

CHARLES UNIVERSITY IN PRAGUE

FACULTY OF HUMANITIES

Graduate Program of Gender Studies

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**A Strange Affection: Gender, Race, and Interspecies Relations in
Francis Ratcliffe's Australian Travelogue**

Diploma Thesis

Prague 2022

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Prague, June 29, 2020

Faolan Thompson

Acknowledgements

An immense thanks to the professors and instructors in the Gender Studies Program for their passion, guidance, expertise, and understanding during our transition from online to in-person studies. To my fellow students in the program, it has been so wonderful learning from and with you.

I am indebted to my thesis supervisor, Dr. Dagmar Lorenz-Meyer, for her patience, insight, and dedication.

Special thank you to Dr. Michael Wise for introducing me to animal studies ten years ago and for offering guidance at the beginning of this thesis project.

To my parents for their unwavering support and assistance over the last thirty years—and particularly the last two—I cannot thank you enough. This project would not have been possible without you. Thank you to Shannon, Sam, and Alex for being distance lights in the pandemic. And to Andy for buying me books on bats before this project entered my mind. I love and appreciate you all.

In loving memory of Dorothy Lewandowski, 1929-2021.

Abstract

Settler colonialism by the early twentieth century reshaped the Australian landscape, through which English ecologist and future conservationist Francis Ratcliffe (1904-1970) traveled in the name of scientific and economic evaluation. His travelogue *Flying Fox and Drifting Sand* (1947) detailed his stories of studying fruit bats (flying foxes) in less-densely-settled areas and provided a glimpse of settler life in the outback. Through close reading of this text, this thesis analyzes his interspecies approach to ecology; how race and gender frame those interspecies relations; his affective relationship and attentiveness to the animals and environment, and how travelogue opened possibilities for differential conceptions of epistemology, embodiment, science, and nature. The thesis investigates how intra-active and response-able approaches to nature can be read in historical accounts of scientific exploration. His relationships to white settler Australians and interest in conservation develop through intersecting stories of masculinity, colonialism, objectivity, animality, and race to offer a nuanced subject position in his travel narrative.

Key words: Australia, gender, race, settler colonialism, interspecies relations, environmental history, pest species, flying foxes

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Introduction

In December 2019, a devastating heatwave struck Australia. At a park in the province of Victoria, scientists and conservationists spent several days collecting the bodies of dead bats in wheelbarrows as they tried to mitigate the effects of extreme temperatures and heat exhaustion on the animals. The grey-headed flying foxes, one of the four species of fruit- and blossom-eating megabats in Australia, were dying *en masse* in the span of three days where the temperatures reached over 110 degrees Fahrenheit. In an article for *National Geographic*, one photojournalist described the scene as a “war zone;” one of the responding scientists called it “carnage;” another rescuer described “the air [being] thick ‘with the smell of death’” (Daly 2020). An estimated 4,500 bats died in the heatwave, out of a population of 30,000 in the Yarra Bend Park colony: fifteen percent of that colony’s population. This mass death followed a similar crisis for the bats in 2014, in which an estimated 45,500 died during fire season and 2009, when 5000 foxes were found dead in a single day (Rose 2011); increasing extreme heat events since the 1990s have resulted in the deaths of tens of thousands of flying foxes in Australia (Welbergen et al. 2007).

Ninety years earlier, a young British zoologist by the name of Francis Noble Ratcliffe (1904-1970) came to Australia to conduct a comprehensive biological study of flying foxes, with a focus on their economic impact on commercial fruit-growing; one of the goals of his study was to estimate the “size and extent” of the flying fox population (Ratcliffe 1931, 6). In his resulting publication, Ratcliffe claimed that the bats were so numerous, “[i]t would be profitless to attempt a figure, which would run into the many millions” (23) but that even by the time he began his work in 1929, “the reiteration that ‘flying foxes are nothing to what they used to be years ago,’ became almost monotonous” (32). Though he claimed “[i]t would be rash to hazard a figure,” Ratcliffe estimated that since European settlement began in 1788, the flying fox population had been reduced by half (32). The estimated population and his descriptions of massive colonies of flying foxes have appeared in a litany of conservation literature trying to protect these species in the twenty-first century, as Ratcliffe’s report offers a harrowing image on the rapid decline of bat species in Australia over the last two centuries. Particularly, grey-headed flying foxes (*Pteropus poliocephalus*) are designated as threatened species today, though it is still legal in some

Australian states for commercial fruit growers to kill them as pest species (Booth et al., 2008; Rose 2011; Rose 2012).

Ratcliffe compiled “a collection of observations, impressions, and reminiscences, on the whole more subjective and trivial than scientific and serious” (1947, vii) from this and subsequent studies into a travelogue, *Flying Fox and Drifting Sand: The Adventures of a Biologist in Australia*, published first in Britain in 1938 and then in Australia in 1947. The vignettes within unfold a world of entanglements, stories of life, death, human and more-than-human actors. The book, contrary to his scientific writing, became an avenue for exploring opportunities and engaging with “unscientific” notions of relationality and affective encounters. As a result, he developed an account of embodied relations, embedded in an environment made by assemblages of companion species. He writes his experiences in an engaging, energetic, thought-provoking manner, and his position as an agent of empire and his colonial positionality emerge throughout the text. In its pages, complicated stories of colonization, gender, race, and interspecies relations relate a past that seems indelibly tied to our precarious present.

Both Ratcliffe’s reports and cultural output in his book came to my attention when I began researching the history of bat culling in Australia—the same practices of killing bats who ventured into human spaces, particularly orchards, which prompted Ratcliffe’s study. Conservationists cited his official report and his travelogue to illustrate the alarming decline of flying fox populations over the last century. Killing bats in the name of commercial fruit-growing continues today; however, habitat loss and continuous changes to the environment in the course of urban expansion have driven flying foxes into city and suburban gardens and meaning their status as so-called pest species persists despite any official status as threatened species (Booth et al. 2008; Rose 2015).

Much like Ratcliffe, I came to Australia because of flying foxes. My fascination with bats began so young that I could not pinpoint it, but in the United States in the 1990s bats certainly had a cultural moment in children’s media, particularly the 1992 animated film *Fern Gully* featured Robin Williams voicing Batty, a rapping fruit bat who assists the protagonists in saving their rainforest home from capitalist exploitation and the 1993 children’s book *Stellaluna* by Janell Cannon, about a young bat separated from her mother. I began to advocate for bat conservation in my home region of the northeast United States around age eleven. Once I had the opportunity to travel to Australia as a teenager, my driving interest was finally seeing flying

foxes in real life, not in a nature magazine or on a television program. “I felt excited,” Ratcliffe wrote of his first encounter with the bats, “and mine was not wholly the cool excitement of the scientist. There was something in it deeper and more disquieting” (Ratcliffe 1947, 15). He expressed a variety of unexpected and intriguing emotions about observing and pursuing flying foxes throughout his text that resonated with my own feelings of deep fascination for the animals. Driven by his emotive sensibility, I decided to examine his book (and some of his professional work) with an understanding of the interrelations between gender, race, animals, and settler colonialism.

This thesis is guided by several questions that interrelate conceptions of science, species, identity, human, animal, race, and gender. Considering Ratcliffe’s positionality as a white man in settler colonialism, his book offers significant insight into how these concepts build from, interact with, and co-constitute one another on varying levels. How do whiteness and masculinity frame scientific exploration narratives? How do genres such as travelogue and popular science shed light on the positional biases of objective science? In what ways do gender, race, sexuality, and animality imbricate each other in travel narratives? How do dehumanization and anthropomorphism contribute to these categories of experience and identity, or the differential valuation of types of life? What does it mean for a researcher to become affected by their subject, to develop fondness and feelings of care? Each of these questions examine elements of life—all kinds of life—in the context of early twentieth-century Australia.

Ratcliffe’s book is perhaps one of many that opens up these questions to myriad potential answers. However, despite being credited with bringing ecology and conservationism to Australia, no scholar appears to have done a close reading of the text. As I mentioned above, Ratcliffe’s writing is frequently cited, yet it is rarely analyzed. Throughout the course of this thesis, I hope to convey that *Flying Fox and Drifting Sand* is a complicated, nuanced, rich text, brimming with possibilities for future engagement and many other close readings or comparisons. Deborah Bird Rose (briefly) characterized Ratcliffe’s work as part of an “an ‘us’ and ‘them’ boundary organized along an either-or axis [that] offers no place for co-existence or mutuality” (Rose 2011, 126). I argue otherwise—that though his view is mired in colonialist, masculinist understandings of the world and relation, his book toys with possibilities for affect and attentiveness that build ethics of co-existence.

The book itself is approximately 340 pages split into two parts. This thesis primarily focuses on the first part, *Flying Fox*, based on his first expedition to Australia. However, several scenes from the latter part, *Drifting Sand*, become instrumental to understanding both his shifting views and storying the world as he viewed it. This thesis draws on a close reading of the book guided by the questions above. A large part of the analysis contends with how Ratcliffe's self-identity emerges through his writing, following Kamala Visweswaran's (1997) approach to feminist ethnography, in which "identities are multiple, contradictory, partial, and strategic" (50). She contends that "[i]ndividual narratives can be seen as both expressive and ideological in nature" and thus they involve "a constellation of conflicting social, linguistic, and political forces" (50). Such shifting and strategic identities can be determined in an historical figure through examination of their written work, even if they cannot talk back to the reader.

The thesis is organized as follows. In Chapter 1, I offer a literature review which gives context in terms of historical analyses and theoretical approaches. First, I outline several approaches to the histories of science and environment in Australia, with particular interest in relations between settler colonialism, national identity, and native nature. Second, I give a brief overview of literature on multispecies and interspecies relations, drawing on how feminist scholars approach the imbrications of race, gender, and animality in science studies as well as notions of affect, attentiveness, and care. In this chapter, I lay groundwork to show how Ratcliffe's work might be in complex and compelling relation to scholarship of masculinity, settler colonialism, and emergent environmentalist consciousness.

In Chapter 2, I connect Ratcliffe's notions of scientific study and cultural knowledge by first establishing important parts of his biography and the scope of his flying fox study in the context of then-emerging ecology. I argue that his book, in broader context of Australian scientific travelogues, draws on genre conventions and notable national figures to contextualize his approach and the affective impact of his travels. Finally, I show how settlers' lay epistemologies influenced his approach to nature and animals and how his appreciation for settler life guided the development of his identity and ethical stance.

In Chapter 3, I examine how Ratcliffe became attentive to environment in the course of his study. I contend that his methods of observation required an embodied approach to studying the bats and, in his book, offers a nuanced view of masculinity and detachment. By becoming differently attuned to the more-than-human world(s) of the outback, he developed an affective

and intra-active ethos that both undermined and underlined colonial notions of environment and domination.

In Chapter 4, I hone in on Ratcliffe's understanding of race in the early twentieth-century moment in which he wrote and contend that he used human and animal relations and metaphors to probe the boundaries between them. I first establish that he utilized anthropomorphism in his book not only to show fondness for bats, but also as metaphors for race and racialized violence in settler colonialism. I then focus on three stories of animals, humans, and violence to establish Ratcliffe's framework of white settler masculinity which hinged on racialized and sexualized violence. This framework becomes apparent primarily through these stories.

In chapter five, I focus on his relationship with bats and contend that his affection for them developed as part of the violence required for his study. In examining his intra-active encounters with flying foxes, I argue that his study established a narrative of flying fox agency and attempt to locate this within an ethics of care for more-than-human worlds and lives. Then, I investigate the roll of hunting bats to collect specimens and how violence might engender response-ability. Finally, I examine how he produced identifications-with bats as part of a move towards a conservationist ethos and advocating for companion species.

Finally, I rearticulate the questions and findings of the thesis and re-connect the threads of analysis. I examine how these seemingly disparate elements of Ratcliffe's book can inform a contemporary approach to extinction and recognizing more-than-human agencies. Then, I acknowledge limitations of the thesis and the potentials for future academic engagement with Ratcliffe's text.

Chapter 1

Locating Kin in Environmental Humanities

1.1 Introduction

Francis Ratcliffe's *Flying Fox and Drifting Sand* at once occupies a seemingly straightforward place in Australian literary and scientific history, while simultaneously opening possibilities for greater theoretical engagement in light of current concerns regarding multispecies relations and looming extinctions in the context of climate change. The following literature review examines common analyses from the histories of Australian environment and scientific endeavor. Themes from environmental history and history of science in Australia shed light on the ways in which Francis Ratcliffe might support or challenge current scholarship on the intersection of nature, nation, gender, and identity in Australian history. As he is an historical figure that many scholars—particularly Libby Robin and Tom Griffiths, among others—contend altered Australian perspectives on environment and science, there is historical literature which engages with Ratcliffe and his writing. However, this thesis expands this scholarship by situating him in relation to scholarly understandings of nature and nation and, utilizing the feminist and interspecies theories detailed below, showing his work to be in complex and compelling relation to scholarship of masculinity, settler colonialism, and emergent environmentalist consciousness.

The more broadly theoretical part elaborates the interspecies or multispecies relations, focusing on concepts of kin, response-ability, intra-action, and arts of attentiveness. These concepts guide the overarching analysis of the text which follows. Focusing in particular on the works of anthropologist Deborah Bird Rose and feminist science studies (among many other disciplinary leanings) scholar Donna Haraway, the theoretical section of this literature review interweaves feminist philosophy, animal studies, and conceptions of race, gender, humanity, and animality; while these areas have much overlap and are not disciplinarily distinct, it is important to note that each of these areas are not guaranteed within the others—for example, some writing on human/animal boundaries focuses only on gender while disregarding race (though rarely vice versa).

1.2 Australian Environment and Identity

Two guiding themes in Australian history emerge as important informative metrics when we hone in on environmental and interspecies relations since its colonization: first, the concept of country and continent as interchangeable and intertwined; and second, the notion of metropole

and periphery, which applies to the relations both between Australia as a white settler state far removed, yet dependent on, its “homeland” of Great Britain and the colonial city and the “bush” (Brown 2021; Cerwonka 2004; Clark 2007; Griffiths 1997; Robin 2007; Robin and Griffiths 2004; Robin and Smith 2008; Rose and Davis 2005; Smith 2011). Both scientific exploration and the concept of nature became core elements of Australian settlement and, in particular, the understanding of Australia as not only wild and untamed, but unevolved and stuck in a prehistoric past served a white nationalist narrative (Smith 2011) and the implementation of biopolitical programs of Indigenous genocide and coercive assimilation (Smithers 2017; Wolfe 2016).

Understanding the nationalist narrative of Australian identity as grappling with native and introduced extends into environmental history; “Native nature... is often depicted as instrumental in shaping the national character,” writes Nicholas Smith (2011, 5), constituting a “triadic association between nature, native and nation” whose “historical trajectory is both regressive and progressive” (7-8). Settler attempts to bring European natural forms to the Australian landscape meant contending with species unlike anything they had encountered in Europe; the project of “taming” the Australian frontier and recreating a European agrarian pastoral landscape required the same scientific expertise that had cataloged Europeans’ first encounters with the strange animals and plants they met there (Robin and Griffiths 2004). Historian Tom Griffiths asks, “Where did ecology end and imperialism begin?” in Australian colonization, particularly in relation to the eradication of both the indigenous Aboriginal people and native environment (1997, 2). The construction of local or native species and people as “pest” is not unique to Australia (see: Mavhunga 2011), but its use in the project of colonization extended across categories of human and more-than-human.

The representative gendering of Australian national identity evolved from these discourses and territorializations of the settler citizen as an ostensibly masculine figure, one whose whiteness made the rugged masculinity of the frontier farmer or bush explorer akin to the rational figure of the Western scientist (Abberley 2017, Robin 2014, Smith 2021). Often considered “unmarked” categorizations, masculinity and whiteness center the figure of the colonial scientific adventurer in Australian literary history. Importantly, Ratcliffe frequently emerges within literature on science and scientists in Australia: as the forerunner of ecological thinking (Clark 2007, Griffiths 2002) in the country who advocated acknowledging (settler)

human's impact on the environment to government organizations (Robin and Griffiths 2004), and helped to found Australia's conservation movement in the twentieth century (Powell 2001; Griffiths 2002). Ratcliffe's interest in pest species in particular has informed the last near-century of study into Australian wildlife; in particular in literature relating to the endangerment of flying foxes and debates over governmental programs of eradication draws on Ratcliffe's (1931, 1932, 1938) writing about his experience studying Australia's megabats—his notes on population numbers are widely cited by scientists and activists in order to track population loss since colonization (Booth, et al. 2008; Dunlap 1999; Laird 2018). However, Ratcliffe's work is largely mentioned in passing; when full articles or chapters are dedicated to him, the authors focus more on his biography and the place of ecological thinking, or his interest in the people he met in his studies (Powell 2001). Often, his ecological sensibility is taken for granted as a product of scientific discourse at the time; how this ecological thought came to be alongside notions of Australian national mythology around masculinity and domination, white colonial supremacy, and relations between knowledge and affect becomes more present in a close reading of his work.

1.2 Interspecies, Multispecies, Kin, and Companions

As many authors in environmental humanities in Australia focus on landscape and animal interactions with humans, multispecies relations emerge as a critical area of insight. Theoretical underpinnings of interspecies or multispecies relations derive from the work of myriad feminist theorists and scholars of race. The co-constitution of culture and nature are paramount in Australian environmental humanities; this imbrication dovetails with many feminist science studies scholars and anthropologists who work within interspecies relation. Of particular interest in this thesis are Donna Haraway and Deborah Bird Rose, though many other scholars of multispecies ethnography, queer ecologies, ecofeminism, and extinction studies in particular have helped inform my analysis throughout the text.

Animality and human-animal relations raise many questions for feminist scholars, particularly in relation to humanism, science, gender, and race. Scientific history and the proliferation of taxonomy have structured discourse about who counts as human for centuries. In *Primate Visions*, Haraway notes that taxonomy is a “political order that works by the negotiation of boundaries achieved through ordering difference” (1989, 10). Zakkiyah Iman Jackson, a

scholar of African American literature, contends that “the concept of humanity itself is fractured and relational” (2020, 46) and that the arboreal/taxonomic construct applied to humans through notions of the Great Chain of Being becomes functionally permeable through questions of race, gender, and animality. Applying notions of interspecies relation to humanist inquiry allows us to complicate how humanity is made separate from and dichotomous to animality and nature. Val Plumwood, writing on the limitations of hierarchical dualism—where human/animal, culture/nature, man/woman, white/black come to structure much of scientific and philosophical discourse in the age of Enlightenment—argued that “nature must be seen as a *political* rather than a descriptive category, a sphere [which] formed the multiple exclusions of the protagonist-superhero of the western psyche, reason” (1993, 3, emphasis in original). Embedding human within nature becomes one function of interspecies studies, though not the only and certainly not the primary function.

Deborah Bird Rose engages with the notion of animal (and other non-human beings) kin, which she derives from her experience learning from the Yarralin people of Aboriginal Australia. Though I do not engage directly with “kin” as she describes—in part because I am hesitant to apply concepts from Indigenous peoples directly to an analysis of a white settler’s approach—it is an informative concept for understanding interspecies relations. Kinship in her configuration bridges human with landscape or environment, the plants, animals, rocks, and streams therein, as well as pasts, presents, and futures—all in familial relation and with an obligation of care (2000; 2011). Kin thus implies agency for all and a sense of personhood outside of strictly delineated ideas of “the human.”

Donna Haraway expands on Rose’s understanding of kin and country, an Aboriginal English term which encompasses “a multidimensional matrix of relationships” (Haraway 2011, 100), by expanding on their relation to care. Taking care of country, to Haraway, connects “alien and native beings... in alliance with those called traditional owners of the land who... face those who came before and care also for those who come behind” (117); in short, an ethical obligation to work together with all kinds. Haraway further takes up notions of kin and kind (2003; 2016), particularly in *Companion Species Manifesto*. Companion species, according to Haraway, “are training each other in acts of communication we barely understand” and “make each other up, in the flesh” (2003, 2-3). Companion species are inherently multiple, and do not necessitate human involvement, but may include “human-landscape couplings” (22). Co-constitution and co-

evolution or symbiogenesis are definitive elements of companion species. In some ways, “companion” evokes images of love and care; she states, “To be in love is to be worldly, to be in connection with significant otherness and signifying others” (81). Thus, kin, kind, companion—all are bound into relational, affective encounters.

1.3 Affect, Response-ability, and Arts of Attentiveness

According to Jami Weinstein and Eva Hayward animality “gestures to the affective and perceptual registers of animals, not just to their physical, behavioral, or instinctive qualities,” and therefore “animalities are sensuous materialities, composites of affects and percepts” (2015, 2000). Examining the imbrications of animality, race, and gender in this sense opens further doors to exploring affect, response, and attentiveness. These concepts bring together notions of how to move in interspecies worlds and possibilities for acknowledging losses and storying the global move toward mass extinction.

Thom van Dooren, Eben Kirksey, and Ursula Munster offer the concept of “cultivat[ing] arts of attentiveness” (2016, 16-17), which draws on Anna Tsing’s (2011) notion of “arts of noticing” or “arts of inclusion” (6). “This attentiveness,” they write, “is a two-part proposition: both a practice of getting to know one another in intimate particularity... and, at the same time, a practice of learning how one might better respond to another” (2016, 16-17). Arts of attentiveness and Haraway’s notion of “response-ability” (2008; 2011; 2016) both invoke affect but offer other ways of conceptualizing relation and encounter. Response-ability, as Haraway contends, is the capacity for response and engagement with responsibility, that emerges out of material-discursive actants and intra-active moments; she sometimes offers response-ability in terms of care relations. The notion of “material-discursive” (1991; 2020/1992) indicates that no being, no matter, is predetermined and preset, but come about through relation. It is one way in which Haraway upsets the separation of discourse and constructivism from ideas of materiality; they inform each other, and actors/actants emerge out of these relations that are both material and discursive.

If feminist science studies and interspecies approaches introduce explore new ways of questing for knowledge (Haraway 1991; Barad 1998), then we can recall van Dooren, Kirksey, and Munster’s assertion that “the arts of attentiveness remind us that knowing and living are deeply entangled” (2016, 17). “Shared life,” as described by Dominique Lestel and Hollis Taylor (2013) requires attentive practice to acknowledge. These notions of attentiveness and shared life

become more profound within Karen Barad's (1998) neologism "intra-action," rather than interaction, which "signif[ies] the mutual constitution of objects and agencies of observation within phenomena" (96). She expands the concept through notions of agency, which "is not aligned with human intentionality or subjectivity" (2003, 826) but belongs to all forms of material-discursive actants.

1.4 Conclusions

Each of these conceptions rely on disruption to notions of life as binary, dualistic, and easily classifiable. Throughout the following analysis, interspecies relation and concepts of response-ability, affect, attentiveness, and intra-action flow through notions of how race and gender are both inscribed upon and infused into descriptions of landscape, environment, animals, and science. By contextualizing Australian travelogue and the advent of ecological thinking on the continent within these frames of analysis, I argue in the following chapters that disruptions to rigid ideologies of classificatory schema and detached, impartial science coexist within narratives of scientific inquiry. Settler colonial relations of race and gender imbricate knowledge of nature and the project of species; by utilizing these concepts of intra-action and foregrounding agential and multispecies perspectives, the following thesis investigates just how race, gender, and animals relate in early twentieth-century Australia.

Chapter 2

Empire Men, Empire Missions: Australian Travelogues and Settler Epistemologies

2.1 Introduction

To understand the ways Ratcliffe developed his ecological thinking through intra-active encounters, we start by situating Ratcliffe as an historical figure and the author of a scientific travelogue. This chapter is ultimately organized around the question of how Ratcliffe's positionality reflected conventions of science and literature, and how he navigated the constructed dichotomy between the two concepts. At the same time, how does that positionality—a white man of science and empire—open up to possibilities of affect and recognition of interspecies relation?

I begin by explaining Ratcliffe's biographical background, as well as detailing the interplay of ecology and economy that drove his expeditions in Australia. As historian Tom Griffiths states, young Ratcliffe was an "Empire man" who "was also on an Empire mission" (2002, 133). This section is largely contextual, though it informs the rest of the analysis throughout the thesis. Following biography, I argue that his book, in broader context of Australian scientific travelogues, draws on genre conventions and notable national figures to align his mission with a greater history of Australian settlement. Finally, I show how settlers' non-expert approaches to environmental knowledge impacted Ratcliffe's bat study and set the stage for his affective, attuned relation to the more-than-human elements.

Ratcliffe likely never expected to become such an influential force on how Australian environmentalism—and subsequent popular understandings of the relationship between nation, nature, and science—would unfold, this chapter locates him as an Empire man on an Empire mission. His biography and publishing history guided the development and reception of his travel monograph, as well as serve to introduce a key theme of the text: the value of lay knowledge and lived experiences of settlers themselves. *Flying Fox and Drifting Sand*, while part of a greater cultural intersection between science, literature, and settlement, emphasized the importance of non-expertise while telling the story of an apparent expert.

2.2 Emerging Economic Ecology

Francis Ratcliffe's legacy of bringing ecological thought to Australia, of championing scientifically grounded and economically salient conservationism, emerged out of certain particulars of his upbringing, family relationships, and young adult endeavors. His conservationist ideology developed directly from his work in the name of the British Empire and its late-colonial stages. Throughout *Flying Fox and Drifting Sand*, Ratcliffe identifies himself as an Englishman, though he was born in Calcutta in then-British-ruled India in 1904 and he would permanently relocate to Canberra following his study of soil erosion. Ratcliffe studied zoology under Sir Julian Huxley at Wadham College, Oxford; his peers under Huxley included Charles Elton, whose 1927 book *Animal Ecology* became a foundational text in the field and opened the scientific community to notions of human (i.e., cultural) worlds and natural worlds as intertwined and co-constitutive.¹ While plant ecology had gained some traction in Europe and North America, animal ecology was relatively new in the 1920s and often related to game management. According to historian Thomas Dunlap, early ecology "framed the world in terms of interactions on the land" and saw nature as "a set of intricately connected systems that could only be understood through quantitative studies of complex interactions among species and with the land" (1997, 77). Ratcliffe's applied ecology on the frontier relied heavily on the human element within these interactions, drawing attention to the impact of white European settlement in this distinctly un-European climate.

After graduating in 1925, Ratcliffe took a position at Princeton in the United States for one year, and then returned to England to work for the Empire Marketing Board (EMB) in London. The EMB's focus was bringing together economy and science in the service of British imperial expansion—namely, enticing (usually poor) English people to relocate to Australia where they could have more autonomy and chase an Australian dream. Promoting Australian settlement "in the yeoman tradition" would bolster the empire's economy through material production and extraction—commodity export—according to Griffiths. The EMB moreover "explicitly link[ed] biological science with imperial development" by promoting biology as "an international economic instrument" (Griffiths 2002, 133). Biological science as a tool could link

¹ Sir Julian Huxley, who also wrote the preface to *Flying Fox and Drifting Sand*, was not only notable for his proteges: his grandfather T. H. Huxley was a rather infamous nineteenth-century "man of science" and advocate of sanctioned expertise over amateur science (see Barton 2003) and his brother Aldous was a novelist, the author of *Brave New World*.

metropole and periphery, making the periphery not only habitable but enticing—at least in the view of the EMB—and streamline further settlement. According to Libby Robin, Ratcliffe and the EMB played a pivotal role in “convincing the government to fund science” both in England and post-Federation Australia. In the early twentieth century, science had to become synonymous with “good government” to further the narrative of progressive development and settler superiority (Robin 1997, 65). Through the EMB, Australia’s Commonwealth Council for Scientific and Industrial Research (CSIR) recruited Ratcliffe to study the economic impact of the flying foxes apparently running amok through coastal fruit orchards. Thus, Ratcliffe embarked for his first expeditionary study in 1929 at twenty-five years old, undertaking a full-scale biological study to ascertain the population size, habits, and impact of the so-called pests and offer his recommendations for handling their alleged attacks on commercial fruit farmers.

When he arrived, Ratcliffe knew relatively little about either the country or the animals which he had come to observe. Ostensibly, CSIR had tasked him with a wide-scale biological and behavioral study of a (group of four) species widely considered pestilent for their turn to commercial fruit, meant for distribution and sale around the British empire. “From the earliest days of settlement along the eastern coast of Australia flying foxes have apparently attacked cultivated fruit,” (Ratcliffe 1931, 7), although Ratcliffe found that “the animal is mainly a blossom feeder, and... contrary to the general belief, it is not a serious menace to the commercial fruit industry” (6). Until Ratcliffe’s study, “data of the quality necessary to form a really accurate picture of the situation have been next to impossible to collect,” he claimed (1931, 8); no biologist or naturalist had focused on flying foxes specifically, leaving much of their biology and habits underexamined by European and settler science. In order to create a comprehensive picture of flying fox life in Australia, Ratcliffe spent two years observing camps, collecting and dissecting specimens, and interviewing and surveying commercial fruit growers to determine not only the bats’ population “size and extent,” but “the relations of the different species to one another, the nature and cause of the migrations, the individual and collective habits of the animals, and, in addition, the extent and value of the economic losses involved” (1931, 7-8). Through his specimen collection—shooting bats, usually while they rested in their camps—he determined that their bodies were adapted to eating blossoms and fruit nectar, such that they were only attracted to ripened soft fruits which they could “crush... to extract the liquid contents, spitting out the hard or fibrous matter” (1931, 43). As commercial fruit growing usually required

harvesting and packaging for distribution before fruits reached that stage of ripeness, he posited that flying foxes only turned to cultivated fruits as a last resort to avoid starvation in areas where eucalyptus and other native food sources had been destroyed for grazing land and timber export.

Due to the circumstances of his employment, he treated the bats as an economic pest, though as a scientist first, he wrote that some “knowledge of the habits of the animal is essential before action can be taken against it as a pest” (1931, 15). He concluded that flying foxes in fact had relatively little economic impact on the fruit industry and thus should not be targeted for “wholesale destruction” (Ratcliffe 1947, 5). Orchardists and local authorities had tried various methods of discouraging and destroying the hungry bats, including scalp bounties (actually claws rather than scalps per se), shooting regimes, flame guns, poison gas, strychnine poisoning, noise and light repellents, and extensive netting—all of which had proven to be very expensive for both the growers and the governments. Ratcliffe determined most of these methods to be a waste of time and money. “The pest is widely and continuously distributed, and is moreover a complex of four distinct species of widely differing economic importance,” Ratcliffe reported. “The [commercial fruit] losses are localized, and vary greatly from district to district. The solution then does not lie in the mere killing of the maximum number of flying foxes” (1931, 7-8). This conclusion marked an historical intervention in the relationships between science, government, and the popular conceptions of Australian nature.

Due to the bats’ migratory nature, Ratcliffe spent the years from 1929 to 1931 on the move, “travel[ing] the margins of white settlement” along the eastern coast (Powell 2001). European explorers and settlers had long been fascinated by the seemingly strange creatures that inhabited Australia, though the more apparently bizarre and singular (to European sensibilities) types typically dominated scientific efforts.² Huxley noted in *Flying Fox and Drifting Sand*’s preface, “Nothing in the least like their gregarious flying swarms exists in mammalian life in the Northern hemisphere, and biologists and nature-lovers alike will be grateful to [Ratcliffe] for his account of their habits” (1947, ix-x). Through the study, Ratcliffe finalized the classificatory schemes for the fruit bats found on the continent, debunking claims of a fifth species.

² Historian Libby Robin (2005, 2007) has written about natural historians’ and nineteenth-century biologists’ interest in the platypus and echidna, both of which only occur in Australia. One particular area of interest is these scientists’ quests to collect specimens, as the animals’ habitat and nocturnal or crepuscular lives made them elusive for several decades.

Once this biological survey was completed, however, he returned to “the Old Country” to work in the zoology department at the University of Aberdeen, where he began writing the first half of his travelogue “with the object of lightening the darkness of the northern Scottish winters by calling up memories of antipodean warmth and sunshine” (1947, viii). As he wrote in the final lines of *Flying Fox*, the first half of the text, he vowed he would return to Australia; CSIR provided the opportunity a few years later. From 1935 to 1936, Ratcliffe again embarked on an expedition into the edges of settler society, this time to study the worsening dust storms in the semi-arid and arid lands further from the urbanized coast. As with the fruit bats before, Ratcliffe had little knowledge of soil science heading into the study; however, he had proven his ability to run a self-directed and comprehensive study without much prior scientific coverage to his superiors at CSIR. This second expedition formed the latter half of his book, *Drifting Sand*. His conclusions about the effects of settlement and idealistic attempts to reconfigure Australian landscapes, flora, and fauna in the image of European farming tradition introduced a new culture of ecological thought in both popular imagination and governmental approaches to environment.

Ratcliffe’s first two projects in Australia thus were intended to investigate the negative impacts this environment—here meaning plant, animal, landscape, and ecosystem—had on economic development and the longevity of settler colonialism. Flying foxes eating commercial fruit meant for distribution and sale around the empire; soil erosion blowing away pastoral farmland and starving cattle and sheep meant for meat and textile production—CSIR positioned Australian nature as the culprit to tame and dominate, in order to preserve settler society and economic production. Yet Ratcliffe’s ecological science considered the roles of European human and animal settlement in these negative economic situations. While Ratcliffe remained loyal to the ideals of Empire, he nevertheless interrupted the notion that European ways of life would thrive in all areas. His conclusions in both cases emphasized the extent of European impact on Australia’s flora and fauna, and to varying degrees advocated for the preservation of natural resources as part of the economic needs of empire. After publishing *Flying Fox and Drifting Sand* and after permanently relocating to Australia, Ratcliffe continued working closely with CSIR (later the Commonwealth Scientific and Industrial Research Organization (CSIRO)) before helping to found the Australian Conservation Foundation in 1964. For the rest of his life, he “emphasi[zed] sensible resource use, sustainability and the acceptance of growth and

development as an inevitable consequence of European occupation” but grappled with the destructive realities of expansion and empire (Coman 1998).

2.3 Literary Legacies

Writing a travelogue-*cum*-popular science monograph allowed Ratcliffe to expand his opinions on the environmental impact of European pastoral settlement. As an informal, cultural (rather than formal, scientific) product, the book not only offered its audience a view into the need for policy reform, conservation, and resource management, but introduced the lives of settlers on the periphery to unfamiliar British and urban Australian readers. Later scholars and former colleagues alike have characterized Ratcliffe as a “pioneer” and a “perfectionist” (Coman 1998, Powell 2001, Griffiths 2002), and have credited him with bringing ecological thinking to the Australian national-scientific fore, spurring the early conservationist movement there (Dunlap 1997). Ratcliffe’s book arguably incited shifts in national discourse on environment, ecology, and conservation (Robin 1997).

The success of *Flying Fox and Drifting Sand* builds from the importance of exploration and travel narratives, particularly scientific travelogues, for settlement projects and the expansion of empire. Given his employment with the EMB, Ratcliffe’s decision to turn his travel diaries and extensive letters to his family—which biologist B.J. Coman (1998) claimed could be fifteen typed pages long and which Ratcliffe recreated in the book verbatim—into a popular travelogue shows a conscious effort to align himself with the grand figures of scientific discovery and colonial exploration. Throughout the text, he makes explicit references to famous expeditions—especially the travels of Captain James Cook, the *Endeavour*, and botanist Joseph Banks and their landing in Australia in 1770, discussed below. These references served as potent links to the intersection of exploration literature, scientific study, and imperial imagination that several scholars argue make the travel genre so integral to expansion, particularly in Australia.

Australia first captured the British imperial imagination in 1688 through William Dampier—the first British explorer to reach Australia—after which it became the focus of English attentions. Cook’s and Banks’s diaries from the following century became hallmarks of popular science literature, and their popularity steered a cultural approach to colonial expansion for the next two centuries. “Travel writing was crucial to the expansion of the British empire,” according to literary historian Anna Johnston. “This was the case materially—when narratives

enabled entrepreneurs or governments to plan exploration and settlements—and imaginatively, when readers... imagined an empire on which the sun would never set and in which expatriates might make new colonial lives” (2019, 270-1). In short, travel literature served the same goals as did the EMB’s biological science; therefore, Ratcliffe was likely acutely aware of how travel literature could be used to foster colonial imaginaries among British readers. Travel narrative in the Australian colony flourished as a genre to pique interest in the supposedly strange and ancient lands in the antipodes (Johnston 2019). Like much colonial exploration writing, this literature consigned Indigenous Australians to the level of nature, cementing in colonial minds their lower status and the concomitant right of white expansion as progress and improvement.

Scientific exploration narratives therefore served as a tool of nation-building by the twentieth century. Cook deemed Australia *terra nullius*, an empty land which the British government found perfect for removing its own problem citizens while creating a new outpost of (white) British power. Kay Schaffer (1989) notes that early settlement as a penal colony often relied discursively on the strange and un-European environment to naturalize Australia as a destination for its less-than-savory population. The Australian colonies were also “the first major ‘post-Linnaean’ settlements” (Robin and Griffiths 2004, 447), characterized by taxonomic classification and certain “late Enlightenment innovations in thought and culture” (Johnston 2019, 267), marking it as an important site for scientific advancement. According to historian Michael Robinson, this scientific possibility “advanced national interests by gathering intelligence about the wider world.” (2015, 91). Johnston further notes that “[v]oyages of exploration and new print technologies flourished simultaneously and thus defined Australia distinctively by travel and writing” to a much higher degree than other colonial projects (2019, 269). The penal colony continued to attract scientists and amateurs interested in the wholly alien plant and animal life; many eighteenth-century Europeans deemed the early accounts of wildlife to be fabricated (Schaffer 1989).

Ratcliffe drew on this motif of monstrosity and fantasy to begin his book. The first chapter opens on the *Endeavour* and Ratcliffe retells the first European encounter with Australian flying foxes—which was, of course, one such near-imaginary creature that enticed further explorers to the continent. In Joseph Banks’s journal, an unnamed seaman claims to see an animal ““as black as the Devil and had wings; indeed [he] took it for the Devil, or [he] might

easily have caught it for it crawled very slowly through the grass” (quoted in Ratcliffe 1947, 3).³ Ratcliffe rather says that the “apparition, needless to say, was not the devil at all” but a flying fox (Ratcliffe 1947, 3). He some basic details of bat life—physiology, habits, and the economic issues at hand. Essentially, Ratcliffe utilized the story to draw a parallel between the bizarre encounter with an unknown form as told by “the indefatigable” Banks (3) and just how knowable the creatures became to him on his own mission. “For those accustomed only to the little chauve-souris,⁴ the existence of bats with a body nearly as big as that of a cat and a wing-spread of over five feet must comes as rather a shock,” he wrote, acknowledging that Australian wildlife will interrupt all European expectations of what animals are supposed to look like, though he notes that they are “harmless enough” and “exclusively vegetarian” to assuage any fears of monstrosity (4). While Ratcliffe notes moments of discomfort or even disbelief in the creatures he would follow for those two years, he contrasts himself with the explorers of the *Endeavour* to illustrate progress and the increasing need for specialized knowledge following European settlement. Between 1770 and 1929, Europeans had laid claim to Australia as a whole and championed European management strategies which resulted in environmental degradation, loss of biodiversity, and Aboriginal genocide. The goals of exploration literature between Banks and Ratcliffe, despite these changes, focused on empire and colonial imagination.

B.J. Coman’s memorial to Ratcliffe (1998) states that Ratcliffe wrote to his mother in 1930 asking for recent travel literature, as he was toying with the idea of writing one himself—if only for the prospect of a bit of extra income (Powell 2001). Coman compares Ratcliffe’s resulting book with other popular contemporaries in travel literature Frank Clime and Ion Idriess, all of whom worked with Sydney-based publishing house Angus and Robertson.⁵ Although he accessed earlier travel writing to learn the conventions, the book’s publication in Australia joined a trend of literarily opening the outback to those living in metropolises. *Flying Fox and Drifting Sand* received renewed interest after World War II and its first Australian publication in

³ Ratcliffe quotes Banks’s journal but does not actually give a citation; he alters the spelling somewhat to make it more readable to a twentieth-century audience, although this may have been from whatever version was available to him in print at the time. The full text of Banks’s journal is available through Project Gutenberg and Ratcliffe’s quote can be found in full in “Some Account of that Part of New Holland Now Called New South Wales.” <https://gutenberg.net.au/ebooks05/0501141h.html#nsw> (accessed May 30, 2022).

⁴ “Chauve-souris” is the French word for bat, which directly translates into English as “bald mouse,” and indicates the small, insectivorous bats (microchiroptera). There are actually many species of microbats in Australia, but *Pteropus* subspecies receive the most public attention, due to their size and gregariousness.

⁵ For further discussion on both Clime and Idriess, as well as themes in midcentury travel literature in Australia, see Clark 2003, Clark 2007, Johnston 2017, and Johnston 2019.

1947 echoed public worries “about threats to agriculture became entangled... with anxiety about civilization itself as the full horrors of the atrocities of war [were] revealed,” according to Libby Robin, Steve Morton, and Mike Smith (2014, 144). The book was a success in Australia and was republished several times over the following years; it was also assigned as required reading in many secondary schools and inspired nearly immediate government action on soil erosion (Robin and Griffiths 2004).

Outback exploration, however, often bolsters prevalent images of frontier masculinity and the gender politics of settlement that persist in Australian popular culture today. Ratcliffe as an Englishman likely drew on the more conventional varieties of masculinity available through exploration literature. Masculinities from the Victorian era were especially potent in developing Australian notions of masculinity in nature through various accounts conflating rationality and a scientific mind aligned with physical prowess to effect mastery over nature (Milam and Nye 2015; Reidy 2015; Robinson 2015; Abberley 2017; Connell 2017; Holmes 2017). Over time, the rational scientist’s masculinity shifted away from that of the hunter-explorer figure as exemplified by the bushman (Schaffer 1989). Australia’s otherworldly wildlife inspired extensive exploration expeditions over the course of the nineteenth (Robin 2005; 2007). However, as early settlement gave way to violent frontier clashes between white settlers trying to claim land from Aboriginal Australians, the settler bushman became the icon of Australian manliness.⁶ Meanwhile, literary scholar Gary Clark explains that many Australian writers who explored “the alien world at the heart of [their] own continent... evoked both an unearthly heroism and a penchant for indulging in foolish fantasies” (2003, 56). Though the scientist-explorer-hunter-hero and the rugged, violent bushman shared many qualities, the two figures ultimately grew to evoke different romanticized notions of tackling the interior.

Ratcliffe attempted to eschew romanticism for realism in his depictions of settler life in the 1920s and 30s; the earlier heroes of travel literature dispersed into images of multiple, complex masculinities—gangly youths felling trees, philosopher-fishermen, hospitality workers, exhausted but exuberant ranchers, and a young protagonist whose relationship to rationality, domination, and manliness offered a site for self-reflection. Ratcliffe’s own experience with

⁶ It is important to note that “bushman” in Australian English refers to a white settler—one who typically makes his living in the outback. The image of the hypermasculine, hypercompetent, but boorish and uncultured bushman persists in popular culture and Australian media today (Waring 2020).

masculine self-representation was nuanced (see chapter three), yet firmly embedded in a tradition of masculinist iconography. A later reference to “very great man” James Cook, “son of a Yorkshire labourer and one-time grocer’s apprentice,” gives the impression that Ratcliffe wanted to remind his readers that “great men” came from all backgrounds, that successes in scientific exploration and discovery depended only on a willingness to overcome and persevere—a story which likely resonated with his Australian readership (Ratcliffe 1947, 48).

The national mythos of the explorer, however, was always deeply gendered; he was always a man and always white. Even in cases of travel literature written by women (particularly popular around the Australian gold rush), the harsh realities of inward expansion and claiming the pastoral ideal remained associated with men and masculinity. Schaffer argues that the bush constitutes “[t]he central image against which the Australian character measures himself,” the most potent motif in Australian literature (1989, 7). The implication of danger and disappearance (or absorption, according to Schaffer) into the bush precluded women from being true heroes in the outback. Ratcliffe, however, in his various stories of interactions and escapades with settlers, took as much care to show the complexity of women on the periphery as he did the men. While the text repeatedly invokes several of the recurring images of scientific exploration, colonial expansion, and masculine domination found in much travel literature, Ratcliffe also engages with these in a self-reflexive and often critical way—though rarely directly. Taking his place in the canon of Australian travel literature for him meant focusing on the lives and epistemological practices of settler Australians.

2.4 Lay Knowledge and Settler Epistemology

Ratcliffe began his study, as previously stated, with little knowledge of Australia or its bats. However, he had arrived after the official “closing” of the frontier that Federation in 1901 heralded and would confront the practical realities of pastoralism in an environment ill-suited for small farm sustainability or long-term grazing. “The essential features of white pastoral settlement—a stable home, a circumscribed area of land, and a flock of herd maintained on this land year-in and year-out—are a heritage of life in the reliably kindly climate of Europe,” Ratcliffe wrote in the mid-1930s after completing his study of soil erosion in the semi-arid and arid landscapes of the interior. “In the drought-risky semi-desert Australian inland,” he continued, these “essential” elements of the European pastoral ideal “tend to make settlement

self-destructive” (1947, 323). Between his arrival for his first mission (1929-1931) and the completion of his second (1935-6), Ratcliffe the Empire man had become strategically critical of the settler project, of “‘improvement,’ which takes without giving” (Ratcliffe 1947, 330).

Initially, he wrote about the Australian state as a backwater and derided the settlers as rubes who butchered the English language and wasted their time gambling and drinking (Powell 2001; Griffiths 2002). He acknowledged that Australia was “too new a country to have cultivated what is considered elsewhere high culture” (Powell 2001). His early letters showed that he viewed “himself as a civilised hunter in an uncivilised, if not necessarily savage, land at the ends of empire” (Powell 2001)—though here, the population he considered uncivilized was largely white. Over the course of his first study, however, he came to appreciate the settlers themselves in part because he had to rely on them to find his next flying fox camp or thieved orchard. His fondness for settler society on the periphery became the core theme of *Flying Fox and Drifting Sand*, and this early alienation and displeasure found in his letters home makes little appearance in the text.

Fundamental to *Flying Fox and Drifting Sand*’s success, as well as to the success of Ratcliffe’s study, was his focus on the lives, livelihoods, and knowledges of settlers on the periphery of Australian society. In his memorial, Coman wrote of Ratcliffe’s “depth of understanding of rural Australians,” which contributed to the book’s long-term popularity (1998). Many scholars note that Ratcliffe’s ecological approach developed alongside his fondness for the settlers he met (Dunlap 1997; Griffiths 2002; Robin 2014), but it is important to highlight just how integral lay knowledge and amateur science were to his flying fox study, as he relied on the expertise of people who lived alongside the bats. Whereas his formal report briefly mentions his survey methods with orchardists and farmers directly impacted by fruit bats, a popular science account allowed him to fully detail the almost folkloric knowledge he gathered that both fundamentally shaped how he approached flying foxes and convinced him to return to Australia. “The pursuit of the big bats kept me happily on the move for two whole years,” he reminisces at the beginning of the text, “and led me into many curious and interesting places, but chiefly, I must confess, into places where ordinary men were to be found working for an ordinary living” (Ratcliffe 1947, 4). Thus, the bats brought him to people just as the people brought him to bats. This affection for frontier settlers and their interpretations of their surroundings—which were heavily structured by class and proximity to the higher culture of the empire’s center,

particularly the scientific epistemology available through formal education and expertise—likewise informed his affection for the more-than-human world around them and the then-radical ecological perspective he would espouse.

Significantly, Ratcliffe’s deferral to lay knowledge had a fundamental impact on chiropterology. He “rechristened” two of the local species of flying fox based on the names given by “Australians who have learned to distinguish between the various species,” acknowledging that his “names do not tally with those given in books on the Australian fauna” already available (11). Thus, *Pteropus gouldi* changed from Gould’s flying fox to the black flying fox and *Pteropus scapulatus* from the collared to the little red flying fox. This unofficial renaming based on common settler knowledge stuck and these are the common names used today. Ratcliffe’s deferral to lay knowledge created a streamlined taxonomy wherein each of the four endemic species are now named for their distinct appearances: little red, grey-headed, spectacled, and black.

Finding the foxes, given that they are migratory creatures, required gathering knowledge from locals almost everywhere he went. He notes that the daytime roosts, or “camps,” of flying foxes were not simply “casual meeting-place[s]” but had “been inhabited year after year for half a century at least, in fact as long as the present generation of settlers can remember” (12). This generational quality of bat roosting predated settlement; anthropologist Deborah Bird Rose has written at length about her time learning from the Yarralin people of Northern Australia and how flying foxes migrations herald the coming of rain and changing of seasons, stating that “Indigenous people’s stories of flying foxes go back to creation” (2011, 122).⁷ Displacement and dispossession meant that any significant knowledge of just how long flying foxes had returned to these massive camps prior to European arrival would either be unknown to Ratcliffe or ignored as Indigenous superstition. Ratcliffe did note that both flying fox and Aboriginal Australian had “left his mark on the land” in naming conventions, at least (“If there is one ‘Flying Fox Creek’ in Queensland, there must be a score,” he writes as an aside (Ratcliffe 1947, 12)). Thus, Ratcliffe gathered the observances of white settlers to traverse the countryside in search of bats, relying on a range of knowledges that he found worthy of note, but only if aligned with whiteness.

⁷ Two brief notes on language regarding Aboriginal Australian cultures. Aboriginal is an umbrella term referring to many different cultural groups—usually called “countries” in Aboriginal English, although “country” refers to what Westerners would consider the land, the people, and kin animals. For more information, Rose’s monographs *Dingo Makes Us Human* (2000) is a detailed and nuanced accounts of the Yarralin-specific practices.

In one sense, the lay knowledges he gathered in part function as what Donna Haraway calls “situated knowledges” (1991, 183); they are embedded in their location and position and always partial. Haraway advocates for the complexity of lived-in and partial perspectives, that give “a more adequate, richer, better account of a world, in order to live in it well and in critical, reflexive relation to our own as well as other’s practices of domination” (197). I do not contend that Ratcliffe advocated for partial knowledge over the “god-trick of seeing everything from nowhere” (189) of impartial observational methods; nevertheless, he clearly valued everyday lived experiences, embedded in these environments for which he advocated and alongside the non-human animal lives that he studied. Given Ratcliffe’s unfamiliarity about both bats and Australia prior to his arrival, he could compile these partial knowledges into functional expertise. Only “a considerable number of odd facts about the natural history of the Australian species of flying foxes had been accumulated” by scientists before he began his journey, and therefore Ratcliffe’s “task” of providing “an accurate pictured of their population as a whole” needed to draw on settlers’ lay knowledges (Ratcliffe 1947, 5). These knowledges came from women and men alike, with a variety of class and occupational backgrounds; the only prejudice in knowledge-gathering that Ratcliffe embraced was the inherent whiteness of settler life.

Feminist scholars have argued for the importance of a range of forms of knowledge beyond Western science’s trappings of epistemological objectivity. While Ratcliffe utilized stricter survey methodology to ascertain the level of economic damage that the fruit bats had wrought (“evidence collected by means of questionnaires and personal enquiries” (Ratcliffe 1932, 53)), the conversations and day-to-day interactions with settlers brought him the most perspective, which he could only elucidate in a culturally minded work such as *Flying Fox and Drifting Sand*. I wish to emphasize here that this dichotomy between science and culture exists only in how Ratcliffe and his contemporaries approached scientific endeavor; examining a text meant for a lay audience which also champions lay knowledge alongside the more traditional scientific output ultimately shows where science is culturally informed and the ways in which important elements of sociocultural positionality make observational science a possibility. The official information on the size of camps, patterns of migration, and farmers’ experiences solidified his belief that the bats’ populations were already in rapid decline. The unofficial information, meanwhile, helped him navigate the bush to find foxes to observe.

Although he considered himself “lucky in locating flying-fox camps” on his own (Ratcliffe 1947, 14), when he arrived at a new location in the text, Ratcliffe typically recounts finding a local who could lead him to a nearby camp, or the most recent location of one. While each encounter varies in detail pertaining to the characters involved, several of these informants showed him different types of expertise one might develop in the forested frontier. On his first foray, on Tamborine Mountain near Brisbane, a woman named Mrs. Curtis⁸ (though she is first only identified as a wife of a pastoralist and mother to a young son) accompanies him to his first flying fox camp during the day. To illustrate her exceptional character, however, he recalls the second time he came to visit her, though he laments he was not able to again “for [he] was a free agent while she was tied to a home and family” (19). He claims that, despite “a year in the bush as a professional biologist” under his belt, and with another naturalist friend in tow, “in her company we could only listen and learn. She had spent her whole life on the mountain, and knew it as a man knows his own golf course” (19). The allusion to golf perhaps trivializes the extent of her knowledge, relegating it to the realm of hobby and diversion, but with the context of his admiration, the reference seems to elevate her knowledge to the level of a masculine pastime.

She knew the habits of every bird and beast that lived there, and where the rare ferns and orchids could be found... She had made friends with [the local birds], studied them, photographed them, her infinite patience outweighing the deficiencies of her apparatus. (19)

This final mention of her “unwieldy” and outdated camera, compared to the scientists’ more modern model, highlights the depths of his admiration (20). Mrs. Curtis is uninhibited by her location and lack of up-to-date technology, a factor which makes her knowledge of her surroundings even more noteworthy to Ratcliffe. She transcended the circumstances in which she lived, gathering knowledge beyond that of professional biologists—as a mother and a wife, no less. Mrs. Curtis’s early appearance in the text arguably underlines her influence on Ratcliffe’s approach and understanding. Although another author might write off Mrs. Curtis’s accumulated knowledge of the local plants and animals as feminine flights of fancy, inconsequential and

⁸ In the preface, Ratcliffe notes that only changed one or two names for privacy’s sake; taking this statement at face value, the reader can assume that each of the characters he introduces throughout his various vignettes and short stories are real people and have been referred to by their real names. A more rigorous historical examination with access to his papers or other primary source documents might cross-reference these names.

inarticulate, he instead lauds her with praise and emphasizes his own lack of knowledge in comparison.

Shortly after his story with Mrs. Curtis, he is introduced to a man named John Schmieder. “What he didn’t know about [flying foxes] was hardly worth knowing” after years of studying the camp next to his house (25). Schmieder was essentially housebound due to chronic rheumatism, and thus spent his time collecting information on the nearby flying fox camps; he “had studied the foxes year after year, because it gave him something to do. He noted the dates of their arrival and departure from the camp, the fluctuations of their numbers, the directions of their evening flights” which he collated along with “a hundred other observations of birds and trees and animals” (27). Ratcliffe claims that he returned to the small village where Schmieder lived to compare notes and discuss new insights, “for he [had] instantly established himself as local information bureau to the investigation” (28) and shared stories of his healthier youth as a bushman. Apparently, Ratcliffe never “exhausted [Schmieder’s] fund of flying-fox lore” and credited him with providing information “probably worth as much as all the knowledge [Ratcliffe] collected from other men” (28). He knew which species of bat roosted in the nearby camp at which time of the year, what fruits they preferred when they ate fruit (and which species were more likely to be shot for it), and that the fruit-stealers—or, at the very least, the ones shot down by orchardists—were usually male bats of one species, female of another (29).

In the cases of both Mrs. Curtis and John Schmieder, these collections of observances and familiarity with animal life and landscape likely emerged out of their attachment to the home sphere. Mrs. Curtis had no named occupation other than “the wife of a settler” and appeared to stay relatively close to the homestead where her childrearing and household duties would regularly have kept her—although she had extensive knowledge of her immediate surroundings due to a lifetime on the mountain. Meanwhile, Schmieder’s chronic pain and immobility kept him physically confined to a small area in and around his house, bringing him to seek information beyond the boundaries of home to keep him busy. Both figures offer images of settler domesticity that did not factor into the realm of hegemonic masculinity or the mythic frontier ideal, though their extensive knowledge of more-than-human worlds is made available only through their whiteness. The racialized nature of lay knowledge at first seems invisible, especially in the *Flying Fox* half of the book. Almost everyone Ratcliffe encounters is implicitly

white, yet, as will be discussed further in chapter five, racialization structures settler colonialism in ways both obvious and oblique.

Understanding race as a configuration of social mores made seemingly natural through epidermalization—association with skin color and other phenotypical characteristics—perhaps makes the relative absence of people of color in Ratcliffe’s text unsurprising. Ratcliffe rarely comments on the color of white settlers’ skin, outside the occasional unexpected pallor or over-exposure to sunlight, rendering their race, like Ratcliffe’s, unmarked and thus (contextually) unremarkable. However, the underlying whiteness of settler society structures his approach to situated knowledges. Lay knowledge is reserved for those who are already invested, by cultural or genealogical tie, to the epistemological schema of Western science: observation, objectivity, separation, boundaries. Notably, the valuation of these qualities imbues white settler colonialism with a sense of righteousness in the project of expansion and dispossession. Ratcliffe illustrates these associations in the only Aboriginal character named in the first half of the text, Freddie Rogers. Ratcliffe presents Rogers—who he notes is mixed-race—as having some kind of knowledge of the natural world that he has “inherited” from his Aboriginal parent in “an all-pervading interest in the bush and its creatures. He seemed to think and talk of little else” (169). Although Rogers’s appearance will be covered more in chapter five, Ratcliffe’s appeal to an apparently natural association between the color of Rogers’s skin and his knowledge of wildlife creates a stark contrast against other white frontier experts. Rogers’s excitement and, in Ratcliffe’s view, lack of consistent composure—fluctuating between “a crazy unreasonable fear” and “an unreasonable lack of it”—reflects a common stereotyped view of Indigenous people as irrational, unpredictable, or chaotic. Ratcliffe “would sometimes see [Freddie] in earnest conversation... with an expression on his face so serious” that Ratcliffe would be surprised by the discussion focusing on how to catch a dingo (169). In this racial schema, the interest and engagement that settlers like Mrs. Curtis and John Schmieder show towards their surroundings and animal neighbors comparatively appears profoundly white. They gather their knowledge through observation, from the safety of their enclosed homes on land that has been developed in the European image; Ratcliffe implicates Freddie Rogers’s knowledge, on the other hand, as either a genetic or cultural trait, inherited via his skin color, that does not align with the knowledge systems of settler culture.

White settlers, however, did not evenly appreciate the value of observational data collection or keen, if detached, interest in animal others. In his encounter with Schmieder, he discusses how local orchardists and farmers often said little more than a sentence or two on the subject of flying foxes, and this was usually to confirm their pestilent nature as fruit thieves. However, as the impartial observer set to study the animals and their impact, Ratcliffe compiled a variety of local knowledges and wove them into his observational practice to first, determine that their pestilent nature was broadly overstated and second, that the flying fox population was already in rapid decline due to European settlement practices. Despite the value he places on European culture and knowledge systems, his conclusions that clearing the forests for pasture lands and commodity wood were irrevocably changing Australia's landscape and wildlife. For orchardists and pastoralists, native pest species such as bats constituted a small problem, driven by colonialism's dual-wield ideologies of material extraction and white replacement; the problem, seemingly insurmountable to individual orchardists dealing with individual bats, when approached at a broader scale, reflected economically and ecologically unsound practices attempting to refashion the Australian landscape into a picaresque reflection of European farm economies.

2.5 Conclusion

In this chapter, I have contextualized some of the ties between empire-building, scientific exploration, settler colonialism, and gender and race that emerge from Ratcliffe's mission. For a young Francis Ratcliffe, Australia first emerged as a site in which to work, his first professional opportunity to prove his mettle as a man of science in the service of the British empire. As he came to view Australia through the eyes of settler Australians—as a national concept that encompassed a natural place full of seemingly otherworldly animals and populated by interested and invested people, all of whom impacted each other in the outback. His background, influences, and interactions with settlers all combined to bring him an ecological view of Australia as a place. In the words of Michael Robinson, scientific inquiry “gave the world some intelligence of its own” (2015, 91); the specifics of race and gender structured his movement through the world and brought him to value lay knowledge and settler life. Each of these elements inform the development of affect throughout his narrative, which I will continue to explore in the following chapters, as well as his biographical move toward conservationism that

defined his later years. Beginning with his intellectual and creative process in this chapter guides the following analysis of metaphors in his *Flying Fox and Drifting Sand* and the possibilities they generate for a different way of learning from and responding to the world(s) around him.

Chapter 3

Embodied Observation: Nature, Gender, and Entraining Senses

3.1 Introduction

In the previous chapter, I mention how learning from settlers and developing an admiration for them inform his affection towards the bats that he studied and attention to the environment around him. In this chapter, I continue along the notion that Ratcliffe's identity and perspective shifted throughout his travels to inform an ethos of response-ability. I engage with the question of how a cultural text, rather than a scientific one, contextualizes the scientist's objective writing. In what ways might Ratcliffe's travelogue account for the need to attune oneself to new environments and therefore new encounters, when objective science might not afford such an account? Being in nature, bringing it under scientific dominion while also recognizing its importance for settler survival, allowed Ratcliffe to grapple with his own embodied interactions with environment. Ultimately, the mix of metaphor and embodiment frame his sense of affect and affection, aligning him with the more-than-human world and giving more weight to the critical lens of his work.

Ratcliffe's identity production—the shifting quality of identity even for those in dominant positions—emerged around his relationship to and responsiveness within the environment of Australia. Ratcliffe detailed encounters with the environment through a multispecies point of view and positioned himself as embedded within, if separate from, the interrelated elements that co-constituted his environs. In this chapter, I first examine his relations to the landscape, and how his sense of masculinity and the position of explorer and scientist shape how he described different environments in his travels. I posit that, although he eschewed some conventions of sexualized and gendered language in discussing environment, he still relied on dichotomies of mind and body. Then, I show how the travelogue format allowed Ratcliffe to reflect on how he understood the importance of vision and how this disrupted the notion of detached observation. Finally, I investigate how he came to value and attune his other senses, and in so doing, emphasized the role of embodiment in his study.

3.2 Metaphors of Body and Mind

Much of the imagery re-articulated through various moments in European colonial history share common frames of gender and sexuality that white Western men used to engage with and describe exploratory environments. To borrow from settler colonial studies scholar Scott L. Morgensen, “settlement narrates the land” in distinct ways (2010, 122): both what is written about the landscape or environment and how settlers themselves shape and mold the land they settle. Anne Fausto-Sterling has written about how early European explorers often “linked the metaphor of the innocent virgin (both the women and the virgin land) with that of the wildly libidinous female” frequently assigned to Indigenous and African women (1995, 22). In Australia, as Kay Schaffer argues, settlement discourses associated a dangerous femininity and sexuality with the bush. “The landscape provides a feminine *other* against which the *bushman-as-hero* is constructed” (1989, 7, emphasis in original); moreover, “the land takes on the features of a veiled, seductive, exotic, unknown but desired maiden” (8). This metaphorical trope, consistent in so much exploration literature and scientific writing throughout the eighteenth and nineteenth centuries, helps to construct the scientist as always-male and the natural world as implicitly female. The probing into unknown lands and unveiling of its mysteries takes on a sexual character. Schaffer also notes the threat of absorption in the bush landscape, the potential loss of self, as part of this sexualized and feminized characteristic. The constant danger in the bush, or its threat of destroying the masculine subject, become constitutive parts of the national mythos surrounding gender, nation, and nature. Ratcliffe, however, develops a complex relation with these metaphors and his own self-representation. The dichotomy of transcendent and immanent, masculine and feminine, was particularly prominent in many exploration narratives, Australian or otherwise (Reidy 2015; Robinson 2015). For Ratcliffe, the transcendent and the immanent elided into a “monotony and ugliness and untidiness” that threatened his rationality, but to which he would adjust (Ratcliffe 1947, 13).

While he struggled more with the repetitive and seemingly unending sandy landscapes of the interior in the latter half of the book (“the most lonely, the most desolate, the most unfriendly scene I had ever looked upon” (207), he wrote in one instance), the eastern forests varied in their impact on his mental state. The eucalyptus forests struck him as overwhelmingly yellow and grey, washed out by the brightness of the semi-tropical sunlight. The more conventional rainforests, he claimed, were similar enough to the ones he had read stories about and offered

him a sense of reprieve. And yet, he borrows the notion “sensual aloofness” from author D.H. Lawrence (without a citation) to describe the “half-light” of the jungle, which “gets you down after a while, just as the mangroves do” (123). Ratcliffe reserved his most descriptive language for the mangrove swamps, where the “hobgoblins and abortions of the arboreal world” reside (36). He “supposed that the fantastic forms assumed by some mangroves are adaptations to their peculiar environment,” but an “imaginative layman, however, might be pardoned for thinking that the tidal ooze... had become a refuge for the products of some of the Creator’s more fanciful experiments” (36). The mangroves in his book harnessed a disquieting feeling, taking the brunt of monstrous metaphor. However, like his bats, that monstrosity brought him some joy and he contends that “ordinary men... do not, as I did, derive a certain pleasure from exploring” them (37).

Yet, whereas he typically avoids relying on gendered metaphor for describing treks into dark and unknown environments—perhaps in part because of the ubiquity of darkness inherent in following nocturnal animals for two years—his assignation of gender to the mangrove swamps becomes an almost anthropomorphic expression. “The real experiments among the mangrove tribe usually hide away in the centre of the swamps. One comes on to them suddenly, after clambering like a monkey through the guarding fringe of ‘spider-legs’” (37). The human-adjacent quality gives way to a sexualized monstrosity almost immediately, however. “Typically respectable above the waist, at their lower extremities they throw off all convention and restraint,” referring to their roots as snakes of Medusa’s hair (37). “But, just as a deformed man will pay particular attention to the cut of his clothes and the colour of his tie, so the mangroves... conceal their lower parts beneath a foliage of blameless and conventional respectability” with “polished shapely dark leaves” (36). While other authors might have drawn on similar metaphors of the hidden parts behind shapely between the spindly legs of trees, forming a home to unseen creatures of intriguing habits, he disrupts the sexual language by drawing a parallel to a “deformed man” rather than a fecund woman. When I first marked these passages, I was struck by how blatantly sexual they seemed; re-reading them in the context of Ratcliffe’s sense of embodiment, I am struck by how playful the language actually is—it is almost as though he is poking fun at common conventions of landscape metaphor in Western writing.

By the 1920s and 1930s, settler Australian relationships to landscape shifted drastically from early accounts. Many early European arrivals praised the parklike appearance of certain

areas, unaware or unwilling to acknowledge, the multispecies care work undertaken by Aboriginal people over thousands of years. In *Flying Fox*, Aboriginal people exist only as relics of the past whose memories haunt the edges of society but who are no longer present. The longterm genocidal plan of conquest in Australia killed hundreds of thousands of Aboriginal people, in myriad scenes of violence (Rose 2001, Wolfe 2016). On the southern island of Tasmania—previously called Van Diemen’s Land—the combination of ethnic cleansing, disease, and war eradicated the several nations that had lived there by the mid-nineteenth century (Wolfe 2016). In many ways, Ratcliffe’s relatively oblique discussions of Aboriginal displacement offer the modern reader a reprieve from the overtly, openly racist language used by many other naturalists, biologists, and anthropologists in their own popular travelogues over the previous century. “European peoples’ imaginings of Nature and of the Aboriginal Other also provide a commentary... on their imaginings of themselves,” writes Deborah Bird Rose, resulting in “a vivid and densely contradictory field of possibilities and impossibilities” (1992, 403).

According to historian Mike Letnic, early colonists found much of the landscape to be a “harsh, alien, and unpredictable wilderness inhabited by strange people and even stranger animals,” imbued with a “fear of the landscape and its inhabitants” which they “overcame... by actively subjugating them in their quest for grazing and agricultural land” (2000, 297). The processes of removing and replacing Indigenous people, plants, and animals by European counterparts formed a systematic and destructive dispossession that was, in part, the impetus behind Ratcliffe’s missions. Yet the project of taming the Australian wilderness and refashioning it in the European pastoral ideal was precisely what Ratcliffe found to be causing the economic-environmental issues he had arrived to address. Christof Mauch, Ruth Morgan, and Emily O’Gorman (2017) claim that the Australian landscape “proved a reluctant partner in the realization of European visions” but that European “dreamers persevered” and with “unrivalled” speed, oversaw “the highest mammal extinction rate in the world since 1788 and lost nearly 40 per cent of [Australia’s] forests” (6). Ratcliffe, in stating that settlers perhaps “have done the job too thoroughly” (1947, 332), separated his science from the destructive domination endemic to settler colonialism. He is not, in this regard, the mythic explorer or hunter-hero (Schaffer 1989), come to conquer the land and tame the wild. He instead fashions himself as a protégé of the land rather than its dominator. He is curious, at times unprepared or underprepared—and self-

deprecatingly acknowledges it—while constantly in the process of learning and reacting to the world around him.

However, he is a product of his time with respect to many sociocultural conventions around gender, race, sexuality, and landscape. Metaphors of hierarchical dualism—mind/body, rational/erotic or rational/emotional, transcendent/immanent, and masculine/feminine—serve to construct normative boundaries between what is considered human (male) bodies—rational, controlled—and natural ones—disorderly, penetrable. Relational elements of the environment become “material-semiotic actants” in Donna Haraway’s sense whose “boundaries materialize in social interaction among humans and nonhumans” (2020/1992, 463), where “actants” imply the ability to shape and determine boundaries and outcomes. In this sense, he defines his own body and his own sense of self through encounters of boundary-mapping in natural environments. Moreover, he almost always considers these environments in relation to the humans working within them, how settlers have carved out a towns and ways of life in mangrove swamps, how foresters take breaks between the trees they fell. His embodied approach to environment informed his ecological understanding of human and more-than-human relations.

3.3 Embodying the Imperial Eye

The field of the visual is a common site of contestation and critical engagement in feminist studies of science. The primacy of eyesight, of visual capacity, is paramount in the construction of sciences of observation. Arriving in Australia as an English naturalist, sent on an essentially observational mission to gather data, Ratcliffe relied heavily on the visual. Eyes and the alteration of one’s vision are one of the recurring themes in the first half of Ratcliffe’s book. However, throughout the early chapters of *Flying Fox*, Ratcliffe critically engages with his own conception of eyesight, grappling with the implications of an observational practice which embraces the embodiment of vision and informs how he attuned his senses to these environments.

In her studies of Australian travel literature, Anna Johnston mentions the power of the “imperial eye / I” of subjectivity which emerges out of scientific exploration narratives in particular (2019, 278). The notion that vision proffers unmediated access to the world is common throughout masculinist championing of rational thinking and scientific endeavor. Donna Haraway (1984; 1991) notes that the visual field of scientific observation is typically gendered,

in part because it sets the viewer (and the visual apparatus) apart from the viewed “natural” world. “Man is not in nature partly because he is not seen,” she writes of the disembodied (and hidden) gaze. “A constitutive meaning of masculine gender for us is to be the unseen, the eye (I), the author” (1984, 52). Elsewhere, she refers to biological science as “pre-eminently a science of visual form” which can therefore be “a source of insight or a source of illusion. The issue rests on our skill in the construction of mirrors” (1991, 21). This visual form, which historian and philosopher Megan Glick (2018) notes became particularly potent in the rise of evolutionary thought and race science. Visual expertise furthermore demarcated the human from the animal, but in valuing the visual as distanced, disembodied, as “rationally unemotional” (Abberley 2017, 63), meant that visual expertise was thus the purview of white men.

Upon his first foray into the forest, on his way to his first flying fox camp, Ratcliffe found himself at visual odds with the landscape. The trip to Tamborine Mountain from Brisbane covered “fifty miles of bush, with scattered farms, a couple of townships, and a river or two spanned by wooden bridges” (Ratcliffe 1947, 12). As previously mentioned, his first impressions structured his sense of vision and attachment to place. These interlocking ecosystems of northeastern Australia both evokes the power of visual information and serves as a reminder of how vastly different Australian environments were to European colonists. Regarding the latter, both forms of forest—eucalypt and jungle—were new to Ratcliffe, but one at least recalled the image of a transcendent, mythic “nature” that was in some way familiar through the heroic tales of scientific travel.

Ratcliffe, however, acknowledges the role of colonial sight in this initial reaction to the strange land: “The whole thing, as I now know, was a matter of eyes. Mine were still English eyes, and as such simply could not see Australia” (13). Here, he conflates nature and nation through the embodied eye; an evolution in sight, a bodily change, must happen for the Englishman to view Australia in full. “In time (the process in [his] case took a month at least) the eyes adjust themselves, taking on, so to speak, a pair of physiological dark spectacles which make allowances for the glare and reveal the bush as it really is. They then see the colours hidden behind the brightness” (13). While on the one hand a reflexive statement noting his own foreignness and the necessity to adjust, his discussion of an alteration in one’s eyesight is both a corporeal reflection and a metaphorical one — both of which problematize the place of sight and embodiment in “masculinist” science which espouses an “ideology of direct, devouring,

generative, and unrestricted vision” (Haraway 1991, 189). These are not necessarily the eyes that Donna Haraway claims “have been used to signify a perverse capacity—honed to perfection in the history of science tied to militarism, colonialism, and male supremacy—to distance the knowing subject from everybody and everything in the interests of unfettered power” (581), which is not to say that his sight is not informed by logics of military, colonial, or masculine domination. Rather, it is in spite of these elements that Haraway’s “insist[ance] on the embodied nature of all vision” (188) becomes a crucial element of Ratcliffe’s exploratory narrative and his move towards a response-able science. Or, with these embodied Australian eyes, “[s]eeing entails having a body that is itself capable of being seen” (Grosz 1994, 101). Throughout the text, he situates himself within his body, within nature, in one sense eschewing the “gaze... that makes the unmarked category [of Man and White] claim the power to see and not be seen, to represent while escaping representation” (188), and he begins by linking his eyesight to his corporeal form.

However, this embodied sight does remain in concert with a colonial vision. The use of eyes likewise recalls the conflation of nation and nature. Grosz writes of sight as a “spatial sense, dominated by a field more than an object” (1994, 91). To approach Australia, the continent and country, the ecosystems and peoples, with English sight—for “English eyes are as good as blind” (Ratcliffe 1947, 13)—would render his mission moot; in order to properly assess the flying foxes (as an economic pest, but also as inhabitants of the Australian bush), he must be able to see as an Australian settler, and not as an English observer. This is still, in some sense, “a wandering eye, a traveling lens” of the “Western eye,” as it requires colonial conquest to become Australian in Ratcliffe’s sense (Haraway 1991, 192). Non-native senses must adjust, but only to be on par with those of the settlers; his Australian sight is not Aboriginal, it is markedly white. “Vision,” as Haraway claims, “is *always* a question of the power to see—and perhaps of the violence implicit in our visualizing practices. With whose blood were my eyes crafted?” (192). Ratcliffe’s embodied eye, corporealized by necessity to properly “see” Australia can only situate his otherwise unmarked position enough to allow him to feel, hear, and smell his surroundings and his quarry in this cultural production of travel writing.

Understanding his book as both a material-semiotic product, created for profit and with the hands of many people other than Ratcliffe with the intention of reaching a broad audience, as well as a literary device drawing on traditions of travel writing and popular science, Ratcliffe’s

sense of embodiment may be understood as an appeal to audience. Yet, because he utilized his letters home to write the book, the emotional sensibility that emerges in the book perhaps reflects his openness with his family members. The detached observational gaze expected of the scientist, and his own critical awareness of this gaze, appears as framing device to indicate how Ratcliffe moved through the environment and developed an emotional relationship to his objects of study. “While he was studying flying foxes, it sometimes worried him that he was not doing proper science,” according to Tom Griffiths, referring to letters which Ratcliffe did not include in *Flying Fox and Drifting Sand*, in which Ratcliffe referred to his investigation as “90% common sense” rather than actual science (quoted in 2002, 138). In the book, Ratcliffe refers to a moment in his official report where his reliance on smell, rather than sight, broke “the scientific ice” and he “was never allowed to forget this lapse” (Ratcliffe 1947, 110) by his colleagues. His reference to scent in his CSIR report apparently did not mesh with scientific convention at the time, and constituted a breach of detached objectivity.

According to available accounts, Ratcliffe was a staunch advocate for methodologically rigorous science, especially in his role with the Conservation Society in his later years (Coman 1998). In order to advocate for an environment imperiled by exploitative expansion and extraction, he expected the organization’s output to be near-immaculate to best support their cause. Yet, allowing himself to explore the possibilities of becoming affected through his popular science travel narrative helped him to develop an ethics of responsibility (responsibility) to the so-called natural world that accounts for the ways that human and nonhuman are or can be entangled and deeply affected by one another (as I will further explore in Chapter 5). In the words of historian Will Abberley, Ratcliffe’s emotional involvement was at odds with his “authority as an objective ‘man of science’ [which] depends on his suppressing this emotion and, so, reasserting his stance from nature and the animals it contains” (2017, 66). Yet by describing the bodily impact of being in the natural world as an observer who could not rely on his (given) eyesight, Ratcliffe began to trouble these notions of scientific detachment and masculinity. He affects and is affected by his surroundings: plants, animals, weather, water. This affect creates an avenue for his journey into emotional attachment.

3.4 Pressing Sensory Borders

The masculine embodiment which Ratcliffe explored here rejects certain understandings of dominion over nature that would have been common in Ratcliffe's time, especially in the Australian outback. Ratcliffe's embodiment, however, is not manliness "located... primarily in bodily strength and instinct" (Abberley 2017, 62) but in its malleability and ability to attune to the needs of the location. The embrace of his senses not only situates his body within the physical places he traveled within, but recalls certain elements of transcendental masculinity associated with the Victorian-era mountaineering movement, tied to shifting Anglo-American ideals of masculinity during an era of urbanization. Harsh environments "became a preferred site for the cultivation of all that was considered masculine and the expulsion of all that was deemed 'effete and effeminate,'" writes historian Michael Reidy. "The body became the tool, the instrument that contemporaries employed to fight their battles over these contested concepts" (2015, 161). In one sense, Ratcliffe often positioned his body as less masculine, less adept than the people around him, evoking the idea of Britain as metropole, the effete urbanized center of empire from which he traveled, and Australia as the rugged, challenging periphery. But this periphery was neither the idealized, sublime masculine escape nor the absorbing feminine threat in his telling; rather, it required the knowledge of experience to navigate.

That it did not require rugged masculinity is most evidenced by the capable women he met in the bush. Returning to Mrs. Curtis, the wife and mother who constituted Ratcliffe's first lay-expert discussed in the previous chapter, Ratcliffe is clear that the entrained body that could know the wilderness did not necessarily exert power over it. Of course, part of Mrs. Curtis's expertise derived from her techno-ocular apparatus, an outdated camera, but it was her assuredness in navigating the bush—and his own inability—that reflects the compelling nature of Ratcliffe's complex relation between gender and embodiment. He, of course, carried both a camera and a gun, but his own techno-ocular apparatus did not factor into his narrative, and his gun was often as much a hindrance as a useful tool (which will be discussed more in Chapter 5).

The story of Mrs. Curtis relates an encounter with a woman whose lifetime growing up in the bush formulates expertise from which he has been given opportunity to learn. Ratcliffe and his unnamed naturalist companion then followed her into the bush on a "walk [he] shall always remember with shame" (Ratcliffe 1947, 20). The two men, "trousered and unencumbered, stumbled along, tripping over dead logs" while "that little woman in the cotton dress walked

ahead as unconcernedly as if she were on the footpath of a city street” while carrying her young son (20). On the walk, she demonstrated bird calls and named a variety of species for her visitors, continuing to impress them. With this early encounter, Ratcliffe establishes an implicit esteem that continues throughout the narrative: women had as much capacity to develop expert knowledge of their surroundings as men did. Her experience in the bush with its growing vines and fallen trees in part developed through her passion for observing animals; yet both Ratcliffe and his naturalist companion’s similar interest in wildlife does not relate to this same intimate knowledge of and assuredness in surroundings. Even carrying a child in her arms, she does not falter; while this is in a sense an embodied knowledge of the natural world in which she lives, Ratcliffe finds it not only praiseworthy, but an important element of learning in the bush.

Mrs. Curtis also introduces Ratcliffe to the importance of sound and hearing. In some sense, her affection for bird life and knowledge of the local avian calls might inform the practicalities of knowing sound. However, Ratcliffe seems to literally need to come to his senses in his travels. When she first accompanies him on a daytime search for the nearby flying fox camp, she is incredulous that he could not hear them. He brushes the comment off as “quite understandable, for I do not usually hear things, not even the song of birds, unless I consciously stop and listen. Nevertheless I find it hard to realize that for some moments I stood within earshot of a mob of flying foxes and heard nothing” (Ratcliffe 1947, 16-17). Flying foxes are notoriously loud in their daytime roosts, which is part of why many Australians consider them a pest species into the modern day. “With at least thirty different vocal calls, all of which are audible to humans,” writes Deborah Bird Rose, flying foxes “are, from a human point of view, very noisy folk, and when they camp in the thousands, and feed in the hundreds and thousands, their presence is unmistakable” (2012b, 131). Ratcliffe describes the flying foxes’ “voices [as] chattering and querulous, blend[ing] into one continuous high-toned murmur” (Ratcliffe 1947, 17). The noises of flying fox camps in the day, as well as of their nighttime feeding, became “the only way to track down the animals” (17). To properly learn how to track the bats, Ratcliffe could not necessarily rely on his eyesight—regardless if his vision was British or Australian in character—and instead had to develop a stronger sense of hearing in order to engage his vision.

Searching for flying foxes meant embedding himself in and attuning to uncomfortable surroundings to which he was unaccustomed and that he often found unpleasant. With “neither sign nor sound of a camp” (43), his travels through the mangrove swamps to follow the foxes

meant being “eaten alive by mosquitoes and sand-flies” (44). Another adventure brought him to an elderly woman who fed him on a break during a search. “In the middle of it I suddenly let out a yell which clearly undermined her belief in my sanity,” he recalls. “I had *not* brushed all the green ants off my person. Half-a-dozen had remained behind unnoticed, and had wormed their way to certain parts of my anatomy too secret to disclose even in these days of frank writing” (51). The woman, upon watching him strip in desperation to avoid the stinging ants, “broke down with helpless laughter” (51). Ratcliffe’s own lack of experience, the necessity to learn as he went, resulted in humbling and less-than-manly displays of bodily reaction. Part of his embodied learning process about the interrelated lives within the bush and the swamp required learning through and attuning bodily sensation. The quest for foxes meant succumbing to the myriad other plants and animals that offered physical discomfort, a constant reminder of his body as a tool of search and survey. Sight alone was insufficient, meaning that not only did he have to rely on his other senses, his own flesh became part of the learning process. As Elizabeth Grosz claims, “Knowledge has survival value rather than truth value” (1994, 127). Learning through less-than-pleasant experience became tantamount to enabling Ratcliffe’s responsive, attentive, affective relation with the more-than-human worlds around him.

Reliance on the body and senses beyond sight help Ratcliffe give form to the worlds under his fingertips or at the edge of his hearing. If, as Elizabeth Grosz writes in her discussion of the work of Merleau-Ponty, the body is both “‘sense-bestowing’ and ‘form-giving,’” it is the bodily senses that allow Ratcliffe here to give form to the lives of various critters which might otherwise be inconsequential insect others. “The body is [one’s] being-in-the-world and as such is the instrument by which all information and knowledge is received and meaning is generated,” she continues. These scenes of buggy discomfort serve as “relations of mutual definition governing the body and the world of objects... as the body actively differentiates and categorizes the world into groups of sensuous experience, patterns of organization and meaning” (1994, 87). The borders of the body in Ratcliffe’s narrative push back against the “otherness” to be tamed and possessed “against which identity is measured”—that is, Australian masculine/national identity as told through outback literature (Schaffer 1989, 8).

The ideal of mastery over nature and thus mastery over the self that imbues so many exploration travelogues thus develops with an almost sarcastic reflexivity in Ratcliffe’s narrative. In order to gain realistic knowledge, he must submit his body to the risks of the bush while

embracing the sensuous awakening that this submission gives him—sometimes with self-deprecating humor. Schaffer argues that this emergent Australian national identity “valorizes the natural” in the nature/culture opposition, in addition to donning “aspects of culture inherited from the parent [British] culture” with “negative value” (1989, 9). As someone navigating his own allegiance to this co-called “parent culture” and the “culture of the native son” (8), Ratcliffe seems to uplift elements of Australian national culture—including a certain embrace of nature—without fully letting go of his British identity. Thus, there is a realism supplanting the Romantic characterization of the environment and his place within it; this realism, on occasion, eschews any sense of “true bushman” masculinity in the author (7).

3.5 Conclusion

In this chapter, I have argued that Ratcliffe’s sense of self in his new environment helped engender a sense of responsiveness to the world around him. I began by addressing the notion of sexualized and gendered exploration metaphors, which have been common in Australian travel literature. In his book, Ratcliffe played with this convention to show how he found his environment intriguing, challenging, and affective. I then show how he became attuned and entrained to his environment and learned to shift his observational practice from detached vision to embedded and relational. He first established this through his discussion of changing eyesight and becoming Australian in his own right. I then show how he attuned his other senses in what he considered a departure from scientific convention, but which allowed him to intra-act with his environment—where he encountered parts of the more-than-human assemblage of Australian nature directly through flesh, touch, hearing, and smell.

Chapter 4

Boundary Violence: Anthropomorphism and Metaphors of Race

4.1 Introduction

Having examined Ratcliffe's relation to landscape through colonial metaphor, as well as the ways in which his writing troubles the process of boundary-drawing between human and more-than-human bodies by recalling how the new environment required re-training his senses, I now turn to how his examples of race, de/humanization, and animal/istic violence. Rather than embodying the ostensibly impartial eye, this chapter engages with the racial biases in colonial science that become fully visible through the medium of travelogue. In this chapter, the ideologies of settler colonialism emerge from Ratcliffe's narrative through metaphors of anthropomorphism, stories of cruelty and violence, and racialization. This chapter thus explores the question of how dehumanization and anthropomorphism blend boundaries between human and animal to assign value to lives, especially in this colonial context replete with racialized violence and genocidal history. Ratcliffe benefitted from his position as a white scientist in this colonial context, funded by the government to discover ways to protect resources for capital; he rarely examined the settler colonial projects of displacement and replacement and settler associations between Aboriginality and animality. However, when he did address race, he often either used racial metaphor to frame encounters of animal violence or used violence against animals to frame interactions with Aboriginal people.

In this chapter, I begin by analyzing Ratcliffe's use of anthropomorphism as a way of formulating emotional connections to the more-than-human world. I examine three stories of violence on the frontier. Anthropomorphism, or humanization, in his account illustrates the connection he felt to the bats he studied while also functioning as an appeal to his audience to consider bats in the same fond light. The next three sections examine specific anecdotes from his travelogue in which animal violence and race are intertwined. In the first story, Ratcliffe used metaphors of lynching and sexual violence to examine a scene between cattle on a ranch he visits. In the second, I return to the figure of Freddie Rogers (Chapter 2) and his encounter attempting to kill a snake, which I argue draws on Ratcliffe's understanding of contemporaneous racial politics and constitutes a form of racial othering. Finally, I examine a scene in which white settler paternalism results in animal death, in which Ratcliffe reinforces his whiteness within his

attempting to find methods of care for the environment that he saw being damaged by colonial practices.

4.2 Anthropomorphism and Metaphors of Humanization

In many ways, travelogues and popular science accounts function to engage readers in a fantastical projection into faraway places, infused with scientific authority and—as Chapter 2 showed—colonial ideology. Anthropomorphism, generally anathema to science, becomes one method of appealing to a popular audience, as well as to naturalize certain notions of human behavior. As Donna Haraway writes in *Simians, Cyborgs, and Women* (1991), “People like to look at animals, even to learn from them about human beings and human society... We polish the animal mirror to look for ourselves” (21). Through anthropomorphism, animal figures convey human values and vice versa. In Ratcliffe’s account, humans and animals are always present with each other: no animal is represented without his human interpretation, of course, but almost none of his human characters appear without animal companions as the contextualizing their story. Humanity throughout his narrative is constituted in relation with the more-than-human world.

With the framing of an investigation into relationships between native and settler species, Ratcliffe frequently examined the animals associated with European settlement. One early chapter, “Cattle,” recalls his time among pastoralists on the hunt for flying foxes, noting that farmer and bat alike “are almost exclusively confined to the coastal belt, between the Dividing Range and the sea. Nevertheless much, probably most, of this country is too poor for close settlement” (Ratcliffe 1947, 69). No matter how detailed his recollections of life among the dairy and fruit farmers may be, Ratcliffe takes pains to remind his readers how difficult the process of settling these areas has been due to the incompatibility between pastoral farming practices and local environment—climate, terrain, flora, and fauna. Throughout the chapter, he speaks fondly of the cattle, the horses, the men working, and the occasional family. His fondness for the settlers clearly emerges through his description of the family lives of graziers—particularly the spirited young girls he met growing up on the ranch. However, the constant throughline of the difficulties of settlement creates a sense of unease in their stories, manifesting in his discussion of animals and violence.

As the book is meant for a popular audience, the amount of anthropomorphism Ratcliffe utilizes in part likely stems from the desire to keep readers attached moving through the

collection. However, human characteristics then interjected into stories of animal behavior brings a sense of Ratcliffe's own worldview and personal conceptions about human nature and metaphysics into the text. Frequently, his attribution of human-like emotion or intelligence to the animal characters in his text appear to highlight either the value of nonhuman lives through a humanized frame, or to highlight the capacities of human brutality. Science studies scholar Natasha Myers (2015) states that anthropomorphism "is not just a one-way imposition of human concepts and values on others" (44) and it "may actually be evidence of our capacity and willingness to open ourselves to others" (58). While the notions of intelligence and openness to others will be taken up in Chapter 5, that Ratcliffe employed anthropomorphic qualities to convey affective responses to animal lives remains pertinent here. Arguably, the goal of his book was to convince his readers to care about (and hopefully, care for) the strange and allegedly pestilent animals in the spread of human settlement, and about the settler humans and animals on the front lines of that settlement project.

Ratcliffe acknowledged that his anthropomorphism worked counter to his scientific discipline. "While my scientific mind continued stolidly to regard flying foxes as species of the Megachiropteran genus *Pteropus*, which differed in ranges, habits, structure, etc. etc., the lay side of me unavoidably began to see human attributes in the animals," Ratcliffe writes (1947, 110). Humanizing animals, in one reading, allows him to develop an affective bond with them, beyond romanticized notions of personality or emotionality. Despite this affective potential, anthropomorphism in colonial context often complements the dehumanizing rhetoric of racialization in literature and scientific discourse. Zakkiyah Iman Jackson (2020), a scholar on critical race theory, posits that discourses in science and literature both frequently rely on blackness as a trope to delimit the human and the animal, placing black people (and other people of color) as interstitial, less-than-human but not-quite-animal. According to Jackson, racializing discourses render the boundaries between animals and humans diffuse and permeable rather than arboreal branches with hard edges. According to Megan Glick, "the process of *humanization* is equally important [to dehumanization] in the construction of difference and inequality" (2018, 57). In this particular instance, humanization not only offered an appeal to his white audience, but allowed Ratcliffe to develop affective responses to animals while keeping certain racial hierarchies in place.

A striking example in Ratcliffe's text concerns the habits of little red flying foxes. Ratcliffe referred to them as essentially winged Irishmen. As a young man in this period, Ratcliffe had experienced the early twentieth-century collapse of the British empire. The Republic of Ireland had formed less than a decade prior to his study after a war of independence from England. Many early settlers in Australia—particularly those brought to the penal colony as indentured servants—were Irish, and Patrick Wolfe, among others, has referred to settlers broadly as Anglo-Celtic (2016).

However, as an Englishman, Ratcliffe's claim that "like the Irish" the little red foxes have "a delightful irresponsibility about them" is tinged with the sense of ethnic otherness: if they were "camped in unusual places [or] whenever I heard of individuals staying out 'after hours', and being caught abroad in the daytime... it always turned out to be the little red fox. The creatures seem willing to take a chance at any time" (Ratcliffe 1947, 111). While this characterization reflected many stereotypes of the Irish at the time, it also recalls many colonial stereotypes of Indigenous people. The little red fox "differs biologically, as well as humanly, from the other three species" found in Australia (110); they appeared less intelligent, if not "merely stupid in comparison with that of the larger species" and "they display a happy-go-lucky childishness and a lack of appreciation for danger" (111). Ratcliffe compares the little red fox camps with the "nursery corners" of other species' colonies (112), and goes on to opine that the stories he had heard of Aboriginal hunters knocking bats out of trees for food "would have only been possible in the case of the little red fox, the other species being far too wary" (113)—notably, placing Aboriginal hunters in the past. He states that it is specifically through "becom[ing] acquainted with the little red fox that these anthropomorphic ideas began to take definite shape" (110); by linking them with the stereotypes of the carefree and raucous Irish, Ratcliffe reinforces his status as a proper English man, a man of empire, who cannot help but see a childish lack of rationality or sense of self-preservation in the decidedly un-English Others. His reliance here on an ethnic stereotype—however central the ethnicity may have been in the project of colonial nation-building—speaks to the level of racial stereotypes which come into play in later vignettes.

4.3 “A Poor Mad Bullock”

When European settlers first came to Australia in the late eighteenth century, the dream of recreating the landscape in the pastoral ideal meant importing European livestock along with the earliest colonizers, the prisoners and their overseers. The cattle and sheep first transported to the fledgling penal colony meant the colonizers could establish productive farming economies in the image of European pasture land. In this light, the history of European settlement in Australia is a history of companion species and hierarchies of life that Nancy Cushing (2017) argues valued stock animals over humans for their economic potential. As detailed in Chapter 1, Donna Haraway (2003) refers to “the work of companion species” as “[l]iving with animals, telling their/our stories, trying to tell the truth about relationships, co-habiting an activating history” (20). Ratcliffe’s narrative, detailed in the previous section, examined how exposure to animal others allows an observer to see human traits in them, despite the conventions of formal scientific training. As the previous chapters established, Ratcliffe utilizes the book to expand and contextualize the affective and embodied registers often hidden within scientific observation. Most openly, he frequently employs the language of fondness, admiration, and affection for individual animals (as well as whole species) he meets in his travels. However, the following story demonstrates the strain on settler animals in the Australian environment as an example of the underlying tensions of ecological conquest with which Ratcliffe grappled.

Whereas the following two stories use animal death as a vehicle to frame encounters with Aboriginal people, this anecdote invokes racialized (human) violence to come to terms with inter-animal cruelty. While following a cattle drive, Ratcliffe noted two bulls being left out of a dipping (a process of submerging the cattle into a liquid pesticide, here to remove disease-carrying ticks). He notes that typically, with dairy cows and their calves, the dip can “spell trouble” but that this particular herd of bulls “handled the ordeal like proverbial lambs” (79). The first of the two bulls, “destined for the homestead beef supply,” was “a monstrous animal, with thick malformed horns and a back so convex as to be almost humped” (79), caused by rickets. Ratcliffe called rickets “an insidious and incurable disease” ending in paralysis and caused by eating a fern-like plant called *Zamia* which frequently grows in Queensland pastures—something which apparently cattle are drawn to as if it is a drug. “Cattle get a taste for the fern-like leaves, and having acquired it will always search for them” (79). Within this short introduction of the “rickety” bull (80), Ratcliffe sets the stage for a microcosmic play of interspecies melding in the

bush: the bulls, the ticks, the leaves, the cattle dog (“useless in the yards, merely annoying the beasts” (80)), the cattlemen, the horses on which the cattlemen ride. Each actant in this “performance” (79) of multispecies assemblage illustrates the deep entanglements involved in taming the countryside and raising commercial animals. Every element constitutes a core, if seemingly mundane and quotidian, relationship that keeps the process of settlement moving along, with Ratcliffe the detached, if “eager” (78), observer.

The second bull left out of the dip is in markedly more horrific condition. This “poor mad bullock—at least the boys said he was mad; and I think they were right, though there was nothing dangerous in his madness” (80). The bull was an outcast in the herd, who reacted “normal[ly] enough” to the ranchers, their dog, and their whips” but whose “fear of his fellow-beasts” made him difficult to control (80). Ratcliffe observed that the other bulls “persecuted him mercilessly, with real human cruelty to the abnormal” and while preparing for the dip, a group “cornered the poor wretch and had their will of him,” leaving him with “his sides a mass of deep gashes” and anally penetrating him with another’s horns (80). “The whole thing was too horribly human,” he opined, “a caricature of a lynching party, or one of the crueller types of university rags,” with the “tormentors” of the scene “such well-bred gentlemen, so sleek and standardized” (81). Ratcliffe finds himself deeply affected by the sight, though he writes it off as more distasteful than unsettling (“The sight of the miserable outcast just about ruined my day’s enjoyment” (81)). He finishes the scene by stating that, “for sheer vindictiveness and efficiency in the persecution of lonely aliens, bullocks could not hold a candle to cows”—meaning that female cattle, according to this rancher, bullied each other more ruthlessly than did the males—“another phenomenon which perhaps has its parallel in human society” (81). The differences in behavior of male and female animals of the same species frame this story in its entirety; cows and calves are more difficult to wrangle into the dipping bath, creating an ordeal, whereas bulls are innocent and inattentive to their surroundings. Yet at the same time, their violent bullying is presented as masculine in a human way.

Here, the metaphorical ties to both schoolboys’ hazing and “the nameless mutilation of the lynching” (81) create an interesting tension in Ratcliffe’s understanding of animal and human cruelty. In both cases, the perpetrators would be white. These are highly gendered, sexualized, and racialized forms of violence, constituting a gendered nonhuman scene. Whereas prep school hazing rituals recall the image of upper-class white boyhood, where open cruelty is both a rite of

passage and a (traumatic and sometimes deadly) practice of entertainment, the image such a metaphor draws up is implicitly white. Lynch mobs, on the other hand, are defined by whiteness. While there are many exceptions in terms of gender and race (black women and Jewish men were also lynched), most people murdered by lynching were black men in the southern United States while those doing the lynching were white. Scenes of lynching were charged with sexual violence, additional violations meted out on the genitals of those murdered (such as castration), often as revenge for invented interracial sexual assault claims or the social impropriety of consensual interracial romance. In both cases, however, the violence speaks to the human capacity to band together in the name of some shared worldview and dole out pain and suffering on whosoever is considered alien beneath that group in a social hierarchy. The final blow of the bull's anal penetration speaks to how abjection is layered into violence and the interplay of sexualized and racialized violence.

The implication that this bull was an outside subject to the violent whims of some other, described by Ratcliffe as more conventional or aesthetically pleasing, echoes his statement above about "real human cruelty" (81). That Ratcliffe characterizes this violence as uncannily human, however, shows that malice of forethought has some traction in his philosophy of human-animal violences; he "rel[ies] on animal abjection to define being (human)," to borrow from Zakkiyah Iman Jackson (2020, 1). As mentioned in Chapters 2 and 3, Ratcliffe tended to utilize a stark realism in his book to convey the ways in which settler practices were ill-suited to the Australian environment and that the destructive practices of settlement echoed back through the harsh realities of living in the outback. Ratcliffe might have been attempting to naturalize the wantonness of human cruelty and arbitrariness of hierarchization through its similar appearance in animals. However, a closer reading of the story might instead illustrate the availability of whiteness as a cruel and arbitrary structure, told through the bull's cruelty to each other.

4.4 A Snake Story

In the travelogue, Ratcliffe avoids directly querying the racialized process of human displacement in Australian settlement; in the first part of the book, Aboriginal Australians haunt the edges of his journey, appearing primarily in place names. Ratcliffe positioned Aboriginal people as relics of a past that necessitated removal for the forward march of the nation and imperial progress. "The aboriginal has practically disappeared from the more settled parts of

Queensland,” he wrote early on (Ratcliffe 1947, 12). Shortly thereafter, he came across a “Bourbon Street,” which was originally named for an old word in an Aboriginal language “meaning dead kangaroo. Boorbong or Bourbong it remained, until sensitiveness and civic pride grew up in the town... So a movement was started to turn the dead roo into a line of French kings, just as dead” (39). The implication that Indigenous people are either dead or dying out is a key trope in colonial discourses (Wolfe 2016). Even symbolically replacing traces of Aboriginal life by renaming streets becomes an active work of erasure and denial—key elements of settlement, according to Rose (2001).

Because Ratcliffe’s employer hired him to study the impacts of environment on settler economics, he typically only encountered and interacted with white settlers. In an article focused on settler accounts frontier life in different time periods, Rose (2001) discusses how “[s]ettlers’ sense of destiny allowed them to imagine themselves working with the (inevitable) tide of history” (152). The narrative of progress justified displacement. “If the tide of history doomed Aboriginal people,” she continues, “complicit whitefellows hastened that story along” (153). Referencing one cattle rancher’s memoir from the 1930s—thus a contemporaneous account with Ratcliffe’s—Rose shows how Aboriginal death and assimilation became tools of “progress” through conquest. The author, Charlie Schultz, “did not go out killing, nor did he exactly condone killing, but he clearly understood it to have been a key fact of earlier settlement” as evidenced by his photographs of Aboriginal men standing beside skulls of other murdered Aboriginal Australians. Ratcliffe embraced what Rose calls the “white man’s presence [which] frames and penetrates” (2001, 151) through his reliance on the ancient and long-gone Aboriginal trope, though he did not directly reference the ongoing displacement of Aboriginal people.

Ratcliffe positioned Freddie Rogers, previously mentioned in Chapter 2, as his only character of Aboriginal descent in the first part of the book. He introduced Rogers within a sort of genre convention, stating, “Now I want to tell a snake story (everybody who writes about the Australian bush tells at least one)” (168). The story concludes a chapter about birds that Ratcliffe structured differently than the rest of *Flying Fox*; whereas most other chapters coalesced around a specific species of flying fox, an area he visited in his search for foxes, or elements of settler life such as cattle ranching, the chapter which finishes with Freddie Rogers begins with Ratcliffe listing his own personal taxonomy of Australian birds. Ratcliffe conveyed a sense of whimsy and light-heartedness throughout the chapter, for “the classification of birds and their families

mean[t] very little to [him], and very little... to the majority of people who gain pleasure from observing them” (148). He delighted in birds, though he claimed little objective scientific interest in them, and developed a classificatory scheme that reflected the joy and humor he found in Australia’s species, e.g., “Brilliant Birds, other than Parrots,” “‘Human’ Birds, and Buffoons” (149), “Birds with Strange and Memorable Calls” (150), and “certain Australian birds which I always pictured *in the air*” (152). The collection of his more observational thoughts and interactional vignettes generally read as pleasant and trivial.

To close the chapter, this light-hearted quality still seems to be on display. However, Ratcliffe casually referred to Rogers as a “half-caste” (169)—someone of mixed Aboriginal and white parentage—the story takes on a somewhat darker tone. Noting this specific moniker came from the racial classifications at the time, which were considered of utmost national importance. Settler colonial studies scholar Patrick Wolfe (2016) has shown that, similarly to the United States’ blood quantum system for Native Americans, the Australian government envisioned “half-caste” status as a tool of assimilation—of “breeding out the color”—while many white “Australians viewed interracial marriage as the most intimate example of ‘race suicide’” (Smithers 2017, 305). This taxonomic classification of Aboriginal people demonstrates racialization’s function “as an assortment of local attempts to impose classificatory grids on... colonised peoples” (Wolfe 2016, 10), which was then codified into law. In 1886, so-called “half-castes” became categorized as a distinct race, separate from Aboriginal Australians, which forcibly removed anyone with European ancestry from Aboriginal land reserves to be re-incorporated into settler society, often as a source of cheap labor on remote cattle lands. As an assimilationist practice, “the distinction between ‘half-castes’ and ‘natives of the full blood’ was seen as a descending one, whereby the ‘full bloods’ would merge steadily into the ‘half-caste’ category” and be “absorbed” into white society (Wolfe 2016, 59); or, as Deborah Bird Rose puts it: “[d]eath was for the full-bloods, and gradual whitening was for the half-castes” (2001, 156). Given this stratified system of racial categorization and the geographic isolation of many Aboriginal groups, Freddie Rogers’s appearance as the sole Aboriginal person in *Flying Fox* makes sense.

As mentioned in Chapter 2, Ratcliffe attributed Rogers’s interest in animals to “his dusky parent,” insinuating that such fascination would come naturally to a half-Aboriginal man (Ratcliffe 1947, 169). Ratcliffe appeared to treat Rogers’s expertise on animal behavior with

some derision, while still admiring his various skills as a “man of parts,” “a splendid axeman,” and “a bit of an athlete” (1947, 169). However, he stated that Rogers “possessed the blackfellow’s characteristic of showing for some things a crazy unreasonable fear, and for others an equally unreasonable lack of it” (169), noting a time when Rogers went spearfishing, unfazed by the presence of sharks in the water. Thus, the snake story implicitly perpetuates a mainstay of Western approaches to Indigeneity and nature where Indigenous people are dehumanized and lowered on social scientific hierarchies of humanity to rest within nature, as “‘sub-human’ other... associate[d with] categories of... the bestial, with being closer to an unchanging nature” (Birke 2012, 149). In this representation, Freddie only exists through his Indigenous half and thus as somehow part of the nature which Ratcliffe has come to study. However, “the meanings of ‘race’ and ethnicity are dynamic and contingent,” according to Gunaratnam, and “fix[ing] these meanings” from a twenty-first century, white settler historian’s point of view ignores any potential nuance Ratcliffe may have intended (Gunaratnam 2003, 136). At the same time, Ratcliffe presented a man who cannot speak back to the reader, cannot offer his own sense of self in the story, and so to de-contextualize the impact of racist sociocultural structures in the name of nuance does an historical disservice.

Yet, it is important to recall that the book is about how (Western, white, masculine) human worlds and nature co-constitute each other when removed from the metropole. Thus, if one were to miss Freddie Rogers’s race, the story itself is not tonally out of place in the book; many of Ratcliffe’s vignettes refer to moments of cultural clash between the upper-class Englishman and the settlers on the periphery of empire, often with some fondness even for what might be considered the more absurd elements of people’s lives—such as a man who believes stars reproduce sexually (“You know as well as I do that all things are made in pairs, male and female, and they come together and multiple. I believe stars do the same” (45)). But Ratcliffe often takes care to measure his own faults more clearly than any put down of his characters. Thus, he framed the story with his own failure to embody masculine bush life by beginning with the manly bushman’s typical practices of killing snakes. Ratcliffe self-deprecated—he himself is not manly in the way the bush requires, but his masculinity derives from his rational mind—before explaining that Freddie engaged in this method. “The usual method of dealing with a snake, and the one [Ratcliffe] always employ[ed], is with a stick,” whereas “really tough guys... prefer to grab them by the tail and crack them like a whip” with enough finesse to apparently

decapitate them; moreover, he claims it “as a matter almost of honour to kill them at sight” (1947, 168-9). Thus, Ratcliffe’s “own identity and experiences can be a part of the generation of ambiguous meaning” (Gunaratnam 2003, 145), where his perceived lack of masculinity creates a tension for him in regard to someone that society defined—and he likely believed—to be inferior. Contextually, Freddie and the snake offer an example of racialized masculinity which fails to meet the expectations of the bush against which Ratcliffe can re-affirm his own. Whereas Freddie is “a man of parts,” or someone accomplished in many areas, “a splendid axeman,” and a record-holding athlete, his physicality becomes his undoing (Ratcliffe 1947, 169).

Ratcliffe shares the story as if it were a play, setting a “scene” on a “forest reserve on which [he] spent a most interesting week” and Freddie is “the chief actor in the drama” (169). Following Kamala Visweswaran, an “analysis... framed as theater, not only to emphasize agency as performance... underscore[s] the constructedness and staging of identity. Identities are constituted by context and are themselves asserted as personal accounts” (Visweswaran 1997, 41). The “dramaturgical form” (41) can thus cast the story as a navigational tool through which Ratcliffe tells his readers not only something about himself and his politics, but how categories of identity structure one’s sense of self. The snake story itself is told to the reader through a third party, an unnamed coworker of Freddie’s.

Said one of the men to me: ‘We were brushing in a clearing one day when we disturbed a whopping big black snake. Someone yelled for Freddie, and he dropped his brush-hook and caught it by the tail... and swung it round his head to crack it like he always did. Only something went wrong, and the darned thing flopped over his shoulder and grabbed hold of the seat of his trousers. The poor cow went plumb crazy. He went tearing round the clearing shrieking his head off. (169-70)

The unnamed narrator first confirms that Freddie is one of the aforementioned “really tough guys” (168) against whom Ratcliffe measured his own snake-killing ability. But in the moment when the snake-killing goes awry, Freddie apparently loses any sense of composure and, according to the anonymous narrator, manages to run himself up a tree “with the snake dangling down off his pants” and screaming for help (170). The narrator posits that Freddie was in no real danger, “for to bite him [properly] the snake would have had to let go... and dropped down” (170). In order to save Freddie from the jaws of the snake, however, one of the other workers shoots the snake off with a rifle, “but whenever he took aim he would start off laughing” (170).

Eventually, the onlooker “shot the snake in the neck. The body came off... The head was still stuck in his pants though,” allegedly sending Freddie off screaming again (170).

Both the narrator and the author emphasized the ridiculousness of the scene, turning Freddie’s reaction into a cartoonish overreaction. Within the context of the chapter itself, with its tales of Ratcliffe’s most bizarre bird encounters organized into a tongue-in-cheek taxonomy, the humor may not reflect any ill will towards the real-life figure who Freddie probably was. However, the long black snake biting into Freddie’s buttocks, followed by his extreme reaction, recall the abjection so often promoted in white literature regarding relations between Indigenous people and animals. The snake, phallic and flaccid (“floated,” “dangling” (170)), becomes a tool of abjection through the anal implications of the scene—recalling the lynching metaphor with the bulls above. Freddie’s racialized body is sexually violable in ways his white counterparts’ bodies are not; Scott L. Morgensen notes that “heteropatriarchal colonialism has sexualised indigenous lands and peoples as violable” as an elemental process of expansion (2012, 4). As exemplified by the “half-caste” designation, sexuality has informed hierarchical categorizations of human and animal, while “the observation of gender and sex was deployed in the interest of producing race as a visualizable fact” (Jackson 2020, 6). This anal abjection as humiliation recalls the violence of the cattle above, bullied by his peers to the point of being marked for death. That Freddie is on the receiving end marks him as abject as that animal, as sexually and bodily open to humiliation and thus “embodied the specter of ‘the animal’ within the human” (Jackson 2020, 49) that sets him apart from his white peers.

At the same time, the snake fighting back, refusing the initial decapitation by hand, marked an “inversion of anthropocentric hierarchy as well as absurd and paradoxical modes of human recognition” (Jackson 2020, 77); despite his affinity for animals, the failure to assert control results in his humiliation. Notably, it has to only be killed by weaponry, by the technological intervention of a European and his gun. In a reversal of the death it should have had, the head remains and the body falls. But given the laughter and ridiculousness of the scene, no member of the forestry party—nor even Ratcliffe—mentions the implicit violence in aiming a gun at Freddie, for it is ostensibly aimed at the snake attached to Freddie’s body. Despite being a friend and coworker, his body in that moment becomes disposable. Though the gunman takes care not to shoot while laughing, the possibility of accidentally shooting Freddie does not exist on the page. Freddie, a “blackened” figure in Jackson’s parlance, becomes malleable “by a

demand that includes and exceeds the authorized killing, consumption, and disposability of fleshly existence” (2020, 70). Whatever admirable qualities he may have, he is rendered disposable flesh in the story, a disposability which characterizes many white settler discourses on Aboriginal life. While Ratcliffe’s intention with the snake story may not have included a thought about degradation or disposability, within the context of colonial hierarchies of race and flesh, the story emerges as a site of racialized symbolic violence. The following story exceeds the themes of racial hierarchization and the rational white man with a gun established by Ratcliffe’s vignette of Freddie.

4.5 A Woman and a Dog

The second part of the travelogue—*Drifting Sand*—put Ratcliffe in much more remote and isolated areas of the continent, allowing him to introduce more interactions with Aboriginal people into the narrative. In the arid interior, he made passing mentions of Aboriginal people at the gates of a small town, gathering at a nearby church, or overseeing the horses in the employ of a rancher. Life at the edge of the desert appeared far more stratified than in the forests and cleared pasturelands along the coastal belt. In the “cultural production of Nature, Aborigines and the outback,” according to Rose (1992, 403-4), “the frontier was a social construct in which violence gave new life to the drama of empire” (405). In the following story, race becomes aligned with companion species—namely a dog—through what pastoralists felt was the necessary violence of otherwise “benign paternalism” in the dry lands (Gill 2005, 72).

One of Ratcliffe’s companions and informants, a local rancher named Mr. Gurr, brought him to a group of Aboriginal people living near the ranch to taste the “big-yellow bellies as fat as pork” they caught in the nearby river (Ratcliffe 1947, 276). When they arrive at the camp, Ratcliffe refers to the people gathered there as “mongrels... squatting over or loafing near their fires” (277), immediately separating himself and his companion and denying humanity to the Aboriginal group. Colonial discourse and apparatuses of racialization are never far off from his narrative. Ratcliffe referred to the group with pity and derision, stating, “I was struck by their dirt and their aloofness,” that they seemed disengaged with the world around them (277). One woman named Linda, “a cheerful giggling person” (277), offers him a fish, but her kindness is made into simplicity: Mr. Gurr tells a “feeble joke” and “she nearly died of laughter” (277). Like Freddie Rogers above, Linda’s reactions are over-exaggerated, to the point of being off-putting.

While with the group, Mr. Gurr “drew [Ratcliffe’s] attention to an emaciated [dog] which was dragging itself painfully over the ground,” saying that to Ratcliffe that the Aboriginal people would “never put it out of its misery” (277). Gurr tells the owner of the dog directly that he is going to shoot it, and the man “made no reply but stood by indifferent. Gurr made a mess of it, and had to finish the job with a stick, while the dog yelped pitifully” (277). The sound of the gunshot unleashes “pandemonium,” with other dogs howling and Linda crying. As they leave, Gurr remarks, “I hate having to kill a dog... I am sorry I made a mess of that” (278). Gurr takes on the role of paternal overseer, capable of making decisions that others cannot. In the case of the white rancher and poverty-stricken Aboriginal people in close proximity, he fashions himself the rational mind, the caretaker, a master of life and death. The scene exemplifies what Rose calls the replacement image of “childlike savages who were not threatening, both because they were controllable and because they were about to become extinct” (1992, 416). While Ratcliffe followed by noting how “the more desolate and cruel is the land, the finer, in their simple way, are the people” (meaning settlers), how in the outback he “saw nothing but kindness and consideration for others” (1947, 278). The botched mercy-killing of a dog is considered a kindness in this regard; embodying a gendered power ideal and enacting violence in the name of paternal legitimacy and claim to the land.

The scene keeps Ratcliffe from falling asleep that night, “haunted by the yelping of the paralysed cur, by the picture of the dirty sombre-eyed blacks” (279). Within the conventions of racist nomenclature, the continued reference to Aboriginal people collectively as the color of their skin serves as another linguistic apparatus of dehumanization. The abjection inherent in processes of racial hierarchization and settler colonial dispossession are key elements of his position in the story. He does not question the impact of the killing of the dog—someone’s companion animal—but it does affect him. The emotion it evokes in him is unclear, but that it sticks in his memory raises some questions of response. Jackson claims that sentimentality “act[s] to safeguard existing power relations” in discourses of humane treatment, “by masking the reorganization of domination and violence in... terms of empathetic identification on the one hand and hierarchal bonds of kindness... on the other” (2020, 56); “[m]oreover, sentimentality is a relation” which “function[s] as a pretext for racial hierarchy” (57-8). In this regard, Ratcliffe’s reflection on the fine character of settlers as it related explicitly to Mr. Gurr’s actions and Ratcliffe’s affective response. There is a sense that he is more moved by the pain of the dog than

the situation itself, and the lack of sleep then stems from what Jackson articulates as sentimentality.

However, in reading his sleeplessness as an empathetic response to the dog's death—particularly the focus on its dying cries—Ratcliffe demonstrated a specific task common in white environmental conservationist movements. Empathy with animal others and advocacy for the environment in colonial contexts have often focused on uplifting the subaltern voices of “nature” without engaging with the simultaneous dehumanizing elements of racially stratified societies. Especially in contexts where destruction of land, ecosystems, animals—more-than-human worlds—explicitly involves displacing and decimating Indigenous populations, the sentimentality with which humans engage animal others all too often mirrors systems of racialized subjugation.

4.6 Conclusion

Through reading these disparate stories of the sliding between animality and humanity, the pairing of violence with human cruelty or care where animals function as both allegory and narrative companions, the racialized violence of settler colonialism that Ratcliffe left unspoken becomes clearer. Later in his conservationist career, Ratcliffe did eventually work with Indigenous activists in the name of environmentalism (Coman 1998; Griffiths 2002). Regardless, the language and representations of race in his text exude themes of violence, suffering, and death. In each case, animals stand out and stand in as the conduit for discussing race. In this chapter, I began by noting that his affection for flying foxes brought him to anthropomorphize them to emphasize a connectivity to his readers. Then, in bringing together three stories of animals, death, and race, I argued that Ratcliffe's attention to racialization relied his whiteness as a position for understanding the implications of cruelty and care. Concomitantly, I showed how racialized sexual violence (both metaphorical, as with Freddie Rogers, and witnessed, as with the bulls) told through animal figures sheds light on Ratcliffe's view of race, gender, and animality. In the text, human and animal are frequently intertwined, but these engagements are not removed from the racial context of settler colonial society.

The final chapter continues examining anthropomorphism and violence by focusing on Ratcliffe's intra-actions with the bats. In this chapter, however, I have examined how he put anthropomorphism and de/humanization to work as a racializing structure. To decouple his own

experiences causing destruction and pain for animal others, in spite of his affection and care for them, from his stories of racialized violence would overlook the various ways in which care for non-human others might reinforce racial hierarchies and dehumanization as a continued form of oppression.

Chapter 5

Flying Fox Affect: Becoming Response-Able

5.1 Introduction

Throughout *Flying Fox and Drifting Sand*, Francis Ratcliffe highlights moments where his sense of the world, including his perspective on human and animal agency and individuality, are troubled. His political aim was to emphasize the ways in which (white) humans affected their environment, and in the book, he explored ways in which the environment affected him. This chapter is guided by the question of what it means to develop attachments, fondness, attentiveness, or responsiveness to one's research subjects? Understanding Ratcliffe's encounters in the book as captured moments of becoming affected and generating response illustrates ways in which colonial perspectives of care for the more-than-human world might emerge. "Response-ability is," according to Haraway, "about both absence and presence, killing and nurturing, living and dying, and remembering who lives and who dies and how in the string figures of naturalcultural history" (2016, 26). Response-ability emerges through his encounters with bats, and he began to recognize their agency while developing an affection for them.

This chapter begins by examining Ratcliffe's emergent relationship with flying foxes and the "responsive attentiveness" (Rose 2004, 6; quoted in Haraway 2011, 100) developed through intra-action between Ratcliffe and the bats. I argue that Ratcliffe became affected by moments in which he and individual bats encounter one another, and through those encounters, generate responsiveness. Then, I examine how the violence required in collecting specimens for his study offers a different engagement in response-ability, one that engages with Ratcliffe's self-conception of masculinity. Finally, I utilize what cultural historian Tessa Laird has called "bat phenomenology" (2018, 150), a philosophy of human-battiness, to argue that Ratcliffe engaged with bats as a way of invoking response in his readers. I contend that though his book is grounded in colonial ethos, Ratcliffe approached the bats with a sense of respect and responsiveness that informs his critique of "improvement" and settler expansion.

5.2 Communication Across Species

If, following chapter three, Ratcliffe reduced the primacy the observational, imperial, objective, (white, Western, male) human eye in his travelogue, the same importance given to sight remains central to his conception of animal intelligence. In Western epistemologies, the use of sight has a broadly positive connotation in relation to animal intelligence, in part because of the construction of the visual field in objectivity. In part, becoming-embodied in this textual performance means “allow[ing] the animal world to inhabit [the scientist, whose body] is also treated as an instrument—with the affects of becoming animal observed, measured and recorded,” as Joanna Latimer and Mara Miele (2013, 13) argue. This is what Elizabeth Grosz (1994) has called “the implication of the seer in the visible,” because “[s]eeing entails having a body that is itself capable of being seen” (101). Sight regularly emerges as the complicated and complicating division between subject and object, for animals-as-scientific objects are not meant to be “beings who look back” and whose gaze intersects with that of the observer (Haraway 2008, 21). Haraway discusses the sense of interspecies respect in terms of the Latin “*respecere*—looking back, holding in regard, understanding that meeting the look of the other is a condition of having face oneself” (2008, 88), drawn from *specere*, the categorizing gaze which evolves into “species.” Ratcliffe, referring to his “favourite” species, the “biggest, handsomest, most interesting, and elusive” spectacled fox, noted the bats’ “peculiarly bright and intelligent” eyes, highlighted by their spectacle-markings (1947, 52). Though he did not claim an encounter of returned gaze from this species in particular, the following section discusses several instances in which he did. By looking at the bats and having the bats look back, Ratcliffe becomes just another body in relation; the human exceptionalism implied in the observational gaze gives way to a mutual relation of looking.

Ratcliffe repeatedly remarked, in both his book and his professional publications, on instances of being watched by bats; or rather, instances of bats watching him approach, enter, and explore their camps. This is perhaps an example of what Megan H. Glick terms “a process of ‘ocular anthropomorphism,’ whereby a species becomes humanized (or, for that matter, dehumanized), in ways dependent on its perceived ability to see” (2018, 67). If certain eyesight is a measure of intelligence, and “intelligence [is] a barometer of the human” (Glick 2018, 62), then there is a humanizing capacity in the returned gaze, the looking-back. Unlike the microbat species most familiar in Europe, flying foxes do not rely on echolocation to navigate their worlds

and their large eyes are remarkably well-adjusted to see their surroundings. “A close encounter with a flying fox induces the strong awareness of being in the company of an odd little kinsman,” according to Rose (2011, 125), someone alike, aware, and attentive to human others. In Ratcliffe’s own “close encounters,” he echoes this sense of being in company. In one encounter he found remarkable enough to even mention in his CSIR report, which he expanded on in his book:

my ear caught the swish-swish of a fox’s wings, but a fox which flew with slower and steadier beats than any I had known. Something clicked in my head, and I realized that this particular beat had been following me for some time, and my ears had become unconsciously tuned to the rhythm of his wings... As I had passed from one part of the camp to another, so he followed me, even into those quarters inhabited solely by [little red foxes]. I had only to wait a matter of seconds before I would hear the sound of wingbeats warning me of his approach... I stood waiting for him with my gun ready cocked, but he was always too cunning for me. I would sometimes catch a glimpse of his shadow as it flashed across a gap in the branches, but mostly I only heard his presence. (1947, 123-4)

According to his 1932 article, the bat followed him for well over an hour as he walked through the camp (1932, 37). In this case, the fox is presumed male—for the powers of such espionage and evasion are laudable, thus gendered in the wild—but the knack for returning the form of observation here is uncanny. The implication that a bat recognized potential danger and moreover wanted to keep the intruder within its sights speaks to the bats’ ability to interact with other species in unexpected, intelligent, and even individualized ways. As Haraway states, “Human and nonhuman, *all* entities take shape in encounters, in practices” (1994, 65); in this case, the observed human takes shape as another animal to be watched, whose generally uncontested status as observer reformulates as simply another being in the world. The encounter forms a relation of agency between both Ratcliffe and his winged observer, where both become formed by observation of the other.

Given the massive size of the camps at the time—one of which Ratcliffe estimated as sending out 200,000 individual bats in one half hour at dusk, a mass of both grey-headed and little red foxes (as the latter appreciated camping very close to other species)—his experiences with being gazed upon generally happened in isolated pockets within the camp. At his first encounter, alongside our friend Mrs. Curtis, “the din was kept up, but the beasts in our immediate neighbourhood seemed too curious to make a fuss... and then the spell was broken. Apparently the foxes decided that we were not worth worrying about (they were soon to learn

their mistake, for I carried a gun)” (Ratcliffe 1947, 17). Each instance he found awareness of the deadly presence of a man and his gun stands out as particularly fascinating tales of bat habits; “a camp which has been ‘shot up ’ once or twice will take flight at the mere approach of an observer” (Ratcliffe 1932, 37), a reaction which he himself aided in teaching to myriad bats. He also offers an instance of their power to look away. During a late-night foray into the jungle in the midst of hunting season, Ratcliffe stumbled across a group of possums whose eyes glowed in the falling light of his electric torch; the nearby bats, “sensible beasts” that they are, “turned their heads away from the torch’s beam, and were difficult to see in the thick foliage” (1947, 116). Overall, their ability to determine and locate sources of danger in individual humans impressed Ratcliffe.

In the 1931 report, he remarks on the bats’ intelligence, which was “far from being negligible. In fact, the capacity of flying foxes to appreciate danger and to learn from experience” was one of the recurring elements throughout all his written work on the bats (1931, 15). In one instance, a camp that had been “regularly molested by shooters [such that] the mere sound of my approach caused the animals to take wing,” a small group of bats “kept [Ratcliffe] under constant observation... They obviously appreciated the powers of a gun and the limitation of their speed,” as evidenced by the shot holes in their wing membranes (1931, 16). The group appeared to fly “round [him] at the limit of gun range” (1931, 16)—or else “gave very few opportunities for a shot” (1932, 37)—echoing a handful of encounters in which the bats seem to perceive a safe, if taunting distance from the danger from a shotgun. “Just as they appreciate danger, flying foxes soon realize when it is absent,” however (1931, 16); particularly in the case of their generational camps, which flying foxes had occupied for as long as any settler could remember (see above), the bats rarely abandoned their resting locations outright, though the fruit orchards might be a different matter.

If the bats’ intelligence is in part defined by their curiosity or wariness, which entangles them in interspecies relations. Their capacity for communication establishes another mode of ethical relation between humans and bats. For Ratcliffe, then, a resultant ethics of care develops in “becoming subject to the unsettling obligation of curiosity, which requires knowing more at the end of the day than at the beginning” (Haraway 2008, 36). His ethics of care does not preclude violence and destruction, as I show below, but does develop as an attentiveness and

intra-active relation in which he recognizes the agency of the bats to relate to humans in their own batty ways—a relation which constitutes him as an actant in the same encounter.

For Deborah Bird Rose, and many of her contemporaries, the vocal communications of bats exemplify their relations to one another—their communicative abilities include over thirty vocal calls and an ability to recognize individual voices, particularly between mother and child (Rose 2011; Laird 2018).”In the case of a highly-developed mammal like the flying fox some sort of communication between individuals is quite conceivable,” Ratcliffe wrote, noting that between “a mother and her young one it is more than probable.” He argued that because of their “individualistic” capacity—for, despite their “gregarious” nature, “[p]resumably individual foxes differ in their mentality”—allowing some to act as scouts to find new sources of food and potentially communicate it to others in the camp (1931, 18). While in the 1920s and 30s, “[m]any observers assert[ed] that flying foxes can communicate with one another” based on this fruit-finding ability, their individual communication practices were not yet fully understood (1931, 17). Ratcliffe’s attuned senses meant he learned to hear the bats that he could not always see (chapter 3); their “querulous chattering” became a soundtrack of his travels (1947, 119). In one instance, upon finding a camp through scent alone, he stated, “The unusual silence of the camp was explained by the fact that the females were all pregnant, and, segregated from their men-folk, were sensibly taking things quietly. The males, not having the ladies to show off to or fight over, were equally quiet” (52). Given the camps’ “normal activities... seemed to consist of fighting, love-making,” grooming, and sleeping, his encounter with the quiet of the maternal camp caught him off-guard (17). Although he explained the stillness as part of the ebb and flow of reproduction, he also turned this moment of quiet into a humanizing example of their capacity to relate to one another through sound and silence.

5.3 The Gendered Nature of Killing

Ratcliffe’s intrusion into the maternity camp above, however, was intended to disrupt that silence and quiet. “Unfortunately for the expectant mothers I particularly wanted specimens of embryos just then, and soon got to work among them with my gun,” only to realize “what a thoroughly inconvenient operating theater a mangrove swamp makes at high tide” (52). His work in undertaking this massive biological survey of bats required him to kill in order to examine the bats’ internal biology; despite years of scalp bounty systems (discussed in chapter 2), very little

had been written about the fruit bats' digestive and reproductive systems. Particularly to investigate their status as a pest in fruit orchards, his work of killing also required understanding precisely how their bodies worked to draw them to the fruit they stole. As he abandoned the bodies of his freshly-killed pregnant mothers, he turned back to see "a couple of eagles wheeling above the spot where the foxes were gathered. No one, I felt, would grudge them their supper" (52). In that moment, despite being "dog-tired," he knew at least the bodies would not go to waste; if they could not be appropriated for science, they could be a meal to another creature.

While many scholars in many different disciplines have discussed every possible gender arrangement in relation to hunting and killing in Western culture, it remains by and large associated with men and masculinity. Ratcliffe's violence to collect specimens for scientific study, at least according to Rose (2011), aligned with his early metaphors of warfare. "When a military commander plans an offensive he must have certain information on which to work," he stated, referring in that moment to the flying foxes as "an animal enemy" (1947, 4-5). Rose argues that this language "conceal[s] forms of lethality having more in common with mass murder than actual war... The battle against flying foxes has never involved equals" (2011, 130). However, I argue that his discussions of hunting bats convey an entirely different approach to killing that depart from this military metaphor, which he only used to describe his mission in terms of the bats seen as pest species rather than as interesting, intra-active beings for whom he felt affection. "Response-ability is," according to Haraway, "about both absence and presence, killing and nurturing, living and dying, and remembering who lives and who dies and how in the string figures of naturalcultural history" (2016, 26). Death and violence thus play a role in response-ability just as life and care do. According to Gerda Roelvink, a "testimonial nature of [certain] stories is important because it conveys experience as it was lived and embodied rather than aiming to moralize" (2015, 62), which in Ratcliffe's case produces cracks in masculine conventions rather than upending them. Ratcliffe's most striking embrace of traditional masculinity, especially as it pertains to colonial science and exploration, was his relationship with his gun and the thrill of the hunt. However, he undermines any true sense of mastery over nature through this violence by repeatedly referring to his lack of skill with the instrument.

Feminist scholars have often written about the masculine identification with hunting and killing. "The body can be transcended" in the "joining of life and death" through the hunt, Haraway writes. "This is the lesson Simone de Beauvoir so painfully remembered in *The Second*

Sex: man is the sex which risks life and in so doing, achieves his existence” (1984, 23). What Haraway calls “Teddy Bear Patriarchy,” after President Theodore Roosevelt, reflects the patriarchal idea that “it is in the act of killing that life is constructed, not in the accident of personal, material birth” (23). Hunting animals not only provided a sense of power or mastery over one’s own life and the lives of others, but a celebration of virility and masculine liveliness. Haraway referred to the practice of taxidermy and diorama in museums, particularly using primates and other African big game that she understands as an act of re-organizing and displaying life through death constitutes the “construction” of life, which finds a parallel in the collection of specimens for naturalist studies.

For Ratcliffe, carrying a gun to collect specimens—to hunt and kill bats to establish scientific data—did generate a feeling of control and power. He recounted one instance in which, “I watched [the bats] go through their love-making and their quarrels, and again shattered their peace and enjoyed the spectacle of their colossal fright” as he began shooting (Ratcliffe 1947, 23-4). He describes finding a camp and “introduc[ing] myself (with a shotgun as usual)” (57). The gun is ever-present in his narrative: sometimes an encumbrance as he navigates the mangrove swamps and darkened forests alone, sometimes shocked that he arrived to a destination with it intact. When mangroves “grow *en masse* [their] roots tangle and interlock to such an extent that passing through them is an acrobatic feat,” he wrote, “particularly if one happens, as I usually was, to be carrying a gun” (37). The act of shooting bats, however, offers his most potently masculine self-representation. Dominique Lestel and Hollis Taylor claim, “Humans form their self-representations not *in opposition* to animals... but *with* them and *through* them” (2013, 183). In the book, Ratcliffe constituted his sense of self within relations with flying foxes, whether killing them or responding to them. But while taking bats’ lives may have bolstered his perception of his own, he also challenged this self-representation. Though he refers to his gun as his most frequent and essential tool, Ratcliffe regularly calls his own shooting ability into question. “What with [the bats’] caution and my bad shooting I had next to no luck,” often “firing futilely” at the roosting bats (123). Later, he recalled an excursion in which “the beasts were hanging so thickly that we dropped sixty with six shots” (125). Notably, he was not the lone shooter in this case, so his prowess with a gun does not receive attention. However, he attributed this successful killing to the little red foxes’ apparently lesser intelligence compared to

the larger bats, seeing the little red fox as incapable of the same self-preservation abilities (discussed above).

Ratcliffe contrasted his approach to killing with Mrs. Curtis's view; he took the time to articulate her moral stances on recreational hunting and animal life alongside his appreciation for her knowledge (see chapter 2). Curtis's passion for birdwatching shows the level of interspecies intimacy that was possible in the bush; the birds brought her joy, she felt kinship with them to the point where she admonished the cruelty of a government-sponsored duck hunt. "How could one expect to save wild life, she asked, if that was the example set in high places?" (Ratcliffe 1947, 20). Ratcliffe remarked on how Mrs. Curtis "disliked the idea of killing things," so he had "given [her] time to carry her baby out of earshot" before shooting down specimens for the first time (18). While he worked, she sat "on a fallen tree by the bottom of the track, her baby quietly asleep at her feet" (19) waiting to guide him back down the mountain. Although he may have used Curtis to reinforce an essentialist notion of women's inborn aversion to violence or affinity to the natural world, his general appreciation for her kindness and knowledge suggests otherwise.

Curtis's early appearance in the book, coupled with her objections to hunting, framed Ratcliffe's first attempt at killing. "As a target for my first shot I chose a little cluster of foxes, all of which I confidently expected to bring down," he states (18). The bats reacted to the gunshot immediately, creating "an instant, an indescribable clamour" that emptied the camp "in almost less time than it takes to write it" (18). Ratcliffe had only managed to shoot two, injuring them enough to keep them from leaving but his task required a second shot to successfully kill them. As he went to retrieve one fallen bat, he wrote, "[i]ts body lay warm and heavy on my hand. The wings hung limply and the soft membrane wrapped itself round my finger-tips, feeling cold and clammy" and its "head, so remarkably normal and canine, only accentuated the strangeness of" the rest of its body (18). "When my fox died, closing its eyes and dropping its head on its breast after a spasm of coughing," he recounts, "I felt that the symptoms, so touchingly familiar, were almost shocking in association with that outlandish body" (19). Here, his first touching encounter with a bat—touching in both the physical and emotional sense—sparks an internal ambivalence and multiplicity of response. At once disturbingly alien and evocatively familiar, holding the dying bat allows him to recognize the familiar in the strange. The encounter evokes a sense of ambivalence and response in which he first learned to see the bats as relatable creatures for whom he would build a sense of affection—not unlike Curtis's own for her birds.

On one occasion, when the weather was pleasant and he was feeling particularly lazy, he wrote, “I rather hoped that I shouldn’t hear the foxes for a while... Then all at once, faint but unmistakable, came the throaty cry of a flying fox. It was no good. *I was paid to hunt the brutes, and that was that*” (122, emphasis added). The official CSIR report detailed the violent means with which bats out-of-place were to be deterred; from an economic perspective, and based on his interviews with orchardists, he evaluated every possible method, invoking the imagery of warfare directly in his discussions of shooting “battues,” flame guns and explosives, and poison gas as the most prominent examples (1931, 57-76). Ratcliffe consistently stated that such destruction was not only impractical, but essentially impossible due to the sheer numbers of flying foxes. In a sense, Ratcliffe’s approach embodies Haraway’s notion of “situated naturecultures, in which all the actors become who they are *in the dance of relating*, not from scratch, not *ex nihilo*, but full of the patterns of their sometimes-joined, sometimes separate heritages” (2008, 25, emphasis in original). While Ratcliffe never fully condemns the extensive forms of violence aimed at flying foxes, he does find subtle ways of advocating for them that find traction only through his relations with humans, animals, and environments within Australian environments in the process of so-called progressive development and empire-minded economy.

In the final chapter of the book, upon returning from his second foray into the eroding desert, Ratcliffe reflects on his time among the bats: “I was standing by the sea, standing on the beach at Townsville looking across to the hills of Magnetic Island all golden in the setting sun. I wondered if the flying foxes were still in their old home among the mangroves. Poor brutes, I had given them a rotten time” (1947, 313). In the seven years since his previous visit, Ratcliffe had changed; perhaps the stories of violence interspersed with moments of response the editorial process in the intervening years and the changes that come from time and self-reflection, from exposure to new ideas and development of old ones. Even a year after completing his first tour, he wrote, “Australia is still in a state in which settlement and clearing affect wider areas each year. The last two decades have seen the nature of the vegetation altered over considerable areas,” which deeply impacted bat species (1932, 53).

The resulting “marked decrease in the numbers of the animals... has been brought about by the felling of rain forest (in which the bats sought shelter), and the ‘ring-barking’⁹ of large areas of open forest to increase its carrying capacity as pasture, and directly by the shooting of the bats *en masse*” (1932, 53). In the book, he counted “thousands of square miles” of eucalyptus forest—the bats’ preferred source of food and shelter—“mowed down” by human settlement, meaning the “natural and fairly rapid” decline of their populations was “hardly the correct word to use” (1947, 10). With “a twinge of regret and anger,” he lamented the loss of forest and overconfident removal of trees for “sealing the fate of all the queer creatures it harbored... [with] acre after acre irreplaceably lost, to make way for dairy farms which could probably not survive without the fairy wand of subsidy” (1947, 64). It appears that with time, including his travels in the rapidly deteriorating interior, the book shows “a process whereby one becomes sensitized to (affected by) a world that in turn becomes more highly differentiated” and “co-transforms the learner and the world,” according to Roelvink (2015, 57). Connecting the deterioration of the interior and reckless felling of rainforest to the bats’ forays into commercial fruit orchards in search of new sources of food gave Ratcliffe a more complete understanding of the extent of the damages from settlement.

These environmental changes brought about by European settlement and material extraction illustrated a difference between “natural” and “artificial” changes to flying fox distribution and thus habits. Under scrutiny, such a natural/artificial dichotomy gives way to multispecies entanglement, and thereby informs Ratcliffe’s flying fox ethics: following Haraway (2008), “culturing a radical ability to remember and feel what is going on and performing the epistemological, emotional, and technical work to respond practically in the face of permanent complexity” (75). His care for environment had to first be economical, thus practical and in alignment with Western knowledges of nature as extractable material. But the development of an ethical relation to environment meant taking (settler) human’s place within that nature seriously. Maria Puig de la Bellacasa writes of interspecies connection as creating ethics of care which must “engag[e] with alterities that are capable of responding to human intervention—with pain, death[,] and extinction and by creative, affective[,] and life-sustaining interdependencies—acknowledging agency and liveliness” of plants and animals (2010, 159). Ratcliffe, often with

⁹ Ring-barking is a practice of killing trees by removing stripping a ring around the lower section such that the upper part of the tree dies and becomes easier to fell.

his “mind still behind [him] where the bats, outraged at [his] brutal disturbance of their midday rest, were making a terrible fuss before settling down again” (1947, 57), used the book to acknowledge that pain and death, couched in rhetoric of martial masculinity and scientific inquiry. His text also opens the possibilities of such “creative, affective, and life-sustaining interdependencies” through a consideration of the agencies of bats, an intervention in the epistemological framing of the economic issue at hand.

5.4 Bat Phenomenology

In much the same way that aligning with marginal (spatially speaking, and often class-wise) settlers’ perspectives altered Ratcliffe’s understanding of environment and helped formulate his views of the more-than-human world, studying flying foxes for two years—at least, from the perspective offered in *Flying Fox and Drifting Sand*—impacted his perspective on human and animal lives. His recognition of flying foxes as an intelligent species in intimate relation with the plant worlds around them allows him to present a complex relationship to the violence of specimen collection and study.

In a sense, Ratcliffe offers an early European perspective on what Laird has called “bat phenomenology” (2018, 150). “Identification with Chiroptera is literally a matter of perspective,” she writes, (149) and that perspective is a matter of turning the mirror upside down; “as warped mirrors of ourselves, they reflect back at us nothing more or less than our own hopes and fears. But coming to this realization requires a certain shift in consciousness, a giving up of old ways, a process for which the bat is itself symbolic” (170). Laird examines various bat totems, from Indigenous cultures as told through the eyes of anthropologists and in modern art and film representations. One consistent theme she finds is that bats have served as a foil for many in order to determine what we consider human. Drawing on the work of Roy Wagner, she writes, “as humans we ‘echolocate’ ourselves against bats and other animals to build up a picture of our own humanity... Wagner postulates that bats and humans are inside-out versions of each other” (153). Bats’ “picture of the world is the exact inverse of our own; metaphorically speaking, we echolocate off each other” (154). Instead of a visual mirror of identification, in which humans look at bats as the inverse, the inversion becomes a spatial relation. Or, as Haraway (1994) puts it: “what counts as human and as nonhuman is not given by definition, but only by relation, by engagement in situated, worldly encounters, where boundaries take shape

and categories sediment” (64). As mentioned in Chapter 4, Ratcliffe claims that he could not help but anthropomorphize the bats as he spent more time with them and reflected the human back to him.

Ratcliffe, however, appealed to his readers to see the human in the bat. The story of flying foxes’ ancient emigration to the Australian continent draws implicit parallels between their migration and adaptation to environment that, when contextualized with the story of European invasion from the British perspective, reflects certain notions of naturalization and nativity that became hallmarks of Australian popular science and national identity (Cerwonka 2004, Smith 2011). “When [flying foxes] colonized Australia from the land which is now called New Guinea, they found their chosen environment waiting for them,” he wrote, drawing on the international range of black flying foxes (which live in Australia, Papua New Guinea and parts of the Philippines) and the notion that the bats had emigrated to the continent millennia prior. The taxonomy of *Pteropus* at the time categorized each of Australia’s four species into a different subgroup, suggesting that “individually they are more closely related to forms occurring outside the continent than they are to one another” (Ratcliffe 1932, 35).¹⁰ reflecting early settlers’ views of Australia as an unoccupied pristine parkland, ignoring and obfuscating the care work Aboriginal people put into the landscape. This “preferred environment... occurred, however, only in isolated patches; and though some of these patches were of considerable area, they were almost insignificant beside the great expanse of the native eucalyptan bush” (Ratcliffe 1947, 7), constituting the vastness of the Australian interior which proved much more difficult to reshape for pastoral settlement. “Had they been content to stick to their ancestral jungle, flying foxes would have remained comparatively unimportant members of the Australian fauna. But they were not content to do this” (7). Here, Ratcliffe acknowledges the story of flying foxes as a “keystone” species, presaging Rose’s argument that their work as “long-range pollinators and seed dispersers [make] their activities... essential to the health of native ecosystems” (Rose 2011, 124) as a collective intent on behalf of the bats. A sense of refusal of a contentedness to remain un-evolved reflects European settler sensibilities of refusing the limits of their new

¹⁰ In his official CSIR report, Ratcliffe “conclude[d] that the ancestors of the Australian species invaded the continent by the Cape York route, and that this invasion occurred at a period sufficiently remote to allow for the modifications which have given rise to the Australian species in their present forms” and that the grey-headed and little red foxes were “the earliest immigrants to the continent” given their particular adaptations and/or co-evolutions with the environment and that their ranges reached further south than the other two species (1931, 12).

environments. It is difficult to consider this choice of language, especially so early in Ratcliffe's text, to be anything but a direct link between the bats and the colonizers.

Ratcliffe further drew on another metaphorical parallel to elicit responsiveness from his readers, one which evokes on the national history and mythos of the Australian settler state.¹¹ “Actually these fruit-stealing bats presented a problem not essentially dissimilar from that of human thieving and crime,” he states, “provided by a numerically insignificant minority of the population. Under the circumstances a campaign of general destruction would be as futile (for economic reasons) in the one case as wholesale and indiscriminate imprisonment would be in the other” (5). In his official report, he “[s]tated bluntly, this [numeric insignificance] means that the control of the flying fox is not as necessary or important as we have been led to believe” (1931, 80). The language of criminality and imprisonment is perhaps meant to evoke a response in Australian readers, given the settler nation's history as a penal colony. The “criminal” bats are, population-wise, a negligible number; their ingenuity in the face of starvation becomes a point of admiration and recollection of a shared colonial past, while the calls for disproportionate retribution meted on whole species in contrast are deemed economically and practically exorbitant, unreasonable, foolish—in a word, irrational. But turning the bats into a mirror of colonial humanity still serves in part to legitimize settler colonialism and the primacy of a white nation-state, thereby prefiguring the process of identifying with the native nature that Allaine Cerwonka (2004), Nicholas Smith (2011), and Wendy Harcourt (2021) discuss in terms of a national embrace of environmentalist ideologies, in which “some natures got to ‘belong’ in the Australian landscape, while others were seen as unworthy of belonging in the colonising culture” (Harcourt 2021, 1334). Ultimately, the creatures whom Ratcliffe consistently refers to as “the flying fox pest” in his official report are given multivalent, textured lifeworlds that raise implicit questions about the definition of pest and possibilities of belonging in this rapidly-altering landscape of settled Australia.

The intimate interactions with bats that Ratcliffe recounted serve as intermittent appeals to a sense of “shared life” (Lestel and Taylor 2013) or “life-in-common” (Harcourt 2021), though these are still steeped in white colonial positionality and the trappings of scientific disembodied objectivity. However, the travelogue allowed him to engage with emotional

¹¹ Later in his life, Ratcliffe wrote in a letter that his approach to conservationism was at odds with Australian national character, which so championed progress and thus development (Frazer 2003, 150).

responsiveness in a way his CSIR report did not. Yet, as Harcourt points out, conservationist “[i]deas of what and who is worth saving are constantly under negotiation” wherein “[w]hite settler logic is defining the terms of these negotiations through concepts which are imbued in power and authority” (Harcourt 2021, 1335). In many ways, it is the human mirror—the bright-eyed intelligence and capacity to learn long-term life lessons that he observes—that makes the bats so compelling to him.

5.5 Conclusion

In this chapter, I have engaged with how Ratcliffe’s travelogue allowed him to articulate a developing sense of response-ability in his relations to bats. I began by tracing moments of intra-action, in which Ratcliffe discussed the bats’ intelligence and his experiences of becoming observed, rather than being observer. In this section, bats became agential actants, capable of impressing their capacity for relating on Ratcliffe and expanding his notions of attentiveness, communication, and intelligence. Then, I show how the act of hunting and killing bats in the pursuit of collecting specimens allowed Ratcliffe to develop his sense of response-ability, framed within his masculine, colonial position. Finally, I contend that Ratcliffe used his travelogue to advocate for how human and animal lives could be intertwined through cross-identification and encounter. In exploring the role of fondness and affection for one’s research object, this chapter offers the possibility that engagement with more-than-human companions might lead to affective relations. Examining how these relations were felt in the past expands our capacity to think through the interceding losses and what levels of response we might be capable of if we address the historical frames of whiteness, masculinity, and colonialism that constitute and condition accounts of encounter.

Conclusions

What does it mean to develop attachments, fondness, attentiveness, or responsiveness to one's research subjects? This likely was not a question Francis Ratcliffe ever considered would be asked of him, yet throughout *Flying Fox and Drifting Sand*, Ratcliffe built a narrative of becoming affected. He became affected by settlers on the edge of Australian society, learning to identify with them and foregrounding their emotions, hardships, humor, and kindness on the pages. He became affected by the bats that he studied and the environments in which he studied them.

As I mentioned in the Introduction, Ratcliffe's book has not been the subject of a close reading; this thesis then covers the gap in that literature.¹² However, the analysis found in the chapters above argues that a closer look at his work offers an opportunity to engage with several major topics in feminist approaches to environment and animal studies. The research questions guiding the thesis were as follows: How do whiteness and masculinity frame scientific exploration narratives? How do genres such as travelogue and popular science shed light on the positional biases of objective science? In what ways do gender, race, sexuality, and animality imbricate each other in travel narratives? How do dehumanization and anthropomorphism contribute to these categories of experience and identity, or the differential valuation of types of life? What does it mean for a researcher to become affected by their subject, to develop fondness and feelings of care?

Each chapter tackled different configurations of masculinity, whiteness, and the relationship between domination and exploration. In Chapter 2, I examined Ratcliffe's biography and the parameters of his first study alongside his position as a white man of science working in the interest of empire. Furthermore, I argued that his relation to settlers and experiences with non-expert environmental knowledges both bolstered his position and, within the context of his book, allowed him to broaden his horizons about who is capable of knowing and how. In Chapter 3, I investigated his sense of scientific practice and embodiment through his relations to landscape and environment-as-assemblage. I contrasted his self-representation with common

¹² I hesitate to say "at all." After a year of searching thesis databases and the bibliographies of work referencing him, I have not come across another close reading of *Flying Fox and Drifting Sand*. It may exist, but as of this writing, I have not been able to find it.

tropes of gender and environmental exploration. In Chapter 4, I show how deeply racialized his point of view was and how his whiteness limited the extension of his response to animals and drew on stereotypes and negative perceptions of Aboriginal people. Within each of these chapters, I analyzed his approach to scientific inquiry and the possibilities of alternate epistemologies or knowledge practices; I argued that the travelogue afforded him opportunities to engage with different modes of knowledge production than did his scientific work.

In terms of how race, gender, and animality are co-constitutive and imbricate each other, I show how different elements of Ratcliffe's narrative cannot be disentangled from notions of race and gender. Animals arrive in intra-active moments with people, people are always in relation to animals in every element of his text. Gendered, sexualized, and racialized metaphor emerge as sites of philosophical engagement on the nature of human cruelty, as seen in Chapter 4. Meanwhile, the colonial setting sends undercurrents of racialized, gendered, and sexual violence throughout the narrative. The literary tools of dehumanization and anthropomorphism work together to texturize the boundaries of care and affect within which he developed his ecological and conservationist ethos.

At the same time, however, anthropomorphism allowed him to talk openly about the affection he felt for the bats he studied. In Chapter 5, I examine the central affective relationship of his book and look at ways he addressed the mutuality and co-existence that Rose (2011) argues he eschewed (see Introduction). Building from a fondness he developed for (white) settlers in the bush from Chapter 1 to the attentiveness and intra-active encounters that informed his response to bats in Chapter 5, I argue that the book itself is a testament to the possibilities of response-ability through exposure, embodiment, and encounter. I argue that Ratcliffe gives his readers a view of the complex, intelligent lives of bats, despite his occupation requiring their deaths.

Ultimately, Ratcliffe's position and embrace of the colonial, Western epistemological paradigm only affords this multispecies ethics of care and arts of attentiveness in fits and starts. Although he built a career that recognized the impacts of settler colonialism on the environment and advocated for immediate governmental intervention into the farming economy in order to avoid greater destruction, he ultimately also advocated for colonial society. He came to recognize animal cognition and the impacts of human-animal relations on individual animals, but often at the expense of denying humanity to racialized others. While his book illuminates the

process of becoming response-able to the more-than-human world that becoming response-able certainly was possible in the past, as told through his travelogue, further engagement with his work might offer insight into just how that response-ability grew. Another reading might argue that Ratcliffe's stance is purely and fundamentally paternalistic, that to read any further into his interspecies interactions would be misconstruing a romanticized and fantasized relation between (white, colonial, cultured, rational) man and Other. However, my argument that his writing embraced both realism and affection shows that human-animal relations have always had affective registers and emotional links.

Flying Fox and Drifting Sand is a rich ground for a gender-focused analysis. Most potently, one might argue that Ratcliffe's descriptions of women and girls as active participants in frontier society would open further doors to considering the possibilities of his shifting views of the people, place, and nonhuman creatures that made inner Australia a site of such personal and professional growth for Ratcliffe. More direct access to his letters and other archival material might further provide insight into his own family's development and any narrative impact that the gendered workings of his private life may have imparted. Ratcliffe provides interesting sociological insight into the gendered lives of frontier settlers in mid-twentieth century Australia, as aspects of national identity and the concept of white Australia were fermenting in particular ways alongside concepts of science and nature within public consciousness and discourse. The text could serve as evidence for a study with more thorough focus on gender as it was lived (and represented by Ratcliffe) at this time, in these places, and the gendered identities of colonial expansion.

In closing, I come back to Haraway's plea for situated knowledges and to Visweswaran's contention that identities are not fixed—to tell stories through the eyes of one person means grappling with their multiple experiences of self and their different self-representations as culturally- and politically-situated—and that this analysis ultimately focuses on a particular timeframe of Ratcliffe's life and identity. To understand the tectonics of identity and personal philosophy requires reading the fault lines across available self-representations. As the author of multiple reports and monographs covering a wide area of scientific and conservationist subjects, Ratcliffe has written more literature than could be referenced in this analysis. Further research projects that are not limited by geography, funding, and access to his letters and other texts might expand upon or refute some of the arguments I have made.

This thesis began by sharing recent mass death events in the lives of Australia's bats. Almost a century ago, Francis Ratcliffe came to Australia to investigate the flying foxes and the alleged havoc they wrecked on settler crops. He determined that the bats were already in an exponential decline. These species are a few of many beings whose existence has been deeply impacted by the reaches of colonial expansion and Western dominion over nature in the form of commercial farming, industrial agriculture, and European ideals of productive use of space. The possibility of viewing the history of Australian settlement through the quizzical eyes of bats opens up the possibilities of engaging with animal others as co-writers of that history. Trans studies scholar Camille Nurka writes, "As [all species are] now staring into the vast, deep void of extinction, the human narrative of history becomes increasingly unviable and incompatible with the vision of the which in which we no longer exist" (2015, 220). While examining the writing of humans who studied animals in history does little to decenter that human narrative, it perhaps serves as a steppingstone to a more-than-human history of interspecies dependence and development. To quote Donna Haraway one last time, "In fact, staying with the trouble requires learning to be truly present, not as a vanishing pivot between awful or edenic pasts and apocalyptic or salvific futures, but as mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings" (2016, 1). Staying with the trouble in the present, into the future, will at times require facing various pasts and the myriad ways they embrace presences both radical and reactionary at once.

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