for suburban swimming pools or dog baskets, of foxes going into humans' bedrooms, of badgers bold like house cats.

Alongside the cautionary tales and threat of policies for tamed animals, social policing worked to maintain the requirements of wild distances. Few holds were barred in speaking about those who refused the discipline needed to care well for wild critters. At West Hatch one day, a volunteer I hadn't met before was on her final day and came into the prep kitchen to say goodbye to the staff. We somehow all got chatting about a care assistant job available at another wild care institution. "I'd never go there", she said, "they're just a bunch of fucking cuddlers". I laughed for a good while, but alone: the warning was serious, and she elaborated with rumours of fawns being fed in the kitchen, of otters being named and hugged, and badgers sleeping in beds. The woman explained that many of these animals became tame and caused on-going trouble after release or, otherwise, were not released at all but remained captive 'education' animals. Similar threats of social ostracism were present in other centres too: with respect to hedgehogs, unacceptable rehabilitators were those who were "not in it for the animals", a state of selfish caring marked by those who held on to healed hogs for too long, or who unnecessarily cradled the hogs in their care. Such figures represented a similar taboo—that of gaining one's own emotional fulfilment through the animals, and of thus risking the wrong sort of attunement.

Avoiding becoming a 'cuddler' was both a practice that concerned how one interacted with animals and, more generally, how one regarded the critters in one's care. This meant

¹⁹ With young corvids there is also the added worry of requiring an extended period of learning from parents. Several RSPCA rehabilitators expressed feeling very fraught about both not wanting the birds to imprint upon humans, but also worrying about the untutored youngsters who have grown up only in contact with other young corvids. Dave the vet suggested costumes might be used, something like that described in bringing up whooping cranes (see van Dooren 2014b).

discipline. Refraining from unnecessary touching, as well as being efficient in one's routines, required that rehabilitators pre-plan how they weighed or checked or cleaned-out a cage to minimise contact. Curtailing enjoyment of cuteness was also important. At both West Hatch and Prickles, newcomers were easily distinguishable by exclamations of 'aw!' and 'how cute' – phrases which experienced rehabilitators rarely used. Though old hands were also clearly often charmed by the critters they worked for, they tended not to gush, but rather to show their appreciation in quiet smiles and pointing. While some of this reticence is surely borne of familiarity with the charms of wild critters, for me such reticence largely grew out of fear of being labelled a cuddler. As other newcomers and I settled in, we learned the coolness of taking the cuteness and charm in our stride, as well as learning to pick the moments in which such charms can be safely, momentarily, enjoyed. With naughty faces we might show one another a particularly charming critter, a baby perhaps, or a hedgehog sniffing about, but it is rare and risk-assessed. Our sheepish faces show that we know we are pushing it, that we must be quick and not make a habit of such enjoyments, as nice as such moments are. With time, I found myself actively policing these boundaries, becoming uncomfortable and slightly aloof if a new arrival got too excited about the cuteness. I might nod or smile but with little warmth and, instead, direct us back to our routines, to the procedures of creating viably wild animals.

Both social pressures and concern for the outcomes for rehabilitated critters added up, for me, to an intense need to avoid accidental taming. At West Hatch, the second wing of the concrete-blocked intensive care unit was often occupied by badgers and foxes, and it came to terrify me, not because of the occupants themselves, but because of the threat of habituation. On one of the few days I was in that ward, helping an expert rehabilitator, Roz,

in cleaning out badger and fox pens and putting fresh food in for the cubs, one of the foxes wagged her tail in our direction. “Oh no,” Roz said, quickly shutting the door on the fox cell. “I hope that wasn’t at us.” She grimaced as she pulled the little window on the cell closed, “we’ll need to keep an eye on that”.

Suggesting such threats worked, I never met a tamed hedgehog and, upon asking about it, the general agreement was that only hogs reared from a very young age and/or those who had been handled a great deal tended to behave in such ways. Rehabilitators have explained that, although it is very difficult *not* to tame very tiny babies, with limited handling time, and through restricting contact to only one or two rehabilitators, taming can be reduced. For comfort, baby hogs were either kept in their litters or put in with other hogs the same age. One of the few hoglets I’ve ever heard of being raised successfully from birth *did* become tame, running to see her rehabilitators when they arrived in the room, but this did not seem to extend to any other humans. Indeed, around other humans she was apparently particularly wary and huffy. Her rehabilitators hoped that this friendliness would remain limited to only them: and she was released but, with no follow-up monitoring, it is unknown how she fared.

Umwelt distances

Not all distances of wild caring, however, are borne of human rehabilitators straining to hold back. Asking one RSPCA rehabilitator whether she found it emotionally difficult to maintain distances from animals, she laughed, explaining that there are plenty of animals you wouldn’t want to hug, animals who would happily take out your eyes. Even rabbits, someone explained later, can leave nasty scratches—you want to keep yourself safe.

Thinking back to my RSPCA induction day, the need for self-protection was emphasised from the outset, both through the need to be mindful of one's physical movements (learning skilful ways to manoeuvre around, avoid and restrain animals where needed) and, more applicable for hedgehogs, through habits of hygienic distances, such as rubber gloves (or latex for the allergic). At Prickles, the fear of contracting ringworm also helped to keep any desire to hug hedgehogs at bay. So too did seeing the stress that one's attention causes most critters in rehabilitation. The desire to keep animals as stress-free as possible also leads to keeping contact limited; for the vast majority of critters in care—except for very tiny babies—contact with humans is a major cause of anxiety (Mullineaux 2014). Most hogs I cared for frowned or balled-up at my attentions. While I became somewhat used to this—a feeling different from my backyard interactions in Aotearoa/New Zealand, where such responses from hogs had caused me distress, it did encourage me to keep my bothering of hogs in rehabilitation to a minimum. The distances of caring are thus a product of fraught negotiations of several intra-acting concerns, including what is hoped to be best for the critters in care, for rehabilitators and for society (and social norms) more generally.

Skilled rehabilitators came to embody a fraught negotiation of needs in their handling of critters, somehow learning to avoid taming while also keeping animals at ease. Somehow attuned to multiple species of critters, rehabilitators enacted Despret's 'miracle of attunement' (2013) with polyglot brilliance: hogs relax and travel, uncurled, in skilled rehabilitators' hands, pigeons calmly accept food pushed down their throats, and rabbits are scooped from their cages for weighing without anyone needing to panic. June laughed as I commented on her abilities with hedgehogs. She suggested that perhaps their calm was just because she smelled like them. A multi-species rehabilitator commented about the

strangeness of it all, that somehow you learn how to handle each species so that they stay relatively relaxed, even though you couldn't actually explain what you are doing, except that you just want the animals to not be stressed. It is as if rehabilitators' bodies are somehow able to communicate to the animals, you are safe, but we are not friends. In such moments, though rehabilitators are not entirely aware of *how* this connection works, interspecies communication takes place: an attunement of animals and humans which is as comfortable as it can be while still maintaining detachments (Lestele et al 2014: 135; Ginn 2014; Candea 2010, 2013),

There are some critters, however, who seem to reinstitute their own distances, lessening the need to maintain such distances in handling. Squirrels, one rehabilitator informed me, will drink from a bottle and even cuddle you until they reach a certain point, and then *bam!* they are wild and liable to bite. Otters, too, will apparently aggressively demand their independence during adolescence, but the possibility for later too-intimate contact with humans lingers; there is always the worry that they will end up in someone's pool. Other distances, however, are those of incompatible *umwelten*. I find it hard to even imagine quite how a hedgehog would become fully tame when there are such disjunctures between hedgehog and human bodies. As discussed in Chapter 1, the distances are many, with humans' often highly-visual and relatively smell-poor worlds making for only very partial connections with hedgehogs' scent-dominated *umwelt*. Hedgehogs will not show obvious interest in the comings and goings of rehabilitators (on which the seals and corvids are fixated and *from* which badgers and foxes must be kept from caring, at risk of death). However, they will investigate new scents, be they rehabilitators' hands, new newspaper or a mysterious scent on the air that I repeatedly fail to make out.

At times, such distances meant that adult hedgehogs could be interacted with in ways other critters couldn't, without fear of taming. On a spring Thursday morning at Prickles, I happened to be wearing my shabby old blue dress which had been the object of Biggie's attention back in Aotearoa/New Zealand. A long-term student lifestyle meant I had a very limited wardrobe, so the dress had come with me on fieldwork and, mysteriously, for the second time, became an object of interest for a hedgehog. Wobbly was a hedgehog who had been over-wintered in an enclosed back garden following a probable car accident which left one side of her body very frail (causing her to wobble when she walked, hence her name). She had been brought back into care in order to strengthen her weak side, and each day she was given half an hour to walk about under the eye of a rehabilitator, who was to stop her from hiding under the shelving and keep her moving. It was an unusual job for a rehabilitator, but rather a lovely one. The previous week, Wobbly had, as usual, largely avoided me. However, this day, Wobbly made a bee-line for the old blue dress, chewing enthusiastically and then self-anointing. Whether it was coincidence or there is something intriguing for hogs in the warp and weft of the dress' cheap synthetic fibres, I don't know. Much seems to be lost in translation.

This strange tendency of hogs to blithely go for smells was not framed as a sign of tameness in any of the centres I worked in. Though it led to close interactions, it was just considered to be one of the strange things hedgehogs do. This propensity to be attracted to the strangely scented, however, does seem to be a major killer: hedgehogs will actively seek out poisons to chew and self-anoint. While this may lead to hedgehog deaths, it is not framed as something for which rehabilitators are responsible. Instead, it is just part of the unfortunate risk of being a hedgehog in contemporary times.



Figure 10: Wobbly's mysterious attraction to something about this old blue synthetic dress. Enthralling and gappy.

While hedgehog-human *umwelt* distances are generally a boon from the point of view of maintaining requisite distances, at times they also made hog care lonely. After I'd been at West Hatch for some months, I noticed that several hogs seemed relaxed and didn't ball up as I lifted them out of their plastic crates. My body, it seemed, was perhaps learning how to handle hogs. One little hog was particularly delightful and nestled into my green RSPCA lab-style coat as I picked her up. She was still only 700 grams, despite having been at West Hatch all winter; many of the other hogs were starting to top 1kg. After cleaning her crate and putting in fresh water, I retrieved the little hog from her cardboard carrier box. She snuffled up at me, her black eyes looking shiny and full of life, and I could feel the softness of her belly even through my latex gloves, an illicit, intimate thrill. With warm, grateful feelings toward the little hog, I placed her back in her crate and she gently pushed into her new pile of shredded newspaper. I found myself wishing I had some way to communicate my fondness and appreciation, but my dog-and-human-shaped gestures of pats and warm tones and games would do little for this hog. And such interactions were not in accord with wild policy. Neither was my slightly extended holding of her. Usually the hogs, for whom 8am is prime sleeping time, head straight back to bed. However, she stayed restless in her crate and continued to rustle about, even after I'd cleaned and weighed several other hogs. I now read her extended snuffling as a potential sign of distress. However, at that early stage

in my caring, I was secretly happy that I could potentially make some sort of an offering to this charming hog. I double-checked with Livvie (the staff member covering the ICA wing that day) that the right action for a restless hog would be to give her some mealworms to calm her down. She wasn't over-weight, so Livvie confirmed that this would be fine. However, the hog ignored the mealworms, my gift somehow missing its target. Eventually, her rustling died down, and I assume she went back to sleep. I was left with an odd aching feeling of distance.

3. Revolutions forestalled: shame and quarantines of care

Practicing wild-distances in rehabilitation work serves the important—if fraught and problematic—task of discouraging critters from becoming problematically comfortable with human contact. However, in orienting care around the notion of 'wildness' rather than compassion, rehabilitators attempt to evade framings in which to care for animals is seen as suspicious, sentimental and disturbingly feminine (McDonell 2013). The framing of animal care work as sentimental is part of a long history of the gendering of cares, in which rationality is reserved for those attachments framed as 'masculine' (Molloy 2011). In order to align their practices with the apparently 'objective', masculinist, mode of conservation science, it is not sufficient to 'merely' have best and most rigorous practice. Instead, within a dualist logic widespread in the Western world, rationality is held in opposition to emotion (Molloy 2011: 27–28). The 'creation' of such objectivity thus requires silencing embarrassing affections (Puig de la Bellacasa 2011: 97). However, in doing so, just like the sciences more generally (Haraway 1997: 26; Latour 1993), rehabilitators obfuscate the compassion and attachment at the heart of their labour.

Other rehabilitators go further than muting affect and practices of distancing in order to detach from accusations of sentimentality. Instead, many rehabilitators frame their work as being fundamentally about undoing the work of human harms—this labour is pitched as ‘natural’, thus avoiding the need to consider the specific attachments at the heart of such work (Latour 2004). Throughout the Vale hedgehog care course I attended, Caroline Gould, manager of Vale Wildlife Hospital, emphasised that animals do not *need* humans and that, rather, human rehabilitators are only needed in order to counteract the damages we cause or, as she comments on the hospital website:

Some people say that injured wildlife should be left alone, we shouldn't interfere but should 'let nature take its course'. That would be a fair comment if the problems encountered by our wildlife were 'natural' but very few are, and I believe we have a duty to try to put right the damage that we are doing (Gould 2015).

In this way, such framings address the criticisms of hog care from some ecologists who express concerns that care paradigms may create a notion of hedgehogs as dependent, neglecting the millions of years that hedgehogs have been doing just fine without human assistance. This also places rehabilitation in a natural/wild/rational framework, not a labour of compassion or concern for suffering. A recent survey of animal admissions suggests that, indeed, there is some truth to this framing of rehabilitators doing the work of human damage, in that around 40% of hedgehog admissions are due to harm from human-made threats (Mullineaux 2013: 293). However, much wild animal care, *is* about kindness, about being unwilling to watch an animal suffer, regardless of the cause of the suffering. There are many cases of hogs in rehabilitation for reasons that aren't directly due to human forces, such as hoglets of a late litter who wouldn't make it through the winter without intervention or putting an old sick hog to sleep rather than have it be eaten by maggots or pecked to

death by birds. However, ill health and accidents caused by human-made poisons and hazards and depletions really do seem to be the greatest cause of hog problems, with even apparently 'natural' illnesses, such as ringworm and lungworm, being linked to the low immune systems of malnourished hogs, with malnourishment typically being due to hogs having insufficient areas in which to forage.

But even when rehabilitators manage to tie their work into notions of caring for the wild, there is still suspicion of care work. While those who know marvel at the skill and dedication of rehabilitators, an idea of loneliness, or strangeness as a cause of hog (or other animal) caring, particularly private, home-based cares, abounds. Some rehabilitators have embraced this, referring to themselves as 'mad' or the 'crazy hedgehog lady'. These are laced with notions of hedgehog rehabilitators as powerful witch-women on the edge of society, with knowledge to heal and to harm. This calls back to the old images of hedgehogs as the intimate others of witches, and certainly there is something mysterious about these (mostly) women who travel to or receive hedgehogs at night (and day) and with whom hedgehogs magically seem to relax. Many stories around hedgehog rehabilitators do carry such awe—particularly from people who have actually had contact with rehabilitators. Champions express deep gratitude for the skill and commitment of rehabilitators, and relief at being able to pass worrying hedgehogs into infrastructures of care.

But such sentiments are often paired with deficit tales framing rehabilitation as work done by people motivated by loneliness or searching for meaning and capturing it in hogs. There is a sense that close relationships with other-than-human animals are in some way an indicator of inadequacy and that, facing an inability to form relationships with other humans, such people turn to other-than-humans as substitutes (Charles and Davies 2008).

Rehabilitation work is at times framed as a result of “abuse and breakdown that seems to lie at the heart of this transference of care from humans to animals.” (Warwick 2010: 140).

Notions of care for animals as a pathological replacement for human relations runs through care worlds, even as rehabilitators carry out the disciplined, hard work of caring. One day as we were cleaning cages, one dedicated volunteer mentioned to me that she and her husband weren’t able to have kids and commented that maybe that’s why she’s such a wuss about animals. While she may have a point, in that not having grandchildren may have left her with more time and free cares, this sort of argument also relegates care for animals to something less than care for people and dismisses the disciplines and skills of care work as a way of meeting one’s unmet desires to care. “I’m just stupid/pathetic about animals” is an apology which emerged again and again from rehabilitators working at care centres throughout the country, as if one’s love for animals, and moreover, one’s skill in caring for them, somehow needed to be justified, or even apologised for. Rather than being gifted with empathy for animals and the patience to do the day-in, day-out grind of animal care work, rehabilitators become, even to themselves, framed as being defective or somehow suspect in their tendencies to care. This was particularly present among rehabilitators who, while observing the requirements of keeping hedgehogs ‘wild’, framed themselves as ‘carers’, doing their work out of compassion rather than as being part of the work of wildlife conservation. While similar apologies were not made by male rehabilitators, thus suggesting a link to women’s tendency to over-apologise, it was not present in my interviews with female ecologists or volunteers who framed their work as existing within the realms of biodiversity conservation.

And yet, caring certainly can give meaning to one's life. At the Vale day course, I got chatting with a woman from Yorkshire about caring for hogs. I had mentioned my research at the start of the day and, during a break, unprompted, she leaned over from her seat in the row in front to tell me that hedgehogs had given her life its purpose back. She then turned to her husband and said, "hasn't it?" He nodded warmly and agreed that she had become a different person since she started taking in the hogs. Others said that they began their rehabilitation work while looking for something to get involved in after they retired. While many rehabilitators *are* in a stage of their lives where they do have the time and energy to offer such cares, caricatures of carers as people merely at a loose end dismiss the skill and commitment needed, and the extent to which being relatively free of family is oftentimes a prerequisite of being *able* to take on the significant commitment of which care work entails.

There is, however, perhaps a deeper challenge here, that of acknowledging that, it is our attachments to the world which give life meaning and, should we happen to hold independent universalised subjectivity as an ideal, such cares are always a little embarrassing in their contingency (Butler 2014).

Radical cares

Caring is more than an affective-ethical state: it involves material engagement in labours to sustain interdependent worlds, labours that are often associated with exploitation and domination. In this sense, the meanings of caring are not straightforward (Puig de la Bellacasa 2012:198-9).



Although, in the UK, hedgehogs seem to be loved by people of all backgrounds, it is people on pensions and benefits and working-class incomes who seem to do a good deal of the precarious funding of hog-care operations. In this way, hedgehog care is in line with

many other forms of care work in which “the working class bear the greatest burden of providing care, while at the same time possessing fewer material resources to aid them in the task” (Arber and Ginn 1992: 619). None of the rehabilitators I’ve met is obviously rolling in wealth, and there are many stories of care centres closing down because there was just not enough money to keep going on. During the course of my fieldwork, one care centre closed because the death of a partner—and subsequent loss of his old-age pension—meant the operation couldn’t afford to continue. However, months after the rehabilitator had declared her centre was no longer operational, she was still taking in hogs found by local people who couldn’t get them to a rehabilitator further away. Somehow she managed to scratch together the funds for the hogs’ food and shelter and medication. For all the moments of joy, I have increasingly come to think that there is something more to the question of who does the mundane work of critter care. Despite new ‘green and black’ initiatives kicking off in Bristol (Green and Black 2018), rehabilitators were almost uniformly white, reflecting, as noted in Chapter 2, the ways in which active engagement with the natural world is deeply raced and exclusionary in the UK. There were also few rehabilitators from affluent backgrounds: while apparently wealthy folks at times dropped off hedgehogs for rehabilitation, sometimes leaving donations with the critters, they did not stay, always seeming to be busy with other matters.

Rehabilitators are tied into the bluster of industrial capitalism, operating within it, while also cleaning up after it. I met Beryl, a highly experienced hedgehog rehabilitator in her early 70s based in Portishead (which is now part of the Western outskirts of Bristol) when I found myself out of my depth while filling in for a local rehabilitator and called across town to Beryl for help. As I talked with her over the following days about my own

short experiences of caring, Beryl summed up the position of rehabilitators with what I now know to be her characteristic frankness: “All we are doing is trying to clean up the mess made by all the fucking developers”. She apologised for her language but continued, passionately railing against these people who, as she said, seem to not want to leave even a single blade of grass alone, not if they can make a buck off of it. If she had her way, Beryl concluded, greed would be outlawed.

While other rehabilitators may not be so outspoken, or necessarily share Beryl’s politics, they do share in occupying a position of patching up hogs who are struggling in an increasingly built-up world. I find myself wondering what it is to be a rehabilitator rather than a revolutionary, what it is to patiently deal with the fall-out, to commit oneself to lightening the load on some of the oppressed while operating always within those worlds of oppression (Mol, Moser and Pols 2010). I find myself thinking of the little Disney/Pixar character Wall-e, a ‘Waste Allocation Load Lifter Earth-class’ robot who quietly, seemingly hopelessly, keeps on with his work of cleaning up the messes of humans. Rehabilitators similarly tidy up after the structural violence which creates the need for such cares; the broken-down hogs, struggling with parasites and developments and too-small habitats aren’t left to die out in the open, where their public deaths might make it a little less easy to ignore the destruction of local wild worlds. But the suffering of each of these individual spikey bodies calls loudly to rehabilitators, and hogs are gently collected and put to sleep quietly or healed for now at least and returned, even while their habitat in so many (but not all) places shrinks and deteriorates. While, as noted in the following chapter, some work by hedgehog champions is beginning to challenge the ways in which developments are

progressing, very often it seemed that rehabilitators were so resource-strapped that there simply was not enough energy to address such structural matters.

Yet, at the same time, I am unwilling to dismiss caring as exploitation. The craft and disciplines of it seem to animate whole worlds which simply don't fold down into easy tales of domination and structural violence, though they are of course entangled with such forces. After some months as a volunteer rehabilitator, struck by the hard disciplines of the job, I launched into a diatribe with Roz about how awful it was that so many professional rehabilitators were doing it so hard, doing jobs requiring such skill and bravery and tenacity, and yet without either the respect or the wages such work deserves. I hadn't even started on the hardships volunteer rehabilitators face, but Roz stopped me mid-flight: "But is it money you really value? Surely there are more important things?"

Though I was tempted to write off Roz's comment as a justification of the undervaluing of 'feminine' labours and 'vocations', a sort of make-do-and-mend approach to living with the rough lot of being a rehabilitator, I've found myself returning to it, again and again, challenged to take seriously the radical potentials of caring. Here, in the face of needy bodies, ideas of making money seem both irrelevant and offensive. There is work other than making money to be done, urgent and deeply rewarding work of caring for the little spikey (and furry and feathered and other) bodies who emerge, wobbly in the daytime, or caught up in netting, or dragging a limp little leg behind them as they cross our evening backyards. The responsibility-burden-joy-life of carework holds values that refuse the logics of accumulative capitalism or ideals of homo economicus-type supposedly-rational economic action. Hog bodies ask for more. Here, as rehabilitators become bound up in the lives of hogs, hedgehogs emerge as new, strange kin. I find myself imagining a new human

world, populated by humans who have become-with others, by bat-people and frog-people and hedgehog-people and the people of the meal beetle and worm, of humans bound to other species, entangled with their futures (Haraway 2016).

4. Keeping on: Wild sustainable cares

Adequate care requires knowledge and curiosity regarding the needs of an 'other' —human or not— and these become possible through relating, through refusing objectification (Puig de las Bellacasa 2011: 98).

At the West Hatch wildlife RSPCA, the challenges of wild caring were made conveniently stark by the presence of the RSPCA domestic animal centre just next door. The two centres were joined by a shared tearoom, and some of the animals on the domestic side, particularly the dogs, could be seen as we walked to and from tea and lunch breaks. The wild rehabilitators I worked with expressed appreciation of the importance of bonding with critters in domestic care (some noting with admiration the strength needed to survive the necessary tug of relating and connecting, and then letting such animals go when they get adopted or, perhaps, put down). I found myself envious of domestic rehabilitators' freedom to play with their wards, and freely told them so. Several domestic rehabilitators replied that they didn't know how the wild rehabilitators were able to do the work they do, how they manage to keep on caring when they get so little back from the animals in their care.

Domestic animal care, by contrast, *requires* the creation and maintenance of the sorts of warm relationships which are necessary if these animals are going to find a home and survive. Forging these sorts of relationships takes great skill and care and attunement, yet these same vital intimacies also sustain rehabilitators, providing the sorts of "affective encounters" which are a great help, though offering different challenges, in getting through the everyday exigencies of caring for others (Parreñas 2012; Hua and Ahjua 2013). In the

wild centre it is well-known that not everyone can handle caring in the absence of such relationships, and many rehabilitators who start out in wild care end up looking for work with domestic animals, precisely because of the loneliness and frustration of caring for animals who must be encouraged to behave within this particular framing of the 'wild'.

In coming to learn something of the craft of disciplined wild-caring, I have become increasingly interested in how people are able to keep on caring without the sorts of ownership and connection which seem to sustain so many other cares (Parreñas 2012; Hua and Ahjua 2013). How do rehabilitators and critters both get their needs met? What sorts of creativity and abstraction—even moments of objectification—might be needed to keep on caring well?

Forceful cuteness and keeping one's cares together

Despite the many ways in which affection and cuteness-appreciation are banned for hog and other wild rehabilitators, I increasingly see such experiences as, in many ways, vital to sustaining the sorts of distancing cares that rehabilitation demands. When I first arrived at Prickles, I was intrigued by the apparent disconnect between the images of hogs dotted around the place—typically adorable, smiling, flower-toting and/or apple-swagged hedgehogs—and the detailed, attentive, practical knowledge people had of the actual hogs in their care. As time went on, though, I was surprised to find that the figures were a real help in the work of sustaining cares. Several times, feeling drained after cleaning the crates of hog after hog without a thank you or even a nod or possibility of a hug from these little spikey folks, I felt my dwindling cares be actively renewed while looking at one of the charming hedgehog caricatures in the bathroom at Prickles. Particularly images of the

pensive, lost hedgehog genre seem to, without fail, re-stitch my cares for hogs (Figure 11).

Here, hog imagery becomes part of the infrastructure of sustaining cares.

There is, however, something embarrassing about feeling tricked into caring by paint and poetry, as if one wasn't grown up enough to distinguish story from reality. Such affections play into stereotypes of rehabilitators as being sentimental projectors (McDonnell 2013). I feel this shame even though I am convinced it isn't ever possible to separate story from reality and that, rather, reality is fundamentally storied indeed (Haraway 1997; Latour 1993). Here, though, I cannot happily smuggle my cares back into the objective. Instead, I am somehow exposed as the made, attached, contingent subject I am.



Figure 11: Rejuvenating objectifications? A sketch inspired by the sort of pensive Hedgehog-in-the-Fog (Yuriy Norshteyn) type figure who helps keep my cares together

Rejuvenation from cuteness was not something which all cares allowed themselves. While some rehabilitators have homes filled with hedgehog figures (though oftentimes this is a product of people buying hedgehog-themed gifts for their hedgehog-caring friend, rather than the rehabilitator's own work), other rehabilitators resist the cute, in any of its forms. As noted earlier, I've heard a version of "caring needs to be about the hedgehogs, not about your own needs" from almost all rehabilitators, and some would see revelling in cute hog images as crossing such a line. But our human bodies have needs of their own, and we must find some way to sustain our cares if we are to love others well. I wonder about this generally, the ways in which we might supplement our cares for others in order to meet our

own needs while not making inappropriate demands on the other. Although cares for some species aren't so easily translated into notions of cuteness, as Jamie Lorimer (2006; 2019) has noted, there are multiple forms of other-than-human charisma, all of which play out within particular social worlds. A hedgehog carer in regular contact with a host of other rehabilitators, laughs to me one day about the ways in which different perceptions of animals influence who cares for them. In particular, she argues that a higher proportion of men care for birds of prey, getting off on the sexy, masculine image of such critters.

Hedgehogs in care seem to be almost always numbered rather than named—largely for ease of tracking but I wonder, whether, to some extent, this is to ward off accusations of sentimentality. However, occasionally a particular 'character' such as Wobbly was identified in ways which help along the everyday work of caring. Pumpkin was another such hedgehog at Prickles. Pumpkin arrived with no spikes due to a skin infection and soon became a minor celebrity, with several reports in the South West, and even making it onto national television. The most-commonly told story about Pumpkin, was when he continually bit the presenter of ITV during a live report until he asked Jules, the founder of Prickles Rescue, if she would please take him back (ITV 2014). Rehabilitators, even those like me who never actually met Pumpkin, tell the story and laugh raucously, demonstrating as it also does the quiet skill of experienced rehabilitators. Kathy Rudy talks about the importance of the stories which chimp rehabilitators tell about their wards, about the sorts of "affective connection constituted by the stories we tell about chimps, by our affection for them and theirs for us, and by the various ways their characters inspire us" (Rudy 2011: 18). The requirements of wildness mean that the stories told about hogs are not so much about hog-human affections, but, nonetheless, they simply operate to maintain and enliven the

work of care. Such stories tend to be funny or sad tales of hog foolishness or bad luck. We create hedgehog characters to check in with, topics of intrigue to ask after next time we are working—like our own little soap opera, built on the imagined personalities of the hogs which, more often than not, reflect their medical conditions. We ask one another how Wobbly is doing, laughing at her eccentric ways, or Berny, who somehow recovered from being burnt horribly in a bonfire and whom we frame as brave, and a little trooper. I am never sure how much these stories miss of the actualities of hogs in our care. But they help maintain the fun and spirit of caring, forging a comradeship amongst rehabilitators in what can, for all its moments of wonder, at times also be a dreary, repetitive, job.



Figure 12: June not being bitten by Pumpkin, Nov 2014

There are, however, other surprise pleasures in hog caring. Asking experienced rehabilitators at various centres about how they kept it together, many said, typically shyly, that there was a real pleasure in *knowing* animals, that when people call up about an animal, you know you can give good advice, and that you can both put them at ease and do the best for the critter. At the RSPCA, one rehabilitator tells me how good it feels knowing that when

a drooling pigeon comes in you can tell, at five metres, that it has canker. An independent hog rehabilitator explains the satisfaction of knowing one has the skill to quickly examine a greenish hedgehog poo under the microscope, identify the coccidia oocysts and get it straight on a course of Tribissen. Another tells me of the satisfaction of knowing how to hand-feed an infant hedgehog, balancing its need for warmth with the need to maintain wildness, ensuring it gets enough to eat but that its lungs don't over-fill, knowing how to handle it so it survives.

The pleasures of the crafts of care, however, are also sometimes the subject of ridicule. Outside of care-worlds, I have occasionally heard ecologists refer to hedgehog rehabilitators as 'joyful jabbers'. However, there *is* a satisfaction in learning to inject well, one I came to feel through learning to inject Synulox, a very effective antibiotic which, because of the thickness of the fluid, the fineness of the needles used on hogs, and the general stinginess of the fluid, takes some focus to inject successfully without causing discomfort. But seeing the difference it makes, learning to inject so that the hogs don't seem to mind, is a powerful tie into care and responsibility.²⁰

Other rehabilitators told me it was the releases into the wild that kept them doing the work—both physically going out when animals were released, but also holding onto the idea of the end goal for all this labour: getting animals back into the wild. Vickie, the RSPCA's hedgehog expert, explained to me that you must be wildness-oriented in order to

²⁰ The effectiveness matters. There are few antibiotics which are available to wildlife, and Baytril, the most commonly prescribed is good (and thin, making it easy to inject), but doesn't work for all hogs, or all conditions. Synulox is a broader spectrum antibiotic and seems to work well with most hogs. Marbocyl is like gold but, in the face of increasing antibiotic resistance for various conditions among wild animals, rehabilitators are under increasing pressure not to use it in order attempt to maintain it as an effective treatment.

make it as a wild rehabilitator, that it is vital that you really are excited about critters being independent, rather than secretly wanting them as pets, because the animals you're caring for are always going to hate you a little. And so they should, she added—you hurt them, you keep them locked up. She said for her, seeing really healthy wild animals is a major source of joy. Indeed, Vickie helped me to share this joy. She had told me before that healthy hedgehogs—those who had come directly from the outdoors, not those brought up in care—smell of a strange yet enticing mixture of tobacco, gasoline, and leather. A scent of the wild, as she described it. One day at the RSPCA, I saw a sign on the crate I was due to change that the hog inside might be pregnant. Worried that the hog might have already had her hoglets and that I might accidentally disturb things, I called Vickie to take over the cleaning of the crate. Opening the crate and gently pulling back the shredded newspaper, Vickie took one look at the hog and gushed, "Oh what a perfect hedgehog!" She turned to me and said, with a conspiratorial smile, "I'll bet she has the smell." After checking that, indeed, there were no babies, Vickie picked the hog up and sniffed. "Smell her, *that's* what I'm talking about," and she passed the hog to me and I could smell it—the tobacco, gasoline and leather smell, a strange, wild smell which somehow exuded health and robustness. A reassuring, strangely joyous scent.

Getting care-free: Sustainable detachments

But, even here with one's cares aligned with the goals of rehabilitation, it is difficult, emotional, work. The hedgehogs still die, and things get overwhelming and threaten to take over seemingly everything. My first long weekend filling in for a solo hog rehabilitator demonstrated to me the potentially overwhelming nature of this responsibility. I found

myself overloaded with a ridiculous mixture of love and amusement, exhaustion and gut-level anguish at these little hogs who had found themselves in my temporary care.

When I arrived into the tidy shed where each of the seven hogs was housed in individual rabbit cages lined with newspaper, polar fleeces and heat pads, one of the hogs looked flat and had raspy breathing. He didn't seem to respond to the subcutaneous fluids or the vet-prescribed injection of Baytril (a standard antibiotic) and the steroid Dexadrosson. After attending to the other hogs, he remained flat and listless, so, not knowing what to do, I called Beryl asking for advice, and, at my request, she drove the 40 minutes across town to pick him up. As I wiped over the eye of another hog, this one with an eye infection, I noticed pus seeping out of her cheeks, so I flushed out the wound with saline solution and found more and more pus coming out of her head. Though it didn't smell and she was eating well, the wound seemed so much bigger than I had thought. The notes on the hog said the vet was waiting for the infection to go down before he would put the hog under anaesthesia to find out what was going on with her closed-up eye. And so, hoping the antibiotics would do the trick, I continued with the injections and cleaning the pus from her cheek twice a day. Beryl arrived to pick up the listless hog, and my relief was immense, but also guilt that I had added a greater load onto her work, as she was already covering the needs of hogs on the other side of town.

Over the rest of the weekend, as I cleaned out hog crates and administered medications to the other 12 hedgehogs, the phone rang again and again with people needing help for unwell-looking hogs in their backyards. Although all I had to do was pass them onto others who had pre-arranged to take such a load from me (as I do not have anything like the knowledge to do hedgehog triage), I found myself overwhelmed with the

responsibility of it all. On the Saturday night, back at home, I called Beryl to check in. She informed me gently that the raspy little hog had died, fading off in his sleep, despite the Marbocyl and fluids and care she'd given him, and despite the fact he'd made it through the night, which had seemed hopeful.

"This is your first hog to pass, isn't it?" Beryl asked, gently.

"Yeah", I responded,

"Well, the first thing is you've got to know you're not God. Sometimes, they're just going to die, despite everything."

On the Sunday night, after feeding and medicating the other hogs and bathing the pus from the infected hog one more time (and offering her just a bit more of the premium vet AD cat food), I made it home in the nick of time to meet friends to see a Sunday-night play by Christopher Brett Bailey called "This is How we Die". Described as "a motor-mouthed collage of spoken word and storytelling... a prime slice of surrealist trash, an Americana death trip and a dizzying exorcism for a world convinced it is dying...", I spent the first half hour both thinking about the hogs back in their crates (two of whom were not looking well, with raspy coughs), wondering whether my injections of antibiotics were kicking in, and furious at the play, with its suggestions of accepting death and decay and just going with the destruction of it all—a dismissal of everything I had been fighting for that very long weekend. But then, as the play ramped up, Bailey imagining himself as a bird hurtling himself into the turbines of a jumbo jet, I found myself all of a sudden open to the possibility of *not* caring, of just letting it all die, and was surprised to start feeling waves of relief which built along with the music so that, by the play's end, as Bailey and three other musicians

performed a death metal finale so loud that a good third of the audience of 40 or so left the small theatre, I found myself feeling transformed, hard-hearted and liberated. Fuck it. Who cares. We'll just live in garbage and just not give a fuck. I felt insane, but kind of good. Free from the emotional and physical commitments of caring. Some apocalyptic version of becoming care-free.

The next weekend, however, after a week of tears, and good chats with Yvonne during which she, like Beryl, would tell me that importance of seeing that death is part of caring, I found myself involved in a hedgehog awareness day with Yvonne, again making clay hedgehogs and little hedgehog masks with children. Slowly, while moulding little clay hogs, I found myself starting to re-stitch quietly, coyly, as I experimented with feeling-through the sorts of cares I might be able to sustain. I rolled the clay, stuck in little bits of spaghetti for spikes and then helped visiting children do the same. And gently, quietly, I felt myself mend and reopen back into the possibility of caring.

While I would return to active conservation work and find both a balance and rhythm which worked for me, the threats of caring, the deathly weight of un-checked cares, and the apparently liberating possibility of not giving a fuck has remained. Such "fuck it" responses, however, are perhaps not really the lack of care they initially seem to be. This moment instead felt like a necessary recalibration, "an excess of care, an inability to keep caring so much about something that one cares so much for, especially in the face of seeming hopelessness" (van Dooren, pers comm). Sharing my thoughts with rehabilitators later, they explained, warmly, knowingly, that I had made a novice mistake, that, instead, it's vital that

you hold a little of yourself back, keep something in reserve, lest such a thing happen.²¹

Though you do your best and have some remarkable successes, critters you care for will die and you can only do what you can. Carers come to hold themselves in a balance of commitment without complete attachment to the outcome of their caring. Thinking with Lauren Berlant and Sara Ahmed, Eben Kirksey notes that “[m]aintaining optimism, as loved animals or entire species die, involves difficult emotional and imaginative labor” (2015: 66). Those rehabilitators who keep going, who keep the cares together, are doing the continual emotional labour of balancing engagement with critters in care with the maintenance of vital detachments. The sense of holding back, it seems, does not just protect hogs, but also rehabilitators. Increasingly, and returning to the use of ‘wildness’ by hedgehog champions, I’ve come to think of this as the work of sustaining a vital wildness in rehabilitators themselves, allowing a little something to be neither caught nor tamed by the work of caring. I imagine the fledgling room in summer at West Hatch when, during feeding rounds, rehabilitators wear builders’ ear muffs to drown out the calls of the chicks—the “feed me, feed me” from which protection is needed from both the pure decibel force of the cries as well as the wrench of ones’ own heart in the face of so much urgent need, a physical pull which seems to threaten to draw oneself out of one’s body. Experienced rehabilitators develop the knack of holding back from this pull, even without the ear muffs. Maintaining some distance, it seems, is a vital part of keeping on going.

²¹ *Pride*, a film about striking Thatcher-era Welsh miners and the unexpected support they received from a group of gay and lesbian activists helps me to think this might just be a requirement of caring more generally. In one scene, an older miner, Dai, encourages Jonathan, the leader of the gay and lesbian group, that he needs to find a way to let some of it go, to find a pace which is sustainable despite the seemingly overwhelming call of the cause: “Don’t give it all to the fight. Save something for home” (*Pride* 2014).

But the question of just how possible it is to leave, of whether it is ever really possible to say ‘fuck it’, is also a vital one. It can be hard to leave hog worlds once you’ve started. Rehabilitators are pulled into worlds of response-ability, in which one’s ability to respond well further heightens the call one feels to respond (Haraway 2008: 287). There is honour and privilege in this, and much satisfaction, but it can make caring seem almost inescapable.²² Yvonne tells me about getting ringworm for the third time and picking up her grandchildren from school and only being allowed to touch them while wearing gloves lest she spread it, and about needing a new shed and having the house so loaded to the gunwales with hogs that even her supportive husband was beginning to make some serious murmurs. The ringworm spread all over her body, until just her lower torso was left uncovered. “I’m packing it in,” she’d announced, and began to make arrangements, handing on the hogs in her care and cleaning out crates. But just a few days before her official closing (which would have been on her 15th anniversary of starting) she was called up by series of people with sick hogs. She passed their calls on to other rehabilitators but several came back, desperate, saying, “Yvonne, they’re full, what do I do?”, “Oh God. Bring them over,” Yvonne said. And they did.

Discussion: Care smuggling and quarantines of care

You are the burden of my generation
I sure do love you
But let’s get that straight.

(Paul Simon, That was your mother, 1986)

²² It might sound flippant, but these and other stories of hog rehabilitators trying to leave do remind me of Michael Corleone’s attempt to leave the business in *Godfather III*: “Just when I thought I was out, they pulled me back in”. I actually do feel like the ties are somehow similar.



find hedgehog care hard to talk about. In conversations on public transport, the first question people typically ask is something along the lines of “so why *have* hedgehogs declined?” My answer usually ends up with me awkwardly noting some factors—cars, poisons, fencing—before noting that really it seems like we might just have to fundamentally change how we live if we want hedgehogs to thrive. Sometimes, then, people will ask what else I’ve been learning. Offered such a platform, it’s usually care worlds I try to explain because, in many ways, they have become the surprise heart of my own cares—the communities of rehabilitators, the curious rhythms of hog-care-oriented lives, the balancing of the material and storied requirements of caring as the bodies of rehabilitators and those in care learn to get along in the ways they need to. But mostly I explain it all wrong, emphasising too much the burden, or too much the joy or the discipline, depending on what I got wrong the last time I was talking this through with a stranger on the train.

Increasingly care seems to me to be the strange, absorbing bodily alchemy of ties and cuts and boredoms and wonder and perhaps, most completely, of *life*. This is not just in hog care, but in cares generally, in the way of being so concerned for something that it becomes you, or perhaps that you lose yourself a little in the looking after of it. It is difficult to *tell* about caring (see Mol, Moser and Pols 2010). I wonder whether dancing or theatre might be more helpful in trying to explain, but both are awkward on the train. Talking about cares is perhaps that much harder for the relative lack of a vocabulary for addressing the complexities of our cares. I am grateful to Paul Simon for singing out a core taboo of caring in “That was your mother”, a song to his son, in which he reminisces about the days “before you were born dude, when I was still single, and life was great.” What hovers over this part

of the song for me is the lively burden of coming to care for another, the ways in which the entanglements of care seem to be the stream of life itself. Such cares are necessarily also a site of struggle and constant re-negotiation—of fighting for air and for the borders of one’s own self and of keeping one’s footing against being washed away by the sometimes seemingly endless appeals to care. Moments of loss of one’s self in such ties can be strangely elating, particularly when all is going well. Charmed by a hedgehog’s curious relaxed sniff or seemingly miraculous recovery, worlds outside and borders of selves momentarily disappear, and care seems to tie one to the very stuff of life. But deaths and drudgery linger, threatening an unhappy dissolution of one’s self in the face of overwhelming need.

Rehabilitation work is clearly deeply classed and raced and gendered. Yet, the sorts of inequalities which position us with different responsibilities in the ways we care are rarely commented on. However, while rehabilitators agree it can be tough, that it takes commitment and that there is never enough funding, many would disagree (and have) with my characterisation of care as a burden, pointing out what a *privilege* it is to get to care for hogs. One might as well say that caring for life is a burden (see Puig de la Bellacasa 2012: 198-9). Despite the reality that it tends to be working-class women doing this work, and that such labour is never going to make them wealthy or powerful, there are curious ways in which caring does not seem to be (only) the maintenance of the status quo, but in which it offers something potentially deeply radical. Values shift as one gets tied up in cares. Profit-making for its own sake makes little sense in this world of radically re-oriented lively values: as Roz asks, “do you really want to be rich in that sort of way?”

And I find it hard, too, to tell about the ways that losing sight of the object of your cares seems to sometimes be so necessary to the work of keeping on caring for them. That

distance might matter. That stories and figures, the pleasures of the crafts and expertise of caring well and holding on to the promise of successful wild release matter. It is a curious dance of attending and holding back, of practising the disciplines of non-capture while sneaking risk-assessed moments of intimacy which can make such a difference in keeping cares going. The lively pain of giving a fuck and sustaining it, working to both listen out the best you can for what is needed in your work of caring, and allowing yourself to wander from the actual, to be topped up with what your own cares demand in order to keep on going. And in these grasps which don't quite meet, with connections both at times deliberately held back and at others apparently physically impossible, other ways of keeping on emerge. And so we do the work of trying to hold one another lightly enough that our curious needs might be met. And we make these little non-innocent gestures at undoing hurts even while, all implicated, we reproduce and belong in the mess of it all. And somehow this seems like what life is. But, on the train, all this takes a lot of arm swinging to say and it seems a little dramatic, perhaps. Perhaps even sentimental. And, so, quarantining my own growing care for cares, much of this remains private and I find myself concluding this with some sort of platitude: that care can be tough sometimes, but it can also be very rewarding.

Chapter 4. Sadness and the noir of urban hedgehog conservation



Figure 13: Street art by Herakut in Bedminster, South Bristol

The Mower

The mower stalled, twice; kneeling, I found
A hedgehog jammed up against the blades,
Killed. It had been in the long grass.

I had seen it before, and even fed it, once.
Now I had mauled its unobtrusive world
Unmendably. Burial was no help:

Next morning I got up and it did not.
The first day after a death, the new absence
Is always the same; we should be careful

Of each other, we should be kind
While there is still time.

Philip Larkin, *The Mower* (1979).

The dark is not an aberration, but is inseparable from society. And thus the Noir sensibility: under the weight of burdens from the past carried into the future as inescapable fate, there is a sensibility of discontent and anxiety, disillusionment, and loss of confidence in the possibility of effective agency (Rose 2013a: 8).

Introduction

Hope and positivity are frequently encouraged in conservation work, at times to the extent that darker feelings, such as sadness, doubt and despair are exorcised from both private and public conservation discourse. However, for many humans working to reverse the decline in hedgehog numbers, the realisation of one's implication in environmental harms, as well as the seemingly impossibly large nature of the problem has led to widespread sadness and disenchantment with the sorts of individualist-consumer modes of conservation practice commonly encouraged in the UK. Tim Morton (2009) and Deborah Bird Rose (2013a) have argued that such a troubled and entangled positionality—in many ways characteristic of our current ecological crisis—is helpfully represented by the figure of the noir detective. The

noir detective, both Morton and Rose argue, is particularly significant in our times because of such a figure's realisation that they are, indeed, part of the very matters they are attempting to investigate. Noir literature and cinema typically focuses on stories of urban crime and corruption (Telotte 1989). However, unlike the protagonists of mainstream detective stories who may investigate similar matters, the noir detective is an anti-hero, often disappointing or morally dubious. Painting a world which muddies clear divisions between good and bad and powerful and powerless, the noir 'detective' is often either the victim or perpetrator of the crime at hand.

Thinking with this figure as I follow the experiences of Bristolian hedgehog champions, in this chapter I consider the powers of sadness to both hold an awareness of the reality of our implicatedness while simultaneously offering a check and support for ongoing hope-as-action (Head 2016). Such sadness is powerful for acknowledging the ways in which our lives are entangled with those of others: that if they die, part of us dies, too. However, this acknowledgement of our co-constitution is not a sufficient stopping point. In this chapter I argue that we need to learn to work actively with such co-constitution: although we tend to frame cares as individual, in reality we exist and create as and in collectives. Thus it is not only in creating damage that we participate in massively distributed things, but also in the work of healing.

1. Hedgehog champions and the Anthropocene noir.



Figure 14: Badgers are a contentious suspect in the line-up of who-or-what-is-to-blame-for-the-decline-in-hedgehog-numbers

Thinking about one's individual implication is tricky in light of the apparently miniscule role our own actions play in the environmental crisis in which we find ourselves. This is the micro-total culpability of global warming which Timothy Morton explains in terms of turning the ignition of your car and realizing, despite the tiny nature of your act, that you are part of a "massively distributed thing" (2016: 8). As Morton argues, in the scaling up of our car-startings and coal-shovellings to the billions, as they happen all over (and unequally) around the world, and though we may not be meaning to create harm, we come to see that we are directly responsible, albeit in impossibly-small ways. Similarly, in "The unbearable lightness of green", Greg Garrard riffs on novelist Milan Kundera's consideration of the insignificance of individual lives in *The Unbearable Lightness of Being* (1984). Through considering the troubles of apparent insignificance and the need to find weight, Garrard wonders at the challenges of climate change, in which the massively-distributed nature of

the problem renders one's actions simply too light to bear (2013: 175). Yet, Garrard notes that this lightness is simultaneously overwhelming, in that everything one does, "switching lights off, eating air-freighted green beans and accepting a pay rise," become both heavily morally weighted and yet apparently insignificant due to both the scale of the problem and its unpredictability (2013: 185). Simultaneously, one's every act matters and none of one's acts matter.

In conversations at bus-stops and in shops in and around Bristol, people would often ask after hearing my thesis topic what I thought was causing the hog decline. Explaining that I didn't really know, my interlocutors and I would typically find ourselves swapping suggestions of culprits: badgers, foxes, cars, the new developments happening over there, other peoples' fences. Frequently, these conversations would have a tone of playfulness, as we puzzled the problem, co-creating a line-up of suspects that weren't us characters who left us safely out of the line-up. I found myself feeling like a bungling detective in a village murder mystery, where the tone was one of intrigue, even amusement, rather than tragedy, and where there was every likelihood that a killer would be caught, leaving the both the detective and the village guiltless and reassured.

At times, we would actively manufacture a blamelessness, even when it was clear that we were part of the problem. I met a vicar who loved hedgehogs but also loved the stone wall around his garden. I told him of my failure to seriously suggest to my neighbour that we allow the hole in our shared brick wall to remain. The wall had crumbled due to our landlord's neglect but, mindful of the uselessness of this one hole in the face of an entire block of concreted backyards, as well as of the seeming impossibility of convincing our whole street to join us, I felt ashamed to seriously raise the prospect of leaving the hole.

Instead, I had made a joke of it: “Ha, well, perhaps we could just leave it like that, and then maybe hedgehogs would be able to move through the gap?” My suggestion was laughed-off in the same light-hearted tone in which it was offered. He added, though, more seriously, that he was worried about the wall falling on his kids. After that, I hadn’t even tried to talk to my other neighbours, or anyone else on my street about hog connectivity. The fence was patched up. The vicar nodded sympathetically. Though our closed gardens are one of the greatest threats to hedgehog survival, the apparently micro nature of our culpability makes the reality of their harm easy to evade and difficult to prioritise. Both of our gardens were so tiny it seemed unfair to think of us as the problem. But guilt seemed to linger in our conversation, and we moved on to pointing out that neither of us were living in the sorts of new developments which were surely a much greater threat to hedgehogs.



Figure 15: A badger in the line-up? A missing hedgehog painting, complete with looming badger, on a garage door in Glastonbury.

This position of imagining ourselves as blameless, locating the trouble in someone or something else, is what Morton refers to as ‘beautiful soul syndrome’ (2009). Following Hegel, Morton argues that the beautiful soul can be found in the spirit of the boycott—the move which allows one to both imagine the trouble as being able to be bound and located, and to be exit-able. My own beautiful soul tendencies emerge more strongly in the comfortable self-righteousness I feel when am able to lay blame on Thatcherite economics for the troubles of hedgehogs. Certainly, neoliberal reforms do seem to have increased both the numbers of impermeable walls protecting private property and the tendency to concrete over one’s front garden to make space for second cars (Low and Heyden 2015).²³ But if I get past my self-serving imagining of neoliberalism as a bounded entity from which I can stand separate, I settle into the uncomfortable, sad truth that *we* are neoliberalism, I am, and so are the people I love. We live in homes with paved-over front lawns, we eat the produce of the ‘ecological desert’ farms and enjoy cheap goods enabled through environmental harm. We have brought organic, hedgehog-friendly slug pellets from the organic store which pays rates to the council which, in turn, has plans to extend a road through known hedgehog territories to make a new bus lane. We are part of the trouble even if we are *Guardian* readers

²³ On reviewing my interview with Hugh Warwick, I delighted in hearing one particular piece of hedgehog research which I hadn’t remembered. Hugh reported that, even though people everywhere are saying “I haven’t seen a hedgehog in the past two years”, that new hedgehog research is showing it’s not two years ago that we need to look for the culprit, it’s 20 years ago, 30 years ago, when the minimum viable habitats were broken up. These studies are showing, Hugh told me, that it can take decades for the inevitable decline caused by these splinterings to become apparent. “20, 30 years?” I thought while listening to the interview again—perfect!” I skipped home to tell my partner Paul, who straight away jumped on the same possibility that I had, namely, that the trouble which arose in the UK 20 or 30 years ago, was neoliberal economics. It was a happy moment and we had a spontaneous Youtube session listening to ‘Bread and Roses’, and various Billy Bragg and Dick Gaughan songs. We reasoned that while Thatcher got into power in 1979, 36 years ago, it probably took a while for her scare-mongering policies to be enacted on the urban landscape. Paul and I imagined writing *Guardian* articles, exposing the *true* hedgehog murderer—not the badgers, not the foxes, but neoliberal reforms. It is nice to blame neoliberal reforms from a position of imagining oneself as entirely separate from them.

who give money to the Royal Society for the Protection of Birds. Yet, despite these realities, the lure of the beautiful soul lingers, the image of ourselves as pure and fundamentally separate from the evil we would fight.

The archetypal noir detective, however, is no beautiful soul. Rather, she is *in* the trouble: she is investigator, perpetrator and victim all at once. As Rose and Morton both argue, this intractable implication is what makes the noir detective a useful figure for thinking-through our current ecological crisis (2013a; 2009). There is no clean heroism possible, as in the action film, and, unlike the village murder mystery story, such as those of British show *Midsomer Murders*, there is no rest from the danger. The noir detective cannot simply step outside of the trouble for a meal or cup of tea and discussion with his thoughtful, down-to-earth spouse in a well-lit, warm, family home. There is no ‘outside’ of the noir crime scene.

And, indeed, the more you know about hedgehog conservation, it seems, the more you come to realise how hard it is to make truly safe urban spaces. Despite the micro nature of our individual guilts in such massively distributed problems, extracting ourselves from implication in hedgehog deaths seems almost impossible. The more you know, it seems, the more you come to realise just how hard it is to make safe urban spaces. To avoid using plastics, cans, crisp packets, rubber bands, to not eat anything which has involved laying down poisons, to live without daily contact with roads and drains seems almost impossible, as much as we might wish to not be implicated in the demise of hogs.

Bristolian hedgehog rehabilitator, Yvonne Cox, is often asked to give talks to children in primary schools about what can be done to help hedgehogs. Several times now I have seen Yvonne’s engaging performance—a talk which never fails to hold children spellbound

as she explains about the habits of hogs, what they need and why they're struggling. Using small soft toy hogs to demonstrate, Yvonne explains many of the ways that we accidentally kill and harm hedgehogs, a part of the talk which sometimes gets a little confronting (once, two children grabbed each another's arms, clinging to one another as Yvonne told the tales of how hedgehogs get stuck and stabbed and squashed in our worlds). Continuing on, Yvonne explains everything that needs to be done to one's rubbish in order to make it hedgehog friendly. Yoghurt containers need to be cut in half—crisp packets, too. Cans need to be washed and crushed so that hogs can't get in and get stuck. Drink cans are never okay, as hedgehogs will push their noses into them and get cut. And recycling or putting things in bins doesn't mean that hedgehogs won't find them—hogs go to the dump and can clamber into recycling crates, too. In Bristol, they even get stuck in the netting used to cover such crates. Yvonne had been petitioning the Bristol City Council on just this matter but, as yet, to no avail.



Figure 16: Props for Yvonne's talk on threats for hedgehogs

One day, back at Yvonne's house after just such a talk, she was busy as ever with the work of rehabilitating poisoned, injured and emaciated hogs. As usual, there were hogs' cages to clean out, medications to administer, releases to organize, funds to raise and twice-daily feedings to oversee. And there was rubbish to process. As Yvonne and I carried her recycling bins out to the curb, she acknowledged sadly that, at times, she just couldn't keep up with all of the processing needed to make rubbish safe for hogs. Though, when she could she still crushed cans and cuts chip packets and yoghurt containers in half, Yvonne explained that it was just impossible to always do all the processing in addition to looking after all the hedgehogs in her care as well as her business and family responsibilities. Sometimes, something's got to give. Together, we put the recycling out, but rubbish remained on our minds. Musing on the amount of plastic everywhere, not only injuring the hedgehogs who got caught up in it, but also getting into waterways and becoming part of all sorts of aquatic life (and death), Yvonne added, "I just wonder how they will ever survive."

Systems geared towards disposability are remarkably difficult to avoid. In a similar mode to the tendency of many human hospitals to generate high levels of plastic waste (along with other pollutants), within hedgehog rehabilitation, the prioritization of the immediate needs of suffering hogs leads to potential environmental harm for other hedgehogs. Although I was cognizant of these potential harms during my fieldwork as a rehabilitation assistant, the needs of hedgehogs in front of me always called most strongly, and I would find myself throwing this syringe into a bin, adding that plastic bag of waste to the tip. In this way, hedgehog rehabilitation finds itself deeply tied into sustaining the infrastructures which harm hedgehogs. Rehabilitation finds itself making use of the cars

which kill but also deliver supplies and transport needy hogs, the rubbish and chemicals which poison and clean, and the industrial farming which both feeds and starves hedgehogs (Figure 17).



Figure 17: Something of the entanglements of hedgehog care worlds--the cares which kill but also deliver supplies and transport needy hogs, the rubbish and chemicals which poison and clean, and the industrial farming which both feeds and starves hedgehogs.



Figure 18: It really does seem impossible to extract one's self from being implicated in the plight of hedgehogs. I spotted this dead hedgehog as I was leaving a day course on hedgehog ecology and conservation at St Tiggywinkle's animal hospital in Haddenham, Buckinghamshire. All of us who had attended the course had used this road.

2. Neighbourly deaths and isolated cares

Hedgehogs are not an easy creature to love in capitalist worlds. While, as noted in Chapter 2, many hedgehog champions are doing the careful work of giving space to the hogs in their backyards, there are a range of threats and challenges to hogs which cannot be met on the scale of individual back gardens. Recent studies set the minimum suburban area required to support a viable hedgehog population at 90 hectares, or three 18-hole golf courses, of unfragmented habitat (Warwick 2014). However, the ubiquity of roads and impermeable fencing makes overcoming such urban splintering difficult. While many urban critters are relatively successful in permeating property boundaries, hedgehogs, lacking the ninja talents of foxes or the brute tunnelling force of badgers, are often forced to respect human claims to private property. Hogs need holes in fences.

Other aspects of being a hedgehog require wide-scale change. As noted in Chapter 3, due to their penchant for chewing on the oddly-scented, part of their mysterious self-anointing habit, hogs are particularly likely to find poisons and ingest them. The cushioned layer under their spikes makes tumbling a reasonable way for a hedgehog to get down slopes, but it also makes hogs less avoidant of urban hazards: it seems that if there is a drain, a hedgehog will get stuck in it. This aspect of hedgehog physiology means even apparently innocuous rubbish can become deadly. An empty crisp packet can fatally entrap a hedgehog as their spikes stick fast in these everyday foil pockets, stopping the hogs from moving backwards. In a case from Weston-Super-Mare, a town two hours west of Bristol by bike²⁴, it famously took six people to extract a hedgehog from a crisp packet (SWNS Reporter 2012). Despite the charm of such tales of bumbling hogs and human willingness to go to extremes to assist them, hedgehogs do regularly die and suffer greatly from contact with rubbish. This is a matter to which rehabilitators, who often end up treating litter-wounded hogs, readily attest. Common rubbish-induced deaths involve suffocation, starvation or strangulation in various forms of plastics—cups, bottles, netting and six pack rings. Becoming entangled in such rubbish can also cause the loss of limbs or the gradual wearing-away of flesh leading to the formation of open wounds which can lead to death by fly strike.

For the first few months after I arrived in Bristol, it seemed that all I was hearing were hedgehog death tales. I bumped into people at bus-stops who told me stories of hogs found dead or dying on the road or of small outdoors-in-the-daytime hedgehogs which no one knew how to respond to. A woman I'd met while flat-hunting spotted me while she cycled

²⁴ It is also a 40-minute drive, but that feels like a hedgehog-disloyal way of reporting the distance.

by one day and stopped to tell me that, after we'd met, she'd remembered a story of a hedgehog she'd tried to save from drowning in a gutter; she'd gone to get some tools to fish it out but, by the time she returned, the hedgehog had died. After I attended a meeting of the 'Friends of St Andrew's Park', the park's wildlife officer told me of the hedgehog who used to live in the park but whom he had found dead and in shreds one morning. He suspected a French breed of terrier, a dog apparently bred specifically to kill hedgehogs. Who would breed a dog for such a thing, we both wondered. David, another member of the group, later told me a story from a couple of years back when his sister had heard a distinctive rat-like rustle in her compost in the evening and had put down rat poison. On checking the next morning, however, she found a dead hedgehog lying in the heap. She wept over the hedgehog's death, as did David when he found out (this is of course also a reminder that while the city might be dangerous for hedgehogs, it is also a violent place—frequently intentionally so—for rats). I can't count the number of times someone has said to me that they've never seen a live hedgehog, only dead ones on the road. The majority of these people have said that they've not even seen a road-kill hedgehog in years. At times, the city starts to look like a hedgehog death-trap.

There were still spaces of hedgehog sanctuary. Privilege and wonder are words which repeatedly emerged in conversations about what it is to be able to share space with these wandering spikey creatures. Some habitats created by champions were doing well, with several homes having multiple hogs visiting each night. One champion, Steffi, regularly sent me charming pictures of the hedgehogs snuffling about her feeding station in her quiet Bristolian street, squeezing through gaps in fencing and generally living lives which seemed a celebration of the project of hogs living near humans.



Figure 19: Steffi's hog welcoming garden with mealworm and sunflower heart feeding station (left) and many natural feeding areas, such as this log and leaf pile (right), encouraging insects and also supplying hog living quarters.

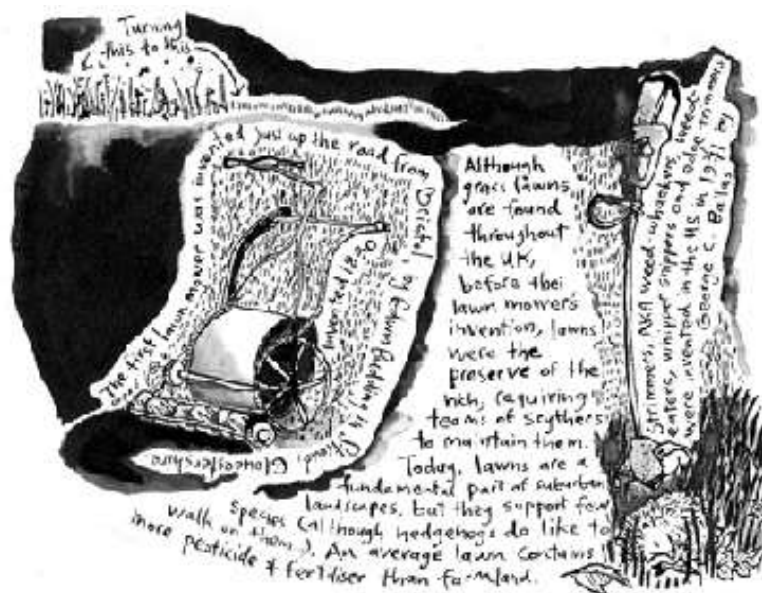
However, in amongst the inspiring illustrations of the possibility of human accommodation and attunement to the needs of hedgehogs, several champions told me about the anxiety of having come to love hedgehogs. They could make their own gardens safe, but hedgehogs need to forage in several gardens each night. Even if your neighbour isn't using poisons, what about your neighbour's neighbour? What about the cars? Others worry, too, about deliberate violence to hedgehogs, something which isn't common in the UK, but which does occasionally occur. Other hog populations I know of also have vulnerabilities at their edges. In Langford and Cheddar, badgers have begun to move in, shifting hogs' movements, and in Bishopston and Horfield, cars are always a threat. Though I never met them, populations in Keynsham are also being threatened by the increasing cars, with Duncan in Keynsham personally finding the body of a large dead hedgehog, whom he

recognised as a long-time and much-loved visitor, on the side of the road. New odd diseases emerge, like the Frome hedgehogs without bones in their legs and signs of osteomyelitis, even at a young age. I wondered to June about the chemicals, whether this could also be linked to the poisons around. Indeed, such poisons seem to build up in hogs, with two thirds of hedgehogs in one study showing some trace of rat poison in their blood (Dowding et al. 2010).

In our very first email contact, one hedgehog champion, Chris, warned me she had a lot of sad stories to share. Chris had responded to an ad I put in the *Bishopston Matters*, a local newsletter serving an area another resident referred to as 'muesli mountain'. Living up near Horfield Common, a small suburban park, Chris told me she had had one large hedgehog who visited her garden for many years. A smaller hog visited for a few months before she found him drowned in her pond (a pond which had gently sloped sides as recommended by all the hedgehog conservation groups). Some months after that, the large hedgehog suddenly stopped visiting. Chris worried about him for a couple of days until she spotted a large dead hedgehog in the gutter around the corner from her house. She asked her husband whether he knew anything about it, and he said that he had spotted the dead hog in the middle of the road a couple of nights before, and had kicked it off to the side. The last hedgehog she had seen was about a year ago, a little hedgehog out in the daytime. She had put food out for it, but found it dead on the back lawn a few nights later.

While Chris' story was perhaps unusual in that she had personally witnessed the death of all the hogs she had known to have visited her garden, hedgehogs living near humans do have a high mortality rate. Several hedgehog champions have expressed similar

tales, of hogs drowning in ponds, or being killed by humans bearing strimmers²⁵ and mowers, as in Philip Larkin's devastating poem. A hedgehog carer in Brighton told me that the local university had radio-tracked three of his hedgehogs. One survived over the fortnight they were followed, one lost its receiver, and the third hog needed to be rescued twice: first from a ditch, then a drain. The third time he was found he was dead on the road. The carer said that, after this experience, he preferred not to know what happened to the hogs he looked after, as he worried he would just give up. A study of hedgehogs conducted by Nigel Reeve found that of 10 re-released hedgehogs who retained their tracking devices, only three were alive at 15 weeks. While one seemed to have just failed to thrive, the other six deaths were all human-related accidents: four road deaths, one drowned in a pond and the other killed by a domestic dog (1998).



²⁵ While 'strimmers' are the more common expression in the UK, these devices for cutting the edges of lawns are known elsewhere as weed whackers or edge trimmers.

Figure 20: I found myself surprised to learn that the lawn mower was only invented in 1830. The widespread popularity of lawns followed this invention. I find it almost impossible to imagine the world without a vast coverage of lawn, particularly in the suburbs.

This is of course not to idealise an idea of a human-free life for hedgehogs. Hedgehogs get stuck in bushes without the help of humans, badgers can't always be avoided, and wild-gathering of one's food has its lean times²⁶. As noted in Chapter 2, however, there's currently not much of a choice for such lifeways, with farmland increasingly becoming "an ecological desert" as ecologist and hedgehog-loving author Hugh Warwick often points out in his highly-popular hedgehog talks. Certainly, hedgehog numbers in rural and woodland areas have plummeted (Warwick 2014). The high rates of hedgehog death by human-related accident in urban centres, however, do raise questions about too easily celebrating co-habitation. Rosemary Collard helpfully asserts the fundamental discursive and material entanglements of humans and animals, while also keeping an eye towards the spatial needs of nonhumans. Here Collard follows Susan Leigh Star in not automatically celebrating human and nonhuman mingling (Collard 2014: 162; see also Star 1991: 43). David Lulka, following Derrida, has talked about the importance of acknowledging the "noncriminal putting to death" of nonhumans within cities (2014: 1138), where other-than-human animals find themselves indirectly sacrificed to principles of theoretical efficiency and cost-value analysis. Though we are often able to avoid thinking about it, non-intentional but deeply

²⁶ Modern cases of hedgehog death by badger are complicated. Carers in both Cheddar and Yate tell stories of hogs being mauled to death by badgers. Yvonne knew that one of her hogs had been eaten by a badger, not only because all that was left were the spines (which are the characteristic remnants of a badger attack), but because of the badger paw prints left behind in hedgehog blood. Neither Yvonne nor any of those whose hogs have been eaten by badgers have expressed anger at the badgers, though. Rather, badger presence in cities is seen as a result of human expansion, and that the badgers are choosing to eat hedgehogs is typically seen as the result of a lack of other sources of food. Indeed, at one home in Fishponds, a suburb on the west of Bristol, badgers and hedgehogs regularly shared a backyard which had been stocked with mealworms.

structural deaths of non-human animals are a fundamental part of the texture of urban living. And yet, it seems that making a living near humans is hedgehogs' best chance of survival in the UK.

3. The sadness of (dis)connection

Despite upbeat public proclamations of the possibilities of conservation, my informants often expressed a deep sense of sadness at both their own implication in the plight of hedgehogs and at not being able to do very much about it. The sadness which pervades hedgehog conservation is not only due to our culpability in the deaths of hogs, but also the limits of our power as *individuals* to do much to help. Hedgehog champions know that collective responses are required. As Hedgehog Street, in particular, have noted:

Hedgehogs need access to lots and lots of different gardens to survive, so this campaign is as much about getting people to cooperate as it is about gardening for wildlife (2018).

However, as with other such conservation campaigns, British hedgehog-conservation campaigns have largely targeted individuals to do hog-protecting acts such as connecting properties, avoiding the use of poisons, being careful with bonfires and strimmers and minimizing rubbish. Capturing something of this approach, the British Hedgehog Preservation Society (BHPS) has stated that, "Small individual actions can have a huge impact when there are many people involved" (Fay Vass in Coles 2015).

In line with the 'actions, beliefs, choices' models common throughout neoliberal modes of conservation, such approaches encourage individuals to 'choose' environmentally friendly products and actions, hoping that such consumer choices add up to something more for hedgehogs than just a scattering of isolated, inaccessible, would-be havens (Shove 2010). Such approaches neglect the infrastructural, technological, regulatory, habitual and

meanings-based aspects of societal transformation (Elzen et al. 2004). Such thinking is in accord with the capacities of what Nikolas Rose defines as the ideal neoliberal citizen: the skilled, (apparently) self-reliant, individual chooser-consumer (1996). This reliance on individual choice, however, makes hedgehogs' apparently simple need for humans to connect their gardens with one another *en masse* feel almost impossible. Mobilisation of a collective cannot be purchased or 'chosen' by individual actors but, rather, is skilled, challenging, work. A survey of champions run by Hedgehog Street showed that, of the 4000 who responded, fewer than 50 had managed to connect more than two gardens in a row.

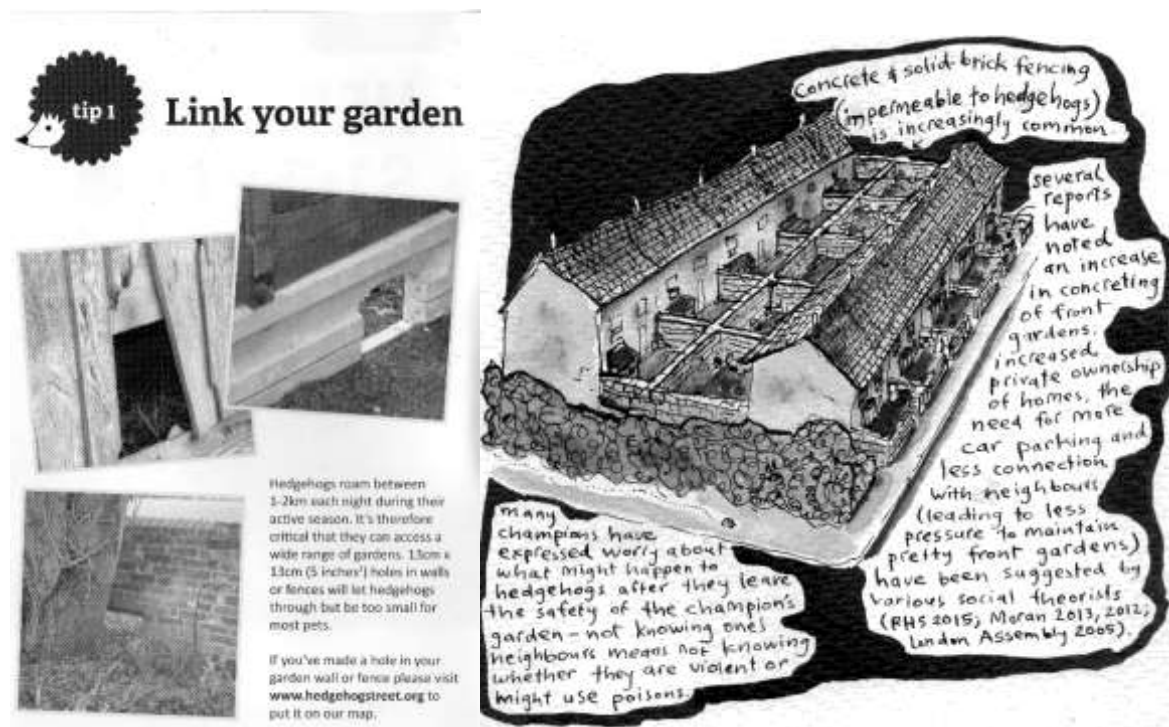


Figure 21: Linking properties through putting holes in fences is a major emphasis of all hedgehog conservation campaigns (as shown on the left from Hedgehog Street's 2014 pamphlet on how to help hogs). However social disconnection between neighbours makes breaking down these physical barriers very difficult.

Encouraged to act as individuals, the idea that our little acts could add up to the change we need seems deeply unlikely. In the face of the vast nature of the problem, however, the main issue is not that the actions of individuals are, each, individually small—

it is that they are lonely, that there is little modelling of how to do the work of connecting with neighbours or how to affect the changes needed in the larger structures at play. In a very animated interview, Xuela, a hedgehog champion also resident of ‘muesli mountain’ (Horfield), regaled me with often hilarious tales of hedgehog antics (including one story of a blind hedgehog who could climb vertically by squashing himself between a pot and wall and shunting upwards, spider-man style). At the end of an hour or so of enthusiastic hedgehog chat, though interspersed with tales of trees being cut down and seas polluted, I asked Xuela what her hopes were for the future. She replied: “Does it surprise you that I have a rather apocalyptic view?” She continued:

I see it with every tiny little planning permission thing. And it’s like, please don’t do that because newts live there. And people will laugh at the newt campaign lobby people, and they’ll go, oh no, but we need housing, or we need this, or we need that, or we need jobs. Every single time anybody tries to stand up for anybody else, their needs are over-written by *our* needs.²⁷

Even in tiny decisions, Xuela said, really taking others into account seemed impossible, so that some other species would do the suffering in order to keep modern humans modern-humaning, a violence which Xuela identified herself as being a part of:

It’s this world domination that we have, it’s somebody else—you know, some little mollusc somewhere, or the Great Barrier Reef is paying for us to do it. It’s not good. But in the meantime, obviously, I’m still buying stuff, still drinking coffee, still purchasing. Still living my life. Not guilt free at all—I’m not living off grid. I’m fairly opted into standard life.

²⁷ Like the majority of champions I spoke with, Xuela referred to non-human critters as somebodies, not somethings.

Part of the noir reality of our times is, as Rose writes, that we find ourselves increasingly aware of our lack of effective agency in a world in which culpability is so widely dispersed (2013a: 8). In our micro-yet-total implication, in our experience of being part of a collection of individuals with few obvious routes for mass mobilisation, it seems that human-made troubles are outside of our control—every bit as much as ‘natural’ disasters (Chakrabarty 2008). In caring for the wellbeing of hogs, in wishing that things were otherwise, the actual lack of choice in capitalism becomes apparent.

There are, however, taboos against speaking of the political and economic structures which make life difficult for hogs. Hedgehog ecologist and author Hugh Warwick tells me of one TV interview in which he let such fundamental concerns slip:

And [the interviewer] said, ‘so, you’ve explained about the holes in your fences, your compost heap, all this garden stuff. But seriously, if we seriously want to save the hedgehog in this country, what do we need to do?’

And I did that thing which you’re not supposed to do. I just answered it without thinking. I said, ‘oh, we need to dismantle industrial capitalism.’

And—you know—the blood drained from her face. But it was a pre-record so it was edited out. But it was that moment of, I nearly said that thing you’re not allowed to say.

Though Hugh continues fiercely and charismatically working to encourage people to make the individual changes which can help hedgehogs, he tells me that, in his “more depressed, melancholy state” he worries that, without addressing the systemic problems, this work might not be enough: “We’re tinkering with the problem because we can’t deal with the real issue, and maybe it’s that if we keep tinkering long enough that we might keep things from going down, but it’s unlikely”. Here, while individual micro-actions, magnified by the structures within which we act, make us culpable in the demise of hogs, individual

micro-actions, without the amplification of collectives or structural amplification, are unable to change things back.

As both Morton and Rose have argued, recognising the noir of our times, seeing that we are inextricably entangled in the problem, is not enough. We need to find new ways to story our current environmental challenges. All too aware of her guilt, the noir detective often turns to isolated cynicism (Horsley 2009: 3). Morton argues that, in addressing our current ecological situation, we need to move through guilt to shame and then onwards to “the liquid centre of sadness” (2012: 18). Sadness is the psychic space we need to be in, he argues, to accept the very great troubles facing our planet, and the reality of our own participation in them without sliding off into denial and self-protection, blame, shame or guilt (2012: 18). Tim Morton has argued that sadness holds the trace of co-existence, the ecological reality of our connectivity (2012: 18).

And indeed, sadness may be actively helpful in countering the isolation in which we find ourselves. It may be that sadness is the very mood required to address such disconnection. Psychologist Per Espen Stoknes has noticed the emergence of ecological sadness among his patients and wonders what it might do if we were to lean into such feelings of hurt and vulnerability without falling into the temptation to avoid the hurt by transforming it into blame or attempting to ignore it entirely (2015). Stoknes argues that sadness might help to forge community amongst those touched by the grief, suggesting that “Contact with the pain of the world, however, does not only bring grief but can also open the heart to reach out to all things still living” (2015). John Riker argues that this sadness lets us “know how much another person or thing has meant to us” while also “signalling to others that we are not well and are in need of compensating bonding” (1991: 98). Sadness

draws others to us and tends to bring out others' caring responses (Riker 1991: 30). In this way, the powerful pull of another's sadness can, at times, feel almost manipulative. Yet such a power to draw others is also part of the radical vulnerability of sadness, its potential to encourage connection.

A 2015 Pixar film, *Inside-Out*, suggests some of the ways in which sadness might play an important role in connecting people (Docter 2015). The film follows a young girl, Riley, as she moves with her family from the Midwest to San Francisco. The film personifies, as separate characters, five of the resident emotions in Riley's mind. While lead emotion, Joy, will at times submit control of Riley over to Fear, Anger, and Disgust, who all play clear roles in keeping her safe, the purpose of Sadness is not so obvious. Indeed, sometimes Sadness seems down-right troublesome, holding up proceedings, frustrating Joy with her seemingly irrational refusals to get up and do something about their predicaments. When Joy and Sadness find themselves lost in Riley's long-term memory, desperately needing to get back to 'headquarters', Sadness is frustratingly passive, sighing that she is "too sad to walk. Just give me a few hours"—a situation which requires Joy to drag Sadness along behind her. Yet, despite her apparent irrationality and passivity, Sadness has the power to draw people to Riley and to radically change situations, reforming connections. To ruin the end of this charming and helpful film, it is only through letting Sadness do her slow, vulnerable, (counter)intuitive work that Riley is able to receive the comfort and love she needs from her family, find a place in her new home, and to connect to both her past and present.

Beyond its collectivising potentials, sadness is oddly bold and clear-thinking for a mood often framed as weak. Unlike the regime-strengthening nature of compulsory

optimism (Ehrenreich 2010), sadness and other 'negative' emotions might be key for changing direction, even leading to increased creativity in problem-solving strategies (Gerrards-Hesse, Spies and Hesse 1996). Several clinical psychological studies have suggested that "with sadness comes accuracy" (Storbeck and Clore 2005). For example, people who have become sad through being exposed to sad films or music tend to become more detail-oriented and make fewer mistakes in remembering things (Bonanno 2009). People with low-mood also put greater time and effort into tasks (Melton 1995: 792) and are more resistant to stereotypes about others than people reporting anger or happiness (Storbeck and Clore 2005).

Adding to this power of readjustment, sadness seems to also be characterised by an openness to change. Bonanno argues that while sadness is often paired with anger or blame, that in its purest form, sadness "is essentially about resignation" and that, as painful and vulnerable as sadness may be, it has a vital role to play in helping us to orient attentively to our lives, through "turning our attention inward so that we can take stock, reflect and adjust" (Boanano 2010: 31). Yet, rather than despair, or inaction, such recognition of loss can mean being "prepared to be undone" (Ahmed 2010: 246). Sadness seems to have senses which are clear and brave enough that one might recognise, however reluctantly, what it is one needs to farewell in order that other vital things might have a chance to survive. As Sarah Ahmed notes, rather than leading towards despair, or inaction, the sadness of recognising the hopelessness of the path one is on may instead mean being 'prepared to be undone' (2010: 246). In this, sadness and other 'negative' emotions might be key for changing direction.

To me, Larkin's poem 'The Mower' leads me through something like this willingness to be undone, though I find it so sad that I find myself resistant to re-reading it. In this poem, Larkin is an admirer and one-time feeder of the hedgehog he has killed. Betty Mackereth, a fellow librarian with Larkin at the University of Hull recalled: "I remember too well Philip telling me of the death of the hedgehog: it was in his office the following morning with tears streaming down his face. The resultant poem ends with a message for everyone" (2002). However, when I returned to these final lines of his poem in isolation, his message for everyone: "we should be careful of each other, we should be kind while there is still time", I found myself baulking. Larkin's message seemed trite, didactic, and I felt the urge to rebel against it. Yet, returning later to read the poem in full, travelling again the painful, deeply sad, deeply implicated, though short, journey of it, I found myself willing to be open to what the poem's final lines might mean, willing to take them seriously. This openness, I wonder, may be something of sadness' vulnerable alchemy.

Banned sadness

While sadness was present in nearly all my interviews, emerging in quiet moments of wondering how on earth things could possibly be made okay for hedgehogs, such sadness was often discouraged in conservation worlds. Public conservation messages tend to end on upbeat notes, and we are urged to keep our chins up. In the final lecture of the 2015 Bristol Coleridge Lectures, a series with the theme "Radical Green", Melissa Harrison followed the wildlife thriving in an imagined British any-city. Within this, Harrison specifically addressed the decline of hedgehogs, and warns us against giving up:

So when you glance at the news websites, as you do while eating your lunch, and you see something about hedgehogs perhaps becoming extinct within your lifetime, and it brings you up short for a moment because you remember them from childhood and surely they can't just

go like that, can they? But you try to think when you last saw one, but you can't, and that familiar sadness comes over you, mixed with guilt and helplessness at everything we're losing. When that happens, think of those urban nature reserves, and think of your sparrow hawk, because the greatest threat to living things—*by far*—is believing that their loss is inevitable.

Harrison urges that, instead, we celebrate the sparrow hawks, which recently returned to Bristol city in response to increased prey bird numbers in flourishing gardens, as a model for future hedgehog success. Yet sparrow hawks and their prey move between individual gardens in ways hogs cannot.

I wonder here, and elsewhere in conservation discourse, at the conflation of sadness with passivity, resignation, or giving up.²⁸ In accord with many ecologists, Mark Herzgaard has argued that while fear is both an understandable, and perhaps even useful, response to climate change, despair is paralyzing. It is thus an active practice of hope which is needed (Herzgaard 2013: 8). Sadness needn't be any of these things. Indeed, it might be a vital aspect of well-functioning hope. Ben Anderson argues that, in comparison with optimism, hope is based in critical evaluation of the here and now and the commitment to work

²⁸ I also wish to note the differences between sadness and grief. Grief is a potentially powerful, vital emotion to make space for in our current times encouraging, as it does, that one assume a new orientation to the world (Attig 1996). As Rose and van Dooren argue, "genuine mourning might open us into an awareness of our dependence on and relationships with those countless others being driven over the edge of extinction" (Rose and van Dooren (2013: np). Similarly, Judith Butler argues that it is in the loss of others, and through our experience of such loss as being also loss of ourselves, that we come to see that we are composed of our attachments to others, that we are our relationalities (2014: 22). Per Epsen Stoknes (2005) similarly argues that, without mourning, we are left angry or numb or stuck and that by moving through grief we are able to become open to change. A range of psychoanalytic approaches view grief as having a similar role to play: that of pulling one's energies back from the lost object and re-integrating them into one's self (Deutscher 1999). However, it is also vital to separate sadness from grief. Riker writes that, in grief, sadness is mixed with anger (1991: 109). While sadness is recognition of the necessity of some sort of change or loss, a preparation for some sort of reorientation, grief, Riker argues, urges us to rail against the beloved lost thing; grieving is for what is lost, and not all is yet lost for hedgehogs.

towards something better (2006b: 705). Also working to decouple hope and optimism, Leslie Head argues for rethinking hope as practical action, as a gritty keeping-on-going, a continuing to work for the futures one wants, a practice rather than an affect (2016: 22). With such a framing of hope as useful action, sadness, and the clear evaluations it offers, may actually be a vital part of the work of sustaining practical hope. I long for a mode of conservation where expressing sadness and associated doubts about current strategies might be considered acceptable, even helpful.

And, indeed, hope allowed to go unchecked by the clear vision of sadness is, in many ways, worrying, with committed-to paths left unchecked. Noting both the mobilising power of hope and the ways in which hope may bulldoze over our dreams, Eben Kirksey and Tate LeFevre have highlighted the pharmakon qualities of hope—that hope can be poison or cure, depending on the dose (Kirksey and LeFevre 2015; Kirksey 2015). Writing of the ‘banking’ of extremely endangered snail species in Hawaii, Thom van Dooren argues that living salvage collections, such as the particularly heart-breaking “collection” of the last known member of the species *Achatinella apexfulva*, do not delay extinction so much as delay the recognition of extinction (2015b). The danger of the hope contained in such arks is that “ongoing life becomes a form of denial that allows us to go on without having to come to terms with our reality or with the vital need for change” (van Dooren 2015b: 11).

Increasingly, I wonder whether it is the radical potential of sadness which makes it such an uncomfortable feeling. Sadness seems to suggest that we are being rushed into hopeless solutions. It seems to me that sitting in sadness leads to the painful awareness that, if we love creatures like the hedgehog, and we want them to stay around, then something

will have to shift, perhaps ways of life we are also deeply attached to. In this way, sadness is deeply threatening to the order of things as they are.

Despite—or perhaps because of—the potential of sadness to recognise the need to change course to sustain what we care for most deeply, I have repeatedly found myself getting swept up into upbeat conservation messaging. At public engagement events with Yvonne, we largely spent our days giving out pamphlets from the BHPS and Hedgehog Street and telling people about the little things they could do for hogs, how they could stop using rat and slug poisons and how letting a corner of one’s garden go wild really helps. When people asked about how to attract hogs to their gardens, we pointed out the necessity of one’s neighbour also connecting to their neighbour, and so on, down the street. But if people’s faces dropped at the realisation of the extent of connectivity required, or at the threats offered by problem neighbours on their block, I would quickly back-track on the necessity of connection, adding: “Only if you can”. I might suggest that a leaflet drop could help persuade neighbours, but I rarely mentioned the three 18-hole golf courses of contiguous land which hog populations require. We worked hard to keep people feeling positive but, returning home, I would feel desolate about hedgehogs’ increasingly meagre, often impossible, lives.

Even privately, sadness can struggle for space against forces of care for social ease. Indeed, making space for sadness is deeply awkward. Thinking with the figure of the feminist ‘killjoy’, Sara Ahmed writes that those who expose the hidden bad feelings, who raise consciousness about the structures which cause unhappiness, can be viewed as the cause of the unhappiness. “To kill a fantasy,” Ahmed writes, “can still kill a feeling” (2010: 66). Often, sadness and the mobilisation it would demand of us is swept up into hope or,

more simply, avoided. One day while I was working at Prickles Hedgehog Rescue, a couple came in to pick up five hedgehogs they'd dropped off and which were now big and well enough to be released. One of the other volunteers asked whether they would paint little marks on their backs to make the hogs recognisable and thus possible to keep track of. "Oh no," they replied, "we never do that, there's just too much worry involved. You just never know what your neighbours are up to." We all went quiet for a moment. Another volunteer picked up on the rising, quiet sadness in the room and jumped in to take us back to the good stuff—"well, amazing that all these five made it—that's the whole litter that survived then, isn't it?" It was, and we congratulated each other on a job well done. Another day, over coffee, Mike, a driver, told Kay and me of a woman who wouldn't take back a hedgehog which had come in from her property. Though she loved hedgehogs, and had brought this wild hog in for treatment because she'd found it outside in the day, she didn't want it back because she was worried about all the roads which surrounded her property. "Tell me somewhere that doesn't have roads," Mike had replied, and managed to convince the woman to take the hog. Kay and I nodded, and looked at Mike. "It's everywhere, isn't it?" Kay said. We wondered how on earth non-human mammals could make a living in the criss-cross of roads we find ourselves in. Kay's eyes and mine welled up and we did the thing the two of us have often done, gently batting our hands downwards in the air, waving away pesky flies of sadness while smiling warm, apologetic smiles. "Puppies," I said. "Let's talk about puppies, they're nice." Kay laughed and the conversation drifted into cheerier realms of upcoming visits from friends. Sad is awkward and we tidy it away. Revolution forestalled.

4. The bearable lightness of becoming

But it does not, however, seem to be inevitable that, if only it were expressed, that sadness would lead to a way out of itself. Sadness, openly expressed, can demonstrate our implication and interdependence, but what now? The imperative to “act now”, Morton points out, overlooks the realities of the impossibly interconnected reality of the problems we face (2009). We cannot—as the individualistic, hero-actors we are encouraged to be—make what needs to happen, happen (Lee 2013: 10; Summers-Effler: 2010). Yet, what do we do?

Despite all its emphasis on recognising interconnection, there is something which remains curiously individualist about Morton’s notion of the sadness of ecological coexistence (2012: 17). As noted above, Morton’s figure of ecological awareness, the noir detective, sees herself as implicated, that is, as both the detective and the criminal (2012: 16). Despite this recognition of connectivity-as-negative-implication, however, the figure of the noir detective seems to fail to recognise that our radical connectivity also entangles us in possible responses to such harm. Yet, just as our contribution to the massive forces we would rather not be part of is micro-total, with our individual actions both seeming to be impossibly light and heavy, so too is our potential ‘positive’ participation in diffuse and multi-agential forms of power difficult to comprehend due to its massively distributed nature. We need to attend to the multiple ways in which we become active together.

One small success in the world of British hedgehog conservation was based on remarkably non-spectacular yet effective collective action. The McFlurry—a sweet frozen dessert—comes in a plastic cup with a fitted lid. A regular McFlurry lid has a wide opening to accommodate a large spoon—a size which was also just the right size to trap the head of a

hedgehog (BHPS 2006). Smelling the sweet leftovers in discarded McFlurry containers, hogs would squeeze their heads through the lids only to find that, due to their spikes, they could not pull their heads back out. Such hogs often died of dehydration. In the face of this, the BHPS quietly mobilized. The organisation's newsletter and supporting website sent out instructions to the 12000 strong group: they were to write letters to McDonalds en masse, complaining politely, "without foul language, threats, or sarcasm" (Lean 2006). The campaign wasn't particularly fast: letter writers worked for five years. However, finally, in 2006, McDonald's relented, invested an undisclosed sum in design tests and soon released the new McFlurry container, designed with reduced hole in the lid which meant that the majority of hedgehogs would not be able to push their heads into the cup.

Such a happening is by no stretch spectacular: all that occurred was that a small change was made to the lid of a disposable ice-cream container. Furthermore, that change has not been perfect. The cups are still plastic and many are, presumably, still thrown into landfill. Small hogs do still get caught: McFlurry lids need to have a hole big enough for a spoon which means that, even with the smallest hole possible, the gap is still big enough for baby hedgehogs to get stuck. However, many hedgehogs have been saved through this quiet mobilisation of BHPS members. It also offers new ways of thinking about power and effectiveness. In what Geoffrey Lean, environment writer for *The Independent*, called "one of the most genteel campaigns in conservation history" a small but life-saving change emerged from this mass letter-writing campaign (2006).

In this, we find a massively distributed thing playing out in a different way. In joining with others in such ways, in finding oneself within distributed agencies, one's contribution can seem too small to have ever been a help. Within such activism, the action of one person

is almost impossibly light: which letter or which telephone call to McDonalds over those five years was it that led them to finally relent and change their packaging? Such agency is not that of the heroic in which an individual is 'the' agent of change. Rather, it is the power of being one of many ants, working separately but together to make a remarkable something, the magic of being a nail in a bed of so many nails that the bed can somehow be stood on.

The actors in such work are, however, also radically more than human (Lee 2013; Latour 2005). There are pens and envelopes and felled trees for paper, sunlight and soil and water growing trees and roads and working humans connecting all of them, and phone lines of metals and plastics and maintenance crews, and BHPS offices and newsletters and shared languages and supportive grandchildren and affection for hedgehogs and particular notions of politeness all at play. There are forces and actors and vital accidents we may not be aware of. While one cannot, oneself, will such collective happenings, one can find oneself in part of the energies of actors adding up to a something. One cannot be 'the' hero but, rather, part of a force for change if one is able to take part in the active collective work of collaborating within what Alexis Shotwell refers to as a distributed ethicality (2016: 203).

Not all roles in distributed mobilisations are micro, of course. Returning to the campaign by the BHPS, a huge amount of work was done by individuals to set up the infrastructure which enabled this. The Society itself was set up in 1982 to encourage respect for hogs, to support research and education about hedgehogs and their needs, as well as to offer support and guidance to hog rehabilitators. Thus, a community of humans and hogs had already been brought together, creating a potential for such action. Such potentials are supported through the work of volunteers and employees maintaining the mailing lists, fundraising, planning of events to keep people feeling together. Yet, for anyone who has

been at the apparent helm of organising an action, there is the immense frustration of realising you are not in control in an easy way. Although huge amounts of individual time and effort are invested in creating the potentials for such mobilisations, one ultimately acts in concert with many other forces, rather than directing them.

Other campaigns which have made helpful—if small—shifts include the work of a woman living in a small Somerset village whose educational hedgehog-themed neighbourhood coffee and cake parties not only raised money for Prickles Hedgehog Rescue, but who, through such afternoons, was also doing the transformative work of both connecting neighbours and educating them about the needs of hedgehogs. Such work quietly changes the configuration of a neighbourhood, as neighbours are pulled in and mobilized.

How such multiple forces come together successfully, however, is difficult to chart. As Jane Bennett notes, the question of precisely what agency is—whether human or otherwise—is deeply mysterious (2010: 34). It is hard, too, to know precisely how such things come about, with such stories being able to be told backwards from the event to the potentials which allowed for them, rather than the other way around (Bennett 2010: 33-34). Who exactly the agents are—and whether we will ever fully know—is also at question. Yet, a range of affective, human, and infrastructural ‘conditions’ allowing for mobilisation can be identified (Lee 2013; Ahmed 2010). In particular, the McFlurry campaign was well matched with the tendency of many British humans to love hedgehogs and, in particular, to frame them as gentle and somewhat quaintly eccentric. Such imagery is also at play in enabling successful neighbourhood-activating tea parties. In this, returning to the original French term ‘*agencement*’ in place of the typical translation of ‘*assemblage*’, is potentially helpful: an

agencement is not just a collective of things but, rather, a particular moment of arrangement which creates a particular agency (Müller 2015: 28).

Seeing that we are inherently implicated—for apparent good or ill—destroys fantasies that we might ever be able to extract ourselves from what is emerging around us. In seeing ourselves as connected—for better or worse—we reject the possibility of purity. In this we return to the figure of the noir protagonist—always tied into the trouble. However, it might just be that, in seeing oneself as being part of the trouble that one can begin to get to work in more helpful ways (Haraway 2016). Returning to the ‘beautiful soul’, it is easy to imagine oneself to not be part of the problem, to imagine that somehow by making correct purchases, for example, that one might not have to share responsibility. Such ideologies of purism are, ultimately, Elizabeth Shotwell argues, “a decollectivizing, de-mobilizing, paradoxical politics of despair” (2016: 9). Acting within implication—which is, indeed, the only way we can act (or be)—we find ourselves necessarily compromised and making compromises (2016: 9). There are few guarantees. How might one connect and with whom? Which infrastructures, organisations, collectives, teachings, might end up mattering? It is hard to tell and surely a matter of experimentation, of connecting with others and seeing what happens. There is, however, the necessity of connecting with other agents in order to create new potentials for action. ‘We’—and who we are becoming—is never separate from such co-constitution. As opposed to Kundera’s use of Nietzsche’s eternal return to lament the insignificance of being, in attending to the desire and realities of connection, Rosi Braidotti celebrates “the bearable lightness of becoming” (2006: 191). In this, Rosi Braidotti argues, the challenge of the ethical is to transform negative into positive passions “through encounters and minglings with other bodies, entities, beings and forces” (2006: 163). In this, we become

aware that we are, ourselves, always part of, and actively creating, massively distributed things.

Becoming is always a case of becoming with another: atomistic individualism is a fantasy. Such connections, creations of new instances of *agencement*, of mobilisations and possible becomings also have implications for the sad loneliness of our times, marked as they are by apparent dislocation and isolation. Such loneliness overlooks the reality that we are always in connection, always working in concert with others. Most humans, however, are not part of official organisations like the BHPS. Yet we are always participating in massively distributed collaborations. Rather than a question of individualism vs collectives, it is one of attending to which others we are joining with, and how. Shifts in our relationalities, through forming cycle collectives, campaigns for car-less streets, lobbying local councils and governments for hedgehog-friendly building design, for example, all offer possible reconfigurations of relationships which could have benefits for hedgehogs. All such collaborations, however, also mean subtle changes in ourselves as we become-together in new relationships with others. There are, of course, never any guarantees—with which actants (human? Other-than-human animal? Architectures? Forces unknown?) might we come to work with, and to what ends? And, indeed, as with our implication in greater harms, it might not feel like we are ever doing very much at all. Yet, our becomings might well be bearably—even joyfully—light. What might we become through actively—though never with full control—recognising our participation in massively distributed things?

Discussion: Care formations and implicated cares

Within the noir of our times, sadness might offer the possibility for both recognising and reframing culpability. Aware of his or her guilt, the noir detective holds their heart tight and

alone without even the delusion of the beautiful soul for comfort. Yet, while noir guilt may be an accurate portrayal of aspects of our current ecological crisis, it also renders one curiously passive to the unfolding plot. Sadness, however, seems to offer a potential change of script, offering vulnerability and openness to challenge the defining characteristics of the noir detective—the alone-ness, world-weariness, the coolness, the cynicism. Sadness for another shows that one is not complete by oneself. Sadness says my life is inextricably entangled with that of others, and if they die, part of me will die, too. It is an acknowledgement of deep care, even of our co-constitution. How can we stay with such sadness, find the courage to make it public, when it is so difficult to risk being the killjoy who points out the troubles of the structures we live in? Can we then find ways to act well with those with whom we are connected? To forge new connections in order to hold those we love in the world? We need to pay attention to the material-storied collectives we are part of if we want to co-create as effectively as possible, to find ways to melt out of our self-concepts as individual, isolated actors—the sorts of consumerist framings which keep us lonely in tending for our cares.

This sad acknowledgement of one's willingness to be melted, recognition even of the necessity of such dissolution, feels rich with such possibility. One Saturday afternoon, as I was filling in at Prickles, a woman whom I later found out was called Joanna came in to pick up her daughter. Like me, Joanna's daughter was helping with hog care, and we had gone slightly past our planned finish time. Joanna was tall and elegant and warm and we started chatting as I was loading the dishwasher with the hogs' dirty dishes. Three or four of the 40 hogs in care still needed their crates cleaned, but there were three other carers about so, feeling drawn to Joanna, I allowed myself to linger and abandon the other humans to the

practical work of caring. Joanna told me about several hogs who visited her backyard, and together we enthused about the many surprises of living near hedgehogs. She told me about how those who visit her really aren't all that solitary, and that she often finds hers sharing nests, a habit which challenges what experts say about hedgehog lives. It was, she said, a true privilege to have them visiting. At night, she and her daughter, and sometimes her husband, all keep an eye on them. "It's just magic having them visit," she said. Joanna went quiet for a moment then, softly and warmly, said that if there weren't any foxes or birds or hedgehogs, no animals about to fill the world with such wonder, she wouldn't want to live. She paused. "Life would just be too empty." I felt my heart catch and our eyes both brimmed with tears. I slowly nodded my agreement, and found myself smiling a small sad smile which I forced down at the corners. Joanna sadly smiled back. I wiped my eyes. My heart had gone to liquid, and it felt like anything could happen.

Although sadness has little public platform in hedgehog conservation, its warm vulnerability quietly animates hedgehog championing. There is something mysterious in these strange melting connections, some promise of a radical but as-yet-undetermined reorientation to the world. This openness to vital dissolution and change seems to be the alchemy which sadness offers. It is the reluctant acknowledgement which announces, "We can't go on as we are", "I can't fix this alone," and then waits, open, in the space where perhaps an open-hearted, "neither can I" might join. And who knows what could happen if such a feeling might catch.

Chapter 5. Well-aligned cares: Making and undoing conservation common sense



Figure 22: Pest Fest 2015, Wellington, New Zealand—an employee of a kill-trap manufacturer explains the workings of a rat and stoat kill-trap to a young boy

We become alienated—out of line with an affective community—when we do not experience pleasure from proximity to objects that are attributed as being good. The gap between the affective value of an object and how we experience an object can involve a range of affects,

which are directed by the modes of explanation we offer to fill this gap (Ahmed 2010: 41).

Derrida got it right: There is no rational or natural dividing line that will settle the life-and-death relations between human and nonhuman animals; such lines are alibis if they are imagined to settle the matter “technically.” (Haraway 2008: 297).

I returned to Aotearoa/New Zealand just in time for the Wellington-based 2015 Pest Fest. Both on the Pest Fest day itself, and during fieldwork with conservationists in the months following, the public mood of mainstream conservation was radically upbeat, with volunteer and professional conservationists alike positive about the possibilities of achieving a country without ‘invasive predators’ and generally enthusiastic about the work of killing such ‘pests’. In this social climate, cares for native species and a willingness to kill introduced predators appeared not so much as specific and historically-shaped orientations but rather—and increasingly—as a simple common sense. In contrast, mine and others’ cares for pest species began to look like they were particular, socially-shaped attachments: sentimental products of specific histories. In this chapter, I attend to the question of how a particular critter becomes killable and how the work of killing gets encouraged. In particular, I trace the ways in which the re-creation and connection of discourses and identities, as well as the materialities of trapping technologies themselves, shape this sense of what is obvious to care for or to kill (Butler 2009; Hall 1986; Stengers 2005a: 997; Haraway 2008: 83). Ultimately, and in ways I am yet to entirely resolve, I attend to the social force of such representations and materialities, as I find myself setting a kill trap.



1. Wellington: Aotearoa/New Zealand's natural capital

The 2015 Pest Fest was pitched as the highlight of Aotearoa/New Zealand's annual conservation week. This was the third year the festival had been run and, as in previous years, the 2015 event had the aim of educating children to identify and dispatch 'pest' animals, as well as being a "fun-filled day of games and activities for the entire family" (Pest Fest 2015). This description had both amused and disturbed me. My amused disbelief that a celebratory day of killing existed, and my simultaneous dismay that it did, suggested this was an affective world in which I would not play an easy part.



The Pest Fest was part of a growing conservation-mindedness which is particularly strong in Wellington. This focus on conservation had been the reason for me choosing to return to this small capital city at the bottom of the country's North Island —it was here, for example, that Gareth Morgan's trapping campaigns were based and where the young

conservationists, Rachel and John, had caught and killed Hodge (Chapter 1). This status as a conservation city was made semi-official in 2007, when Wellington claimed the title of New Zealand's 'natural capital' on the basis of the city's 2007 biodiversity action plan. This plan, written by the Wellington City Council, emphasised pest control and the protection of habitats, and encouraged community engagement with indigenous biodiversity.

This emphasis on biodiversity conservation is present throughout the city: poisoning and kill-trapping of 'pest' animals is carried out across the region, but with particular focus on reserves and national parks. In several particularly enthusiastic Wellington suburbs (including Crofton Downs, Ngaio, Khandallah, Wilton and Highbury), private groups receive funding from a range of sources including the City Council and charities (particularly from Gareth Morgan's project *Enhancing the Halo*, as introduced in Chapter 1), to support backyard trapping projects. Although traps are not obvious as one walks around Wellington, there are tens of thousands throughout the city. Several different styles of traps are used, variously targeting rats, stoats, ferrets, weasels, possums, and hedgehogs—all of which are known to eat the eggs and chicks of native birds, with mustelids sometimes also killing ground-dwelling adult birds.²⁹ The poisoning is more obvious than the traps, with signs in reserves throughout the city warning of the use of brodifacoum poisons.

²⁹ Cats are another known predator of birds, but are not currently targeted in kill-trapping campaigns in Wellington. However, some stray cats are caught in catch-neuter-release programmes.

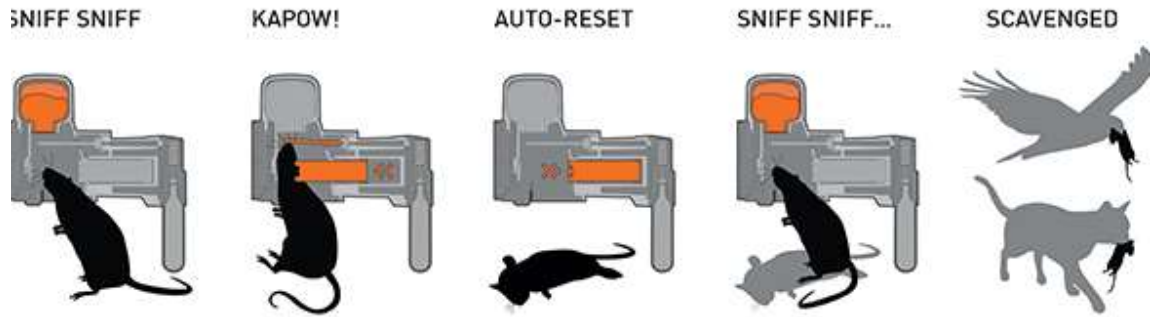


Figure 23: A Goodnature trap in action, particularly demonstrating both the auto-reset aspect of the trap and the tendency for there to be no carcasses left behind due to scavenging.



Figure 24: The DoC 150, 200 and 250 trap mechanisms (left) and typical example of a fully set up DoC 250 trap (right).



Figure 25: A standard 'Victor' rat trap with a shroud to encourage animals to enter the trap head on, an addition to increase the likelihood of clean kills, particularly for mustelids (left) and a fully set up Victor trap in a box to keep cats and birds safe, as well as to attempt to encourage animals to approach the traps head on.

Wellington’s focus on predator eradication as a conservation strategy is, in many ways, inspired by a range of massive eradication projects carried out on off-shore islands since the 1990s and, more recently, on fenced mainland ‘islands’ too’ (Russel et al. 2015). Such endeavours have often led to significant increases in native bird numbers, particularly in those of threatened species (Towns et al. 2013). Despite Wellington’s lack of secure boundaries, programmes of killing introduced species along with increased tree planting and the influence of Zealandia, a predator-free ecosanctuary (the focus of Chapter 6), have enabled Wellington to host both an increasing diversity and number of native birds (Balance 2018). A sense of this flourishing is apparent in day-to-day life, with once rare kākā and tūi now found throughout the city, as well as an increasing number of kākāriki and critically endangered saddlebacks.³⁰ It is this trapping-based conservation which the Pest Fest seeks to celebrate and encourage.



³⁰ Saddlebacks have been seen as a particular victory for Wellington as, prior to the arrival of a pair of breeding saddlebacks on the edge of the Wellington CBD in 2014, the species had been extinct on the mainland (outside of sanctuaries) for over 100 years. As a bird which largely feeds on the ground, they are particularly vulnerable to mustelid and cat predation (Hooson and Jamieson 2003; Swinnen 2017).

2. Feeling Strange: Alien affects at the Pest Fest

It was a warm November day in this Southern Hemisphere city, and I was already sweating, despite wearing a light summer dress. Even so, I stopped and put on a cardigan to hide the small round scab of ringworm on my arm. Although I can't be sure, I assumed I'd contracted the fungal infection during hog-care work in the UK. However, I didn't become aware of it until I was in Sydney on a stop-over on my way to New Zealand: a faint circle on my arm which I noticed as I was getting ready to board my flight to Wellington. Knowing that ringworm can lie dormant until one's immune system is compromised, I found myself reading it as a sign of my inner state: despite all the sadness of the situation of hedgehogs in the UK, it had been a happy and remarkably easy time of fieldwork. Being amongst hedgehog culling was unlikely to be so welcoming. Though topical athlete's foot treatment would clear the visible infection within a week or so, at the time of the Pest Fest it was a clear ringwormy circle, so I kept my sleeves rolled down despite the warmth, lest I be too quickly exposed as the pest-aligned human I was.

The festival was both smaller and somehow more threatening than I had anticipated. The dozen or so stalls were laid out in a neat circle, all facing a central table, and I found myself hesitant about entering what suddenly seemed to be some sort of chuck-wagon death circle. I lingered on the edge for a moment, feeling like a pest myself—out of place and somewhat under threat. Reminding myself that I'd flown half way around the world to come to this event, I pushed myself to enter the slow stream of people walking from table to table.

Inside the circle, stalls displayed kill traps and images of pest plants and animals to be targeted. Every now and again, announcements were made over a loudspeaker in which a

woman shared the educational tidbits kids had learned, such as details about which animals can be trapped at home, how many native critters one pest can destroy, how many species of kiwi there are.³¹ One stall was surrounded by taxidermied pests: a possum, a stoat, and a magpie. I was surprised by the magpie—although I knew they were introduced from Australia, I hadn't realised they were considered pests. I asked the man behind the stall—a robust, weathered man, dressed in an almost stereotypically conservation-styled dark green polar fleece—whether magpies are culled here. He explained that magpies are culled by the Wellington City Council because they chase off native birds. Tūi, he said, almost to himself, are pretty much just as aggressive, but they are native. And with a new feeling I still can't quite pin down, even for all the times I have felt it since—some unstable cocktail of sadness, dismay, fear, confusion, friendliness, attempted openness, shame and guilt—I nodded.

³¹ Throughout this chapter, I will be using 'kiwi' to refer to the flightless bird of the family Apterygidae, not human New Zealanders. In New Zealand, the term 'kiwi' is used to refer to both the birds and the humans (the potentially clarifying term 'kiwi bird' is never used), and whether it is birds or humans who are being referred to must be extrapolated by context (this is unlike the kiwi fruit which in New Zealand is always referred to with 'fruit' in the name—thus, to eat a kiwi is a disturbing thought for most New Zealanders!). That New Zealanders do not seem to mind being confused with members of the Apterygidae family perhaps suggests something of the close identification of human New Zealanders with this rare, flightless bird.

As an additional note, applying also to other Māori names, such as tūi, tīeke, and kākā I'll comment on these when I come across them but I'm not saying it's necessarily a spelling mistake – I reckon you could definitely argue that tūi & tīeke are just how those words are spelt in English?? even though they have macrons in te reo, Māori words are not pluralised with an 's' but by using plural articles or demonstrative adjectives I would call te/ngā/tērā/ērā all 'determiners' such as ngā or ērā ('the' or 'those' in plural form) rather than te or tērā ('the' or 'that' in singular form). Though New Zealand English doesn't commonly make use of ngā/te or similar distinctions, it is becoming more common to not add an 's' to plural Māori words, particularly in formal English. Thus singular/plural distinctions of Māori names used in formal New Zealand English often need to be made by context. I will be following such conventions in this chapter.



Figure 26: A taxidermied magpie, used to by the Wellington City Council to illustrate one of many 'pest' species targeted in culling programmes

Carrying this uncomfortable new feeling, I let myself be distracted by an adjoining table displaying two dead rats underneath a kill contraption. The stall's young saleswoman was explaining the mechanics of the device in a matter-of-fact manner to a boy who looked to be about nine (*Figure 22*). He was clearly fascinated. At pride of place on the table was a taxidermied ferret. I found myself looking around for a hedgehog among the stuffed target 'pest' critters, as surely a trap which killed ferrets would also kill hogs. I wondered whether there was perhaps still too much public fondness for hedgehogs in New Zealand, and, after the boy left the stall, I asked the woman if this was so. She replied, straightforwardly, that the device would kill hedgehogs but wasn't yet licensed for them as there hadn't been full humane testing for hedgehogs.³² The woman noticed another boy approaching and moved her attention to him, beginning to explain again how the trap worked. I thanked her and wandered off.

³² I would later find out, though, that they do kill hedgehogs as well.



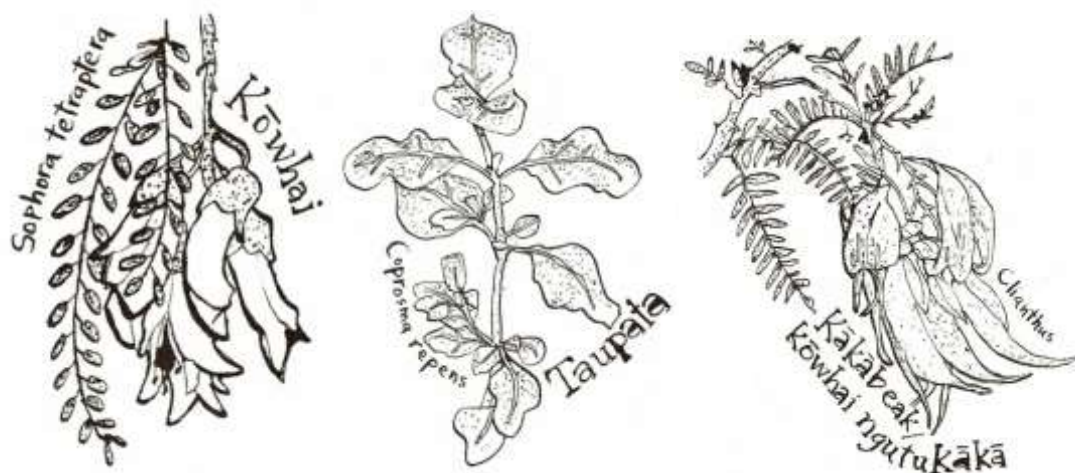
Several tables at the festival focussed on pet animals, offering non-lethal management options. The Wellington Zoo table was filled with pamphlets encouraging dog owners to take their canine companions to kiwi-aversion training and/or to keep them on leads. There were options other than death for cats, too. Through their relationships with humans, such critters are eligible for options other than death in response to the threats they pose to endangered native species. Another table, hosted by the University of Victoria, detailed a study of whether new-fangled bibs might disrupt cats' hunting. Such behavioural modification seemed to promise that, through such work, pets would not become pests.

Throughout the day of the Pest Fest, there was a marked contrast in the framing of critters on the basis of pest/pet distinctions. Though pets might have naughty habits (such as, for dogs, killing kiwi if allowed off-lead or, for cats, catching native birds if allowed out un-bibbed), such animals were depicted in cute, cartoonish ways. Pamphlets illustrated such critters as lovable members of the family. In this, such tables, and indeed, all the tables of the Pest Fest were not only doing informational work but also that which Judith Butler refers to as 'framing' (2009). Analysis of framing attends to the ways in which the other is presented or framed, and the ways in which such modes of presenting others in particular ways, eliciting particular affective responses (cf Goffman 1974). Crucially for animal-human

studies, Butler locates our sense of responsibility towards others in our affective responses— responses which are mediated through the ways in just such framing (2009: 34). Considering framing is thus vital for thinking about how it is that particular others become killable (Haraway 2008). Similarly helpful for challenging our habitual and potentially reductive ways of considering others, Isabelle Stengers has argued for the vital importance of challenging ourselves to think in the presence of “those that may turn out to be the victims” of our decisions (Stengers 2005a: 997). She urges that we find ways to slow down, to be interrupted, to consider anew what we are doing and with whom we act (2005a). Getting “in the presence of” another, however, is not without difficulty. Aside from the many ways in which the other is not knowable to us, we also create barriers to radical openness through various ‘protective manoeuvres’—the stable, accepted framings and methodologies, the “grand tales about the advancement of knowledge, rationality defined against sentimentality and the necessities of method”, which anaesthetise us to the vital and unsettling question: “What am I busy doing?” (Stengers 2005a: 997). Stengers wonders what decisions we might make without these sorts of protections.

Continuing to ask “what are we busy doing”? is difficult in the light of particular affective frames. In stalls throughout the festival, the deaths of ‘pest’ animals were often framed in a curious mixture of scientific rationality and humorous or celebratory modes, creating moods which were disturbingly easy to be won over by. At one table, a study on how to most efficiently kill possums was presented in a gung-ho style—little plastic pots of food were laid out on the table and the men at the stall challenged passers-by— “Can you guess what these baits are made of?” I found myself giggling as I guessed. “Oh, crushed walnuts?” I suggested (correctly) for one sample and, “crushed peanuts and something?” for

another, which turned out to be Nutella. Merrily engaged in this nut guessing game I momentarily forgot the reason for the samples. As the next guessers came along—a woman and young girl—I turned to read the explanation of the study programme and landed back in the reality of the research, which intended to find out what attracts possums best, and whether attractive food smells and pheromones can be synthesised. Unlike traditional food baits, the poster explained, such attractants would not need to be replaced after being consumed or going off. Additionally, pheromone-based bait would mean that possums would be attracted to the bait even when there was plenty of food about and their stomachs are full. Such technologies make for cheaper and more effective culling, thus also allowing conservationists to save more native birds.



This disturbing mixture of celebration and killing would throw me off centre, time and again, throughout the day. It was disturbing to see critters framed in such a way that their deaths were not mournable (Butler 2014). As Butler argues, public belonging is deeply intertwined with adherence to the “prohibition on certain forms of grieving” (2014: 37). I found myself vacillating between distress at all the unmourned death and waves of caution—even fear—as I worried that somehow my loyalties were apparent to the stall-

holders. In being a kill joy in such a setting—in this case, to disrupt the joy of killing—I feared exposing myself as a traitor to conservation and, thus, as a general bad (or even crazy) guy (Ahmed 2010). Sara Ahmed writes that “To be affected in a good way by objects that are already evaluated as good is a way of belonging to an affective community” (2010: 38). Conversely, failing to find appropriate pleasure in social goods leaves us alienated (Ahmed 2010: 41). Both during the Pest Fest, and many personal encounters in Wellington, finding my affects to be alien (Ahmed 2010: 49) left me feeling not only not at home, but also unsure of either my morality or sanity, as I failed to respond correctly to happenings framed as so obviously good, happenings which, nevertheless, part of me *could* see as good. It was not so much a sense of disagreement with the actions of my interlocutors—I suspect I might also choose culling in many of these situations—rather, it was the dissonance of our affects and, for me, a growing disturbance that a certain grouping of critters had been rendered so inconsiderable.



Surrounded by the celebration of deaths of critters I cared about, eventually, I cracked. On the far side of the circle of stalls, a small group of children were throwing things at three wooden boards. Moving closer, I saw that painted on each of the boards was an image of a ‘pest’: one stoat, one possum and one rat, and that the children were throwing bean-bags at them. When there was a direct hit, the boards spun around, revealing a native bird on the

other side. As I stood there, two more children scooped up a handful of beanbags each and walked right up to the display, where they began hurling at point-blank range, in turns intent and gleeful. The lump in my throat warned of imminent tears. Hardening my face in a desperate attempt to hold my tears in, I turned to leave the circle, to get out and find a cup of tea somewhere safe and dark. On the way out, I heard a man from another stall mention “horrible stoats” to a boy standing with his father. As the little boy walked away he turned to his father, announcing, “Dad, I *hate* those nasty stoats!” Head down, I strode until I had broken through the circle of stalls, and promptly burst into tears.

After half an hour or so with a cup of tea at a quiet, dark café/pub around the corner, my tears stopped and I slowly headed back to the Pest Fest, ready to try to come to grips with what was going on there, ready to try to be open to it. Curiously, next to the Pest Fest—but unrelated to it—a small carnival was operating. Just a Ferris wheel, a carousel, some ball-throwing competitions and a food truck. Pleased at the excuse to delay my re-entry, I decided to take a ride in the rough-looking Ferris wheel. An excited young girl and a man I assumed was her father were already on board. I was loaded in at the opposite side of the wheel, and we set off. From the top of the Ferris wheel, the festival looked tiny, unthreatening—merely adults wandering from stall to stall, children weaving through it all and milling about the ‘make-a-pinecone-kiwi’ craft table. Now and again, children ran up to the central table, presumably reporting their findings to be shared on the loud speaker. I’d heard some of the announcements while I’d been on the ground: facts about how many years kiwi live for (typically 20-30 years) or how many species of native snails there are (around 2000). This work of engaging children to know and love particular native critters was familiar from my time in the UK, and I found myself wondering how I could have been

so unable to connect with the people doing such labour here. After a minute or so on the ride, the little girl opposite me on the wheel started to cry. A couple of cycles later, the Ferris wheel stopped to let her and her father off and I was left for a minute, hanging right at the top. I felt increasingly foolish, a lone adult on a Ferris wheel and I was glad when, a few cycles later, the ride stopped. I steeled myself to re-enter the circle.



Figure 27: A view of the Pest Fest from the top of the Ferris wheel

Entering the circle for the second time, I headed past the taxidermy collection and the trial possum lures, to the beanbag stall. I introduced myself to the man and woman behind the stall, explaining my work as an ethnographic study looking at how we come to care for some animals and not others. I said that I could understand what they were getting at, but “did it have to be quite so, um, violent?” I worried, I told them, that such an approach might

encourage hatred of these animals, potentially leaving them open to abuse. There was a dreadful moment of silence and the woman behind the stall, tall and fit-looking, wearing a polar fleece and jeans, looked at me for a moment, expressionless through her sunglasses. She did a sharp turn to her left and joined the next stall over. She didn't come back. The man, who, it turned out, was originally English, watched her go. After a second or two he turned to me, a sympathetic smile on his face, and said he could understand what I meant, but that it was hard to come up with a fun activity that also got the message across. Children had to understand the importance of saving these unique creatures. It was true, though, he said in a kindly, reconciling, tone, that they could do to think about how to get that message across better. I thanked him and went to chat with other stalls, somewhat numbed, before I decided I'd justified my 22-hour flight, and finally allowed myself to leave.

3. Coming to care and coming to kill

Even if we aren't always entirely conscious of the work we are doing, the work of calling others to care is going on all around us. Such practices are what Anna Tsing refers to as "arts of inclusion", encouraging other humans to notice and become attached to those species we love (2011). This work was apparent in British hedgehog education days, through endearing hedgehog stories, making little clay hedgehogs, colouring cute pictures of hedgehogs and reinforcing hog affections with soft toys. Perhaps most powerfully, it was also the work of telling stories in which hedgehogs are valued fellow earth-dwellers, critters to be considered and appreciated for their cute, snuffling ways. Other work was more clearly directive, and parents, schools and hedgehog-rehabilitators actively taught children how to treat hedgehogs, how to consider their needs. So, back in NZ, it didn't seem surprising that similar programmes were afoot—card games, cute drawings, soft-toys, songs, story books,

encouraging messages on television and, at the Pest Fest, pine-cone-kiwi-making and even the bean-bag throwing activity. This is the work of learning to care, of re-orienting bodies and lives (Probyn 2014).

Just as I had helped British children to fall in love with hedgehogs, I wondered whether I could let myself be caught up in the work of developing cares for native critters—cares which seemed vital to develop in order to better comprehend the culling of other species in their defence. One weekend, the Zealandia sanctuary launched a game in which children were encouraged to collect and play with a set of cards, each of which represented different living and extinct native birds. I bounded up to the man hosting the event and introduced myself, saying that I was very excited about what they were doing with the cards because I also wanted to learn to really care about native birds. He paused and frowned a little. “No, they’re not for getting kids to care about native birds, they already care about them.” He tilted his head slightly and frowned more. “Do you mean you *don’t care* about them?”

“Well, I mean, *I do*, I replied, just maybe not as much as a New Zealander *should*,” I replied, still feeling upbeat. “I mean, I love fantails and I’ve come to really enjoy the kākā since I’ve been in Wellington, but I also like hedgehogs and magpies. So I’m kind of struggling with the culling. That’s why I’m here, you know? I wanna start to learn to really ‘get’ native birds, so I can get to grips with the killing.”

“But you don’t need to *do* anything to care about native birds,” he said. He seemed perplexed and perhaps a little cross. “Have you actually been *into* the sanctuary?”

“Yeah, I’ve got an annual membership.” I reached into my wallet to grab my membership card as proof of my best efforts. However, he wasn’t watching. Rather, he was looking out at the sanctuary which was visible through a large plate-glass window.

“Well, you just need to go in there, just look at them,” he said, pointing. “That’s all you need to do, *look* at them—just there!” He waved his pointing finger. “See, that tūi, just there, you just need to *see* it!” He went on to encourage me to look at his friend’s twitter account to see the footage of kākāpō chicks. “They’re parrots,” he said, “so you really don’t get more charismatic than that.”

After promising that I would look at the kākāpō footage, I thanked him for his time and checked that the packets of playing cards were only free for kids. He said yes, but I could have the info sheet. I thanked him again then went upstairs to the shop to buy two packets of cards from the giftshop.

I have since found myself intrigued by this deeply awkward conversation, our markedly different orientations to the obviousness of loving native birds. Looking at processes of “coming to care”, Elspeth Probyn argues that what we care about is a matter of ‘habitus’, of our fundamental and bodily shaping as humans meeting with particular re-orientations of our cares as we are shaped by practices, attitudes and new knowledges throughout our lives (2014: 291-2). For Pierre Bourdieu, habitus is our social world embodied, our dispositions shaped by our social worlds, and in turn shaping them, forming the lens and mode of being through which we experience life itself (1977: 79). With our cares well-aligned with our social worlds, the work of calling others to care is not always apparent. In such a happy situation (Ahmed 2010), the object of our affections is also socially defined as “good”, and so we all participate in continuing to frame this object as such, with

such orientations apparently emerging from the inherent value of that which is cared-for (2010). Yet, in truth, a great deal of work goes into forming such attachments. We *learn* who and what to care for. In this way, calling others to care holds a curious tension at its core, in that through *teaching* others to care, in encouraging others to care for something, we do active work of creating attachments, yet all-the-while hold such cares as self-evident.

Undoing cares

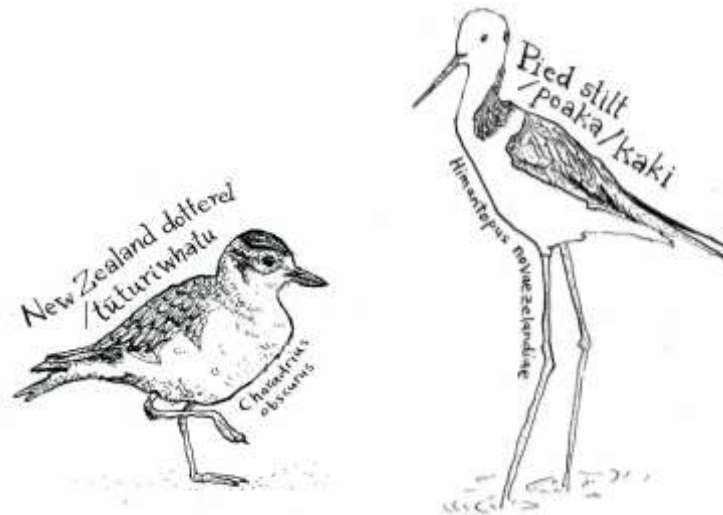
In conservation practice in New Zealand, there is not only the work to create new attachments, but also to discourage competing cares from taking hold. At the Pest Fest, I had met Ilona Keenan, a Wellington City Council Pest Management Biosecurity Officer. All morning, people had been telling me that if I was interested in hedgehogs, I needed to talk to her. Upon tracking her down and introducing myself and my project on urban hedgehog-human relations she exclaimed, apparently delighted, “Excellent! Just the person I am looking for! You can help me get all of New Zealand to hate hedgehogs!” I laughed, her enthusiasm somehow welcoming despite the grisly prospects. I explained that I was more just trying to understand how conservation worked in New Zealand. Illona passionately – and somehow warmly—declared that hedgehogs were “Horrible!” She told me that camera footage had revealed that the mysterious force stressing dotterels and eating their eggs—to the point of nearly 80% nest failure in one key braided river site—was actually hedgehogs. I admitted that I knew and that it did sound horrible and that I could see hog-culling was vital for dotterel survival. But still I struggled with the culling. I murmured that I probably wouldn’t be of much help in her quest for social transformation.

As part of Conservation Week the following year, the Predator Free 2050 campaign was publicly launched with then Prime Minister John Key stating “Our ambition is that by

2050 every single part of New Zealand will be completely free of rats, stoats and possums” (2016). The government also invested an initial \$28 million into a private-public partnership, “Predator Free New Zealand Limited” (Key 2016). The following year, the government would pledge an extra \$7 million annually on top of public spending of currently over \$70 million a year (DoC 2007). “Pest Free Wellington—What Would it Take?”, a talk by seven speakers from various conservation groups outlining what Wellington would need to do to become pest free, attracted a packed audience of 300 people. Illona held a pest education stall prior to the event and, at the end of all the talks, brought up her question again, this time to Michael Harbrow, Manager of Social Science at the Department of Conservation, asking, “Social scientist, how do you get people to hate hedgehogs?” The compere, Department of Conservation Threatened Species Ambassador, Nicola Toki, interjected: “My response always is, you wouldn’t feed a rat bread or milk or cat biscuits, so why would you do it with the hedgehogs?”

The microphone finally passed to the Department of Conservation social scientist. “I guess you have to think about what motivates people, rather than what motivates conservationists,” he said. He suggested that emphasising the mess of hedgehog poo might help, or that if people want to avoid killing hedgehogs on the road, then that could be used too as an argument to encourage people not to feed hedgehogs and thus to not try to attract them to areas where there are cars. I puzzled at the time, this argument actually being about how people could avoid harming hedgehogs. Understanding motivations was, for his team, the key question. He finished by saying, “Interesting research topic, though.”

“Beatrix Potter has a lot to answer for—that’s all I’ll say,” the compere concluded.



In a social world in which we are generally not practiced at holding contradictory cares (though see Chapter 6 for such private holding of tension), being attached to some critters does make caring for others potentially harder. I find it almost impossible to see a tūi without thinking of the magpies trapped and killed for them, or to see stitchbirds without thinking of the deaths of predator mammals by traps or brodifacoum poisons. Attachments to hedgehogs certainly can also make people resistant to their deaths. On a bright day in early spring, I headed to the Otari Wilton Bush Open Day. A man was showing a young girl how the DoC 200 trap worked.³³ There was a toy rat inside, a broad smile on its cartoony rat face. The little girl and I both jumped at the sudden loud bang as the arms of the trap smashed down. Once recovered, the little girl looked across at the taxidermied animals on the next table, the same Wellington City Council critters which had been at the Pest Fest—a collection which included a (rather grizzled) looking hedgehog.

³³ Aotearoa/New Zealand's Department of Conservation (DoC) were the designers of these traps which come in three models 150, 200 and 250, as shown in Figure 24. They are sold commercially both within the country and outside it.

Looking back to the trap, the little girl asked Jim whether the trap would catch hedgehogs, too. Jim paused.

The little girl added: “or maybe they couldn’t get through this little opening?”

“Oh no”, Jim replied, “you’d be surprised, even though the hole is small, they can squeeze down and get through that gap”.

The little girl went very quiet. Jim went on:

“Hedgehogs are more of a problem than you’d think—perhaps not so much here in the city, but certainly they are a problem for ground-nesting birds.”

He explained, as had Illona, about how video footage around dotterel nests had shown this.

The little girl was staring blankly at the trap. “How do you feel about the hedgehogs being trapped?” I asked her. She made a sad face, slightly shrugging her shoulders. “You’re not sure about it?” She nodded. “Yeah”, I said, nodding sadly. I can’t remember whether I said, “me too”, but I hope I did. I later regretted putting words in her mouth, wondering instead what she might have been feeling, whether she could have explained it to me. I looked at Jim as he reiterated that this work all helps the birds and, when I looked back down, the little girl had gone.

In order to avoid such attachments from being established now, there is careful work done to not allow cuteness—Beatrix Potter-style or otherwise—into the representation of pest critters generally. The 2016 Pest Fest day was a much smaller affair of only five stalls set up around the corner of a building. Still, however, the taxidermy collection was on display and, taped to the desks, were various laminated images of ‘pests’. Chatting about the set-up process for the day, a young woman behind the stall commented on the difficulty of getting

the right pictures. “It’s hard to find ones where they look sufficiently menacing,” she said. “We took ages to find this one” —she showed me a picture of a stoat with bared teeth. “In the others they were all far too cute.”

In this way, activities such as the Pest Fest throw-a-beanbag-at-a-pest stall reinforce a particular, limited, framing of stoat, possum and rat lives—emphasising the, admittedly hugely destructive, native bird-and-egg eating habits of these critters, while carefully avoiding any of their furry charms, intelligence or intriguing idiosyncrasies. In contrast, native critters were not shown taxidermied, but rather were represented alive and in wild habitats, or in cute cartoon form. Allowing introduced predators to be shown in loveable ways may be seen to be problematic. In an aside during an interview, one woman recalled that the Wellington Zoo used to have a pair of rats and a hedgehog as education animals. At times, however, parents would ask, “Why on earth do you have them? They’re pests. The point at the time had been to get kids to love animals generally and both rats and hedgehogs had been easy critters for children to interact with: rats for their sociability and hedgehogs for their nonchalance. Eventually, however, the Zoo got rid of these educational pests.

Haraway has noted of our ways of relating with other-than-human critters that “once we know, we cannot not know. If we know well, searching with fingery eyes, we care. That is how responsibility grows” (2008: 287). While this may be, it seems I can be encouraged to forget such curiosity and care. Having grown up next door to a well-loved family of wild and troublesome yet charming magpies, whom I fed on the occasions my neighbours (their local champions) were on holiday, I had been initially disturbed by the killing of magpies in my home suburb. However, I had apparently, unbeknownst to myself, become used to this idea. I didn’t realise this had happened until I read Katherine Wright’s online multispecies

ABC entry for 'Becoming-with', and I watched the attached video of a little Australian magpie playing with a puppy (2014). Charmed by this rough-and-tumble interspecies negotiation of what play might mean, I had the shock remembering of the charms of magpies, feeling the contrast to the disregard which I had apparently built up around them over the past eight months. It wasn't until watching this clip, finding myself relating to a magpie, again, as a critter with its own desires and relationships, that I realised that I had allowed magpies to flatten that, in their only being presented to me as a taxidermied pest that my cares for magpies had shifted accordingly. I had started to accept the view of magpies as a killable pest.

In this way, conservation strategies in Aotearoa/New Zealand not only emphasise coming to care for native critters, they also do the work of unstitching cares for certain introduced species. At times this undoing is carried out through the sorts of selective representation which subtly (or not-so subtly) remove a critter's potential charms. At its more extreme end, it operates through direct encouragements—even pressures—to hate and attack. Such framings re-cast the work of killing 'pests' into the simple work of the good. As argued in Chapter 6, there is danger in such simplifications, not only in the ways in which decisions are too easily made with such limited presence of those who would be the victims of such decisions (Stengers 2005b), but also in the ways in which cruelty can often go unchecked when allowed to operate under the mantel of the apparent and unquestioned, "right and good" (Guggenbuhl-Craig 2015 [1971]: 22).

4. Estranged loves and well-aligned cares

While the mood of the Pest Fest had been a shock, a similar upbeat conservation spirit was palpable throughout much of Wellington, creating, overall, a new common sense of

conservation. It soon became apparent that not only were many people delighting in the return of tūi and introduction of kākā to the city, but that an enthusiasm—even a joy—for trapping was spreading. Culling was not only framed as common sense within the conservation circles I found myself in, but it was also considered a sufficiently fun and interesting activity that a quality trap could acceptably be given as a birthday or anniversary gift. Enthusiasm for trapping popped up in unexpected places, such as when I asked my doctor to tell me a happy story to distract me while she took blood. Without knowing my PhD topic, she told me of the rats she and her husband had caught in their backyard and the feeling of victory she'd felt at having potentially wiped them all out. In my weekly Māori language class—something now offered for free to any New Zealand resident or citizen wishing to learn—several of my classmates were bemused, and a couple even a little horrified, at my project. That I was moving in social circles in which trapping was increasingly standard behaviour became clear when I discovered one classmate happened to be a housemate of John and Rachel of Hodge-killing fame (Chapter 1). A few months later, at a party at their house, John and Rachel were relaxed and friendly. Somewhat bemused, they accepted an early draft of the first chapter of my thesis. As the night wore on, amidst craft beer and a competitive stretching game, things I felt very much at home amongst, the topic of conversation eventually turned to trapping. It turned out that many party goers were enthusiastically involved. Here, John and Rachel were just regular young conservation-minded folk. I found myself estranged throughout much of the city.

Throughout Wellington, backyard trapping has rapidly gained social acceptance. In 2004, there were 12 community-based environmental groups. Today there are over 120, many of which are either involved in trapping or are interested in getting involved (Pest

Free Wellington 2016). While I have met several conservationists in Wellington who do not have backyard traps, there are moves afoot to establish kill-trapping on one's own property as obvious and common sense. At the "Pest Free Wellington, What Would it Take?" talk, Nicola Toki said to the packed crowd, "I would argue the most important part is the people in this room, and the rest of the country, putting a trap in their backyard the same way that they might put a seatbelt on when they get into the car—without even thinking about it." Kelvin Hastie, the central organiser of a local trapping group in the suburb next to mine put it this way:

I think about three or four years ago, before Enhancing the Halo started and all those sorts of things, I would have stood here and said, "Who's got a trap in their backyard?" But now I think it's more of a case of saying, "who hasn't got a trap in their backyard?" Can those people put their hands up? ... and then come up the front.

Sitting in the audience, I had quietly put my hand up as Kelvin asked who didn't have a trap. I didn't catch sight of anyone else with their hand up. I swiftly put my hand down again as he suggested those of us without traps come up the front. Other speakers at the talk commented that social weight is tipping in favour of trapping in Wellington, and that this is precisely what needs to happen. Department of Conservation social scientist Michael Harbrow commented that this was reaching a critical mass, "As your neighbours all get rat traps, you're going to have really strong pressure." To help kick-start this strategy, all attendees were given a free rat trap at the end of the evening; I accepted one as I left the hall. Though it has remained unused, sitting in my wardrobe, in publicly accepting it I both responded to and perpetuated the normalisation of backyard killing, and of the categorisation of certain critters as evidently killable.

Deadly Articulations

Some of the work of establishing new norms, however, was not just that of creating a critical mass of people involved in trapping. There was also active work undertaken to articulate the work of trapping with particular, beloved, aspects of New Zealandness. Taking his lead from Ernesto Laclau, Stuart Hall describes articulation theory as attending to the ways in which various social groups and aspects of ideology with no necessary belonging or connection come to be woven together into coherent, apparently obviously connected discourses and movements. Such analysis argues that we need to take into account the sorts of historically-informed, non-necessary and contingent connections through which apparently disparate forces become articulated (1986: 53). However, as Hall notes, while, theoretically, there are unlimited possibilities of such articulations, in practice not everything sticks, and historically-informed “lines of tendency” make some associations more likely than others (1986: 53; see also Clifford 2001: 481).

Powerful connections have been forged between the effort to go ‘pest free’ and New Zealand’s progressive history.³⁴ As Nicola Toki said during the “Pest Free Wellington—What would it Take?” talk’s opening address: “We were the first country to give women the

³⁴ The alignment between trapping and progressive politics in New Zealand is in some ways curious, as other groups which oppose animal killing in New Zealand, such as vegetarians or Save Animals from Exploitation (SAFE), are also often aligned with left-wing politics. As Potts and White have argued in their paper, “New Zealand vegetarians: At odds with their nation” (2008), many vegetarians in New Zealand struggled with what they saw as NZ’s commodification of animals and felt that, related to this, they did not have an easy sense of belonging. However, many also felt that, while they might not fit with mainstream New Zealand identities, they were part of a story of progressive politics in New Zealand. Thus they were able to find a place among the:

...descendants of the New Zealand suffragists, the anti-whaling protestors, and the anti-nuclear activists—as critical thinkers determined to make an impact upon their country’s dominant meat-eating culture and its exploitation of nonhuman animals (Potts and White 2008: 350).

However, vegetarians and ‘pest’ trappers are by no means mutually exclusive groups. Animal rights arguments are, at times, made for killing ‘predators’ as, by doing so, one is potentially saving a vulnerable (usually) native animal from a painful, and potentially drawn-out, death.

vote, we were the first country to put a man on Everest, we had our nuclear free movement, this is our next big thing.” Despite the suffrage movement and nuclear free New Zealand being initially somewhat marginal political movements, they are now widely-embraced in a story of New Zealand as a socially progressive nation.³⁵ Becoming predator free is being actively woven into this story.

Creating a powerful, if somewhat contradictory, notion of ideal New Zealandness, culling was not only linked with the nation’s progressive history, but also with ideal notions of practical, outdoorsy personhood. As Nicola Toki said of getting involved in trapping in urban areas:

it plays to our sense of a ‘good keen man’ – a ‘good keen woman’ as well—because, despite the fact that 85 or so percent of us live in cities, we all like to think that we are people of bush, and people of the ocean, and people of the mountains. So this idea that, even in my city, I could be out in my backyard smashing little creatures—humanely!—that helps us fall in love with that notion of who we think we are as New Zealanders, and it plays directly into our national identity.

Here, the ‘good keen man’ and ‘good keen woman’ references are taken from the titles of two classic New Zealand novels written by author and deer-culler, Barry Crump. Crump’s images were also invoked by another local trapping team, a group focused on an area of inner city Wellington, who referred to themselves as ‘wilderpeople’, referencing the recent New Zealand police-evasion bush-quest film, *Hunt for the Wilderpeople*, based on Crump’s

³⁵New Zealand’s nuclear free commitment was recently partially rescinded when the US guided-missile destroyer USS Sampson was given permission to enter NZ waters in November 2016. This is the first US warship to be permitted into New Zealand waters since the restrictions were first set over 30 years ago, due to the US policy of neither confirming or denying the presence of nuclear weaponry or fuel reactors on warships.

1986 novel, *Wild Pork and Watercress*. Crump's writing typifies the ideal hard-case,³⁶ hard-working, practical-minded and rugged New Zealander—someone whose practicality also allows them to do the dirty work of defending what matters.

Such qualities of ideal New Zealandness also align with pākehā moves to claim indigenous status through the work of conservation. As Potts, Armstrong and Brown (2013:19) argue, ecological restoration work is at times used by pākehā New Zealanders to make claims of indigeneity. The cover of *Being Pakeha Now: Reflections and Recollections of a White Native*, the memoir of influential pākehā historian Michael King, states: “New Zealanders who are committed to this land and its people are no less “indigenous” than Māori” (2004; see Potts et al. 2013: 19). The sorts of ‘protector of native species’ framings common in mainstream conservation not only attempt to claim the position of guardians of the environment but also contain neo-colonising aspects, displacing Māori modes of environmental care and engagement. Such approaches tend to make species-level categorisations rather than to respond to the balances between species as the land care strategies of many *iwi* (tribal groups) have emphasized. While *iwi* have different strategies of caring for the environment, notions of aggressive removal of introduced species are not necessarily present in Māori conservation strategies. Such strategies have instead tended to include some degree of incorporation—even welcome—of earlier introduced species, including the kiore or Polynesian rat and captain cook pigs. The sorts of ‘protector’ notions of such strategies also frame conservationists of saviours in a pure and distanced way which displace (and often make very difficult) traditional Māori methods of gathering, hunting and

³⁶ In New Zealand English, ‘hard-case’ typically means a mixture of witty, laid-back and perhaps a little eccentric—almost always in a ‘do-it-yourself’, ‘number-eight-wire’, unconventionally ingenious yet practical sense.

caretaking (Coombes 2007: 192). Commissioner with the Environment Court and Ngāti Hine *kaumātua* (elder) Kevin Prime, has called the poisoning of possums “forms of indiscriminate killing to waste” (2014, np), emphasising instead ways of making the most of these critters including hunting, caring for and living with these animals. Such possibilities of living with, however, are not apparent in these fierce articulations.

Well-aligned cares

Framings which prevent such critters from eliciting the sorts of affective responses which would complicate their being killed, alongside the articulation of trapping with qualities of idealised New Zealandness, combine to make the urban trapping of pest species increasingly common sense. In contrast, the cares of those with pest sympathies were increasingly visible as such: that is, unlike the obviousness of cares for native critters, pest cares were seen as clearly contingent, historically situated. In New Zealand, my fondness for hedgehogs would quickly be located in some – albeit not *untrue* – anomaly. Wellingtonian responses would often be along the lines of “ah, you must have grown up with Mrs Tiggywinkle?” In contrast, in the UK, my cares for hedgehogs had been so common sense that no histories or justifications of my cares were ever asked for.

In Aotearoa/New Zealand, those who challenge the mainstream of conservation are under threat of being labelled as crazy. In Wellington, one of the most public sources of conservation critique comes from Feline Rights New Zealand, who challenge the idea that native animal lives are worth more than those of cats. During conservation events, such groups are the target of both ridicule and rage. Several of my conservationist interviewees raised the question of whether it might be infection with toxoplasmosis that makes “cat people” so over-poweringly love cats. Such seriously-joking remarks question the sanity of

people with a common sense-challenging love for cats, as well as the extent to which they are in control of their own feelings. In worlds which idealise the 'independent' and 'self-made', the recognition that one's cares might come from outside of oneself—be it from a virus or history—is violently delegitimising (Latour 2002). However, as Butler writes, we are always pulled by something outside of us into caring for others (2014: 130). All cares might be thought of as variously toxoplasmodic, some sort of meaningful, constitutive invasion, connecting us to the world.

Accusations of mad(e)ness, however, work to allow the challenges from 'cat people' to be quickly dismissed, as well as to make dissent socially risky. Certainly, the threat of ending up tarred with the "cat person" brush encouraged me to stay quiet about my attachment to introduced mammals in many situations. Such tarring of others as 'mad' needn't be considered a deliberately delegitimising move on the part of conservationists—the fundamental nature of the common sense of a particular field is that it demarcates reasonable behaviour and thought. Some months after I arrived back in New Zealand, I met Jamie Steer through a contact at the New Zealand Centre for Animal-Human Studies. Jamie works as a Senior Biodiversity Advisor with the Greater Wellington Regional Council and had recently completed a doctoral thesis in environmental science looking at three case studies of introduced animals: deer, ducks, and trout. Jamie's is one of the few voices questioning accepted conservation practice to be given serious space on mainstream media.³⁷ His analysis suggests that, at times, New Zealand scientific practices have overlooked

³⁷ There are other groups around, such as the Feline Protection League and various anti-1080 groups. While such groups may be noted in media coverage, they tend to be reduced to sound bites. I am yet to see an in-depth interview on television or radio with such groups, or the publication of their articles in major newspapers. In interviews with members of such groups, they have similarly noted their side-lining from public debate.

possible species reconciliation solutions, tending to view eradication as the only option. More fundamentally, Jamie's work has questioned the ways in which we value species within New Zealand conservation practice. As he noted in the introduction to his PhD, the negative reaction to his research from work and academic colleagues led him to question whether it was wise to continue:

At that fairly early stage I genuinely considered abandoning the project altogether as it was damaging my reputation as an ecologist and therefore my ability to make a living. According to some, my views had become 'crazy'. Although I persisted with the research, my framing of questions since then has tended to be much less direct and I have distanced myself from active debate. I note this to express the very real and very personal reality of ostracism that may prevent further moves toward reconciliation (2015: 375).

Here, caring wrongly makes one's thoughts seem odd and unscientific in ways that work animated by common sense cares is not. Since the completion of his thesis and dissemination of his work through newspaper articles and radio broadcasts, threats have been made to Jamie's job. Comments challenged not only Jamie's morality, but also the quality of his science, with his work being dismissed by some commenters on a recent newspaper article as: "hugging bambis" and "politician material" (Steer 2016). While, following an interview on New Zealand's public radio station, Radio New Zealand National, a significant minority of responses expressed gratitude for Jamie's views with expressions such as, "NZ needs free thinkers" and "Thank you for giving room for this kind of 'environmental heresy'", many were highly negative, with many comments specifically dismissing his science on the basis of his obvious alignments: "can you please ask where this speaker's funding / scholarship / money comes from? I find his views exceptionally bizarre, upsetting, wrong and outrageous, to the extent it seems his view must be sponsored

somehow..." (Louise) or "To sanctify prolific introduced species that will destroy the rare unique species is a selfish narrow egocentric view, since that is what his doctorate is all about. Hopefully he stays a lone voice" (Gary Beecroft).

In contrast, for those scientists who have the benefit of having their animating cares aligned with the common sense, cares for endangered critters are able to be smuggled into the powerful realm of the objective (Bourdieu 1977; Haraway 1997: 26). Such cares assume an obviousness: that we care for what we care for because it is inherently worthy of our affection, not because of the work and histories and contingency which goes into forging these attachments. Of course, many cares have adaptive or biological aspects. Konrad Lorenz and others have argued that human (and other species') attraction to certain 'cute' qualities, such as proportionally large heads and eyes, might be linked to the need to care for the young (Lorenz and Leuhausen 1973: 306-7). Yet, as Lorenz also argues, such attractions are not without cultural shaping. Which others we find to be cute and how — or whether — we come to care for them, are questions with a wide range of answers globally. Furthermore, as Jamie Lorimer argues, certain humans actively dislike 'cute' species, tending to care instead for the grotesque or other-worldly, further complicating the link between cuteness and love (2006). Jamie Steer is not simply cast as being attached in different ways, as differently caring — a framing which would be an opening to discussion (how do we value ecosystems? As static or emergent? How should we think about suffering?). Instead, he is cast as being unable to comprehend what is genuinely worth caring about. As one commentator, expressing this common theme, noted: "the concept of 'intrinsic value' also seems to have escaped Mr Steer" (Steer 2016). As van Dooren writes with respect to the conservation of the Hawaiian crow, the 'alalā, the "common sense" nature of the logics

structuring care and violence makes it “that much harder to contest for alternative spaces, relationships and possibilities” (2015a: 3, 10). In a social climate in which the culling of invasive species cannot be questioned without threat of social ostracism, it is difficult to not feel bullied along, rushed into killing as a first response at risk of being labelled heartless or idiotic.

5. Presence and Absence: Technologies of making-killable



A key element of feeling rushed along, and of the construction of what is considered obvious, is the materiality of trapping itself. That anti-pest sentiment has increased alongside the development of kill trap technologies is no accident, the two forces have instead worked together intra-actively, with conservation values being made manifest in the traps and the traps themselves playing into public action and discourse in varying ways (Barad 2007; Gruen and Weil 2010).

The influence of the materiality of trapping is, however, not entirely linear. Instead, traps turn out to have surprising ways of making their targets present to the trappers (Stengers 2005b). In interviews, several trappers independently stated that, though they hadn't particularly been fond of pests before they started to trap, meeting the carcasses of these animals led them to appreciate some 'pests', particularly rats. It was through handling

dead rats, feeling their pelts, that they realised how beautiful they really were. Though this didn't necessarily stop their trapping, it did reinforce the need to kill as well as possible, as humanely as possible. This was not universal, however: another trapper, otherwise an animal lover and vegetarian, said that he had made himself learn to hate rats in order to be able to kill them. Meeting them in traps had not budged this feeling. Several others learned through killing to relate to dead rats as a tally: a carcass became a sign of achievement to the extent that such trappers wondered how they would stay motivated when kill numbers were low—even though they knew that this was ultimately the aim of their labours. Trappers' feelings towards hedgehogs, however, were considerably less positive as a response to the particularity of finding dead hedgehogs in traps. As hedgehogs seem to putrefy faster than other critters, even people who had been quite fond of hedgehogs before they started culling came to develop a dislike, even disgust, for the stinking animals in their traps. That their spikes make them difficult to remove from Department of Conservation traps didn't help, leading to frustration and even greater intimacy with the stink of hedgehog carcasses.

In interviews, several people told me of the process of getting used to killing, the ways in which it was almost a quantum leap into a new way of figuring themselves and those they now killed. Reluctant trappers, with a circularity I nonetheless believe in, spoke to me about how it was the doing of killing which had made killing really feel possible. One trapper explained to me that mice transformed for her as she killed them. The first time she laid a trap she had been full of dread but, having done it, mice became something she knew she could kill. The process, however, isn't always as smooth: one young woman shuddered as she told me about the first time she killed a rat in a snap trap. She went home and cried,

but now finds she is used to it; she just throws the carcasses into the bush and reloads. In casual conversations, several people told me it was the Goodnature traps which first got them involved: the specifics of the trap and the lack of direct contact in these self-reloading traps helping encourage their involvement (Figure 23). Another long-term conservationist had worked for the Department of Conservation back when possums were caught in leg traps. Typically, they were caught during the night and would remain trapped until they were killed by conservationists in the morning. Best practice had been a hammer to the possum's temple, she said, and some people were really swift and good at it. She'd never become skilled at it, and hated the idea that, 2 or 3 times, she'd taken a couple of blows to make the kills. She had avoided the active killing from then on, wrangling things so she could just assist. She hadn't become an active trapper again until the introduction of the Goodnature traps, and now had one in her back garden. Such distancing and depersonalisation, however, does not act alone. Rather, the greater ease of killing enabled by these distancing technologies operates within a climate in which beloved critters are threatened with possible extinction. Such a driver helps us to kill—especially those of us who would usually not be direct killers.

I met Nic and Nick through Illona who told me the men had had high numbers of hedgehog kills and would likely be interesting to talk to. The two men, both in their late 30s, had taken on caring for a line of several traps on Mount Victoria and had caught around 50 critters in the previous six months, 12 of whom had been hedgehogs. I met them at Nick's house on a day they were to add several new traps to their 'line'. Nick's young son wanted to come with us so, each with a trap box in tow, we set off up the hill at the end of their street. They were kind and put me at my ease. We chatted as we walked, with me asking

interview-style questions which Nick and Nic kindly indulged. I asked as we walked about whether there were any joys of trapping, and while it wasn't an active delight, both noted the importance of trapping creating a connection to place—as something which kept them doing this work; particularly as neither man worked in the area, they felt that this work connected them into their local worlds and was something they could do for their communities. They hoped not just for the survival, but the flourishing, of native birds in the area. However, Nick noted they weren't thinking about these benefits at the time of trapping, rather, they would just get in the mode of killing. Deliberate pleasures, however, also attended the trapping. We stopped for a beer part way through the round of checking the traps, which was explained to me as a pretty normal part of proceedings. Nick's son had a chocolate. The mood generally was upbeat and relaxed. The guys commented that as this is recreational, volunteer, labour, it needs to be sustainable.

As we continued on the rounds, checking previously laid traps (with no catches so far, to my relief) and choosing locations for the new ones, I asked Nic and Nick about the hedgehogs they'd caught. It had taken a bit of getting used to killing hedgehogs, they said. They already knew hedgehogs were a problem for conservation and that they were being killed by the Department of Conservation in some parts of the country, but it was still a surprise when a hedgehog had been the very first thing they caught. Nic said he'd had initial misgivings about it—or more, that he was surprised that he had killed a hedgehog—but he checked with two local ecologists, and they told him he was doing good work in catching them. He explained that he then went into the mode of killing hedgehogs and never looked back. “Do what you're told,” he said, half-joking but respectful, “ecologists sort it out, we just follow best practice”. Here, not only do the technologies create distance

from killing, but so too do the directives of experts. Nick paused and mused that it's sort of a shock the way that killing becomes very every day and not really a worry or bother. He adds, "It's not about thinking each time you take a life."

At the bottom of the hill, we came to the final trap, a trap which, apparently, hadn't been as prolific a catcher as the traps on the ridge, but which had caught a few rats. I said I'd been interested in how the trap actually works, and Nic and Nick encouraged me to set it. It was a Victor trap, one usually used to catch rats and which I had practiced setting at home after being given a free one – though I had never considered putting it out. Nic and Nick handed me the blue bait to apply and stood back as I set the trap according to their instructions and gingerly placed it into its tunnel. As we walked away from the trap, I felt a wave of panic and regret that my set-up would potentially kill someone. I shared this feeling with the guys and Nick reassured me: think about the horrible deaths other animals would die at the hands of rats. You've probably saved several birds, or at least you will if that trap catches something. I did feel relieved, but this comfort soon washed away, replaced by a host of feelings which I suspect will remain resistant to simplification. The strongest, however, and the most disturbing, was the ease of this decision to kill, the apparent obviousness of it. This had not felt like the sort of 'tough decision' which implies one is facing the multiple ethical pulls of a situation. Instead, it felt like too-easy, too-smooth flattening, of ethical obligations (van Dooren 2014b: 38). Here, not only did the technology allow me to kill without having to face the presence of critters I care for, but I was also offered the possibility of belonging, of staying with this upbeat mood that we are doing something good. Staying with that mood meant not thinking about the lives of those being killed, an absence which was disturbingly easy to create.

At the end of the trapping round on Mt Victoria, we wandered to check one final trap. It turned out it had caught a hedgehog. This had apparently happened some time ago, however, as the hedgehog was now very flat and dry. Spikes fell off as Nic removed it, and set the trap again, the mighty weight of the DoC 200 apparent as he pulled the jaws of the trap apart (Figure 24).



Figure 28: The dead hedgehog caught in the final trap of the line

Not wanting to know the outcome of my setting, I didn't email Nic and Nick back for some months. When I did they said the trap had killed dozens of mice and rats, but they couldn't remember whether my particular setting of the trap had done so. I didn't push further.

Since this event, some friends have suggested links to the Milgram experiment in which a group of men were led to believe they were administering shocks to a participant. Though the shocks were not real, the experiment caused waves when many of the men followed the instructions of an authority figure to increase the shocks to levels which would have been fatal had they been real (1973). Had I also fallen victim to obeying an authority figure against my conscience? I am resistant to too-easy comparisons; these are different stories demanding attentions to their particularities. My primary resistance, however, is against the implication that these are abnormal happenings, particular cases of pressure or bullying. I am more interested, instead, in the everyday ways in which stories, infrastructures and ways of relating, including authority and belonging, make others differently present and absent to us, differently considerable, directing us towards violence and care in ever-particular ways. In short, this is not a situation that we might ever step out of, to suddenly make decisions which are somehow completely independent and clear-sighted. I do find myself wondering, increasingly, about what my socio-technical worlds make possible, about the sorts of violences which are not apparent to me. I am interested in ways of slowing down (Stengers 2005b).

Discussion: Caring for cares

How the other is made present to us, through which stories and technologies they are mediated, matters deeply. Relationships shift under different sociotechnological regimes. In Wellington, 'pest' animals come to be recognised differently within conservation worlds, with their cute or funny aspects deliberately omitted from their everyday representations. While our recognition of the other is surely always, to some degree, partial, I wonder what decisions might be made in the presence of subjects given room to display more of their

charms. It also becomes difficult to think otherwise when identity becomes bound into caring in a certain way, when some cares are legitimated and others are not.

There is a great deal of work—both intentional and not—which goes in to our coming to care. However, as such cares get established as common sense, they are allowed to look as if they are not cares at all, as if they are somehow not also constructed. There is an immense politics in this invisibility. As Maria Puig de la Bellacasa notes, refusing the power of such self-erasure and universalism is a key aspect of feminist politics (2012: 206). It takes courage and generosity to willingly render one's madeness visible when one finds oneself in the powerful positionality of having cares well-aligned with the common sense. Certainly, I had enjoyed the sheen of objectivity my cares for hedgehogs gave me in the UK and, there, rarely considered giving up the privileges they lent me. In contrast, when we find ourselves with cares outside of the obvious we come to look, instead, somewhat toxoplasmotic: disturbingly invaded by infectious alien attachments, as if that wasn't the very nature of all of our cares.

During my fieldwork in the UK, I had become convinced of the vital importance of our cares to our very selves. I hadn't, however, really considered the effects of unstitching my own cares (see Tamas 2009). In these months of fieldwork in Aotearoa/New Zealand, and those which followed, I found myself deeply unsettled, feeling both a lack of full rationality and a general feeling of sorrow which I now see as comprehensible responses to finding one's cares deeply out of whack with the world one finds oneself in. Yet, in a world in which there is little comfort with contingency, having one's cares all out in the open, rather than safely tucked away in the common sense or, at least, in the company of powerful friends and discourses, is a risky thing: "But I like them" is rarely enough to win a fight, perhaps

particularly with oneself. In order to avoid vulnerability, as Latour argues, the Modern's story of them(our) selves is one of anti-fetishism, of impossible searches for infinitely true knowledges safe from being struck down by the realization of their contingency (Latour 2013: 166, 176). Indeed, merely 'exposing' the happenstance and accident of the attachments of an 'enemy' can thus be the work of destabilising critique.

It was not until after I left Aotearoa/New Zealand that I came to more deeply consider how we approach our cares, particularly how we might approach the cares of those with whom we are in opposition. Whether or not they have a home in a particular common sense, our attachments and cares are all deeply contingent. And, yet, as Haraway has argued, "to be made is not to be made up" (1997: 99). There is, rather, a vital tenderness in our cares, in their relationality and the histories of love and bodies and needs and work which they contain, even when the object of those cares is an opponent. Increasingly, I find myself wondering what it is to continue to fight for that which one holds dear, yet to hold our, and others', made-ness in careful mind. To refuse to dismiss one's or another's cares on the basis that such attachments have histories, or even on the basis that such cares seem mad but, rather, to attempt to consider the worlds which animate such attachments, in which such cares make sense (Latour 2002: 40). In amongst all this battling, I wonder about the possibility of coming to care for cares themselves.

Interlude: Wondering on affinity



Figure 29: Rabbit the cat sitting with me as I wait for the hedgehog to emerge

While in the UK, there had been something of a joke amongst hedgehog rehabilitators and champions that hogs would just *find* them. This wasn't meant in terms of humans dropping off hedgehogs for care (though this was certainly also the case) but, rather, referred to the tendencies of such folk to bump into hedgehogs, both sick and well, in unlikely places. In particular, Laura Batt, a friend to hedgehogs in a small Somerset town, told me stories of finding hogs all over the place—on the way to the vet's, or the hairdresser's or just out walking. "It's as if they know", she said. And I laughed.

However, despite laughing, since arriving back in Aotearoa/New Zealand, I found myself regularly bumping into hedgehogs. Though I didn't have quantitatively study this phenomenon, my noticings of hogs did seem to be well above the norm. I have come to wonder about the strangeness of having a body which responds and is drawn to others in

ways which can't be explained solely through conscious recollection of influential stories, histories and materialities. Since, at least partially, "learning to be affected" by hedgehogs (Lorimer 2015:), I seemed found myself bumping into them all over in Wellington, even when I wasn't trying.

In conducting fieldwork in Wellington, I was keen to try to fit in at least somewhat with the shifting conservation mood. I hadn't been looking to get involved with hedgehog care work at all; I already felt outsider enough. However, I found myself regularly bumping into hedgehogs. Though some of this may have been purely accidental, I suspect the preferences and histories and materialities of my body—those tendencies which likely played a role in my attraction to hogs in the first place—also played a role in this. A vital aspect of hedgehog charisma for me—both ecological and affective (Lorimer 2015: 6)—is the nocturnality of hogs. My dislike of the heat and bright daylight meant, when possible, I choose to move around in the evening or early morning. Regularly my partner, Paul, and I would come across hogs as we lugged groceries back up the hill on the way to our Wellington cottage.

But attunement is also present here, that process, as noted in Chapter 1, of becoming sensitised to the rhythms of another body, of coming into motion with them (Despret 2014: 71). Certainly, I had developed some knack of identifying hogs. Paul would laugh as, despite my otherwise unimpressive (even somewhat poor) hearing, I would catch the distant rustle of a hedgehog and stop. It became a habit to wait until the hog emerged from the bushes, and we would wait and watch, enjoying the hedgehog's meanderings until the hog either tarried out of sight or other people started up the path and we would move on, so as to not alert potential trappers to the presence of hedgehogs.

Others come to matter, as Donna Haraway argues, “always inside connections that demand and enable response, not bare calculation or ranking” (2008: 71). Like Laura Batt, it felt like hedgehogs found me. Unwell hedgehogs pulled me into care work I hadn’t intended taking part in. Three times during my fieldwork in Wellington, I found myself back in the strangely familiar burden-delight of actively caring for a hedgehogs. Tendencies and attunement and responsibility-borne-of-training all seemed to play out in what never really felt like a ‘choice’ whether to care for needy hogs or not.

I came across the first hog I took home for rehab on a hot and dry afternoon while walking home with friends through the cemetery which adjoins Wellington’s Botanical Gardens. This little nocturnal critter was flat and listless, lying on the edge of a grave slab under a tuft of dry yellowed grass. She remained still as I picked her up—warm and breathing, but otherwise not moving. I removed my phone and wallet from my cotton shopping bag and placed her spikey body gently inside. I farewelled my friends and cautiously walked the 50 or so minutes home, attempting to balance the need to move quickly with that of not bumping her around. Once finally home, I put her in the bathtub along with blankets, cat food and a dish of water. I didn’t have the equipment for the subcutaneous fluid injections I’d administered to similarly dehydrated hogs in the UK but, to my relief, she drank enthusiastically of her own accord, and was soon eating the cat biscuits I’d left out. That night I unwillingly joined the little hog in staying up through the night as she persisted—almost without let up—in attempting to scramble up the sides of the tub (Figure 30). A prompt release back to the wild seemed like a good idea for us both. And, so, the next night, using the method I’d learned from several UK-based hedgehog

rehabilitators, I put her in a box in the backyard in the early evening and waited for her to venture out into the night (Figure 29).



Figure 30: Hedgehog in the bathtub overnight

That Tuesday night, the air was cool and nicely damp, a tendency which kept the moss alive in my backyard even through this bone-dry Wellington summer. I pulled a blanket over my legs as I sketched the scene, worrying in loop cycle as I drew. Some were the familiar worries of hedgehog rehabilitation: Was she really ready to be released? Should I be releasing her here? I reassured myself that she'd perked up quickly with food and water, that her faeces were a nice healthy dark brown and she was very lively. As other hogs were present nearby—both in the neighbourhood and in our particular backyard—I was

confident hedgehogs could survive here. While the standard release procedure is to take hogs back to where they came from, no rain had come to Wellington and nor was any predicted in the next while. The thought of releasing her back into the dry land she'd come from seemed too risky. Down here, the creek would mean she would have access to water and, due to the creek's gently sloping sides, she would be able to escape if she happened to fall in. To allay my concern that she might not be able to find food, I had placed water and cat biscuits outside the box and so I might know if she returned, I discretely directed a night vision camera towards the supplies.

That night, however, I found myself with additional worries—concerns which would only grow as I settled into fieldwork in Aotearoa/New Zealand. At the time of bringing the hedgehog home, I had felt little compunction in caring for her—indeed, it had felt like a simple responsibility. As hedgehog rehabilitators had shown and told me, it is hard not to help when you know how to. However, now that I was releasing her, I was faced with the question: with which worlds, which lives, was I aligning myself through this act? Day by day, surrounded by the labours of those who love indigenous critters, the birds and insects and reptiles were becoming lives which increasingly mattered to me, the threat of their extinction ever more present. I found myself wondering about the places they weren't. Why weren't gheckos here? Why no wētā? Their absence was increasingly present.

On this night, however, my pondering remained just that. The cat—called Rabbit—sat with me for almost two hours as I waited and sketched and noted down my concerns. On occasion, the cat left to pace towards the box (whether drawn by the smell of the cat biscuits, or the hedgehog, or something else, I'm not sure). I whisper-scolded her each time: "*Rabbit!*", and each time she returned to sit with me. Finally, the hedgehog emerged. She

took a sniff towards the garden in front of her and then turned and trotted off into the scrub towards the creek. And, as far as I know, she never returned; at least, I never saw her again and she was never recorded by the night vision camera.

With my tendency to find myself in the same place as hedgehogs, it didn't seem strange to find a second hog, though it had been odd to find that hedgehog in a tree. I found Timothy on the way back from my day trip to Zealandia to find out about children's native bird playing cards as detailed in Chapter 5. I had been strolling along with my head down on that nicely crisp late autumn day, musing about the mystery of my playing card miscommunications when that distinctive hedgehog rustling sound made me look up: there was a tiny, very young, hedgehog who had somehow managed to climb up into the low branches of a tree, about a metre up. As very young hogs are sometimes still coming to grips with their nocturnality, being out in the day might not have been a bad thing had it not been so late in the autumn. This close to winter, this 'autumn juvenile' was less than half the size of hogs which would have been taken into care in UK. I thought of hedgehog rehabilitators June and Yvonne, and what they would have said had I left him, and the choice seemed easy. I scooped him up and found myself delighted that he didn't curl into a ball; his little belly sat, furry and soft, in my hands. I covered him with my cardigan to hide him from my neighbours, but he pushed through the folds of material and sniffed up into the air as I walked him home.



Figure 31: Meeting Timothy on the way back from Zealandia. Because I was returning from planned fieldwork, I also happened to have a camera.

Rather than remembering my apprehension at *releasing* the previous hedgehog, it was my concerns over her care which came back to me at this moment. With guilt lingering from releasing her perhaps prematurely, and at having not offered her proper living quarters (a bathtub surely more suitable for a drunken friend than a dehydrated hedgehog), I converted a 2 square metre under-stairs cupboard for Timothy. I fed him on tins of organic cat food (with my hope that such food might have the highest humane standards). He was, as I'd hoped, a simple, healthy little hog, putting on weight quickly from his initial 240g. From my night vision camera monitoring of him (see Figure 32), he seemed to be relatively relaxed: exploring, eating, drinking. I found myself in the now familiar rhythms of hog care: twice-daily feeds, morning clean-outs and weighings, moving quietly, mindful of another critter

sharing my space. I found myself reconnected to a way of being I hadn't realised how much I'd missed.



Figure 32: Timothy in his room under the stairs

After a month or so in his little quarters, Timothy passed 650g and I accepted it was time for him to be released. Waiting until a few days of good weather were forecast, I released him around the corner from my house, back where he had come from (Figure 33), placing a night-vision camera out with him and sneaking back in the very early morning to check the footage for sign of him and to top up his food. He returned for three nights in a row, but then never again. Unlike with the first hog I'd released, with Timothy I had little thought for the native critters he would undoubtedly eat. I had become accustomed to having him around, and it had been sad to see him go. My main concern was that he found somewhere warm and dry to sleep and plenty of good food, no matter who that food was.



Figure 33: Timothy's release site, behind the tree I found him in



Figure 34: A hog I assume to have been Timothy eating at release site

However, a few weeks after I released Timothy, I discovered that a Pest Free Wadestown group had just been set up, with plans to put DoC 200 traps throughout the

suburb. I felt sick for both of the two hogs I'd released, most urgently so for Timothy, to whom I was not only attached, but whom I had unintentionally released closer to the traps than the first hog.

And, so, hedgehogs stayed on my mind, pulling me out of easy participation in conservation worlds. At various moments I found myself singing the Beatles' "Hey, you've got to hide your love away." I think about the ways in which, in ethnographic fieldwork with humans, it is assumed that one will return changed, differently aligned (Candea 2011). I had not considered I would become so re-aligned in this multispecies project. If I had hedgehog tendencies before, I now find myself having reoriented more radically to the world, my cares shaping the very way I experience the world (Despret 2004; Lorimer 2015). What is it to be a pest-aligned person?

Chapter 6: Utopian (de)fences

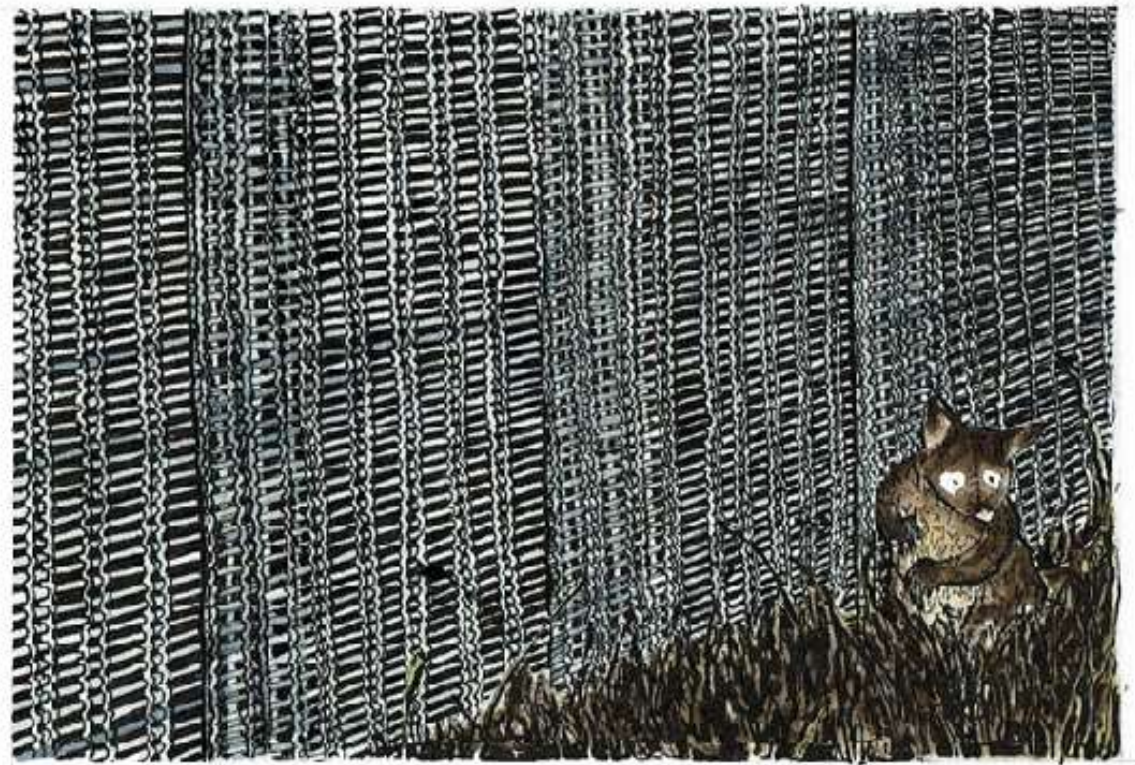


Figure 35: A possum outside the Zealandia fence

The borders of Zealandia mark the meeting point of a host of human cares and technologies. Political and economic considerations, the design of fencing materials, land acquisitions, trainings of neighbourhood trappers and fence-monitoring volunteers, all come together to form this piece of vital conservation infrastructure. Within the 8.7km fence line which encircles and, thus, creates, the Zealandia sanctuary, native birds and insects live in a space almost entirely free of introduced predator species. With my own unintentional hedgehog rehabilitation work also quietly taking place, the fence had seemed an answer to my unruly cares. In particular, the fence seemed to offer the hope that perhaps both hedgehogs and threatened native critters could survive through being kept apart. The fence, however, is not

a static border. As native bird life flourishes within and spills out of the enclosure into nearby suburbs, local people have taken up the work of protective trapping on their behalf. The Zealandia enclosure also acted as what Davina Cooper calls a concrete 'everyday utopia': in making manifest a small-scale predator-free zone it functioned as a beacon of hope, showing what could be possible for the whole of the mainland and encouraging people to become part of trapping practices in order to expand the predator-free zone out beyond the fence (2014).

However, the possibilities of the utopian are not just a materially-grounded vision able to shift what seems possible. Utopian ideals, when cast in absolute terms also encourage cruelty to those who are not part of such visions; in Aotearoa/New Zealand, introduced predator species are, at times, the victims of acts of extreme violence—violence over and above 'mere' killing (NZ Herald 2018; Shadwell 2014). Quietly, however, there are kinder stories at play. While public discourses tend to frame conservation in terms of simple notions of good and bad (Lidström et al. 2015), many conservationists privately do the work of tending to the realities of the lives and suffering of 'pest' animals, even as they continue to work towards a vision of a country free of such critters. This stance holds much in common with that which Parker Palmer refers to as "standing in the tragic gap" (2005), in which one remains responsive to the present even as one continues to work towards one's goal. As this chapter argues, learning to hold such complex cares may be a vital positionality for the Anthropocene.

1: Or, how I came to love the fence



Figure 36: The steep part of section 5 of the Zealandia fence line

In contrast to my struggles throughout much of my Wellington fieldwork, the Zealandia fence became a place of relative calm. The Zealandia eco-sanctuary is a source of great pride in Wellington, with its boundaries creating a predator-free zone in which many species of native birds flourish, including several which would otherwise be endangered on the mainland. While the tuatara, the lizard-like reptiles who are also sheltered in the sanctuary aren't able to escape the fencing, many of the birds have found homes outside of the sanctuary, with tūi and kākā now regular sights and sounds in Aotearoa/New Zealand's capital. More recently, rarer birds, such as hihi and stitchbirds, previously extinct on the mainland, are beginning to nest in neighbouring suburbs. Even for those humans not living near enough to the sanctuary to regularly meet its spill-over birds, the sanctuary represents a beginning: an image of what the entire country could look like if the Predator Free 2050 plan was successful.

Rather than a site from which to expand, however, initially, the sanctuary had seemed to me to offer a chance for coexistence: the feat of engineering that is the Zealandia fence suggested a possibility of flourishing for native species which would not require the on-

going culling of predators. Though there had initially been a full kill programme in order to remove 'pests' from the Zealandia zone, the predator-proof fence meant that, subsequently, further culling and poisoning would be unnecessary.³⁸ Excited by the possibility of co-existence, I had been delighted to find a flyer at the Zealandia sanctuary advertising for volunteer fence monitors. Without the requirement of ongoing trapping, fence monitoring became a piece of active fieldwork I was comfortably able to commit to.



**ARE YOU A
REGULAR FENCE
WALKER?**

We need your help!

**Did you know that we need to check
ZEALANDIA's perimeter fence for
damage every single day?**

Volunteers provide vital support for our staff in monitoring sections of the fence. They go out once a week, looking for damage to the mesh, checking drainage ditches and keeping an eye out for fallen trees. Any damage is then reported back to ZEALANDIA staff.

If you regularly walk, cycle or jog around our fenceline; have a good eye for detail; are comfortable working on your own; and are available each week we'd really love to hear from you!

Full training will be provided.

**So...interested in joining our
Fence Check Team?**

Email volunteer@visitzealandia.com
with your full contact details
or call us on 04 920 9200 today!

Thank You!

³⁸ This is not entirely the case. After the fence was installed in 1999, it was found that mice could get through, so on-going mouse killing is still carried out at Zealandia.

Figure 37: Zealandia fence check flier

The Zealandia fence line is broken up into six monitoring sections, requiring almost daily checks for breaches. A dirt path runs between the fence line and what is mostly scrubby bush on the other side. Volunteers share the path with walkers and mountain bikers. The fence itself is made of a fine mesh intended to keep all critters out but through which, it was discovered after the fence's installation, baby mice can squeeze. At the top of the fence is a 'mousehat'—a curved metal veranda intended to stop mice and rats, species who are able to scurry up the mesh and who—without the mousehat—could otherwise simply nip over the top of the fence and into the sanctuary. Alongside the daily checks of the fence, there are weekly checks to ensure that rivets in the mousehats haven't popped out, which they are prone to do, particularly after sudden changes in temperature. The fence is also protected from breaches from below: the mesh of the fence goes down shallowly into the ground and then out for about a metre under the path on the outside of the sanctuary. This underground extension of the fence stops all the digging and burrowing critters from entering the sanctuary, as such critters only attempt to dig downward from the base of the fence. Checking requires thus careful looking up (done on the way out) and down (on the way back). And so, for a year, I walked my 2km 'section five' up and back every third weekend. I later also took on weekly general fence maintenance/volunteering, including checking the mousehat rivets of entire fence line using a long-handled mirror and following up with any necessary replacement work.

During these monitoring walks, which took on a calm I'm-on-my-own-time pace, I found myself coming to notice birds differently. Having been resistant to enjoying native birds, with their presence conjuring for me the apparent necessity of the death of introduced

mammalian predators, in the safety of the fence line I found I began noticing differently. With the fence doing its work of making pest and native lives possible simultaneously, *my* defences dropped and I started to find myself attending to bird lifeways. Tom Tits flew around me as I walked and I found myself looking out for glimpses of the orange and black colours of the sitchbirds in low-to-the-ground foliage inside the fence. The little native blue ducks in the pond of the sanctuary reminded me of a pair I think I saw in a waterfall in a native forest somewhere when I was a kid. They brought back a long-forgotten memory of stumbling over similar ducks, tiny and serene, in the midst of the dark damp of podocarp forest.

As I monitored and helped to repair the fence, I found myself feeling subtly different, relating to the worlds around me as if I might have a home there. This fence-enabled shift became particularly clear to me one late autumn weekend. On this evening, I had accidentally delayed my fence-monitoring journey, and, not fully attentive to the shortness of the days, it was almost dark before I set off. I managed to convince my partner Paul to go with me and, by the time we got to the sanctuary, out beyond the street lights, darkness had entirely closed in. We did the fence check by torch-light, inching along carefully both for safety and so that we could hear the calls and rustling of what seemed to be kiwi in the sanctuary. Neither of us had heard kiwi before, so we recorded the calls and wondered at which exact species might be making them. As we quietly chatted, Paul spotted a possum up ahead, leaning against the fence (see Figure 35). At intervals the possum paused, straining to get into the sanctuary before running along just far enough ahead to keep out of our reach. I felt a little bad for this possum whose night we were well and truly interrupting, but also delighted at the presence of this bright little animal ambling through our night. That

native critters, however, were also safe inside the fence left me feeling deeply grateful for this wall of steel, somehow allowing two cares to live, if tentatively, if just for now: the possum lively, if frustrated, on the outside, and the birds thriving and safe on the inside. The fence keeping my cares together by holding them apart.

The possum eventually headed off into the bush. Paul and I continued on with the check. On the walk home, as the buzz of the experience faded, I remembered that I was supposed to report the presence of this possum: any predators on the outside of the Zealandia fence were to be reported. In the first of a series of betrayals of the larger vision I would come to see that the sanctuary represented for many involved in conservation in Aotearoa/New Zealand, I decided the possum couldn't actually get in, so maybe I didn't need to mention it. Things could just stay as they were. Looking back, the interest Zealandia staff held in the critters outside the fence should have signalled a concern for the expansion of the predator free zone outside of the bounds of the fence. Such expansion would not mean such ease for my cares for hedgehogs and other pests.

2: Beyond the sanctuary: Zealandia as concrete utopia

Last, loneliest, loveliest, exquisite, apart—
On us, on us the unswerving season smiles,
Who wonder 'mid our fern why men depart
To seek the Happy Isles!

Rudyard Kipling

“The Song of the Cities: Auckland” (1922)

Within the Zealandia complex is an eco-designed building with a café, giftshop, seminar room and information centre. On the wall before one enters the dark, elegant, museum-style

information centre are the words “last, loneliest, loveliest, exquisite, apart”. This phrase, actually an extract of a Rudyard Kipling poem about Auckland rather than Wellington, is often used to remind New Zealanders of the special nature of the land we call home. The words are written in white on a black background with no other explanation, or any reference to Kipling. Despite my many struggles with the realities of conservation projects in Aotearoa/New Zealand, the words still move me, with a feeling that I am indeed in some place special, precious and ever-fragile.

The term Utopia comes from the Greek ‘u’ or ‘ou’ meaning ‘no’ or ‘not’ and ‘topos’, meaning place. This ‘no place’, a term invented by Thomas More (1478-1535), also puns on the Greek for good, ‘eu’, a homonym with ‘u’, and so utopia carries a dual meaning of no and good place (Sargent 1994: 5). Consonant with the idea of the utopian as ‘no place,’ a range of scholarship has written off the utopic on the basis of its lack of reality. In the early 1960s, as Hayden White notes, the American Academy of Arts and Sciences sponsored the symposium “Utopias and Utopian Thought: A Timely Appraisal” in which participants largely agreed that “utopian thinking was a poor after-effect of a longing for deliverance that was essentially religious or mythical, a manner of thinking which had long since been discredited not only philosophically but also practically by history” (2007: 15). Such academic approaches wrote off the utopic as “mere fantasy, “wishful thinking”, delusion, dream, or opiate” (White 2007: 16).

However, more recently, a range of scholarship has considered the potential of utopianism as a practical measure to bring about change (see Levitas 1990; Harvey 2000; Pinder 2002; Anderson 2006a, 2006b). In particular, Ben Anderson, working with the utopian scholarship of Ernst Bloch (1885-1977), argues for the utopian as “an excessive movement

towards something better that can be found throughout life” (2006: 692b). In this, the Utopian vision “enacts and circulates a hope for something better” (Anderson 2006: 694b). Claerys and Sargeant also note the potential for utopian visions to effect real change, in the way in which such visions “both help bring about and are reflections of paradigm shifts in the way a culture views itself” (1994: 3).

Through not only its vision of a predator free New Zealand, but its small-scale modelling of it, the Zealandia ecosanctuary functions not only as a small sanctuary, but also as what Davina Cooper calls an ‘everyday utopia’: a space which shows what is possible as well as acting as a critique of broader society (2014). Cooper argues that the effectiveness of such utopias as critique and call to action depends on their practicality, on their being what Ernest Bloch refers to as *concrete* utopias, offering viable, even if apparently unlikely, possible futures (2014: 5).

Indeed, despite my fantasies of the fence as a stable technology of lively separation, in multiple ways, the fence is a site of expansion. The most obvious of these expansions takes the form of the birds who cross over into nearby suburbs, requiring the care of trapping potential predators. Locals have been eager to take this up, with backyard traps now widespread in suburbs neighbouring Zealandia. In some blocks, particularly in suburbs like Khandallah, Crofton Downs and Ngaio where the mobilising presence of birds has been bolstered by the work of charismatic and dedicated local trapping coordinators, trap densities are up to one in every three backyards.

But there is another important aspect of expansion work at stake here too. While, for me, it was the bounded nature of the sanctuary which offered a hope—modelling a possible compromise allowing the ongoing existence of introduced mammals and endangered native

critters, for many conservationists such 'compromise' was and is the sad continuation of the modes of defensive conservation they longed to leave behind. Expanding the sanctuary out to encompass all of Aotearoa/New Zealand also promised fundamental shifts in human-environmental relations with their environments. In a now-famous 2012 talk which, in many ways, spurred on the current Predator Free 2050 movement, physicist and President of the Royal Society of New Zealand, Sir Paul Callaghan, used his New Zealander of the Year address to argue that, "New Zealand could do better than waging an endless losing defence against the invaders" (Macfie 2016). Such defence referred not only to fenced sanctuaries but also predator-free islands and trap-defended sections of Aotearoa/New Zealand's mainland conservation estate. Instead, Callaghan argued, we should be thinking about what he referred to as starting our own Apollo programme: ridding the entire landmass of Aotearoa/New Zealand of introduced predators. Callaghan's sentiments are haunted by the omission of human invaders and the reality that these 'invading' pest animals were born here in Aotearoa/New Zealand as the multigenerational descendants of ancestors who arrived between 100 and 150 years ago. However, the idea was quickly picked up by many groups, particularly Gareth Morgan's Enhancing the Halo group, which aims to encourage the spread of native birds from 'hot spots' such as Zealandia and a range of trapped reserves, such as Otari-Wilton Bush, Oruaiti Reserve and Khandallah Park by getting people into backyard trapping (Morgan 2018). In 2015, with the emergence of the Predator Free 2050 campaign, the idea has led to the establishment of Zero Invasive Predators, a public-private research and development group focusing on creating the technologies and methods to enable "[t]he complete removal of rats, stoats, and possums from large mainland areas for the long term, sustainable protection of native biodiversity" (ZIP 2018).

For many who wished to expand the predator-free zone out beyond the fence line, it was the current lack of permanence offered by fencing which was of fundamental concern. Alongside the need for continual wear-and-tear maintenance, the famous winds of Wellington were a major worry, threatening the fence itself and, on occasions, blowing trees and branches to lean against the fence, allowing predatory critters a bridge in. At a fence talk held at Zealandia, a member of the audience pointed out that we should be mindful of the threat of snow. He told a story of Orokanui eco-sanctuary in Dunedin, where a snow drift allowed stoats to get up and over the fence, wiping out the sanctuary's stitchbird population in a night. For many, the ultimate goal was for a species-saving solution which would persist even if all humans died out and were thus no longer around to trap or maintain fences. Not having to rely on fences to secure mainland conservation 'islands' was vital to securing such a legacy. Assuming the ongoingness of humans, however, becoming fully predator-free would not stop the need for defensive conservation in Aotearoa/New Zealand. Ongoing culling would, most likely, still be required in perpetuity to manage accidental introduction. Shifting the work of predator control to the nation's borders is, however, in many ways, a comfortable arrangement, offering the security of the nation's official borders, which currently have one of the strictest biosecurity policies in the world (Barker 2008).

Worldly Utopias

What might we learn by reading the Predator Free 2050 campaign in light of its utopic aspects? I am partly cautious of this approach—concerned that, by identifying the utopian in such work and desires I might be framing the campaign as unrealistically hopeful. However, despite my difficulty with what the Predator Free 2050 campaign means for the 'pest' species to which I am attached, my respect for its utopian aspects runs deep. To commit whole-heartedly to the improbable, it seems, might just shunt it into the realms of the

possible. The force of these hopes is tangible on the ground in Wellington. The shift of norms has been radical, as noted in the Predator Free Wellington campaign, run by the Wellington City Council, Greater Wellington Regional Council, and the NEXT Foundation (a private philanthropic organisation focusing on educational and environmental projects). In the launch video of the campaign, Kelvin Hastie notes: “we are entering a new era of conservation, where there is a sense that, collectively, and together, we can make this happen” (2017). Indeed, the realm of what is accepted as possible has shifted, at times, seemingly even into the inevitable, so that it is possible for the *New Zealand Herald* to announce the immanence of success, with declarations such as “Wellington to be world’s first ‘Pest Free’ capital” (NZ Herald 2016). Such claims, of course, not only reflect, but *create* this mood, a crafting which campaigners are very aware of. As noted in Chapter 5, there is a fierce commitment by many conservationists to operate on the social space, create new norms, offer up something that people can believe in. Part of the work of creating such shifts, alongside framing and articulation, is hope such as this. These hopes “enacted and circulated” by the vision of a predator free utopia actively hooks people into concrete actions, enrolling people into the work of bringing this vision about through backyard trapping (Anderson 2006b: 694). As Thom van Dooren notes, “Hope is a part of the material order of things”, it is “a mode of worlding” shaping “the ways in which worlds come into being and pass away” (forthcoming).

Vitality, utopianism not only has the potential to shape physical worlds through its channelling of hope, but it also comes *from* the material. As David Harvey notes, utopianism does not exist in a realm outside of material possibility (2000: 191; see also Ingold 2013: 10). Rather, there is a constant conversation between utopic visions and material reality (Harvey

2000: 191). Certainly, the Predator Free vision is deeply entangled with technological developments. In an interview with *The Listener*, Kevin Hackwell, then manager of Forest and Bird, recalled the importance of technological developments for the beginning of the Predator Free movement:

By morning tea time on the first day of the meeting, each of the predator experts had agreed it was technically (if not financially or socially) possible to rid the country of invasive pests. "It was a wonderful moment... You saw light bulbs going on around the room." (MacFie 2016: np)

Trust in this utopia also emerges from the skill of many New Zealanders in this line of work. As Rebecca MacFie argues, there is "scarcely an island eradication operation in the world that doesn't have an ex-DoC ranger or a Kiwi helicopter pilot" (2016: np).

Surrounded by Predator Free mobilisations, as trapping seemingly springs up all over the city, I couldn't help but feel like I'd found myself in some strange inverse of my earlier hedgehog troubles. As noted in Chapter 4, in Bristol there had been a lack of cohesive vision as to how the whole of the UK might look, little sense that people had the possibility of forming a broad-based movement, despite the widespread love for hogs. The lack of such vision seemed to make mobilisation difficult. In my Bristolian interviews, asking about people's hopes for hedgehogs' future generally drew bleak images and I'd wished for a stronger sense of collective possibility. In Aotearoa/New Zealand I found myself on the outside of this collective wave, both concerned by its force and totalising nature as well as feeling guilty and sad for not being part of it.

However, there is never a guarantee that a particular vision will inspire action. As van Dooren notes, following Latour, "[a]ctivity and power are always only possible as and

through webs of enabling relationship” (van Dooren, forthcoming). Relatedly, as Harvey notes, in order to create change, “some sort of collectivization of the impulse and desire for change is necessary. No one can go it very far alone” (Harvey 2000: 238). Such enabling relationships and collectives are not only human, but also require and respond to infrastructure and other-than-human lives. The concrete utopia of Zealandia finds its power in connection with a larger *agencement*, several elements of which are noted in Chapter 5: the traps and shifts in social licence, articulating with ideas of progressive and practical New Zealandness.

The appeal of a utopia, and thus its mobilising potential is, however, also culturally specific. Even to be future-orientated is not a universal. As Anna Tsing notes, some livelihoods, from foraging to mushroom picking to stealing, emphasise the importance of looking around rather than ahead (2015: 22). For Aboriginal Australians, movement through life is oriented towards one’s ancestors: one moves forward facing the source (Rose 2013b: 8). Despite New Zealand’s strong identity as a down-to-earth pragmatic nation (Sibley et al. 2011), a specifically *utopian* orientation seems to be a significant force in both Aotearoa/New Zealand’s colonisation and its ongoing identity. Sargeant argues that, apart from the United States, Aotearoa/New Zealand has the strongest utopian tradition among settler colonies (1994: 209). Indeed, much of colonisation of the country had explicitly utopian aspects, with regions such as Canterbury colonised in the hopes of forming a “Better Britain”, hoping to re-create British social structures without the extremes of aristocracy or poverty, while the Otago region was colonised as a radical Presbyterian settlement (Sargeant 1994: 200). Advertising for settlers frequently emphasised the paradisiacal nature of the country as well

as its opportunities for a more egalitarian lifestyle than Ireland and the United Kingdom (Sargeant 1994: 209).

And here, of course, a vital aspect of utopianism emerges: utopia for one may mean death for another. Utopian notions of ‘progress’ have, throughout history, been used to support racism, imperialism and colonialism (Sargeant 1994: 21). White settler utopianism literally meant death for many Māori and the displacement of many aspects of pre-existing Māori lifeways. As Sargeant says, some dreams are nightmares for others (1994: 1). The predator free utopia, as manifest in Zealandia, also makes use of particular pākehā concepts of conservation (Potts et al. 2016). As noted in Chapter 5, such approaches to conservation tend to heavily restrict or outright disallow traditional Māori hunting and gathering of many native species (Prime 2014).

3. Fenced hopes and the shifting social licence to kill

Enacting the Predator Free 2050 vision would mean, and is meaning, the death of many introduced species I love. Like all cares, this care for the future involves casualties. The shifting common sense of conservation practices in New Zealand—where backyard kill-trapping of introduced predators is an increasingly obvious response to cares for native critters—makes it difficult to find a safe spot for hedgehogs in Wellington. While (as outlined in Chapter 1) I had initially hoped that cities might be a place in which hogs could remain living, predator free conservation approaches have become increasingly attentive to questions of connectivity, emphasising the lack of boundaries between braided river systems (where several species of ground-nesting birds make their homes), national parks and urban centres. As Dan Tompkins from Landcare Research stated of the Pest Free Wellington project, “while large-scale efforts have traditionally been placed on managing mammal pests

in the conservation estate and our rural landscapes”, cities are being re-framed as a vital aspect of becoming predator free:

Without also managing predators in these areas, any efforts to make our conservation estate and rural landscape predator free would be quickly undone (in Morton 2016, np).

Increasingly aware of the growing number of traps both around Zealandia and my home suburb of Wadestown, I was dismayed to meet a third hog needing care. In a manner which now seems almost staged, considering my interest in fencing and boundaries, I spotted the hog on the path right beside the Zealandia fence line. On that warm spring day, almost a year after I’d started fieldwork in Wellington, I’d just finished a round of checking the mousehat rivets using a special long-handled mirror. My final job for the day hadn’t yet been assigned, so I headed quickly back downhill to see my supervisor, Harry. Trotting along the now-familiar path, I did a double-take at what looked like a tiny hedgehog on the side of the path. I stopped and walked back up. It *was* a hedgehog and she didn’t look at all well. Long, but very thin and with flies already buzzing around her, it didn’t look hopeful. Heavy-hearted at the hassle this meant and nervous about explaining things to Harry and the other Zealandia staff, I went through my options: I couldn’t just take her directly home—not only did Harry have one more task for me to do, but I would need to drop off both my radio and my long-handled mirror in the sanctuary first. I considered just leaving her—or maybe leaving her here just for now, going about my next task with Harry, and then getting her at the end of the day—but she looked like she really needed help now. Knowing that I was able to potentially do something to help, leaving her wasn’t really an option. I considered radioing Harry and asking him to come and get my things, but I was nervous to tell him what my plans were, let alone letting all the other Zealandia staff know by

communicating over the radio. The hedgehog wasn't moving much, so in the end I wrapped her in my cardigan and carried her down the hillside with me. I hid her in my bag in some bushes just outside the entrance to the sanctuary while I dropped off the mirror. I plotted possible excuses to explain my early departure: sudden sickness? I'm just over work today and calling it quits? In person, though, I found the truth of what I was up to tumbled out to Harry. I looked down as I spoke to avoid Harry's face.

"Do you want a box and a towel for it?" He asked, apparently compassionate and perhaps a little amused. I was grateful.

When I got the hog home, she ate well, quietly eating the contents of one of the tins of organic cat food left over from my care of Timothy. Things didn't look well. She had horrible clay-coloured diarrhoea. I then watched, horrified, as she dragged herself to the food dish, her back legs not moving at all. "Damn it," I'd thought, "She's been caught in a trap." Unsure of what to do for a hedgehog with two broken legs, I called hedgehog rehabilitator Jacqui, who said to give her a night with food and water. Sometimes, she said, it can just be dehydration and exhaustion which makes their legs stop working, and after a bit their legs come right again. If not, she said, we could talk about what to do next.

I left her overnight with both wet and dry cat food and plenty of water, but I was doubtful and spent a worried night. I felt cruel for leaving a broken-legged hog to suffer, but also anxious about how to find a vet who wouldn't just put the hedgehog down. But maybe that was, after all, the right thing to do. The next morning, however, I heard eating sounds and opened the cupboard door to spy for a moment. As the hedgehog nonchalantly munched away on cat biscuits, her bottom already looked noticeably less sunken. I noticed a fly by her and swiped at it, accidentally startling her. She scampered off—somehow, her legs

were working again. In the usual routine of cleaning out hog living quarters, I put her in a box while I cleaned out the cupboard. She felt noticeably more plump and had put on 40g overnight. When I returned her to her quarters, I placed her quite far from her bedding, in the hope that I would see her walk. She stood still while she sniffed the air, looking lively and engaged. After she apparently caught my scent, she scampered to the back of one of the bedding boxes. Astonishingly, her legs, indeed, seemed to be working just fine.

She quickly put on weight over the next couple of weeks. Facing the prospect of her release, I felt an awful mix of guilt for releasing a hedgehog against the work and hopes of conservationist friends, but also worry over this little hog's future, as Wellington seemed to be increasingly filled with traps and poisons. I was glad fieldwork was almost over and I would be leaving Aotearoa/New Zealand at the end of the summer. Immanently, however, I was due to head to Australia for a month of conferences, and the hog was still not quite at a release weight. I contacted Jacqui for advice. She said she could feed her for another week or two to get her up to weight, and then release her out their way in Tawa, a 20 minute train ride from central Wellington. Tawa is the northern-most boundary suburb of Wellington City, in which there is a lively hedgehog population and, while there are traps in the surrounding bush, in the suburb itself there are no official trapping campaigns.

Arriving at Jacqui's, she was friendly and matter-of-fact. She showed me through her house which, despite being filled with dozens of hogs, smelled clean and remarkably non-hedgehoggy. Some of the hogs also lived outside in her backyard, acclimatising for a period before they were moved on to her friend's property—a property which Jacqui explained was in an area with little traffic and no poisons or traps. At this property the hogs were supplied with food, so many kept returning, but they were also free to wander. Jacqui checked out the

hedgehog and reported that she was in good condition. She waited as I said goodbye to the little hog and then walked me outside. We stood on the back deck of her home, looking out over her backyard, chatting about conservation and what the future looked like for hedgehogs. “They’ll go extinct here in New Zealand, you know,” she said. She paused. “If I ever won lotto, I’d buy a huge plot of land and put a fence up around it. And I’d release all the hedgehogs there, and God help anyone if they tried to hurt them.”

Standing with Jacqui, the ample green spaces of the properties out beyond her backyard began to form some sort of possible hedgehog sanctuary in my mind. For the second time during my fieldwork, I found myself actively loving fences. The irony of fence love is not lost on me, with fences and walls not only being generally associated with oppressive forces, but also providing one of the major challenges to hedgehog flourishing in the UK. Yet, in that moment, imagining this little future hedgehog sanctuary—a curious inverse of Zealandia—I felt like my cares, however imperfectly and precariously, were somehow being kept together.

At times it does look like all hedgehogs will, or could, die out in Aotearoa/New Zealand: trapping mobilisations are fierce and seemingly growing and new technologies, including the possibility of genetic technologies, are being developed. Around the world, more than 1000 islands have gone through ‘mega eradications’, clearing them of invasive species. Over a fifth of these have been carried out in Aotearoa/New Zealand. The largest island eradication, however, was Macquarie Island in Australia, at 128 square kilometres. Mainland New Zealand is around 268 000 square kilometres—a scaling up of this order is largely accepted to be impossible using current techniques. Eradication efforts will require high levels of citizen buy-in to the vision. As a reporter for *Nature*, Brian Owens, argues: “If

any large groups of people refuse to cooperate with the plan, areas could be left uncleared, providing havens for invaders” (2017: 150). The scaling up of eradication will also require the development of new gene technologies. However, even if such technologies can be successfully created, whether they will meet public approval in a country generally suspicious of genetic engineering is a vital question (Owens 2017). But, certainly, adherence to this vision is becoming widespread. As ecologist, James Russell has noted: “We’re in a relatively unique position in New Zealand, where people are really, really willing to kill for conservation...It’s kind of a national pastime” (in Owens 2017: 150). If I think of this mobilisation in the abstract, I find it interesting, even exciting, to watch this movement being built. The vision is compelling and, through regularly coming into contact with the utopian promise as made manifest in the Zealandia ecosanctuary, I find it hard not to get pulled into the hopes of a nation of flourishing bird life. Yet I also find it threatening. I am afraid most particularly of the tendencies towards black and white thinking which offer little possibility for consideration of particularities or subtleties and which seem to, too easily fail to think “in the presence of” those who would be the victims of our decisions (Stengers 2005a: 997). I am afraid that we will find ourselves with approaches which cannot pay attention to emergent possibilities (Alaimo 2016: 178). But I am also deeply aware of the threat of extinction which these efforts are geared to fight against.

4. Tragic gaps

For the last months of my fieldwork, futures played on my mind: did people really feel an introduced predator free future was possible? How far would the killing extend? How did such visions play out in daily lives? Driving back from a tour of a trap line some months later, I asked Wellington City Council conservationist Illona about her view of the future of

conservation in New Zealand. She paused and didn't answer directly but, rather, told me a story. "So, in my job, I get people all over Wellington trained and motivated to do trapping. But, you know, at my house, I have a compost heap and there are always rats there, and I've given up trapping them. The rats will just keep coming, so I leave them."

Something about this simple story struck me. In some ways, this *sounds* like a compromise, or maybe even kind of a giving up—as if to say, "ah, it's impossible, never mind, let the rats be." But Illona continues to do the daily work for the larger dream, actions to mobilise people into actively trapping predators, teaching about the harms hedgehogs do to native critters and inspiring new loves for wētā and ground-nesting birds. She continues to do the work of changing the social and technological landscapes around her, shifting conversations, getting more people involved in trapping: the everyday work of encouraging both utopian visions as well as the practical labours to bring them about. It didn't *feel* like she was describing a compromise. It seemed more like she was being pulled.

Some months later, reading a book by educator and non-violence campaigner, Parker Palmer, I came across his notion of the importance of dwelling in the 'tragic gap' in order to bring about social change (2005). For Palmer, social change requires both hope for the future as well as realistic attention to the present. This requires that one resist falling into either the "wistful and irrelevant idealism" of too much emphasis on possibility or, conversely, the "paralyzing cynicism" of too much reality (2005: 254). For Palmer, the gap between the two is simply the reality of working for change: the gap is tragic not just in terms of being sad, but also in the classical, narrative, sense of being *inevitable*. Things will never be resolved once and for all.

Through holding such tension—both grappling with life as it is, while imagining and working for how it could be—Palmer argues one is better able to withstand disappointment and sustain one's labours. However, it seems there is also the possibility of greater compassion in such an attention to the present. In Aotearoa/New Zealand such a stance is not part of mainstream conservation discourse. However, in private conversations, several conservationists both expressed and enacted just such an ability to hold the tension between hope for the future and care for the present, a tension which seems to lend a thoughtfulness about the deaths such a vision requires. There is a sense of asking "is it worth it here? now?" Not that such conservationists won't kill—and on a large scale—when convinced it is needed and that an action will be effective; one may continue to work wholeheartedly towards the vision while simultaneously offering compassion to what is present. Being able to hold such tensions, I am convinced, matters.

At times, holding these twin cares can lead to new possibilities even when one would rather not be accepting the realities of the present. I find myself thinking of the story of gorse in Aotearoa/New Zealand—an introduced species of plant often targeted for poisoning. As Kezia Barker argues, however, due to the Department of Conservation's lack of funding, it was decided to limit control of gorse to focusing on new invasions (2008). While the dream of being free of such plants remained, because of the pragmatic decision to largely leave this 'invasive' plant alone, it was discovered that gorse has the potential to become a nursery plant for many native species, both fixing nitrogen and ultimately dying off as growing trees shade it (Barker 2008). Moreover, one of only three groups of giant wētā still surviving in the mid-2000s was sheltered by a patch of gorse, with the spikes of the plant saving these

endangered critters from predation by rats (Barker 2008: 1610).³⁹ In a world in which the inter-relations of lives are so complex, I wonder what might be lost when we fail to attend to the present in our rush towards the future.

Responsibility and boundaries

I'd put off my interview with Goodnature until almost the very end of my fieldwork.

Though these traps have been granted the highest humane standard under the Ministry of Agriculture and Fisheries' National Animal Welfare Advisory Guidelines (NAWAG), to me they represented the very sorts of 'invasive narratives' which reduce complex situations to simple battles of good versus bad species (Lidström et al. 2015). However, upon meeting with Stu, one of the directors of and the business manager from Goodnature, it was clear that the reality here was more complex than I had assumed. While Stu was adamant that environmental damage caused by introduced critters was reasonable justification for killing them, he viewed killing as being fundamentally a matter of choice and something to be permanently under review:

Stu: It's tough, we're essentially in the game of species-cide, right? We're valuing kiwi or kokako or mohua, whatever it is, over rats and we're saying we're prepared to wipe out rats to protect this other thing. So it's a pretty massive moral/ethical call we're making. You can't just assume that that's right, you have to constantly revisit it, right?

Laura: And how do you guys do that?

Stu: I think the way we do it is, we do it with sensitivity, so humaneness is critical.

Through framing what they were doing as a 'choice' did not imply a weakening of Goodnature's resolve to work towards a predator free goal. It was, however, a statement

³⁹ The other two populations were on an island and in the Warrenheip Reserve, a privately-owned fenced native reserve (Pennisi 2017).

that the critters to be killed had worth, and could not be discounted outright. Stu noted that the high levels of emphasis on the humane standards of the traps was also a pragmatic business strategy: they wanted to create traps which would stand up to humane tests even if NAWAG standards went up. However, by not discounting the value of predator lives, Stu was also ensuring that killing these critters required consideration: they were not rendered inherently “killable” (Haraway 2008). Knowing that one’s killing is conducted without ultimate justification or, as Haraway writes, always with reasons but never with *sufficient* reason (2008: 76), seems to be an important element in killing as kindly as one might. It is of course, vital, that one wrestle with the reasons why and whether one might be justified in killing another. However, our decisions ultimately come down to our specific attachments to and sense of the world and what matters in it. Killing is a question of our cares. As Haraway argues, while our ‘felt reason’ is never sufficient to ultimately justifying killing, it is all we have. Recognition of this insufficiency, however, becomes its boon. As Haraway argues: “The grace of felt reason is that it is always open to reconsideration with care” (2008: 76). Returning to the conservation experiments of Chapter 2, in this moment, Stu seems to be—at least in part— “[c]ast off from the certainties of Nature” (Lorimer 2015: 9). It is uncertain precisely how things will turn out and, because of this he sees his responsibility requiring that he and his company “constantly revisit” the assumptions they are making.

While there are undoubtedly limits to such revisiting for Goodnature—they are, after all, a for-profit company needing to survive on the sale of their kill traps—it does seem that being open to the possibility of a range of good futures, matters (Lorimer 2015: 9). In the holding of such tensions, we see the emergence of complex, humble, responsive subjectivities which might be kind but not ‘good’. Such shadowy subjectivities matter if we

are to lessen cruelty. As analytical psychologist Adolf Guggenbuhl-Craig argues, "People can be the most cruel when they can use cruelty to enforce the 'good'" (2015 [1971]: 22). Under such situations, one's actions are able to be "consciously justified by that which is 'right and good'" which is precisely when one is able to disappear guilt from one's consciousness (2015 [1971]: 22).

Several studies of killing animals suggest that retaining an uncertainty about killing may be important for killing well. In Arluke and Sander's study of killing in dog shelters, one worker noted that while those who remained on the job largely came to terms with killing, uncomfortable feelings still emerged at various times, requiring that people return to asking why they were doing what they were doing (1996). The authors argue that such feelings of uncertainty provided motivation to make the effort to ensure a humane kill, such as learning to becoming highly skilled in holding dogs or in administering the injection. In this way, retaining the ability to be disturbed by one's actions, to be uncertain about one's licence to kill, seems to matter (1996: 87). As one worker in the study noted, "If you get to the point where killing doesn't bother you, then you shouldn't be working here" (1996: 87). Being able to hold the difficulty of killing without splintering off into more reactive feelings may have repercussions for how it is that we kill. Richard Jakob-Hoff, a vet at Auckland Zoo, trains vets in how to euthanize exotic animals. Those who can accept the sadness and discomfort tend to learn to kill with skill and compassion, he said. In contrast, Richard said, those who attempted to ignore the ambiguities of killing sometimes became almost a little gung ho, as if they were attempting to cut themselves off from the difficult reality of such labour (Pers. Comm.). There is something in taking up the labour of killing in ways which accepts the difficulty and ambivalence of the work that seems to promise a better death. This

is a mode of responsibility in which one allows oneself to be answerable to the harms one's actions create, a way of potentially becoming kinder through accepting the shadowy nature of one's cares.

To hold this tension and still kill, however, is not something which is commonly discussed. In a New Zealand context, Goodnature's acknowledgement of the element of 'choice' in their work of killing introduced mammalian predators in order to protect native species, is not part of their public discourse. In private conversations, many people who framed their care for native species as something which could have been otherwise — people who could also see the value in the lives of 'pests' — had chosen to not take part in trapping. In both public discourse and privately in interviews, the majority of conservationists I spoke to framed the need to trap in terms of the imperative of stopping biodiversity loss and ecosystemic collapse: not matters of choice or responsibility-borne-of-attachment or of subtle questions (which biodiversity? Which species?) but, rather, as obvious, common sense, universal 'musts' (Hiedanpää and Bromley 2016). These apparent imperatives become so apparently strong and obvious that they are difficult to fight against, as Jamie Steer's case shows. Newspapers and reports on the evening news tended to frame the existence of those speaking for other options not as evidence that our cares could have been otherwise but, rather, as 'characters', 'cat people' or 'hedgehog ladies': those whose inherent strangeness explains their odd cares, rather than being evidence that *all* of our cares are contingent, that, had our histories been different, that any one of us might have come to care differently.

Certainly, over-determined killability of introduced predator species, particularly possums, seems to be related to instances of extreme violence. Every year, news stories and SPCA reports tell of ultra-violence, with possums nailed to trees, dismembered while still

living or bashed with hammers until they are long-past dead (Ryan 2014; Shadwell 2014; NZ Herald 2018). The demonization of possums in New Zealand spills over into acts of what Eric Stanley calls 'overkill': the "excessive violence that pushes a body beyond death" (2011: 9). Stanley's use of the term specifically describes the excess of violence, which may include dismembering and maiming after death, in the murders of queer-identified Americans. That such violence continues after life has left the body of the victim, Stanley argues, suggests that such murders are not simply targeting the life of a specific individual but, rather, are aimed at ending a certain category of life more broadly. Stanley wonders about the ways in which the brutal pleasure and intimacy of these acts, demonstrate a "complicated structure of desire and destruction" spurred on by categorical hatred (2011: 12). It is vital to recognise, he argues, that despite our legal systems which privatise the violence, laying blame in a singular perpetrator rather than seeing such violence is one of structural abjection and systematic (non) recognition (2011: 2-3).

As depicted in Chapter 5, violent and dismissive framings of introduced predators are commonplace in conservation discourse in Aotearoa/New Zealand. Perhaps, however, for possums these are the most extreme. Possums are commonly framed as diseased and threatening (McCrow-Young et al. 2015; Potts, Armstrong and Brown 2013: 204-206). In response, those killing them are able to adopt 'revenge narratives', both enabling the killer to take on a patriotic, heroic, role (Potts, Armstrong and Brown, 207-209). Such easy and extreme framings of good vs evil allow for extremes of cruelty. As Maria Puig de la Bellacasa writes, "idealizations silence not only the nastiness accomplished in love's name but also the work it takes to be maintained" (2017: 78).

5. Killing me softly

There was something unusual about the ways in which Stu's openness to other cares led me to be more open to the work of killing introduced predators in Aotearoa/New Zealand. I walked out of the interview into the bright glare of Newtown, Wellington, with the vague feeling that I had lost, that I'd been somehow won over, or at least opened to the Predator Free vision.

Increasingly, it seems that there is something powerful, albeit deeply vulnerable, in exposing cares as such. After a full year back in Aotearoa/New Zealand, baulking at the various arguments totalizing against hedgehogs—arguments which reached for biodiversity claims with the terms of the argument already decided and made natural—I found myself at an end-of-year celebration for native tree planters which coincided with the birthday of Errol, a dedicated native tree planter. Errol was also the head organiser for a small team I was part of—a group of people living around Te Ahumairangi park who had signed up to monitor a city council nesting box put out in the hope of a kākā coming to use it (none ever did). Errol had regularly mentioned—with great respect—a woman called Bronwyn, a kākā expert who volunteered at Zealandia ecosanctuary. She was also, Errol said, a skilled pest trapper. So, when I met her at the picnic, I was keen to learn all I could. Both of us with paper plates of salad and potatoes and vegetarian quiche, I asked her a flurry of questions—how did she, personally, deal with the killing? What was her vision for conservation in New Zealand? Did she think Pest Free Wellington was achievable? She replied with a story that I paraphrase:

We could just leave things and see how they go. There wouldn't be ecosystem collapse, it would be okay. We'd lose some trees and some animals, and others would do better, and we would end up with a

landscape something a bit more like Europe perhaps. Who knows exactly how it would play out. But you know, the thought of that makes me so sad. I imagine living without the kākā around, or all the tūi, or the gheckos, or the giant snails or the tree fuscia, and it just makes me sad. And so, yeah, I do the culling. And I hate it, I wish I didn't have to, but the other option for me is even worse.

As she was telling me the story, I recognised the feeling from Stu's talk, that I'd begun to lose in some way. Perhaps it was that, with Bronwyn's story framed in terms of her own cares and vulnerabilities, I found myself less defensive, not having to protect my own attachments against rival cares making claim to the absolute. Here, Bronwyn took our conservation conversation in the direction of what Latour refers to as diplomacy, from the question of "Is it or isn't it constructed?" to "How do you verify that they are well constructed?" Latour argues that "[h]ere is where negotiations could begin: with the question of the right ways to build" (2002: 40).

Theorists of literary uncertainty might say that we had participated in the transformative work of the openness of 'author' and 'reader'. Following the work of Wayne Booth, Dorothy Hale argues it is such openness which creates the possibility for ethics and change, as the reader opens herself to the otherness of the author. Reading "as if" one was the author, is "the condition of imagination that makes one ethically vulnerable to beliefs that are not one's own" (Hale 2007: 199). As Gayatri Chakravorty Spivak notes, "[u]nless you take a step with me, there will be no interdisciplinarity, only the tedium of turf battles" (2002:23). Perhaps curiously, it is the sense of acting 'as if', of being open to the other and being changed by such openness which Vincianne Despret places at the heart of the work of attunement (2013). It was just this sort of 'as if' attunement which got me problematically entangled with hedgehogs back in my Dunedin backyard in the first place. It seems that, in

openness, in acting or listening, 'as if', regardless of the species of our partner, we are changed and the world becomes differently comprehensible.

This work of taking another seriously is also at the heart of anthropological practice. In his 2011 paper, "Endo-exo", Matai Candea responds to Vivieros de Castro's call to take informants seriously, in which to 'take seriously' means, rather than appraising the world of another on one's own terms, one offers a suspension of the desire to explain or verify the possible world of the other. Instead, one accepts it, allowing oneself to be changed by the reality of it. Such openness is necessarily partial—we shift but don't entirely change through such connection. However, such openness is subject-forming, constituting—this is the 'risk' at the heart of ethnography (Haraway 2008: 83). We are not entirely the same after becoming open to another, after taking another seriously. The question of whom we might wish to take seriously, however, is never self-evident (Candea 2011: 150).

The sorts of changes and contradictions we hold after such encounters can, indeed, be awkward, even painful. Since finding myself open to the vision of Bronwyn's and Goodnature's stories, my loves for possums and rats and hedgehogs—all of which are, in different and complicated ways, threats to the central cares in such stories—have never been quite the same. There is nothing safe in storying well—it means death as well as life. I don't like it, and it feels deeply uncomfortable to now be holding cares which might not be able to coexist well or at all. This, as Martha Nussbaum writes, when we are fully attentive to reality, there will be conflicts of obligation: one cannot simply apply a pre-set formula to the ethical dilemmas of life. For this reason, Nussbaum looks to the novel as a form of representing reality which is "deeply involved in the presentation of such conflicts, which spring straight from its commitment to non-commensurating description and to the ethical

relevance of circumstances" (1990: 146). What such complex stories take from us in terms of certainty, they return in terms of adherence to the complications and responsibilities of what it is to care. It is in this light that we can see what Cary Wolfe means when he says that we cannot align ourselves with "everyone and everything at once" (Wolfe 2013: 103). As we do the work of attempting to save and care for other species during this time of environmental crisis, we need to accept that "we will have been wrong", and yet we must still act (Wolfe 2013: 103).

In a strange twist to this story, one which leaves me partly unsure of what to do with it, when I tracked Bronwyn down some months later for a formal interview, she didn't remember that our conversation had touched on these matters. Moreover, when I relayed what I remembered her saying—the uncertainty, the feeling that things could be otherwise and be okay, but that she cared for a certain sort of a world which she was deeply committed to and prepared to kill for—she had laughed and said she didn't remember that part of our conversation at all. She commented that, actually, just the other day she'd heard a radio show about how introduced species could lead to total ecosystem collapse. For her, caring for the native animals *was* about avoiding environmental collapse, it wasn't just a matter of anything being potentially okay. Though I was—and remain—unconvinced by arguments of ecological collapse, the work of our earlier conversation (or, at least, my hearing of it) and its powerful uncertainties had already done its work on me. I continue to find myself sympathetic to the need to kill. Skilful uncertain story-telling is, it seems, a risky, lively business.

In this, I wonder about the power of good fences, both literal and metaphorical. In walking the Zealandia fence line, with hedgehogs and other pests able to live (I had

assumed) safely on the outside, I found myself beginning to quietly appreciate the birds of Zealandia. There was something in these conversations which reminded me of the security and openness I'd felt while walking that fence line. Though I am uncomfortable with the pun, I wonder whether, well fenced, we might be able to become less defensive. For me, a conversation with a Zealandia worker after the Pest Fest was my first sense of even a possibility of opening to the mood of conservation. I had met Anne at the end of the first Pest Fest, I assume my eyes a tell-tale state of bloodshot, as she had been particularly kind. I had let slip to her that actually I was struggling with all the killing and she had simply said that she understood, and that she still found it hard, too, particularly when she had first gotten involved. Though I didn't experience an opening in my cares at this time, just this small acknowledgement of my cares made a difference, and I found myself feeling just a tiny bit safer and less defensive. I increasingly wonder whether safely bounding cares can make it safer to come to care in conflicting ways. In what ways might offering secure boundaries to both our and other's cares—saying “yes, your cares are real and legitimate”—allow us to be more open to the cares of our would-be opponents?

And my quiet, troubled suspicion is that giving another the feeling that their cares are respected and safe can, and potentially is, at times used strategically. In interviews, several conservationists noted the importance of acknowledge the legitimacy of the concerns of others. In some ways this can seem like a simple exercise in good public relations. One woman told me of a boy who had become distressed as she talked to his class about the necessity of backyard trapping. The boy was outraged that possums were being targeted for killing when they had done nothing wrong and hadn't asked to be brought here. He was tearful and cross and sad all at once and she'd stopped the flow of the class to really listen to

him. “You’re right”, she said, “it’s not fair. The possums have done nothing wrong, and it isn’t fair on them at all.” The boy remained quiet for the rest of the class, and she wasn’t sure whether he had been convinced. Since then, though, whenever she spoke to classes she had always been careful to add the disclaimer that had calmed the boy – that this wasn’t the fault of the ‘pests’, that they’d done nothing wrong. She hadn’t had any trouble with classes since. Another woman told me of her regret over the initial handling of the control of cats in Wellington. The Gareth Morgan campaign had painted cats as being actually evil and she said, “excuse the pun, but that really got the cat peoples’ back’s up.” They are, she said, still dealing with the aftermath of the creation of this standoff. In one-on-one conversations now, she said she is careful to never demonise a pest animal.

Several conservationists noted that being considerate of another’s attachments is a path to a less defensive conversation, a way of interacting which may make the other more likely to come around to your cause. However, I can’t help but think that, in some ways, this opening in vulnerability operated in both directions; rather than caring for the cares of one’s opponent being merely a strategy for lowering their defences – that is, for placating someone sufficiently that they might be open to one’s own argument. I wonder about the ways in which such openings leave us also quietly contaminated in return, finding ourselves holding incompatible cares. This to me seems to be the hopefulness of taking others’ cares seriously. That, in acting in an empathetic mode ‘as if’ other cares mattered, we might find that they do (Despret 2013: 71).

With some discomfort, I find myself thinking back to Illona’s initial question: “How do I get New Zealanders to hate hedgehogs?” Having come to know Illona and her concern for animal welfare (which exists alongside her passionate commitment to killing them), I find I

no longer take this question at the face value of instilling 'hate' as her primary goal. I see it as being a question of how to get people to become willing to do the work of killing hedgehogs. Currently, in conservation strategies in Aotearoa/New Zealand, hate, demonization, and dismissal of critters to be killed is frequently used as a key strategy to enable people to kill them. I am interested in other modes of enrolling people in this work, modes which might better enable ongoing consideration both of those slated to be killed and of whether such death is necessary (Linklater and Steer 2018). Caring for the cares of others may be a way of enrolling others into the difficult work of killing for conservation through expanding people's cares, not merely shifting them or contracting them. Such modes, however, require that we learn to hold ambiguity, that we know we are making real and harmful interventions in the name of that which we care for. Acting with such care is vital to making truly considerate decisions.

Discussion: Keeping the cares together

Concrete utopias, such as the Zealandia eco-sanctuary, seem to be playing an important part in actively changing what is possible even as they build, always, out of what is. Nine years on from the construction of Zealandia, a predator-free Aotearoa/New Zealand has shifted to a just-barely possible hope: a hope made physically manifest within the 8.6km fence and which keeps people doing the work of building towards this possibility. The fence both acts as a reminder of this vision while simultaneously physically engaging people in the work of creating this utopia, as Zealandia's spill-over birds call people to action, spurring many people to get involved in trapping. The presence of such birds—like the presence of a hedgehog in a UK garden—actively called people into the work of the campaign.

Worked towards without attention to the realities of the present, however, utopian visions can potentially lead to a lack of care—even outright violence—towards those who are not included in the desired future (Harvey 2000). There are, however, those holding the lively tension of both caring for a longed-for future as best they can while also tending to those living in the present. It seems that being able to hold such tension matters, that caring for the present enables one to bring about kinder, more thoughtful deaths even while one continues to hold and work towards the vision which requires such deaths.

Holding contradictory cares is not necessarily comfortable work, requiring as it does that one face the many ways in which one is not ‘good’ and accepting the responsibility that one is working—both caring and killing—not towards *the* only possible good future, but towards one possible world amongst many. But it seems that becoming able to hold those tensions means one might be able to kill more kindly (though perhaps more sadly). It is this work which some conservationists are quietly carrying out, wrestling with such tensions, even as they are called to continue the work of killing.

Dwelling in the tragic gap—remaining committed to the future we long for while staying attentive to the present seems to bring the possibility of becoming open to new cares in the present. This is not a recipe for any sort of final peace or avoidance of death. However, there is the possibility of death with more full attention or of more creative solutions, with more possibilities for challenging the tendency of the other to be rendered killable (Haraway 2008).

This tragic gap, however, with its possibility of attending to the emergent, seems to often be hidden away privately, with such tensions acting as a source of shame or guilt, as if one might not be able to hold ambiguity without becoming a traitor to one’s cause. When I

messed Illona about using this story, she said she had actually gone back to killing the rats in her backyard. She had felt too guilty not to, as if she was giving up on the cause. And Goodnature give no hint of the complex, lively, ethical positioning on their public advertising. Public conversations on conservation generally are largely totalising, requiring 100% killing and framing arguments in terms of biodiversity absolutes (see, for example Owens 2017). I can't help but wonder what it could be like if we could hold those gaps publicly and, in our private lives, hold them open longer, refusing to see a love for the present and for a vision for the future as a contradiction. What could things look like if Kevin Hackwell freely noted that he didn't—couldn't—kill the hedgehog who visited his home? To retain the call of the utopian, but not in a way which obliterates attention to those alive in the present. If ecologists acknowledged that they are working for an outcome that they care deeply about but which is not the only possible good, what emergent possibilities might there be, even amongst all the death?

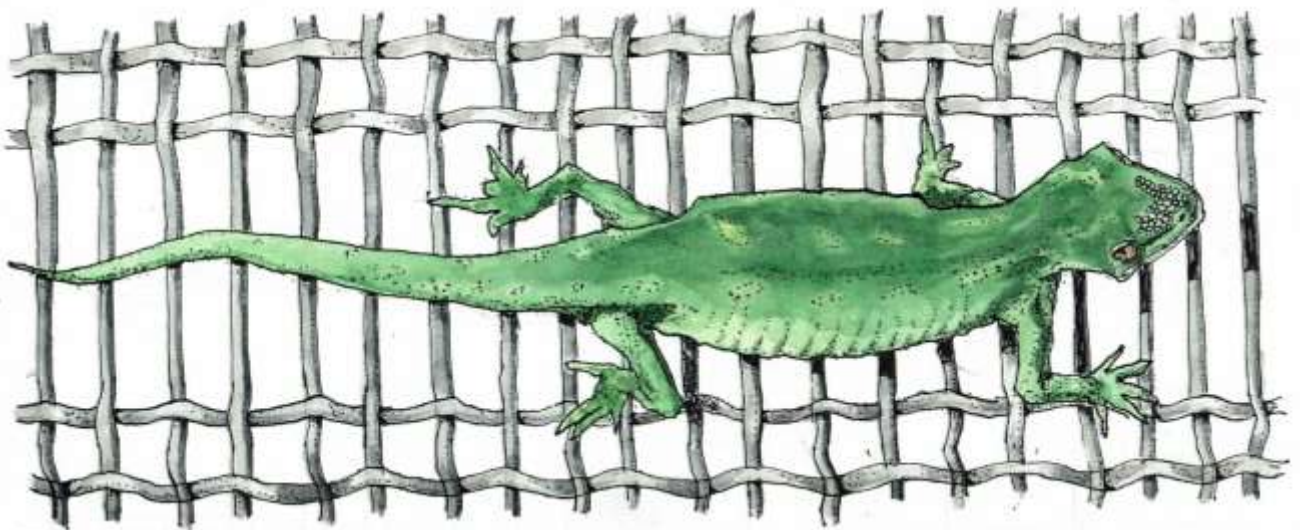


Figure 38: A Wellington green gecko sunbathing on the Zealandia fence (drawn from photograph by Tim Wills)



Figure 39: One of the hoglets from my backyard in Dunedin, Aotearoa/New Zealand

Concluding Reflections: On keeping the cares together

Love in the time of extinctions, therefore, calls forth another set of questions. Who are we, as a species? How do we fit into the Earth system? What ethics call to us? How to find our way into new stories to guide us, now that so much is changing? How to invigorate love and action in ways that are generous, knowledgeable, and life-affirming? (Rose 2011: 2).

But what about hedgehogs? As these discussions play out between and within humans, what about hedgehogs themselves? In an Anthropocene world in which there are few spaces not immensely impacted by humans, our cares and how we negotiate them matter greatly for hog lives. Will they

meet traps or cars or cat food or gardens carefully tended with them in mind, full of rot and flourishings of beetles? Our worlds and cares are not separate from those of hogs, but they are also not the same. If you notice a hedgehog, and let your love go with him or her as well as you might from your human body, you'll see the world shift. You might even dispute that verb, that 'see' — what priority is sight for a hog? It is beautifully dark in the night and, if you are a hedgehog, your sight wasn't great to begin with. Instead there are worlds of smells I can barely comprehend. You stop and sniff and look up, not at me but at something far off you've caught the scent of. What is it?, I wonder. And, despite everything, all the death, I find myself filled with wonder. I marvel at your vulnerability, that you are right there, a quiet wild thing, strange and marvellous. But these little moments of surprise intimacy don't last and soon you are off, trotting down the path. You take three little hops down the steps and then, in the dim street light, make your apparently determined way onwards down the driveway. I lose sight of you as you turn left at the footpath. I don't follow you physically, but my wonderings go with you.

And where might you travel? There are few places you might go which aren't immensely shaped by humans. In Britain it is the roads which are the main worry, and the poisons and, to a lesser extent, the badgers, who themselves are responding to human-caused difficulties in making a living. In Aotearoa/New Zealand, it's mostly the traps. But my thoughts also drift to whom you will eat during your journeyings: in multispecies lenses we cannot escape death (Puig de la Bellacasa 2011). In the UK I came to rarely think about who you ate. In Aotearoa/New Zealand it is a frequent consideration. But I wonder about wild cares, about how I might best love who feeds you. I wonder about feeding and encouraging wētā so that they might be able to withstand your presence. Beetles and earwigs and worms have been similarly encouraged in the UK, what might we do for wētā? Though it is unlikely to be so simple in a landmass in which critters evolved in such isolation. Though

caring for life in its emergence is always something of an experiment (Mol 2008), we find ourselves in experiments gone dangerously wild. I long for more considerate, kinder experimentation.

In attending to cares as they play out in everyday practices of hedgehog conservation in the United Kingdom and in the killing of them in aid of endangered native species in Aotearoa/New Zealand, cares emerge as often contradictory and almost impossibly complex; as noted throughout this thesis, they are at times authoritative, shadowy, quarantined, collective, harmful, toxoplasmotic, well-aligned, attentive, considered, contagious, smuggled, wild and disciplined. Care is complicated and deeply located. It is not 'good' in any simple way: it is *care*. The only thing I know for sure is that if someone says they are doing it right or that their work of caring is straightforward or obvious, they are probably someone to keep an eye on. In following the everyday care practices and experiences of both lay and professional conservationists and rehabilitators, it becomes clear that we face the impossibility of ever choosing ultimately 'correct' alignments; there is so much which matters, or which could matter (Wolfe 2013: 103; Shotwell 2016: 195). And even if we wished to abstain from action, in this world in which we find ourselves impacting on the lives of others more than either they or we might wish, we find ourselves shaping the worlds of others. Our storying, our actions, no matter how apparently innocuous, align us with some lives, some possibilities, and not others. Which critters have I been called to care for? For whom and for which values am I calling you to care? What and whom might those cares cause us to overlook?

These cares matter, not just for what we care about, but also for what we see as reasonable, for how we appraise the ever-political question of what is to be done (Mol 2008). Through a lens of cares, we start to see that rationalities, too, are formed by their worlds: what is reasonable exists within a particular common sense; a common sense comprised of cares which, in turn, are shaped by particular histories. Picking up on a recent motto of Donna Haraway, Isabelle Stengers argues that “[s]taying with the trouble challenges the very idea of reason as what should overcome trouble” (2017: np). However, even if absolute, universal, appraisals can’t be made, considerations can be offered, framings which change the sorts of questions we might ask. Rather than specific answers then, this thesis offers further questions. In this, rather than torqueing stories of our cares to make answers easier, I wonder whether we might find ways to better sit with the shadowy nature of our cares, so that killing and caring might require greater consideration. Realisation of the necessary humilities of caring may be vital for caring as well as we might; that is, caring as kindly as possible for and with those myriad others with whom we share our earth.

1. Wild cares and rambling loves

Perhaps the most basic ecological experience is that of an audacious generosity, of daring to love all the suffering, perishing creation (Kohak 1982: 10).

I repeat the lament from my introduction: that nothing is resolved, once and for all. It is, as Stengers notes, a case of “matters of concern, all the way down” (2017, np). As Val Plumwood has argued in much of her work, love is the vital seat of our ethics, motivating and sustaining our work of caring (Plumwood 1991). Stacy Alaimo argues that delight, play and desire are particularly vital if we are to have the motivation to reshape our worlds into

what other critters need (2017). Knowing wildlife is, as Jamie Lorimer argues, “a passionate and embodied practice” (2015: 181). Rather than love being blind, it seems the opposite is true: that without love for another we are blind to them, unable to see them or even consider them in what might need to happen. Indeed, ethologist Konrad Lorenz argued that regarding science as value-free was a dangerous self-deception, noting that “all of the biologists I know are undeniably lovers of their objects of study” (in Bersanelli and Gargantini 2009: 10). It is in the disciplines of love that conservationists come to really consider the objects of their affections and what particular accommodations such critters might need to stay in the world.

Conservationists throughout this thesis did work with fear and delight and sorrow and anger and commitment and hope. Yet we are often not brave enough to acknowledge the passions which sustain both conservation and care. When dualistic thinking is so enshrined in our common sense, you need courage to resist it—it is so tempting to hide one’s delight or terror under whatever scrap of the rational one can lay one’s hands on. At times, in conservation worlds, passions were hidden under more acceptable, apparently rational logics, in discourses of ecosystems services and biodiversity arguments (see also Monbiot 2014). But doing so obfuscates the strange happenstance ways in which we come to love, and attend to, and thus care well for others.

Delight and wonder and power and violence are all at play in how we come to care for others. Some of this work is actively carried out by humans. The work of forming, maintaining and sharing cares with others, the “arts of inclusion” — acts of encouraging other humans to notice and become attached to those whom we love and wish to protect — were alive and well, in both Aotearoa/New Zealand and the United Kingdom (Tsing for the

Matsutake Worlds Group 2011). In Wellington, as noted in Chapter 5, such arts were present in story books, card games, cute drawings, soft toys, songs, encouraging messages on television and, at the Pest Fest, pinecone kiwi-making. This was the work of orienting bodies to notice and appreciate native birds and insects. In Bristolian hedgehog worlds, as noted in Chapter 2, similar work called people to active cares for hogs. Here, story-telling, crafts, pictures and soft toys called people towards hogs rather than away from them.

Without it necessarily being my intention, throughout this thesis, my own practices of drawing pulled (I am very tempted to say 'drew') me into greater consideration for native birds. These auxiliaries of attachment seem to not only call us to care, but also help us to maintain cares, as I found in Chapter 3 when, over-wrought by the difficulty of caring, I felt my cares begin to repair through the gentle and engaging labours of clay hedgehog-making. I wonder about the ways in which many of these arts of inclusion are actually *arts*, and the ways in which various artistic practices might train us to notice and be affected in new ways (Honegger 2001; Lorimer 2015: 5).

As noted in Chapter 1, there is also the agency of the critters themselves—agencies which play out through our social storying so that, for example, the agency of parrots is, at present, generally greater than that of hogs in Aotearoa/New Zealand. To whom are we open and why? Whose bodies am I able to physically recognise, and who do I find charming? (2015). We are ourselves re-aligned by these relationships. As noted through the stories of hedgehog rehabilitators—including my own experiences—it is hard to undo such ties: we become entangled with other bodies, attuned and able to respond in ways we can't easily undo or ignore (Haraway 2008: 71).

In attending to the everyday work of making and maintaining cares, we see that although our cares may be instituted as the ‘common sense’—thus seeming like they are inevitable—they are, in fact, a product of active labour and particular histories. This can be disconcerting in a world in which precarity and madeness aren’t celebrated (Latour 2012). However, there is a vital politics in recognising this contingency: no one is inherently careless. Rather than writing people off for lack of care, not caring for someone or something instead emerges as a lack of having been well called into caring. This is not so much a question of *convincing* others, as if delivery of ‘the facts’ is all one might need to enable another to catch one’s cares. Rather, cares are *made*. Calling another to care is a matter of charming, of coaxing, of drawing another into the world of one’s cares.

Alignments and distributed responsibilities

But coming to care is not only about charm, it is also a question of power. As noted in Chapter 5, there are works of framings and articulation at play in establishing our cares as the common sense. Attending to such questions of power matters if we are to understand why some cares are more contagious than others. Often such power dynamics are only apparent when we find ourselves outside of the “common sense”: well-aligned with the powers that be, we don’t feel their push. Instead, finding ourselves with privilege of well-aligned cares and good hap (Ahmed 2010)—as I had found in the UK—there can be worryingly little motivation for recognising that one is made in particular, historically-informed ways (Puig de la Bellacasa 2011).

In contrast to the bolstering effect of finding oneself with cares well-aligned with the common sense, finding oneself outside of such norms can be difficult. As noted in Chapter 5,

for many of those who found themselves caring against norms faced some degree of social sanction. I found it hard to have my cares withstand the norms I found myself amongst in Aotearoa/New Zealand: it seems it is difficult to continue to love a critter who is being targeted for killing. Despite all of my work with and love for hedgehogs, I found my heart hardening to them disturbingly in Aotearoa/New Zealand. Though still I couldn't help but delight—at least for a moment—when I accidentally met a hog when out for evening wanders, I largely stopped deliberately spending time with the hedgehogs around my property in Wellington. While, initially, I kept a night vision camera out to track the comings and goings of hogs and spend the odd night out watching, after only a few weeks I found it too sad. What would become of these critters? Perhaps more worryingly, anti-pest discourse began to rub off on me and they started to look less charming. Perhaps more diseased, a little more feral. I rarely spoke up for them or any other culled critter publicly. Though I cared for the hogs who needed rehabilitation, becoming attached to their presence and enjoying their rhythms, a species-level love was being unstitched. It was a strange, dead, feeling of retention of affinity, of a sense of 'getting' hogs, but without any feeling of delight. It wouldn't be until more than a year out of the country, surrounded by folks who loved hedgehogs, that I would feel that old fondness return.

The dismantling of my ability to find joy in hogs has, at times, made me wonder whether I am particularly fickle or, perhaps, with something of an anthropological chameleon nature, made me more amenable to catching the cares of others. Now, however, I have come, instead, to think about the broader social supports we need to continue loving, to continue delighting in those we care for. If we don't 'choose' for whom to care but rather find ourselves drawn and charmed and pulled and vulnerable to particular contagions of care, our responsibility for our cares shifts, becoming both more dispersed and

simultaneously ever-present. In recognising ourselves and our cares as *responsive*, it becomes vital to attend to what we are being made and influenced by, to attend to the ways in which we come together with others. This agency is not that of the individual consumer-actor we are so used to. Rather, it is partial and diffuse. With whom, instead, do we come into contact, to whom do we open? Which contagions of care are we embracing? (Neimanis 2015) Which boundaries are we erecting, however temporarily? (Haraway 1991). Which possibilities are we making space for through our storytelling? Which stories and cares are we passing on? What cares are we forging through our technologies and material worlds? How do our ethics shift when, through a lens of care, we see ourselves as selves-in-relationship? (Gilligan 1987: 24). Might we need courage—perhaps even anger—in order to assert the primacy of such relationality in the face of ideals of self-contained individualism? Might I better keep the cares together if I see myself as relational rather than attempting to be all of one piece? (Taylor 2008).

Even when we don't talk about it publicly, as scientists and laypeople, we are always participating in greater, ever-emergent, collectives: forging, cutting and maintaining connections. Through such a lens, we see we are responsible in our everyday movements, as we change and are changed through our everyday contacts, as we form connections which enable some possibilities and not others, as we participate in certain ways of recognising and framing others (Butler 2009). Through the lens of cares, who we are, who we are with and how we story them is the constant doing of our ethics (Newtown in DBR 2011: 11).

Learning how to care

We are not only called to care for particular others, we are also called as to *how* to care, both by other humans, and by those other-than-human critters we care for. As noted in Chapter 3, sustaining cares for a critter through the everyday labours of rehabilitation work takes the

curious work of maintaining love through the sometimes distanced strategies of finding joy in imagery or in one's skill in crafts of rehabilitation or in the promise of releasing one's ward back out into the 'wild'. As I argue in Chapter 3, notions of the 'wild' can contain masculinist aversions to domesticity and sentimentality (Lorimer 2015: 49; Barker 2000). However, this urban, backyard, notion of the wild, as it was used in both Aotearoa/New Zealand and in the UK, functioned both to discipline humans against capturing the object of their cares and encourage care in more expansive ways. As noted in Chapter 2, educators pointed out that hedgehogs are 'wild' particularly to remind others of the importance of letting hogs go. It is so tempting to cling on to those little spikey critters, but they are rambler. This discipline often led to concern for the broader ecologies which support hogs: caring well for a rambler means potentially coming to care for where they wander. And caring for this quiet, backyard wildness matters. Caring for a rambler means, it seems, caring for where they wander. What dangers might they meet? To which foods and helpful nesting materials or barren concreted yards or vehicular threats might their nightly wanderers lead them?

Similarly, as noted in Chapter 6, conservationists in Aotearoa/New Zealand grow new maps of care in response to the birds they care for. What nectar-rich trees might kākā and tui find? What supplemental feeding might be needed? What leaded roofing materials might kākā accidentally ingest? What predators might ground-dwelling stitch birds be killed by? One's loves follow the flight ways (van Dooren 2014) and ramblings of those one cares for, changing one's sense of the city, challenging one's feeling of a right to it, of being the only species to 'know' the city (Rose and van Dooren 2011). This is so even as one's own fight for the species one loves is a particular human project.

There is something deeply hopeful in this for me. That, in really considering the needs of another species, our view of the world might become just a little less human. We come to consider relationalities and interdependence just that little bit more. Wild caring thus seems to be a mode of loving which challenges human exceptionalism. How broadly might we fall in love with our worlds? (Alaimo 2016: 29). How wildly might we allow our cares to ramble?

2. Shadowy cares and ecologies of kindness

People are leading secretly kind lives all the time, but without a language in which to express this, or cultural support for it (Phillips and Taylor 2009).

However, there also seem to be quarantines around this kind of ecology-mindedness. As argued in Chapters 2 and 4, the connectivity-mindedness of ecologists and champions seems to be curiously isolating; in particular, the connections and the complications of these are rarely reported publicly. Why would this be? Alongside potential challenges to ‘rational actor-hood’, in attending to the world through the complexity of multispecies relations, it becomes apparent that our cares cause harm (Puig de la Bellacasa 2011: 204; Mol 2008: 75). In seeing that our cares are shadowy, necessarily light and dark (Plumood 2008; Jung 1951), we also find ourselves with uneasy new identities, challenging our notions of ourselves as ever simply or purely ‘good’ (Shotwell 2015). Holding conflicting loves is also both painful and difficult in that we find ourselves with few easy decisions: the more broadly we love the less any death can be celebrated. In many ways, it feels easier — cleaner — to merely not allow one’s cares to travel into places where we might need to hold contradictions.

Yet, privately, people were doing this work of developing and caring as best they might for conflicting loves. As discussed in Chapter 6, in Aotearoa/New Zealand, despite often simplified public stories of good and bad species, on the ground many conservationists in Aotearoa were doing the difficult work of killing without demonising, with some ecologists able to love animals even as they kill or to work for a future without dismissing the importance of those critters—including pests—in our present. Such stories were not everywhere: there were also moments of hate and cruel simplifications. But quietly, all over, there are people working with the ambivalences of care.

Holding such tension matters. To be able to still act—to both care and kill—while yet holding realities which refuse the possibility of simple goods or absolute certainty is, I am convinced, a vital craft of living in the Anthropocene. Through doing the difficult emotional labour of killing without dismissing those whom one kills, one refuses to overlook the sorts of damage cares do. There is the possibility that we might do less harm, even to allow for kindness, such as in the Goodnature traps, which are designed with consideration for those whom they are intended to kill. While kindness has been written off as sentimental, as Phillips and Taylor argue, it is not about ‘niceness’. Rather, the authors argue that kindness is a way of acting in which we recognise our connectedness, our interdependence (2009). Kindness, then, might even require anger at times, in order to ensure the work of establishing and maintaining connection. In this way, kindness directly opposes cruelty, which Phillips sees as an attempt to imagine that one is not inherently vulnerable, that one was not born dependent and that one does not remain so throughout one’s life (2013). As noted in Chapter 6, in instances of cruelty to introduced mammals, ambiguity and tension disappear, to be replaced by apparent surety: locked into a hard-and-fast common sense, the

ever-political question of what is to be done can seem to disappear, leaving petrified obviousness (Mol 2008).

It is these sorts of cuts, the work of imagined separation, which allow for too-easy killing (van Dooren forthcoming). When critters are rendered affectively absent there is little motivation—little reason—to consider what might be possible for them. I wonder about the importance of sadness in this, as noted in Chapter 4, of both the creative and broad-minded potentials of this under-appreciated state. If we can care sufficiently to be sad at the prospect of the death of another, what other possibilities might we find? Might we learn to resist the sort of framings which make some species killable without sadness, the sorts of framings which render some critters affectively absent when we make decisions about who will die? (Haraway 2008; Stengers 2005). How might we continue engaging with, passionately storying those critters slated for death? Such work requires not only that we become able to hold potentially painful ambiguities but that we might also find courage (and support) to continue to care, and to demand kindness, for those who are otherwise disregarded (van Dooren and Rose 2010). In isolation I struggled to manage this hard, sad work. And yet surely it is precisely such critters who most need our noticing, our cares, lest we allow killings to continue without consideration.

3. Careful experiments and questioning conservation

In light of the emergent nature of the worlds around us, conservation—indeed, caring for lives generally—becomes apparent as a work of careful experimentation (Lorimer 2014; Mol 2008). Considering the challenges of inter-species connection, intentionally making space for a member of another species takes sensitivity and attentiveness to what one might not know. Such work, this thesis argues, vitally needs crafts of humility to acknowledge that our

understandings are limited by our human apparatuses of knowing: there is much we cannot sense or comprehend, and yet we still must act (Bateson 1987: 156). In acknowledging this humble, experimental, reality of making space for members of other species, it becomes apparent that one must remain attentive, ready to respond to what didn't go quite according to plan, even with the most careful consideration (Latour 2012). Returning to Mol's framing of care as the everyday work of careful experimentation aimed at sustaining a life at the centre of the experiment, how might we put humble cares at the heart of conservation experimentation?

As noted in Chapter 2, in private moments, apparently clear-cut dictates of British hedgehog ecologists emerged as the vulnerable products of scientists attending carefully and with awe to the impossible complexity of life. Such scientists seemed to not just *hold* the complexity of trying to shape a world which would welcome a particular other, but to wonder at it. Giving up the illusion of control opens the possibility of finding joy in the surprise of the experiments we are part of. Hedgehog champions found much joy in the uncontrollable surprises of their backyards and delight of co-creation with other species.

Humble experimentation is also present in the necessity of working in concert with others to shape our worlds. In contrast to mainstream individualist approaches to conservation which emphasise the importance of 'choice' and notions of humans as independent rational actors, making liveable space for hedgehogs requires multi-agential mobilisations. As noted in Chapter 4, in caring we come to see the impossibility of ever simply enacting our decisions to care for another: multispecies collaborations are required to sustain any of our lives (Tsing 2015: 26; Todd 2016). We can't just 'choose' the conservation of the species we care for. For both British hedgehog champions and Aotearoa/New Zealand-

based conservationists, the work of caring for others meant finding ways of becoming responsible within a collaborative multispecies project. Futures are made with and by the rot and the fences and hedgehogs and birds and traps and playing cards and stories and contagious loves and hates and concretes and pesticides. As Anna Tsing writes, “we can’t fix anything, even what we have broken, by ourselves” (2015: 257). It is, instead, a matter of learning to work with humility, in never fully-knowable concert with never fully-allied others (Kirksey et al. 2013: 245).

As noted in Chapter 2, evading the realities of such uncertainties at the heart of ecological practice creates understandings of expertise and science which both exclude lay practitioners, but also belies the very wisdoms of deeply-engaged, responsive scientific practice (Jessanof 2014). Such framings hide the actual skill of such work, which frequently requires attention to the emergent, complex and uncertain (Tsing 2015). We need to tell stories with new framings of expertise, ones in which our acknowledgement of our uncertainties does not diminish us.

When we fail to see conservation as the work of careful experimentation—instead, conflating expertise with certainty—vital questions may go both unasked and unanswered. Must critters be culled to stop extinctions? If so, how and where and from which studies are such decisions extrapolated? Is it even possible to kill enough invasive predators nationwide to make such a difference, or might we make better use of time and money in building more sanctuaries? What variables, apart from killing, might make a difference? More habitat? Different human habits? What long-term effects do poisons and gene transfer technologies have? How can we justify such world-altering acts when we are unable to ever know the full impact of such radically life-altering and destroying substances? I can’t help but see

experiments with gene transfer technologies and newer and more ‘advanced’ poisons as part of the careless logics of introducing stoats and ferrets to kill the rabbits introduced to Aotearoa/New Zealand in the 1860s. As noted in Chapter 1, the certitude displayed in ‘pest’ killing in many ways shares the sorts of totalising and unresponsive approaches apparent in colonial endeavours more generally. In a world which is ever-emergent, questions cannot be settled so easily. As with gorse, might we one day see a surprise which changes our mind about another critter? That perhaps it might be a boon? (Barker 2007). The powers of framing and common sense mean these questions are rarely asked but, instead, tend to be delivered as if already answered. Even asking such questions carries the threat of ostracism, as noted in Chapter 5. And these questions and their answers all, literally, matter, with each question potentially opening another way of considering, of worlding, of questioning assumptions. As Maori conservation strategies have emphasised, basing approaches solely on species-level considerations may be insufficiently attentive to interactions and relationalities which matter. How might we experiment humbly – and thus wisely – within the immense connectivities which sustain all our lives?

4. On hedgehogs and reservations

Part of me still longs for some sort of answer. Something concrete which would make everything okay, once and for all. Something that would not only make things good for hedgehogs, but which would make loving hedgehogs something simple, something simply good. I find myself torqueing stories from fieldwork, wrestling with them, staring them down, longing to make them into something which offers the possibility that the world can be good for my cares and in which I am justified, finally, absolutely, in my caring. Or, at

least, in which there is some clear-cut answer, some stable, certain, ethical ground. But, in attending to the everyday work of making and maintaining and rejigging multispecies cares, it becomes clear that every story—when and if we let it—pulls us into a particular world of life and death and that our material worlds, likewise, attach us to some ways of loving and not others. And that this matters. It matters whether and how we care for hedgehogs or rats or bacteria. It matters how and whether we care for cars or this species of bird or that kind of beetle-encouraging rot or that sort of introduced plant which might feed that little bee or which might strangle that neighbouring seedling; that through our cares, worlds are at stake.

From a new home in the Blue Mountains, NSW, Australia, I read on a Facebook post that Wellington Predator Free groups have recorded record levels of geckos in their informal counts. This seems to confirm earlier studies showing booms in numbers of threatened reptiles after mass cullings of introduced mammalian predators, including hedgehogs (Reardon et al. 2012). I want to look away: to see flourishing emerge from the deaths of those one cares for is a disturbing thing. News articles suggest that Predator Free plans are proceeding apace, with research and development of genetic and poison technologies being encouraged by both government and business and trapping groups being established and expanding seemingly constantly. It sounds hard, fierce, absolute. But it is difficult to know just what is going on without being there. Perhaps there are private moments of kindness? For now, though, I am relieved to not have to live there, though I am aware that many similar conservation dilemmas are currently playing out here in Australia. Here, however, my cares aren't so entangled in conservation matters and, for now, I intend to keep things that way.

In British urban spaces, hedgehogs are continuing to struggle, though perhaps less so, with urban declines seeming to have slowed in the past year (Hedgehog Street 2018). There is hope regarding new strategic connections: politicians are starting to get onboard, and Hedgehog Street, in particular, is teaming up with property developers to make sure new developments create thoroughfares for hogs. In a strange twist of events, a new threat to British hedgehogs emerges from Aotearoa/New Zealand. After a few months with no contact between us, it is a delight to receive an email from hedgehog rehabilitator Yvonne Cox. However, upon opening it, I find it is an online petition campaigning against the approval of the use of Goodnature A24 traps by the Department for Environment, Food and Rural Affairs (DEFRA). DEFRA have approved the traps for use on stoats and rats in England (with Scotland and Wales pending). Hedgehog groups are up in arms, knowing that these traps also kill hedgehogs (BHPS 2016). I sign the petition, thinking about the strangeness of borders and their transgressions.

And so I sign the petition against Goodnature traps in the UK at the same time as I personally find myself reluctantly and painfully aligning with the call for some degree of killing of hedgehogs in Aotearoa/New Zealand. Particularly around braided river systems, the threat to ground nesting birds seems too great. Though species extinctions have happened throughout existence, the loss of particular lifeways—particularly in this time of human-induced mass extinctions—is something I am willing to kill hedgehogs for. It is, using Haraway's phrasing, my felt reason, it is not justification (2008). It makes me deeply sad.

And yet there is little space for sadness or reservation. The killing in Aotearoa/New Zealand is widespread and, publicly, largely unmourned. With no support to mourn these

hogs, I find myself stuck. I am also frequently defensive, unwilling to acknowledge my partial agreement with killing, lest I get swept up into the rush of easy conservation culls. Or the assumptions that the status of a critter as native or introduced might be sufficient justification. I long for space to be able to say that there are no justifications. I long for both physical and discursive reservations. Spaces where we might ask “must we?” and “with what proof?” and where we might trial something with the acknowledgement that we are doing our best, with the best science we have, but we don’t ever entirely know, so we will stay attentive. And what of physical reservations? More sanctuaries for those threatened by predation? What of sanctuaries for hedgehogs themselves? I wonder again about Jacqui’s dream of a hedgehog sanctuary: could it be that we need to find spaces in which to offer introduced mammals sanctuary, and to offer others sanctuary from them? And what of sanctuaries for rats and possums and mustelids? Might we find ways as humans to more kindly limit our harms? I imagine my voice small and pleading in the face of conservation force. It is not easy to offer reservations. I imagine the sorts of conversations we might have if we could all somehow find ourselves feeling safe, if we could all practice care for one another’s cares, offering little reservations in which others’ cares might dwell, even if we do not agree.

And it seems nothing is ever resolved once and for all. And I wonder whether this is the vital point. Rather than torqueing stories of our cares to make answers easier, to torture ambiguity into cruel sureties, I wonder whether we might instead relentlessly story the lives of the unloved until decisions to kill become full of cares and difficult, so that killing and caring always require consideration. Such kindness, it seems to me, is the work of caring as well as one might while knowing one can never care without harm; kindness emerges only

as we attend to and open towards our connected, shadowy reality. I wonder whether we might encourage ourselves to get a little nervous when we start to imagine ourselves as 'good' and, instead, pull back in a little of our shadow, reminding ourselves that our cares are always shadowy and, so grounded, become again a little more kind.

Kinder worlds, however, require different supports as we meet ourselves and others in ways which are relational, diffuse, humble and responsible rather than good or bad. We need to tell stories with new framings of expertise, ones in which our acknowledgement of our uncertainties does not diminish us. To reframe heroes as those killing with full acknowledgement of the ambiguity of their killing. To celebrate those taking greater, broader, more complicated responsibility rather than those claiming simpler goodness. We must trace the framings and strategies which make some cares more contagious than others. It means getting brave about telling stories which cut across the status quo, stories which dare to make us fall in love with those who would be framed as enemies, so that we don't kill without consideration, so that we don't ever kill without care. It means imagining other stories entirely, stories which do not have human tellers. This is the fierce kindness which is our responsibility in the face of the immense influence our human cares have on the worlds around us. Without goodness or certainty, it seems, there is the possibility of becoming more attentive, more considerate to experiment more carefully. I wonder whether we might start caring fiercely, as humans who are ecologically situated, seeing ourselves, perhaps finally, as deeply limited, deeply connected, as we let our love and consideration ramble the paths of our wild cares.

References

1883. "NOTES." Timaru Herald, 15 September, Page 2.
1935. "Writ in Blood: Imported Creatures, natural warfare, acclimatisation mistakes." Auckland Star, 4 July, 11.
1938. "Hedgehog menace." *New Zealand Herald*, 21 October, 15.
- Agamben, Giorgio. 1998 [1995]. *Homo Sacer: Sovereign Power and Bare Life*. Translated by Daniel Heller-Roazen. Stanford: Stanford University Press.
- Ahmed, Sara. 2010. *The Promise of Happiness*. Durham, NC: Duke University Press.
- Anderson, Atholl. 2004. "A fragile plenty: Pre-European Māori and the New Zealand environment." In *Environmental Histories of New Zealand*, edited by Eric Pawson and Tom Brooking, 19-34. Melbourne: Oxford University Press.
- Alaimo, Stacy. 2016. *Exposed: Environmental Politics and Pleasures in Posthuman Times*. Minneapolis: University of Minnesota Press.
- , 2014. "Thinking as the stuff of the world." *O-Zone: A Journal of Object-Oriented Studies* 1:13-21.
- Anderson, Atholl. 2004. "A fragile plenty: Pre-European Māori and the New Zealand environment." In *Environmental Histories of New Zealand*, edited by Eric Pawson and Tom Brooking, 19-34. Melbourne: Oxford University Press.
- Anderson, Ben. 2006a. "Becoming and being hopeful: Towards a theory of affect." *Environment and Planning D: Society and Space* 24 (5):733-752.
- , 2006b. "'Transcending without transcendence': Utopianism and an ethos of hope." *Antipode* 38 (4):691-710.
- Anderson, K. 1997. A walk on the wild side: A critical geography of domestication. *Progress in Human Geography* 21:463-85.
- Anzaldúa, Gloria. 1999. *Borderlands/La Frontera*. San Francisco: Aunt Lute Books.
- Aristarkhova, Irina. 2010. "Hosting the animal: The art of Kathy High." *Journal of Aesthetics & Culture* no. 2.
- Arluke, Arnold and Clinton R. Sanders. 1996. *Regarding Animals*. Philadelphia, PA: Temple University Press.
- Attig, Thomas. 1996. *How We Grieve: Relearning the World*. Oxford: Oxford University Press.
- Avon Wildlife Trust. 2015. "My Wild City." *Wildlife* 8 (Spring):8.
- Baker, S. 2000. *The Postmodern Animal*. London: Reaktion Books.
- Barad, Karen. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham and London: Duke University Press.
- , 2003. "Posthumanist performativity: Toward an understanding of how matter comes to matter." *Signs: Journal of Women in Culture and Society* 28 (3):801-831.
- Barker, Kezia. 2008. "Flexible boundaries in biosecurity: Accommodating gorse in Aotearoa New Zealand." *Environment and Planning A* 40:1598-1614.
- Bargainnier, Earl F. 1980. *The Gentle Art of Murder: The Detective Fiction of Agatha Christie*. Ohio: Bowling Green University Popular Press.
- Bates, Tarsh. 2014. "Performance, bioscience, care: Exploring interspecies alterity." *International Journal of Performance Arts and Digital Media* no. 10 (2):216-231.

- Bateson, Gregory. 1987. *Steps to an Ecology of Mind*. Northvale, NJ and London: Jason Aronson Inc.
- Behar, Ruth. 1996. *The Vulnerable Observer: Anthropology That Breaks Your Heart*. Boston: Beacon Press.
- Bekoff, Marc. 2018. "Is Killing Introduced Predators "Absolutely Necessary"?" *Psychology Today*: <https://www.psychologytoday.com/au/blog/animal-emotions/201801/is-killing-introduced-predators-absolutely-necessary>.
- Bell, Claudia. 1996. *Inventing New Zealand: Everyday Myths of Pakeha Identity*. Auckland: Penguin.
- . 2012. "Colliding human-animal trajectories (road kill!) on a Tasmanian journey." *Critical Arts: South-North Cultural and Media Studies* no. 26 (3):272-289.
- Benterrak, Krim, Stephen Muecke, and Paddy Roe. 1984. *Reading the Country*. Fremantle: Fremantle Arts Centre Press.
- Beresford, Maurice. 1998. *The Lost Villages of England*. London: Sutton.
- Bergson, Henri. 1911. *Creative Evolution*. Translated by Arthur Mitchell: Palgrave MacMillan.
- Bergthaller, Hannes, Rob Emmett, Adeline Johns-Putra, Agnes Kneitz, Susanna Lidström, Shane McCorristine, Isabel Pérez Ramos, Dana Phillips, Kate Rigby, and Libby Robin. 2014. "Mapping common ground: Ecocriticism, environmental history, and the environmental humanities." *Environmental Humanities* 5:261-276.
- Berry, Christopher 1999. Potential interactions of hedgehogs with North Island brown kiwi at Boundary Stream Mainland Island. In *Conservation Advisory Science Notes* No. 268. Wellington, New Zealand: Department of Conservation.
- Bersanelli, Marco, and Mario Gargantini. 2009. *From Galileo to Gell-Mann: The wonder that inspired the greatest scientists of all time: In their own words*. West Conshohocken, PA: Templeton Press.
- BHPS. 2016. "A24 - rat, stoat (and hedgehog?) trap." British Hedgehog Preservation Society. <https://www.britishhedgehogs.org.uk/a24-rat-stoat-hedgehog-trap/>.
- Blomley, Nicholas, 'Making private property: Enclosure, common right and the work of hedges.
- Bolender, Karin. 2014. "R.A.W. assmilk soap." In *The Multispecies Salon*, edited by Eben Kirksey, 64-86. Durham, NC: Duke University Press.
- Bonanno, George A. 2009. *The Other Side of Sadness: What the New Science of Bereavement Tells Us*. New York: Basic Books.
- Bourdieu, Pierre. 1977. *Outline of a Theory of Practice*. Translated by Richard Nice: Cambridge University Press.
- Braidotti, Rosi. 2006. *Transpositions: On Nomadic Ethics*. Cambridge, UK: Polity.
- Braroe, Niels Winther, and George L. Hicks. 1967. "Observations on the Mystique of Anthropology." *Sociological Quarterly* no. 8 (2):173-183.
- Brandstatter, Herman, and Andrzej Aliasz. 2001. *Persons, Situations, and Emotions: An Ecological Approach*. Oxford: Oxford University Press.
- Brennan, Maeve. 2002. *The Philip Larkin I Knew*. Manchester: Manchester University Press.

- Brockie, R. 1976. "Self-anointing by wild hedgehogs, *Erinaceus europeaus*, in New Zealand " *Animal Behaviour* no. 24 (Feb):68-71. doi: 10.1016/s0003-3472(76)80100-5.
- . 1975. "Distribution and abundance of the hedgehog (*Erinaceus europaeus*) L. in New Zealand, 1869-1973." *New Zealand Journal of Zoology* 2 (4):445-462.
- . 1964. "Dental abnormalities in European and New Zealand hedgehogs." *Nature* 202 (493):1355-1356. doi: 10.1038/2021355b0.
- . 1959. "Observations on the food of the hedgehog (*Erinaceus europaeus* L.) in New Zealand." *New Zealand Journal of Science* 2 (1):121-36.
- . 2007. "Notes on New Zealand mammals 4. Animal road-kill "blackspots"." *New Zealand Journal of Zoology* no. 34 (4):311-316.
- Brockie, R. E., R. Sadleir, and W. L. Linklater. 2009. "Long-term wildlife road-kill counts in New Zealand." *New Zealand Journal of Zoology* no. 36 (2):123-134.
- Bryant, Donna, and Julie Roil. 1994. *The Wildtrack Book*. London: Hodder & Stoughton.
- Buchanan, Brett. 2008. *Onto-ethologies: The Animal Environments of Uexkill, Heidegger, Merleau-Ponty, and Deleuze* Albany, NY: SUNY Press.
- Büscher, Bram, Sian Sullivan, Katja Neves, Jim Igoe, and Dan Brockington. 2012. "Towards a Synthesized Critique of Neoliberal Biodiversity Conservation." *Capitalism Nature Socialism* no. 23 (2):4-30.
- Butler, Judith. 2014. *Precarious Life*. London: Verso.
- . 2009. *Frames of War: When is a life grievable?* New York: Verso.
- Byrne, Jason, and Jennifer Wolch. "Urban habitats / nature." In *International Encyclopedia of Human Geography*, 46-50.
- Cameron, B. G., Y. van Heezik, R. F. Maloney, P. J. Seddon, and J. A. Harraway. 2005. "Improving predator capture rates: analysis of river margin trap site data in the Waitaki Basin, New Zealand." *New Zealand Journal of Ecology* 29 (1):117-128.
- Campkin, B. 2010. 'Bugs, bats and animal estates: the architectural territories of "wild beasts"', *Architectural Design* (80)3:34-39.
- Candea, Matei. 2013. "Habituating meerkats and redescribing animal behaviour science." *Theory Culture Society* 30 (7/8):105-128.
- . 2011. "ENDO/EXO." *Common Knowledge* 17 (1):146-150.
- . 2010. "'I fell in love with Carlos the meerkat': Engagement and detachment in human-animal relations." *American Ethnologist* 37 (2):241-258.
- Carusi, A. and Jirotko, M. (2010) 'Reshaping research collaboration: The case of virtual research', in W.H. Dutton and P.W. Jeffreys (eds.) *World Wide Research: Reshaping the sciences and humanities*, Cambridge MA and London: MIT Press.
- Castree, Noel. 2014. "The Anthropocene and the Environmental Humanities: Extending the Conversation." *Environmental Humanities* 5:233-260.
- Chakrabarty, D. 2008. "The Climate of History: Four Theses." *Critical Inquiry* 35:197-222.
- Chalhoub, Sidney. 1993. "The politics of disease control: Yellow fever and race in nineteenth century Rio de Janeiro." *Journal of Latin American Studies* 25 (3):441-463.
- Cixous, Hélène. 2005. *Stigmata: Escaping Texts*. London and New York: Routledge.

- Claeys, Gregory, and Lyman Tower Sargent. "Introduction." In *The Utopia Reader*, edited by Gregory Claeys and Lyman Tower Sargent, 1-5. New York: New York University Press, 1999.
- Clarke, A. H. 1970 [1949]. *The Invasion of New Zealand by People, Plants and Animals: The South Island*. Westport: Greenwood Press.
- Clifford, James. 1988. *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art*. Cambridge, MA: Harvard University Press.
- Clifford, James. 2001. "Indigenous articulations." *The Contemporary Pacific* 13 (2):468-490.
- . 1997. *Routes: Travel and Translation in the Late Twentieth Century*. Cambridge, MA: Harvard University Press.
- Cockerell, Jennifer. 2013. "Rare but not unprecedented: Britain's worst fox attacks." *The Independent* 10 February 2013.
- Coffin, A. W. 2007. "From roadkill to road ecology: A review of the ecological effects of roads." *Journal of Transport Geography* no. 15:396-406.
- Coles, Jeremy. 2015. "Living in harmony with hedgehogs." BBC Earth www.bbc.com/earth/story/20150818-living-with-hedgehogs
- Collard, Rosemary-Claire. 2014. "Putting Animals Back Together, Taking Commodities Apart." *Annals of the Association of American Geographers* 104 (1):151-165.
- Collard, Rosemary-Claire, and Jessica Dempsey. 2013. "Life for sale? The politics of lively commodities." *Environment and Planning A* 45 (11):2682-2699.
- Comaroff, Jean, and John L. Comaroff. "Naturing the Nation: Aliens, Apocalypse and the Postcolonial State." *Journal of Southern African Studies* 27, no. 3 (2001): 627-51.
- Coombes, Brad. 2007. "Postcolonial conservation and kiekie harvests at Morere New Zealand: Abstracting indigenous knowledge from indigenous polities." *Geographical Research* 45 (2):186-193.
- Cooper, Davina. 2014. *Everyday Utopias: The conceptual life of promising spaces*. Durham and London: Duke University Press.
- Coyle, Fiona, and John Fairweather. "Challenging a Place Myth: New Zealand's Clean Green Image Meets the Biotechnology Revolution." *Area* 37, no. 2 (2005): 148-58.
- Cronon, William. 1996. "The Trouble with Wilderness: Or, Getting Back to the Wrong Nature." *Environmental History* no. 1 (1):7-28.
- Crosby, Alfred W. 1986. *Ecological Imperialism The Biological Expansion of Europe, 900-1900*. Cambridge: Cambridge University Press.
- Crump, Barry. 1986. *Wild Pork and Watercress*. Auckland, NZ: Hodder Moa Becket.
- Cvetkovich, Ann. 2012. *Depression: A Public Feeling*. Durham and London: Duke University Press.
- Daniels, Stephen, and Hayden Lorimer. 2012. "Until the end of days: narrating landscape and environment." *Cultural Geographies* no. 19 (1):3-9.
- de Castro, Eduardo Viveiros. 2011. "Zeno and the Art of Anthropology: Of Lies, Beliefs, Paradoxes and Other Truths trans Antonia Walford." *Common Knowledge* 17 (1):128-145.
- Derby, Mark (24 Feb 2015), "Inventions, patents and trademarks - The 'no. 8 wire' tradition", Te Ara - The Encyclopedia of New Zealand, Ministry for Culture and Heritage.

- Derrida, Jacques "And Say the Animal Responded?" trans. David Wills, in *Zoontologies: The Question of the Animal*, ed. Cary Wolfe (Minneapolis: University of Minnesota Press, 2003), 121–46, 138.
- . 1999. *Adieu to Emmanuel Levinas*. Translated by Pascale-Anne Brault and Michael Naas. Stanford, CA: Stanford University Press.
- Derrida, Jacques, and Anne Dufourmantelle. 2000. *Of Hospitality*. Translated by Rachel Bowlby. Stanford University Press: Stanford, CA.
- Despret, Vinciane. 2015. *What Would Animals Say If We Asked the Right Questions?* Minneapolis: University of Minnesota Press.
- . 2013. "Responding Bodies and Partial Affinities in Human–Animal Worlds." *Theory Culture Society* 30 (7/8):51-76.
- . 2008. "The becomings of subjectivity in animal worlds. *Subjectivity*. 23:123-129.
- . 2006. "Sheep do have opinions. In Latour, B and P Weibel (eds) *Making Things Public: Atmospheres of Democracy*. Cambridge, MA: MIT Press.
- . 2004. "The Body We Care for: Figures of Anthro-zoo-genesis." *Body & Society* 10 (2-3):111-134.
- . 2002. *Quand le loup habitera avec l'agneau*. Paris: Les Empêcheurs de Penser en Rond.
- Deutscher, Penelope. 1999. "Mourning the Other, Cultural Cannibalism, and the Politics of Friendship (Jacques Derrida and Luce Irigaray)." *differences: A Journal of Feminist Cultural Studies* 10 (3):159-184.
- DoC. 2014. Wētā. Department of Conservation Te Papa Atawhai [cited 21 November 2014]. Available from <http://www.doc.govt.nz/conservation/native-animals/invertebrates/weta/>
- . 2017. *Predator Free 2050*. edited by Department of Conservation. <https://www.doc.govt.nz/Documents/our-work/predator-free-2050.pdf>: DoC.
- Docter, Pete. 2015. *Inside Out*. United States: Walt Disney Studios.
- Doig, Jack. 2013. "New Nationalism in Australia and New Zealand: The construction of national identities by two Labo(u)r governments in the early 1970s." *Australian Journal of Politics and History*:559-575.
- Douglas, Mary. 2002 [1966]. *Purity and Danger: An analysis of the concepts of pollution and taboo*. London and New York: Routledge.
- Dowding, Claire V., Richard F. Shore, Andrew Worgan, Philip J. Baker, and Stephen Harris. 2010. "Accumulation of anticoagulant rodenticides in a non-target insectivore, the European hedgehog (*Erinaceus europaeus*)." *Environmental Pollution* 158 (1):161-166.
- Druett, Joan. 1983. *Exotic Intruders: The Introduction of Plants and Animals into New Zealand*. Auckland: Heinemann.
- Ehrenreich, Barbara. 2010. *Bright-sided: How Positive Thinking Is Undermining America*. New York: Metropolitan Books.
- Elzen B., Geels F. W., Green K., 2004. *System innovation and the transition to sustainability: Theory, Evidence and Policy*. Edward Elgar: Cheltenham, Glos.
- Faherty, Allana. 2018. "Sausages and custard: An ode to the weird and wonderful kiwi kidsongs albums." *The Spinoff* Jan 18.

- Franklin, Adrian Stephen. 2014. "The adored and the abhorrent: Nationalism and feral cats in England and Australia." In *Routledge Handbook of Human-Animal Studies*, edited by Gary Marvin and Susan McHugh, 139-154. UK: Routledge.
- , 2011. "An Improper Nature? Introduced Animals and 'Species Cleansing' in Australia." In *Human and Other Animals: Critical Perspectives*, edited by B Carter and N Charles, 195-216. London: Palgrave Macmillan.
- Fudge, Erica. 2011. "Pest friends." In *Uncertainty in the City*, edited by Snaebjornsdottir and Wilson. Berlin: Greenbox.
- Fuentes, Augustin. 2010. "Naturalcultural Encounters in Bali: Monkeys, Temples, Tourists, and Ethnoprimatology." *Cultural Anthropology* no. 25 (4):600-624.
- Gabrys, J. 2012. "Becoming urban: sitework from a moss-eye view." *Environment and Planning A* 44 (12):2922-2939.
- Gan, Elaine, Anna Tsing, Heather Swanson, and Nils Bubandt. 2017. "Introduction: Haunted landscapes of the Anthropocene." In *Arts of Living on a Damaged Planet: Ghosts and monsters of the Anthropocene*, edited by Anna Tsing, Heather Swanson, Elaine Gan and Nils Bubandt, 1-14. Minneapolis: University of Minnesota Press.
- Garrard, Greg. 2013. The unbearable lightness of green: Air travel, climate change and literature. *Green Letters* 17 (2):175-188.
- Gaw, Matt. 2014. "Suffolk Wildlife Trust appeal for help in finding hedgehog population 'black holes'." Ipswich Star.
- Gerrards-Hesse, Astrid, Kordelia Spies, and Friedrich W. Hesse. 1994. "Experimental inductions of emotional states and their effectiveness: A review." *British Journal of Psychology* 85 (1):55-78.
- Gilbert, Scott F., Jan Sapp, and Alfred I. Tauber. 2012. "A Symbiotic View of Life: We Have Never Been Individuals." *The Quarterly Review of Biology* 87 (4):325-341.
- Ginn, Franklin. 2014. "Sticky lives: slugs, detachment and more-than-human ethics in the garden." *Transactions of the Institute of British Geographers* 39 (4):532-544.
- Goffman, Erving. 1974. *Frame Analysis: An Essay on the Organization of Experience*. Cambridge, MA: Harvard University Press.
- Good Nature, 2017. <https://www.goodnature.co.nz/support/>
- Gruen, Lori, and Kari Weil. 2010. "Teaching difference: Sex, gender, species." In *Teaching the Animal: Human-animal studies across the disciplines*, edited by Margo DeMello, 127-142. New York: Lantern Books.
- Gould, Caroline, 2015. <http://www.valewildlife.org.uk/> accessed 11 June 2015.
- Guggenbuhl-Craig, Adolf. 2015 [1971]. *Power in the Helping Professions*. Thompson, Conn: Spring Publications.
- Hale, Dorothy J. "Fiction as Restriction: Self-Binding in New Ethical Theories of the Novel." *Narrative* 15, no. 2 (2007): 187-206.
- Hall, Stuart. 1986. "On postmodernism and articulation." *Journal of Communication Inquiry* 10 (2):45-60
- Haraway, Donna J. 2016. *Staying with the Trouble: Making kin in the Chthulucene*. Durham, NC: Duke University Press.
- , 2015. "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin." *Environmental Humanities* 6:159-165.

- , 2013. "SF: Science Fiction, Speculative Fabulation, String Figures, So Far" *Ada: A Journal of Gender New Media and Technology*.
<http://adanewmedia.org/2013/11/issue3-haraway/>
- , 2010. "Staying with the Trouble: Xenoecologies of Home for Companions in the Contested Zones." From the Editorial Office, *Cultural Anthropology* July 27,.
<https://culanth.org/fieldsights/289-staying-with-the-trouble-xenoecologies-of-home-for-companions-in-the-contested-zones>.
- , 2008. *When Species Meet*. Minneapolis: University of Minnesota Press.
- , 2004. *The Haraway Reader*. London and New York: Routledge.
- , 2003. *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Chicago: Prickly Paradigm.
- , 1997. *Modest _ Witness @ Second _ Millennium. FemaleMan _ Meets _ OncoMouse: Feminism and Technoscience*. New York: Routledge.
- , 1992. "Otherworldly conversations; terran topics; local terms." *Science as Culture* no. 3 (1):64-98.
- , 1991. *Simians, Cyborgs and Women: The Reinvention of Nature*. New York and Oxon: Routledge.
- , 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14 (3):575-599.
- Harding, Stephan. 2010. "Gaia and Biodiversity." In *Gaia in Turmoil: Climate Change, Biodepletion, and Earth Ethics in an Age of Crisis*, edited by Eileen Crist and H. Bruce Rinker, 107-124. Cambridge, MA.: MIT Press.
- Harris, Stephen. 1981. "Estimating fox numbers in Bristol." *Merlewood Research and Development Paper* 81:11-13.
- Harrison, Melissa. 2015. "Re-imagining the city." *Coleridge Lecture Series 2015: Radical Green*, Bristol.
- Hartigan, John. 2014. Species: A keyword. *Aesop's Anthropology 2014* [cited November 16 2014]. Accessed at: <http://www.aesopsanthropology.com/blog/?p=273>
- Harvey, David. 2000. *Spaces of Hope*. Berkeley and Los Angeles: University of California Press.
- Head, Leslie. 2016. *Hope and Grief in the Anthropocene: Re-conceptualising human-nature relations*. London: Taylor and Francis.
- Hedgehog Street. 2018. "Welcome to Hedgehog Street." *Hedgehog Street*, accessed 3 Sept 2018. <https://www.hedgehogstreet.org/about-our-hedgehog-street-campaign/>.
- Hedgehog Street. (2016) 'How many hedgehogs are left?' Online. Available <HTTP://www.hedgehogstreet.org/pages/how-many-are-left-.html> (16 June 2016).
- Herzgaard, Mark. 2013. "Living through the anthropocene." *Earth Island* 38.
- Hiedanpää, Juha, and Daniel W. Bromley. 2016. *Environmental Heresies: The Quest for Reasonable*: Palgrave Macmillan Limited.
- High, Kathy. 2016. *Rat Laughter*. <http://kathyhigh.com/project-rat-laughter.html>. Retrieved Oct 31 2016.
- , 2008. "Playing with rats." In *Tactical Biopolitics: Art, Activism and Technoscience*, edited by Beatriz da Costa and Kavita Philip. Cambridge, MA: MIT Press.

- Hinchliffe, S., Kearnes, M.B., Degen, M. and Whatmore, S. 2005 "Urban wild things: a cosmopolitical experiment," *Environment and Planning D: Society and Space* 23: 643-658.
- Hinchliffe, Steve, and Sarah Whatmore. 2006. "Living cities: Towards a politics of conviviality." *Science as Culture* no. 15 (2):123-138.
- Hoad, T.F. (ed). 2003. 'Urchin', *The Concise Oxford Dictionary of English Etymology*, Oxford: University of Oxford Press.
- Hoare, Ben. 2013. "Britain's national species revealed." *Discover Wildlife* July 30: <http://www.discoverwildlife.com/british-wildlife/britains-national-species-revealed>.
- Hodkinson, Stuart. 2012. "The new urban enclosures." *City: analysis of urban trends, culture, theory, policy, action* 16 (5):500-518.
- Hof, Anouschka, and Paul Bright. 2012. "Factors affecting hedgehog presence on farmland as assessed by a questionnaire survey." *Acta Theriologica* 57 (1):79-88. doi: 10.1007/s13364-011-0044-y.
- Hof, Anouschka R., Jolanda Snellenberg, and Paul W. Bright. 2012. "Food or fear? Predation risk mediates edge refuging in an insectivorous mammal." *Animal Behaviour* 83 (4):1099-1106. doi: <http://dx.doi.org/10.1016/j.anbehav.2012.01.042>.
- Holland, Peter, Kevin O'Connor, and Alexander Wearing. 2004. "Remaking the grasslands of the open country." In *Environmental Histories of New Zealand*, edited by Eric Pawson and Tom Brooking, 69-83. South Melbourne: Oxford University Press. See esp p78
- Hof, Anouschka R., Jolanda Snellenberg, and Paul W. Bright. "Food or Fear? Predation Risk Mediates Edge Refuging in an Insectivorous Mammal." *Animal Behaviour* 83, no. 4 (2012): 1099-106.
- Honegger, Cornelia Hesse. 2001. *Heteroptera: The Beautiful and the Other, or Images of a Mutating World*. Zurich: Scalo.
- Horsley, Lee. 2009. *The Noir Thriller*. Chippenham, UK: Palgrave MacMillan.
- Hua, Julietta, and Neel Ahuja. 2013. "Chimpanzee sanctuary: "Surplus" life and the politics of transspecies care." *American Quarterly* 65 (3):619-637.
- Hubert, P., Julliard, R., Biagiatti, S. & Pouille, M. L. 2011. Ecological factors driving the higher hedgehog (*Erinaceus europeaus*) density in an urban area compared to the adjacent rural area. *Landscape and Urban Planning*, 103, 34-43.
- Hursthouse, Charles. 1861. *New Zealand, the Britain of the South*. London: Edward Stanford.
- Ingold, Tim. 2014. "That's enough about ethnography!" *HAU: Journal of Ethnographic Theory* 4 (1):383-395.
- . 2013. *Making: Anthropology, Archaeology, Art and Architecture*. Oxon and New York: Routledge.
- . "Bindings against Boundaries: Entanglements of Life in an Open World." *Environment and Planning A* 40, no. 8 (2008): 1796-810.
- . "Anthropology Is Not Ethnography." *Proceedings of the British Academy* 154 (2008): 69-92.
- . 2000. *The Perception of the Environment: Essays on livelihood, dwelling and skill*, London and New York: Routledge.

- Isern, Thomas D. 2004. "Companions, stowaways, imperialists, invaders: Pests and weeds in New Zealand." In *Environmental Histories of New Zealand*, edited by Eric Pawson and Tom Brooking, 233-245. Oxford: Oxford University Press.
- ITV. 2014. "Pumpkin the hedgehog attacks our reporter!"
<http://www.itv.com/news/west/update/2014-10-24/pumpkin-the-hedgehog-attacks-our-reporter/>. Retrieved 19 June 2015.
- IUCN. 2017. "Erinaceus europaeus." The IUCN Red List of Threatened Species.
<http://www.iucnredlist.org/details/29650/0>.
- Jananoff, Sheila. 2007. "Technologies of humility." *Nature* 450:33.
- Jones, Chris. 2014. Mrs Tiggywinkle, serial killer? Enhancing the Halo (27 April 2014).
<http://halo.org.nz/mrs-tiggywinkle-serial-killer/>
- Jones, C., and M. D. Sanders. 2005. "Order Insectivora." In *The Handbook of New Zealand Mammals, 2nd edition*, edited by Carolyn M. King, 81-94. Melbourne: Oxford University Press.
- Jones, Chris. and G. Norbury. 2011. "Feeding selectivity of introduced hedgehogs *Erinaceus europaeus* in a dryland habitat, South Island, New Zealand." *Acta Theriologica* 56 (1):45-51.
- Jung, C.G. 1951. "Phenomenology of the Self." In *The Portable Jung*, 139-162. Middlesex, UK: Penguin.
- Key, John. 2016. New Zealand to be Predator Free by 2050.
<https://www.beehive.govt.nz/release/new-zealand-be-predator-free-2050>: NZ Government.
- King, Michael. 1985. *Being Pakeha Now: Reflections and recollections of a white native*. Wellington: Penguin
- Kirksey, Eben. 2015. *Emergent Ecologies*. Durham, NC: Duke University Press.
- . 2013. "Interspecies Love: Being and becoming with a common ant, *Ectatomma ruidum* (Roger)." In *The Politics of Species: Reshaping our Relationships with Other Animals*, edited by Raymond Corbey and Annette Lanjouw, p164-177. Cambridge Cambridge University Press.
- Kirksey, Eben, Brandon Costelloe-Kuehn, and Dorion Sagan. 2014. "Life in the age of biotechnology." In *The Multispecies Salon*, edited by Eben Kirksey, 185-220. Durham, NC: Duke University Press.
- Kirksey, Eben, and Stefan Helmreich. 2010. "The emergence of multispecies ethnography." *Cultural Anthropology* 25 (4):545-576.
- Kirksey, Eben, and Tate LeFevre. 2015. "Reclaiming Hope." *Cultural Anthropology*.
https://culanth.org/curated_collections/20-reclaiming-hope
- Kirksey, Eben, Nicholas Shapiro, and Maria Brodine. 2014. "Hope in blasted landscapes." In *The Multispecies Salon*, edited by Eben Kirksey, 29-63. Durham, NC: Duke University Press.
- Kittay, Eva Feder, and Ellen K. Feder. 2002. *The Subject of Care: Feminist perspectives on dependency*. Lanham, Md: Rowman & Littlefield.

- Knight, John. 2005. "Feeding Mr Monkey: Cross-species food 'exchange' in Japanese monkey parks." In *Animals in Person: Cultural Perspectives on Human-Animal Intimacy*, edited by John Knight, 231-253. Oxford: Berg.
- Koelle, Alexandra. 2012. "Intimate Bureaucracies: Roadkill, Policy and Fieldwork on the Shoulder." *Hypatia* no. 27 (3):651-669.
- Kohn, Eduardo. 2007. "How dogs dream: Amazonian natures and the politics of transspecies engagement." *American Ethnologist* no. 34 (1):3-24.
- Kolbert, Elizabeth. 2014. "The big kill: New Zealand's crusade to rid itself of mammals." *The New Yorker*. <http://www.newyorker.com/magazine/2014/12/22/big-kill>
- Kundera, Milan. 1984. *The Unbearable Lightness of Being*. New York: Harper & Row.
- Latour, Bruno. 2013. *An Inquiry into Modes of Existence: An anthropology of the moderns*. Cambridge, MA and London: Harvard University Press.
- , 2012. "Love your monsters: Why we must care for our technologies as we do our children." *The Breakthrough Winter*: <https://thebreakthrough.org/index.php/journal/past-issues/issue-2/love-your-monsters>.
- , 2005. *Reassembling the Social: An introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- , 2004. *Politics of Nature: How to bring the sciences into democracy*. Cambridge, MA and London: Harvard University Press.
- , 2002. *War of the Worlds: What about peace?* Translated by Charlotte Bigg. Chicago: Prickly Paradigm Press.
- , 1999. *Pandora's Hope: Essays on the reality of science studies*. Cambridge, MA: Harvard University Press.
- , 1990. "Postmodern? No, Simply Amodern! Steps towards an Anthropology of Science." *Studies in the History and Philosophy of Science* 21 (1):145-71.
- Lawlor, Leonard. 2008. "Following the rats: Becoming animal in Deleuze and Guattari." *SubStance* no. 37 (3):169-187.
- Lean, Geoffrey, 2006. Hedgehogs saved from death by McFlurry. *The Independent*. <https://www.independent.co.uk/environment/hedgehogs-saved-from-death-by-mcflurry-153-6231619.html>.
- Lee, Charlotte Elizabeth, 2013. *The energies of activism: Rethinking agency in contemporary climate change activism*. PhD, Durham University.
- Lestel, Dominique, Jeffrey Bussolini and Matthew Chrulew. 2014. "The phenomenology of animal life." *Environmental Humanities* 5:125-148.
- Leverlov, Denise. 1983. "Come into Animal Presence." In *Poems 1960-1967 New Directions Publishing Corporation*.
- Levitas, Ruth. 1990. *The Concept of Utopia*. Hemel Hempstead: Syracuse University Press.
- Lidström, Susanna, Simon West, Tania Katzschner, M. Isabel Pérez-Ramos, and Hedley Twidle. 2015. "Invasive Narratives and the Inverse of Slow Violence: Alien Species in Science and Society." *Environmental Humanities* 7:1-40.

- Linklater, Wayne, and Jamie Steer. 2018. "Predator Free 2050: A flawed conservation policy displaces higher priorities and better, evidence-based alternatives." *Conservation Letters* 12593:1-6.
- Llewellyn, P. (2003) Rehabilitation and release. In: BSAVA Manual of Wildlife Casualties. Eds E. Mullineaux, D. Best and J. E. Cooper. BSAVA Publications, Gloucester, MA, USA. pp 29-37
- Loague, Peg. 2011. *New Zealand Hedgehog Carers' Handbook*. Taupo: Wyse Owl Publications.
- Long, John L. 2003. *Introduced Mammals of the World*. Collingwood, VIC: CSIRO Publishing.
- Lorenz, K and P. Leuhausen 1973. *Motivation of Human and Animal Behavior*. New York: Van Nostrand Reinhold.
- Lorimer, Jamie. 2015. *Wildlife in the Anthropocene: Conservation after Nature*. Minneapolis: Minnesota University Press.
- , 2009. "Natures, charismatic." In *International Encyclopedia of Human Geography*, edited by Rob Kitchin and Nigel Thrift, 324-330. Amsterdam: Elsevier.
- , 2006. "Nonhuman charisma: which species trigger our emotions and why?" *ECOS* 27 (1):20-27.
- Low, Harry, and Tom Heyden. 2015. "The decline of the British front garden." *BBC Magazine* 19 May (<http://www.bbc.co.uk/news/magazine-32780242>).
- Lulka, David. 2013. "The post-human city: San Diego's dead animal removal program." *Urban Geography* 34 (8):1119-1143.
- Macfie, Rebecca. 2016. "Natural born killers." *The Listener* 5 Dec, accessed 3 Sept 2018. <https://www.noted.co.nz/currently/environment/the-natural-born-killers-lurking-in-our-forests/>.
- Mackereth, Betty. 2002. "The Mower." *The Philip Larkin Society* May, accessed 3 Sept 2018. <http://philiplarkin.com/poem-reviews/the-mower-3/>.
- Maloney, R. F. and D. P. Murray. 1999. Black stilt predator strategy internal report, 99/02. Twizel, NZ: Department of Conservation.
- Marcus, George. 1995. "Ethnography in/of the world system: The emergence of multi-sited ethnography." *Annual Review of Anthropology* 24:95-117.
- Margulis, Lynn, and Dorion Sagan. 2002. *Acquiring Genomes: A Theory of the Origins of Species*. New York: Basic Books.
- Martin, Matthew. 2011. "Possum shoot raises funds for Mamaku school." *Rotorua Daily Post*, May 23.
- Mastnak, Tomaz, Julia Elyachar, and Tom Boellstorff. "Botanical Decolonization: Rethinking Native Plants." *Environment and Planning D: Society and Space* 32 (2014): 363-80.
- McCrow-Young, Ally, Tobias Linne, and Annie K. Potts. 2015. "Framing possums: War, sport and patriotism in depictions of brushtial possums in New Zealand print media." *Animal Studies Journal* 4 (2):29-54.
- McIntosh, Peggy. 2007. "White Privilege: Unpacking the invisible knapsack." *Rachel's Democracy & Health News* (894).
- McQueeney, Kerry. 2012. Hello possums! New Zealand schoolchildren encouraged to dress up DEAD animals in bizarre competition. *Daily Mail Australia* (2 August),

<http://www.dailymail.co.uk/news/article-2182521/New-Zealand-schoolchildren-encouraged-dress-dead-possums-competition.html>.

- Melton, R. J. 1995. "The role of positive affect in syllogism performance." *Journal of Personality and Social Psychology* 21:788–794.
- Metcalf, Jacob. 2008. "Intimacy without proximity: Encountering grizzlies as a companion species." *Environmental Philosophy* 5 (2):99-128.
- Micol, T., Doncaster, C. P. & Mackinlay, L. A. 1994. Correlates of local variation in the abundance of hedgehogs, *Erinaceus europaeus*. *J. Anim. Ecol.*, 63, 851–860.
- Milgram, Stanley. 1973. "The perils of obedience." *Harper's* 247 (1483):62-77.
- Mol, Annemarie. 2008. *The Logic of Care: Health and the Problem of Patient Choice*. Oxon: Routledge.
- . 2002. *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.
- Mol, Annemarie, Ingunn Moser, and Jeannette Pols, eds. 2010. *Care in Practice: Tinkering in Clinics, Homes and Farms*. Bielefeld: Verlag.
- Morgan, Gareth. 2018. "Why Enhance the Halo." *Enhancing the Halo*.
<http://halo.org.nz/why-enhance-the-halo/>.
- Morris, Pat. 2014. *Hedgehogs*. Stansted, Essex: Whittet Books.
- Morton, Jamie. 2016. "Wellington to be world's first 'Pest Free' capital." *New Zealand Herald*, 26 Sept, https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11717120.
- Morton, Timothy. 2016. *Dark Ecology: For a Logic of Future Coexistence, The Wellek Lectures in Critical Theory*. New York: Columbia University Press.
- . 2012. "Guilt, shame, sadness: Tuning to coexistence." *Volume* 31:16-18.
- . 2010a. *The Ecological Thought*. Cambridge, Massachusetts: Harvard University Press.
- . 2010b. "Thinking ecology: The mesh, the strange stranger, and the beautiful soul." *Collapse* VI 6 (265-293).
- . 2009. "Beautiful Soul Syndrome: Towards a Dark Ecology." A Cultural Prehistory of Environmentalism Seminar Series, UCLA.
- Moss, K. and M. Sanders. 2001. "Advances in New Zealand mammaology 1990-2000: Hedgehog." *Journal of the Royal Society of New Zealand* 31 (1):31-42.
- Müller, Martin. 2015. Assemblages and actor-networks: Rethinking socio-material Power, politics and space. *Geography Compass* 9 (1):27-41.
- Mullineaux. 2014. "Veterinary treatment and rehabilitation of indigenous wildlife." *Journal of Small Animal Practice* 55:293-30.
- Nagel, Thomas. 1974. "What is it like to be a bat?" *The Philosophical Review* 83 (4):435-450.
- Nugent, R. 1988. *Aboriginal Attitudes to Feral Animals and Land Degradation*, Report to the Central Land Council. Alice Springs.
- NZ Herald. 2018. "SPCA says abuse of possum 'unnecessary cruelty' and not pest control." *New Zealand Herald*, 9 Jul,
https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12085817.
- O'Donnell, Colin, Kerry Weston, and Joanne Monks. 2017. "Impacts of introduced mammalian predators on New Zealand's alpine fauna." *New Zealand Journal of Ecology* 41 (1):1-22.

- Owens, Brian. 2017. "The Big Cull: Can New Zealand pull off an audacious plan to get rid of invasive predators by 2050?" *Nature* 541 (7636):148-150.
- Palmer, Parker J. 2005. "The Politics of the Brokenhearted: On Holding the Tensions of Democracy." In *Deepening the American Dream: Reflections on the Inner Life and Spirit of Democracy*, 231–257. San Francisco, CA: Jossey Bass.
- Parkes, J. P., and R. E. Brockie. 1977. "Sexual differences in hibernation of hedgehogs in New Zealand." *Acta Theriologica* 22 (20-2):384-386.
- Parreñas, Rheana Juno Salazar. 2012. "Producing affect: Transnational volunteerism in a Malaysian orangutan rehabilitation center." *American Ethnologist* 39 (4):673-687.
- Peach, Jesse. 2014a. "Hedgehog killers remorseless." The Paul Henry Show, 24 March.
- , 2014b. "Student pub offers beer for dead rats." The Paul Henry Show, 19 March.
- Pennisi, Elizabeth. 2017. "Saving the 'god of ugly things': New Zealand battles to bring back its rodent-sized insects." *Science*: <http://www.sciencemag.org/news/2017/06/saving-god-ugly-things-new-zealand-battles-bring-back-its-rodent-sized-insects>.
- Pest Fest. 2015. "Wellington Pest Fest." <https://www.eventfinda.co.nz/2015/pest-fest/wellington>
- Philo, C, and C Wilbert. 2000. *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations*. London: Routledge.
- Plumwood, Val. 2008. "Shadow places and the politics of dwelling." *Australian Humanities Review* 44:139-150.
- Plumwood, Val. 2000. "Animals and ecology: Towards a better integration." In *The Eye of the Crocodile*, edited by Lorraine Shannon, 77-90. Canberra: ANU E Press.
- , 2002. "Decolonisation: Relationships with nature." *PAN: Philosophy Activism Nature* 2:7-30.
- , 2005. "Decolonising Australian Gardens: Gardening and the Ethics of Place." *Australian Humanities Review* 35.
- Potts, Annie, and Mandala White. 2008. "New Zealand vegetarians: At odds with their nation." *Society and Animals* 16:336-353.
- Potts, Annie, Philip Armstrong, and Deidre Brown. 2013. *A New Zealand Book of Beasts: Animals in our culture, history and everyday life*. Auckland: Auckland University Press.
- Prime, Kevin. 2014. "Cultural control of possums." *Kararehe Kino: Vertebrate Pest Research* June 2014: Engaging Society in Pest Management (24):<https://www.landcareresearch.co.nz/publications/newsletters/kararehe-kino/kararehe-kino-issue-24/cultural-control-of-possums>.
- Probyn, Elspeth. 2014. "The cultural politics of fish and humans: A more-than human habitus of consumption." *Cultural Politics* 10 (3):287-299.
- PTES. 2014. "Press Release: We are the Hedgehog Champions: Charity neighbourhood watch scheme to help save hedgehogs surpasses 30,000 volunteers" May 2014. <https://ptes.org/hedgehog-champions/>
- Puig de la Bellacasa, Maria. 2017. *Matters of Care: Speculative ethics in more than human worlds*. Minneapolis: University of Minnesota Press.
- , 2012. "'Nothing comes without its world': Thinking with care." *The Sociological Review* 60:197-216.

- , 2011. "Matters of Care in Technoscience: Assembling Neglected Things." *Social Studies of Science* 41 (1):85-106.
- , 2010. "Ethical doings in naturecultures." *Ethics, Place and Environment* 13:151-169.
- Rackham, O. 1986. *The History of the Countryside*, London and Melbourne: J.M. Dent & Sons.
- Radin, Joanna. 2015. "Rot." *The ABCs of Multispecies Studies*. <http://www.multispecies-salon.org/rot/>.
- Ramblers. 2018. "Who we are" <http://www.ramblers.org.uk/>
- Recio, Mariano Rodriguez, Renaud Mathieu, M. Latham, A. Latham, and Philip Seddon. 2013. "Quantifying fine-scale resource selection by introduced European hedgehogs (*Erinaceus europaeus*) in ecologically sensitive areas." *Biological Invasions* 15 (8):1807-1818
- Reeve, Nigel J. 1998. "The Survival and Welfare of Hedgehogs (*Erinaceus europaeus*) After Release Back into the Wild." *Animal Welfare* 147 (7).
- Riker, John H. 1991. *Human Excellence and an Ecological Conception of the Psyche*. Albany: State University of New York Press.
- Rilkoff, Matt. 2011. Cute garden snufflers killers in spiny guise. *Taranaki Daily News*, <http://www.stuff.co.nz/taranaki-daily-news/news/4580748/Cute-garden-snufflers-killers-in-spiny-guise>.
- Roberts, B. Atkins, P. and Simmons, I. 1998. *People, Land and Time: An Historical Introduction to the Relations Between Landscape, Culture and Environment*, Abingdon, Oxon: Routledge.
- Robertson, C. P. J. & Harris, S. (1995a) The condition and survival after release of captive-reared fox cubs. *Animal Welfare* 4, 281-294
- Rose, Deborah Bird. 2014. "The goodness of flying foxes." *Forum for World Literature Studies* 6 (1):77-89.
- , 2013a. "Anthropocene Noir." *People and the Planet 2013 Conference: Transforming the Future*, Melbourne, Australia.
- , 2013b. "In the shadow of all this death." In *Animal Death*, edited by Jay Johnston and Fiona Probyn-Rapsey, 1-20. Sydney: Sydney University Press.
- , 2011. *Wild Dog Dreaming: Love and Extinction*. Charlottesville, VA: University of Virginia Press.
- Rose, Deborah Bird, Stuart Cooke, and Thom van Dooren. 2011. "Ravens at Play." *Cultural Studies Review* no. 17 (2):326-43.
- Rose, Deborah Bird, and Thom van Dooren. 2011. "Introduction." *Australian Humanities Review* 50: Death of the Disregarded in the Time of Extinctions: p 1-4.
- , 2013. "Keeping Faith with Death: Mourning and De-extinction." *Extinction Studies Working Group*. <http://extinctionstudies.org/2013/11/10/keeping-faith-with-death-mourning-and-de-extinction/>
- Rose, Deborah Bird, Thom van Dooren, Matthew Chrulew, Stuart Cooke, Matthew Kearnes, and Emily O'Gorman. 2012. "Thinking through the environment, unsettling the humanities." *Environmental Humanities* no. 1:1-5.

- Rose, Hilary. 1983. "'Hand, brain, and heart: A feminist epistemology for the natural sciences'." *Signs: Journal of Women in Culture and Society* 9 (1):73-90.
- 1994. *Love, Power, and Knowledge: Towards a feminist transformation of the sciences*. Cambridge: Polity Press.
- Rose, Nikolas. 1996. "The death of the social? Refiguring the territory of government." *Economy and Society* 25 (3): 327-356.
- RSPB. (2015) 'Advice and grant aid for hedge management and planting', Online. Available [HTTP://www.rspb.org.uk/ourwork/conservation/advice/farmhedges/advice_aid.aspx](http://www.rspb.org.uk/ourwork/conservation/advice/farmhedges/advice_aid.aspx) (2 August 2016).
- Rudy, Kathy. 2011. "Love and animal advocacy." *berfrois* <https://www.berfrois.com/2011/07/love-all-the-animals/>.
- Russell, James C., John G. Innes, Philip H. Brown, and Andrea E. Byrom. 2015. "Predator-Free New Zealand: Conservation Country." *BioScience* 65 (5):520-525.
- Ryan, Paddy. 'Snails and slugs', Te Ara - the Encyclopedia of New Zealand, <http://www.TeAra.govt.nz/en/snails-and-slugs> (accessed 2 April 2017).
- Ryan, Sophie. 2014. "Animal abuse: SPCA releases list of shame." *The New Zealand Herald*, Nov 2. http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11352040.
- Sanders, M. D., and R. F. Maloney. 2002. "Causes of mortality at nests of ground-nesting birds in the Upper Waitaki Basin, South Island, New Zealand: a 5-year video study." *Biological Conservation* 106 (2):225-236.
- Sargent, Lyman Tower. 1994. "The three faces of utopianism revisited." *Utopian Studies* 5 (1):1-37.
- Serpell, C. Namwali. *Seven Modes of Uncertainty*. Cambridge, MA: Harvard University Press, 2014.
- Shadwell, Talia. 2014. "SPCA lists year's shameful animal cruelty." *The Dominion Post*, <http://www.stuff.co.nz/national/10692172/SPCA-lists-years-shameful-animal-cruelty>, Nov 3.
- Shotwell, Alexis. 2016. *Against Purity: Living ethically in compromised times*. Minneapolis University of Minnesota Press.
- Shove, Elizabeth. 2010. "Beyond the ABC: Climate change policy and theories of social change." *Environment and Planning A* 42:1273-1285.
- Sibley, Christopher, K Stewart, Carla Houkamau, Sam Manuela, R Perry, LW Wootton, JF Harding, Y Zhang, N Sengupta, A Robertson, WJ Hoverd, T West-Newman, and F Asbrock. 2011. "Ethnic group stereotypes in New Zealand." *New Zealand Journal of Psychology* 40 (2):25-36.
- Smuts, Barbara. 1985. *Sex and Friendship in Baboons*. Cambridge, Massachusetts: Harvard University Press.
- 2008. "Embodied communication in nonhuman animals." In *Human Development in the Twenty-First Century: Visionary Ideas from Systems Scientists*, edited by Alan Fogel, Barbara J. King and Stuart G. Shanker, 136-146. Cambridge, UK: Cambridge University Press.

- Snæbjörnsdóttir, Bryndís, and Mark Wilson. 2011. "Uncertainty in the city: An examination of interspecies' thresholds." In *Uncertainty in the City*, edited by Bryndís Snæbjörnsdóttir and Mark Wilson, 6-18. Berlin: The Greenbox.
- Spivak, Gayatri Chakravorty. "Ethics and Politics in Tagore, Coetzee, and Certain Scenes of Teaching." *Diacritics* 32, no. 3/4 (2002): 17-31.
- . 1988. "Can the subaltern speak?" In *Marxism and the Interpretation of Culture*, edited by Cary Nelson and Lawrence Grossberg, 271-313. Urbana: University of Illinois Press.
- Stanley, Eric. 2011. "Near Life, Queer Death: Overkill and Ontological Capture." *Social Text* 107 29 (2):1-19.
- Star, Susan Leigh. 2007. "Living grounded theory: Cognitive and emotional forms of pragmatism." In *The SAGE Handbook of Grounded Theory*.
- . 1995. "Listening for connections." *Mind, Culture, and Activity* no. 2 (1).
- . 1991. "Power, Technologies, and the Phenomenology of Conventions: On Being Allergic to Onions." In *A Sociology of Monsters: Essays on Power, Technology, and Domination*, edited by J. Law, 26-56. New York: Routledge.
- Steer, Jamie. 2016. "A war on pests and weeds is 'malicious' and 'incompetent' and will ultimately fail." *Stuff*. <http://www.stuff.co.nz/science/82113675/A-war-on-pests-and-weeds-is-malicious-and-incompetent-and-will-ultimately-fail>.
- . 2015. "The reconciliation of introduced species in New Zealand: Understandings from three 'exceptional' case studies." PhD Thesis, Environmental Science, The University of Auckland.
- Stengers, Isabelle. 2010. *Cosmopolitics I*. Translated by Robert Bononno. Edited by Cary Wolfe, *Posthumanities*. Minneapolis and London: University of Minnesota Press.
- . 2010. *Cosmopolitics II*. Translated by Robert Bononno. Edited by Cary Wolfe, *Posthumanities*. Minneapolis and London: University of Minnesota Press.
- . 2005a. "The cosmopolitical proposal." In *Making Things Public*, edited by B. Latour and P. Weibel, 994-1003. Cambridge, MA: MIT Press.
- . 2005b. "Introductory notes on an ecology of practices." *Cultural Studies Review* 11 (1):183-196.
- Storbeck, Justin, and Gerald L. Clore. 2005. "With Sadness Comes Accuracy; With Happiness, False Memory." *Psychological Science* 16 (10):785-791.
- Strathern, Marilyn. 1992. *Reproducing the Future: Essays on Anthropology, Kinship and the New Reproductive Technologies*. Manchester University Press: Manchester.
- Strum, Shirley. 1987. *Almost Human: A Journey into the World of Baboons*. New York: Random House.
- Summers-Effler, E., 2010. *Laughing Saints and Righteous Heroes: Emotional Rhythms in Social Movement Groups*. London: The University of Chicago Press.
- SWNS Reporter, 2012. Hedgehog has to be rescued by SIX people... after getting stuck in a crisp packet. *South West News*, Oct 30. <http://swns.com/news/hedgehog-rescued-people-stuck-crisp-packet-26904/> accessed 11 June 2015.
- Tamas, Sophie Elizabeth. 2009. "Three ways to lose your epistemology." *International Review of Qualitative Research* 2 (1):43-60.

- Taylor, Janelle S. 2008. "On Recognition, Caring, and Dementia." *Medical Anthropology Quarterly* 22 (4):313-335.
- Telotte, J.P. 1989. *Voices in the dark: The narrative patterns of film noir*. University of Illinois Press: Urbana and Chicago.
- Thorpe, J. 2012. *Temagami's tangled wild: Race, gender and the making of Canadian nature*. Vancouver, Canada: UBC Press.
- Towns, D.R., C.J West, and K.G. Broome. 2012. "Purposes, outcomes and challenges of eradication invasive mammals from New Zealand islands: an historical perspective." *Wildlife Research* 40 (2):94-107.
- Traue, James Edward. 1990. *Ancestors of the Mind*. Wellington, New Zealand: Gondwanaland Press
- Tronto, Joan C. 1993. *Moral Boundaries: A political argument for an ethic of care*. New York: Routledge.
- Tsing, Anna. 2015. *The Mushroom at the End of the World: On the possibility of life in capitalist ruins*. Princeton, NJ: Princeton University Press.
- Tsing, Anna for the Matsutake Worlds Group. 2011. "Arts of inclusion, or, How to love a mushroom." *Australian Humanities Review* 50: Unloved Others: Death of the Disregarded in the Time of Extinctions: 5-21.
- van Dooren, Thom. forthcoming. *Making Worlds with Crows: A Multispecies Ethics*. New York: Columbia University Press.
- . 2015. "On Ferals: Discussant paper for panel "Gaia Strikes Back: Feral Landscapes of the Anthropocene"." Meeting of the American Anthropological Association, Denver, CA.
- . "Authentic Crows: Identity, captivity and emergent forms of life." *Theory, Culture & Society*:1-24.
- . 2015b. "The last snail." In *Land & Animal & Nonanimal*, edited by Anna-Sophie Springer and Etienne Turpin, 1-14. Berlin: Haus der Kulturen der Welt.
- . 2015. "A day with crows - rarity, nativity and the violent-care of conservation." *Animal Studies Journal* 4 (2):1-28.
- . 2014a. "Care." *Environmental Humanities* 5:291-294.
- . 2014b. *Flight Ways: Life and Loss at the Edge of Extinction*. New York: Colombia University Press.
- . 2011. "Invasive species in penguin worlds: An ethical taxonomy for killing for conservation." *Conservation and Society* 9 (4):286-298.
- van Dooren, Thom, and Deborah Bird Rose. 2012. "Storied-places in a multispecies city." *Humanimalia: a journal of human/animal interface studies* 3 (2):1-27.
- van Dooren, Thom, Eben Kirksey, and Ursula Münster. 2016. "Multispecies studies: Cultivating arts of attentiveness." *Environmental Humanities* 8 (1):1-23.
- von Uexküll, Jakob. 2010 [1934]. *A Foray into the Worlds of Animals and Humans with A Theory of Meaning*. Minneapolis: University of Minnesota Press.
- Ward, J. F., D. W. MacDonald, and C. P. Doncaster. "Responses of Foraging Hedgehogs to Badger Odour." *Animal Behaviour* 53, no. 4 (1997): 709-20.

- Warkentin, Traci. 2011. "Interspecies etiquette in place: Ethical affordances in swim-with-dolphins programs." *Ethics and the Environment* 16 (1):99-122.
- Warwick, Hugh. 2014. *Hedgehog*. London: Reaktion Books.
- , 2010. *A Prickly Affair: The Charm of the Hedgehog* London: Penguin Books.
- Watson, Matthew C. 2014. "The Animal Anthropology of Linda Schele's Spirits." *Cultural Critique* 88 (Fall): 125-159.
- West, Paige. 2005. "Translation, Value, and Space: Theorizing an Ethnographic and Engaged Environmental Anthropology." *American Anthropologist* no. 107 (4):632-642.
- Weston, Frances. 1983. *The Wildtrack Book*. Auckland: Hodder and Stoughton.
- Whatmore, Sarah, and Lorraine Thorne. 1998. "Wild(er)ness: Reconfiguring the Geographies of Wildlife." *Transactions of the Institute of British Geographers* no. 23 (4):435-454.
- White, Hayden. 2007. "The future of utopia in history." *Historiein* 7:11-19.
- White, Hayden. 1987. *The Content of the Form: Narrative Discourse and Historical Representation*. Baltimore and London: Johns Hopkins University Press.
- , 1992. "Historical emplotment and the problem of truth." In *Probing the Limits of Representation*, edited by Saul Friedländer. Cambridge: Cambridge University Press.
- Wilbert, C. (2010) 'Landscapes of not so distanced relatives', in B. Snæbjörnsdóttir and M. Wilson (eds) *Uncertainty in the City*, Berlin: The Greenbox.
- Wilson, Emily, and David Wembridge. 2018. *The State of British's Hedgehogs*. In <https://www.britishhedgehogs.org.uk/pdf/sobh-2018.pdf>. London, UK: British Hedgehog Preservation Society and People's Trust for Endangered Species.
- Wild about Gardens. 2016. 'Get creative for hedgehogs this autumn', Online. Available HTTP://www.wildaboutgardensweek.org.uk/Downloads/Hedgehog-16pp-Booklet-FINAL (19 July 2016).
- Wilkins, John Simpson. 2004. *The origins of species concepts: History, characters, modes and synapomorphies*, Unpublished PhD thesis. Department of History and Philosophy of Science, and School of Botany: University of Melbourne.
- Wolch, Jennifer. 1996. "Zoopolis." *Capitalism Nature Socialism* 7:21-48.
- Wright, Kate. 2014. "Becoming-with." *Environmental Humanities* 5: 277-281.
- , "Bunnies, Bilbies, and the Ethic of Ecological Remembrance." *M/C Journal* 15, no. 3 (2012).
- Young, R. P., J. Davison, I. D. Trewby, G. J. Wilson, R. J. Delahay, and C. P. Doncaster. "Abundance of Hedgehogs (*Erinaceus Europaeus*) in Relation to the Density and Distribution of Badgers (*Meles Meles*)." *Journal of Zoology* 269, no. 3 (2006): 349-56.
- ZIP. 2018. "What we do." *Zero Invasive Predators: Enabling a new future*. <http://zip.org.nz/#intro>.