Confluences in the streams of birding, technology and animal studies

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Introduction: The role of animal studies in my work

In this comprehensive paper, my inquiry into the animal studies literature was guided by two questions. The first was “How are the discourses of animal studies relevant to my research in birds and birders?” and the second was “What are the questions that have emerged from the readings that I want to take out into the field to help inform my dissertation proposal?” As such, in the following pages, I have attempted to address these questions by outlining germane ideas and subsequently by listing questions that I find engaging in my work about birds and birders. I hoped to be able to draw on the field of animal studies to help me frame ways of thinking about animals, generally and birds, specifically. Rather than assuming the neutral existence of birds in my upcoming dissertation work, and drawing on actor-network notions of agency, I believed that the ideas that shape the act of birding, and subsequently the birds observed, are cast in part by cultural ideas about and embodied interactions with birds. Thus, scholarship undertaken in the name of animal studies has focused this inquiry.

Rather than existing as a coherent field, however, my readings over the past semester and participation in discussions about the work occurring in the name of animal studies has led me to the conclusion that this field is a group of scholars working at the edges of their various established disciplines with animals as the focus of their inquiry. I use the term “edge” on purpose here: this work is often seen as having marginal importance in the context of the established discipline. When examining these works as a confluence, the different streams of thought create an environment rich in notions of and perspectives towards animals. This is the generative space of the field of inquiry.

As outlined earlier, I am interested in both birds and humans and the tensions that emerge out of this practice. Informing many of these lines of inquiry are concepts that have been engaged by the various disciplines in animal studies. In this paper, I outline and engage with some of the more intriguing lines of thought from these scholars: the question of the animal and the subsequent challenge of defining ethical spaces; the problem and promise of anthropomorphism; animal-human relationships in
urban spaces; the representation of birds; and the relationship between technology and birding.

**What discourses emerged as relevant to my research in birds & birders?**

*The question of the animal*

At the heart of much work in animal studies is this “question of the animal,” or as Wolfe puts it: “the relationship between what I have elsewhere called the discourse of animality—the use of that constellation of signifiers to structure how we address others of whatever sort (not just nonhuman animals)—and the living and breathing creatures who fall outside the taxonomy of *Homo sapiens.*” (Wolfe, 2003, p. XX) When it comes to the language used in animal studies, with specific attention to the word “animal” itself, Knight (2005) suggests that it, in fact, has encouraged dualistic thinking in two ways. The first, in the sense that human is often juxtaposed to animal, is that the word narrows possibilities by excluding the human. The second, in the sense that animal can comes to describe all non-human non-plant life, offers no ability to differentiate between animals. The intellectual implications of not engaging with this question of the animal are significant. In turn, arguments about animals can become (dangerously) flattened.

For example, Marcus Bullock (2002) writes that that humans are a disturbance that animals would not miss if we disappeared. This strikes me as much too vague a statement to have any real impact. Yes, there likely would be species of animals that would thrive with the disappearance of humans; Bullock is making reference here to organisms whose lives *H. sapiens,* writ large, have negatively impacted. This turns our gaze toward some of the more predictable, visible organisms and also uncovers some of the more predictable, visible understandings of what animals are: other than human, impacted by humans, separate from human life.

While it may be the case for some animals, what about organisms that live a life that is intimately entwined with our own ones (be they destructive, messy or ambivalent)? I am thinking of organisms from rock pigeons (*Columba livia*), which could be described as symbionts to our own urban lifestyle, to eye lash mites (*Demodex*...
folliculorum), which can be described as relying on us to survive, to the microorganisms that make up our intestinal fauna, who we rely on as much as they do on us.

Animal studies, I would argue, in engaging with the question of the animal, needs to ground answers to such questions in situated knowledge (Haraway, 1991). Furthermore, I would suggest that the practice of a contemporary natural history, contextualized as “a set of socio-spatial practices through which relationships between nature and society are defined” (Davies, 2000, p. 244), is one way of situating oneself. Wolch makes the argument that urban ecological work needs to be augmented by a tool kit rich in “ethnographic accounts of animals, personal narratives of nonscientific observers, and folklore.” (1998, p. 131); this can be seen as a part of contemporary natural history practice and a good starting place for my own work. Natural history, as a culturally and historically diverse practice is not unproblematic. For example, cast historically, as symbolized by the acts of 19th century men such as Darwin, the act of a Western natural history can be called colonial and a projection of a certain kind of power. I would like to suggest, however, that the practice of natural history, “as a complex, contested and changing network of practices, associated with defining and structuring the borders between the human and non-human worlds” (Davies, 2000, p. 244), is significantly different that the 19th century practice and continues to be relevant.

Ethical questions

Natural history is relevant, in part, because how we answer the question of the animal shapes our moral obligations towards them. Writing in Zoontologies, it seems as though Wolfe is suggesting that we need to develop an ethics where duty is not based in “a shared form of life” (2003, p. 8). Rather, duty should be developed in a setting where awareness of the other is in recognition of the “dangers of ethnocentric self-privileging” (2003, p. 8), where a sphere of consideration is not limited by “its own concepts, its own forms of life” (2003, p. 9, author's emphasis). So the question that emerges is: how do we do this? Bird watchers often observe and identify species of birds. Does the act of classification and identification of species play a role in ethical considerations? Rod Preece writes that, problematically, ethical consideration of the animal appears to always be relation to the human (2005). Preece goes on to argue that in deciding the moral status of animals, life should be used as the “sole relevant criteria” (2005, p. 370).
This is intriguing because it moves ascribing status away from human-constructed notion of species, an idea that is heavily relied upon in birding. Does this suggest, then, that in identifying bird species, birders foreclose the possibility for considering the animal? I question how feasible life is as a relevant criterion. While perhaps valuable in drawing attention to the problems of ascription to an (arguably arbitrary and human-centered) notion of speciation, this perspective does have limitations in my view: for example, how do we enter into ethical relationships with non-living objects? For example, how do you consider the American Kestrels (*Falco sparverius*) nesting on-campus without considering that these birds nest on the side of Scott building? The abiotic, problematically, appears to be cast aside, or assumed within *animal* in this viewpoint.

In ascribing moral status, animals are often tested to see if they can “look” beyond their own frames of reference (Fudge, 2002). This means to me that we should be doing a better job of figuring out what those frames of references are. So I *hypothesise* that those humans who spend time watching and learning from those animals may have a better inclination about what those frames might be. This may mean that some bird-watchers are doing more than simply watching birds: they may be, as Wolfe writes, re-imagining their own sphere of consideration. Investigating these spheres of consideration can frame my investigation into these birder-bird relationships and, at the same time, move us beyond arguments of sole relevant criteria (whatever they might be) in ascribing worth.

**Anthropomorphism**

Prior to and through these reading, I have become intrigued by the ambivalence surrounding the concept of anthropomorphism. I’ve written earlier that part of the work that I will undertake at the dissertation stage will attempt to include the birds watched and that a challenge for me will be to find some way to meaningfully include them. One obstacle in the way of attempting to include the animals in my research is the perceived inaccess to their mental states. This is, of course, in comparison to the human participants in my work, whose mental states are understood to be accessible though discussions, interviews and even observation. In this work, if I am to make claims to
what is happening to birds, I am going to have to engage with the perceived danger of anthropomorphizing birds.

Within the discourse of animal studies, however, anthropomorphism is suggested as being one way we come to know animals and that accuracy in anthropomorphization is not so improbable. This discourse, in fact, emerges from all disciplinary fields of animal studies. For example, Derrida argues that rather than being complacent in humanity’s typical dismissal of animals’ power, which comprises of a list of concepts such as “speech, reason, experience of death, mourning, culture, institution, technics, clothing, lie, pretense of pretense, covering of tracks, gift, laughter, tears, respect, and so on—the list is necessarily without limit” (2003, p. 137) that we should rather be examining if we can even be applying those attributes to humans, or, more provocatively, if there is such a thing as a human at all (Derrida, 2003). Philo & Wilbert write that “if the possibility is entertained that humans and animals may not be so completely different after all, as has been proposed on the basis of alternative cultural worldviews, scientific findings and even ANT, then the logical grounding for the charge of anthropomorphism becomes much more rickety” (2000, p. 19) and that, in turn, morphisms (the imagination of the other) are a trans-species occurrence which act to “enlarge the imaginative resources available to humans for conceptualising their own humanity.” (2000, p. 19)

That may be too general a statement to make, as Fudge (2002) seems to write (and I would agree) that not all anthropomorphism is the same. We seem to talk generally about anthropomorphism, where it is a concept that needs some fleshing out. So, if it has different ends perhaps it is worthwhile describing these differences. Provocatively, one animal studies scholar suggests an outright dismissal of the concept, and in its place the concept of “inter-mammalian sociality” (Knight, 2005, p. 11). I acknowledge that it is an interesting move to focus on sociality, but I find it limited by its biological origins; by focusing on mammals, it is dismissive of those organisms that are not mammalian. Given my interest in the avian world, I would have to dismiss the possibility that I, or others, may know what a bird is feeling or why a bird is doing.

Writing in the field of anthropology, Kay Milton (2005) has convincingly argued for the importance of a certain kind of anthropomorphism in knowing animals. Milton (2005) describes three ways in which she sees anthropomorphism used: to describe the ways
animals are represented; how people act towards animals; and the way that non-human animals are clearly understood by humans. Because I firmly believe, as Fudge does, that “anthropomorphism can have an ethical dimension,” (2002, p. 89) there is some worth in unpacking this idea and examining Milton’s use of anthropomorphism in more detail.

**Used to describe the ways that animals are represented**

This kind of anthropomorphism is used to describe the way animals are represented in stories (writ large), where characters think human thoughts, wear human clothes and use human language (Milton, 2005). Milton is not interested in these kinds of representations as they are not used to describe “real” animals; many are symbolic representations of animals based on observations of what that animal is “really like.” (2005, p. 256) Interestingly, the suggestion is hinted at that some disciplinary fields of animal studies operate primarily in this mode of representation. Representation is criticised by Milton because for her “representations and understandings do not necessarily correspond.” (2005, p. 258) Milton is suggesting that while analysis of representations may offer a perspective on how humans perceive non-humans, to end analysis there does not offer any greater understanding of the animal itself. This particular critique resonates with me as I often found work undertaken in the name of animal studies to be surprisingly empty of animals; more focused on, for example, the crisis of humanism in critical theory (Wolfe, 2003). I would rather work towards a greater understanding of what it means to be human that also offers and is based in a greater understanding of the animals themselves.

**Used to describe the ways people act towards animals**

Anthropomorphism in this sense describes the way people act toward animals, such as the treatment of pets where they can be dressed up, talked to, given furnishings and incorporated into family (Milton, 2005). Milton suggests that this anthropomorphism, represented by the treatment of animals by humans, is not her main focus because its interpretation is problematic. Milton asks if people who talk to their pet “really believe that the animals possess a human-like ability to understand language?” (2005, p. 257); she suggests that we cannot assume that they do.
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Used to describe the way that animals are clearly understood by humans

Milton writes that the third iteration of anthropomorphism occurs when animals are spoken of having personhood (motives, emotions etc.), her hypothesis being that “we come to think of animals as persons by attributing human characteristics to them” (2005, p. 257) where people are expressing literal truths rather than speaking metaphorically. She argues that the description of these representations and understandings as anthropomorphic is wrong because if the observation of outer states does not make an observation anthropomorphic (making, for example, the comparison between humans and ostriches having two legs and two eyes), then our ascription of inner states (or, the assumption that organisms are capable of experiencing such states) should not be seen as anthropomorphic, either. Milton suggests that the caution of assuming too much about an inner state is misplaced “for it simply replaces one assumption with another, possibly more dubious one.” (p. 259)

To understand a way an animal is thought of as anthropomorphic means assuming that the animal is not capable of the inner states attributed to it and that these inner states are solely human characteristics; or Milton’s argument in my words: the moment an organism other than a human has “inner states” then those states are no longer part of the purely human domain. If no longer solely human attributes, then describing similar states in other organisms cannot be classed as anthropomorphic and subsequently dismissed. A key question here is how does one recognize inner states in any being? Milton offers something of a solution in “egomorphism.”

Anthropomorphism becomes egomorphism

If we are to make this turn, then Milton suggests that personal experience rather than “human-ness” is the basis for understanding others. This understanding is achieved by “perceiving characteristics in things rather than, as anthropomorphism implies, attributing characteristics to things.” (Milton, 2005, p. 260, my emphasis) Describing this as egomorphism, a concept that suggests we perceive others, be they a human friend, the family cat or the Northern Cardinal at the birdfeeder on the basis that they are “like us” rather than “human-like.” (Milton, 2005, p. 261) Basing her theory of egomorphism on the work of psychologist Ulric Neisser (1976), whose work is founded
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on the atypical claim that awareness is located in the whole individual rather than in a particular sensory organ, Milton summarizes her argument:

Suggesting that our understanding of non-human animals as persons—that is, as beings with emotions, purposes and personalities—is based on our perceptions of them as “like me”, as distinct from “like us”, or human-like. These perceptions arise in our interactions with them, and in our observations of their interactions with each other, in which intersubjectivity is self-evidently generated. They are no different, in essence, from our perceptions of our fellow human beings as persons, which also depend, as Neisser argued, on information about intersubjectivity. (Milton, 2005, p. 263)

While in Nisser’s work, intersubjectivity was limited to intra-species interactions, Milton argues that intra-species interaction is too limited and provides examples of inter-species intersubjectivities. Interestingly, whether or not the non-human animal shares the understanding is irrelevant; “it is enough that they appear to do so, reinforcing our sense of both our own personhood and of theirs.” (Milton, 2005, p. 265)

**Concerns about egomorphism**

While at one level, I find the idea of egomorphism engaging, aligned with my own philosophical approach to the world and generative when dealing with the more-than-human world, I am still troubled with some aspects of the theory. For example, Milton writes:

But whether or not we make mistakes, we still treat the inner world of non-human animals as available and perceivable, just as we treat each other's moods as available and perceivable. When we see a mother whale supporting her calf to the surface to breathe, we see direct evidence of purpose and emotion—we see caring. Environmentalists and whale-watch guides simply draw our attention to it and reinforce what is, for some of us, as self-evident as the two eyes and two legs of an ostrich. (Milton, 2005, p. 265)

I cannot help but be concerned about two things here: the first is the assumption that a whale appearing to support her calf to breathe is to the whale the same thing as caring is to us. While it could be easy to make the argument that given the similarity between cetaceans and simians in our sociality, and the kind of time and attention needed by both classes of organisms to be successful in raising offspring that care is self-evident in these actions, when a female European earwig (*Forficula auricularia*) shows brood care
by licking its eggs to ensure that fungus does not destroy the developing insects inside, can I call that care too?

While I suspect that Milton would say yes, this leads me to my second concern about this theory: her examples of non-humans do not include non-mammals and do not engage with a wide enough breadth of emotions for me to be totally comfortable with her claims. Again, using her example of a female whale supporting her calf to breathe as care may be an easy claim to what is more of a naturalized cultural reaction to this kind of behaviour rather than some kind of intra-species understanding. Milton makes this biological and universal claim without taking a moment to consider that emotions, or at least what twinges emotions in us, may be culturally constructed. As such, when we watch a pack of wolves on television hunting and killing prey, are the emotions I feel in this “direct evidence of purpose and emotion” the same as the wolves or the prey? I might see that the wolves are “happy” after the kill, “relieved” that they have food. I can see the “fear” in the deer’s actions while it “flees” from the wolves. How much of these emotions, especially given that this is a television show I am watching, are carefully constructed by the human story-tellers (and thus a re-affirmation of culturally constructed emotions—the deer has to be scared, the wolves have to be happy) or a reflection of the emotional state of the animals? There is evidence that our culture’s perceptions about wolves, for example, change over time (see Brownlow, 2000). Perhaps in our “enlightened” age where wolves are seen as important components of a healthy ecosystem, what we see in this act would be different if we saw the same sequence of actions played out in the 19th century, when the wolf didn’t exist as a keystone ecological species, but rather as a menace to humans, livestock and wild prey species. Thus, the question emerges: can we be aware of intersubjectivities when we don’t share a relationship or physical space with those we’re making assumptions about?

These questions may be academic for part of my own work, as it is based in first-hand experience between birds and people. If I take Milton’s egocentrism as a way of to include the birds in my work, what may be of more importance to me is the idea of being able to properly read bird’s intentions. At this point, I am struck with a conversation that I had with Dr. Stutchbury where the assertion was made that birds have (speaking evolutionarily) reptilian brains and so we cannot project mammalian “ideals” on to their
behaviour. Perhaps it is not a case of looking at brains. American crows (*Corvus brachyrhynchos*) have a social life that as adults includes visiting members of their extended family. In short, they are a social bird whose social niche is more similar to our own than to a semipalmated plover (*Charadrius semipalmatus*). When I watch a crow, maybe I have better access to those inner states than I do to some precocial shorebird. Though they are both birds, their natural histories differ such that making equal claims to their inner states may not be appropriate on my part. While I find the concept of ecocentrism intriguing and appealing as a part of a possible answer to my desire to include the birds in my research, I do not think that it answers all of my concerns and, as I have outlined above, leaves some significant concerns unanswered.

**Urban animal-human relationships**

Urban animal-human relationships garner attention in the literature. Examples include: Wolch’s *Zoöpolis* (1998), which aims to “foreground [a contemporary] urban theory that takes nonhumans seriously” (p. 120); Griffith, Poulter & Sibley’s *Feral cats in the city* (2000) where feral cats are cast as borderland objects, transgressing “the boundary between civilisation and nature” (p. 60) and consequently seen as having ambiguous status; a historical look at the social inversion created by British dog ownership and theft in the Victorian era (Howell, 2000); an examination of urban Los Angeles women’s attitudes towards animals (Wolch, Brownlow, & Lassiter, 2000); more tenuously connected to the urban, Davies’ (2000) paper discusses the significance of a new kind of electronic zoo.

It seems like geographic concepts discussed by authors writing in the field of geographic animal studies can help me conceptually in my own work. Such concepts as space and, consequentially, the perceived transgression, on the part of animals, of their “proper” spaces help to identify some intriguing areas for research. This is one reason why the Fatal Light Awareness Program (FLAP) and, more generally, birds in the city are such a compelling subject for me: the kinds of birds that typically exist in the city are often seen as generalist pests and not the kind of animals that garner the same attention

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1 Precocial and altricial are biological terms used to describe the continuum of development a bird shows when it hatches. Altricial birds are born without feathers, with eyes closed and require feeding by parents. Precocial birds are born with feathers, with their eyes open and are able to immediately find food themselves. At the end of precocial birds’ development, adults have, relatively speaking to altricial birds’, smaller brain sizes and exhibit less sophisticated problem-solving behaviour.
as the rescued migrating songbirds. Migrating birds appear to transgress the space of the city and exist, for a time, in a place that is typically thought of being devoid of this kind of nature.

In the February / March 2007 issue of the magazine Plenty, author Susan M. Brackney writes about urban birdwatching. The article is interesting in so as much as she describes a new interest in finding (atypical and interesting) birds within the city—something that Brackney initially describes as an “oxymoron.” (2007, p. 57) Brackney suggests that urban bird watching is not, in fact, oxymoronic because there are more than the usual urban species to be found. In describing, however, these “usual” urban bird species she writes:

Still for highly adaptive species—think European Starlings, House Sparrows, grackles, and Canada Geese—urbanization has been a boon.

The result? “It’s almost like a McList. You go to McDonalds anywhere and it’s the same menu,” says Caren Cooper, a research associate at Cornell Lab of Ornithology. “You can get to an urban center and it’s going to be the same species, whether you are in New York or in Atlanta. When you get to the extremes of urbanization, sometimes the bird diversity is the same no matter where you are.” (Brackney, 2007, p. 59)

While much could be written in the analysis of this quote, reading this passage after reading a body of animal studies literature and actor-network theory literature made me stop and contemplate the reference by Cooper of a “McList.” John Urry describes the ANT concept of immutable mobiles in terms of the business practices of McDonalds where the “same” product can be found around the world (Urry, 2000). In thinking about ways in which animals relate spatially to us, Philo writes that these relations can, in fact, be laid out on a continuum, from inclusionary to exclusionary (1998). It is interesting to consider that birds can take places along the length of this axis, from the McList (occupying an exclusionary position) that Cooper describes above to the inclusionary position that some birds occupy while, for example, they are being provided food in backyards. What I find even more intriguing is the fact that the same species of birds, for example feral rock pigeons (Columba livia), can occupy different positions along this continuum: witness the installed anti-pigeon devices and the feeding of pigeons that occurs in the same urban areas.
Representing birds

Milton suggests that there is a subtle, but often misunderstood, distinction between understanding (meaning first-hand knowledge and suggestive of some kind of relationship) and representation, suggesting that both are folded into each other as a kind of “cultural construction” (Milton, 2005). This focus on relationship (in contrast to representation) is interesting seeing as much literature in animal studies seems to focus on the representation of animals. I like the idea that animals can be seen or approached from more than pure representational value and wonder if my work can bridge a gap between relationship and representation. I could argue right now that birding could be a bit of both. Bird books, with their painted illustrations of species, offer a representation of an “ideal.” Yet, being in the field, searching for and observing birds are large parts of birding as well. Through these excursions to observe birds, relationships can begin to form between places and organisms (human, avian and other). Intimacy emerges as a part of animal-human relationships; but this intimacy is two way, and may be asymmetrical (Knight, 2005). Thus it is important to investigate these birding relationships and the asymmetries that (may) exist as much as it is important to look at how individual birds come to be represented as a part of a known species through acts of representation.

Bird books are an interesting example in animal representation. Desmond writes about animal representation in animal taxidermy, where a single animal becomes a specimen or example of a whole species (2002). She argues that there is a technological tradition of increased realism (Desmond, 2002) in these animal representations, and that newer, “more real” representation is preferred. If this is the case, then the preference of bird paintings over photography in field guides is an interesting example of this trend not necessarily being followed. While there are bird books that feature photographs of birds, I would argue that the current “gold standard” in bird books (D. Sibley, 2000); the first “field guide” and arguably most influential bird book (Peterson, 1934); and the National Geographic Society’s bird book (Dunn & Alderfer, 2006) all feature paintings rather than photographs. This indicates to me there is something powerful in these representations and that the preference for ever-evolving and ever-increasingly sophisticated technology (and, conversely, realism) may not be as simple as stated.
Animal agency in representation

In a paper about fox hunting and the use of images of fox hunting to shape public opinion (Waley, 2000), an argument that I like is made that suggests animals can have agency in the way that representations about them are made. Waley suggests that animals can distance themselves from their representations and in turn, undermine the “political legitimacy of those representations.” (2000, p. 200)

In related work, Michel Callon’s paper on the marine biologists, fishermen and scallops (*Pecten maximus*) of St. Brieuc Bay (1986) is at one level, a narrative about actors but is also an example of how animals can act against particular representations. The ability of one actor to lock other actors into place is described as an act of *interessement*. Reality then, is a “process” (Callon, 1986, p. 207) and in the attempt to invoke one particular reality, the imposition and stabilization of an identity is interessement in action. Callon suggests that *Pecten maximus* larvae, through the actions of the scientists, transform into numbers, tables and curves. This process comes to reify power in the favour of the scientists as they now speak for the scallops. In this case the *interessement* is short-lived: the scallops and fisherman reject the power of the scientists and become dissidents.

In acknowledging the possibility of animals to have agency in shaping or, more importantly, acting *against* particular representations, it opens the possibility to find examples where animals have been / become entrenched into a particular representation that can undermine the act of intressment. The kind of work that Callon (1986) has undertaken remains, in my opinion, under-explored. I would also suggest that my 2006 AAG paper concerning the enactment of the multiple realities of a Barn Owl (*Tyto alba*) also falls into this broad field of inquiry.

The technology of photography

Chapter Three of Brower’s dissertation (2005), *The Photographic Blind and Photopower*, focuses on the photographic blind and wildlife photography. In this section Brower offers the proposal that the emergence and evolution in the structural form of the photographic blind is directly implicated in the creation of wildlife photographs (and how they are “seen”). Suggesting that the blind, as a form of technology, acts to effectively erase the presence of the human, Brower writes that this
disappearance allows the photographic moment captured to be a record of an event “more real” than otherwise possible. Underlying this perspective is the notion that if wildlife is aware of the presence of humans, that the bird, mammal or other being will not act “naturally” and, consequently, any record made will not accurately represent the truth of nature. Brower rightly points out that this perspective reifies a belief that humans are separate and distinct from other animal kinds; the presence of the human taints the (supposedly) pure behaviour of the being under observation. Emerging as a larger theme in this dissertation is the development of the technology of photography and the emergence of a gap between what is visible to our eye and what is accessible to a camera; a camera “sees more” than we do and as such, we tend to take photographic evidence as reliable reality or being the truth. As such, Brower reports that photographers seeking to photograph animals in the late 19th and early to mid 20th century and interested in the photographic truth turn to the blind to seek that reality. Interestingly, Brower does not believe that the telephoto lens had the same significance for photography as the blind did; bird photographers would set-up blinds as close as possible to their subjects and mask their presence with the raising of a blind. In my contemporary experiences with amateur bird photographers, blinds aren’t used to the same extent as described. The piece of technology that allows bird photography to occur is the telephoto lens. Thus I wonder if the fact that the majority of amateur bird photographers do not use blinds when photographing mean that they do not seek the truth that Brower argues that only the photographic blind affords? There is a difference between the eras that Brower investigates and I have experience in. There could also be an evolution, as the technology of telephoto lenses improved over the 20th and early 21st century that makes the blind obsolete. Contemporary photographers could still be interested in seeking the truth, with the telephoto lens replacing the blind in their search.

What I’ve realized in contemplating this thought is the similar role that the blind and the telephoto lens play: they both act to disrupt Euclidean space and subsequently disappear the human. While in the case of the blind the human is geographically close to the subject and thus, the masking agency of the blind is needed to disrupt the space

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2 Photo-finishes as being the gold standard in determining a race’s winner, for example.
3 This broad range in dates represents the historical period that Brower investigated.
between the two, the use of the telephoto lens removes the need for a blind because it collapses the space between the photographer and the bird. More generally in bird watching, binoculars and spotting scopes operate as post-structuralist objects as well. Using the same technology as the telephoto lens, they act to remove space between the observer and the observed. Thus, there is no longer a need to be physically close and mask your presence with a blind, a birder’s presence is now masked through distance easily traversed by putting binoculars to eyes. If we look historically at ornithology and bird observation, prior to the adoption of binoculars as a bird watching object, the rifle was intimately implicated with observing and collecting birds.

Brower (2005) writes extensively of the connection between hunting and photography in the dissertation chapter Camera Hunting. The connection between the camera, hunting and colonialism has also been taken up by Ryan (2000). Connecting this historical practice with the idea of disrupting Euclidean space, the shotguns and rifles used in the 19th and 20th century to capture bird subjects are another example of a space-disrupting technology. Knight (2005) writes about hunting and suggests that hunting is a serial act which lacks the possibility for the hunter to know individuals. Rather, hunters know a class of individuals (species perhaps) and can only begin to know behaviours. If bird photography and, by extension, birding is like hunting, does this erase the possibility for birders knowing birds personally?

For my dissertation, I would like to continue to investigate the implication of binoculars, spotting-scopes and telephoto lenses in the way that birding is enacted and especially in the way that knowledge about birds is created. Are these technologies the truth objects in a similar sense to Brower’s photographic blinds? How has their use been normalized and assimilated into the various acts of birding? What implications does this normalized practice have on how birds are seen and recorded?

Further Questions

For some, typical birding is focused on the record. By record, I’m writing of the process through which birds are discovered, observed, recorded and reported to other birders. Specifically speaking of birding in Ontario, there is an established method through which birders can keep updated on recent sightings and share sightings with other birders, perhaps best typified by the reporting method used by the Ontario Field
Ornithologists, relying largely on their internet electronic mailing list (ONTBIRDS) to report bird sightings. This normalized method has important impacts on the way the act of birding is shaped and conceptualized by some birders. This focus on the dissemination of bird presence and location through the internet seems to have the effect of reifying the importance of getting to see the bird as part of one’s collection or list. I wonder what these acts disappear, or in the words of Law (2002), what exist in the hinterlands of this practice. I am interested in the kind of relationship (read ethic) with birds this kind of birding fosters; how does one come to know birds from this practice?

Part of a larger discussion that is related to the practice of keeping bird sighting records is the location of the amateur birder in the world of professionalized ornithology. I plan to take this up in greater detail in the paper that I’m proposing to write about the Ivory-billed Woodpecker (*Campephilus principalis*) discussed in greater detail in the section below. However, to outline this quickly, amateur birders appear to still have a role to play in the creation of official knowledge about birds. These include examples of “citizen science,” where observations collected by amateurs are used by ornithologists (see Lepczyk, 2005, for example), such as is the case in the publication of Breeding Bird Atlases. As part of my own work, I am interested in researching what process birds are recorded in Ontario (or, in other words, how they come to exist in the eyes of ornithology). Again, I believe that this practice has implications on how birds are conceptualized and known.

**Birds on the web: technology and birdwatching**

Bird watching is a practice that is mediated and influenced by technologies and technological innovation. On the surface, this may seem counter-intuitive, given the fact that birders themselves are often represented as undertaking their activity to reconnect with nature, e.g., “Birding can be a pastime enjoyed simply because it puts people in touch with nature, bird by bird” (Goldberg, 2007, p. 255), that is often conceived as being free of technology. The apparatuses, however, that birders use to “connect” with nature are not neutral objects; they have changed how birding is enacted and what birding is about (i.e., the object at the centre of the practice has changed and continues

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4 The term amateur may be problematic given the sophisticated and detailed knowledge an “amateur” birder often has about birds.
to change with the adoption of new technologies). As Elder, Wolch & Emel (1998) write, technological change can change society which, in turn, can change ideas about animals.

The technological innovations that have marked the past ten years are being adopted by bird watchers. A recent article in The Wall Street Journal (LaVallee, 2007) outlines some of these new practices. Specifically, some birders are now adopting the following innovations in their enactment of birdwatching:

- iPods that carry digitized birdsong recordings
- handheld computers that allow birders to record observations and refer to electronic bird books
- websites that:
  - interpret overnight radar “echoes” of migrating birds and allow the prediction of “big” birding days
  - allow subscription to sightings and geographic location and the possibility to share one’s own observations
  - allow bird photographs to be uploaded, tagged and shared with others
  - let surfers watch birds on nests, in bird boxes or other inaccessible locations

Now, in addition to binoculars, Audubon bird calls (a small device used to mimic chirps, see Figure 1) and phishing (a physical act of blowing air through pursed lips, imitating the distress call of a bird), birders can employ technologies that let them accumulate, process & hold more information about the birds that they are watching than previously available. Miniaturization (for example, the iPod’s ability to keep several CDs worth of bird songs and easily navigate through them in device with a footprint the size of a deck of cards) and the consolidation (for example, a handheld computer that can: display an electronic field guide; can connect to the Internet to download emails of the latest sightings; be a cellular phone to report sightings) of many technologies into one hand-held peripheral.

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5 See woodcreeper.com at http://www.woodcreeper.com
6 Such as the ONTBIRDS electronic mailing list at http://www.ofo.ca/ontbirdsguide.htm
7 There are a number of photography sites, including PBase (http://www.pbase.com) and Flickr (http://www.flickr.com). I discuss Flickr in more detail in the section that begins on page 17
8 These sites are numerous; perhaps one of the best known is Doug Carrick’s 2006 eagle cam ("Eagle fever soars as world waits for eaglet hatching," 2006)
Perhaps the technology that has had the greatest impact is, in fact, the (quite literal) network of different technologies collectively known as the World Wide Web, or simply, the Web. Recently on the Web, a new suite of websites that utilize “new” web technologies (such as Ajax [a JavaScript and XML programming language], and RSS [really simple syndication]) and, in turn, act more like programs than static “pages” have appeared. This transition and the ensuing hybrid page-programs have been called “Web 2.0.” Alan Gilbert describes:

Web 2.0 and its “open source” technology of collective contribution, nonproprietary distribution, and seemingly indiscriminate mixing, which presumably renders obsolete, once and for all, notions of high and low, authority and amateur, producer and consumer, artist and audience, etc. It’s the potential realization of post-modernism’s failed dream, despite lingering questions as to whether Web 2.0 will fundamentally change basic relationships of power. (2007, p. 10)

In Web 2.0, community and collaboration have emerged as important benchmarks in the design of these web sites. In the late 1990s, discussions about what the Web (Web 1.0) was going to achieve often centered on the individual. Ideas, echoed in academic post-modern discussions of post-humanism and cyborgs, were focused on a new human that sheds the confines of its biological shell, through the interface of the Internet (Gilbert, 2007). Web 2.0, rather, is the Internet’s post-structural enactment. As Gilbert outlines above, in the structure and questions of power are challenged in the way that information can be mashed-up or reorganized at a user’s whim. Most optimistically, this transformation “could lead the way to a truly democratic network, where producers and consumers are one and the same.” (Weiss, 2005) In relationship to birds, birders and technology, I wish to examine how some of the discourses discussed in the animal studies literature related to one Web 2.0 site, Flickr.com, a digital photography website-program. Flickr is a photo-sharing site (see Figure 2, below) that allows for user tagging (also known as “folksonomy” for a user-created taxonomy), the attribution of descriptive words to photos.
An interesting correlation appears in the fields of ornithology and computer science with the discussion of location of the amateur in the creation of knowledge. In ornithology’s case, amateur bird-watchers appear to have an important role in the collection and creation of knowledge in “citizen science” projects. Within the computer sciences, user-created taxonomies are used to illustrate how users can create “better” (more accurate, more relevant) information. (See Marlow, Naaman, boyd & Davis [2006] for an example that includes Flickr). In both of these cases, it is the power of the heterogeneous many that appears to benefit how information is collected and shared.
Bird photography on Flickr

Steve Baker suggests that art acts to erase dividing lines between humans and animals (2003). If this statement is to be taken for granted, and this re-negotiation is possible through art, I cannot help but wonder who can create this art (i.e., who “counts” as an artist?)? This question is important for me because the examples that Baker cites in his work are objets d’art created wholly, or in part, by those formally trained as artists. What about “art” created by those with little or no formal training? Where does amateur bird photography fall? These questions gain new colour when taken into the context of the “indiscriminate mixing” that the Web 2.0 allows. If users can be their own curators, what does that mean for Baker’s suggestions? Or, in other words, where does amateur bird photography on the web fall?

If I am to agree with the premise that Web 2.0 allows for the possibility of a different kind of power relationship, then I believe that discourses describing Flickr could operate outside the more typical or traditional discourses concerning animals and technology. Writing about a new kind of electronic zoo, where live animals are replaced with digital copies, Gail Davies invokes typical criticisms of technology on the relationship between humans and non-humans. There appears to be certain passivity—consuming animal representations chosen by others—to the notion of the electronic zoo. I believe that while there may be surface similarities between the electronic zoo and Flickr—disembodied digital images, for example—that Flickr is more active and engaged. In electronic zoos, the dissemination of information is “one or few to the many” (Davies, 2000, p. 257), where exhibit contents are selected by a curator. In contrast, pools of Flickr photos are often created with photographs added by the users of the site. This then means that those consuming the images are also involved in their creation. This has important implications for one of Davies’ criticism of film: in suggesting that in filming of animals human traces of labour and material objects are removed, film (and the ensuing representations) is/are powerful in creating separate human/animal worlds (2000). Flickr photographs, on the other hand can be storied, through captions and subsequent comment discussions, potentially allowing those traces back in.

Finally, Davies (2000) is especially concerned about the “ditch” of copywrite (and subsequent questions of “all rights reserved” ownership) that appear with creation of
electronic animals. Interestingly, Flickr users are offered the opportunity to change the kind of copywrite they hold on the photographs they upload. Users can licence their work under copywrites developed by the Creative Commons (CC), an electronic NGO that “let authors, scientists, artists, and educators easily mark their creative work with the freedoms they want it to carry.” ("Creative Commons," 2007, pp., ¶ 1) All CC-licenced works reserve some rights of ownership to their creator, however, they do not “ditch” these works so that they are unavailable to others. In all of these differences, the question remains: does Flickr “further the marginalisation of many animals” so that they “end up inhabiting either diminishing areas of wilderness or electronic spaces within the city” (Davies, 2000, pp. 259-260) as it is suggested the electronic zoo does?

“Artificial animals”

From extinction to electronics: Dead frogs, live dinosaurs, and electric sheep (Heise, 2003), a chapter published in Zoontologies, the author discusses how extinction, or the threat of extinction, shapes the way artificial animals are approached and understood. Heise writes that if we emphasize the digital proliferation of animals as solutions to current problems, this offers a convenient “means of escape from the unpleasant realities of ecological deterioration and species extinction into a digital world that is not subject to the same sets of problems.” (2003, pp. 70-71) In reading this chapter, I was left wondering what the “artificial animals” in birding are. Would bird song recordings and photographs be these artificial animals? If so, do they have the impact and ability to shape our understanding of other animals in the same way as Heise suggests of her examples? I think that birding may be different because it seems to emphasize the experience with living birds rather than artificial ones; bird watching, as it is enacted today, continues to be about going outdoors and finding avians. However, in the light of current popular discourses about songbird loss (Boyle, 2007; Stutchbury, 2007), is birdwatching, in fact, a marking of the loss of these organisms?

How do technology and bird conservation interface and impact each other? With this in mind, I turn to the ivory-billed woodpecker (IBW) (Campephilus principalis). The IBW is a bird that is assumed to be extinct, and has seemingly been brought back to life through the technologies of video and sound recording. Questions remain in this act: has the bird species been rediscovered? What are the implications for conservation if it
has? Is this (impending) re-discovery a manifestation of the anxieties over the loss of biodiversity at the end of the 20th / beginning of the 21st century? Is this attempt “speciesist” in the sense that the IBW “are envisioned and assessed in terms of the benefits or drawbacks they bring to human knowledge, experience, and comfort, not as beings with independent right to existence” (Heise, 2003, p. 76)? If so, perhaps the most important question should be asked: if there are IBW still alive today, would they want to be rediscovered?

**Ivory-billed Woodpecker (Campephilus principalis) paper**

The ivory-billed woodpecker (Campephilus principalis) was, or is (depending on your belief in their recent “re-discovery”) a large, omnivorous (but mostly insectivorous) and striking (no pun intended) woodpecker whose pre-European contact range would have included most old growth bottomland forest found in the South-eastern United States9. These birds, their feathers, skins and bills found at first nations’ sites well outside their range, have had significance for humans long before they were discovered by Europeans10 (Jackson, 2004). Due to habitat loss and collection, the IBW disappeared from these south-eastern US old growth bottomland forest in the early 20th century, with the last confirmed record occurring in 1944 (Fitzpatrick et al., 2005). Based on a video recording taken in 2004 by M. David Luneau, Jr., members of the Cornell Laboratory of Ornithology (the pre-eminent ornithology lab in North America and arguably the world) and the amateur birders that located the IBW in 2004, published an article in *Science* reporting the re-discovery of the IBW (Fitzpatrick et al., 2005). Since the publication of the 2005 Fitzpatrick article, researchers have been searching in earnest for further evidence of the existence of the IBW in the Big Woods region of Arkansas with little reported luck. In addition, the evidence presented in this paper has been critiqued (D. A. Sibley, Bevier, Patten, & Elphick, 2006) as not eliminating the possibility that the bird recorded by Luneau is a pileated woodpecker (Dryocopus pileatus) rather than an IBW.

Inspired by the publication of the 2005 *Science* article and the re-discovery of these birds, Dr. Geoff Hill and Dr. Dan Mennill, at the time both located at Aburn

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9 Their original range could be broadly described as being from the Carolinas in the North to the Mississippi River in the West to the coasts of the Gulf of Mexico and Atlantic Ocean in the East and South.

10 And consequently, Western science.
University in Alabama, drove to the gulf coast with kayaks in tow and spent a weekend paddling in the flooded lowland forest characteristic of the bird’s former habitat. Over this weekend, all members of the group saw, flying across the Choctawhatchee River what they could only describe as an IBW. Based on this observation, Dr. Mennill and Dr. Hill established a research project to attempt to find the IBW in the Choctawhatchee River watershed, in the panhandle of Florida.

Since that last recorded IBW observation in 1944 there have been many unconfirmed sightings of these birds. Often these have been disregarded as unreliable because of who reported seeing the bird: at best, amateur birders who are aware of IBWs and who believe the bird they saw matched the IBW’s “field marking;” at worst a truck driver that gets a fleeting glance of some big woodpecker that flies across an interstate. Confusing this search is the presence of the pileated woodpecker (*Dryocopus pileatus*), another large woodpecker with an overlapping range that superficially resembles the IBW. The question that gets asked of these observations is: “Did they see a Pileated or an ivory-billed woodpecker?” And likely, because the IBW is supposed to be extinct, any observation of an IBW by an amateur is disregarded and the identity of the organism is transformed into a pileated woodpecker, regardless of its identity. The shape-shifting ability of this bird as it becomes a hybrid object and is interested into different networks of relations is an especially interesting enactment of actor-network theory. I also like the IBW example precisely because of the agency the IBW currently has. In the Big Woods of Alabama, the site of the 2005 “re-discovery” reported in *Science*, researchers have been searching in earnest since 2005, with millions of dollars spent and little to show for these efforts. In hindsight, the search for the IBW may be seen as an activity that “deflects possible anxieties over contemporary losses in species diversity,” (Heise, 2003, p. 61) somewhat akin to fiddling while Rome burns: no one seems to be asking the question “so what” if IBW are found again; what kind of cathartic moment will it be and what kind of lens will it place over the other extinctions of the late 20th and early 21st century.

It would also seem as though there is an inversion of power in this relationship. Since the reported re-discovery in 2005, narratives along the lines of “we’ve known this bird has been here all along” have emerged from people that have intimate local knowledge of the IBW habitat. Duck hunters, in Alabama and in Florida, report having
heard IBWs for the past sixty years. They suggest that they’ve kept the information to themselves because they feared that the re-discovery of the bird would lead to some kind of control or restriction on their ability to hunt. Now the question arises if the knowledge they had was legitimate.

Dr. Mennill is currently a professor of biology specializing in ornithology at the University of Windsor. Dr. Mennill is a bioacoustics specialist and over the past two winters, has established a field camp in this watershed. Here, he and his “team” have made attempts to record the presence of the IBW. In addition to looking for the birds and evidence of their presence, Dr. Mennill has deployed “listening posts” in the lowland forest that record twenty-four hours of sound electronically\(^{11}\). These recordings have been collected daily and then sent electronically to the Mennill Sound Analysis Laboratory located on the University of Windsor campus. There, students, with the aid of a computer, listen to the twenty-four hour recording for signature acoustic markers of IBW: double knocks and kent calls. In the 2005 season, Dr. Mennill and his collaborators recorded over 11,000 hours of audio recording from seven stations and 100 of these double knocks, suggesting that, at least aurally, the IBW still exist.

The focus of this paper will investigate the recent “re-discovery” of the IBW by focusing on the efforts from 2005 onwards to secure a photograph of one of these birds. Echoing, in part, Brower’s (2005) argument of the photographic image as truth object, for those searching for the IBW, securing a photo of the bird is key in proving their existence. I find this especially interesting given the host of other technologies used to “capture” the IBW that do not count as the gold standard. Specifically, the recordings of Kent calls by Dr. Dan Mennill seem to offer evidence of their existence, yet due to the specific nature of this organism—that it is for all accounts “dead”—photographic evidence is still needed.

Recently, I had the opportunity to hear Dr. Mennill speak to the Richmond Hill Field Naturalists about his efforts to find and record the IBW. After the presentation, I had a moment to speak with him about his work and he offered to speak with me once this year’s field season is over. As such, I plan to get in touch with him over the summer.

\(^{11}\) There is an interesting parallel in so much that these birds exist electronically in the eyes (or ears) of official knowledge making: so does that make them cyborgs as Heise (2003) suggests? What might be the significance of that?
I am interested in speaking with him in more depth about the nature of the acoustic technology in addition to the role that amateur bird watchers have played in this work. I am interested due in part to comments that Dr. Mennill made on the night of the IBW presentation. As he was closing, he made the comment that he needed “more birding eyes” in the field and that he was interested in “good bird watchers” volunteering. The suggestion was, in part, that amateurs would have developed the kind of observational skills that would make them able to “see” an IBW. This, in part, connects with the credibility needed to make an IBW observation. I’m also interested in Dr. Mennill’s use of the internet and specifically, in his blogging about his work.

Below is an outline of the paper’s tentative themes:

- Location of the amateur in ornithology in creating expert knowledge
  - Sibley, Luneau & Mennill’s birders
  - Movement to digital recordings
- Role of technology in capturing IBW
  - Digital recordings
    - Sound & photographs
    - Bird-watching robots & sound laboratories
      - What does this do to amateur knowledge?
      - Artificial animals
  - What gets to count as evidence in the search for the IBW
    - Photograph is key piece of evidence
    - DNA
- Larger questions: why is this search happening?
  - Is it a “speciesist” attempt
  - Would IBW want to be rediscovered?

**Concluding Thoughts**

In this comprehensive paper, I have attempted to undertake an exploratory examination of the animal studies literature in the context of my proposed dissertation research. Given the disciplinary breadth that animal studies draw upon, I have tried to make comments and share insight across the disciplines. I have identified themes that have emerged in the literature that are congruent with my own work and attempted to ask questions that could shape directions for further inquiry. In that attempt, I have found the fundamental questions that scholars are engaging in across the disciplines to be relevant and generative for my own work. Most promising to me are the discourses about birding and technology. I am interested in: the impact of heterogeneous technologies, including websites such as Flickr, in reinforcing and disrupting the typical
discourse concerning animals and technology; the impact of amateurs in creating ornithological knowledge and the increasing creep of technology in re-defining this relationship; and how certain technologies, such as the binocular, have normalized and shaped bird-watching. It is important to have a central question to focus a dissertation, and I believe that investigating the relationship between birding technologies, the act of birding and the enactment of birds is a rich area for my further inquiry.
Works Cited


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