

THE POLITICS OF PENGUIN PLEASURE: WHY ANIMAL SEXUALITIES  
MATTER TO HUMANS

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## Abstract

This thesis is about what it means to think with penguins. It explores the ways in which we form ideas about these animals, and how those ideas can impact our beliefs about our own lives, penguins' lives, and the kinds of relationships that exist among humans and non-humans. It includes a survey of penguin representations across media and culture, particularly focusing on children's television and movies, nature documentaries, and non-fiction accounts of polar travel. While these penguin-centric texts can vary strikingly in tone, the penguins themselves appear again and again in an appealing light. Across a wide range of time and media, penguins are frequently portrayed as spunky, determined, and battling incredible odds to survive. That popular image of the plucky penguin has lent itself surprisingly well to debates about the naturalness of same-sex parenting in human society. The film *The March of the Penguins* (which was embraced by conservative Christians for its depiction of "traditional family values") and the picture book *And Tango Makes Three* (about two male chinstrap penguins who managed to successfully hatch an egg together at the Central Park Zoo) illustrate two sides of these public conversations. As the close reading and theoretical analysis performed in this thesis indicate, both views fail to truly understand penguins as living, courting, mating, reproducing beings. The behaviors of these actual animals are far too complex and varied to reduce to an alignment with either side of this fight over human concepts and morals.

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## 1. Introduction

“*Not for Publication.*” This label was printed in bold across a four-page pamphlet which had been buried in the archives of the Natural History Museum of London for nearly a hundred years. It was 2012 when this report came to light, and it was one of only two copies of the limited run printed for private use by scientists that had survived. What was the subject of this suppressed study? What research was so shocking to scientists that it was deemed unfit for public consumption, kept under wraps for almost a century?

The title of this scandalous report was “The sexual habits of the Adélie penguin.” It had been written by George Murray Levick, surgeon for Robert Falcon Scott’s 1910 *Terra Nova* expedition. Levick published accounts of his Antarctic zoological surveys for both general and scientific audiences, but none of them described penguins engaged in “autoerotic behaviour...necrophilia, sexual coercion, sexual and physical abuse of chicks, non-procreative sex and homosexual behaviour,” as the private pamphlet did (Russell et al. 389). Those observations were deemed either by Levick or his colleagues as unfit for wide distribution, though Levick did go to the trouble of thoroughly recording what he witnessed among the penguin colony in his notes. Still, he regarded these shocking observations seriously enough to code some of them in the Greek alphabet, even in his personal papers.

We do not know for certain why Levick’s observations were kept quiet, but his report reveals at least as much about English scientists in the Edwardian era as it does about penguins. The fact that someone saw fit to deem his study “Not for publication” illustrates that it existed at a site of controversy: behavior in non-human animals that defies human cultural norms was, and

still is, contentious<sup>1</sup>. Unexpected as they may be, however, these revelations about Adélie penguins do not appear consequential enough to warrant their censorship. Why care so much about the reproductive behavior of birds living in some of the remotest locales on Earth? What do such findings matter to those outside the specialized field of penguin biology?

Penguins provide an exceptional case study of how humans regard the sexual behaviors of other animals. These birds occupy a space in human imagination that is full of paradox: familiar yet exotic, iconic yet misunderstood, prevalent in media and arts yet absent from daily life. This means that penguins can carry a variety of contradictory meanings. Levick's recently resurfaced report is only the tip of the iceberg in this regard; reactions to penguin mating behavior are relatively abundant, and wide-ranging across eras and attitudes. Within the twenty-first century, penguins have been caught up in debates over the "naturalness" of sexual behaviors. These debates provide profound insights into how our ways of framing "the natural" and "the unnatural" have been used to marginalize people outside of cis-heteronormative standards. Additionally, portrayals of penguins by both biologists and artists illuminate how scientific discourse is itself shaped by cultural values, and how those same scientific "facts" are then reiterated in arts and media.

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<sup>1</sup> The terms "humans" and "non-humans" are each fraught with implications and difficulties. Referring to "humans" can be reductive, because it can impute actions and beliefs that belong preponderantly to a particular set of individuals to people all over the world. In this paper, for instance, when I discuss "human" attitudes toward penguins, I am often referring to the attitudes of humans shaped by Western culture or living in the Global North. "Non-humans" can be considered a problematic term as well, both because it lumps so many diverse organisms together under one name, and because it defines organisms negatively—by what they are not, rather than what they are. I have chosen to use "non-humans" in certain places because of my interest in studying worldviews that emphasize a separation between nature and culture. These worldviews set humans apart from other animals, and I use "non-humans" not to reinscribe that separation but to illuminate and analyze it.

Although not primarily concerned with the science of cognition, this thesis is about what it means to think with penguins. In their introduction to *Thinking with Animals: New Perspectives on Anthropomorphism*, Lorraine Daston and Gregg Mitman note a “double meaning” in this phrase. *Thinking with animals* can suggest a communal act: humans and animals performing thought together. On the other hand, it can also indicate the use of animals as a tool for thought: humans “recruit[ing] animals to symbolize, dramatize, and illuminate aspects of their own experience and fantasies” (2). It should be noted that in the first sense of *thinking with*, humans and animals are partners with equal agency, but in the second, animals are not active participants in meaning-making. Daston and Mitman do not bring up this notable difference in their introduction, but it is an important consideration. The second meaning (in which animals act as tools for thought), could also be phrased as “thinking *through* animals,” “thinking *by way of* animals,” or “thinking *in* animals”—all phrases in which animals are clearly passive objects, employed toward human ends. However, for the first construction, the animal-as-partner-in-thought, there is really no synonym. One might “think *of* animals,” or “think *about* animals,” but neither of these phrases suggests the equivalent agency of “*with*.” Thus, given its dual meaning, *thinking with animals* is a useful phrase for exploring both the positive and negative consequences of engaging animals in human meaning-making. By *thinking with animals*, we can critically examine both ways in which non-human organisms serve as tools employed by human language and thought, as well as ways in which interactions between humans and other species lead to the collaborative creation of meaning.

To think with penguins, then, is to explore the ways in which we form ideas about these animals, and how those ideas can impact our beliefs about our own lives, penguins’ lives, and the kinds of relationships that exist among humans and non-humans. A helpful step toward that

project is to survey penguin representations that exist across media and culture, particularly children's television and movies, nature documentaries, and non-fiction accounts of polar travel. Given the popularity of penguins, this brief overview is far from exhaustive. Instead, its aim is to highlight the "pluckiness factor" that dominates representations of penguins. While these penguin-centric texts can vary strikingly in tone—from animated frolics to documentaries highlighting the harshness of Antarctica—the penguins themselves appear again and again in an appealing light, one that often emphasizes cuteness, heroism, or sometimes both. Across a wide range of time and media, depictions of penguins frequently portray these animals as spunky, determined, and battling incredible odds to survive.

By the early twenty-first century, that popular image of the plucky penguin had been established firmly enough to give the animals a particular symbolic association, which lent itself surprisingly well to debates about same-sex couples (and especially parents) in human society. While they have been both beloved and iconic for many years, penguins have never been quite so present in the public mind as they were after the release of the massively popular documentary film *The March of the Penguins* in 2005. The film was embraced by conservative Christians, who read the penguin pairs it brought to the big screen as emblems of monogamy and "traditional family values." In the same year, the picture book *And Tango Makes Three* brought the story of Roy and Silo to prominence. These two male chinstrap penguins managed to successfully hatch an egg together at the Central Park Zoo, inspiring the applause of same-sex marriage advocates. In considering these stories side-by-side, it is evident that humans have managed to link penguins to politically-opposed goals: the promotion of fundamentalist heterosexual families on the one hand, versus activism for LGBT rights on the other. The two groups cannot sensibly claim the same animal as representative of their contradicting values, so

at least one side of this debate must be mistaken in its perception of penguins. I argue that both views fail to truly understand penguins as living, courting, mating, reproducing beings. The behaviors of these actual animals are far too complex and varied to reduce to an alignment with either side of this fight over human concepts and morals.

## 2. Deconstructing nature and culture: an introduction to queer ecology

In articulating questions about how and why humans judge the reproductive behaviors of penguins and other animals, this thesis draws upon both queer theory and ecocriticism. In that regard, it joins a growing body of scholarship concerned with what some have termed queer ecology. This interdisciplinary field has only emerged recently, but there are a few scholars who have contributed significantly to bringing these areas of critical theory into conversation.

Greta Gaard was one of the first critics to elaborate the need for a framework that aligns the approaches of queer and feminist critiques with environmentally-oriented scholarship. She calls for this alignment in part because of her insight that “dominant Western culture’s devaluation of the erotic parallels its devaluations of women and of nature” (115). Gaard argues that the doctrines of patriarchy, Christianity, and colonialism which emerged in Europe during the sixteenth and seventeenth centuries were ideologies which not only gave elevated status to masculinity and heterosexuality, but also privileged the concepts of culture and intellect above nature and sexuality. Understanding more about how such dualisms operate is a key project of queer ecology, and the “erotophobia” of Western culture that Gaard describes continues to play a role in determining why some animals (such as penguins) are featured frequently in popular discourses while others are not, as later sections of this paper shall demonstrate.

Nicole Seymour is another thinker who has helped to shape this developing field. She identifies one of the most prominent points of connection between queer theory and ecocriticism as a shared interest in deconstructing the idea of “the natural.” In her book *Strange Natures* (2013), Seymour argues that queer ecology is more than just “an arbitrary attempt to join together the already diverse and already interdisciplinary fields of queer theory and ecocriticism”

(2). Instead, she views queer ecology as an intervention that helps to address major oversights in both disciplines.

For instance, Seymour traces “a negative turn” in queer theory that she links to an anti-nature and anti-futurity stance. While Seymour lauds the meaningful contributions made to discourses on gender and sexuality by Jeffrey Weeks’ *Against Nature* (1991) and Lee Edelman’s *No Future* (2004), she also points out problems in these influential texts. These include an “undertheorization and underhistoricization of ‘nature,’ in comparison to the theorization and historicization of ‘sex’” (3-4). Uniting queer theory with ecocriticism affords us the opportunity to understand more deeply how *both* nature and sex are constructed concepts. In a similar vein, Seymour counters anti-futurity by identifying alternative discourses in queer theory that value “self-shattering, optimism, and utopianism” (12), and thus align with strains of environmentalism that look beyond narrow definitions of the self and the human to instead give greater attention to the more-than-human world.

As far as critiquing ecocriticism, Seymour also makes sharp assessments of scholars who dismiss the concerns of queer theory (as well as feminism, critical race theory, and disability studies) as mere “special interests” in comparison with environmental issues. As she puts it: “many radical environmentalists have taken anti-anthropocentrism to such an extreme that they fail to consider that there might be anything like problems *among* humans, or humans who actually *suffer*” (14). Seymour cites the work of sociologists, anthropologists, ecologists, intersectional theorists, and social justice advocates who refute the notion that environmental problems dwarf social problems, because the two are in fact inseparable. What Seymour calls a “second wave” of ecocriticism has helped to enable queer ecology by troubling the divide between nature and culture: “Just as queer theory needs to see ‘nature’ in a context other than the

social and the human, ecocritics have come to see ‘nature’ and ‘the environment’ in contexts other than the organic and the non-human” (16). Thus, queer ecology is much more than a random fusion of two disciplines. It is a powerful lens through which we can address major gaps, flaws, and illogical assumptions that tend to take root in discourses around both nature and sexuality when the two are not considered in tandem.

One more text which has contributed significantly to this rising field of scholarship is the anthology *Queer Ecologies: Sex, Nature, Politics, Desire* (2010) edited by Catriona Mortimer-Sandilands and Bruce Erickson. In the introduction to this volume, the editors outline three themes which correspond to major nodes of discussion within queer ecology. The first scrutinizes the concepts of nature, culture, humanity, and animality, and investigates ways in which some sexual behaviors have been “naturalized” across time while others have been pathologized, as well as engaging with more recent studies of evolution and ecology. The other two sections of the volume deal with “the intersections between queer and ecological inflections of bio/politics (including spatial politics), and the queering of environmental affect, ethics, and desire” (31). While all three of these themes within queer ecology are important and interconnected, it is the first section of Mortimer-Sandilands’ and Erickson’s work which speaks most directly to this thesis, and to my interest in exploring how the reproductive habits of penguins are represented in popular culture.

The discourse within queer ecology that I have highlighted here, dealing with “investigations of the ‘sexuality’ of nature” (Mortimer-Sandilands and Erickson 31), also engages with the field of science and technology studies. In particular, it draws on the work of scholars such as Donna Haraway, who have helped to historicize and contextualize the discipline of biology. Haraway has expressed her intention to “facilitate revisionings of fundamental,

persistent western narratives about difference, especially racial and sexual difference; about reproduction, especially in terms of the multiplicities of generators and offspring; and about survival, especially about survival imagined in the boundary conditions of both the origins and ends of history” (377). Haraway’s interest in studying biology and society with the goal of reimagining difference and interrogating assumptions about reproduction supports queer ecology’s aim to critically appraise our understandings of nature and sexuality. It is also fundamental to analyzing how penguin behavior, particularly mating behavior, has been presented in both scientific reports and popular culture, and how those understandings of the formation of penguin families have been discursively deployed.

### 3. Polar pluckiness: the comedy and heroism of penguins in popular culture

The associative link in popular culture between penguins and families is a strong and subtle one. At first glance, it might not seem obvious that the link exists at all. However, a survey of the many penguins represented in animated movies, television shows, nature documentaries, and both historic and contemporary accounts of Antarctic travel immediately make the connection between our conceptions of the penguin and the family unit clear.

Before exploring how penguins came to be associated with families in the popular imagination, however, there are some common mistaken assumptions about these creatures that should be addressed. In *The Animal That Therefore I Am*, Jacques Derrida calls attention to the absurdity of conflating all mammals, birds, reptiles, fish, and invertebrates under the comprehensive label of “the animal,” a term which collapses a dizzying variety of lifeforms into a single name (1654). Similarly, to refer to “the penguin” is also misleading, given that the term encompasses more than a dozen distinct species. It is true that some of the most iconic traits of penguins which set them apart from other birds—flightlessness, upright posture, predominantly black-and-white coloration—are shared across the order Sphenisciformes. Yet there is also considerable diversity among penguins. In terms of size, they range from the aptly named little blue penguin (which averages around a foot in height and 3.3 lb in weight) up to the stately emperor penguin (typically between three to four feet tall and 100 lb, at their heaviest).

There is also notable diversity among penguin species in terms of the range of habitats where they reside, which brings up one of the most prevalent misconceptions about penguins. The affiliation of penguins and Antarctica is indelible in the public imagination, a fact which popular science writer Diane Ackerman succinctly captures: “‘Penguin,’ you might say to a friend in a game of free association, and your friend is bound to answer ‘snow’ or ‘ice’ or ‘South

Pole” (193). There are no penguins at the South Pole itself, however; at an altitude of almost ten thousand feet, the geographic pole itself is home to very little life. Of course, there are no penguins at the North Pole either, as they are endemic to the Southern hemisphere, though they appear in advertisements alongside Northern icons such as polar bears and Santa Claus.

Furthermore, out of around seventeen to twenty types<sup>2</sup> of penguin, fewer than five spend any portion of the year in Antarctica. Others inhabit islands in the Antarctic sea, and there are several species that actually live in the temperate zone, with major penguin populations found in Angola, Argentina, Australia, Chile, Namibia, New Zealand, and South Africa. Yet the misconception that penguins reside only in extremely cold climates is still widely held. This can be easily understood if one looks to representations of penguins in art and popular culture; nearly all texts that dwell on penguins feature the Antarctic species. Exceptions include Herman Melville’s “The Encantadas” (which has a vivid description of the Galapagos penguin) and the family film *Oddball* (a fictionalized account of how a population of Australian little penguins came to be protected by Maremma sheepdogs). Other than these outliers, however, the vast majority of penguins that we encounter on the page and screen are inhabitants of icy worlds.

This is especially striking because it is emphatically not true for zoos and aquariums. The temperate-dwelling African, gentoo, Humboldt, and rockhopper penguins tend to be the species most commonly kept in captivity (Diebold et al. 1999). Recreating the extreme temperatures under which emperor and Adélie penguins breed in Antarctica is understandably challenging, though it has been done successfully. There is a curious discrepancy, then, between what types of penguins we most often meet in movies and books and those we are likely to

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<sup>2</sup> There is ongoing debate among penguin biologists about how to taxonomically categorize penguins, and where to draw distinctions between species and subspecies.

observe as living beings kept in captivity. Despite the fact that most people are far more likely to encounter a living penguin native to Africa or South America than one from Antarctica, we continue to associate penguins with the pole. This inconsistency is perhaps further evidence of the fact that zoos, despite appearing to offer a more “natural” and less mediated encounter with animals than what we can access through popular culture, are nevertheless scenes of representation. As John Berger’s “Why Look at Animals” reminds us, zoos are always inseparable from the cultural context of the human society in which they were constructed. In a zoo, one might find pictures of Adélie or emperor penguins in the signage accompanying a display of African penguins.

Along with their association with frigid habitats, cuteness emerges as a dominant theme in penguin portrayals. This is especially true of penguin-centric animated features aimed at children, which are legion. Indeed, when one thinks of famous fictional penguins, cartoons are likely to come to mind first, and while animation certainly reaches a much wider audience than just children (and need not be aimed at them at all), many penguin-starring movies and television shows have indeed been created with very young demographics in mind. This connection between penguins and children may play a large role in why the concept of the family is such a central part of the penguin’s public image, but do penguins appear in children’s media because kids love them, or are kids drawn to penguins because they are exposed to them so frequently? This question may be unanswerable, though the link between penguins and young humans has been present since early interactions between the birds and Western explorers.

Whichever hatched first, the link between penguins and animation aimed at children is by now well-established. It is also impressively global. In America, Playboy Penguin has appeared in *Looney Tunes* and Chilly Willy has starred alongside Woody Woodpecker, while Tennessee

Tuxedo was the titular character in his own series (1963-66). Penguins have also had cameos in such adorable animated shows as *Care Bears*, *My Little Pony*, *The Backyardigans* and *Adventure Time*. A more recent spate of Hollywood computer-animated films—including *Madagascar* (2005), *Happy Feet* (2006), and *Surf's Up* (2007)—made penguins particularly prominent in public consciousness for a few years. Penguin-centric British productions include *The Paz Show* and *The Octonauts*. The Swiss/British production *Pingu* was a claymation sensation from 1990 until 2006, with a Japanese reboot (*Pingu in the City*) launched in 2017. Japan has originated its own generous share of animated penguins; they occupy a prominent place in kawaii, the Japanese “culture of cuteness,” particularly in the form of Sanrio characters who frolic with Hello Kitty. Penguins have also appeared in popular anime such as *Neon Genesis Evangelion*, *Tokyo ESP*, and *Mawaru Penguindrum*. Penguins are at least as beloved in South Korea, where Pororo the Little Penguin was nicknamed “The Children’s President” for his show’s popularity among youngsters.

Another Korean character, Pengsoo, breaks several of the trends that dominate penguin shows consumed mostly by children. For one thing, producers at the Korean Educational Broadcasting System were somewhat surprised that a show originally conceived of as “content that elementary school viewers would find entertaining” has become mostly popular with “burned out” Korean millennials, who respond to Pengsoo’s brashness and sense of comfort with itself (Kang). Pengsoo was named a 2019 South Korean “person of the year” in a public vote. The “large, loud and unapologetically irreverent” genderless giant penguin is also not an animated character, but instead appears to be a human wearing an oversize costume, although show producers are committed to maintaining the premise that Pengsoo is in fact a real penguin. An entire episode of the show satirized investigative reality TV by purporting to uncover the

truth about Pengsoo's species, culminating in triumphant x-rays which confirmed Pengsoo's penguin-ness. Pengsoo is also unusual for living not in Antarctica, but rather in modern day South Korea, although by focusing on Pengsoo's difficulties in navigating a world very different from its icy birthplace, the show still underscores the perception of penguins as exclusively polar animals. The *Madagascar* franchise operates similarly, by transporting Antarctic penguins to Madagascar and then playing up the differences between the two habitats, when the African penguin in fact is endemic to regions very near the island of Madagascar.

As the length and breadth of the (only partial) list of penguins in television and movies given above should indicate, animated penguins come in many forms and display a range of personalities. Some are dapper and sport accessories such as top hats or bow-ties that accentuate the association of the penguin's black-and-white coloration with Western formal wear (Tennessee Tuxedo, Playboy Penguin, etc.). Others are optimistic go-getters (Mumble in *Happy Feet*, Pororo), while Sanrio's Bartz-Maru represents the surlier end of the penguin personality spectrum. Nevertheless, all these birds are beloved. The characters of the penguins themselves may differ, but the dominant response audiences hold toward them is uniformly positive, and whether these cartoon penguins are classy, chipper, or grouchy, they charm their human viewers with their cuteness.

While we may associate penguins with children in part because children's media is so full of the birds, it is also worth noting there are physical and behavioral traits in penguins themselves which many people view as distinctly child-like. The association goes back at least to early encounters between Western explorers and penguins. American trader and captain Benjamin Morrell, for instance, remarked in his 1832 memoir that penguins "have been aptly compared, when seen at a little distance, to a company of children with white aprons tied round

their waists with black strings” (50). Similarly, Apsley Cherry-Garrard of Scott’s 1910 *Terra Nova* expedition mused: “They are extraordinarily like children, these little people of the Antarctic world, either like children, or like old men, full of their own importance and late for dinner, in their black tail-coats and white shirt-fronts—and rather portly withal” (113). More recently, Ackerman’s *The Moon by Whale Light* (1991) compares penguins to “plump babies wearing snowsuits. On land, they have a comical waddling walk, which is similar to a human toddler’s....When you look down, you find an affectionate creature standing tall and straight as a young child, perhaps offering you its flipper the way we shake hands” (192). It seems the waddling, hopping gaits which these primarily marine birds take up on land has put numerous human observers in mind of the young (and in Cherry-Garrard’s case, also the elderly) of our own species. The link between penguins and toddling children highlights not only the traits of the birds which many find endearing, but also those which are comedic. Penguins in children’s media are often presented in a humorous, light-hearted tone, replete with silly walks and slapstick on ice.

On the other hand, live-action nature documentaries about penguins tend to emphasize a much graver mood. Survival is typically the dominant theme, with the harsh climate and threat of predators being played up. Luis Vivanco connects this recurring trope with the arduous history of polar exploration, noting that in many nature documentaries, it is “the Antarctic location—and the human trials of getting there and surviving its extremes—[that] frame the visualization of penguins” (115). In these films, penguins are often portrayed as “innocent victims” of demonic leopard seals, thieving skuas, and an almost unthinkable extreme climate, who face down incredible odds in their noble attempts to raise chicks (115-6).

Vivanco especially calls attention to the work of Herbert Ponting who, like Cherry-Garrard, was part of Scott's *Terra Nova* crew. As the official photographer and cinematographer of that expedition, Ponting had an outsize impact in visualizing Antarctic exploration. He brought awareness of the continent and its denizens into the public eye, while also releasing what Vivanco calls some of "the very first wildlife films," which of course portrayed penguins (115). Vivanco notes that these films and photos, which render Antarctica "an alien dreamscape of awe-inspiring scenery and surreal formations of ice, water, and sky" (115), are also "expressions of competitive nationalism and a masculinist version of individual heroism" (116). The so-called "heroic age" of Antarctic exploration, in which Scott looms as such a large figure, was defined by the race to see which nation could be the first to launch a successful expedition to the South Pole. Literary and visual artifacts of this era reflect that ambition in their fantastic and forbidding depictions of Antarctica. In films such as *The Great White Silence* (1924) and *90° South: With Scott to the Antarctic* (1933), Ponting crafts a narrative which drives home the toughness, heroism, and sacrifice required by human explorers in Antarctica, and penguins become actors in that narrative. Sometimes the birds (which Vivanco notes already had a reputation as "peculiar and humorous creatures") serve as something like comic relief, breaking up the dominant tone of the expedition's gritty survival with their amusing waddling and squabbling over nest sites. At other times, Ponting appears to align penguins with his human subjects: their struggles to protect eggs and nurture chicks become mirrors for the explorers' efforts to build shelter and feed themselves. The survival struggles of penguins has continued to be a focal point in more recent nature films such as the BBC's *Life in the Freezer* (1993) and National Geographic's *Emperors of the Ice* (2004), which also adds climate change to the list of formidable threats facing penguins.

The “cute and funny” view of penguins can seem at odds with the “noble and heroic” representation of birds grappling with a dangerous, unforgiving ecosystem. Yet Scott himself tapped into both amusement and awe in his response to the penguins he encountered in his travels. In Scott’s posthumously-published journals, he wrote:

The Adélie penguin on land or ice is almost wholly ludicrous. Whether sleeping, quarrelling, or playing, whether curious, frightened, or angry, its interest is continuously humorous; but the Adélie penguin in the water is another thing: as it darts to and fro a fathom or two below the surface, as it leaps porpoise-like into the air or swims skimmingly over the rippling surface of a pool, it excites nothing but admiration. Its speed probably appears greater than it is, but the ability to twist and turn and the general control of movement is both beautiful and wonderful. (115-16)

Scott here exploits the penguin’s nature as something of a hybrid being, which has claims to both terrestrial and aquatic environments. By writing that the underwater penguin is “another thing,” a thing in contrast to the ludicrous land penguin, he bifurcates the animal into two distinct personae: “continuously humorous” when on land, but “beautiful and wonderful” when in the marine element.

Cherry-Garrard takes a different approach to evoking both these tropes of penguindom, that is, the comedic/cute and the admirable/heroic. While Scott suggests a splitting to accommodate these two tendencies, Cherry-Garrard finds a way to make them make sense together. He does so by emphasizing the familiarity and fondness his party began to feel for penguins:

As we came to know these rookeries better we came to look upon these quaint creatures more as familiar friends than as casual acquaintances...[B]ecause he is fighting against

bigger odds than any other bird, and fighting always with the most gallant pluck, he comes to be considered as something apart from the ordinary bird—sometimes solemn, sometimes humorous, enterprising, chivalrous, cheeky—and always (unless you are driving a dog-team) a welcome and, in some ways, an almost human friend. (122)

Cherry-Garrard combines both the light-hearted and the noble sides of the penguin in this description. His assertion that penguins are “fighting against bigger odds” than other animals echoes the heroic framing found in nature films going back to Ponting, while words such as “humorous” and “cheeky” and the playful allusion to the birds’ interference with sled-dogs evokes the amusing and adorable presentation of cartoon penguins. The heroic and the cute merge into a single trait with Cherry-Garrard’s phrase “gallant pluck.” Pluckiness evokes positive moral values (bravery, determination) without sounding grandiose. It retains an inherently cute connotation. “Plucky” is perhaps the most succinct single adjective with which to capture the majority of penguin portrayals in popular culture, including nature documentaries, children’s shows, and television and newspaper cartoons.

For the purposes of analyzing how humans regard the sexuality of penguins, it is relevant to take this detailed detour through penguins in popular culture. It allows us to understand more deeply the popular image of the plucky penguin, and its strong link with children and families, which has made these animals broadly appealing and especially good candidates for appropriation in human causes.

#### 4. Penguin sexuality: from Christian ideal to gay pride icon

The consistently positive characterization of penguins in Western culture put them in a unique position during a moment in recent history, when the popularity of *The March of the Penguins* converged with several well-publicized instances of “gay penguins” in zoos. This landed the birds in disputed territory in the American “culture wars over the naturalness of heterosexuality or homosexuality,” as Noël Sturgeon says (109).

Sturgeon writes up a detailed and compelling account of how this clash over the symbolic status of penguins came about. She begins by discussing conservative Christian pundits who touted *The March of the Penguins* “as an inspiring example of monogamy, traditional Christian family values, and intelligent design” (102). There are, however, aspects of the film that directly challenge this particular interpretation. As Sturgeon notes, the division of offspring-rearing labor between emperor penguin mothers and fathers is split more or less equally, with each parent taking turns making the journey to sea to feed and then staying with the egg/chick to ensure its survival. This arrangement contradicts the fundamentalist Christian model of a wife serving her family’s domestic needs at home while her husband ventures outside to obtain resources and protection for his spouse and children.

Sturgeon theorizes that the conservative embrace of the film despite this ideological inconsistency may be attributed to how the film frames its portrait of penguin parenting: “The female penguins in the movie, though also sacrificing their health and well-being for the babies, somehow aren’t as moving in their long arduous walk as the huddled mass of penguin dads toughing it out together...neither is the females’ equally long wait for the males to return an important part of the narrative” (110). This is a compelling explanation, as the film does invest particular emotion in the male penguins’ ordeals. The narration warns viewers forebodingly that

“[a]s the winter progresses, the father will be severely tested.” Added after a pause (and almost as if an after-thought): “The mother will be tested as well.” We are also told that “[i]t is the father who will shield the egg from the violent winds and cold,” and this is characterized as “one of nature’s most incredible, and endearing, role reversals.” The very idea that it is a “role reversal” for male penguins to care for eggs while females obtain food for the chicks simply reinscribes human gender roles. It implies that the emperor penguin’s reproductive strategy is outside the norm, suggesting (erroneously) that most mothers and fathers across the animal kingdom align with the human fundamentalist ideal of domestic females and breadwinning males.

Reading conservative gender norms into the film, then, is not much of a stretch. What is more surprising is that some viewers saw *The March of the Penguins* as support for intelligent design. Sturgeon does not directly address the dissonance inherent in ascribing “theological overtones” to the film, as columnist Maggie Gallagher did (Pesca). Gallagher and other Christians have interpreted the ability of the penguins to survive and reproduce in such harsh conditions as evidence of an Intelligent Creator. The English language narration, however, appears to affirm an evolutionary understanding of nature by opening with a geologic overview of Antarctic history (“For millions of years [emperor penguins] have made their home on the darkest, driest, windiest and coldest continent on earth. And they’ve done so pretty much alone”). Andrew Coffin did point out the absence of any mention of God in the film, but he suggests that this does not invalidate the film’s value to conversations in religious circles: “It’s sad that acknowledgment of a creator is absent in the examination of such strange and wonderful animals. But it’s also a gap easily filled by family discussion after the film” (Miller).

The gap between fundamentalist Christian ideals and the content of *The March of the Penguins*, however, is not so large in comparison to the looming divide between the meanings that Coffin, Gallagher, and Medved attach to penguins and how the animals have come to be conceptualized by LGBT activists and allies. While conservative Christians enlisted penguins as emblems of nobly-sacrificing protective patriarchs and traditional (i.e. heterosexual) family values, penguins had simultaneously attained “already iconic status...as devoted gay couples and parents” (Sturgeon 110).

In the United States, the most famous instance of “penguin Pride” involved Roy and Silo and their “adopted” chick Tango. These two penguins at New York’s Central Park Zoo behaved like any of the zoo’s other mated pairs, but although they “went through all the usual courting displays, sexual activity, and nest-building behaviors, they were missing an essential element of their reproductive ambitions: an egg” (Sturgeon 111). It was this observation that led zookeepers to confirm (through DNA testing, Sturgeon postulates) that both penguins were male; it also led to the decision to give Roy and Silo their own egg to hatch (we do not know “what arrangement was made with the surrogate mother,” according to Sturgeon). The pair’s successful egg-hatching gave the Central Park Zoo another hardy baby penguin and it gave the world the children’s picture book *And Tango Makes Three* (2005), which was one of the American Library Association’s “most challenged books” for several years due to “attempts to remove it from the children’s sections of libraries into ‘mature sections’ and nonfiction sections, as well as requests to remove the book altogether” (Giannini 101). As these attempts demonstrate, there were many on the conservative side of the “culture wars” who felt that human society was threatened by this penguin family.

When conservative critics were explicitly questioned about the dissonance between Roy and Silo's same-sex parenting and their own fundamentalist interpretation of *March of the Penguins*, some commentators insisted that what penguins might do in nature (or zoos) is beside the point, because it is their metaphorical value that speaks loudest. In an NPR segment, Gallagher asserts that she and other Christians championed the film "not because objectively penguins are an accurate symbol of the state of sexual and parenting relations in America but because through art these penguins...were made a symbol that people responded to" (Pesca). This response is quite fascinating in its implications about the importance of accuracy and naturalness versus artistic and symbolic value. Gallagher argues that whatever the actual "sexual and parenting relations" of penguins might be is unimportant, compared with the emotional response the film evokes in audiences. This points to the importance of the fact that *March of the Penguins* portrayed the particular species it did. A documentary about giant water bugs might have showcased an equally heroic case of animal fathering: females of the Belostomatidae family typically lay their eggs on their partners' backs, and males are responsible for carrying and protecting hundreds of offspring for weeks (Smith 1997). While these insect dads may be as impressive as emperor penguins, it is unlikely that large, venomous arthropods could ever have become a "symbol that people responded to" in the way they reacted to penguin parents and their fluffy chicks.

There is a further ironic twist, however, in just how much the image of the happy penguin family remains consistent, regardless of what ideologically distinct culture deploys it. *And Tango Makes Three* and *March of the Penguins* both celebrate penguins for forming monogamous, two-parent, nuclear families; the only difference is whether the parental pair happens to be read by their audience as heterosexual or homosexual. That popular image of penguin pluckiness—the

many representations of penguins overcoming obstacles to raise their families—may well have made them especially appealing to fundamentalist Christians and non-heterosexual parents, given that members of both groups have frequently seen themselves as embattled by dominant American culture. The concept of penguins as loyal lifelong mates fits well with Christian values, and also with the aim of same-sex marriage advocates seeking to counter homophobia and push for cultural acceptance of non-straight parents and families. As Levick saw first-hand, however, the reproductive behavior of penguins does not always align so well with the idealized family image of Western culture.

The ironic consonance between the “penguin family values” espoused by both conservative fundamentalists and same-sex marriage advocates illustrates that arguments about human actions which are built upon animal behavior frequently overlook whatever aspects of that behavior are inconsistent or fit awkwardly into the debate at hand. In this instance, the fact that Silo also mated with a female penguin called Scrappy was routinely cut out of debates about Tango’s both romanticized and vilified penguin family. The conservative Christians who wished to hold up penguins as emblems of heterosexual family-rearing were angered by the same-sex penguin pairs who contradicted their chosen narrative, just as LGBT activists who wanted to use Roy and Silo as emblems of devoted gay partnership and parenting were only too happy to ignore the complicating coda of Scrappy’s “stealing” Silo away from poor Roy.

Of course, to begin to discuss penguin pairs in these terms—to say that Roy and Silo “broke up,” or that Silo “cheated on” Roy with Scrappy—is absurd, and it lays bare the fundamental impossibility of applying language so rooted in human culture to describe the behavior of another species. To say that Silo “cheated on” Roy implies that the two penguins made a commitment to be loyal to each other; it implies that Silo was dishonest, that Roy was

hurt, that there was deception involved in the change of partners—all baseless assumptions, which are deeply bound up in human perceptions of sexuality, romance, relationships, and emotions. Likewise, Levick was clearly under the sway of human moral judgments when he used terms such as “depraved activity” and “necrophilia” to describe an Adélie penguin mounting the body of a deceased member of its colony. By the 1960s, biologists who observed mating activity similar to what Levick saw used far less emotionally-charged language to postulate the Davian behavior complex<sup>3</sup>, which suggests that an animal’s “copulatory drive” may be triggered by the positioning of a corpse (Russell et al. 3). David Ainley performed experiments at the Cape Crozier Adélie penguin colony in order to “record the behaviour of lone males when a dead penguin, frozen into the position assumed by females during copulation, was placed in a nest” and established that “just the frozen head of the penguin...propped upright on wire with a large rock for a body, was sufficient stimulus for males to copulate and deposit sperm on the rock” (Russell et al. 4). This type of predictable, widespread response to visual stimulus is clearly very different from the sexual attraction to corpses implied by the word “necrophilia.”

Thomas Nagel famously argued that humans have no way of knowing what it is like to be a bat. He contends that at best, even if a human somehow gained the means of accessing a bat’s sensory and embodied experience of the world, they would still be a human experiencing bat consciousness, which is not the same as actually *being* a bat. In a similar vein, even if ethologists were to make huge steps toward improving our understanding of penguin breeding behavior, we still would have little means of knowing what any of that behavior actually means *to penguins*,

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<sup>3</sup> According to Russell et al., this behavior has also been observed in the European swallow, mallard, sand martin, gray-backed sparrow lark, and Stark’s lark.

only what it means to us as members of a species with our own distinctive biological reproductive strategies embedded in distinctive cultural practices.

The intense reactions to the story of Roy and Silo from both sides of the ideological debate over the naturalness of sexuality also reveal how little most individuals know about the biology of penguin reproduction. Many people were surprised (whether pleasantly or upsettingly) to learn about the existence of “gay penguins,” despite the fact that biologists had been observing sexual encounters between same-sex pairs of penguins in the wild since the 1970s. Bruce Bagemihl’s book *Biological Exuberance*, published in 1999, helped to open up conversations about sexual behaviors in nature which had been historically silenced, both intentionally and inadvertently. Bagemihl painstakingly explores an abundance of biological studies (encompassing 450 different species—and that is limited to birds and mammals) which overturn the notion that homosexual mating and courtship is rare in nature. Bagemihl devotes two whole chapters to addressing how and why non-heterosexual behavior in animals has been so absent from scientific discourse. There have been instances of outright censorship, as with Levick’s penguin study; but there is also much compelling evidence that the strong heteronormative bias of Western society has led many scientists to simply not understand what they are seeing when presented with behavior that falls outside of their expectations. Sometimes the very same action is categorized as “sexual behavior” when observed between heterosexual couples, but “social behavior” when it occurs between homosexual pairs. Biologists have reached for explanations involving dominance, social cohesion, play, and “practice mounting” or “mock copulation” in order to explain away any possibility of homosexuality (Bagemihl 115-21).

In some ways, the field of evolutionary biology has been founded on precepts which make homosexual pairings between animals incomprehensible. The ornithologist Richard Prum explains how non-procreative sexual activity is problematic in light of the discipline's core doctrine: "Homosexuality is a tough case, because it appears to violate that central tenet, that all of sexual behavior is about reproduction. The question is, why would anyone invest in sexual behavior that isn't reproductive?" (Mooallem). That core tenet Prum refers to is summed up by biological bywords such as "survival of the fittest" and "the selfish gene." Evolutionary science has been driven by the idea that animals evolve adaptive traits, and that to be adaptive—to increase an individual's fitness—a trait must help an individual pass on their genetic material.

Recently, however, some biologists (including Prum) have questioned whether too much emphasis has been placed on the adaptationist side of evolution. The number of physical and behavioral traits found in nature that actually seem detrimental to fitness is overwhelming. In his book *Survival of the Beautiful* (2011), David Rothenberg muses: "The natural world is far from a functionalist utopia. Instead, we are treated to case after case of wild, untrammelled craziness: narwhals with a single unicorn-like tooth, flycatchers with tails five times longer than their bodies, ancient moose with antlers so big they could barely move" (5). These puzzling traits have been chalked up to sexual selection; the idea is that although they appear anti-adaptive, a narwhal's tusk and a flycatcher's long tail actually do increase fitness by helping their bearers attract mates; this is a functionalist interpretation of the theory of sexual selection. However, Rothenberg suggests that Darwin's original concept of sexual selection had less to do with reproductive "fitness" than is often supposed. He argues that Darwin instead conceived of sexual selection as "a slap in the face of natural selection, a challenge, a contrasting and conflicting force working its own wily ways against the doctrine of efficiency and adaptation" (6). Why

subordinate sexual selection to a functionalist, utilitarian reading of natural selection? According to Rothenberg, Darwin's original concept of sexual selection may have been hard for scientists at the time to accept because of the weight it gave to the preferences and choices of females<sup>4</sup>.

Though Rothenberg does not specifically address non-human homosexuality in his investigation of evolutionary biology, his work has relevance here, and could easily be placed in conversation with Bagemihl's. Like the flycatcher's fantastic tail, homosexuality is typically read as yet another "non-functional" and "anti-adaptive" trait that Western scientists have attempted to explain out of nature. Another way that scientists can sometimes be blinded to non-heterosexual activity in animals has to do with our limited ability to accurately identify an animal's sex. Bagemihl writes: "The scientific literature is filled with examples of biologists who were convinced that the sexual, courtship, or pair-bonding activities they had been observing was between a male and female—until confronted with clear evidence of homosexuality" (94). This may well have been the case with penguins prior to Levick's study, since male and female penguins (like numerous other animals) can be almost impossible for a human observer to distinguish.

This fact in and of itself is perhaps evidence of why "thinking with animals" can be helpful when it comes to exploring human sexuality. In many ways, the erasure from the scientific literature of animal behavior that falls outside heterosexual norms parallels the erasure of non-heterosexual people in modern Western society. While science has often sided with dominant ideologies that deny or marginalize all gender and sexual identities outside of traditional heterosexuality, it need not do so. Biology could potentially offer helpful ways of

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<sup>4</sup> In "Deceived by Orchids: Sex, Science, Fiction and Darwin," Jim Endersby has also written about Darwin's theory of sexual selection in the context of changing gender roles in Victorian England.

reconceptualizing both sex and sexuality. Ecologist and evolutionary biologist Joan Roughgarden writes, “To a biologist, ‘male’ means making small gametes, and ‘female’ means making large gametes....Beyond gamete size, biologists don’t recognize any other universal difference between male and female” (23). Roughgarden’s book *Evolution’s Rainbow* (2004) debunks numerous assumptions about sex that are often trotted out to reaffirm conservative gender norms: “An organism is solely male or female for life,” “Females, not males, give birth,” “Males have XY chromosomes and females XX chromosomes,” “Males and females look different from one another,” “The male has a penis and the female lactates,” etc. (27-28). Looking at species outside of our own emphatically invalidates any argument purporting that there is a biological basis for a gender binary or that heterosexuality is compulsory in nature.

## 5. Conclusion: thinking with penguins and learning from nature

In studying how humans have constructed an imagined ideal of penguins, and how we have responded to observations that contradict that ideal, we can assess some of the implications of our failure to understand penguins, as well as other species. We can begin to comprehend what we stand to lose if our perceptions of non-human animals are clouded by our own shaky assumptions regarding what we truly know of other animals.

In human media and culture, penguins can be silly, cute, or heroic; they can be totems of heteronormativity or emblems of gay pride. If they can hold all of these diverse, sometimes contradictory roles in our imagination, then we are left with the question: what do penguins actually mean? The slippery, shifting nature of penguins across animation, literature, exploration narratives, and documentary films shows us that attempting to affix a single “meaning” to a particular species is a futile endeavor. However, humans are unlikely to stop creating and disseminating our own highly species-specific interpretations of other animals anytime soon. Is that important? Not to the penguins, probably. Even if they made their way into a cinema or bookstore, penguins would probably not much care how we portray them, whether their doppelgangers in media show up as loveable comedians or perverse sexual decadents.

And yet, if the wide array of human-mediated penguins can show us anything, it is that representations of animals *do* matter—to us, anyway. These representations are the building blocks of how we see other species, and how we see ourselves, and how we understand the relationships that encompass our experiences. They matter to us to such a degree that whether we are conscious of it or not, these tropes and associations shape how humans treat the world we co-inhabit with other species.

With that in mind, it is worth asking: how might our actions change if some of our fundamental assumptions about the differences between humans and other animals were to change? What would happen if we even entertained the possibility that humans might not be the only animals on Earth who shape and are shaped by culture? David Rothenberg writes: “If birds have culture, they create artifacts, and we have more levels of understanding to share with them. We may treat them with more respect; we might be much more likely to want to get to know them better” (75). He was referring to bowerbirds in this instance, but the words apply just as easily to penguins, and to so many other species. All around us, non-human lifeforms are busily engaged. They take part in mating rituals, rear young, migrate, build structures, hunt prey, avoid predators, gather food, and engage in intra- and interspecies communication. While we may be said to share our world with all these other active agents, it is equally true in another sense to say that every species inhabits its own world. When a species goes extinct, then, it means not just the loss of a material being, but also the loss of a culture, the loss of relationships, the loss of a particular kind of agency that interacts with other agencies in a singular way. Extinction means the loss of a way-of-being-in-the-world.

If, for instance, penguins were to go extinct, it would mean more than the simple reality that there would be fewer bird bodies waddling and swimming around the Antarctic. It would also mean that our world would lose the sound of raucous penguin calls, and the ecstatic display of courting penguins, and the methodology of carefully selecting pebbles that mating penguins use to communicate. We would lose the emperor penguin’s carefully calibrated reproductive routine, the one that allows eggs to hatch in one of the coldest environments on Earth, and that so moved fans of *The March of the Penguins*. We would also lose the chance to learn about the

sexual activities of the Adélies which horrified Levick, and about which we are only now just beginning to collect information. This chance to learn is what ultimately is at stake in extinction.

Those who were raised with the idea that there is a fundamental separation between humans and other species, or with the notion that humans are completely alone in our ability to transmit ideas through culture, may not be accustomed to conceiving that we large-brained *homo sapiens* ensconced in “civilization” can learn from nature. Yet when one comes to see how little most humans actually know about other species, it becomes obvious that there is much for us to learn. Penguins offer proof of just how underdeveloped our knowledge is of even some of the most iconic and widely-depicted animals on Earth.

As Vinciane Despret puts it, “[nature] teaches us nothing about who we are or what we ought to do. But it can feed our imagination and open our appetites for the plurality of usages and modes of being and existing. It never stops recombining categories and re-creating, from the multidimensionality of each and every one of them, new modes of identity” (136-7). This is a hopeful reading of what we can gain through “thinking with animals,” and even if we agree with Despret that nature is not a proscriptive teacher, we can still learn about ourselves through studying all manner of organisms. While it is dangerous to read *too* much into the behavior of non-humans (and certainly not advisable to use it to dictate what behaviors are acceptable in human society), there are possibilities in approaching other species with an open mind and a sense of humans’ continuity with the rest of the animal life on our planet. We may re-learn what it is to be male or female (or neither, or both). We may reconsider what it means to be a hybrid being, to cross boundaries that once seemed solid, to upset categories that once seemed set in stone. We may reappraise what makes a body grotesque or beautiful. We may reimagine the

meanings of comedy and sacrifice. We may gain much by thoughtfully and critically considering other species, and by being willing to let their diverse existences “feed our imaginations.”

## Works Cited

- Ackerman, Diane. *The Moon by Whale Light*. Vintage Books, 1991.
- Bagemihl, Bruce. *Biological Exuberance*. St. Martin's Press, 1999.
- Berger, John. *About Looking*. 1st American ed., Pantheon Books, 1980.
- Cherry-Garrard, Apsley. *The Worst Journey in the World*. E-book, The Narrative Press, 2000.
- Daston, Lorraine and Gregg Mitman, editors. *Thinking with Animals: New Perspectives on Anthropomorphism*. Columbia University Press, 2006.
- Derrida, Jacques. "The Animal That Therefore I Am." *The Norton Anthology of Theory and Criticism*, edited by Vincent B. Leitch, William E. Cain, Laurie A. Finke and John McGowan, W. W. Norton & Company, 2018, pp.1645-1654.
- Despret, Vinciane. *What Would Animals Say If We Asked the Right Questions?* University of Minnesota Press, 2016.
- Diebold, E.N., S. Branch and L. Henry. "Management of Penguin Populations in North American Zoos and Aquariums." *Marine Ornithology*, vol. 27, 1999, pp. 171-176.
- Endersby, Jim. "Deceived by Orchids: Sex, Science, Fiction and Darwin." *British Journal for the History of Science*, vol. 49, no. 2, June 2016, pp. 205-229.
- Gaard, Greta. "Toward a Queer Ecofeminism." *Hypatia*, vol. 12, no. 1, 1997, pp. 114-137.
- Giannini, Anna M. "Animal Drag: Sex, Race, and the Theatrical Animal." 2012. University of Wisconsin-Madison, PhD dissertation.
- Haraway, Donna. *Primate Visions: Gender, Race and Nature in the World of Modern Science*. Routledge, 1990.

- Kang, Jimin. "Why a Giant Fictional Penguin Could Be the Cure for Millennial Burnout." *The Guardian*, 3 Dec. 2020, [www.theguardian.com/us-news/2020/dec/02/pengsoo-penguin-south-korea](http://www.theguardian.com/us-news/2020/dec/02/pengsoo-penguin-south-korea). Accessed 4 Jan. 2021.
- Melville, Herman. *Great Short Works of Herman Melville*. Perennial Classics, 2004.
- Miller, Jonathan. "March of the Conservatives: Penguin Film as Political Fodder." *The New York Times*, 13 Sept. 2005, [www.nytimes.com/2005/09/13/science/march-of-the-Conservatives-penguin-film-as-political-fodder.html](http://www.nytimes.com/2005/09/13/science/march-of-the-Conservatives-penguin-film-as-political-fodder.html). Accessed 12 Jan. 2021.
- Mooallem, Jon. "Can Animals Be Gay?" *The New York Times Magazine*, 31 Mar. 2010, [www.nytimes.com/2010/04/04/magazine/04animals-t.html](http://www.nytimes.com/2010/04/04/magazine/04animals-t.html). Accessed 13 Jan. 2021.
- Morrell, Benjamin. *A Narrative of Four Voyages*. J & J Harper, 1832. Internet Archive, [archive.org/details/anarrativefourv00morrgoog/page/n7/mode/2up](http://archive.org/details/anarrativefourv00morrgoog/page/n7/mode/2up).
- Mortimer-Sandilands, Catriona, and Bruce Erickson, editors. *Queer Ecologies: Sex, Nature, Politics, Desire*. Indiana University Press, 2010.
- Pesca, Mike. "March of the Penguins and Homosexuality." National Public Radio, 26 Aug. 2005, [www.npr.org/templates/story/story.php?storyId=4817552](http://www.npr.org/templates/story/story.php?storyId=4817552). Accessed 12 Jan. 2021.
- Rothenberg, David. *Survival of the Beautiful*. Bloomsbury Press, 2011.
- Roughgarden, Joan. *Evolution's Rainbow: Diversity, Gender, and Sexuality in Nature and People*. 10th anniversary ed., University of California Press, 2013.
- Russell, Douglas G.D., William J.L. Sladen and David G. Ainley. "Dr. George Murray Levick (1876–1956): Unpublished Notes on the Sexual Habits of the Adélie Penguin." *Polar Record*, vol. 48, no. 4, 2012, pp. 387–393.
- Scott, Robert Falcon. *Journals: Captain Scott's Last Expedition*, edited by Max Jones. E-book, Oxford University Press, 2008.

Seymour, Nicole. *Strange Natures: Futurity, Empathy, and the Queer Ecological Imagination*.

University of Illinois Press, 2013.

Sturgeon, Noël. "Penguin Family Values: The Nature of Planetary Environmental Reproductive Justice." *Queer Ecologies: Sex, Nature, Politics, Desire*, edited by Catriona

Mortimer-Sandilands et al., University of Illinois Press, 2013, pp. 102-133.

Vivanco, Luis. "Penguins are Good to Think With: Wildlife Films, the Imaginary Shaping of Nature, and Environmental Politics." *Ecocinema Theory and Practice*, edited by Stephen

Rust, Salma Monani and Sean Cubitt, Routledge, 2012, pp. 109-127.