Understanding the embodied geographic knowledge of people who watch birds: an exploration of encounter, performance and “becoming”

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Understanding the embodied geographic knowledge of people who watch birds: an exploration of encounter, performance and “becoming”

**Abstract**
Outside of positivist approaches little is known about the experiences, expectations and practices of people who watch birds in Australia. Given the centrality of bird-watching to the tourism industry, as leisure practice and as citizen science, the lack of critical geographical scholarship in this context is surprising. For this reason the post-structuralist feminist approach offered in this thesis enables possibilities to reconceptualise bird-watching as an inherently embodied and situated experience. This conceptual approach is central to understanding how people “become” “bird-watchers” at the intersections of discourse, technology, human bodies, non-human bodies and space. Empirical data was sourced through semi-structured interviews, participant observation and photo-elicitation interviews with people who watch birds on the South Coast of New South Wales. The combination of these methods sought to capture the richness and complexity of participants’ lived bird-watching experiences. Results presented over three chapters offer new insight into the embodied and situated experiences of bird-watching. The first examines how bird-watching is reliant upon embodied geographical knowledge and technologies that facilitate proximity between humans and birds. The second explores the contradictory embodied geographical knowledge and technologies that facilitate proximity between humans and birds. The second examines how bird-watching is reliant upon embodied geographical knowledge and technologies that facilitate proximity between humans and birds. The second explores the contradictory embodied geographical knowledge and technologies that facilitate proximity between humans and birds. The second examines how bird-watching is reliant upon embodied geographical knowledge and technologies that facilitate proximity between humans and birds. The second explores the contradictory embodied geographical knowledge and technologies that facilitate proximity between humans and birds. The second examines how bird-watching is reliant upon embodied geographical knowledge and technologies that facilitate proximity between humans and birds. The final results chapter investigates how people negotiate “becoming” “bird-watcher” in their everyday lives, and how embodied geographical knowledge may transform over a life-course as parents, through ageing and as homemakers. The conclusion sets a research agenda drawing on the geographical perspective in this thesis to rethink the relationship between birds, people, technologies and space.

**Degree Type**
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**Degree Name**
Bachelor of Science (Honours) (Advanced)

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**Advisor(s)**
Gordon Waitt

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Understanding the embodied geographic knowledge of people who watch birds: an exploration of encounter, performance and “becoming”

Jill (80’s, retired journalist, club-member, Eurobodalla) encounters birds in her backyard every day, “I do not consciously bird-watch, I just bird-watch all the time” (Jill’s words). Here Jill is sitting with Carrie on her veranda, enjoying a cup of tea and the morning sun as a Magpie (a regular visitor) investigates the situation. Photograph by Carrie Wilkinson.

Carrie Wilkinson

A thesis submitted in part fulfilment of the requirements of the Honours degree of Bachelor of Science (Advanced) in the School of Earth and Environmental Sciences, University of Wollongong, 2013
All images are the product and property of Carrie Wilkinson, unless otherwise acknowledged.

The information in this thesis is entirely the results of investigations conducted by the author, unless otherwise acknowledged, and has not been submitted in part, or otherwise, for any other degree or qualification.

Signed........................................................................................................ Dated 16/10/2013.
Abstract

Outside of positivist approaches little is known about the experiences, expectations and practices of people who watch birds in Australia. Given the centrality of bird-watching to the tourism industry, as leisure practice and as citizen science, the lack of critical geographical scholarship in this context is surprising. For this reason the post-structuralist feminist approach offered in this thesis enables possibilities to reconceptualise bird-watching as an inherently embodied and situated experience. This conceptual approach is central to understanding how people “become” “bird-watchers” at the intersections of discourse, technology, human bodies, non-human bodies and space. Empirical data was sourced through semi-structured interviews, participant observation and photo-elicitation interviews with people who watch birds on the South Coast of New South Wales. The combination of these methods sought to capture the richness and complexity of participants’ lived bird-watching experiences. Results presented over three chapters offer new insight into the embodied and situated experiences of bird-watching. The first examines how bird-watching is reliant upon embodied geographical knowledge and technologies that facilitate proximity between humans and birds. The second explores the contradictory embodied geographical knowledge of people who watch birds as environmental citizens. The final results chapter investigates how people negotiate “becoming” “bird-watcher” in their everyday lives, and how embodied geographical knowledge may transform over a life-course as parents, through ageing and as homemakers. The conclusion sets a research agenda drawing on the geographical perspective in this thesis to rethink the relationship between birds, people, technologies and space.
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I am extremely grateful to all of the participants who so generously gave their time to this study. Without them the next 200 pages would be blank. You have opened my eyes to the joys of bird-watching and I hope that this research may somehow benefit you. In no particular order I would like to thank Julie M., Mandy, Lyn, Demetrios, Jill, Adrienne, Christine, Nerida, Andrew, Chris, Penny, Paul, Sylvia, Gillian, Julie C. Janet and Elizabeth. I would especially like to thank David Kay, Martin Potter and Barbara Jones, representing the Eurobodalla Natural History Society, the Illawarra Birders and Far South Coast Birdwatchers clubs, respectively, who introduced me to so many people. Without you this project would never have got off the ground.

Last but not least, family and friends deserve a special mention for keeping me sane. Thanks to Susie, Jono and Ryan, my fellow honours buddies, for sharing the ride – we made it! Endless thanks to Sue Murray for her diligent proofreading in the nail-biting last days of writing – thank you for the hours spent on the phone teaching me the finer details of grammar and punctuation. To my parents, Mark and Barbara Wilkinson, thank you for all your help, practical and emotional support and encouragement this year. Dad you know you were the inspiration for this project so all the ups and downs of this year have entirely been your fault!

Finally, I would like to thank my best friend and partner, Zak Nicholson, for always being there and helping me to remember who I am. You always know the right thing to say. You saved me from going crazy this year and I don’t think I would have made it without you.
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Mark (50’s, landscaper, no club affiliation, Eurobodalla) scans the horizon for whales and Albatrosses at Burrewarra Point, Guerilla Bay.

Mark: That’s my favourite whale watching spot. When the whales are on the northerly migration that’s a great spot for them to come into - they sort of come into the headland and then cut out to the east. It’s also a very good spot to see Albatross on windy days. Today was windy but not windy enough. Anyway, the Albatrosses weren’t there in numbers, and we didn’t see any whales as well. But it’s a lovely spot and easy to get too. And you’re going to see a lot of pelagic birds.
1.1 “Bird-watching? Who cares?!” - The Research Impetus

Bird-watching is an increasingly popular leisure activity in Australia (Jones D. & Buckley 2001; Connell 2009; Green & Jones D. 2010; Kim et al. 2010). Birdlife Australia (2013a), Australia’s largest bird conservation organisation, currently boasts a membership base exceeding 10,000. A further 25,000 volunteers and supporters are involved in various citizen science projects run by the organisation nationwide. Rising sales of specialist field guides (see Simpson K. & Day’s Field Guide to the Birds of Australia, Pizzey & Knight’s A Field Guide to the Birds of Australia, Slater’s The Slater Field Guide to Australian Birds, and Morcombe’s Field Guide to Australian Birds and E-Guide to the Birds of Australia) as well as the proliferation of companies and destinations offering bird-watching specific tourism products further evidences the increasing popularity of bird-watching in Australia (see Peregrine Bird Tours, Kimberley Birdwatching, Sydney Pelagics, Kingfisher Park Birdwatchers Lodge, Southern Birding Services, Follow that Bird and Birdwatch Australia). Bird-watching is therefore a significant, albeit niche, practice supported by individuals and both volunteer and corporate organisations.

Whilst considerable scholarly attention has been given to the practices, motivations and expectations of people who watch birds in the United Kingdom (Sheard 1999; Lorimer 2008; Cammack et al. 2011) and North America (Weidner & Kerlinger 1990; Martin S. 1997; Cole & Scott 1999; Scott et al. 1999; Scott & Thigpen 2003; Eubanks et al. 2004; Moore et al. 2008; Sali et al. 2008; Schaffner 2009; Maple et al. 2010; Watson 2011) very little is known about the experiences and practices of bird-watchers in Australia. The few studies conducted on bird-watching in Australia analyse the economic contribution of the activity to the tourism industry or the impacts of nature-based recreation on birds (Jones D. & Buckley 2001; Rodger et al. 2007; Connell 2009; Green & Jones D. 2010; Kim et al. 2010). These studies of bird-watching as tourism practice follow the recreation specialisation approach characteristic of United Kingdom and North American scholarship and categorise people who watch birds according to their practices, motivations and expenditure (see Chapter 2.3 Literature Review). These categories, broadly identified as casual, novice and advanced, or birdwatcher, birder and twitcher, are
embraced and perpetuated not only by academia but by popular Australian media (see for example Dooley 2005; Huxley 2007; Taylor 2007; Birdbrain 2009; the Age 2012; Best of the Drawing Room: Twitchers 2013; Millerdmen 2012). Whilst some bird-watchers wear these labels with pride others are quick to distance themselves from any association, taking offence from the often outlandish and comical behaviour associated with these stereotypes. “Twitcher” is a particularly divisive and pejorative label often associated with the obsessive pursuit of birds.

Given the centrality of bird-watching to the tourism industry in Australia, as leisure practice and as citizen science, the lack of critical geographical scholarship on people who watch birds is surprising. Outside of positivist epistemology and ontology not much is known about the experiences, expectations and practices of Australian bird-watchers.

1.2 Research Objective and Aims

The overarching objective is to reconceptualise the study of bird-watching by thinking beyond the prescribed categories. To achieve this, the project draws on post-structuralist feminist ideas and methods that enable insights to the reciprocal relationships between people, birds, technologies, practices and space. This conceptual approach moves beyond the preconfigured hierarchical categories of “birdwatching” which inform the academic literature and popular media. Instead, insights are provided into how people who watch birds produce particular, and multiple, understandings of birds, place and themselves in situ. Bird-watching identities are in a perpetual state of “becoming”.

There are five aims guiding this research:

1. To conduct a comprehensive literature review of the scholarship examining relationships between birds and humans to show how this study contributes to a new scholarly understanding of bird-watching.

2. To develop a methodology that is ethical and rigorous, as well as providing meaningful insights into participants’ bird-watching practices, values and experiences.
3. To explore how people who watch birds “get close” to birds.
4. To examine how subjectivities are performed in the spaces sustained by the practices and encounters of bird-watching, and to explore the relationships and tensions that emerge through the different performances of subjectivities.
5. To explore how people who watch birds make sense of their place in the world through the practices and performance of a bird-watching subjectivity in their everyday lives.

Explanatory note:
Whilst the overarching objective is to do away with the labelling and restrictive categorisation of people who watch birds, in the interests of clarity it is impossible not to discuss and explore an assemblage of practices and subjects without some reference to descriptive terminology. Consequently, in writing this thesis, I distinguish between birdwatcher and bird-watcher. When using birdwatcher I do so in reference to the hierarchal category used to describe a particular subset of people who watch birds. Birdwatcher, written in this context, is just one of the labels commonly used in academic scholarship and popular media. For the purposes of my research I adopt the term bird-watcher to describe anyone who partakes in the activity of watching birds. I do not use bird-watcher as a label or hierarchal-category, rather I use bird-watcher interchangeably with the phrase people who watch birds.

1.3 Research Context
The New South Wales (NSW) South Coast provides a perfect case study to explore the cultures of bird-watching in Australia. The area is immense, extending across some 15,000 square kilometres from the metropolis of Wollongong to the Victorian border (Figure 1.1). Over 435,000 people call the South Coast home (ABS 2013a). Table 1.1 describes the demographics and cultural landscape of the 6 Local Government Areas that make up the study area: Wollongong City, Kiama, Shellharbour, Shoalhaven, the Eurobodalla and the Bega Valley.

Set against the darkly forested backdrop of the Great Dividing Range, the South Coast is also a region of considerable ecological diversity. The region is characterised by a mixture of low-density development, farmland, wetlands, remnant rainforests and bushland along a coastline
interspersed with estuaries and fringed by sandy beaches and rocky headlands. A near unbroken chain of nineteen National Parks and thirty-seven Nature Reserves hugs the coastline. As illustrated in Figure 1.2 the South Coast is marketed by Visit NSW (2013) as “the nature coast”, a place where people can immerse themselves in and be restored by “wilderness”. Narratives of the coastal/rural idyll often dominate residents’ and tourists’ understanding of life on the South Coast. As a place for “nature” daily encounters with “wildlife” are spoken about as a matter of fact. There is ample opportunity for planned and spontaneous bird-watching on the South Coast. Of the 557 bird species recorded in NSW (Eremaea Birds 2013a) 341 of these have been recorded in Wollongong City alone (Eremaea Birds 2013b).

Whilst it is impossible to estimate how many people enjoy bird-watching as a recreational pursuit, its popularity may be evidenced by the number of community groups engaged in the activity. The South Coast is host to at least 5 separate groups, each covering a specific region. Furthermore, tensions between people who watch birds and town planners are well documented in the media. In the Illawarra, for example, the Illawarra Birders are locked in a lengthy battle with Shellharbour City Council over the proposed Shellharbour Wetlands development plan (Illawarra Birders 2013a).

The South Coast is therefore a relevant and exciting field work site due to this diversity of habitats, ideas, and land-use, alongside the numbers of participants and clubs engaged in bird-watching activities.
Figure 1.1: The Research Context – the NSW South Coast. SOURCE: Destination NSW (2012).
<table>
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<th>Region (Population)</th>
<th>Major Settlements</th>
<th>Major Industries</th>
<th>Median Age (% of population aged over 65 years)</th>
<th>Other comments</th>
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<tr>
<td>Wollongong City (192,418)</td>
<td>Wollongong</td>
<td>Health care and social assistance; education and training; retail trade; manufacturing.</td>
<td>38 (16.4)</td>
<td>NSW’s third largest city; 80km south of Sydney; low-rise development at foot of Illawarra Escarpment; formally the “steel city”, now the “gateway to the south-coast”¹</td>
</tr>
<tr>
<td>Shellharbour (63,605)</td>
<td>Shellharbour</td>
<td>Health care and social assistance; retail trade; manufacturing; construction.</td>
<td>37 (14.3)</td>
<td>Encompasses southern-most suburbs of the greater Wollongong urban area; key commuter corridor; suburbs stretch from foot of Illawarra Escarpment, north to Lake Illawarra and through to the coast²</td>
</tr>
<tr>
<td>Municipality of Kiama (19,986)</td>
<td>Kiama Gerringong</td>
<td>Education and training; health care and social assistance; construction; retail trade.</td>
<td>45 (20.6)</td>
<td>Popular “tree changer” locality; mixture of coastal towns, productive farmland, National Parks and Nature Reserves, including the famous Barren Grounds Nature Reserve – a “bird-watchers paradise”³</td>
</tr>
<tr>
<td>Shoalhaven (92,812)</td>
<td>Nowra Ulladulla Jervis Bay Huskisson</td>
<td>Health care and social assistance; retail trade; public administration and safety; accommodation and food services.</td>
<td>46 (23.3)</td>
<td>Key locality for “sea-change” migration; popular weekender for Sydney and Canberra residents; mixture of dairy farms, remnant bushland and beaches; multiple National Parks and Reserves including Killalea and Booderee⁴</td>
</tr>
<tr>
<td>Eurobodalla Shire (35,741)</td>
<td>Batemans Bay Moruya Narooma</td>
<td>Retail trade; health care and social assistance; accommodation and food services; construction.</td>
<td>50 (25.8)</td>
<td>Key locality for “sea-change” migration; popular “weekender” for Canberra residents; current tourism marketing strategy as “land of many waters”⁵</td>
</tr>
<tr>
<td>Bega Valley Shire (31,950)</td>
<td>Bermagui Merimbula Eden</td>
<td>Health care and social assistance; retail trade; accommodation and food services; manufacturing.</td>
<td>48 (21.4)</td>
<td>3 hour drive from Canberra; key locality for “sea-change” and “tree-change” migration; cultural and physical landscape the result of long history of dairy farming, forestry and commercial fisheries; regional income now heavily based on tourism - marketed as the “Sapphire Coast”; home of Panboola Wetlands waterbird sanctuary⁶</td>
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Shellharbour Area

Well renowned for its surf surf beaches including ‘The Farm’, a National Surfing Reserve, in KIllalea State Park. See weedy sea dragons and marine life while snorkelling or diving at Bass Point Reserve. Take a scenic flight or skydive from the Illawarra Regional Airport. Visit Macquarie Pass National Park for great bushwalking and waterfalls.

Batemans Bay and Eurobodalla

Eurobodalla is a dazzling blue landscape of ocean, rivers, lakes and estuaries along 110 kilometres of coastline. Set against a dramatic backdrop of mountains and forest, the region is renowned for its rich sea, bird and wildlife, clear warm summers and temperate winters. A highlight is snorkelling with seals at Montague Island, off the coast at Narooma.

Figure 1.2: Screenshots from the NSW Government’s Destination NSW (visitnsw.com) webpage on the “South Coast”. These images and textual extracts are indicative of the longstanding strategy to market the South Coast to tourists as “the nature coast”. SOURCE: VisitNSW (2013).
1.4 Thesis Outline

The research aims are addressed across the six chapters of this thesis. Chapter 2 explores how scholars approach studying the relationship between people and birds. This chapter is divided into four sections, the first three corresponding with particular strands of literature. The final section outlines the conceptual approach and illustrates how this goes some way to addressing gaps identified in the literature review on bird/human relationships.

Chapter 3 outlines and evaluates the research methods. This chapter discusses how the qualitative mixed methods approach employed in this project are ethical and rigorous. Semi-structured interviews, photo-elicitation interviews and participant observation methods provide the qualitative data for analysis.

The three results chapters correspond explicitly with aims three to five of this project and meet the overarching research objective. Chapter 4 addresses the third aim by exploring how people achieve moments of proximity with birds. This chapter is divided into four sections, each corresponding with a particular set of practices, and examines the relationship between people, birds, technologies and space. Findings from this chapter show there are many different ways of “getting close” to birds.

Chapter 5 addresses the fourth aim by exploring how subjectivities are performed in the spaces sustained by the practices and encounters of bird-watching. Specifically, this chapter examines the different performances of “environmental citizenship” and the tensions that can emerge through these performances. Findings from this chapter suggest that there are multiple and sometimes conflicting ways in which people come to “know” birds.

Chapter 6 addresses the fifth aim and is concerned with how people negotiate bird-watching as part of their everyday lives. This chapter approaches narratives of bird-watching using a life-course perspective to show how the subject of bird-watcher is relational to time and space. The
results speak to the research objective more broadly by troubling the efficacy of prescribed bird-watching categories.

Chapter 7 concludes the thesis. This chapter evaluates the achievement of the aims summarises the key findings and identifies possible future research agendas for bird-watching in Australia.
When time permits Lyn (60’s, school counsellor, club member, Eurobodalla) will walk around her property and take note of the birds she encounters. Lyn no longer keeps a paper record of her encounters with birds. Rather she makes a digital list using an iPhone app. Although she can quantify how many birds she has seen using the app, bird-watching means so much more than a number to Lyn:

Lyn: So the things that come to mind are beauty, relaxation, creation, rest; they’re amorphic sort of things that I can only draw if I drew a calm scene because that’s the sorts of feelings. It’s more to do with, yeah, the aesthetics and the calm and the slowness and the um... just being able to be quiet, it’s not busy, it’s not rushed, it has a lot more to do with the emotional connection with where you are.
2.1 Introduction

The aim of this chapter is twofold: first, to explore how scholars approach studying the relationship between people and birds and second, to provide a conceptual framework. The chapter is divided into four sections. The first three correspond with particular literature strands which are:

1. The scientific approach of ornithology which objectifies birds as species.
2. A positivist informed social science approach which focuses on categorising the people who watch birds.
3. A second social science approach – informed by relational thinking and embodied methods – which explores the interrelations between space, humans and non-humans (including birds).

Figure 2.1 schematically represents these themes in greater detail.

Building upon the relational strand of literature the fourth section weaves these three strands of scholarship together to identify gaps in the literature that this thesis helps to address and outlines the conceptual approach applied to study intersections of birds, humans, technologies and space. In doing so, this chapter justifies and further demonstrates the significance of this research.

It is important to note the parameters of this literature review. Firstly, it is restricted to English scholarship. Given the abundance of birds globally it is highly likely that considerable research on bird-watching is undertaken and published in other languages. Secondly, this report does not consider literature concerned with the mythic, iconic or artistic status of birds. I recognise that there is a large and important body of work in this field which would undoubtedly add depth to my study of the relationship between birds and humans but, unfortunately, consideration of this literature goes beyond the scope of this thesis.
Figure 2.1: How have scholars studied the relationship between people and birds? A schematic representation of the themes of the literature and of the main discourses underpinning each approach.
2.2 Birds and Ornithology

2.2.1 Birds and Academia

The vulture builds its nest on inaccessible cliffs; for which reason its nest and young are rarely seen. And therefore Herodorus, father of Bryson the Sophist, declares that vultures belong to some foreign country unknown to us, stating as a proof of the assertion that no one has ever seen a vulture's nest, and also that vultures in great numbers make a sudden appearance in the rear of armies. However, difficult as it is to get a sight of it, a vulture's nest has been seen. The vulture lays two eggs.

- Aristotle (c.350BCE)

From Aristotle (c350BCE) to Carl Linnaeus (1756), Joseph Banks (1768 – 1771) to Charles Darwin (1859) birds have long been the object of scientific scrutiny. Underpinned by a positivist approach the field of what is now known as ornithology, or the scientific study of birds, has for centuries understood birds as objects to be categorised. Although the study of birds by ornithologists is not the focus of this thesis it is important to acknowledge the sheer volume of literature from this field. Crucially, this approach has entrenched the way that birds are understood in Western societies within a discourse of scientific objectivity. The following section gives a broad overview of the key ornithological journals and the approach taken by ornithologists to the study of birds in this context.

To generalise, the ornithological literature understands birds in terms of taxonomy, anatomy, morphology, distribution and behaviour (Cooke 2003). The scientific study of birds has waned little in the past 150 years. Inception dates for journals range from 1884 (The Auk) to as recently as 1970 (Journal of Avian Biology). Ibis, the British Ornithologists' Union International Journal of Avian Science, and Emu, published by the CSIRO for the Australasian Ornithologists Union, have been in continuous circulation since 1859 and 1901 respectively. The persistence of these publications, and many others, reflects the consistent level of interest in ornithology (see also Ostrich; the Journal of Field Ornithology; Marine Ornithology; The Condor).
However, in recent years, ornithology has broadened as a field of study (Bibby 2003). Scientific research on birds is now published in a range of journals of broader scope than in the purely ornithological literature (Bibby 2003). Subject matter in such generalist journals range and include studies not only on the more “traditional” fields of bird behaviour, taxonomy and biology but also studies of birds in the context of broader conservation issues (see Global Ecology and Biogeography; Animal Conservation; Evolution and Development for example).

Whatever the journal, studies of birds by ornithologists and academics are fundamentally based on methods of quantification and scientific objectivity. The application of scientific methods and standardised procedures creates distance (literal and metaphorical) between subject (researcher) and object (birds). Birds are not only used to illuminate wider issues of biodiversity and sustainable resource use in this context (Bibby 2003) but are classified and understood in terms that separate them from human society. Birds become objects in isolation which need to be protected from (and by) human society. This perpetuates, in effect, a discourse of nature/culture dualism (see Plumwood 1993; 2002).

2.2.2 Birds, Bird-Watching and Citizen Science

Popular ornithology is the more entertaining, with its savour of the wildwood, green fields, the riverside and seashore, bird songs, and the many fascinating things connected with out-of-door Nature. But systematic ornithology, being a component part of biology – the science of life – is the more instructive and therefore more important.

- Robert Ridgway, (1901, p.1)

Although bird-watching, as an act open to virtually anybody, is not a science per se, the networks of categories, associations and activities that constitute bird-watching link up with professional ornithology on many levels (Lynch & Law 1998, p.320). Observation, identification and the recording of birds encountered are part of both the scientific process and the everyday
activities of people who watch birds. Consequently, professional ornithologists are not the only ones to study birds in positivist, quantified terms. As ornithologist Robert Ridgway delineates so eloquently two interrelated but nevertheless distinct fields of scientific enquiry exist: “systematic ornithology” and “popular ornithology”. The more contemporary and common term “citizen science”, coined by Irwin (1995), is increasingly used in connection with environmental data collection and dissemination by volunteers with little or no scientific training (Silvertown 2009, p.467); that being akin to what Ridgway (1901) termed “popular ornithology”. Citizen scientists usually have no formal qualifications in their area of study. Rather, their expert knowledge is gained through extensive field experience (Greenwood 2007, p.78), social-learning (i.e. club membership and participation) and self-instructed learning.

In the Australian context one area in which citizen scientists are widely used is in surveying and monitoring the distribution and abundance of bird populations (Silcocks & Sanderson 2007). Bird-watchers acting as “citizen scientists” have provided the statistical means of studying the relationships between birds and their environment, often over enormous spatial scales, with the data collected forming the basis of scientific reports and government submissions. Since 1998 The Atlas of Australian Birds, for example, has amassed over 420,000 surveys, comprising of over 7.1 million bird observations, from over 7000 volunteers (Birdlife Australia 2013b). Recent publications utilising data provided by people who watch birds in Australia have examined the effects of climate change in general (Olsen 2007) and specifically on migration patterns (Beaumont et al. 2006) and breeding (Gibbs 2007), spatio-temporal changes in the distribution and abundance of species (Griffoen & Clarke 2002; Cunningham et al. 2007; O’Conner et al. 2007; Szabo et al. 2007; Parsons et al. 2009), the impact of invasive species (Olsen et al. 2006), factors influencing habitat use (French et al. 2003; Palmer G. 2005; Saunders & Heinsohn 2008), the impact of habitat fragmentation and loss (Ford et al. 2001; Firsher & Lindenmayer 2002; Brooker & Lefroy 2004) and the consequences of revegetation strategies (Paton & O’Conner 2010). Atlas data has also been used to develop composite indices for tracking large scale changes in the distribution and abundance of bird populations over time (Cunningham & Olsen 2009).
Contrary to what Ridgway (1901) implies, scholarship on “popular ornithology”, or “citizen science”, posits the activity as being remarkably successful in advancing the scientific knowledge of birds (see for example McCaffery 2005; Greenwood 2007; Dunn A. & Weston 2008; Bonney et al. 2009; Dickinson et al. 2012; Jiguet et al. 2012). However that is not to say that citizen science is without its critics. The studies of Lepczyk (2005), Robertson et al. (2010) and Tulloch & Szabo (2012) are representative of the scholarship that examines the limitations of volunteer contributions to the scientific study of birds. Specifically, this body of literature examines the effect of volunteer bias on the accuracy of data gathered using bird surveys. This literature critiques the *ad hoc* manner of surveying, generally concluding that data can have spatial and temporal biases which results in inaccurate estimates of species distributions and richness.

Instead of criticising the validity and accuracy of volunteer contributions to the scientific study of birds this thesis posits participation in citizen science ventures as an exciting opportunity to explore the characteristics of citizen science as a “coproduced hybrid of local and scientific knowledge” (Lawrence 2009, p.174). Rather than conceiving citizen science as simply the voluntary collection and dissemination of data this approach understands citizen science as an inherently embodied process dictated by the intersections of discourse, technology, human bodies, non-human bodies and space. Crucially, this study has identified strong patterns of citizen science involvement amongst participants. The findings communicated in *Chapter 5 Becoming Environmental Citizens* contribute to an understanding of the motivations, expectations and practices of people who watch birds and engage in the scientific process of citizen science in Australia.
2.3 Bird-Watching and Social Science: Leisure Studies

2.3.1 Categorising who's who in bird-watching: Recreation Specialisation

There are certain pieces of equipment and types of clothing that are common to all bird persons. The details (size, brand-names, colour etc. etc.) can give away a lot about your attitude, ability, experience and so on. The main object of all clothes and equipment is to denote the seriousness of your involvement in birding. There are plenty of tell-tale signs by which you can tell if a person is basically a twitcher, a birder or a dude – or, to be less factious, experienced or a beginner...” - Bill Oddie, (2006, p.18).

Since the late 20th century academic interest expanded to encompass not only the study of birds but also the people who watch them. In particular, people who watch birds have increasingly drawn the attention of leisure study scholars. Drawing on positivist approaches, the majority of studies attempt to classify the people who watch birds in terms of a social hierarchy denoted by the recreation specialisation framework. Scholars working within this framework segment and situate participants in a specific recreational pursuit along a “continuum of behaviour from the general to the particular” (Bryan 1979 p29, in Scott & Thigpen 2003, p214).

Drawing predominately on survey responses, people who watch birds are categorised according to differences in: motivation (McFarlane 1994; Scott et al. 1999; Hvenegaard 2002; Moore et al. 2008), knowledge and skill (Scott & Schafer 2001; Scott & Thigpen 2003; Moore et al. 2008), conservation involvement (Hvenegaard 2002), setting preferences (Martin S. 1997; Cole & Scott 1999; Scott &Thigpen 2003), expenditure (Moore et al. 2008) and personal or behavioural commitment (Scott et al. 1999; Scott & Thigpen 2003). Hypo-deductive reasoning and quantitative methods are generally used by academics working within the recreation-specialisation framework to prescribe the identity of bird-watchers based upon socio-demographic characteristics (see Hvenegaard 2002; Burr & Scott 2004; Eubanks et al. 2004; Moore et al. 2008, for example).
The outcome of this positivist led research is the segmentation of people who watch birds into categories broadly defined as *casual, novice, intermediate* and *advanced* (see McFarlane 1994, p361 or Cole & Scott 1999, p45) or, as Bill Oddie (2006) discusses, in common British vernacular: *dude, birder* and *twitcher*. Figure 2.2 summarises the main labels associated with the social hierarchy used to categorise people who watch birds by the recreation-specialisation approach.

The recreation specialisation framework permeates the majority of studies on bird-watching and, for the most part, the labels produced are taken as fact (see McFarlane 1994; Martin S. 1997; Cole & Scott 1999; Scott et al. 1999; Hvenegaard 2002; Scott & Thigpen 2003; Burr & Scott 2004; Eubanks et al. 2004; Scott et al. 2005; Moore et al. 2008; Tsaur & Liang 2008). A case in point is the work of John Connell (2009). In reviewing the bird-watching literature and establishing a research agenda for geographers Connell (2009) discusses the pre-existing social categories used to create a hierarchy amongst people who watch birds. These categories include *birders* and *twitchers*. According to Connell (2009, p204) *birders* are:

...a subset of birdwatchers who are not merely looking with pleasure, but are interested in scientific classification, environmental issues and the more detailed study of birds, though they reject any obsession with lists.

Instead this “obsession with lists” he ascribes to the *twitcher* subset. Consequently, Connell (2009) follows the long established practice of attempting to categorise people who watch birds within particular criteria, rather than thinking about the reciprocal relations that constitute a “bird-watcher” *in situ*. 
Studies which adopt a recreation specialisation approach tend to segment people who watch birds into one of four broad categories. People who watch birds are classified according to differences in: demographic characteristics, motivations and behaviour, level of skill, commitment, conservation involvement, “listing” and travelling practices, expenditure and willingness to pay for bird-watching experiences.

**“Ornithologist”**
Research academic with professional training. Interested in the scientific study of birds - study taxonomy, anatomy, morphology in addition to distribution and behaviour.

**“Twitcher/Advanced/Committed”**
Obsessed with lists, identifying and "collecting" as many birds as possible. Competitive. May share expertise with others through environmental citizenship. Travel specifically for bird-watching.

**“Birder/Birdwatcher/Active/Intermediate/Novice”**
Also interested in identifying. May keep a personal list - but not obsessed with "collecting" birds for personal glory. May share expertise with others through environmental citizenship.

**“Dude/Casual/Amateur/Bird-Fancier”**
Watches birds purely for pleasure. Low identification skills. No lists. Limited economic investment in bird-watching technologies and travel.

**Figure 2.2**: Studies which adopt a recreation specialisation approach tend to segment people who watch birds in to one of four broad categories. People who watch birds are classified according to differences in: demographic characteristics, motivations and behaviour, level of skill, commitment, conservation involvement, “listing” and travelling practices, expenditure and willingness to pay for bird-watching experiences.
Sheard’s (1999, p.185) efforts to reconceptualise bird-watching as a sport are similarly grounded upon the definition and categorisation of bird-watchers into different types:

At least five main categories of bird enthusiast have been identified in the literature. These are the ornithologist, the birdspotter/birdfancier, the birdwatcher, the birder, and the twitcher.

The starting point of Sheard’s (1999) work is the ascription of pre-determined labels to people who watch birds, based upon practices and attributes, as defined in the recreation specialisation literature. The broad thematic groupings of birdwatcher, birder, and twitcher (comparable to Scott et al.’s (2005, p65) casual, active and committed birders, respectively) while useful in making sense of bird-watchers are restrictive in that they overlook arguments that suggest that subjectivities are always configured in and through space (Probyn 2003). Although Sheard (1999) and Connell (2009) recognise that these ‘labels’ are by no means definitive, both nevertheless make the assumption that identity is not only singular but pre-existing and frame their respective arguments on reliance that such categories rigidly exist and are recognised and used by bird-watchers themselves.

2.3.2 What is bird-watching for? Bird-watching and ‘The List’: Listing as ‘Collecting’

Integral to Sheard (1999) and Connell’s (2009) categorisation of people who watch birds is the practice of listing. Connell (2009, pp. 204 – 206) describes part of the allure, and indeed central to contemporary bird-watching, is the act of viewing and “ticking-off” coveted bird species from a list. According to Connell (2009, p206) the “obsession with quantification” has come to characterise the increasingly competitive practices and experiences of bird-watching participants. Connell (2009) asserts that the list is a key point of reference for discerning between those he classifies as serious and hobbyist bird-watchers. For example, he defines twitching as, “a particular kind of ‘collecting’ tourism, as twitchers travel great distances to see rare species and accumulate lengthening lists of birds,” (Connell 2009, p206). In emphasising
the making of lists, birds are transformed to a ‘fact’ and people are transformed into categories of bird-watchers.

This thesis, instead of conceiving the list as a fact that helps discern prescribed bird-watching categories, understands listing as a process which mediates relationships between birds, people and places. This approach shifts the emphasis of listing away from the act of simply collecting and ticking-off species from a list, towards an embodied process of travelling, witnessing and encounter through list-making. To date there has been a dearth of research into the embodied practice of listing amongst people who watch birds.

2.4 Bird-watching and Social Science: Relational Approaches

2.4.1 Birds, Bird-Watching and Space: Actor Network Theory and ‘Hybrid Geographies’.

Relational approaches explore the intersections between human bodies, non-human bodies, technology and space. There are a number of different relational approaches including actor network theory (ANT), non-representational theory (related to more-than-human geographies) and post-structuralist feminism. Collectively these approaches are a response to the resilience of human/nature binary thinking which otherwise dominates the ornithological and recreation specialisation social sciences literature.

Interestingly, for geographers working within these approaches birds emerged principally as a point of conceptual discussion within recent studies of backyards and gardens. This work draws on ideas from Bruno Latour’s (2005) ANT that ruptures human/nature binary thinking. The studies of Power (2005), Head and Muir (2006) and Cammack et al. (2011), for example, are illustrative of the emerging corpus of work that challenges conceptualising birds as being a “passive other” exploited and manipulated by humans (Cammack et al. 2011, p318). Drawing
on Sarah Whatmore’s (2002) concept of ‘hybrid geographies’, these scholars conceptualise humans, non-humans and space as always being co-constituted and interdependent.

Power (2005), Head and Muir (2006) and Cammack et al. (2011) think of garden spaces as sites of collaborative interactions between human bodies, non-human bodies and space. There are no human/bird, subject/object binaries or hierarchies, instead complex relationships of power, subjectivity, materiality and compromise play out between and shape our understandings of human and non-human bodies. Such thinking directly challenges the discourse of humans and non-humans as ‘pure’ discrete entities that exist in isolation and simply mix together in the materiality of space. Rather, humans and birds ‘become’ and are understood only in relation to each other. This is facilitated through the interconnectivity of networks and flows in which neither human nor non-human agency is privileged. Social ordering or difference, Whatmore (2002) proposes, is performed instead of static and takes shape in response to the intertwining of the material and the social.

2.4.2 Birds, Bird-watchers and Technology – Separation and Intersection

Parallel with this growing body of literature reconceptualising bird/human intersections are critiques of bird-watching practices that ‘enforce’ the resilient human/nature binary discourse. As Chambers (2007) notes, bird-watching is often understood in popular culture as an activity that meaningfully reconnects humans with ‘nature’. Challenging this perception, attention in this particular strand of literature is given to the role of bird-watching technology in mediating bird/human intersections and making resilient narratives of birds as something that is ‘out there’ and separate from humans. Despite an exhaustive search it would appear that no studies have been published on the use of binoculars in bird-watching, conceptually. However, two articles were found which critique the use of video, or CCTV imaging, and photography, respectively, as bird-watching practice.
“Bird-Surveillance” - Watching Birds via CCTV

Chamber’s (2007) explored visitor and volunteer reaction to the application of CCTV cameras as a means of viewing birds at three bird-watching centres across Scotland. Watching birds via CCTV is commonly understood as an unobtrusive and ethical way for people to “get close”. Chambers (2007, p.123) draws upon Urry’s (2002) *The Tourist Gaze* to instead critique CCTV as technology that hyper-separates people from birds. CCTV, he argues, facilitates only a one-way exchange of information with the observer being protected from the gaze of the observed. Chambers (2007) concludes that the practice of viewing birds via CCTV serves to further enforce the idea that nature (in this case “wild” and endangered birds) should be separated and thereby protected from (and by) human society. This perpetuates, in effect, the discourse of human/nature binaries. In Australia the practice of bird-watching through CCTV surveillance is growing in popularity with at least two currently streaming to the public online (see Birdlife Australia’s *EagleCAM*¹ and Birds in Backyards *Powerful Owl NestCAM*²).

*BANG* goes the gun/*SNAP* goes the camera: “Capturing” birds via Photography

Watson (2011) explored how the digital camera has become an invaluable and widely used tool through which to view and ‘capture’ birds (see also Dunaway 2000; Ryan 2000; Lemelin 2006). Digital camera technology has helped transform leisure practices associated with birds that once involved “lethal” methods, such as shooting, stuffing and displaying bird study skins (Dunaway 2000). While photographs do not involve the killing of animals they nevertheless enable humans to assume a form of possession and authority over the animals that they “capture” in a “mimetic” way (Sheard 1999, p.184). The animal is objectified through the lens and when their image is transferred onto photographic paper they are in essence “captured” and removed from their broader ecological context (Watson 2011). As such, bird-watching is framed in the literature as replicating some of the pleasures, skills and practices endemic to


² Established in 2013 the Powerful Owl NestCAM streams video from outside of a nesting hollow at an undisclosed location in Sydney, [http://www.birdsinbackyards.net/Powerful-Owl-NestCAM](http://www.birdsinbackyards.net/Powerful-Owl-NestCAM)
hunting in symbolic and more “civilised ways” (Sheard 1999, p.185). The camera, as the more ethical “weapon” than the gun (Dunaway 2000), is still an embodiment of hunting practice because of the desire for proximity. Although the digital camera, with its zoom lens, allows proximity the encounter is framed by understandings of the technology. As such, bird-watching practices based on technologies like video, still cameras, binoculars and audio-recorders may reproduce understandings of nature as “out-there” and separate from humans.

Following from Power (2005), Head and Muir (2006) and Cammack et al. (2011), Watson (2011) draws upon principles of ANT to explain how birds become objectified through technology. He observes, “The digital photograph, rather than the wild bird, is gaining prominence as the epistemological object under study” (p.796). Drawing upon the work of Bergman (2005, p268), Watson (2011, p797) suggests that through photography birds risk becoming “simulacra” as they vanish from the world as physical beings and are replaced by representations. Birds and humans have become detached from the material spaces in which bird-watching occurs. Consequently, images of birds taken by bird-watchers need to be understood spatially and temporally as cultural products, representing a constellation of events, where the past and the present are folded into each other and humans are the creators of knowledge (Crang 1997; Urry 2002).

2.5 Conceptual Framework and Justification for Research

The literature review identified that the majority of research on bird/human intersections has relied almost exclusively on quantitative data and hypo-deductive reasoning. Such methods, entombed within a positivist approach, enforce the dominant Cartesian discourses of ‘culture’/‘nature’, ‘object’/‘subject’, ‘human’/‘bird’ dualism. In doing so, the complex interplay of social norms, bodies, technologies and space in dictating our understanding of birds, bird-watchers and human/bird intersections is largely ignored.
For this reason the conceptual framework taken in this thesis follows a relational approach to frame bird-watching as an inherently embodied experience. The approach draws on a combination of more-than-human and feminist perspectives to undo human/nature binary thinking and to explore the relationships between human bodies, non-human bodies and space. I draw upon the respective works of Gilles Deleuze and Felix Guattari (1987) on “becoming animal”, Val Plumwood (1993; 2002) on “nature” and Elspeth Probyn (2003) on the “spatial imperative of subjectivity” to argue that the subject of bird-watcher is derived relationally through people’s embodied histories and bodily experiences of encounter in the intersection of human bodies, non-human bodies (birds), technologies and space (represented in Figure 2.3). Weaving together these strands of thought I examine how subjectivities are performed and felt in the spaces and through the practices and encounters of bird-watching. In doing so, I posit the subject of “bird-watcher” as always being in a relational and performative process of “becoming”.

**Figure 2.3:** The subject of bird-watcher is constituted relationally by the intersections of technology, birds, space and human bodies. Figure adapted from Waitt, G. (2013, pers. comm., 7 August)
“Becoming Animal”

The first strand is Deleuze and Guattari’s (1987) notion of “becoming animal”. Deleuze and Guattari introduce a vision of the world in which human and non-human bodies are understood as relational, ongoing, fluid constructions shaped by encounter. This reconceptualization of humans and non-humans does away with labels and categories of “tree”, “rock”, “bird” or “human” etc., rather Deleuze and Guattari suggest a way of thinking that does not rely on classifying bodies according to form or function. Instead they think of identity as always being in a mode of “becoming”, as being forged through a “relational ontology” (Lorimer 2008, p379) that is open to and dictated by the affects of contact with different organisms. But just how does one “become animal”?

Deleuze and Guattari (1987) tell us that “becoming animal” is not simply an act of imitating or mimicking the form or behaviour of an animal; rather, it is a process through which one achieves “molecular proximity” with the animal. That is, one gets close to the animal’s location. Jamie Lorimer (2008) encapsulated these ideas perfectly in his study of the affective science of Corncrake3 surveillance. Lorimer frames bird-watching practices as processes through which people “become bird”. By their movement and use of technology, their embodied history, knowledge and fine tuning of the senses bird-watchers can re-align their bodies in space to tune into the presence of the bird’s and so open themselves up to moments of encounter and affect. The emphasis Lorimer places on “affect” in human/bird encounters is what separates him from the relational approaches identified in this literature review which focus more on “agency”. Lorimer draws heavily upon data collected through embodied, participative research methods to gain insight into “affect” and to construct his understanding of bird/human intersections - methods emulated in this project.

It is useful to think of bird-watcher/bird intersections in terms of “becoming bird” for two reasons. Firstly, the concept of “becoming bird” enables insight into the skill sets, embodied knowledge and technologies called upon by people to ‘get close’ to birds. Secondly, it allows for

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3 Corncrakes are small birds, similar to a moorhen or coot, native to Europe, Central Asia and Sub-Saharan Africa.
consideration of the emotional and affective types of relationships forged between “humans” and “birds” in moments of encounter. The ideas of “affect” and identity are considered in greater detail in this conceptual framework in reference to Probyn (2003) and the “spatial imperative of subjectivities.”

“Nature”

The second theorist to inform this conceptual framework is Val Plumwood (1993; 2002) and her reconceptualization of “nature”. In her seminal work *Feminism and the Mastery of Nature*, Plumwood (1993) proposes an alternate vision of the world which troubles the long-standing, hyper-separation of ‘culture’/‘nature’ into two discrete, opposing entities. This dualism of ‘culture/nature’, Plumwood argues, is not a free-floating idea; rather it is contextual and underpinned by discourse to permeate people’s understanding of the world and themselves.

According to Plumwood “nature” is defined as a passive non-agent, a subordinated and alienated other existing outside of and beneath “culture”. Thinking of “nature” and “culture” as binary opposites, Plumwood proclaims, results in an account of human identity in which humans are separate and distinct from nature as external controllers, capable of affect but not of being affected.

Like Deleuze and Guattari (1987) what Plumwood (1993) does is present an alternative vision of the world framed around notions of ‘hybridity’, ‘networks’ and ‘assemblages’. She breaks free from the shackles of Cartesian thought and rejects the divisive and persistent dualism of ‘culture’ and ‘nature’ to instead posit humans as ecologically embedded and non-humans as ethical subjects capable of agency and affect. “Human/culture”, Plumwood proposes, is entangled with rather than outside of “non-human/nature” - there are no clean cut boundaries between the two, rather each exists in reliance of the other.
Plumwood’s (1993) reconceptualization of “nature” provides a theoretical model for unpacking the complex entanglements of human and non-human bodies in space. Her ideas underscore the importance of remaining alert to underlying social structures and discourse from which dualisms such as ‘culture’/‘nature’, ‘mind/body’, ‘urban/rural’ are reproduced, maintained or ruptured through participants’ practices and talk of bird-watching.

“The Spatial Imperative of Subjectivity”

The final strand of thought is Elspeth Probyn’s (2003) “spatial imperative of subjectivity”. Following Deluze and Guattari (1987), Probyn argues that “the body cannot be thought of as a contained entity; it is in constant contact with others,” (2003, p.290). Therefore, rather than assuming that people who watch birds can be theorised exclusively within the universal terms of recreation specialisation, Probyn calls our attention to the importance of performance, affect, embodied history, discourse and surveillance in the formation of bird-watching subjectivities in and through space. This she terms the “spatial imperative of subjectivity”. The interconnectivity of these five elements in the construction of subjectivity is illustrated in Figure 2.4.

I apply Probyn’s (2003) theory to my analysis of bird-watching and narratives of encounter with birds for two reasons. Firstly, drawing on Probyn’s interpretation of Michel Foucault’s (1977) ‘discourse’ will allow insight into the foundations of the different ideas participants draw upon for authority when talking about birds, space, nature and themselves. A discursive analysis approach is taken to the interpretation of the data in this project.

Secondly, this project draws upon the methodological approach of participant observation for data collection. Drawing on Judith Butler’s (1990) work on ‘performance’ and ‘affect’ Probyn (2003) posits the body as a site for the production of knowledge. By participating in the spontaneity of bird-watchers’ everyday interactions with birds and space I learn from my own bodily experiences as participant observer.
‘Performance’ refers to how particular subjectivities are ‘done’, that is how people speak, move, dress etc., and what this represents about them. Performance is an intersection of the material and social. For example, in terms of enacting a “bird-watcher” subjectivity, wearing binoculars was an essential and symbolic component in the performance of this identity for most participants. ‘Affect’ is understood as the unconscious or unwilled force that flows throughout everyday life that is made manifest as blushing or crying, a big grin or the sensation of goose-bumps on your arms. In vocalising affect we may name it as an emotion such as awe, anger, sadness, pride or joy. Thinking about the embodied experiences of people who watch birds allows me to glean insight into the affect forces and emotional responses triggered by encounters with birds. The merits of a methodology based on embodied experience, discourse, affect and performance is discussed in greater detail in Chapter 3 Methodology.

Probyn’s (2003) ‘spatial imperative of subjectivity’ demands a rethinking of the formation and performativity of bird-watchers’ subjectivities. Bird-watcher subjectivities are formed not only through discourse but as experienced in situ and are therefore conceptualised in this project as an affective-emotional-spatial construction repeatedly negotiated and performed in context. Through this approach this project seeks to better understand how participants perform and experience a sense of self and place in and through bird-watching spaces.
**Figure 2.4**: Probyn’s (2003) ‘Spatial Imperative of Subjectivities’. Figure adapted from Waitt, G. (2012, pers. comm., March)
2.6 Conclusion:

The purpose of this literature review was to explore how scholars approach studying the relationship between people and birds. Through this, three broad strands of scholarship were identified: the scientific approach of ornithology that objectifies birds as species, a positivist informed approach in leisure studies that focuses on categorising the people who watch birds and a relational approach that explores the intersections between birds and humans.

The conceptual framework underlying this study follows a relational approach. Informed by the respective works of Deleuze and Guattari (1987) on “becoming animal”, Plumwood (1993) on “nature” and Probyn (2003) on the “spatial imperative of subjectivity” this study draws from more-than-human and feminist perspectives to undo human/nature binary thinking and explore the relationships between humans bodies, non-human bodies and space. These theorists reconceptualise identities as being multiple, fluid constructions in space and by following these approaches I posit the subject of “bird-watcher” as relational and performative. People cannot be thought of as simply assuming “one” static identity rather, to echo Deleuze and Guattari (1987), identity is always in a process of “becoming”.

The next chapter highlights the ways in which the methodological tools of this project mirror the conceptual approach and help address a gap in the bird-watching literature. A qualitative mixed methodology facilitates meaningful insights into how people become bird-watchers at the intersection of discourse, surveillance, performativity, embodied histories, embodied encounter, emotions and affect.
Christine (50’s, retired, no club affiliation, Eurobodalla) pauses along the Mill Bay Boardwalk to search the rock wall for birds, Narooma. Christine will often bring her binoculars when walking her dog, Monty, along the boardwalk.

**Christine:** [Bird-watching] It’s a great way for me to exercise and to exercise the dog. Go bird watching, check to see if the soldier crabs are out or sting rays or whatever else and what fish species and it is also a social thing. You get to chat to regular faces, whether you know their names or not. You often get to talk to visitors. They ask a lot of questions, some of them are keen birdos. They want to know what the Bell Miners are, things like that, so yeah it’s just a great way to be outdoors. Especially this time of year when it is magnificent.
3.1 Introduction

There are two aims to this chapter. The first is to illustrate how rigor was achieved in this project. In the conventional sense rigor refers to the “reliability” and “validity” of research (Baxter & Eyles 1997; Davies D. & Dodd 2002). It is not something which is separate from or simply laid over a project as an afterthought, rather it is embedded into all aspects of the research process (design, data collection and analysis) and is closely tied up with the methodological approach. What is understood as being rigorous practice in qualitative research can be very different to that in positivist informed quantitative research. Geographers employing qualitative methods draw upon the emotional and affective dimensions of human experience; ideas emerge and are enriched through direct embodied experience with the social phenomena of interest (Davies G. & Dwyer 2007, p.258; Kearns 2010, p. 244). Generally, this cannot be achieved through the application of standardised procedures (Davies D. & Dodd 2002, p.285) or distance between researcher and participant, features of rigor in quantitative research. Rather, rigorous practice in qualitative research involves recognising, embracing and reflecting upon the subjectivities of the researcher, laying bare the research process in all its messiness. Credibility, transferability, dependability and confirmability – the four tenets of rigor in qualitative research (Baxter & Eyles 1997) – are described in greater detail in Appendix A. To achieve this aim, strategies to enhance rigor through methodological practice are referred to frequently throughout this chapter.

The second aim is to outline and evaluate the research methods applied in this project. To achieve this aim this chapter is divided into five parts. Part one outlines the ethical considerations involved in qualitative research. Part two evaluates recruitment and sampling techniques. The third part describes the qualitative mixed methods approach employed in empirical data collection. Part four describes and compares the two methods of data analysis used. The fifth part summarises and ties together the key themes of the previous four sections to illustrate how the methods chosen were appropriate, ethical and rigorous.
3.2 Ethical Considerations

Understanding ethics to involve trustfulness, openness, honesty, respectfulness, carefulness, and constant attentiveness means ethics is not treated as a separate part of our research – a form that is filled in for the ethics committee and forgotten. Ethics are integral to the way we think about rigor and are intertwined in our approach to research, in the way we ask questions, how we respond to answers, and the way we reflect on the material. - D. Davies & Dodd (2002, p.281).

This project follows a feminist ethics described by D. Davies & Dodd (2002) (see also England 1994; Laurier & Parr 2000; Valentine 2003). Whilst the formal consideration of ethics is an essential (and often legislative) aspect of rigorous research, a feminist ethics recognise that our involvement goes well beyond the requirements of any research ethics committee. Consequently, this section is divided into two distinct but interrelated parts. Firstly, I outline the researcher’s commitment to ‘procedural ethics’ (Guillemin & Gillam 2004, p.263), that is the submission of a formal ethics application to the University of Wollongong’s Human Research Ethics Committee (HREC). I discuss the importance of informed consent and participant confidentiality as ethical and rigorous parts of this project. Secondly, I consider ‘ethics in practice’ (Guillemin & Gillam 2004, p.264), or how ethics were negotiated in the field. Ongoing critical reflection on the interactions between researcher, participant and space were central to this process.

3.2.1 Dotting ‘i’s’ and Crossing ‘t’s “Procedural Ethics” and the Formal Ethics Application

In accordance with the National Statement on Ethical Conduct in Research Involving Humans, (NSECRIH) (NHMRC 2007), the University of Wollongong requires that all research involving ‘human subjects’ be approved by the HREC (UOW, 2013). The purpose of the HREC is to facilitate ethical standards of human research. This aligns with the two-fold aim of the NSECRIH, (NHMRC 2007), which is:
• To protect the mental and physical welfare and the rights, dignity and safety of participants in the research, and
• To facilitate research that is of benefit to the researchers’ community.

The application submitted to the HREC addressed these aims by describing and justifying the research objective and methods. Considerable attention was paid to identifying the risks and benefits of the research to the participants and wider community as well as measures taken to ensure informed consent and participant confidentiality in the project design. Approval from the HREC was received on March 27th, 2013 (reference HE13/116; Appendix B).

Informed Consent

Informed consent in qualitative research may be understood as consisting of two related activities (Israel & Hay 2006, p61). Firstly, participants need to fully understand what their involvement in a research project entails – this includes comprehension of the potential demands, risks and inconveniences involved. Secondly, participants must voluntarily agree to participation in the research.

During the recruitment phase, potential participants were provided with a written Project Description which outlined the aims and methods, what participation would involve and how to contact the investigators (Appendix C). A Participant Information Sheet (PIS) was sent to people who accepted the invitation. It was made available to participants at least one week before Stage I. A verbal explanation was also provided as I read through the PIS prior to and at the end of Stage I to remind participants of the project aims and methods. The PIS was designed to provide a more detailed knowledge of the project aims as well as the potential demands, risks and inconveniences to the participants should they consent to participate (Appendix D).

Informed consent involved a sequence of stages including reading the PIS, being given the opportunity to ask questions of the investigators and then signing a Consent Form before
starting Stages I and II. Participants were familiar with the concept of consent and the process of signing a document. Nevertheless a verbal explanation was also provided to participants outlining the importance of consent and what they were agreeing to by signing the form. So as not to confuse what each Stage involved separate Consent Forms were issued (Appendices E and F).

The combination of a written PIS and Consent Form was therefore an appropriate means of ensuring participants were giving their informed consent. However, for Stage II I found negotiating the formal requirements of informed consent– that is, obtaining a completed consent form – to be challenging. There are a number of possible reasons for this. Firstly, because of the time intensive qualities of bird-watching (discussed in Chapter 6.2 Becoming Bird-watchers) there was limited opportunity to discuss the Consent Form and to go through the motions of it exchanging hands. Secondly, being outdoors in the majority of instances, the signing of forms and handling of paper seemed out of context. To bring the Consent Form to attention would have been “awkward” and a reminder to the participant of the underlying formality to our bird-watching experience. Finally, as all the participants had already read and signed the Consent Form for Stage I it is possible that they felt that consent for their participation in Stage II had been provided. In such cases where it was not possible to secure pen on paper, tacit and verbal consent was obtained. For example, participants had given tacit consent through participation in the bird-walk, remaining at ease with my overt taking of photographs during the walk and recording of the photo-elicitation interview at the conclusion. Consent was also implied by the fact that the participant and I had arranged a separate time to complete Stage II, following Stage I.

Confidentiality

R. Wiles et al. (2006, p.287) consider confidentiality in research to be concerned with data access and application. For qualitative researchers maintaining respondent confidentiality while conveying detail rich accounts of social phenomena can be difficult (Kaiser, 2009). Issues of
confidentiality align closely with those of anonymity (Wiles R. et al. 2006), the goal of the researcher being to ensure that the identity and privacy of the individuals who participated in the research is protected (Dowling 2010). In this project a Consent Form was used to address these concerns. Prior to being interviewed participants were asked to complete the form indicating their consent to either the use of their given name or a pseudonym. The provision of this choice acknowledged that some participants may wish to retain privacy through confidentiality. Given that this project relied heavily upon the lived experiences of persons from relatively small bird-watching communities the ethics of conducting research in such a way that confidentiality was maintained was potentially problematic – even with the use of pseudonyms readers of the thesis could potentially identify participants based on their shared experiences. Ultimately all participants consented to being identified by their given names in the project – they wanted to be identified with their stories.

3.2.2 “Knowing me, knowing you”: Positionality, Reflexivity and “Ethics in Practice”

Conducting rigorous embodied research can be particularly challenging. As Kearns (2010, p. 247) emphasises, embodied research involves physical participation in the lives of those we wish to learn more about. Our unique and ever-changing positionality as “researcher”, “participant”, “observer”, “insider/”outsider” (Waitt & Cook 2007; Kearns 2010), as “marginal” (Evans M. 1988 in Kearns 2010) or situated in “inbetweeness” (Nast 1994 in Waitt & Cook 2007) in these social worlds has implications not only for how we conduct ourselves ethically, in relation to participants and place, but how we relate to and interpret the research itself. This section outlines the significance of positionality and critical reflexivity in rigorous, ethical research.

‘Ethics in practice’ (Guillemin & Gillam 2004), or a feminist approach to ethics, recognises the complexity and challenges presented by the relationship between researchers, the participants and the research. To make sense of the ““disordered” process of research” (Davies D. & Dodd 2002, p. 281) feminist scholars suggest we, as researchers, critically reflect upon and make
visible to all our subjective positionings (see England 1994; Baxter & Eyles 1997; Davies D. & Dodd 2002; Valentine 2003; Reeves 2007; Kearns 2010 - this list is by no means exhaustive). Drawing on Reeves (2007), Figure 3.1 acknowledges my own subjectivities coming into the research process.

However, our subjectivities and identity are never static (Probyn 2003). As researchers we constantly shape and are shaped by the research (McDowell 1992, p.413). It is therefore essential that researchers adopt a reflexive methodology at all stages of the research process and not just at the beginning (Reeves 2007, p.257). This ongoing reflection upon my changing positionality was materialised through the creation of positionality statements (England 1994) which documented my experiences, biases and the transformations of my thoughts, attitudes and practices towards bird-watchers and bird-watching at various times and across various fieldwork sites. In Appendix G I consider the impact of my subjectivity as “researcher”, “participant”, “local” and “student” on my relationship with participants. I demonstrate how my positionality as “insider”, “outsider” and “marginal” in the different field sites of this project was always in flux.

Engaging with participants in the field involves navigating an often tangled web of social relationships and power structures. Despite our best efforts the reality is that ethical issues surrounding research - fieldwork practices in particular - are “varied and situational” (Davies D. & Dodd 2002, p. 281; see also Cloke et al. 1999), often going beyond the foresight of formal ethics requirements. We may be “researchers” but we are also “participants“, “locals“, “friends” or, in my case, an “amateur” “bird-watcher” and this perception impacts upon the information participants may confide. I was often privileged with knowledge of ‘secret bird-watching places’ which may not normally have been shared. In Appendix H I critically reflect on my positionality and the ethical dilemma I faced when privileged with access to “special” sites outside of general public knowledge.
Figure 3.1: Negotiating Positionality: Acknowledging the Subjectivities of the Researcher (Adapted from Reeves 2007, pp. 260 – 262).
3.3 Recruitment and Sampling Strategies

The following section on recruitment and sampling strategies is divided into three parts. Part one briefly outlines the criteria upon which participants were recruited. Part two describes and evaluates the merits of a coupled targeted and snowball sampling methodology. I conclude with a brief analysis of the participants' attributes. In doing so I recognise the voices absent from my research and demonstrate how my partiality in recruitment and sampling may limit the transferability and credibility of the results.

Recruitment

In acknowledging the diversity of bird-watching social worlds participation was not limited to individuals from any one specific organisation (e.g. a bird-watching club or nature appreciation society) or demographic category (gender, ethnicity, age, etc.). Rather, participation was based on the three-fold criteria that:

- The person partakes in the act of watching birds.
- The person maintains a list of their sightings.
- The person resides in the South-Coast region of NSW (as described in Chapter 1.3 Introduction).

For formal ethics reasons persons under the age of 18 years were not included in this study.

Targeted and Snowball Sampling

Participants were recruited through targeted and snowball sampling strategies. Targeted sampling began through bird-watching clubs, Appendix I illustrates this process and outcomes. Targeted sampling is a useful recruitment method because it enables the researcher to access information rich sources in a short amount of time. An email was sent to the President, or Secretary, of each organisation to seek approval for recruitment through these groups (Appendix J). Of the five clubs contacted three agreed to help with recruitment. 17 participants from these clubs took part.
The snowball sampling method was employed to gain access to people who watch birds but did not belong to the clubs. These participants were sourced through personal networks, as illustrated in Appendix K. For this project, snowball sampling was a less successful, time intensive method. Only 4 participants were sourced through personal networks.

Snowball sampling was coupled with targeted sampling to address the diversity of social contexts in which people list and watch birds. To recruit people solely from bird-watching organisations would exclude the experiences, expectations and practices of people who watch birds as a solitary pursuit. Likewise, to recruit only solitary bird-watchers would overlook listing and bird-watching as a social practice that may be integral to either competition between people or the sharing of knowledge, as hypothesised from the literature review. Following Plumwood (1993; 2002) I do not make rigid distinctions between or recognise a binary of solo-bird-watcher/social-bird-watcher. Rather, I am interested in the experiences of all people who watch birds and keep lists.

**Partiality – Absent Voices**

Despite my attempts to engage bird-watchers from a variety of social and demographic backgrounds the results are reflective of the experiences of a specific ‘segment’ of the Australian bird-watching populace. Of the 21 participants, 14 were retired or semi-retired. Only one was under the age of 40. In terms of gender 7 men and 14 women took part. Furthermore, as discussed in *Chapter 1.3 Introduction*, participants lived in areas outside of the major capital cities and of high density development. See Appendix L for a detailed overview of each participant’s attributes and contribution to this study.
An analysis of articles published in Birdlife Australia’s quarterly members’ magazine, *Australian Birdlife*\(^4\), as well as discussion with participants in this project, suggests that two voices are missing from the sample.

Firstly, there is a distinct underrepresentation of children (0 and 14 years) and youth (15 and 24 years) (defined by the ABS (2013b)). Whilst procedural ethics requirements explain the absence of persons under the age of 18 from the data, the absence of young-people is less clear. Whilst by no means as popular a pastime as soccer, surfing or gaming, for example, interviews conducted by Birdlife Australia (2011) and ABC Local Radio (*Birdbrain* 2009) have shown that bird-watching is enjoyed by many children and young-people in Australia. As my initial targeted sampling techniques favoured bird-watchers with some involvement in clubs the generally older demographic of these groups is reflected in my sample.

Secondly, this study favoured the perspectives of bird-watchers residing in regional or peri-urban communities, not people watching birds in the inner city. The embodied geographical knowledge and bird-watching performances of people in cities may well be different to project participants. The decision to exclude these voices from this study was not made lightly, with time and labour costs being the key limiting factors.

Consequently the empirical results presented here are representative of older people who watch birds on the South Coast of NSW. With more time it may have been possible to follow up recommendations made by participants to meet a broader range of people. It should be noted that the results presented in this thesis are by no means constitutive of the experience of all bird-watchers. This identification of a future research agenda is explored in greater detail in *Chapter 7.3 Conclusion*.

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\(^4\) Formerly published as *Wingspan* (1991 – 2012) for Birds Australia, when Birds Australia and Bird Observation and Conservation Australia (BOCA) merged in 2012 to form Birdlife Australia, *Wingspan’s* run ended and was replaced with *Australian Birdlife* magazine.
3.4 Qualitative Mixed Methods Approach

This project employed a qualitative mixed methods approach, drawing on semi-structured interviews, participant observation, ‘conversations in place’ and photo-elicitation interviews for the empirical data. Baxter & Eyles (1997, p506) posit the mixed methods approach as one of the most common ways to enhance rigor in qualitative research. Although potentially time consuming and sometimes laborious the benefits of mixed methods include how the dependability and credibility of results is enhanced through data triangulation and the acquisition of detail rich information through prolonged engagement with participants in the field.

This section is divided into two parts, each corresponding with one of two stages of empirical data collection. I assess the merits and limitations of each method and describe how each was employed in this project. I also consider the role of interview and fieldwork location in enhancing and constraining data collection.

3.4.1 Stage I Embodied “Bird-Talk” - In-depth Semi-structured Interview

There is no better introduction to a population than the people themselves, 

In Stage I participants were invited to take part in a conversational, semi-structured interview about bird-watching (see Appendix M for interview schedule). Following Kearns (1991, p.2.) the purpose of this Stage was to gain insight into the participants’ bird-watching and listing practices, motivations and experiences. As outlined by K. Dunn (2010) the face-to-face verbal interchange of interviewing is an excellent way for researchers to conduct rigorous, ethical research. Described as a “shared communication” (Davies D. and Dodd 2002, p. 283) interviewing brings people ‘into’ the research process (Dunn K. 2010, p.135), affording
participants the opportunity to describe in their own words their situated knowledge of birds, people and place.

The flexibility of the semi-structured interview is beneficial in two ways. Firstly, this method allows the interviewer to modify questions from the schedule as new topics arise. Secondly, the interviewee is free to elaborate on the issues important to them. Questions were structured to elicit a life-narrative of bird-watching. This form of storytelling is valuable to geographers because people tell their narratives as embodied geographies in reference to themselves and lived spaces – see Pamela Moss (2001), Steve Pile (2002) and Andrew Gorman-Murray (2007; 2008) who all advocate for a narrative approach. This thesis contains excerpts from interviews with twenty-one participants. One interview was with a couple; another was with three friends contributing. Each of the remaining interviews was with an individual.

The semi-structured interview was designed to enable conversations to flow around the use of sketches, maps and bird-lists. These techniques helped to provide different insights as to why people watch birds. Firstly, participants were asked to reflect on the role of bird-watching in their lives by sketching what bird-watching meant to them. Guillemin (2004, p.272) posits sketching in interviews as an insightful way to explore how people make sense of their world. Participants had a variety of reactions to this request with most refusing to sketch, choosing instead to describe their understanding verbally. This was not altogether surprising; as Guillemin (2004) concluded, in everyday settings we use words rather than images to explain how we feel and think. Nevertheless, as Figure 3.2 illustrates, those who did sketch provided important clues as to why they watch birds and how they constitute the places in which bird-watching occurs.
Figure 3.2 – What does bird-watching mean to you? (Clockwise from top left) Demetrios, Paul, Mandy and Sylvia sketch and explain what bird-watching means to them.

Demetrios: Basically whenever I go bird-watching I go out to be alone and one of the great joys of bird-watching is because it focuses you so much in the present you forget about the past and tomorrow and you’re just there.

Paul: That’s it; in one little symbol - the Ying & the Yang... Bird watching gives me balance in my life. It gives me time out from the mundane things...

Mandy: That’s a tree, that’s some water, that’s me. I suppose I should have some binoculars, That could be a White-Bellied Sea-Eagle, that could be a Plumed Whistling Duck, it looks more like a shark actually. I guess the main thing about the bird-watching to me is it’s something you can do outdoors and I just like to be outdoors...

Sylvia: I don’t draw but it means something more to me than I could possibly draw - that is the problem... I could draw a lot of birds but that gives you the idea but it’s about being outside its being about out in the countryside; a bit of social contact, and its communing with nature...
Secondly, participants were presented with three maps of various spatial scales: local, national and global. Maps were used to help participants articulate the spatial and temporal dimensions of their bird-watching and list-making practices. Each participant was asked to identify and reflect upon the places where they intentionally travel to watch birds. Then they were asked to tell stories about places where they had witnessed birds incidentally. Maps served as another means of data production with participants reflecting on the locations identified and sharing stories of their bird-watching experiences and practices in place.

Finally, prior to the interview I asked participants to bring a copy of their bird-list(s). Questions put to the interviewee focussed on eliciting information about the spatial and temporal attributes of these lists as well as the centrality of the list to their bird-watching experiences.

With the participants’ permission the conversations were taped on an audio-recorder and later transcribed for data analysis. Although the visible presence of the recorder is a reminder of the interviews’ formal nature (Dunn K. 2010), the benefits of using audio-recording technology outweighs the cost – not having to rely on the interviewer’s recollection of events or note-taking facilitates a more “natural” conversation to flow between interviewer and interviewee. The interviewer is not preoccupied by taking copious notes and, as such, can become a more attentive, critical listener (see Dunn K. 2010 for further discussion).

Microgeographies of interview location: power and participant observation

As Elwood and D. Martin (2000, p.653) tell us, it is important to consider the “microgeographies” of interview locations for two reasons. Firstly, power relations between researcher and participant are shaped by and played out in the spaces and places where research is carried out (see also Gilbert 1994; Hoong Sin 2003; Anderson & Jones K. 2009; Kearns 2010; Tarrant 2013). Depending on where the interview is conducted, and how participant and researcher are situated in terms of power and expertise within that space, participants might offer different perspectives on questions asked (Elwood & Martin D. 2000;
People may constitute themselves as either “knowledgeable participants” (Elwood & Martin D. 2000, p.655), with valuable information to share, or may perceive the researcher as holding the expert knowledge and thus “hold-back”. Consequently I was always mindful of where the interviews were conducted – I was relying on the participant to share with me their stories and knowledge and thus I proposed interview locations where they would feel comfortable and empowered.

Secondly, interview locations also provide an opportunity for participant observation. Most of the interviews were conducted outside. Box 3.1 illustrates how participants were sometimes distracted by their surroundings. Indeed, birds, lizards and plants, for example, all played a role in different interviews. Observing participants in their spatial context during the interview allowed me to glean a new insight into the affective and emotional dimensions of chance encounters with the more-than-human. The next section discusses participant observation as a method of data collection in more detail.

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<th>Box 3.1</th>
<th>Spontaneity and Participant Observation in Interview Location</th>
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| **Example A** | **Martin:** There’s a league table for Australian Twitchers on... what’s his name’s website...... [Gets distracted by a bird flying overhead]  
**Penny:** [To Martin] Pay attention, I’ve got to go in a minute. |
| **Example B** | **David:** Then some of the people who said “I don’t keep lists” would fill out this [a template list of commonly seen birds provided by the club] religiously on a monthly basis. But they don’t keep a list when they go for a walk, or they don’t have a life list- sorry, there’s a nice little Dragon that’s just run up onto the rocks over there [David gets distracted by the reptile - Conversation about the Dragon in the garden and Carrie’s dislike of lizards ensues] |
| **Example C** | **Gillian:** Well they didn’t come back the same way as everybody else, which upset everybody- [gets distracted by a bird-call]. That sounded like Lorikeets didn’t it? Who was it? Musk Lorikeets or something?  
**Julie C.:** Sounded like Musk.  
**Gillian:** Oh definitely not Rainbow.  
**Janet:** Musk, yeah. |
3.4.2 Stage II “Bird-Watching” – Participant observation, ‘conversations in place’ and photo-elicitation

In keeping with the feminist perspectives Stage II was designed to draw upon two key modes of embodied research: participant observation and ‘conversations in place’. Photographs taken by myself, as participant observer, during this stage stimulated further discussion in a follow-up photo-elicitation interview.

Participant Observation

Kearns (2010) describes participant observation as the process by which researchers deliberately immerse themselves in the everyday rhythms and routines of the lives of the people they wish to understand. This method draws credence from non-representational theory and the ‘visceral approach’ of post-structural feminism which emphasise the centrality of the body to experience and thus the validity of the researcher’s body as a research tool (Longhurst 2001; Crang 2003; Probyn 2003; Simpson P. 2011).

The objective of participant observation was to share in the spontaneity of bird-watcher’s everyday interactions with space and birds. As such, depending on their personal bird-watching practices, my role as participant observer involved anything from attending a field meeting with a bird-watching club to “birding by car”. I was not a “complete observer” (Gold 1958, p.221), akin to a zoologist examining the rituals of animals in an enclosure, rather I assumed a position closest to that of “complete participation” and was thus integral to the creation of the bird-watching space (Waitt & Cook 2007, p. 539).

Conversations in Place – Talking and Walking

By taking part in the participants’ everyday bird-watching practices I witnessed and experienced the sensate, affective world of bird-watching. This not only allowed me to gain a greater
understanding of the spontaneity and chance encounters described by participants in Stage I but by conversing with participants in this informal setting I was privileged with a new narrative, a “lay geography” of place through bird-watching (Crouch 2001). This process of ‘talking whilst walking” (Anderson 2004, p.254), or “conversations in place”, was useful as participants spoke about the everyday and their history, sharing narratives about birds, themselves and place.

Evans J. and Jones P. (2011) critique the “walking and talking method”, concluding from their observations that “walking interviews serve as a less productive mode where autobiographical narratives are the researcher’s objective of study” (p. 856). My experiences suggest the contrary. I found this Stage to be very useful in eliciting examples of the participants lived experience and bird-watching history in specific locations. I was told stories with greater clarity when walking and talking than in the formal interviews when they were asked a direct question relating to the places where they encounter birds. In many instances I lamented my lack of audio-recorder as the rich information shared with me went undocumented. This observation is consistent with Kearns (2010, p.254) who noted that participant observation necessitates a greater reliance on detailed recollection and note taking after the field encounter.

Photo Elicitation Interview

With permission, the process of experiencing place and encountering birds was recorded using photography. Visual methods have the potential to document the complex interaction between humans and more-than-human aspects of life which otherwise “escape text and talk based approaches” (Lorimer 2010, p.242). These photographs captured the participant prior to, during and following moments of chance encounter with the more-than-human. These images aimed to capture the ordinary, the extraordinary, the emotive and the affective elements of bird-watching. These photographs were then used to generate conversation. Schwartz (1989), Harper (2002), Harrison (2002) and Clark-Ibanez (2004) all advocate for the use of photographs
in the interview process as a means of enhancing other qualitative methods and helping to “fill-the-gap” often left by conventional words alone interviews.

There are a variety of approaches to conducting photo-elicitation interviews (see Harper 2002 and Clark-Ibanez 2004 for a review of the different approaches). In this study I produced the photographs as participant observer. By integrating these photographs into a short conversational interview a different kind of information was brought to light. As illustrated in Appendix N, when reflecting on a photograph, Demetrios provided an oral history of his bird-watching experiences which went beyond the scene depicted. The insights, experiences and knowledge gleaned through this “spontaneous story telling” (Hagedorn 1994, p. 48 in Harrison 2002, p. 865) may otherwise have gone unspoken in a face-to-face interview (Clark-Ibanez 2004). According to Harper (2002, p.13) this is because pictures are capable of evoking “deeper elements of the human consciousness” than words alone.

Whilst the photo-elicitation interview was a great way to gain new insight into the participant’s bird-watching history there were some shortcomings to this method (Clark-Ibanez 2004). Specifically I often found asking participants to stop and view the photographs upon the completion of our “bird-watching walk” to be impractical, despite the participant having foreknowledge of the request. This was due not only to temporal pressures presented by the time intensive qualities of “going” bird-watching (see Chapter 6.1 Becoming Bird-Watchers) but also problematic spatially. The places where we were bird-watching and those where we “ended” (usually a car-park) were not conducive to sitting down and looking at the photographs with minimal fuss. Therefore, I was unable to engage a number of participants in a conversation about the place, experiences and activities just shared, in relation of the photographs. Despite being asked the same questions the replies participants provided were much shorter without photographs, illustrating the capacity of photographs to prompt storytelling.

Despite my attempts at establishing embodied knowledge through physical participation I was aware of limitations to this method that prevented my complete ‘immersion’ in participants’
everyday bird-watching worlds (Waitt & Cook 2007, p. 540). My positionality as a hearing impaired, poorly equipped young adult with only a rudimentary knowledge of birds was central to this. Appendix O is a positionality statement which explores these implications further.

3.5 Methods of Data Analysis: Narrative and Discourse Analysis

The qualitative data obtained through the aforementioned research methods was analysed using a combination of narrative and discourse analysis techniques. This section describes each method and outlines its application.

**Narrative Analysis**

Narrative analysis is based upon the careful examination and interpretation of a personal story to reveal the situated in place experiences embedded within (Wiles J. *et al.* 2005, p.98; see also Fraser 2004; Floersch *et al.* 2010). The objective of this methodology is to identify recurring themes across multiple “tellings” of the same event. Narrative analysis unpacked personal bird-watching life narratives to explore how participants created and reproduced particular bird-watching subjectivities through talk of expectation, motivation, practice and experience. Drawing on the work of J. Wiles *et al.* (2005) this process necessitated repeated readings of interview transcripts to identify recurring themes and analysis of similar and different responses to the topics discussed (see also Waitt & Gorman-Murray 2007, p.573).

**Vignettes**

Adding depth to narrative analysis vignettes were also used in this thesis. A novel way of conveying the rich detail of interview data, which may otherwise be lost through interpretation and analysis, vignettes can enhance the credibility and dependability of a research project – participants can recognise the experiences reported as they are in their own words with little “academic framing” from the researchers (Blodgett *et al.* 2011, p.524). The vignettes presented in *Chapter 6 Becoming Bird-watchers* were constructed as “portraits” (see Ely *et al.* 1997), to
illustrate the character and experiences of individual participants’ and were drawn directly from
the interview transcripts. They do not represent what I think to be “the right” knowledge or
truth (Fraser 2004, p. 195) rather these vignettes illustrate the “plurality of truths” (p. 181) of
human experience and give participants a distinct and recognisable voice in the research
(Spalding & Phillips 2007). Vignettes afford the reader the chance to “step into the space of
vicarious experience” (Ely et al. 1997, p. 72) and “glean a deeper understanding of another’s
words” (Blodgett et al. 2011, p. 530).

**Discourse Analysis**

Discourse analysis is based on the idea that “language both mediates and constructs our
understanding of reality” (Starks & Trinidad 2007, p. 1374). The objective of discourse analysis
is to uncover the social mechanisms, or “discourses”, that give validity to statements about
particular people, things, institutions, events and places (Waitt 2010, p. 217). These are the
taken-for-granted ‘truths’ held and reproduced by participants evident through talk of birds and
bird-watching. Discourse analysis offers insights into the broader meanings, practices and
attitudes embedded within speech and the social norms governing the dominant and silenced
interpretations of the world. In this thesis emphasis is therefore placed not only on the
understandings of the world embedded within individual bird-watching narratives but on the
broader cultural context in which participants’ understandings of birds, people, technologies,
practices and space occur.

Appendix P is a table which describes and compares the aims, key concepts and strategies of
narrative and discourse analysis in further detail.
3.6 Conclusion

This chapter addressed two interrelated aims. The first aim sought to illustrate how rigor was achieved in this project. Integrating Baxter and Eyles (1997) criteria for rigor into all stages of the research process ensured credibility, transferability, dependability and confirmability were achieved. Central to this was the adoption of a reflexive methodology. By acknowledging how my changing subjectivity as “researcher”, “amateur bird-watcher” and “Carrie” influence and are influenced by the research this chapter acknowledged the centrality of critical reflexivity to rigor. Attention to this ideal was made manifest through the production of positionality statements.

The second aim was to outline and evaluate the research methods applied in this project more generally. The project employed a qualitative mixed methods approach. Empirical data was sourced through a combination of semi-structured interviews, participant observation, ‘conversations in place’ and photo-elicitation interviews. Although sometimes time consuming and laborious the mixed methodology enhanced the dependability and credibility of results through data triangulation and the acquisition of detailed information. Notwithstanding, there were some limitations to the research design. Specifically, due to partiality in the recruitment and sampling process there is an over-representation of bird-watchers who are retired and belong to clubs in this sample.

The qualitative data ascertained through these methods of enquiry was analysed using narrative and discourse analysis techniques. These techniques brought to light each participant’s situated knowledge of place, birds and self. The interpretation of the data is discussed over three results chapters. Chapter 4 explores how bird/human encounters are shaped by embodied experience, practice and discourse; that is, how people “become bird” and achieve moments of proximate encounter. Chapters 5 and 6 are case-study specific analysis of bird-watching subjectivities. These discussion chapters give insight into the embodied and discursive structures which underpin the unique and fluid performances of bird-watching, or what I call “becoming bird”, “becoming environmental citizens” and “becoming bird-watchers”.
Mandy (60’s, retired teacher, club member, Eurobodalla) observes an empty Sea Eagle’s nest, Mystery Bay. Mandy was shown this nest by a friend. She will now visit the site periodically to see if the Sea Eagles are nesting.

Mandy: I don’t know if she found it. I think she might have seen the bird land on it or whether someone showed her, I’m not really sure but anyway we do keep an eye on that and we have regularly seen the Sea Eagle on the branch near the nest.

Shortly after taking this photograph a Sea Eagle appeared in view. Apparently it had been sitting on a branch higher up in the tree and we had not noticed until we saw movement in the trees as it flew off!
4.1 Introduction

The aim of this chapter is to explore how people “get close” to birds. Achieving proximity is not simply about knowing where and how to look (i.e. the pleasures of seeing) but also where and how to hear (i.e. there are pleasures in hearing). To challenge the conventional treatment of bird-watching as a behavioural procedure determined by crude cognitive choices this chapter embraces the ideas of Deleuze and Guattari (1987) on “becoming animal”. The process that enables such close encounters to birds is conceptualised as “becoming bird” (see Lorimer 2008). In “becoming bird” people “perform” and re-align their bodies in space to tune into the presence of the birds and so open themselves up to moments of encounter. By thinking “performatively” about bird-watching I also embrace the ideas of Probyn (2003) and the “spatial imperative of subjectivity”. This necessitates thinking about how bird/human encounters are informed by practices, embodied experience and discourse.

There are four sections to this chapter each corresponding with a particular set of practices. The first considers movement or how people govern their bodies when moving through space to encounter birds. The second explores how people utilise their embodied knowledge of place and the behaviour of birds to facilitate encounters. The third section looks at “becoming bird” through a different set of embodied skills; that is, sensory perception. The fourth section reflects on and connects the three previous sections by considering the role of technology in facilitating and mediating encounters between people, birds and space.
4.2 Movement – walking at a “bird-watcher’s pace”

Walking is a practice informed by various social norms and values (Edensor 2000, p.81). People who watch birds perform subjectivities through different walking styles - “each style of walking helps people know where to look and how to interact with place,” (Waitt et al. 2009, p.44). In this chapter I focus on “repetitive walking” (p.44), meaning the walking routes regularly taken by people who watch birds.

In the following example Andrew (50’s, chemical technician, club member, Wollongong City) talks about how he slows his pace and alters his movements to get close to birds. He refers to this realignment of his body, or this process of “becoming bird”, as walking at a “bird-watchers’ pace”:

Andrew: Well when I used to bushwalk I didn’t know there were so many birds because usually it was a bush-walk [laughs]. But now when we go at a bird-watchers’ pace, which will sometimes take us half an hour to cover a kilometre or more because we keep stopping, and then all of a sudden there’s all these little [birds] - and when you get out of the suburbs into the bush and- even I notice, even if you have a park nearby, all of a sudden there’s all these birds, these little birds that you just didn’t realise existed before. And that’s really interesting. (Interview I, April 2013).

By slowing down his walking pace Andrew can stop and consequently encounter birds. Andrew’s narrative is informed by both a discursive and embodied knowledge that dictates what it means to walk at a “bird-watchers pace” versus a “bush-walkers pace”. The latter is understood and experienced as being much faster than the other and not conducive to encountering birds. This practice of “slowing” and “stopping” bodies when watching birds was a habitual but nevertheless conscious practice typical of participants in this project. Four additional participants refer to their walking style when watching birds as “going at a bird-watchers’ pace”.

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Another example is Mark (50’s, landscaper, no club affiliation, Eurobodalla) who often walks through Nature Reserves and National Parks as part of his routine bird-watching and leisure practices. He frequently walks alone and is conscious of his bodily presence in these spaces:

**Mark:** I like to stop and listen. When you’re walking the birds go quiet as you’re walking past, but if you just stop and wait after a couple of minutes they’ll start saying “Yep,” they’re okay we’re here and we can have a listen and you can see a lot more. Just walking straight through you miss everything, if you stop and listen you can have a look around. (Interview II, April 2013).

Mark’s narrative gives insight into a wider ideology of the role of the body in “nature”. His bird-watching body is cumbersome and intrusive and its’ very presence is threatening and out of place. His physical presence has an affect on the birds and influences their behaviour but this in turn changes Mark’s behaviour. In his desire to get close to birds he stops walking, he is silent, he waits for the birds to become accustomed to his bodily presence (see Figure 4.1). Mark’s narrative resonates with Edensor’s (2000) study of the reflexive and embodied practices of walking in the British Countryside. Edensor (2000) writes that walking is often a “habitual practice which unintentionally imparts conventions concerning the ‘appropriateness’ of bodily demeanour, but which is not wholly determined by cultural norms,” (p.81). Through walking and bird-watching Mark “achieve(s) a reflexive awareness of the self and particularly the body and the senses,” (p.81).
Figure 4.1: Mark hears movement in the scrub and pauses for a few moments. He then points to and identifies a Grey Fantail. Being familiar with the call and having heard it earlier during our walk Mark comments “I think it was the first one we saw today” (Interview II, April 2013). Burrewarra Point, Guerrilla Bay.

Mandy (60’s, retired teacher, club-member, Eurobodalla) also regulates her movements to encounter birds. However, unlike Andrew and Mark whose movements are regulated by awareness of their bodily presence, Mandy’s dialogue reveals a walking style dictated, in part, by the presence of plants:

**Carrie:** Now we walked through that section [referring to photos], I suppose, I felt, a little more quickly than the other sections. Is that because there is usually not as many bird there or-?

**Mandy:** If they are there they are easier to see, whereas in the rainforest you really have got to stop and look for them. But in here they are more obvious. I mean we saw that Kookaburra pretty quickly and you know there was nothing scrambling around in the ground. We saw the Bower Birds, you remember and we heard a few but we just
didn’t see a lot and the ones we heard were very high or a bit faraway. So yeah you don’t have as much trouble seeing things in that forest. (Interview II, May 2013).

Mandy’s decisions to stop, slow down or keep moving are linked to an ongoing sensual perception and experiential familiarity with the physical constraints of the route she is walking (Edensor 2000, p. 82). As illustrated in Figure 4.2 the trees in the rainforest create a dense vegetation cover and so Mandy must slow down and invest more time in her attempts to encounter birds there.

Figure 4.2: Mandy stops and scans the tree-tops for birds in dense rainforest vegetation, Mystery Bay.
4.3 Embodied Knowledge: “you get a feel for what you’ll see”

As evidenced by the conscious and habitual regulation of bodily movement through space “becoming bird” is also a process mediated by embodied knowledge; all participants spoke about getting close to birds by drawing on an experiential familiarity with place and the ecology of birds. This embodied knowledge of birds and place not only dictates how people move but when, where and how they look. In the following section I turn my attention to instances where previous encounters with birds facilitate future encounters.

In this example, Christine (50’s, retired, no club affiliation, Eurobodalla) “becomes bird” by drawing on her embodied knowledge. She is able to get close to birds because she knows where they are likely to be found because of her familiarity with place as habitat for the behaviour of particular birds:

**Carrie:** You knew where we might see certain things on the track, like we stopped at a few places to check. [Referring to photos] I think we were looking at Bell Birds here and then later on we were looking up the tree for the Sea Eagle Nest and then you pointed out where the Bell Birds were nesting. How do you know where to look?

**Christine:** I think that once you get to know your birds a bit you know their sort of habits. You’re obviously not going to find a water bird on the top of Mount Everest, so some of those things are pretty obvious. And some of the Thornbills will be lower to the ground and the Wrens you wouldn’t particularly be looking for them in the tree tops. So you just sort of get to know where to look for particular types of birds; whether they are ground dwellers or whether they want fresh water or whether they want salt or whether they are like the Eagles - they need a vantage point to survey their realm”.

(Interview II, May 2013).

When walking along the Narooma Boardwalk, Christine was able to show me a Sea Eagles’ nest. She had previously encountered the Sea Eagle as it returned to the nest and now, having knowledge of the nest, she knows where she may be able to encounter a Sea Eagle again.
Christine’s ability to “get close” to the Sea Eagle in this context is supplemented by reference to field guides which tell her that Sea Eagles use the same nest each season. Her embodied history of witnessing a Sea Eagle in this particular place enables possibilities of “becoming bird” in future.

Christine’s narrative of “becoming bird” through familiarity does not exist in isolation. David (60’s, retired manager with NPWS, club member, Eurobodalla) has a similar embodied knowledge of where birds are located in theory and in practice. He and his wife, Helen, have lived and watched birds along the Eurobodalla National Park coastline for the past seven years and have a good idea of what birds they may encounter:

**Carrie:** Can you tell me about how you know where to look? I suppose it comes through familiarity?

**David:** I think so, yeah. We’ve been here seven years and walked it so many times you know what you might see. You get a feel for what you’ll see and in what parts. The circuit does give a broad range of habitats, and different times of day, different times of year you get more in some than in others. And sometimes you get something really exceptional; one day we came down and there were hundreds of Shearwaters and other sea-birds in this real big feeding flock just off the point. There must have been a shoal of baitfish going through and there were thousands of them! (Interview II, April 2013).

David has a clear idea of what to expect in terms of the “ordinary” and is hence able to distinguish the “exceptional”. An embodied knowledge of the “exceptional” in his everyday bird-watching experiences mediates David’s practices, influencing the extent to which he will sometimes attempt to “become bird”. For example, an “exceptional” encounter fashioned my walk with David and Helen at Bingie Point. We encountered a Square-tailed Kite. An encounter with this particular bird became a key point of discussion in the follow up photo-elicitation interview and is a poignant example of the role of embodied knowledge in mediating
bird/human relations. When prompted by an image capturing the encounter, as depicted in Figure 4.3, David reflects:

**David:** It’s [the Square-tailed Kite] on the threatened species list. It’s not one that’s very often seen; they are resident in the area and we know they breed in the area. We have seen a nest further down towards Tuross. It may be that the pair from that are in the area again. (Interview II, April 2013).

*Figure 4.3:* The moment of encounter: David, Helen and I encounter a Square-tailed Kite during our walk at Bingie Point, Eurobodalla National Park.

From this statement it is clear that David has an experiential knowledge of the Square-tailed Kite inhabiting the area and this influences his walking practices. Once the Square-tailed Kite had flown from our view David proceeded to tell me about the significance of the landscape through which we had encountered the bird:
David: It was cleared for grazing and now it’s part of a National Park. It’s regenerating, so there’s a fair bit of heathland vegetation coming back. But it is a nice open part. We often see, well often might be an exaggeration, we do see Raptors here sufficiently often for us to consider it worth bringing a pair of binoculars down and having a look. (Interview II, April 2013).

David does not always bring binoculars when walking. In an earlier conversation he noted that “a brisk walk and bird-watching are not really compatible...” (Interview I, April, 2013). However, in drawing upon his embodied knowledge of the Square-tailed Kite and of the habitat it frequents David will entertain the notion of “becoming bird” by bringing along his binoculars when he walks through this particular open grassland at Bingie Point.

4.4 The Senses – hearing and sight, “I bird-watch with my ears”

In this third example of “becoming bird” I pay specific attention to the senses. Detecting movement and sound within an environment is a skill independent of endurance or repeated encounter with a particular place or birds. Bird-watchers may call upon their senses to “become bird” anytime, anywhere; re-orientating their bodies in space to potentially get close to birds in response to glimpses of as of yet unidentified movement or sound. “Becoming bird” through the senses, therefore, is based on acuity to one’s surroundings. Lorimer (2007) describes this heightened sensitivity to birds as ‘affective charisma’, meaning the active and affective relationship that might entice bird-watchers to engage with birds.

In the following example Julie M. (50’s, retired business consultant, club member, Eurobodalla) and I were walking around the Lake on her property. In two instances she called upon her sharpened sense of hearing to reorientate her body and attention towards the sources of, as of yet, unidentified sounds: once when she heard a splash in the water and again when she heard what she thought was bark being prised from wood:
Julie M.: Yeah, I heard a splash in the water and I had a quick look and it was a Coot doing some strange things and there was an Australasian Grebe nearby.

Carrie: The recurring thing that seems to be with your bird-watching is that it is very much connected with the sounds. Like we heard the Cockatoos before we saw them.

Julie M.: Well you could hear the prising of the wood [imitates noise]. I thought that was a beautiful sound. (Interview II, May 2013)

Julie M. heard these sounds and moved accordingly to situate herself in such a way that she could visualise the sources, as depicted in Figure 4.4. Then, by drawing on her experiential familiarity with birds and place, Julie M. positively identified the sources visually – a Coot and the Cockatoos. As such, through her senses of hearing and sight Julie M. re-orientated her body in the space and established a proximate encounter with birds.

Figure 4.4 Julie M. calls on her senses of hearing and sight to respond to unusual sounds in the environment and establish proximate encounter with birds, Moruya Heads.
Martin’s (50’s, public servant, club-member, Wollongong City) encounters with birds are similarly framed by his ongoing sensual perception of movement and sound in space:

**Martin:** A lot of the time it’s the call that will alert you to the bird. So I will always be listening out for the birds. Movement as well, so in the canopy of the trees you will be looking for movement which will indicate where there may be birds. (Interview II, June 2013).

Julie M.’s and Martin’s narratives resonate with Lorimer’s (2008) argument that watching birds encapsulates a “thoroughly embodied set of practices and is reliant on a full complement of the senses” (p.383). Sound is just as important as vision “in decoding the bird’s movements and orientating oneself in the landscape” (p.383).

4.5 Technology and Mediating Artefacts – “It’s very hard to pick anything over some distance by the naked eye, so we all carry binoculars”

“Becoming bird” is not simply a matter of knowing how (movement) or where (embodied knowledge) to encounter birds. As previously inferred participants in this project expressed considerable pleasure in classifying and identifying, or naming, the birds they encountered:

**Nerida:** I’d been with the club three years when they first accepted a bird I’d seen that I’d identified by myself! You know what I mean, we were out and no one else saw it but I could describe it in detail and so they were like, “Yeah!” And then you kind of go, “Oh! I am learning something!” (Interview I, April 2013).

**Andrew:** If you do manage to see something yourself and you’re pretty sure you’ve identified it, that’s a good feeling. (Interview I, April 2013).
The process of successfully identifying a bird was spoken about as a central aspect of the enjoyment gained from the experience of “becoming bird”. A number of participants spoke about not being able to conclusively identify or “pick” a bird as “frustrating”:

**Sylvia:** It was very frustrating because the birds, of course, are so used to being shot at in Italy that they had learnt to hide, so you could hear these blessed birds, you can hear them for hours, but you cannot see the blessed things! [Laughs] (Interview I, May 2013).

**Julie C:** And even though it gets frustrating, the fact that you can’t always see it- and it’s always the same – they’re always different colours in different lights and they’re different in breeding plumage!! (Interview I, May 2013).

**Julie M:** I remember distinctly seeing a female Golden Whistler and it wasn’t illustrated in the book, so you know, there were so many instances where you were sitting there going “It’s not in the book!” [Laughs] and that can be quite frustrating. (Interview I, April 2013).

This process of encountering and identifying, or putting a name to birds, is described by Lynch and Law (1998, p.320) as a “literary language game” and was a fundamental aspect of the lived experiences of participants in this project. When playing the “game” people who watch birds can draw on an array of technologies - including reference guides, optical instruments and audio devices - to enhance their physical and cognitive capabilities. As illustrated in Table 4.1 technologies can change the temporal and spatial qualities of bird-watching thereby enhancing the possibility of close encounters with birds that helps them become identifiable as species. The technologies utilised by people who watch birds are conceptualised in this thesis as “mediating artefacts” which simultaneously intercede and facilitate proximate encounters between people and birds in space.
## Freeze time
- Camera
- Audio-recorder

## Collapse Space
- Binoculars
- Spotting Scope
- Zoom-lens (Camera)

### Enhance Memory
- Bird identification books
- Observations database
- Notebook/List
- Bird call recordings

### Reduce bodily limitations
- Protection from “elements”: hat, sunscreen, raincoat, sunglasses etc.
- Backpack
- Tripod/Monopod
- Binoculars
- Transportation

| **Table 4.1**: Technologies which mediate and change the temporal and spatial qualities of bird-watching. |

### Field Guides, Reference Books and Electronic Databases

Field guides, reference books and electronic databases provide a scientific classificatory system around which everyday bird-watching practices can be organised. Based on the taxonomic categorisation of birds into different species some bird-watchers use the visual and textual data within these resources to mediate their bird-watching practices through identification and recognition of species, prior to, during and following encounter (Lynch & Law 1998; Prior & Schaffner 2011).

Paul (40’s, Australia Post, club member, Wollongong City), for example, utilises information from the electronic database *Eremaea* ([www.eremaea.com](http://www.eremaea.com)) to mediate his bird-watching practices prior to encounter. Provided that observation records are uploaded, anyone can use Eremaea to generate personalised lists of birds for a specific location and/or time period. Paul plans on taking a trip out to Lake Cargelligo for bird-watching, in September. He has been there before but would like to know more about the birds there. Paul can use lists of birds from the Eremaea database in conjunction with reference books and field guides to “become bird”:
Paul: This time we are going there in September so what I have done is- [looked at] other peoples lists. These are Lake Cargelligo lists; for the sewerage ponds, the railway line and the Lake, Condobolin Road, the wetlands there. And these are all lists of people who have seen birds, as well as the percentage of times they have actually recorded, when people have been out at that time of year. So what I’m doing now is going through all these birds and, “Oh I don’t know that one”, and I look it up in the book so that I can get there and know what I’m looking at. So that it’s not something that I’d never done before. So this is my list. That list came from the Eremea site. (Interview I, May 2013).

Paul speaks of selectively acquiring knowledge to reduce the possibility of an encounter with an ‘unfamiliar’ bird. He can go to Lake Cargelligo with a pre-emptive knowledge and better understanding of the birds there as the lists provide him with information on when, where and what to look for. The reference guides become a resource through which he can familiarise himself with the behaviours and niche habitats of species on his list. As Lynch and Law (1998, p.321) state:

During a field trip, the present state of the list supplies motives for searching the environment (and) selectively attending to possible experiences... There is thus a reflexive relationship between the literary phenomenon of the list and the embodied and interactional performance of observation and representation.

Paul has enhanced his cognitive abilities to “become bird” and enjoy the capacity to identify birds he may encounter. Yet, at the same time, his encounters with birds in this place are textually mediated and potentially “blinkered” by the lists and reference guides.

Rather than relying on traditional paper-bound reference guides (most of which are bulky and heavy to carry) for information in the field a number of participants, like Paul, utilised digitised
resources. Mandy mediates her encounters with birds through an electronic field guide stored on her iPod:

**Carrie:** Why is the iPod so useful?

**Mandy:** Because there’s a field guide on the iPod and you can even listen to the bird-calls.

**Carrie:** Is that the Michael Morcombe one?

**Mandy:** Yes it is. You can do a comparison here, like yesterday I wasn’t sure if I saw a Scarlet Robin or a Flame Robin so I got into here and I looked it up-

**Carrie:** And this is something you would use in the field [Mandy murmurs in agreement] if you’ve seen something and- “I’m not sure”- you’ll just look it up?

**Mandy:** Yep. [Plays bird calls on the iPod]...

**Carrie:** Do they have photos or is it just illustrations?

**Mandy:** It’s just drawings. Pretty much the same as what’s in the book and then there’s information as well. So it’s extremely useful in the field. (Interview I, April 2013).

This e-guide is essentially a digitisation of a popular textual field guide with the crucial addition of audio files of bird-calls. Designed for smart-phones and iPods this guide is compact and a quick point of reference for people encountering and identifying birds in the field (a comprehensive description of this particular e-guide is provided in Box 4.1.) Mandy’s embodied performance of “becoming bird” requires consulting the e-guide during the moment of encounter. Mandy oscillates between looking at and listening to the lively bird before her and consulting the inanimate representation condensed within the iPod. The existence of the lively bird is realised through Mandy’s selective use of the images, words and sound in the app (Lynch & Law 1998).
Binoculars and Cameras

Unsurprisingly, technologies which allow people to get close to birds by collapsing physical distance were spoken about by all participants as essential to their bird-watching “tool kit.” Binoculars are especially synonymous with the notion of bird-watching in academic and popular perception. For Julie C., Janet and Gillian (friends, club-members, Eurobodalla) binoculars enhanced the possibility for closer encounters with birds by overcoming the constraints of physical distance:


The app is based upon Morcombe’s (2004) paper field guide. The home screen (depicted here) has options for perusing taxonomic and alphabetic indexes of birds and also a ‘Smart Search’ function which allows the user to narrow down identification possibilities. A similar feature, ‘My Location’ allows the user to define the area they are watching birds in thereby spatially restricting the list of identification possibilities. The app also enables a side-by-side image comparison of two birds at once and affords users the opportunity to document their own lists of observations.

Unlike traditional paper field guides which rely on phonetic translations of bird calls, the app is highly prized for the inclusion of bird calls. More than one type of call is often included for individual species. These audio files can be played whilst viewing the textual information. Although it is generally “frowned upon”, users can playback the calls in the field to flush birds out into the open. More than one participant in this project admitted to using the audio files as “playback” on rare occasions to flush birds out into the open when identification was visually problematic.
**Carrie:** Could you tell me more about when you go bird-watching or when you’re in a situation where you might take a walk and see some birds, what’s the most important item to have handy when it comes to bird-watching?

**Julie C. and Janet:** Binoculars.

[Laughter]

**Janet:** You won’t see much without your binoculars!

**Julie C.:** When we’re going around on the four-wheeler I’ll have my binoculars on. They’re quite good – they’re not worth thousands of dollars or anything. I have them in the front end basket all the time because you can see the birds and they’re a fair way away so I always make sure I have them, and I get really cross if I forget them because it’s always- when I see a bird is when you can’t see it, you don’t have your binoculars.

**Janet:** I have an old pair in the car all the time, especially when we’re out somewhere. I’ve been through a few pairs [laughs].

**Gillian:** Binoculars, definitely. (Interview I, May 2013)

Crucially, binoculars enable the visual proximity required to differentiate between and identify birds. As Chris (70’s, retired metallurgist, club member, Wollongong City) explains, people who watch birds can use binoculars and spotting scopes to attend and bring to the fore the minute details of colouration and pattern of plumage, feet, bills, and eye-brows etc., characteristics central to a person’s capacity to visually identify birds:

**Chris:** Well, with your ordinary eyes... you know, you can't- just something as small as a bird like that [indicates length of 10 centimetres with hands] twenty metres away and you know there might be half a dozen of them that look the same, but with binoculars - eight to ten power normally, or some people actually use a scope up to sixty power... And they’re used for things like Waders where you might be one hundred metres away and you got to look- it's a hundred millimetres long and you've got to tell what it is.

**Carrie:** Yeah, yeah. And alot of them are LBJs - Little Brown Jobs - they all look the same.
Chris: Yeah, yeah. Sometimes you might be looking for little eye-brows, a couple of coloured streaks here or there. (Interview I, April 2013).

The physical proximity gained with birds through the mediating lens of the binoculars is fleeting and unless committed to memory the minute details of colouration and pattern are lost. Following this, a handful of participants, Chris included, utilise cameras and still photography as a means of not only getting close to birds through the optics of the zoom lens but of documenting the moment of encounter for future reference. As Jill (80’s, retired journalist, club member, Eurobodalla) notes, “I think that photographs are marvellous for identification purposes, it beats the written word hollow.” (Interview I, April 2013). The still image can become essential to identifying unknown birds encountered where information is not readily at hand. Andrew used photography in such an instance to help make sense of an unusual bird in his backyard:

Andrew: I was just sitting on my balcony one afternoon looking down and seeing what I thought was an owl, which I thought was pretty cool because you don’t normally see owls, you usually only see owls in documentaries. And taking some photographs of it and getting out my field guide and working out what it actually was- not quite an owl but a Tawny Frog Mouth. And I still have those photos somewhere. (Interview I, April 2013)

Andrew’s narrative, resonates with Watson (2011, p.796) who suggests that, “The digital photograph, rather than the wild bird, is gaining prominence as the epistemological object under study”. As evidenced in Chapter 2.4.2 Literature Review and Conceptual Framework, a considerable body of literature critiques the use of cameras and photography in mediating relations between human bodies, non-human bodies and space. Sylvia (60’s, retired public servant, club member, Bega Valley) alludes to this debate. When I spoke with Sylvia she did not use a camera to photograph birds but was considering purchasing one to assist her in identification:
**Carrie:** Do you think that watching birds through a camera lens and taking the photo and every one huddles around and then tries to identify it; do you think that detracts from the experience in a way?

**Sylvia:** I don’t know because I haven’t done it but I think it’s different. If you have got your binoculars you focus on the bird and you watch the bird often until it flies off or it has disappeared for some time and you give up. With a camera, I not saying this is totally true all the time, but you are more likely to focus, get the shot, then look at it on the screen, then move on, so it’s a different experience, which is why some people are carrying both and sometimes I’ve seen one of the guys say “I haven’t got my camera going I’m just looking with the binoculars”. So you do two things. So there is a potential to miss the behavioural aspects of the bird with the camera. On the other hand your capacity to identify is enhanced.

**Carrie:** So it depends on your personal reasons for watching the birds.

**Sylvia:** In some ways and I think the trend is if you have got a camera you just want to take the best shot, the clearest shot, the shot that, you know, that clearly identifies the bird and, secondarily, to take interesting shots. You know, Raptors with things in claws, or fluttering up, all those sort of things. Arty shots you might say. Well arty shots and information type shots. So you know catching a bird in an interesting position or prey of something like that is behavioural but it is sort of at the point and time of the dynamic.

(Interview I, May 2013)

While photographs do not involve the killing of animals, unlike hunting, they nevertheless enable humans to assume a form of possession over the animals and environments which they ‘capture’ (Sheard 1999, p184). Sylvia alludes to this when she talks of “catching a bird in an interesting position” in a photograph. Demetrios (20’s, studying ornithology, club member, Eurobodalla) explicitly draws on the language of hunting to describe his practice of watching and photographing birds:
Carrie: So the camera is a good way of-

Demetrios: Recording, and also you get satisfaction I guess- I’ve never shot a bird with a gun but I’m assuming that if I was a twisted hunter and I shot birds as well I’d probably get the same satisfaction, “Oh I got it!” And if you get a really good picture you know it also helps you notice other characteristics of the bird, because you spend so much time stalking it you get a better understanding of your quarry... (Interview I, April 2013).

Demetrios illustrates the parallels in the strategies of people who watch and photograph birds, and hunting discussed by Lemelin (2006) and Sheard (1999). Both require the capacity of the hunter/bird-watcher to become close to the birds they wish to ‘capture’. Like Sylvia, Demetrios’ narrative suggests that people who watch birds and use cameras are more interested in getting the shot (the “Oh I got it!” moment -Demetrios ) than in knowing and naming the bird as a particular species. The identification is secondary to, and sometimes only made possible by, taking “the best shot, the clearest shot” (Sylvia).

Audio recordings and recording devices

As mentioned previously in section 4.4 The Senses: Hearing and Sight bird-watching is not always a visually orientated activity based on an ocular culture of “seeing is believing”. “Becoming bird” and achieving moments of proximity through sound and hearing is just as important and pleasurable as vision.

Although not commonly used some participants utilised specialised audio devices for listening to, recording and playing back bird-calls to assist in identification and recognition. For example, husband and wife, Martin and Penny (50’s, administration, club member, Wollongong City) like to “bird-watch by ear” and enjoy identifying the birds they encounter by call. To enhance their audio-perception skills they use CDs of bird-calls to learn more about the birds they are likely to encounter in a specific area:
**Penny:** Before we go away I’ve been known to put them all into a folder and play them in the car on the way [laughs].

**Martin:** Yes, well if we’re going to a new area. Like last year we went to WA and I compiled a CD of all the WA birdcalls/

**Penny:** All of the ones which we were hoping to see.

**Carrie:** Hmm, and do you think that helped?

**Martin:** Definitely! You know I was able to, when we went up to Darwin as well we found a Black Tailed Tree Creeper solely from it’s call and I thought “I know that call”.

**Carrie:** [Laughs] How did that feel knowing that?

**Martin:** Great! Yeah. (Interview I, April 2013).

Like Paul and his use of the Eremaea lists, Martin and Penny utilise the audio-data to mediate their bird-watching practices prior to an encounter. By familiarising themselves with bird calls Martin and Penny prioritise sound over sight and enhance their cognitive ability to “become bird” through identifying species of birds by their song or call.

Audio-devices also provide a way of documenting the pleasures and details of the moment of encounter for future listening. Mark sometimes uses a voice recorder to document his observations when he encounters birds. When he identifies a bird he talks the species name into the recorder. Upon returning home he will then play the recordings back and make a written record of what he has encountered that day. Mark also uses the recorder to make notes of any distinguishing features of a ‘new’ bird. He then consults field guides and reference books to try and identify the bird:

**Mark:** I just take a little recorder with me, like you’ve got here on the table, and I’ll just talk them in to the recorder because I have to wear glasses all the time to write things down. And when I come home I just write it up in a little notebook.

**Carrie:** So when you’re in the field, to put it that way, and you see a bird, or something like that, you record your observations/
Mark: Just do a note on that particular bird. And if it’s a bird I haven’t seen before hopefully I can just record the details of it and hopefully compare it back to some field-guides later on. (Interview I, April 2013)

Mark also records bird calls when out in the field. In playing back these calls Mark achieves two things. First, he can relive the pleasure of the moment of encounter. Second, by comparing the recording to calls on CDs and calls he hears at home, he enhances his cognitive ability to recognise and achieve audio proximity with birds. Interestingly, this audio proximity with the bird is now possible in places outside of the spatial context where he recorded the initial call.

Mark: With the recorder, not only do I record what I see but I can also record what I hear. So I can record the bird call and when I come back I can actually compare it to bird calls that I’ve got here as well. And that can be quite enlightening.

Carrie: So the voice recorder sounds like it’s a primary method you use when documenting what you see when you’re out there —


For Mark using the voice recorder as a memory aide, through repeated listening, facilitates learning to recognise and differentiate between birds as species. By listening to the calls and familiarising himself with the birds observed through consultation with field guides and other audio-recordings this data becomes part of Mark’s embodied knowledge which can facilitate future encounters with birds. Mark’s use of the audio recorder in this context is an example of what Lynch and Lay (1998, p. 320) describe as a “recurrent practice” of “observation”, “description” and “categorisation”.

4.6 Conclusion

This chapter illustrates the different ways in which people “become bird” and draws attention to the important role played by the body, embodied skill and technology in mediating and facilitating bird/human encounters. The results presented suggest that the process of “becoming bird” and achieving proximate encounters can be guided by four interrelated practices.

Firstly, movement: participants spoke of consciously and habitually governing their bodies in space to get close to birds by being aware of the intrusive materiality of their bodily presence and the constraints of the physical landscape.

Secondly, embodied knowledge: experiential familiarity with birds and of the places where birds are found can facilitate future encounters, dictating how, when and where people “look”. In “becoming bird” through this method people drew on their knowledge of past encounters with birds to make spaces where birds could be located in theory and in practice.

Thirdly, sensory perception: “becoming bird” employs organs and senses that are often underused and unfamiliar to the average person (Lorimer 2008). By attuning their eyes and ears to look and listen for birds people may call upon their senses to reorientate their bodies and “become bird” anytime, anywhere.

Finally, technology: bird-watchers are limited in their ability to physically gain proximity with birds and to cognitively “know” every bird encountered. Embodied knowledge certainly helps this and yet the results suggest that even the most adept bird-watchers change the spaces and times for “becoming bird” by calling upon an assortment of texts, optics and audio-visual technologies. There is a reflexive relationship between these technologies and the embodied and interactive performances of observation, identification and representation.
By bringing to light the embodied experience and discursive structures underpinning the practices and performances of “becoming bird” this chapter sets the stage for Chapters 5 and 6. One aim of this thesis is to examine how subjectivities are performed in the spaces and through the practices and encounters of bird-watching. Unfortunately detailed analysis of all bird-watching subjectivities performed by participants is beyond the scope of this thesis. As such, the following discussion chapters identify and examine the different performances of specific bird-watching subjectivities. The subjectivity of bird-watcher that is explored in Chapter 5 is “environmental citizens”.
A sample of the booklets, brochures and newsletters produced by clubs and individuals on birds and birdwatching on the South Coast, NSW. These publications are available for free distribution and purchase. The data and photographs upon which these publications are based have been sourced from the records kept by clubs and individuals. They have been published not for profit but to inform and encourage others to take an interest in the birds of their local area.

CHAPTER 5 “BECOMING ENVIRONMENTAL CITIZENS”
5.1 Introduction

Environmental citizenship is a highly contested term. For the purposes of this chapter, “environmental citizenship” refers to the acquisition and dissemination of scientific knowledge about birds and their ecology with the intent of strengthening patterns of pro-environmental behaviour. This definition draws inspiration from the work of political theorists discussing the concepts of both “environmental citizenship” and “ecological citizenship” (see Dobson 2003; Light 2003; Seyfang 2005; Jagers & Matti 2010). Drawing on feminist geographical perspectives, including Probyn’s (2003) ‘spatial imperative of subjectivities’ and Plumwood’s (1993) reconceptualization of ‘nature’, becoming an environmental citizen is always multiple, and spatially situated within the political, economic, social, material and cultural relationships that comprise everyday life (see Figure 5.1). In this context, the aim of the chapter is twofold:

1. To examine how the subjectivity of environmental citizenship is performed in the spaces sustained by the practices and encounters of bird-watching.
2. To explore the relationships and tensions that emerge between the practices, motivations and outcomes of bird-watching and different performances of environmental citizenship.

Three “ways” of becoming “environmental citizens” emerge from the analysis. The first two reflect the formal, or planned, spaces where people as “educators” or “research assistants” share their expert knowledge of birds with others. Examples include running community education workshops or contributing data to citizen science projects. The third considers informal, or unplanned, spaces where people share their general knowledge of birds with others as “knowledgeable bystanders” and might include lending binoculars to strangers and identifying photographs of birds provided by co-workers.

Examination of narratives pertaining to “becoming educators” and “becoming research assistants” are the focus of this chapter. A similar analysis could be undertaken using the case
of “becoming knowledgeable bystanders” but is omitted here due to limitations of space.

*Chapter 7.3 Conclusion* considers bird-watching and informal contributions to environmental citizenship as an agenda for future research.

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**Figure 5.1**: A model illustrating the process of "becoming environmental citizens". According to Lawrence (2009, p.174) environmental citizenship takes place at “the interface between scientifically regulated knowledge formation processes and subjective personal experience”. Following this I argue that the union of bird-watching and environmental citizenship is not a clean cut. That is, an “environmental citizen” subjectivity (■) does not necessarily follow a “bird-watcher” subjectivity (■). Rather, performances of these subjectivities are intersected by the spatio-temporal constraints of everyday life, personal belief and experience. How someone negotiates their way through these “tensions” (■) dictates the “way” in which they may (or may not) become “environmental citizens”.

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5.2 Community Education: Becoming Educators

This first section on “becoming environmental citizens” focuses on the practices, motivations and expectations of people who watch birds and contribute to community education initiatives. Generally the purpose of community education is to encourage people to engage with the birds encountered in their everyday lives. In this capacity, bird-watchers can adopt a formalised role of “educator” by sharing their knowledge of birds directly with the public through “bird-walks” and workshops, “bird-watching clubs” or publishing region specific bird guides.

Walks and Workshops: “Flick Your Twitch Switch”

Case Study One: Birdlife Australia’s Discovery Centre, Newington Armoury.

The Discovery Centre is a relatively recent addition to Birdlife Australia’s community engagement portfolio. Hosting a combination of administrative and interpretive facilities visitors to the centre can access a variety of educational resources which are designed to assist the public in identifying common birds and spaces to encounter birds (Author’s field-notes, May 18th 2013).

Nerida (60’s, preschool teacher, club member, Wollongong City) and Paul are volunteers at the Discovery Centre. Nerida has been volunteering for a number of months and regularly guides the bird-walk. As a volunteer and passionate bird-watcher Nerida will, “Take people on the walks and talk to people about birds; birds in their backyard, birds in their area. Yeah, and encourage people to get involved in birding” (Interview II, May 2013). In Figure 5.2, Nerida is showing three attendees of the bird-walk how to identify a bird-call using the Morcombe eGuide, (see Chapter 4.5 Becoming Bird).

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5 During a “bird-walk” someone may act as “educator” and guide to lead others through a particular space specifically to encounter birds. They may provide “expert commentary” for the participants, describing the route and habitat, and identifying the birds encountered. The Far South Coast Birdwatchers, for example, have devised and published a book (Far South Coast Birdwatchers 2008) and brochures pertaining to self-directed “bird-walks” in the Bega Valley, (Appendix Q).

6 “Flick your Twitch Switch” is Martin’s ingenious summation of his efforts to engage more people in bird-watching by running community education workshops and guiding “bird-walks”.
When I spoke to Paul, this was his second time volunteering at the centre:

**Carrie:** Can you tell me a bit about your involvement with the Discovery Centre?

**Paul:** Well we just provide – aw what do you call it? – “Expert Commentary” on what people are seeing- providing information. There’s a guy in there now with a little girl, like a three or four year old girl or something, and I was just talking to him about what sorts of birds are on the wall and where he’s likely to see them. We just- it provides Birdlife Australia, obviously with limited funds, resources to spread the word about birds to the public. (Interview II, May 2013).

Essentially the role of volunteers at the Discovery Centre is to mediate the relationship between humans and birds by dictating where people walk and what information they have access to. By “becoming educators” at the Discovery Centre Nerida and Paul adopt a formal role governed by the rules and expectations not only of the public, who go there seeking

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**Figure 5.2:** Nerida demonstrates how she can identify a lively bird by comparing it’s physical features and call to the images and audio-files stored in her iPhone app, Birdlife Discovery Centre, Newington Armoury.
information, but of Birdlife Australia, the organisation they are representing. Interestingly the Discovery Centre is only operational on weekends. As volunteers in this context Paul’s and Nerida’s performance of “educators” is temporally and spatially constrained by the broader regulations restricting public access to Newington Armoury.

Case Study Two: Illawarra Birders Lunch Time Walk, Wollongong Botanic Gardens

Martin and Penny are active members of the Illawarra Birders (club). Both are on the committee and heavily involved in community education initiatives. Martin is the recently appointed Education Officer and has run at least half a dozen community workshops on bird identification as part of Shellharbour City Council’s sustainability initiative over the past three years:

**Martin:** I think people are less inclined to sign up for a course than just to go to a workshop on a Saturday morning which has been what I’ve been doing. We just have to keep badgering the Council to facilitate them because, I mean, I’ve done quite a few here [the Wollongong Botanic Gardens]. And this is the perfect spot to do a 90 minute presentation in the Discovery Centre [Wollongong] over there with slides, and introducing them to the main types of birds, and then we go for a walk around here. (Interview I, April 2013).

Like Nerida and Paul, Martin adopts a formal role of “educator”. This role is not only an embodiment of his personal values but those of the Illawarra Birders and Shellharbour City Council, whom he represents. During the lunchtime bird-walk I took with Martin (illustrated in Figure 5.3) as part of the Illawarra Birders calendar of public events, his motivations as “educator” for coordinating and leading the walk shone through:

**Martin:** It is very rewarding to point the birds out and to see other people go “Wow! What an amazing bird that is”. And that’s a reward in itself. But hopefully they will continue with that interest and in the longer term maybe there will be more people
prepared to stand up to the many challenges that our birds face. (Interview II, June 2013).

By attending the walk, encountering birds and hearing his commentary, Martin is hopeful that people will be affected by the experience and inspired to take an interest in the welfare of birds. Martin’s hopes are supported by Lorimer (2007) who discusses the role of animal “charisma” (that being an animal’s potential for affecting humans) in making people engage with conservation.

Figure 5.3: Martin, far left, leading the Illawarra Birders Lunchtime Walk, Wollongong Botanic Gardens. The Walk is a fixture on the club’s calendar of public events and is an opportunity to engage participants with birds commonly encountered in Wollongong. The walk is advertised on the Illawarra Birders website, Facebook page and in print media such as the Illawarra Mercury and Advertiser.
Bird-Watching Clubs and Natural History Societies

As outlined in Chapter 3.3 Methodology, sampling bias meant that 17 of the 21 participants in this study were recruited from local bird-watching or natural history clubs, autonomous “grass-roots” organisations run by volunteers with membership based on a shared interest in “nature” (Kempton et al. 2001). Although my partiality potentially limits the transferability and credibility of the results, the overrepresentation of bird-watchers with club affiliation in this sample provides an exciting opportunity to explore the role of clubs in “environmental citizenship”.

Jill, for example, is one of the founding members and the original recorder for the Eurobodalla Natural History Society (ENHS). Although no longer a committee member Jill is still contributing a monthly record of her observations from her property to the ENHS database. Jill is pleased that the ENHS has continued to educate and encourage members to maintain and share systematic records of birds, a practice she strived to instil 27 years ago:

**Jill:** The Natural History Society, I think, has always leaned more towards the scientific side of the organisation than to just being a social bird-watching group. That is, we asked immediately of our members, “Please learn to keep records, please give us the records”. In the beginning we actually had to teach people how - the form in which to keep their records - so we wanted to be dealing with facts.

**Carrie:** And then wanting to share those facts?

**Jill:** Yes. From the very beginning we did not want it to be just a rather airy-fairy, another activity to fill in Sundays. We wanted it to be an organisation with a purpose in life. And it’s worked. (Interview I, April 2013)

For Jill the purpose of the ENHS is to facilitate acts of environmental citizenship through its members. By teaching people the “right” way to bird-watch - that is, too keep and share systematic records - Jill’s narrative suggests that bird-watching and “becoming environmental citizens” involves different and particular ways of “knowing”: “knowing” how to “observe”, how to “classify”, how to “record”, and how to “share” - Figure 5.4 describes this process of
becoming “environmental citizen” in greater detail. As evidenced by Jill, and supported by the study of Bell et al. (2008), membership of clubs can play a crucial role in these knowledge-production processes. Jill’s narrative infers that the “right” way of “knowing” about birds is through the structures of citizen science (see section 5.3 Citizen Science: Becoming Research Assistant).

Barbara (70’s, retired teacher, Bega Valley) is a founding member of the Far South Coast Birdwatchers (club). Her intent for establishing the club is clear; her aspiration is for club members to “become environmental citizens” by acquiring and sharing knowledge of birds:

**Barbara:** Well if you’re interested in birds, you may as well make use of it- use the knowledge and store the knowledge and share the knowledge, help other people to understand birds and learn about birds and have an interest. (Interview I, May 2013).

Barbara’s motivation for founding and participating in the club is grounded on the idea of “social learning”. According to Bell et al. (2008), “social learning” in local associations is characterised by a cyclic desire to learn from and to teach others “through systems of informal mentoring, where the most experienced teach the less experienced” (p.3450).

Although Barbara, as “educator”, would like to encourage more of the club’s members to take an interest in bird-watching for “citizen science” (see section 5.3 Citizen Science: Becoming Research Assistant) she realises that the strict scientific procedures of observing, identifying and recording birds systematically do not appeal to everyone. Although citizen science is an important part of Barb’s bird-watcher and environmental citizen subjectivities she realises that the social connections forged through club membership are just as important:

**Barbara:** Groups tend to be a little bit social rather than focused on watching, which is what I think they should be doing![laughs]... but I’ve accepted that it is just as important for the social side of it to keep people interested. (Interview I, May 2013).
Figure 5.4: Knowledge production and dissemination: “becoming environmental citizens” through witnessing, identification and classification, recording and sharing knowledge. (n.b. People who watch birds can “leave” this flow chart at any point).

1. Lyn observes a bird with the aid of binoculars, Mourya.
2. Christine’s attention is drawn to the sound of birds in a patch of Coastal Banksia, Narooma.
3. The Michael Marcombe e-guide to the Birds of Australia (for Apple and Android) is an increasingly popular source of information in the field.
4. Left to right: Pizzey and Knight (2012) and Simpson and Day (2010) are just two of the field guides available on birds in Australia.
5. Barbara makes a note of birds observed on the foreshores of the Lake Curalo estuary, Eden.
6. David has kept a number of lists over the years documenting his observations whilst travelling and at home.
7. Paul directs visitors at Sydney’s Birdlife Discovery Centre to the presence of two White Fronted Chats, Newington Armoury.
8. Biodata is just one online database comprised of the observations recorded by “citizen scientists”, (Birdlife Australia 2013c)
Barbara’s experiences with the club resonate with those reported by Bell et al. (2008). In their analysis of volunteer-organisations and biodiversity monitoring Bell et al. (2008, p.3452) found that volunteers placed a “high” degree of significance on their social experiences within the organisation:

...members prize the sociability of their organisation, with meetings, informal gatherings in the field, organised trips and close, long-standing friendships and groups within the wider membership.

The findings of Bell et al. (2008) support those presented here and suggest that to successfully manage a club as a body for environmental citizenship members must be embedded within and experience enjoyment from social interactions of the organisation.

Studies that assess the role of local volunteer associations in monitoring biodiversity have been a feature, albeit rare, of the literature internationally (see Kempton et al. 2001; Carr 2004; Klyza et al. 2006; Bell et al. 2008). Despite an exhaustive search only one study could be found that specifically examined the role of community based environmental organisations in Australia and even then the focus was not on birds or biodiversity monitoring per se (see Dean & Bush 2007). Rather, the individual “environmental citizen” is privileged as the subject of study in the literature. This is surprising given the prolificacy of bird-watching clubs in the study area and in Australia more generally with a clear environmental conservation directive. Chapter 7.3 Conclusion considers the omission of bird-watching clubs from the environmental conservation scholarship as an agenda for future research.
Pamphlets, booklets and newsletters

Clubs and individuals have published an array of booklets, brochures and newsletters on birds and bird-watching on the NSW South Coast to encourage more people to take an interest in birds in their local area. The cover page to this chapter shows just some of the publications produced by participants in this project.

For example, the ENHS publishes *Nature in the Eurobodalla*, an almanac that summarizes the observations and records of its members. Jill was instrumental in its production during her time as recorder with the first edition published in 1986. Today it reports on birds, mammals, reptiles, amphibians and insects and includes contributions from up to 50 of the club’s members. Jill has also published *The Eurobodalla Naturalist’s Diary* based upon her years of maintaining a diarised but systematic record of her encounters with fauna and flora in the Eurobodalla Shire (see Figure 5.5). Jill’s motivation for publishing her book speaks volumes about why several other participants in this study produced similar publications on bird-life in their local area:

**Jill:** Information is not much good to one person alone. You must share it. And that’s it. You can’t sit on information, like a hen sitting on eggs, and expect it to explode and go out into the world. It won’t. You have to give it to the world. (Interview I, April 2013)
Figure 5.5 *The Eurobodalla Naturalist’s Diary* [inset] is based upon Jill's personal record of fauna and flora encountered in the Eurobodalla. Jill writes, “this is a simple record of the observations and musings of an amateur naturalist over the twenty-five years from 1981 – 2006”, (Whiter 2007, p.1).

Recognising that not everyone wants to pay for information, Martin and Penny, representing the Illawarra Birders, have produced a photographic brochure of the birds commonly encountered in gardens in the Illawarra (Figure 5.6). Martin has facilitated the production of similar brochures for other clubs and regions across NSW and Victoria. Barbara and the Far South Coast Birdwatchers have similarly been instrumental in the publication of a brochure listing birds commonly encountered in their local area (Figure 5.7).

As the recreation specialisation literature attests, observing, identifying and recording birds encountered is an act of “collecting”. This is a practice central to many people’s bird-watching subjectivities (Connell 2009). Following this line of argument the publication and reference to booklets, brochures and almanacs of birds may be perceived as a manifestation of a “collector mentality”. However, whereas the recreation specialisation literature posits listing and “collecting” birds as central to the pursuit of personal glory and self-satisfaction as “bird-watcher”, I argue that by thinking about listing and “collecting” birds in terms of environmental
citizenship an alternate value is realised. The process of collecting or presenting a collection of birds is a way to get people interested in their surroundings. When equipped with the “right” knowledge people may then be motivated to “stand up” for birds. When reflecting on the purpose and successes of the brochures, Penny comments:

**Penny:** I was saying to someone the other day. We don’t want- I mean it would be lovely if everyone was a bird-watcher but not everybody’s going to be a bird-watcher. But a lot of people are just interested in the birds in the garden and it’s just about trying to raise awareness so people know what’s around them and they might stop trashing the place, you never know. (Interview I, April 2013)

Instead of leaving people to navigate their way through large generalist field-guides, bird-watchers can “become educators” to select what information is relevant and to mediate the relationship between humans, birds and space. By presenting a “collection” of birds to the public that is place specific, Penny hopes that the information in the brochure becomes accessible, relevant and meaningful to the reader, thereby encouraging people to take an interest in their environment and the birds they encounter in their everyday lives.
Figure 5.6: Illawarra Birds: A Photo Guide, a brochure produced by Martin and Penny of the Illawarra Birders (Potter & Potter n.d.). A "checklist" this brochure categorises birds according to the habitats where they are commonly encountered.
**Figure 5.7: Birds of the NSW Far South Coast**; a brochure compiled by the Far South Coast Birdwatchers (n.d.). Also a "checklist" this brochure categorises birds according to the habitats where they are commonly encountered.

### BEACHES, LAKES, RIVERS, DAMS, SWAMPS

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<tr>
<th>Common Name</th>
<th>Scientific Name</th>
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<tr>
<td>Magpie Goose</td>
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<td>Musk Duck</td>
<td><em>Mareca strepera</em></td>
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<td>Black Swan</td>
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### BEACHES, LAKES, RIVERS, DAMS, SWAMPS (continued)

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### OCEAN AND SEA BIRDS

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<td>Arctic Jaeger</td>
<td><em>Stercorarius parasiticus</em></td>
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### COMPLETE BIRD LIST

**BIRDS OF THE NSW FAR SOUTH COAST**

Covering the Bega Valley Shire and surrounds

About this Checklist:

- For ease of use, birds are listed in 3 sections:
  - open grasslands, gardens
  - bushland, forests and heath
  - beaches, lakes, rivers, dams and swamps
  - ocean and sea birds

In each section, the bird species are listed in taxonomic order of Christo and Buls (RAOU 2008).

**Key:**

- **SR** = Species listed under the NSW Threatened Species Conservation Act 1995
- **CE** = Critically Endangered
- **E** = Endangered
- **V** = Vulnerable

**Guides:**

- Field Guide to the Birds of Australia (Paterson & Knight)
- Field Guide to Australian Birds (Moorcoop)
- Field Guide to Birds of Australia (Simons and Day)
- The Slater Field Guide to Australian Birds (Glare)
- Looking at Birds on the Far South Coast NSW (PESC)

Compiled by the

**FAR SOUTH COAST BIRDWATCHERS**

PO Box 150, Pambula, NSW, 2549


**email**: info@bipond.com

March, 2013
5.3 Citizen Science: Becoming Research Assistants

This section focuses on the practices, motivations and expectations of people who watch birds and contribute to citizen science. The literature defines acts of “citizen science” as involving environmental data collection and dissemination by volunteers with little or no scientific training as part of broader scientific enquiry (see Irwin 1995; Greenwood 2007; Silvertown 2009; Dickinson et al. 2012). Essentially anyone with an interest in birds has the opportunity to participate in the knowledge making enterprises of citizen science.

The methods of data collection typically employed in citizen science projects are akin to those utilised by ornithologists when birds are studied scientifically and objectively. As Lynch and Law (1998) profess, whilst “amateur bird-watching” in itself is not a science, the traditions of observation, identification, classification and recording typical of the activity lend themselves to “more fully accredited scientific practices” (p.320). In light of this, this thesis posits the act of collecting and disseminating environmental data by bird-watchers as a performance of becoming “research assistant”.

In this study strong patterns of citizen science involvement were identified amongst participants with a number contributing their time, labour and expertise. This section examines how the role of “research assistant” is performed in the spaces and through the practices of bird-watching and citizen science; specifically through contributing data to digital bird-atlases and physical participation in field surveys.

Atlassing and Surveys

The majority of citizen science projects undertaken by bird-watchers as volunteer “research assistants” are typically surveillance schemes designed to monitor changes in the distribution and abundance of bird populations over time (Greenwood 2007). Self-motivated people can make a record of the birds encountered in a particular place, at a particular time and share this data with research, planning and conservation institutions. Given the sheer size of the
Australian continent volunteer networks provide a crucial source of labour and expertise to monitor bird-populations.

Unlike the methods of community education described in the preceding section which typically involve sharing knowledge of birds directly with the general public, the knowledge and expertise of “citizen scientists” are shared directly with research, planning and conservation institutes before being fed back to the community, as a report or tangible action. People who watch birds can contribute digital records of their encounters with birds at any time to centralised online databases such as: the Atlas of Living Australia, Atlas of Australian Birds, Eremaea or Birdlines (Appendix R describes some citizen science projects with an online entry point). Chris, for example, has been monitoring birdlife within the Illawarra for over 20 years and regularly uploads lists of his observations to the Eremaea website. Through this database Chris’ observations can be used by conservation and research organisations such as Birdlife Australia:

**Chris:** I think if you just keep a list for yourself and then- one day it’s going to go in the bin isn’t it. So if you can try and keep the information flowing then it can be used in the future,” (Interview II 2013).

According to Greenwood (2007, p.95) people who watch birds and contribute to citizen science often do so because they “believe that the results will help bird conservation”. This discourse underpinned the motivations of many bird-watchers *cum* “citizen scientists” in this study and was in many instances a fully justified and realised belief. In Chris’ experience his becoming “research assistant” has dictated his long-standing relationship with the birds of the Tallawarra Power Station site, depicted in Figure 5.8, where he has been monitoring the birdlife for his own interests since 1990, and more recently as a member of the Illawarra Birders:

**Carrie:** And can you tell me a bit about I suppose the history that you and the club have with that site?
Chris: When the development was started different people, there was Pacific Power, Origin Energy and then True Energy- they all bought one another out and they started to think about developing this whole site and they formed a community consulting committee that looked at what was happening, made suggestions and there was a meeting every couple of months over about 10 years.

Carrie: That was a long involvement! And so what was the club’s involvement? You had the data?

Chris: Yeah, our involvement was mainly for the conservation side of things.

Carrie: Because you have been keeping so many records.

Chris: Yeah and if you haven’t got the data you can’t make decisions. (Interview II, May 2013).

Figure 5.8: Chris scans the ponds for birds at Tallawarra, the site of a former coal fire power station. The freshwater ponds are mainly artificial and lined with coal wash. The area is a popular spot for water birds.
Knowledge of where birds are is fundamental to their conservation, especially to the identification of priority sites (Greenwood 2007). In Chris’ experience, enacting an “environmental citizen” subjectivity as bird-watcher facilitated the protection of an important habitat site.

Furthermore, as McCaffery (2005) tells us, the benefits of incorporating citizen science into ornithological research are not limited to the quantity of data that can be collected. Through participation volunteers may also “develop a greater sense of stewardship over the populations or sites they are responsible for surveying or monitoring,” (p. 71). Like Chris, Demetrios has maintained systematic records of the birds he has encountered at his “local patch” (Demetrios’ words) in Cullendulla Creek, Batemans Bay. These records have armed him with the scientifically validated credibility needed to protest development proposals and protect the birds and habitat at Cullendulla Creek:

Demetrios: Also, if you keep track of the Vulnerable Species, then the counter comes along and they say “Oh we want to develop this”, you can then go and say “No you can’t do that because I have records from these and these dates of this vulnerable species and if you do that this vulnerable species will stop breeding there, so you can’t do that”.
Carrie: Have you ever had to do that for anything?
Demetrios: On Surfside there’s this beach which the shore-birds use on high tide as a roost site sometimes. And they wanted to build a complex there and I sent them an email with pictures saying to them “the birds use it so you shouldn’t use it”. (Interview I, April 2013).

The narratives of Chris and Demetrios speak of an attachment to an ecological “place” (Evans C. *et al.* 2005, p.589). Their attachment to the birds and other fauna and flora constituent of Tallawarra and Cullendulla Creek, respectively, has implications for their bird-watching practices. Both have submitted information from their personal databases to local planning and land use committees.
Whilst there are numerous opportunities for bird-watchers to become “research assistants” in their own time and spaces, a number of participants contributed to citizen science in the times and spaces provided by research, conservation and planning institutes. Julie M. often contributes time and expertise to conducting field surveys of birds and other wildlife for authorities such as the NPWS and Bush Heritage. As a “research assistant” in these contexts Julie M.’s bird-watcher and environmental citizen subjectivities are governed by the formal rules, expectations and discourses of scientific enquiry. In many cases there are strict rules on how the data is collected, organised and reported. In the following extract Julie M. describes the qualities of the form she is expected to produce during a survey, documenting her encounters with birds in space:

Julie M.: This is just a form I used recently for National Parks-
Carrie: Is this the two hectares in 20 minutes one you were talking about?
Julie M.: Yeah. So they’re quite specific, they have ratings, zones, whether there’s rain, wind direction, wind speed, cloud cover, start and finish time and any other notes about flora in the area. We do note non-avian on here and then we note what’s within the two hectares and outside the two hectares and whether we’ve seen birds or heard birds or what have you. Bush Heritage are even more complicated, they use a “bird minutes” technique. So they still utilise the “two hectares: 20 minutes” but they note the number of each species you see or hear in every minute of that 20 minutes, so each minute becomes its own data, its own column. So you have twenty minutes, with 20 columns and you’re essentially saying if you’ve heard ten Brown Thornbills in each minute of the twenty minutes you note them in each minute of the twenty minutes. It’s frantic. It really is frantic – it’s just another level up. (Interview I, April 2013)

Although “complicated” and “frantic” Julie M. derives considerable pleasure from participating in organised field surveys, “If you go back to my little smiley face on the first diagram I do this because it makes me happy and I enjoy doing it”, (Interview I, April 2013; see Figure 5.9). Her reasons for contributing to citizen science contradict a common political framing of individual
environmental action as “a rational self-interested response to external incitements or commands” (Jagers & Matti 2010, p.1058). Although these surveys are governed by the rules and expectations of the NPWS and Bush Heritage Julie M.’s voluntary contribution to citizen science through these projects is something she is motivated to do off her own bat. Julie M. loves birds and enjoys the scientific, systematic methodology of organised surveying:

**Julie M.** I love it. I love being put under pressure. Like for the Bush Heritage surveys it’s a lot of pressure to be listening and hearing because you can’t- because you’re measuring birds for every minute of twenty minutes you’re not always seeing them but you’re always hearing them. So you need to make that connection between what you’ve heard and what the species is and we’re also estimating numbers, because you can tell how many birds are there from the calls just through experience. I mean it’s a real challenge, and it’s exhausting, but it’s very rewarding and I know it’s going into biodiversity monitoring for those properties … (Interview I, April 2013).

Lawrence (2006) found that the perceived rigidity of the scientific process gave many individuals a sense of purpose that allowed them the “excuse” to do an activity that they already enjoyed. Chris, Julie M. and Demetrios’ experiences are reflective of this ideal; by contributing to citizen science each can put to use their intimate knowledge of birds and place. Following Lawrence (2009, p. 174), citizen science is essentially “a coproduced hybrid of local and scientific knowledge“.
5.4 Tensions – bird-watching, citizen science and situated knowledge

Nowhere has citizen science had as greater impact than in the study of birds (Devictor et al. 2010; Dickinson et al. 2010). Whilst the results presented thus far would appear to support the somewhat romanticised idea that bird-watching and citizen science happily go hand-in-hand interestingly this research uncovered tensions which challenge the validity of this popular discourse. Contradictions emerge when the motivations, practices and expectations of everyday bird-watching collide with the discourses, rules and expectations of scientific enquiry.

There are multiple ways to monitor and “know” “nature”. The modes of scientific enquiry practiced through the examples of citizen science described above represent one way of knowing. Feminist scholars such as Haraway (1998) argue that knowledge (not just of nature) is not objective or the result of a “conquering gaze from nowhere”, (p. 581). Rather, knowledge is
always ‘situated’ and embodied within individuals and generated in place. There are distinct methodological and epistemological differences in the ways in which realities are known. The strict rules that govern the “right” way of observing, identifying and recording birds in the citizen science projects described by Julie M. may be considered just one social construction of what “nature” and “birds” are and how they should be studied. Recognising that knowledge is always situated opens up the possibility for recognising other ways of “knowing”.

The following section uses citizen science as a case-study to examine the tensions that overlay bird-watching and environmental citizenship at two levels. First, I examine the reasons why people disengage with the scientific process of citizen science. Second, I consider the tensions that emerge when people who watch birds and participate in citizen science negotiate their performance of “research assistant” in their everyday lives.

“I gave up in disgust” – barriers to becoming “citizen scientists”

Adrienne (60’s, Honorary Research Fellow, club member, Eurabodalla) is well versed in the methods of scientific enquiry; Adrienne’s academic career is grounded in research of biochemistry, cell biology and endocrinology. With more than 20 years of experience as a bird bander and bird nest recorder Adrienne has made considerable contributions to citizen science. However her experiences as a bird-watcher cum “research assistant” have not always been positive. Adrienne is particularly critical of the “narrow view” to data collection adopted by one citizen science project:

**Adrienne:** I did contact the bird group. What is it? Bird-Watch- several years ago and there’s somebody in Zoology who’s very much involved with it, and I gave up in disgust. Because their rules were you had to be able to watch it for five minutes at a time; you had to do this that and the other and you had to give the coordinates and this that and the other. Because I said there were a lot of older people there who have the opportunity to see these things and they could gather useful information! But no no no.
Adrienne’s narrative represents a critique of monitoring biodiversity through the rules and regulations of scientific enquiry, as adopted by this citizen science project. Specifically Adrienne is critical of the supposedly “right” way of “knowing”, where identification of the “fleeting bird” is not valid. For Adrienne the strict rules of observation underpinning this example of citizen science are restricting and contradictory to the realities of bird-watching where birds are encountered spontaneously and momentarily (i.e. it is not always possible to observe a bird for five minutes). The discourses of scientific objectivity underpinning this citizen science project are not meaningful to Adrienne. Despite her willingness to “become research assistant” and contribute to citizen science the particular practices and mode of citizen science in this project form a barrier to Adrienne’s participation.

Mark’s inability to engage with the citizen science process is similar as he is concerned about meeting the formal requirements of the scientific process. For six years Mark has maintained a continuous, systematic record of all of the bird species observed on his property in Malua Bay. Continuity is a feature of robust data greatly valued by research organisations and Mark’s records could provide a long-term data set from which to establish trends in an under researched area of the South Coast. However, despite his best intentions Mark does not contribute to citizen science for he is put-off by the formality of the scientific process. Discussing the list he keeps for his property Mark reflects:

**Mark:** Probably the only thing I don’t like about it is I would want to be able to, when I’ve got more time, is to give the list to some people who can do something with it. You know, Birdlife Australia are always wanting people to do lists so they enter a broader umbrella thing, [Birdlife Australia] can look to see how the bird numbers are going and da da da. So hopefully that information will be useful at some stage when I get around to it, probably compile it into their format.

**Carrie:** So you have a view to contribute to that but it’s just a time constraint?
Mark: Yeah because I’ll have to redo it because, yeah, to get it into their format. It’s interesting but whether they can use it or not I don’t know, I’ll find out sometime. (Interview II, April 2013)

Mark’s narrative gives insight into the impact of the unfamiliar practices and vocabulary of citizen science. Mark’s everyday bird-watching and listing practices are not consistent with what he perceives to be the practices and expectations of citizen science. Andrew’s experience is similar to Mark’s but his inability to engage with citizen science is based more on a lack of confidence in his capacity to provide the “right” information:

Carrie: Do you ever contribute to – I’m aware that there’s a lot of like Bird Atlassing Programs, Surveys and things – do you ever contribute your sightings to those?
Andrew: No, not personally. It’s mainly left to the more experienced members of the club. I haven’t really gotten into – well as part of a club activity we do this shorebirding [survey] as well as the Atlassing, but I just go along, and I think it’s someone else collects it all and sends it off to the relevant authorities. I haven’t really gotten into the wider sort of bird-watching fraternity Australia wide, apart from just my local people. I haven’t become a sort of serious, well known bird-watcher [laughs]. (Interview II, May 2013).

Although Andrew is a club member and a regular attendee of the club’s field meetings he states that these meetings are “just another time out, going out with people and just doing some bird-watching” (Interview II, May 2013). He is happy to leave the collection of data to other members whom he perceives as more experienced and knowledgeable. Andrew’s narrative gives insight into the social norms that operate within the broader bird-watching subculture whereby some bird-watchers are perceived as more knowledgeable and thus more adept at identifying birds and collating data than others. Andrew’s perception of his own ability when compared with other bird-watchers influences the extent to which he is willing to engage in the formal processes of citizen science.
“You’ve got to do some things you don’t really like” – citizen science and everyday constraints

In this final section on citizen science as environmental citizenship I examine specifically the tensions that emerge when people who watch birds and participate in citizen science negotiate their performance of “research assistant” in their everyday lives.

Martin and Penny are instrumental in the operation of the Illawarra Birders, a club that aims to “encourage the study and enjoyment of birds and promote conservation and field research” (Illawarra Birders 2013b). Both have advocated and facilitated the participation of club members in citizen science ventures and are involved in environmental citizenship outside of club responsibilities. Although Martin and Penny are passionate about bird-watching and citizen science and take pride in their achievements and those of the club, the time and effort that this commitment necessitates has implications for their everyday bird-watching practices:

**Penny:** Martin made the comment the other day that we have a lot of family commitments and things, we can’t just go off on the weekend bird-watching whenever we want to believe it or not. Martin made the comment one day that we seem to be doing a lot for birds but not much bird-watching. (Interview I, April 2013).

Penny’s comment that “we seem to be doing a lot for birds and not much bird-watching” gives insight into a paradox. That is, citizen science can undermine the everyday pleasures of bird-watching. Penny later commented that bird-watching for citizen science is, “just a big time commitment. But we do it because we thought it was the right thing.” This statement gives credence to Dobson’s (2003) work on “ecological citizenship”. Dobson (2003) frames acts of “ecological citizenship” within broader ideals of “ecological sustainability”, “social justice” and living within a consciousness of one’s “ecological footprint”. According to Dobson (2003) people who contribute to conservation and environmental protection initiatives feel morally obliged to do so. To apply this to the experiences of Martin and Penny we can begin to understand the temporal pressures that doing “the right thing” entails.
Julie M. has similarly invested a considerable amount of time and effort in citizen science initiatives. As previously discussed, Julie M. participates in highly technical field surveys where advanced skills of audio-visual recognition are essential to her performance of “research assistant”. In the following extract Julie M. reflects on the tensions created by combining her skills as “research assistant” with her everyday bird-watching practices:

**Julie M:** Once you know the birds then you’ve almost put a pressure on yourself to identify them. And so you identify them... For those of us who choose, and we do choose it, nobody’s forcing us to do this, we’re choosing to identify things... in a way that enjoyment morphs into something else. There’s nothing I enjoy more now than doing bird-surveys and being under pressure, you know, a twenty minute period of time to identify each and every call, there’s nothing more rewarding and satisfying than doing that. But in doing that and taking it then to your everyday life you are, like I cannot do a walk without carrying my binoculars at the very minimum. I may not have a camera, I may not have a recorder but if there’s a bird that goes by I like to know what it is. I can’t just say “Oooh! Isn’t that a nice bird that just flew by!” because I know the time I don’t take it [the binoculars] it’ll be a Swift Parrot or a Regent’s Honeyeater or something wonderful that I haven’t seen for a while. So it’s interesting, there is enjoyment but there’s also just the hint of pressure to identify. So I understand what you’re saying, in a way not keeping a list is liberating. (Interview II, May 2013).

Julie M.’s narrative gives insight into the tensions that emerge when the practices of citizen science clash with the everyday practices of encountering birds. The sets of ideas that underpin citizen science, the pressure to identify (or recognise), name and record taints the pleasures of encountering birds in everyday settings outside of the formal spaces/times for citizen science. Julie M.’s pleasures from everyday bird-watching encounters come under pressure by a need to know birds in a particular way.
Despite these tensions Julie M.’s contributions to citizen science are fundamentally a labour of love, “it’s something I enjoy, it’s something that I love and if I can contribute back in some way with the knowledge that I have then that makes me even happier about what I’m doing” (Interview I, April 2013). But what tensions emerge when “citizen scientists” are not necessarily willing volunteers? Julie C. (50’s, dairy farmer, club-member, Eurobodalla) is a “conscripted” “research assistant”:

**Carrie:** You mentioned that you complete surveys-

**Julie C:** I don’t really enjoy it. I don’t like writing things down [laughs].

**Carrie:** How come you do it then?!

**Julie C:** I just do it because they [the club] want to know. Well it’s not hard to write down the name of a bird and probably- I do more because I do a survey.

**Carrie:** Well why do you do a survey if the writing down is not your favourite activity?

**Julie C:** Well because they want them. When I first started nobody was on a farm and if you notice on the list the Stubble Quail’s written in italics and you’re supposed to put in field notes for anything like that. All along the valleys of Bodalla they’re there all the time and they didn’t have records of that because nobody on a farm had ever done it so I suppose I did it because, yeah- You’ve got to do some things you don’t really like [laughs]. (Interview I, May 2013).

For Julie C. formally recording the birds she identifies is a tedious practice. Although she recognises that recording and sharing this knowledge is important, the methods of citizen science are not necessarily enjoyable or meaningful to her. Rather becoming “research assistant” is a labour of necessity borne through the pressures of club membership and a sense of moral obligation to do the right thing (Dobson 2003).
5.5 Conclusion

One aim of this thesis is to examine how subjectivities are performed through the spaces sustained by the practices and encounters of bird-watching. This chapter sought to better understand the different performances of “environmental citizenship” and the tensions that can emerge through these performances.

This chapter was divided into three sections. The first, “becoming educators”, focused on instances where people who watch birds contributed to formal community education initiatives. Results suggest that bird-watchers can mediate the relationship between people and birds by dictating what information they have access to, the form in which the information is received and how people are taught to use this information. The second, “becoming research assistants”, focused on instances where people who watch birds contributed data to citizen science projects. As “research assistants” the bird-watching practices and experiences of participants were governed by the formal rules, expectations and discourses of scientific enquiry. Participants’ narratives discussed across these two sections suggest that bird-watching practices are informed by distinct ways of “knowing” birds and how to “bird-watch”. Participants’ contributions to environmental citizenship in these contexts were framed within broader ideas of there being a “right” way to bird-watch.

However, this chapter also showed that there are multiple and sometimes conflicting ways in which to monitor and “know” birds. Section three examined the tensions that emerge through the different performances of “environmental citizen” and “bird-watching” subjectivities, specifically when the motivations, practices and expectations of everyday bird-watching collide with the discourses, rules and expectations of scientific enquiry. When the ways of “knowing” birds advocated by citizen science were meaningless or alienating, people who watch birds were dissuaded from becoming “environmental citizens”. This discussion goes some way to unravelling the neat alignment of bird-watching with citizen science.
The exploration of environmental citizenship in this chapter opens the door to further examine how subjectivities are performed in the spaces and through the practices and encounters of bird-watching. Chapter 6 further explores how people negotiate their subjectivity of bird-watcher in the context of becoming parents, becoming older and becoming homemaker.
Friends Julie C., Gillian and Janet survey the dam for water birds at Julie C.’s property, Bodalla. They met through the Eurobodalla Natural History Society and often meet up for lunch and some bird-watching.

Gillian: It [watching birds] wasn’t really a passion. So for instance I wouldn’t book a holiday especially to go bird-watching because, unfortunately, neither my ex-husband nor my current partner are in the slightest bit interested so you know, they’ll put up with it, but they don’t really want to stand around for an hour while I’m looking at something trying to work out what it is. But I guess coming here [the South Coast] after I retired, and joining the local club and meeting Julie and Janet and everybody else, that sort of increased my interest and also I’ve got more time now to do it. Yeah.
6.1. Introduction

The aim of this final results chapter is to further explore how people negotiate their subjectivity of bird-watcher in the context of their everyday lives. In addition to becoming “environmental citizens” people also negotiated becoming a “bird-watcher” in the contexts of becoming parent, older, homemaker, retiree and tourist. Due to word constraints, this chapter explores the experiences of people who watch birds in the contexts of parenting, ageing and homemaking. This chapter employs portrait vignettes to illustrate how becoming “bird-watcher” is always a spatially and temporally negotiated process. Guiding the investigation is Probyn’s (2003) interpretation of Foucault’s (1977) ideas on discourse, surveillance and embodied history. The vignettes are analysed using a combination of narrative and discourse analysis techniques to reveal the social norms underpinning the situated ‘in place’ experiences of participants. The interpretation illustrates the limitations of the recreation specialisation approach that fits people into prescribed categories of bird-watchers differentiated by practices, motivations and experiences. To date, the recreation specialisation approach underpins authoritative accounts of bird-watching in Australia and elsewhere. Instead, this chapter draws on feminist geographical perspectives to reveal a “plurality of truths” (Fraser 2004, p.195) both within and across lived bird-watching experiences.

6.2 Everyday Constraints: Becoming bird-watcher and becoming parent

Mark and Andrew are parents, husbands and bird-watchers. Their subjectivities are under surveillance from their children and wives and mediated accordingly. What follows are two vignettes which give insights into the challenges of becoming bird-watcher whilst negotiating the responsibilities of parenting. Following the precedent set by Witt and Goodale (1981) this section examines the relationships between barriers to leisure participation and family-life stages. Bird-watching is spoken of as a time intensive leisure practice, as “outside the norm” and as an activity which necessitates separation from family life. Mark and Andrew’s vignettes are supplemented by and compared with the narratives of other participants in this project.
Mark

Mark lives in the Eurobodalla with his wife. His interest in birds stems from childhood, growing up on a farm. He recalls collecting eggs as a boy and learning to find nests by observing the habits of birds. Mark’s interest in birds “peaked” (Mark’s words) in 1988 during a trip he took around Australia with his wife. It was around this time that he also started writing lists; in this case to document encounters with “new” birds. Twenty-five years and two children later, Mark still keeps the “life-list” he started in 1988. He also maintains a list of the birds observed at his property in Malua Bay. During our interview Mark reflected on the Malua Bay list and his bird-watching practices more generally:

Carrie: So how long have you been keeping the one [the record of birds sighted] of the property for?
Mark: Um probably about six years. Yeah probably only about six years.
Carrie: And the life list, that goes back to ’88?
Mark: Back to ’88. It’s been going on and off with various enthusiasm. Had kids in the interim period so things waned and wasn’t able to do much and when the kids were growing up and as they got a little bit older we were- I was able to get back into it again. It’s always just been interesting. (Interview I. April 2013).

As principal “bread-winner” with the responsibilities of fatherhood and providing an income, Mark’s narrative suggests that bird-watching is a time intensive leisure practice which is difficult to juggle with the responsibilities of young children. According to Stebbins (1992) commitments to family, work and leisure pull leisure participants in multiple directions resulting in time demands that often far exceed the total available hours. When participation in one role is made more difficult by the time demands of participation in another conflict between subjectivities occurs. In this case putting the responsibilities of parenting first had implications in terms of Mark’s ability to make time and space for bird-watching.
These days Mark finds it easier to negotiate bird-watching with his parental responsibilities. Giving away a managerial career with the Commonwealth Bank Mark is now self-employed, working in gardening and maintenance. His two adult children have left the family home and Mark has more time to pursue his interest in birds. However, anxieties still surround becoming “bird-watcher”. Mark’s bird-watching subjectivity is still subject to question, not only from his wife and children (“They think I’m weird” – Mark’s words) but the public. The following story gives insights into wider social norms which position bird-watchers as “different”:

**Carrie:** So the binoculars are something you identify with bird-watching I suppose?

**Mark:** Yeah, it’s one of the essentials.

**Carrie:** Yeah? Do friends, family members, or the public ever comment on your bird-watching?

**Mark:** Yes, there’s no cool way of walking around with a pair of binoculars! You can get accused of being a perve and all those sort of things, and that part can be yeah – sometimes you have a think “it’s closet bird-watching!” Yeah, there’s no cool way of walking around with binoculars. (Interview I. April 2013).

Watching birds in public involves negotiating oneself within a “conservative social space” (Lorimer 2008, p.393). In this extract Mark is referring to an instance when he was alone at the beach, walking his dog and carrying binoculars with which to observe waders. He was accused, in passing, by two young people of “being a perve” (Mark’s words). For the better part of 18 years Mark has walked this beach as a husband and father with his wife and two children, sometimes with binoculars in tow. The binoculars are “essential” (Mark’s words) to Mark’s bird-watcher subjectivity. In the presence of his wife and children carrying binoculars was never constituted as a problem. Walking alone however, Mark’s binoculars on the beach appeared threatening to people who do not know he watches birds, not semi-clad bodies. Mark understands how the technologies that enable him to “become bird” are entangled with ideas of perversion. Mark’s experience resonates with that of Craig, a Corncrake-scientist in Lorimer’s (2008) study, whose tendency to drive around late at night searching for Corncrakes attracted the attention of police as of yet unaccustomed to his practices and motivations.
Andrew

Like Mark, Andrew negotiates “becoming bird-watcher” within broader social norms of family life. Andrew’s interest in birds is relatively recent. In the late 1990’s Andrew moved to his current house in Wollongong with his wife and young children. He noticed there were a lot of birds in his garden and purchased a field guide to learn more. Until recent years Andrew did most of his bird-watching alone; he did not keep a list of his sightings or participate in citizen science ventures. Since joining the Illawarra Birders however, he has “started getting into it [watching birds] seriously” (Andrew’s words). Andrew’s wife and now adolescent children do not share his newfound enthusiasm for birds. Like Mark, Andrew’s bird-watching subjectivity is mediated by his role as husband and father; putting the responsibilities of family-life first has similar implications in terms of Andrew’s ability to make time and space for bird-watching:

Andrew: Where I go I try to bird-watch. Some of the bird-watchers they’re a partner thing, husband and wife, they go out together. In my case it’s not a family thing, it’s something that I do. So when I go on family trips, okay it’s not for bird-watching, we haven’t chosen it specifically for bird-watching. For instance, I went to Cairns. The main reason I went to Cairns last year was to see a total solar eclipse. And my wife came with me and we had a little holiday but I also looked at birds as well. So wherever I go on holiday, with my family, I’ll include some bird-watching when I can, but it’s not specific – I don’t sort of subject them to total holidays of bird-watching, that kind of thing [laughs]. (Interview I. April 2013).

Here Andrew refers to what Orthner and Mancini (1990) call the “leisure-family conflict”. Although Andrew’s family accepts his interest in birds his subjectivity as “bird-watcher” is spatially and temporally constricted – there is an appropriate time and place for Andrew to bird-watch. The time and space Andrew makes to consciously and actively “become bird” is discrete from “family” time. In doing so, Andrew maintains family cohesion by avoiding the
“leisure-family conflict”. As the time demands associated with his role and responsibilities as a “parent” reduce, new opportunities arise to “become bird”:

Andrew: The children are getting older and we’re going to start travelling more. Wherever I go now, wherever in the world I am, I’ll be checking out the birds so to speak. (Interview I. April 2013).

It stands to reason that with time Andrew will find it easier to negotiate bird-watching with his parental responsibilities. However, that is not to say that his “becoming bird”/ “becoming bird-watcher” will be under any less surveillance:

Andrew: I’ve got a teenage daughter and so sometimes I’ll be out on the front balcony - just sitting there with a beer or something, and a camera - and have my binoculars there and she thinks it’s embarrassing [laughs]... So it’s just sort of, no one else has a big interest in it, but it’s just sort of accepted as something a bit quirky that Dad does, that’s all. (Interview I. April 2013).

By talking about how his bird-watching is perceived by his family as “embarrassing” and “quirky” Andrew’s narrative also gives insight into the wider social norms which position bird-watchers as “different”. Interestingly, like Mark, the binoculars are spoken of as a ‘cultural signifier’ (Curtin 2010, p.22). For Andrew, binoculars simultaneously affirm social differentiation and group membership as “bird-watcher”, he states “we [people who watch birds] all carry binoculars”. At the same time binoculars are essential to possibilities for “becoming bird”.

Discussion

The life-courses of Mark and Andrew give insights into the challenges of “becoming bird-watcher” and “becoming parent”. The three themes identified across their narratives - bird-watching as time-intensive, as outside the norm and as necessitating separation from family life
– are indicative of the tensions which many participants experience when attempting to forge connections with people and place through birds. When these tensions come to light in certain social and spatial contexts becoming “bird-watcher” may be understood and experienced as undesirable and, in some cases, “weird”.

Although generally spoken of self-deprecatingly, the idea that you must be “weird” to enjoy watching birds was a resilient discourse informing the narratives of several other participants. Barbara was acutely aware of the social norms surrounding the idea of being a “bird-watcher”. In reflecting upon the successes of the bird-watching club she helped to establish Barbara notes:

**Barbara:** Well it’s opened up a world of birds to so many people and um… and an awareness of birds within the group and awareness of the group from the outsiders [non-bird-watchers]. We’ve sort of created an image of “well there’s a group that looks at birds and you don’t have to be weird people!” We accept that everybody thinks we’re weird. (Interview I. May 2013)

A shared love of “becoming bird” has helped to build this particular social group. People can connect with others and place through birds and identify themselves as “bird-watchers”.

However, as Barbara reflects, affiliation with this particular social group is whilst comforting, simultaneously alienating from other social groups. She remarks: “I think to outsiders [non-bird-watchers], the word ‘bird-watchers’ means ‘weirdos’!” (Interview I. May 2013).

Although generally spoken about in reference to harmless banter from family, friends and co-workers who did not share an interest in “becoming bird”, there was a palpable affect of this discourse in participant’s everyday bird-watching worlds. In Gillian’s (50’s, retired, club-member, Eurobodalla) experience, when other people do not share her passion for birds it can trouble the social relationships of friendship. In this instance her “bird-watcher” subjectivity was ridiculed by her “friend”:
Gillian: I had somebody actually introduce me to a group of people once and say, “and she’s a bird-watcher” - which was meant to tell everybody something about me. She wasn’t saying it in a pleasant way - “she’s weird”. And that’s always stuck in my mind because I remember thinking “what a strange way to try and put somebody down,” because that’s actually what she was doing. (Interview I. May 2013).

In lieu of the dominant and persistent discourse of “bird-watching” as “weird”, participants also spoke of instances where bird-watching allowed them to configure the social relationships of family and friendship. Adrienne’s narrative describes an alternate experience of bird-watching and family to Mark and Andrew. Adrienne’s interest in forging a connection with birds was shared amongst her family members:

Adrienne: We became interested in bird-banding and we used to take our three small children out there, and the one whose still not interested would sit in the back of the car eating peanuts and the other two would be out helping us put up the nets and watching us take the birds out of the nets. (Interview I. May 2013).

Bird-watching, specifically bird-banding, was a family activity in which Adrienne’s husband and two of her three young children took considerable pleasure. Although the child left in the car was not interested in forging connections with people and places through birds, overall bird-watching was an activity which helped Adrienne to forge the social connections of family.

Similarly, Paul and Barbara found that although their subjectivity as bird-watcher was situated as “weird” and outside the norm by friends and colleagues, having knowledge of birds was a way to make connections with other people:

Paul: I find it funny with people who, you know, “Oh. You’re a bird watcher.” They look at me, like, as if you are weird. I can guarantee you within a couple of hours though they
will be asking you about some bird they have seen. Very rarely do people not do that. (Interview I. May 2013).

**Barbara:** You’ll find when someone knows you are interested in birds you will always be the one they want to share a story with. (Email, August 7th 2013)

What Paul and Barbara’s experiences suggest is that ultimately most people (whether they are willing to admit it or not) have some interest in birds and are willing to broach the topic with people whom they know to be “bird-watchers”. As such, a person’s bird-watching subjectivity can not only be suppressed by social norms but hailed into existence when people who watch birds are perceived as knowledgeable.

### 6.3 Ageing Well: Becoming bird-watcher and becoming older

Following from *Chapter 4 Becoming Bird* this section explores how three participants make sense of their ageing bodies through their everyday practices of encountering and identifying birds. Wearing (1995, p.263) tells us that “current discourses on ageing suggests a deficiency model of ageing where abilities, activities and sociability are seen to diminish with age”. In reflecting on the sometimes physically demanding and mentally challenging qualities of bird-watching, Jill, Andrew and Mandy illustrate how the embodied experiences of becoming bird provide them with counter narratives of ageing. Rather, bird-watching is valued as a healthy pastime for ageing well. This analysis contributes to sustained efforts to demonstrate that resistance to the dominant discourses of ageing can be made through leisure.

**Jill**

Jill is 83 years young. A career in journalism has enabled her to watch birds whilst travelling, throughout her life. Settling in Guerrilla Bay with her young family Jill has been an active part of the bird-watching community, co-founding the ENHS of which she was the original recorder.
Retiring from the role a number of years ago, Jill continued to take part in physically demanding surveys of birds in the Eurobodalla. Her last “big” survey she comments, “was thirteen years ago, I was seventy – I remember that. I felt frightfully fit! We used to walk very long distances!” (Interview I, April 2013). Jill attributes her good health to the physical demands of “becoming bird”:

**Jill:** I think it’s kept me remarkably young! Because I can still get about wherever I want to go and I’m still interested in it. And I see so many people my age who are just vegetating, so I attribute it to bird-watching. (Interview II. May 2013)

Jill’s bird-watching life narrative and talk of ageing emphasizes the significance she places on her bird-watching subjectivity in maintaining her physical and cognitive health. Jill’s talk of bird-watching as a way of “ageing well” mirrors Dionigi’s (2006) study of participants in the Masters-Games. Although “becoming bird” may not be perceived as physically taxing as sports like soccer, athletics or tennis, participants emphasize the importance of bird-watching in ageing well.

**Andrew**

We previously met Andrew in section 6.2.2 Everyday Constraints. Although Andrew’s interest in encountering and identifying birds is relatively recent, he is acutely aware of the impact his bird-watching practices can have on his mind and body. Andrew commented, “It’s [bird-watching] one of those things that just sort of keeps the brain and body active” (Interview II, May 2013). Bird-watching is understood and experienced by Andrew as something which can keep him young, fit and healthy:

**Andrew:** I think I’ve learnt that as I get older I want to keep being able to do things and this is one way of staying quite healthy and, instead of stagnating away, keeping your senses sharper. Like when you’re walking through the bush and you’ve got someone -
like I said there’s quite a range of ages in our group - when you’ve got someone seventy-five or so years old wandering along with you who can sort of pick out a sound or see something and they know it so well and you think to yourself, “Well okay! Well into your old age, if you keep this up!” It’s something that will keep your life interesting and worthwhile and healthy and I’m learning that I sort of want to keep doing things, keep active for as long as I can. (Interview I. April 2013)

By relating the reasons why he enjoys bird-watching to old age Andrew’s use of words and phrases such as “stagnating away”, “keep active” and “staying healthy” serve to both mobilise and trouble contradictory discourses of ageing (Dionigi 2006). On the one hand, by talking of ageing as a process of “stagnating away” Andrew ascribes to the dominant discourse of old age as “primarily a period of disability, disengagement and dependency” (Dionigi 2006, p.186). However, he simultaneously disassociates himself from this stereotype through talk of his bird-watching subjectivity. Bird-watching is a way for Andrew to keep his life “interesting”, “worthwhile” and “healthy” and thereby manage and make sense of his “ageing” identity.

**Mandy**

In this final example of “becoming bird-watcher” and “ageing well” I turn to a story shared by Mandy. Mandy attributes her love of birds to her childhood, “my mother apparently instead of listening to me screaming she used to put me down the backyard under a tree in the cot and there were birds around so maybe that’s where I got my affinity from” (Interview I, April 2013). Although encountering birds spontaneously in her everyday life is always a source of pleasure, Mandy also enjoys travelling to specific destinations to encounter birds. When reflecting on her experiences during a trip to Christmas Island for their Bird’n’Nature Week (Appendix S), Mandy recalls an anecdote shared by the woman running the course. This woman was then a “non-bird-watcher” but having interacted with the enthusiastic and often elderly bird-watchers in attendance her outlook on birds, bird-watching and ageing was challenged and transformed:
**Mandy:** She said she had a group of bird-watchers and they were all climbing the mountains and going through the forest and getting up early in the morning and parading up and down the beaches and she said then she had another group of people who were the same ages, or maybe even younger, and they were, “Oh no I don’t think I can get up before eight o’clock. Oh no do I have to go down that steep hill?” And she said, “I knew who I wanted to be like, not them, I wanted to be like the bird-watchers when I get old because they’re still fit and interested and they’re not just here” and she looked at their figures and so on and she said, “That’s what I want to be like when I’m older”. (Interview I. April 2013)

In demonstrating to others that they are capable of vigorous physical activity, “elderly” people who watch birds simultaneously challenge the stereotypical notion of “old” and confirm their subjectivity as “bird-watcher” by challenging dominant “ageist” discourses. As argued by Wearing (1995):

> When applied to older persons, leisure emphasizes what a person can do rather than what they are no longer capable of physically doing. Therefore, it has distinct possibilities for resistance to ageism, (p.272).

In reflecting on the two experiences of ageing before her, the woman, the subject of Mandy’s narrative, attempts to manage the physical and psychological realities of ageing through a bird-watching subjectivity.

### 6.4 Making Home: Becoming bird-watcher and becoming homemaker

This final section explores how people forge a sense of “home” through their bird-watching practices. Bird-watching, in this context, is conceptualized by participants as a way of establishing and maintaining physical and social connections to both community and place. What follows are the stories of Barbara, Janet and Julie M. which give different insights into bird-watching as home-making practice.
Barbara:

Bird-watching and making “home”

Since childhood, Barbara has always appreciated birds. It wasn’t until much later in her adult life however that she took a real interest in identifying and learning more about the birds she was encountering. Like Mark and Andrew, her ability to make time and space to “become bird” was impeded by the responsibilities of family-life and work. When her children left school Barbara completed two courses on bird-watching at an Adult Education Centre. These courses heightened and changed her interest in birds:

Barbara: My focus on birds has changed over the years... From a hobby, from something to do, to more of a um, I shouldn’t say professional because it’s not, but more of a serious, yeah a serious aspect of looking at birds for a different reason

Carrie: Okay, and what’s the reason for you now?

Barbara: Well just to see the comings and goings and the migrations and the abundance of the birds, just to see what’s happening in the world. In our world down here [Pambula]. (Interview I. May 2013).

Barbara retired and moved to Pambula from Sydney, with her husband, some 20 years ago. Through the social connections of the Far South Coast Birdwatchers club, bird-watching became a way for Barbara to engage with and make a new home within this community:

Barbara: When I came down because I’d been involved in clubs in Sydney I thought “Uh-oh there’s nothing, there’s nobody down here that’s- there’s no organised group”. So I joined the Eurobodalla Natural History Society and used to travel up there to their meetings and I was quite happy to do that even though it was a bit of a drive but that was fine. And then Steven Marchant who is a joint founding member up there, well known birder, just said, “There should be a group down your way Barbara, I think you’re the likely one” [Carrie laughs]. So that sort of sparked me... And so we had a meeting and called a public meeting and away we went. (Interview I. May 2013).
According to Blunt and Varley (2004, p.4) Barbara’s “geography of home” influences and is influenced by “social relations not only within, but also far beyond the household”. Barbara talks of her ongoing involvement with the club as a way of constructively using her time in retirement. The club is also a way for Barbara to make sense of self as she ages,

**Barbara:** My world, whether I wanted it to or not, has revolved around the club because I’ve been so determined to see it succeed, that I’ve really put an awful lot of time into that. And that doesn’t worry me because I think, well if I wasn’t doing that what would I be doing? Pruning the roses, which I haven’t got, you’d be doing something else. So that was an interest which can take me anywhere and can be a communication tool with other people and it can be an interest forever. (Interview I. May 2013).

Barbara’s final comment that bird-watching is “an interest which can take me anywhere and can be a communication tool with other people” is particularly significant to her sense of self through homemaking practices. Following the line of cultural geography (see Lorimer 2007) Barbara’s feelings of belonging are experienced as both sited and mobile. Home is not just a place of domestic living, rather Barbara understands that people can belong and feel at home anywhere so long as they are bird-watching. She emphasizes that bird-watchers share a sense of a collective, thus regardless of where they go there is a common bond between people who watch birds. This bond transcends social differences of age, gender, class etc. to present a utopian vision of bird-watching.

**Janet:**

*Bird-watching and “remembering home”*

Janet (70’s, retired, club-member, Eurobodalla), like so many participants in this project, has an interest in birds which stems from childhood. One of her earliest memories is of “going Lyre-Birding” with her grandmother and aunties (Janet’s words). Although Janet has travelled on specific bird-watching trips her bird-watching has, for most of her life, been tied up with her experiences of homemaking on various properties. Her long involvement in citizen science
projects, for example, stemmed originally from observations she reported from her home. For sixty years and three different properties Janet has kept comprehensive, diarized records of the birds encountered at home:

**Janet:** I use this, this special one, a list of the birds that nested there in the garden and birds that nested in the Mallee. I used that [the large book] as a daily sort of thing... The property was very big; it was about a hundred and forty thousand acres. So it was very big. And then every bird I’d ever seen, I’ve got about 197 birds. I didn’t see the 200 but two or three other people had seen birds there... And so there’s just every bird and I just write a little something about them. (Interview I. May 2013).

Blunt and Varley (2004) tell us that home is both material and symbolic, “located on thresholds between memory and nostalgia for the past, everyday life in the present, and future dreams and fears” (p.3). Janet’s homemaking practices and experience of home are borne at similar crossroads. Specifically, by keeping a physical record of the birds encountered at each property Janet has a unique way to remember home. She can look at a diary entry and recall an experience at home which goes beyond the words on the page:

**Janet:** There’s the Grey Falcon – that’s the only time I ever saw the Grey Falcon! [Janet reads from the diary entry]. “Two perched on top of the Redbox Gum and the first one flew away and I had a good look at the other”. And I remember I rang up my good birdeo friends in Melbourne and they came up especially but it had gone of course the next day! [Laughs] And then that’s all about the Mallee Fowls. We did have a Mallee Fowl’s mound on the property so we watched that for a whole year. We lived next to Yathong Nature Reserve; the Mallee Fowls actually breed there. I used to go to meetings and things like that there. (Interview I. May 2013).

To follow Rose (2003) and Edwards and Hart (2004), although physically and temporally separated, Janet’s relived feeling of belonging in these particular places hinges on the physical
construct of the list. Rose (2003) and Edwards and Hart (2004) were concerned explicitly with how feelings of belonging are experienced through “the objectness of photographs” (Lorimer 2007, p.87). Likewise, I argue that the bird-list is a powerful prompt for feelings of proximity and connectedness with the severed physical and social relationships of homes past.

**Julie M.:**  
**Bird-watching and getting to know “home”**

Like Barbara, Julie M.’s interest in observing and identifying birds is relatively recent. Julie M. studied commerce and business at University and it wasn’t until she and her husband bought a “weekender” in the Southern Highlands that her interest in birds “took off”:

**Julie:** My partner and I were living in Sydney at the time and we bought a weekender in the Southern Highlands which was on 5 acres. And I remember going for walks in the bush and coming into very close contact with a number of birds and thinking to myself “I really want to know what these birds are” so it prompted me to go and buy my first bird-book which was a photographic guide and my first bird tape, because I love bird-calls. And so I started to learn about the birds that I was observing on that property and identifying the calls that I was hearing as well. So it was both visual and audio identification but it didn’t really stop there. For me it’s about all forms of nature, so the bird book and the bird tape were first and it was followed by a tree book and a flower book and a frog book and a spider book and on it went... I like to know about what’s in my environment and so I bought all the books and started to teach myself about how to do that. (Interview 1. April 2013).

Like Barbara and Janet, Julie M. forges a sense of home through bird-watching. However, rather than making home within a community or reminiscing about homes past, Julie M.’s bird-watching practices enable her to make sense of her current home: then a “weekender” in the Southern Highlands and now, a dedicated Wildlife Refuge on the outskirts of Moruya:
Julie: We outgrew our Southern Highlands property so we looked for a larger property and bought one at Moruya Heads and when we arrived there, there were all these new bird calls, all these new birds. And I started to learn and bought more books and more CDs and tapes and what have you because it’s a larger property and I really wanted to measure the biodiversity of the property through the species of everything, of birds and all types of animals and flora as well. (Interview I. April 2013).

Julie’s understanding of ‘home’ follows that of Massey (1992) in that ‘home’ is not defined in terms of the bricks and mortar of a physical household. Rather, Julie M. talks of ‘a place called home’, a place which encompasses the relationships between the plants, the frogs, the lake, the birds etc. Julie’s ‘home’ is a constellation of sets of social and physical relations interacting in a particular place which she makes sense of through her bird-watching subjectivity and practices.

6.5 Conclusion

This chapter approached narratives of bird-watching using a life-course perspective to glean insight into how people who watch birds negotiate their subjectivity as bird-watcher in the context of their everyday lives. The results suggest that bird-watching subjectivities are inherently temporal, spatial and social constructs interwoven with and mediated by different stages of a life-course.

In the context of the social norms of everyday family life, forging connections with people and place through bird-watching was spoken of as problematic for many parents whose young children and friends did not share a desire to become bird. Problems arose from how proximity to birds is both a time-intensive leisure activity and also dominant understanding of the practice as “weird”. However, particularly when people retired, or children left the home, the shared desire to become birds also facilitated possibilities to make important new social
networks. In reflecting on the sometimes physically and mentally demanding qualities of “becoming bird” participants disassociated themselves from negative stereotypes of ageing. Bird-watching was understood by these participants as a way to “age-well”. For others, bird-watching is embedded into the practices of homemaking. Gaining proximity to birds is an important process by which people can start to call a place home and remember embodied histories of past homes.

By thinking of bird-watching in terms of becoming parent, becoming older and homemaking, this chapter shows how people produce particular and multiple understandings of birds, place and themselves at different stages of a life-course through becoming bird. Crucially, this discussion illustrates the limitations of the recreation specialisation approach. The “plurality of truths” constituting lived bird-watching experience remains hidden when bird-watching is studied as a static event in isolation.
Paul (40’s, Australia Post, club-member, Wollongong) volunteers at the Birdlife Discover Centre. Here he is making a note of the birds encountered during the Saturday morning ‘bird-walk’. Paul has always been captivated by birds but his level of interest and ability to watch birds has ebbed and flowed throughout his life:

**Paul:** Bird watching has been the one stable, the one constant. It might not always be there but I can never remember a time when I wouldn’t have seen a bird and thought “Oh I don’t know what that is” and taken mental notes, and when I’ve got home gone back to my bird book and had a look at it... So now I suppose, I’m approaching middle age, I’ve got to do something. It’s cheap; I mean you can go now. You can hear Rainbow Lorikeets calling now and I saw a Peregrine Falcon fly over the Mail Centre car park a few weeks ago. You can do it literally anywhere. Anyone can do it at any place.
To conclude, this chapter revisits the aims of the thesis, summarises the key findings, and outlines agendas for future research.

7.1 Returning to the Aims

Chapter 2 addressed the first aim: to review the scholarship examining the relationships between birds and humans. The review identified a gap: outside of positivist epistemology and ontology little is known about the experiences, expectations and practices of people who watch birds in Australia. Positivist approaches work within binary thinking to hyper-separate “culture” (humans) and “nature” (birds) into two discrete opposing entities. In doing so, the complex interplay of discourse, bodies, embodied knowledge, technologies, practices and space in dictating our understanding of birds and human/bird intersections are largely ignored. For this reason, the post-structuralist feminist approach offered in this thesis – drawing on the ideas of Deleuze and Guattari (1987), Plumwood (1993) and Probyn (2003) – enabled possibilities to reconceptualise bird-watching as an inherently embodied experience. In doing so Chapter 2 addressed a second interrelated aim: to contribute to a relational understanding of bird-watching. The conceptual approach outlined in this chapter spoke to the overarching research objective more broadly by drawing attention to how bird-watching identities are always unstable, rather than fixed, and derived relationally through people’s embodied histories, bodily encounters, technologies and space. Rather than knowing birds through fixed preconfigured categories a relational approach provided an alternative way of thinking about bird-watching as people who watch birds.

Chapter 3 addressed the second aim: to develop a methodology that was ethical and provided rigorous and meaningful insights into participants’ bird-watching practices, values and experiences. The aim was achieved through a number of strategies. Firstly, applying Baxter and Eyles (1997) criteria for rigor at all stages of the research process ensured that the results were credible, transferable, dependable and confirmable. Secondly, employing a multi-faceted qualitative mixed methodology ensured that the empirical data gathered was rich in detail.
These methods provided invaluable insight into the embodied and discursive dimensions of lived bird-watching experience for both participants and myself, as participant observer.

The final three aims of the thesis were addressed over three results chapters. Chapter 4 examined how people who watch birds “get close” to birds. This chapter drew attention to the important role played by the assemblage of bodies, embodied skill, sensory perception and technology in mediating and facilitating bird/human encounters in space. Chapter 4 argued that “becoming bird” is not simply a matter of knowing how, when or where to encounter birds. Of perhaps greatest importance is the ability to identify and name the birds encountered as “species”. Participants expressed considerable pleasure in successfully naming birds. Even the most adept bird-watchers sought to change the spaces and times for “becoming bird” to better enable encounter and identification by calling upon an assortment of texts, optics and audio-visual technologies. These technologies were spoken of as a way to augment cognitive function and overcome the body’s physical constraints, thereby enhancing the possibility of proximate encounters. By exploring how participants came to “know” birds through the practices of “becoming” this chapter set the stage for further discussions of how people became “environmental citizens” and “bird-watchers” at the intersection of discourse, technology, human bodies, non-human bodies and space.

Chapter 5 sought to better understand the experiences of people who watch birds as “environmental citizens”. Two “ways” of performing “environmental citizenship” were examined. As “educators” bird-watchers can mediate the relationship between people and birds by dictating what information people have access to, the form in which the information is received and how people are taught to use this information. As “research assistants” bird-watching practices are governed by the formal rules, expectations and discourses of scientific enquiry. Chapter 5 also revealed the tensions that emerge through the performances of environmental citizen and bird-watching subjectivities. The results suggest that bird-watching and citizen science are informed by distinct and different ways of “knowing” birds and the “right” way to “bird-watch”. The strict rules that govern the “right” way of observing,
identifying and recording birds in citizen science projects may be considered just one social construction of what “birds” are and how they should be studied. When this way of “knowing” is meaningless to people who watch birds in everyday contexts they can be alienated from the knowledge making processes of citizen science. This result goes some way to unravelling the neat alignment of bird-watching with citizen science. This chapter opens the conversation for future research into ways of “knowing” and barriers to environmental citizenship.

Chapter 6 explored how people who watch birds negotiate their subjectivity as bird-watcher in the context of their everyday lives. This chapter approached narratives of bird-watching using a life-course perspective to glean insight into how people who watch birds produce particular, and multiple, understandings of birds, place and themselves. Becoming “bird-watcher” was spoken of as simultaneously alienating and comforting. Participants spoke of negotiating their subjectivity of “bird-watcher” in the context of: “becoming parent”, “becoming older”, “making sense of home”, “becoming retiree and tourist” and “making sense of self”. Unfortunately, due to limitations of space the themes of “becoming retiree and tourist” and “making sense of self” were omitted from the analysis. Crucially, what this discussion signals is the importance of examining bird-watching as a holistic practice, embedded into all aspects of everyday life, and not a practice in isolation. By linking narratives of bird-watching to the scholarship of family-life stages, leisure mobilities, ageing and home-making this research suggests that a number of important themes emerge when approaching the study of bird-watching over a life course. These themes are hidden when bird-watching is studied as a static event in isolation; as is characteristic of the survey and quantitative based methods typical of the recreation specialization approach.
7.2 Returning to the Research Objective: Key findings

Feminist and more-than-human geographers urge us to think beyond dualisms and fixed categories. There is a call for scholars to conduct more work into the relational intersections of human-bodies, non-human bodies and space in forming subjectivity. Following this line of thought the overarching research objective guiding this project was to reconceptualise the study of bird-watching by thinking beyond prescribed categories.

Through detailed analysis of the participants’ bird-watching life narratives the research presented in this thesis suggests that bird-watching is as an inherently relational, performative and reflexive process. When encounters between the human and non-human world are considered as an assemblage of physical bodies, practices, technologies, embodied knowledge, discourse and space, possibilities of multiple and fluid bird-watching identities arise. People cannot be thought of as simply assuming one static identity. Rather, as this thesis suggests, identity is always in a process of “becoming”.

Ultimately, this research goes some way to troubling the efficacy of conceptualising bird-watching within sets of prescribed categories. By pigeonholing and labelling people who watch birds according to supposedly homogenous characteristics we silence the experiences that do not fit neatly with the ideas and stereotypes associated with the categories of birdwatcher, birder, twitcher, novice, casual, active and committed etc. Although the academic literature posits these categories as useful in making sense of people who watch birds, what this thesis suggests is that they are fundamentally restrictive in that they overlook the multiplicities and spatiality of subjectivities at play.

Building upon these key findings the following section takes the conceptual and methodological tools offered in this thesis to establish future research agendas.
7.3 Future Research

The affective and emotional experiences of encounter:
Alongside Lorimer’s (2008) study of the affective science of Corncrake surveillance, this thesis serves as a starting point to further explore the affective and emotional geographies of people who watch birds in Australia. A future research agenda might therefore focus on the affective and embodied experience of encountering birds, that is, the outcome of “becoming bird”. When verbalising affect, participants in this project expressed emotions of awe, calm, joy, amusement, despair and concern in response to their proximate encounters. These encounters often triggered embodied responses voiced in terms of curiosity and the implication of knowing birds. Future research into bird-watching, encounter and affect would benefit from not only examining instances of “successfully” “becoming bird” (i.e. achieving moments of proximity with birds) but “unsuccessful” “becomings” (i.e. it is not possible to see, hear or identify a bird). The notion of “unsuccessfully” “becoming bird” was introduced briefly in Chapter 4.5 Becoming Bird; participants expressed “frustration” when proximate encounters were difficult to achieve.

Bird-watching in different spatial and demographic contexts:
This thesis demonstrates the value of using qualitative mixed methods and taking a life-course perspective to the study of everyday bird-watching experiences, practices, motivations and expectations. A second future research agenda could apply the conceptual and methodological tools offered in this thesis to study how people negotiate bird-watching within different socio-cultural contexts.

For instance, this thesis only considered the experiences of bird-watchers presently residing in regional or peri-urban communities on the NSW South Coast. This region is often imagined as a place for “nature”, including birds. Conversely, cities are often imagined as places devoid of “nature”. It is predicted that by 2050, 70% of the world’s population will live in urban areas (Luck et al. 2011, p.817) hence future studies could examine the cultures of bird-watching in metropolitan locations. Particular attention could be given to explore how people in
metropolitan areas understand encounters with particular birds and how these ways of understanding influence their bird-watching expectations, practices and experiences.

Similarly, this thesis did not engage with the experiences of children or young people who watch birds. Whilst ethical factors explain the absence of persons under the age of 18 from this project, as discussed in Chapter 3.3 Methodology, the absence of participants aged between 18 and 40 is less clear. Many participants spoke of consciously encountering birds in their youth, a passion which has persisted and carried through to present day. Hence, future research could fill the gaps in this thesis to consider reasons why people in their early and teenage years engage or disengage with birds and “nature” more generally. This research would contribute to scholarly debate concerning whether Western society is undertaking an “experiential retreat” from “nature” (see Cordell et al. 2008; Jacobs & Manfredo 2008; Pergams & Zaradic 2008). This trend is exemplified by Louv’s (2008) conceptualisation of a “nature-deficit disorder”, meaning the disconnection between children and “nature”. This disconnection during childhood, Louv (2008) suggests, has damning future implications for adults, families and communities. A growing number of commentators argue if people are less knowledgeable about “nature”, then they are less interested in conservation (see also Tanner 1980; Palmer J. 1993; Ewert et al. 2005; Wells & Lekies 2006; Zaradic et al. 2009; Larson et al. 2011). As an activity that requires time “in” and knowledge of the “natural” world, to study the relationship between young people and birds as an embodied assemblage of practices, technologies, discourse and encounter may offer an alternative to the “nature-deficit” concept.

**Bird-watching as travelling practice:**
According to Hui (2013) “bird-watching is a fascinating practice because it depends on people meeting up with independently mobile birds”. Bird-watching was spoken of as an important source of travel by participants. Unfortunately due to word space limitations analysis of bird-watching, travel and tourism was omitted. However, building upon participant’s narratives in this study, future research may seek to better understand the role of bird-watching in mediating and facilitating the relationship between birds, mobilities and:
• Retirement: how bird-watching may become an excuse to travel for pleasure.
• Social practice: travelling with and making friends through shared experiences of bird/human encounters.
• Collecting: travelling with the intent of encountering a specific bird or to see as many birds as possible. Participants implied “collection” through talk of travelling to “tick-off” or add birds species to a list.
• Citizen science: travelling to contribute time, physical labour and expertise to biodiversity monitoring projects.

**Information Technology (IT) and “knowing” birds:**
The recent upsurge of participation by bird-watchers in citizen science is largely attributed to the simplification of the citizen/scientist interface through the internet (Dickinson *et al.* 2012). For many bird-watchers engagement with databases on particular internet sites transforms bird-watching as purely leisure practice that engages people with birds for their personal benefit into a scientific practice that engages people in mapping trends and numbers. Mentioned briefly in *Chapter 5.3.1 Becoming Environmental Citizens*, participants in this research uploaded records of their encounters with birds to a number of online databases. Consequently, another future research agenda could examine the role of IT in transforming bird-watching practices from “leisure” to “science”.

Furthermore, this project found paper-based records are becoming redundant. Rather, “lists” of birds recorded for personal enjoyment and/or for citizen science are kept and maintained digitally. Whilst some participants praised “modern computing” for increasing scientific knowledge about birds others were concerned about the future accessibility of digital records. For this reason future research may follow the line of historical geography or environmental history to examine the role of IT in changing practices of “knowing” in bird-watching (see Toogood 2011 for example).
“Knowing birds”

Expanding on the preceding agenda, future research may open a conversation about the importance of appreciating different ways of “knowing” birds through practices and discourse, more generally. Although there does seem to be a pull towards “knowing” birds as “species”, as evidenced in Chapters 4.5 Becoming Bird and 5.3 Becoming Environmental Citizens, this thesis shows that there are a multiplicity of ways that people come to “know” birds. Crucially, this thesis suggests that to approach birds and bird-watching through an environmental citizenship agenda may close down other ways of coming to “know” birds outside of “species” – that is the hegemonic way of “knowing”. A future research agenda may therefore consider how particular birds are “known” and valued in different contexts. Future research questions may ask: what discourses underpin ideas about particular birds as common/everyday, extraordinary, endangered, exotic, native, noisy or threatening? What discourses situate particular birds as belonging or not?

Bird-watching and barriers to citizen science:

Through a study of bird-watching, yet another future research agenda could seek to better understand the barriers affecting participation in citizen science. Although a considerable body of literature already exists on the topic of barriers to citizen science this thesis sets the tone for a different conceptual approach where bird-watching is the focus. Future research would benefit from adopting qualitative research methods. Qualitative methods could provide important insights to the numerical trends established by studies that centre on socio-economic barriers to bird based citizen science participation (see Hobbs & White 2012; Weston et al. 2006; Antos et al. 2006; McFarlane & Boxall 1996).

As evidenced in Chapter 5.4 Becoming Environmental Citizens, people who watch birds were dissuaded from contributing to citizen science for a number of reasons. By engaging in discourse analysis some of the regimes of knowledge, power and truth underpinning these reasons were brought to light. Andrew was dissuaded from participating for he believed he didn’t have the social or technical credibility to do so; Mark didn’t contribute because he
believed his way of “knowing” didn’t fit with that of citizen science; Adrienne found the methods of one citizen science project to be “narrow” and alienating. Building upon these narratives, future research needs to ask: what are the implications of understanding birds in terms of species and numbers? Can this way of “knowing” be a barrier to participation in citizen science? In suggesting that this be an area of future research, it may be useful to consider informal and spontaneous acts of sharing knowledge about birds – that is, what Chapter 5 identified as “becoming knowledgeable bystanders” – as a response to the barriers to participation in formal citizen science ventures. Without access to the formal social infrastructure of citizen science, bird-watchers may come to “know” and engage with birds and environmental citizenship in a whole range of ways.
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### Appendix A  Strategies for Ensuring Rigor in Qualitative Research.
Table adapted from Baxter and Eyles (1997, p.512).

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<th>Credibility</th>
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<td>Purposeful Snowball Sampling: sourcing Bird-Watchers through personal networks</td>
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<td>Vignettes</td>
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<tr>
<td>Conveying rich detail of interview data with little “academic framing”</td>
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<td>Data Triangulation</td>
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<tr>
<td>Multiple Data Sources-drawing, mapping, interviews, bird-watching participant observation, literature review</td>
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<tr>
<td>Field Diary and Thick Description</td>
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<td></td>
<td>X</td>
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<tr>
<td>Diary of notes on findings, the research context, problems, interpretation etc.</td>
<td></td>
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<tr>
<td>Prolonged engagement with Participants</td>
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<tr>
<td>Two stage research process to establish rapport between researcher and participant: attendance of club meetings and field trips, interview and bird-watching participant observation</td>
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<tr>
<td>Participant Observation and Embodied Research Methods</td>
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<td>Peer Debriefing</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Regular meetings with supervisors to track and check progress; work examined by supervisors</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Member checking</td>
<td></td>
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<td>X</td>
<td></td>
</tr>
<tr>
<td>Participants invited to request copy of transcripts and photos</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Appendix B  Approval of application to Human Research Ethics Committee

In reply please quote: HE13/116

27 March 2013

Ms Corrie Wilkinson
9/38 Bourke Street
NORTH WOLLONGONG NSW 2500

Dear Ms Wilkinson,

I am pleased to advise that the Human Research Ethics application referred to below has been approved.

Ethics Number: HE13/116
Project Title: Understanding People Who Watch Birds
Researchers: Ms Corrie Wilkinson, Professor Gordon Waitt, Dr Leah Gibbs
Approval Date: 27 March 2013
Expiry Date: 26 March

The University of Wollongong/Illawarra Shoalhaven Local Health District Social Sciences HREC is constituted and functions in accordance with the NHMRC National Statement on Ethical Conduct in Human Research. The HREC has reviewed the research proposal for compliance with the National Statement and approval of this project is conditional upon your continuing compliance with this document.

A condition of approval by the HREC is the submission of a progress report annually and a final report on completion of your project. The progress report template is available at http://www.uow.edu.au/research/rso/ethics/UCW009385.html. This report must be completed, signed by the appropriate Head of School, and returned to the Research Services Office prior to the expiry date.

As evidence of continuing compliance, the Human Research Ethics Committee also requires that researchers immediately report:
• proposed changes to the protocol including changes to investigators involved
• serious or unexpected adverse effects on participants
• unforeseen events that might affect continued ethical acceptability of the project.

Please note that approvals are granted for a twelve month period. Further extension will be considered on receipt of a progress report prior to expiry date.

If you have any queries regarding the HREC review process, please contact the Ethics Unit on phone 4221 3386 or email rso-ethics@uow.edu.au.

Yours sincerely,

A/Professor Garry Hoban
Chair, Social Sciences
Human Research Ethics Committee

Cc: Prof Gordon Waitt, School of Earth & Environmental Sciences
Appendix C  Project Description - sent to potential participants

Project Description

Understanding Why People Watch Birds

You are invited to take part in a study conducted by Carrie Wilkinson, an Honours student at the University of Wollongong, under the supervision of Professor Gordon Waitt and Dr Leah Gibbs, School of Earth & Environmental Sciences.

The Project:
The project aims to better understand why people watch birds. Bird-watching is an increasingly popular leisure activity in Australia. Yet, very little is known about this practice. To learn more about why people watch birds this project is focussing on the experiences and practices of bird-watchers on the South-Coast of New South Wales. To participate all you need to have done is made a list of birds you have seen, or want to watch!

What you will be asked to do:
There are two parts to this project. You can choose to participate in both Stages, or only Stage I.
Stage I involves taking part in an interview about bird-watching. You will be asked about why you bird watch, and the places you have travelled to watch birds, for example: what is your earliest bird-watching experience? How do you identify a bird you have just seen? Do you ever go places, out of the everyday, just to see birds? How long have you been keeping a list of your sightings for? How do you make and maintain your bird list? You will be asked to bring a copy of your bird list(s). It is anticipated that this interview will take between 30 and 45 minutes. With your permission, this interview will be audio-taped and transcribed.

Stage II: Carrie will accompany you as you go bird-watching. Depending on your own personal bird-watching practices this may involve anything from; sitting alone on your back veranda, to taking a walk along the local beach with your dog, to visiting the local wetlands or going on a bird-watching outing with friends, colleagues or a bird-appreciation society. The purpose of this stage is to learn more about why you watch birds and the role your list plays in your everyday bird-watching activities. The length of time is dependent on where we go to watch birds. With your permission this Stage will be recorded using video and photography.

It is anticipated that the project will run from mid-April to late-June 2013.

The Project Organiser:
If you would like to participate or have any enquiries about the research please contact:

The principle investigator
- Carrie Wilkinson
  Honours Student
  School of Earth & Environmental Sciences
  University of Wollongong
  cw979@uowmail.edu.au

Or the co-supervisors
- Professor Gordon Waitt
  School of Earth & Environmental Sciences
  University of Wollongong
  02 4221 3684
  gwaitt@uow.edu.au

- Dr Leah Gibbs
  School of Earth & Environmental Sciences
  University of Wollongong
  02 4298 1547
  leah@uow.edu.au.

Thank you for your interest in this study.
Appendix D  Participant Information Sheet

Participant Information Sheet

Understanding Why People Watch Birds

You are invited to take part in a study conducted by Carrie Wilkinson, an honours student at the University of Wollongong, under the supervision of Professor Gordon Waitt and Dr Leah Gibbs, School of Earth & Environmental Sciences.

The Project:
The purpose of the research is to better understand why people watch birds. Bird-watching is an increasingly popular leisure activity in Australia. Yet, very little is known about this practice. To learn more about why people watch birds this project is focussing on the experiences and practices of bird-watchers on the South-Coast of New South Wales. To participate all you need to have done is made a list of birds you have seen, or want to watch.

What you will be asked to do:
There are two parts to this project – an interview and a bird-watching exercise. You can choose to participate in both stages, or only Stage I.

❖ **Stage I** involves taking part in an interview about bird-watching. You will be asked about why you bird watch, your list(s) and the places you have travelled to watch birds, for example: what is your earliest bird-watching experience? How do you identify a bird you have just seen? Do you ever go places, out of the everyday, just to see birds? How long have you been keeping a list of your sightings for? How do you make and maintain your bird list? You will be asked to bring a copy of your bird list(s). It is anticipated that this conversation will take between 30 and 45 minutes. With your permission, this conversation will be audio-taped and transcribed.

❖ **Stage II**: Carrie will accompany you as you go bird-watching. Depending on your own personal bird-watching practices this may involve anything from; sitting alone on your back veranda, to taking a walk along the local beach with your dog, to visiting the local wetlands or going on a bird-watching outing with friends, colleagues or a bird-appreciation society. The purpose of this stage is to learn more about why you watch birds and the role your list plays in your everyday bird-watching activities. The length of time is dependent on where we go to watch birds. With your permission this Stage will be recorded using photography.
It is anticipated that the project will run from mid-April to late-June 2013. You are invited to request a copy of the interview transcript and photographs from the investigators. You will also be asked if you wish to be given a pseudonym as direct quotations from the interview and copies of the photos will be used in an Honours thesis and may be used in scholarly publications. Confidentiality will be maintained in all publications and presentations on the research unless you are willing to be identified.

Your involvement in the project is voluntary and you may withdraw your participation and any data that you have provided within a reasonable time frame for the project. In this instance, the transcription and analysis of the interview and video recording is expected to be completed no later than July 31st, 2013. Withdrawal from the project will not affect your relationship with the University of Wollongong.

The Project Organiser:
If you would like to participate or have any enquiries about the research please contact:

The principle investigator
- Carrie Wilkinson
  Honours Student
  School of Earth & Environmental Sciences
  University of Wollongong
  cw979@uowmail.edu.au

Or the co-supervisors
- Professor Gordon Waitt
  School of Earth & Environmental Sciences
  University of Wollongong
  02 4221 3684
  gwaitt@uow.edu.au

- Dr Leah Gibbs
  School of Earth & Environmental Sciences
  University of Wollongong
  02 4298 1547
  leah@uow.edu.au

Ethics Review and Complaints:
This study has been reviewed by the Human Research Ethics Committee (Social Science, Humanities and Behavioural Science) of the University of Wollongong. If you have any concerns or complaints regarding the way this research has been conducted, you can contact the UOW Ethics Officer on (02) 4221 3386 or email rso-ethics@uow.edu.au.

Thank you for your interest in this study.
CONSENT FORM
STAGE I

Understanding Why People Watch Birds
A project by Carrie Wilkinson (Bachelor of Science, Honours Student)
Co-supervised by Professor Gordon Waitt and Dr Leah Gibbs

I have been given information about the Understanding Why People Watch Birds project. I have had the opportunity to discuss the research project with Carrie Wilkinson who is conducting this research as part of a Bachelor of Science (Honours) supervised by Professor Gordon Waitt and Dr Leah Gibbs of the School of Earth & Environmental Sciences at the University of Wollongong.

I understand there are no potential risks or burdens associated with this study. I have had the opportunity to ask Carrie Wilkinson any questions I may have about the research and my participation. I understand that my contribution will be confidential unless I give permission for my name to be used.

I understand that my participation in the project is voluntary. I am free to withdraw from the research at any time. I may also withdraw any data that I have provided to that point, subject to the timeline of the project. My refusal to participate or withdrawal of consent will not affect me, or my relationship with the University of Wollongong, in any way.

If I have any enquiries about the research, I can contact Carrie Wilkinson (0457045417; cw979@uowmail.edu.au), or Professor Gordon Waitt (02 4221 3684; gwaitt@uow.edu.au) or Dr Leah Gibbs (02 4298 1547; leah@uow.edu.au). If I have any concerns or complaints regarding the way the research is or has been conducted I can contact the Ethics Officer, Human Research Ethics Committee, Office of Research, University of Wollongong on (02) 4221 3386 or email rso-ethics@uow.edu.au.
By signing below I am indicating my consent to:

- Participate in an interview which will be recorded. I understand that I can request a transcript of the interview from Carrie Wilkinson.

Please indicate whether you wish for a pseudonym to be used for the data you provide, *(please tick one)*.

☐ YES, please use a pseudonym. ☐ NO, it is okay to use my real name.

I understand that the data collected from my participation will be used for an Honours thesis, and may also be published in scholarly articles and presented at academic and seminars, and I consent for it to be used in that manner.

Signed

……………………………………………………………………

Date

…………/……/……

Name *(please print)*

……………………………………………………………………
Appendix F  Consent Form – Stage II

April 2013

CONSENT FORM
STAGE II

Understanding Why People Watch Birds
A project by Carrie Wilkinson (Bachelor of Science, Honours Student)
Co-supervised by Professor Gordon Waitt and Dr Leah Gibbs

I have been given information about the Understanding Why People Watch Birds project. I have had the opportunity to discuss the research project with Carrie Wilkinson who is conducting this research as part of a Bachelor of Science (Honours) supervised by Professor Gordon Waitt and Dr Leah Gibbs of the School of Earth & Environmental Sciences at the University of Wollongong.

I understand there are no potential risks or burdens associated with this study. I have had the opportunity to ask Carrie Wilkinson any questions I may have about the research and my participation. I understand that my contribution will be confidential.

I understand that my participation in the project is voluntary. I am free to withdraw from the research at any time. I may also withdraw any data that I have provided to that point, subject to the timeline of the project. My refusal to participate or withdrawal of consent will not affect me, or my relationship with the University of Wollongong, in any way.

If I have any enquiries about the research, I can contact Carrie Wilkinson (0457045417; cw979@uowmail.edu.au), or Professor Gordon Waitt (02 4221 3684; gwaitt@uow.edu.au) or Dr Leah Gibbs (02 4298 1547; leah@uow.edu.au). If I have any concerns or complaints regarding the way the research is or has been conducted I can contact the Ethics Officer, Human Research Ethics Committee, Office of Research, University of Wollongong on (02) 4221 3386 or email rso-ethics@uow.edu.au.

By signing below I am indicating my consent to:

- Participate in a bird-watching exercise with Carrie Wilkinson. Depending on my personal bird-watching practices, and the time available, this may involve anything from; sitting with Carrie on my back veranda; taking a walk along the local beach with my dog; or
going on a bird-watching outing with my friends, colleagues or a bird-appreciation society. The purpose of this stage is for Carrie to learn more about why I watch birds and the role my list(s) plays in my everyday bird-watching activities. With your permission this stage may be recorded using photography.

Please indicate whether you wish for a pseudonym to be used for the data you provide, (please tick one).

☐ YES, please use a pseudonym. ☐ NO, it is okay to use my real name.

Please indicate if you consent for this bird-watching trip to be recorded using,

Photographs (please tick one) ☐ YES ☐ NO

If you have given consent to the use of photographs please indicate whether you wish for your face to be obscured, in order to hide your identity, in the photographs produced from the data you provide, (please tick one)

☐ YES, please obscure my identity. ☐ NO, it is okay to show my identity.

I understand that the data collected from my participation will be used for an Honours thesis, and may also be published in scholarly articles and presented at academic and policy seminars, and I consent for it to be used in that manner.

Signed

……………………………………………………………

Date

……./…../……

Name (please print)

……………………………………………………………………
Appendix G  Determining a Fieldwork Site – Negotiating Positionality in the Field

During my third, and final, 6 hour round-trip from Wollongong to Batemans Bay to interview participants, I was disheartened. Having interviewed 20 people from Eden, Wollongong, and everywhere in between, it became clear that having such a large fieldwork site was hard-work. I was not only time poor, having spent some 25 hours in transit by that stage, but also financially drained with the hole in my wallet burning bigger as money was poured into the fuel tank.

“Why did I recruit participants from such an immense area?!” I asked myself, “Why not just stick to bird-watching in one region?!”

Deciding on a location for my fieldwork was very important, and a decision that required careful deliberation – after all, I’d be spending a significant part of the next 3 months “in-the-field” getting to know the participants and their bird-watching worlds. How I would be perceived by those I was hoping to learn more about was something I thought a great deal about.

Although I was born and raised in Batemans Bay - spending 18 years in the local schools and playing on the local sporting teams - I have now lived out of the area for almost 4 years. While I am still familiar with the area spatially I no longer feel part of the community socially – my classmates have long since gone different ways. I now only return periodically to visit my family or to work over the summer holidays. However, equipped with local knowledge of place and experience bird-watching in the area with my father, I felt like I assumed a positionality of “inbetweeness” or “marginality” with participants - I was able to relate my own experiences when talking of or walking through particular places. The decision to include bird-watchers from Batemans Bay and the Eurobodalla in the study was a result of this.
Appendix G  Determining a fieldwork site (continued)

I have lived in Wollongong now for over 3 years. I am less familiar with the area spatially; having not had a car my exploration and understanding of the area has been very limited. However I feel like I belong to, and am an active member of, a specific community – the University community. Despite this I feel like I have little engagement with the broader Wollongong community – my friends are students at the University, I work at the University, I play netball and go to the gym at the University. For the most part, participants had not involvement with the University. With little local knowledge of place and community and not being able to relate to their love of birds or experiences bird-watching, when interviewing participants here I felt most like an “outsider”. Wollongong was a fieldwork site borne not simply because of convenience and proximity to my current lifestyle but because of the opportunity to learn about bird-watching in the area in greater depth – participants would have to explain their experiences in place in greater detail for me to understand.

Finally, I have been holidaying with my family on the Far South Coast for two decades. Although I have no interaction with the community I am familiar with the space having followed my father around bird-watching. I am also able to recognise and describe local landmarks, beaches, cafes and parks throughout the region. Consequently, my positionality here flittered between that of ‘inbetweeness’ and ‘outsider’.

Overall, the choice of such an expansive study site enabled me to experience participants’ bird-watching social worlds from a range of ‘positions’. My role as researcher wavered contextually between participant-as-observer and complete participation – I was someone who was knowledgeable in some aspects and totally oblivious in others.
Appendix H  Positionality and “Secret Places”: to share or not to share?

In the past two months I have been privileged with knowledge of places where birds can be found. These are places which many people, participants included, might not know about. I have been lead across paddocks and over fences to see the nest of a White-Bellied Sea Eagle. I’ve been shown around a closed-site, where only those with the formal induction certificate can freely go, to see an array of water-birds. I have had multiple nests and bowers pointed out to me in public parks and reserves which I and the vast majority of the world would walk past unwittingly.

While participants’ privacy is important what about the knowledge of the places they shared with me? When people were showing me these special, secret or protected places who were they really showing - were they showing me these places in confidence as a ‘participant’ and fellow ‘bird-watcher’? Or were they showing me these places with the fore-knowledge that as ‘researcher’ I would divulge the location in my thesis because they wanted others to know and be able to appreciate chance-encounters there? How had they come to know that birds would be in this place? Had they been shown by someone else and, if so, would that make it okay for me to “pass it on” to other people? If knowledge of these places was theirs and theirs alone what harm would befall them if I were to share the location?

There were so many factors at play here that I was often confused as to which “position” or “identity” I had been performing at the time. I couldn’t be sure to whom participants were showing these places and thus whether I was trusted with this knowledge in confidence. Consequently it was essential to ask participants which information could be shared, or used in my thesis, and which was to be kept “secret”.
Appendix I  Targeted Sampling of “Bird-Watching Clubs”

Five Illawarra and South Coast organisations, whose members are likely to watch birds, identified from basic internet search. Email contact details noted from organisation websites.

Generic email describing the project and requesting help for recruiting participants sent to President/Secretary of each organisation.

---

**Illawarra Bird Observers Club (IBOC)**

- Correspondence with President via email. Expressed interest in participating and agreed to help with recruitment.
- Emailed PIS and Consent Forms. No reply. Checked email had been sent and tried again.
- No reply. Followed up with email.
- No reply. Withdrew group as potential targeted recruitment source – out of time.

**Outcome: No participants in either stage.**

---

**Illawarra Birders Inc. (IB)**

- Correspondence with Martin Potter, founding member of IB, via email. Martin expressed interest in participating and agreed to help with recruitment.
- Attended and gave presentation to members at IB’s monthly meeting on invitation of Martin. 6 members expressed interest. Emailed PIS and Consent forms.
- Contacted by 2 more members expressing an interest. Emailed PIS and Consent forms.
- Tried to organise interviews and bird-watching through email and phone call. One recruit did not reply, one recruit withdrew.

**Outcome: Six participants completed stage I; of these, 5 completed stage II.**

---

**Southern Oceans Seabird Study Association (SOSSA)**

- No reply to request. Checked contact details and tried again.
- Withdrew group as potential targeted recruitment source – out of time.

**Outcome: No participants in either stage.**

---

**Eurobodalla Natural History Society (ENHS)**

- Correspondence with David Kay, Chair of ENHS, via email. David expressed interest in participating and agreed to help with recruitment.
- Having spoken with members about the project and my request, David emailed me the contact details of seven interested members (himself included). Emailed PIS and Consent Forms.
- Received expression of interest from member not listed in David’s original email. Emailed PIS and Consent Forms.

**Outcome: Nine participants completed both stages.**

---

**Far South Coast Bird Watchers Inc. (FSC Bird Watchers)**

- Correspondence with Barbara Jones, founding member, via email. Barbara expressed interest in participating and agreed to help with recruitment; tabled my request for discussion at the Club’s monthly meeting.
- Received email from Barbara forwarding contact details of three interested members (herself included). Emailed PIS and Consent Form.
- Tried to organise interviews and bird-watching through email and phone call. One recruit did not reply.

**Outcome: Two participants completed stage I; of these, one completed stage II.**

---
Appendix J: Targeted Sampling: Email sent to “Bird-Watching Clubs”

Hi [NAME OF CONTACT/NAME OF CLUB],

My name is Carrie Wilkinson and I am an honours student at the University of Wollongong. As part of our final year course-work, honours students are required to undertake fieldwork to write a thesis. For my honours thesis I have chosen to investigate how and why people watch birds. In particular, how people create and use lists when watching birds. I have attached a document describing the project that outlines the aims and methods.

I was hoping that the [NAME OF CLUB] may be able to help me. I would like to contact and have a conversation with a number of people who watch birds in the [LOCATION OF CLUB] to learn more about why they watch birds. I could think of no better place to start than with the [NAME OF CLUB].

I noticed from your [WEBSITE/ADVERTISEMENT ETC] that your members are not only keen bird-watchers, with a strong focus on wildlife research and conservation, but a number are involved in making lists of sightings from your field-meetings. I would love to talk to anyone of your members, or even their friends or family, who watch birds and keep a list (or lists) of their sightings, to learn more.

It would be greatly appreciated if you could circulate the Project Description and permit me to contact other members of the [NAME OF CLUB] to gauge their interest in the project.

If you have any questions please do not hesitate to contact me or my supervisors. Our contact details are in the Project Description document attached.

I look forward to hearing from you.

Kind regards,

Carrie Wilkinson

Carrie Wilkinson
Honours Student
School of Earth & Environmental Sciences
University of Wollongong, Australia
E: cw979@uowmail.edu.au
Appendix K  Snowball Sampling: sourcing bird-watchers through personal networks

Asked my Father, Mark – an avid bird-watcher, list-keeper and the ‘inspiration’ for this project – if he would like to participate. He expressed interest and was presented with a PIS and Consent Form.

Met Christine Perrot at Photography Exhibition in Narooma. When talking about photos of birds in the exhibition Christine mentioned she was a bird-watcher. I told her about the project and she expressed an interest in participating. Exchanged emails and sent a PIS and Consent Form.

Tried to organise interviews and bird-watching through phone call and face-to-face discussion. One recruit unavailable due to illness – withdrew, out of time.

Outcome: Four participants completed the interview. Three participants took part in Stage II (bird-watching).

Asked Mark if he knew anyone who may be interested in participating. He mentioned that a number of his clients from work knew of people who watched birds and may be interested. He said he would ask his clients to broach the subject with them on my behalf.

Three clients broached the subject with their friends, family, and colleagues to gauge possible interest in the project. Three people expressed an interest. Phone numbers of each potential participant were given to Mark and transferred to me.

Initial contact with potential recruits through phone call. Emails exchanged and PIS and Consent Forms forwarded.

Each participant was asked if they knew anyone else who may be interested in participating. No new recruits.
## Appendix L  Participant attributes

<table>
<thead>
<tr>
<th>Name</th>
<th>Age*</th>
<th>Occupation</th>
<th>Region of Residence</th>
<th>Active Member of Club(s) or Society(s)</th>
<th>Participant in Stage I</th>
<th>Participant in Stage II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbara Jones</td>
<td>70’s</td>
<td>Retired Teacher</td>
<td>Bega Valley</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sylvia Hibberd</td>
<td>60’s</td>
<td>Retired Public Servant</td>
<td>Bega Valley</td>
<td>Yes</td>
<td>X</td>
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<tr>
<td>Adrienne Grant</td>
<td>60’s</td>
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<td>X</td>
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<td>Christine Perrot</td>
<td>50’s</td>
<td>Retired</td>
<td>Eurobodalla</td>
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<tr>
<td>David Kay</td>
<td>60’s</td>
<td>Retired Manager with NPWS</td>
<td>Eurobodalla</td>
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<td>X</td>
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<tr>
<td>Demetrios Bertzeletos</td>
<td>20’s</td>
<td>Ornithology Student</td>
<td>Eurobodalla</td>
<td>Yes</td>
<td>X</td>
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<tr>
<td>Elizabeth Richardson</td>
<td>60’s</td>
<td>Minister of Religion</td>
<td>Eurobodalla</td>
<td>Yes</td>
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<tr>
<td>Gillian McNamara</td>
<td>50’s</td>
<td>Retired</td>
<td>Eurobodalla</td>
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<tr>
<td>Janet Houghton</td>
<td>70’s</td>
<td>Retired</td>
<td>Eurobodalla</td>
<td>Yes</td>
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<tr>
<td>Jill Whiter</td>
<td>80’s</td>
<td>Retired Journalist</td>
<td>Eurobodalla</td>
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<tr>
<td>Julie Collet</td>
<td>50’s</td>
<td>Dairy Farmer</td>
<td>Eurobodalla</td>
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<td>Julie Morgan</td>
<td>50’s</td>
<td>Retired Business Consultant</td>
<td>Eurobodalla</td>
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<td>Lyn Burden</td>
<td>60’s</td>
<td>School Counsellor</td>
<td>Eurobodalla</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Mandy Anderson</td>
<td>60’s</td>
<td>Retired Teacher</td>
<td>Eurobodalla</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mark Wilkinson</td>
<td>50’s</td>
<td>Landscaper</td>
<td>Eurobodalla</td>
<td>No</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Andrew Wood</td>
<td>50’s</td>
<td>Chemical Technician, Pharmacy</td>
<td>Wollongong City</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Chris Brandis</td>
<td>70’s</td>
<td>Retired Metallurgist</td>
<td>Wollongong City</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Martin Potter</td>
<td>50’s</td>
<td>Public Servant</td>
<td>Wollongong City</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Nerida Hudspith</td>
<td>60’s</td>
<td>Pre-School Teacher</td>
<td>Wollongong City</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Paul Nesbitt</td>
<td>40’s</td>
<td>Australia Post</td>
<td>Wollongong City</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Penny Potter</td>
<td>50’s</td>
<td>Administration</td>
<td>Wollongong City</td>
<td>Yes</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

*Age estimated when undisclosed*
## Appendix M  Stage I – Semi-Structured Interview Schedule: “Bird-Talk”

<table>
<thead>
<tr>
<th>Theme/Aim</th>
<th>Prompts</th>
</tr>
</thead>
</table>
| **Bird-Watching and History**  
*Determine centrality of bird-watching to identity/lifestyle* | → What is your earliest bird-watching experience?  
→ How long have you consciously been watching birds for?  
→ What is your most memorable bird-watching experience?  
→ Why do you watch birds? Why not trains or whales or planes etc.? |
| **Mapping Exercise**  
*Bird-watching and Travel*  
*Explore how watching/listing birds has generated travel and facilitated movement through time and space – question what bird-watching is for* | → I have some maps here: a map of the world, a map of Australia and a map of the Illawarra-South Coast. Could you highlight on these maps where you have gone to watch birds?  
→ Could you please tell me about the places you have highlighted?  
→ Do you ever go places, out of the everyday, just to see birds? Why/Why not? Where has your bird-watching/list taken you?  
→ Do you have any particular spots that you like to return to when bird-watching? Why is that/or could you tell me about this spot?  
→ For you, would you say that bird-watching takes you places, or do you go places to go bird-watching?  
→ Where do you go bird-watching? Where does bird-watching take you? |
| **Ethnography – discussing the participant’s list**  
*Bird-Watching and the List*  
*Discover how the list is made and used; its importance; the centrality of the list to the act of watching birds; the role of the list in an individual identifying self - and others - as a bird-watcher* | → Could you please tell me about the list you have brought with you today? How do you use it?  
→ How long have you been keeping this list? What criteria do you base your list upon?  
→ Is this the only list you keep? How many different lists do you keep? Could you please describe to me what lists you keep  
→ When did you first decide to make a list of your sightings? What prompted this decision – i.e. where did you get the idea?  
→ How long have you been keeping a list of your sightings for?  
→ What do you enjoy about making these lists?  
→ Is there anything you dislike about the lists?  
→ Do you keep any other lists? Like for seeing other wildlife or planes or trains or ships for example?  
→ How do you make your list?  
→ How do you maintain your list?  
→ What technology do you use to make/maintain your list?  
→ How strict are you with maintaining your list(s)?  
→ Do you share your list with others? Why not? Who do you share it with? How do you share it? |
| **Bird-watching Practices**  
*Follows on from previous section to specifically explore the technologies used to watch birds and keep lists* |
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>→ For you, is the list the most important item that you take with you when you go bird-watching?</td>
</tr>
<tr>
<td>→ How do you identify a bird you have just seen?</td>
</tr>
<tr>
<td>→ What item do you think is essential when you go bird-watching?/What item would you not leave home without when you go bird-watching? E.g. binoculars, a comfortable chair, guidebook, voice recorder, camera, video camera, notepad/pen. Why is that?</td>
</tr>
<tr>
<td>→ Do you ever use social media (e.g. Twitter or Facebook), to report a sighting? Why/Why not?</td>
</tr>
<tr>
<td>→ Do you use any software programs for documenting your sightings? E.g. or do you just write it down with pen and paper?</td>
</tr>
<tr>
<td>→ How do you document/record your sightings in the field? What technologies do you use? Do you use a camera, video camera, voice recorder, notepad and pen, checklist in a guidebook, iPod, iPhone or any other portable digital/computerised application?</td>
</tr>
<tr>
<td>→ Are the notes/lists you make in the field definitive or do you go back and edit or write them somewhere else when you have finished watching birds? Why is that?</td>
</tr>
</tbody>
</table>

| **What do people learn about themselves through generating lists of birds?**  
*Explore the meanings attached to bird-watching* |
<table>
<thead>
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<tbody>
<tr>
<td>→ Could you please draw/sketch/doodle what bird-watching means to you?</td>
</tr>
<tr>
<td>→ Could you please tell me about what you have drawn?</td>
</tr>
<tr>
<td>→ What have you learnt about yourself through listing birds?</td>
</tr>
<tr>
<td>→ What have you learnt about other people through listing birds?</td>
</tr>
<tr>
<td>→ Do friends or family members ever comment on your listing practices? If so, what do they say? How do you respond?</td>
</tr>
<tr>
<td>→ I am going to provide a scenario – say you were to lose a list of birds that you had kept, what would be the implications for you of that loss? How would you react?</td>
</tr>
</tbody>
</table>

| **What do people learn about birds through generating lists of birds?**  
*Explore the meanings attached to birds* |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>→ Do you/why do you think it is important for people who watch birds to generate lists?</td>
</tr>
<tr>
<td>→ What sorts of things have you learnt about birds through generating lists?</td>
</tr>
<tr>
<td>→ What sorts of things have you learnt about birds through ticking birds off a list?</td>
</tr>
<tr>
<td>→ What sorts of things have you learnt about birds through reviewing your lists?</td>
</tr>
<tr>
<td>→ I have heard that making lists of birds has made bird-watching more competitive – what would your reaction be to such a claim?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Conversation Wrap-up</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>→ We have spoken about your experiences, practices and memories of bird-watching. Is there anything you would like to add?</td>
</tr>
</tbody>
</table>
Appendix N  Extract from Photo Elicitation Interview
Participant: Demetrios

Carrie: You see I have just got more photos I have taken of the mangroves, and now we are entering the Casuarina forest area. You were telling me when we were walking along that some days it’s really good. Why’s that?

Demetrios: Yeah, well it’s season and climate like, really, every year is different. For example, in 2008 we had a plague of Black Big Eyed/ Red Eyed Cicadas which were everywhere. And we had, through the summer, you had a mixed flock of Olive-backed Orioles, Cuckoo Shrikes, Honey Eaters and Currawongs and Bower Birds feeding on them. It was big; like you would have a few hundred birds of each species throughout the walk and it was there for months and months and months and many of the birds breed. But that happened only one year and the next year what happened was we didn’t have the Black Big Eyed/ Red eyed Cicadas - we had a very heavy flowering of the Blue Berry Ash and that bought in Topknot Pigeons and it hasn’t happened since then.
Appendix O  Participant observation, frustration and embodied knowledge.

As someone who is hearing-impaired, and wears a hearing aid in one ear I am often “thrown” by sounds. Do not ask me to point out where a noise came from – in the bushes to the right, up in a tree on the left, under the bridge, around the corner – I would not have a clue. If there is wind rustling through the trees or the ocean swell is roaring in the background, forget it – unless whatever is making the sound is close enough for me to step on all you will get from me is a blank look.

Sound would often alert participants to the presence of birds, to the opportunity of a chance encounter and, as such, would dictate the pace or the direction they would walk. Some participants could identify and would record birds based on call. Others would hear a bird call and orientate themselves according to the location of the bird, opening the possibility for sight and identification. I could not share that experience. I could not stop and alert the participant to the presence of a bird based on sound alone, as many of them had done for me.

To complicate matters further I was also disadvantaged in sight by my lack of decent binoculars. Some participants admitted not having an ‘ear’ for bird-calls and, like me, relied on sight for most of their bird-watching. Whilst my sense of sight is sharp enough to detect movement and hence the presence of a bird, without the aid of binoculars the identification of the bird was left to the participant equipped not only with a far superior knowledge of birds than myself but, more often than not, good quality binoculars. Consequently, I was not able to engage in the friendly banter I often witnessed between two, or a group of people watching birds, as they debated and settled on a positive identification. My inability to see properly meant I missed out on fully experiencing this central aspect of participants’ bird-watching worlds.
### Appendix P  
Comparison of Discourse and Narrative Analysis methods

<table>
<thead>
<tr>
<th>Aim</th>
<th>Discourse Analysis</th>
<th>Narrative Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To identify and understand the regulatory framework, or social mechanisms, within which groups of statements are produced, circulated and taken for granted as “truth”.</td>
<td>To make sense of human experience by understanding the interactions that occur among individuals, groups, societies and, in this case, the “more-than-human” world.</td>
</tr>
</tbody>
</table>

| Philosophy | Discourse—knowledge and meaning is produced through interaction with multiple discourses. | Narrative—personal storytelling is a source of knowledge production through which experiences and perspectives become accessible. |

| Analysis of Language | Language as a means of exposing taken for granted “truths” and identifying contradictions. | Language and non-verbal expressions as a means of accessing experiences and perspectives to uncover a “plurality of truths”. |

| Key Concepts | Discourse—rules and structures which govern the statements produced. Discursive Structures—unwritten conventions which underpin an authoritative understanding of the world. Truth, Power and Subjectivity—the processes which produce a particular knowledge of the world which is accepted as common-sense or ‘truth’. | Narrative—broadly understood as the retelling of events; selected, organised, connected and evaluated as meaningful for a particular audience; such a retelling can be of a specific event or of events which traverse temporal and geographical space. |

<table>
<thead>
<tr>
<th>Strategies</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Choice of texts</td>
<td>Purposeful sampling of relevant information rich sources.</td>
<td>Experiencing the stories—observing body-language; maintaining an open dialogue; experiencing each other’s emotions.</td>
</tr>
<tr>
<td>Critical- and Self-Reflexivity</td>
<td>Overcome preconceived ideas; positionality statements.</td>
<td>Transcription—immersion in and familiarisation with the data; repeated and thorough reading.</td>
</tr>
<tr>
<td>Familiarisation</td>
<td>Repeated and thorough reading of texts; thinking critically about social context of texts.</td>
<td>Interpretation—identifying dominant themes and contradictions within individual texts.</td>
</tr>
<tr>
<td>Coding</td>
<td>For organisation and interpretation; descriptive and analytical</td>
<td>Scanning across different domains of experience—examining personal stories for intrapersonal, interpersonal, cultural and structural aspects.</td>
</tr>
<tr>
<td>Effects of ‘truth’</td>
<td>Power, knowledge and persuasion.</td>
<td>Linking the personal with the political—examine texts for reference to popular discourses.</td>
</tr>
<tr>
<td>Inconsistencies</td>
<td>Contradictions within and between texts.</td>
<td>Comparing stories—connecting common and different plots, events and themes.</td>
</tr>
<tr>
<td>Silence</td>
<td>The invisible is visible – acknowledge discourses which silence.</td>
<td>Writing—pulling together different stories and translating participant’s oral talk into academic knowledge; recognition of multiple possibilities for representing stories.</td>
</tr>
</tbody>
</table>

Adapted from Rose (2001); Starks and Trinidad (2007); Waitt (2010). Fraser (2004); Wiles J. et al. (2005).
Appendix Q

Bird Route No 3
Wyndham/Rocky Hall/Burrage

This route takes you on a 42 km round trip through open farmland and woodland with a backdrop of purple mountains.

Leaving Wyndham, stay on the main road (Mt Darragh Road) heading towards Bombala. After 1.9 km turn left into New Buildings Road which winds through open farmland and provides opportunities to stop and bird watch anywhere as desired but remember to park with care as the locals travel the road with confidence and do not expect parked cars.

Stop before the first wooden bridge and wander around on the left. Cross another creek on a bend and park carefully beyond it just past house number 288. Spend time wading the roadside and behind to find a plethora of birds including Yellow-tufted and White-naped Honeyeaters, Diamond Firetails and Double-barred Finches and Golden Whistler.

Continue on this road another 2.8 km to reach the Towamba River. Crossing via the high bridge brings you to the locality of New Buildings. Turn right into Big Jack Mountain Road and travel toward Rocky Hall.

The first narrow creek crossing might be good for a stop. Then continuing on watch the fences and paddocks for Australasian Magpie, Scarlet Robin, Brown Falcon and Finches.

Crossing tiny Basin Creek you will see a rotunda up on the left at the Rocky Hall cemetery and almost right opposite the cemetery gate is the entry to the Reserve, hardly noticeable, but you can drive in and explore the area between the road and the river, where there is a lone picnic table. The reserve stretches along between the road and the river and is usually a buzz with birds at any time of the year. Look for Gang-gang Cockatoo, White-naped and Yellow-tufted Honeyeaters, Rose Robin, Dusky Woodswallow, Channel-billed Cuckoo and White-winged Chough. The road and cemetery area are good for Diamond and Double-barred Finches and you can enter the cemetery gate and wander in there.

Leaving the Reserve turn left and re-trace your steps to New Buildings, then continue straight ahead with the Towamba River on your left. Some 8.5 km from New Buildings is the small locality of Burrage with a sports oval on the left. A visit to Jinga Creek, just 3.4 km from Burrage along the road to Towamba, is recommended. Cross Jinga Creek and park safely at the side of the road and wander 100 metres or so each way where you may find Double-barred and Red-browed Finches and Yellow-tufted Honeyeaters and you might even sight a White-bellied Sea Eagle being chased by Masked Lapwings.

Return to Burrage, and turn right into Burrage Road beside the sports oval and travel 7.7 km to the road sign Stony Rock on the left. This is a large National Park sign. Park near the sign and walk about 100 metres along the dirt road through some dry eucalypt forest for a different suite of birds.

Continue along the Burrage Road for another 3.7 km to return to the Mt. Darragh Road. Turn right to Pambula or left to Wyndham.

Birds to look out for on this route:
(Arranged in the order of Christides and Beale 2008)

1. Stubble Quail
2. Brown Quail
3. Australian Wood Duck
4. Pacific Black Duck
5. Australian Grebe
6. Spotted Dove
7. Common Bronzewing
8. Peaceful Dove
9. Wonga Pigeon
10. Towny Frogmouth
11. White-throated Needletail
12. White-faced Heron
13. White-bellied Sea-Eagle
14. Whistling Kite
15. Brown Goshawk
16. Coloured Sparrowhawk
17. Wedge-tailed Eagle
18. Hawke’s Kestrel
20. Australian Hobby
21. Peregrine Falcon
22. Purple Swamphen
23. Dusky Moorhen
24. Masked Lapwing
25. Glossy Black-Cockatoo
26. Yellow-tailed Black-Cockatoo
27. Gang-gang Cockatoo
28. Galah
29. Sulphur-crested Cockatoo
30. Rainbow Lorikeet
31. Musk Lorikeet
32. Australian King Parrot
33. Crimson Rosella
34. Eastern Rosella
35. Channel-billed Cuckoo
36. Horsfield’s Bronze-Cuckoo
37. Shining Bronze-Cuckoo
38. Pallid Cuckoo
39. Fan-tailed Cuckoo
40. Brush Cuckoo
41. Boobook Owl
42. Azure Kingfisher
43. Laughing Kookaburra
44. Sacred Kingfisher
45. Dollarbird
46. Superb Lyrebird
47. White-throated Treecreeper
48. Satin Bowerbird
49. Superb Fairy-wren
50. White-browed Scrubwren

Birds produced by the Far South Coast Birdwatchers (n.d. b). The brochure provides details of one of the three self-directed bird walks/bird-routes in the Bega Valley and lists the birds which may be encountered along the route.
Appendix Q

Bird Route No. 3 Wyndham/Rocky Hall/Burragate

This list is only an indication of what might be found. Please add your additional sightings here:

51. Brown Gerygone
52. White-throated Gerygone
53. Striated Thornbill
54. Yellow-rumped Thornbill
55. Brown Thornbill
56. Spotted Pardalote
57. Striated Pardalote
58. Eastern Spinebill
59. Lewin’s Honeyeater
60. Yellow-faced Honeyeater
61. White-eared Honeyeater
62. Yellow-tufted Honeyeater
63. Bell Miner
64. Little Wattlebird
65. Red Wattlebird
66. Crescent Honeyeater
67. New Holland Honeyeater
68. White-naped Honeyeater
69. Noisy Friarbird
70. Eastern Whipbird
71. Varied Sittella
72. Black-faced Cuckoo-shrike
73. White-bellied Cuckoo-shrike
74. White-winged Triller
75. Crested Shrike-tit
76. Golden Whistler
77. Rufous Whistler
78. Grey Shrike-thrush
79. Olive-backed Oriole
80. Dusky Woodswallow
81. Grey Butcherbird
82. Australasian Magpie
83. Pied Currawong
84. Rufous Fantail
85. Grey Fantail
86. Willie Wagtail
87. Australian Raven
88. Little Raven
89. Leaden Flycatcher
90. Restless Flycatcher
91. Black-faced Monarch
92. White-winged Chough
93. Jacky Winter
94. Scarlet Robin
95. Rose Robin
96. Eastern Yellow Robin
97. Eurasian Skylark
98. Australian Reed-Warbler
99. Silvereye
100. Welcome Swallow
101. Tree Martin
102. Common Blackbird
103. Common Starling
104. Mistletoebird
105. Double-banded Finch
106. Red-browed Finch
107. Diamond Firetail
108. House Sparrow
109. Australasian Pipit
110. European Goldfinch

BIRD ROUTE NO 3

Bega Valley Shire

Latitude: 36° 55' 42"
Longitude: 149° 38' 47"

WYNDHAM ROCKY HALL BURRAGATE Circuit

Wyndham is a sleepy town on a major route connecting Bombala with the coast at Pambula. Link roads radiate from Wyndham to Rocky Hall, Burragate and Candelo.

Far South Coast Birdwatchers Inc. welcomes new members and visitors to all activities.

Field Outings are held on the second SATURDAY and fourth SUNDAY of each month and occasional weekdays.

Evening Meetings are held in Memilbula on the second THURSDAY of February, April, June, August, October and December.

Far South Coast Birdwatchers Inc
PO Box 180 Pambula NSW 2549
Enquiries to 6495 7390 or 6495 6592
Appendix R  
A sample of bird based citizen science programs referred to by participants in this project with an internet portal.

<table>
<thead>
<tr>
<th>Portal/Program:</th>
<th>Description:</th>
<th>Refer to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birdata and the Atlas of Australian Birds</td>
<td>Website for people wishing to access and contribute data to Birdlife Australia’s <em>Atlas of Australian Birds</em> and <em>Nest Record Scheme</em>; users can generate bird lists and distribution maps for specific areas; relies on provision of citizen observations and surveys; one of the few long-term, broad scale biodiversity monitoring programs available for Australia - current atlas has been running since 1998 and has collected over 6 million bird records.</td>
<td><a href="http://www.birdata.com.au">www.birdata.com.au</a></td>
</tr>
<tr>
<td>Birdlife Australia Shorebirds 2020</td>
<td>Goal is to establish and coordinate a national shorebird population monitoring program based upon citizen observations (online data entry and paper count forms); <em>Shorebirds 2020</em> engages the general public in conducting surveys at over 150 key sites; project managed by Birdlife Australia and currently supported by an Australian Government ‘Caring For Our Country’ grant.</td>
<td><a href="http://birdlife.org.au/projects/shorebirds-2020">http://birdlife.org.au/projects/shorebirds-2020</a></td>
</tr>
<tr>
<td>Birdlife Australia's Birds in Backyards</td>
<td>A research, education and conservation program developed by Birdlife Australia in response to the loss of native birds in urban and peri-urban areas; general public can become members and contribute observations to range of online surveys or take part in community education and research programs.</td>
<td><a href="http://www.birdsinbackyards.net/">http://www.birdsinbackyards.net/</a></td>
</tr>
<tr>
<td>Atlas of Living Australia</td>
<td>Data accumulated from museums, herbaria, community groups, government departments, universities and individuals; general public submit observations online; focus on all known species in Australia, not just birds.</td>
<td><a href="http://www.ala.org.au/">http://www.ala.org.au/</a></td>
</tr>
<tr>
<td>Eremaea (and Birdline Australia)</td>
<td>An online personal bird list organiser and global bird atlas, combined; established in 2003 the atlas is based on lists provided by citizen members and privately managed; observation data may be forwarded onto other conservation organisations; website also links to Birdline Australia (and NSW) – a site for reporting rare, interesting and unusual observations; Birdline Australia is sponsored by Birdlife Australia and privately moderated.</td>
<td><a href="http://www.eremaea.com/">http://www.eremaea.com/</a></td>
</tr>
</tbody>
</table>