

**Queering Conservation: How the LGBTQ+
Community Can Enhance Wildlife Conservation**



**ALLEGHENY
COLLEGE**

By

**Lizzy Russo
Department of Environmental Science
Allegheny College
Meadville, Pennsylvania**

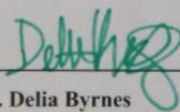
March, 2022

Queering Conservation: How the LGBTQ+ Community Can Enhance Wildlife Conservation

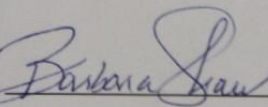
By
Lizzy Russo
Department of Environmental Science
Allegheny College
Meadville, Pennsylvania

March, 2022

Submitted in fulfillment of the senior thesis requirements of the
Department of Environmental Science at Allegheny College
and approved by the senior thesis committee.


Dr. Delia Byrnes

4-11-22
Date


Dr. Barbara Shaw

4-11-22
Date

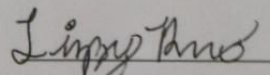

Pledge

Table of Contents

Acknowledgements	iv
Abstract	v
Introduction and Review of Literature	1
Interviews	10
Discussion	16
References	20

Acknowledgements

To my mom: Thank you such much for making me the animal nerd I am today. From the countless trips to the zoo and aquarium, to the nature magazines that came in the mail, thank you for always encouraging me to be curious about animals and nature.

To Delia: Thank you for constantly encouraging me and helping make the best comp possible. I am very grateful for you telling me to do the comp I wanted and letting me think out of the box. Thanks for letting me cry in your office and have numerous emotional breakdowns. You always could help me figure out how to move forward and figure things out.

To Eric: Thank you for helping me figure out my comp topic. You were the first person who encouraged me to seriously pursue my interests in women's, gender, and sexuality studies and combine it with my passion for wildlife. Thanks for all your help along the way, and for the sourdough starter.

To Barbara Shaw: Thank you for getting me interested in women's, gender, and sexuality studies all the way back in sophomore year. You have always let me explore new ideas and topics and pursue my interests. Thanks for contributing so many great ideas to my comp and helping to add great perspectives.

To Everyone I Interviewed: Thank you so much for your kindness and for taking the time to talk with me. I am very appreciative that you shared your stories and passions with me. The stories and information you shared with me was indispensable and I am very grateful for it.

Name: Lizzy Russo

Date: April, 2022

Major: Environmental Science and Sustainability

Thesis Committee: Dr. Delia Byrnes, Dr. Barbara Shaw

Title: Queering Conservation: How the LGBTQ+ Community Can Enhance Wildlife Conservation

Abstract

One of the largest environmental problems today is massive species loss and declining biodiversity. Another is the continued oppression of LGBTQ+ people. Despite more progressive equality laws being passed and people becoming more accepting, LGBTQ+ people still face oppression and inequality. Additionally, queer people are more likely than cisgender heterosexual people to be impacted by species loss. Even though these issues seem unrelated, there are strong connections between them. Because of their unique lived experiences and impacts from climate change, LGBTQ+ people have the ability to enhance and benefit wildlife conservation. LGBTQ+ people have the ability to think in non-heteronormative ways and lead conservation efforts unlike others by bringing a queer approach that is creative and challenges binary thinking. This project investigates how LGBTQ+ people are connected to the environment and how the queer community can uniquely contribute to wildlife conservation.

To learn more about LGBTQ+ people in conservation, the author interviewed LGBTQ+ conservationists to learn about their experiences in the field. This project contextualizes this qualitative research on LGBTQ+ conservation leadership through critical analysis informed by queer ecology and queer studies to examine how LGBTQ+ leaders can enhance wildlife conservation. By critically analyzing theories around LGBTQ+ liberation and the current status of wildlife conservation, combined with stories from current conservation and environmental studies professionals, this thesis argues that progress can be made towards equality among people while decreasing biodiversity loss.

Introduction and Review of Literature

Right now, a major problem facing our world is species loss and the need to conserve species. Currently, our planet is facing a sixth mass extinction (Pearce, 2015). Compared to the last five extinctions, which were mainly caused by singular events like an asteroid collision, this event is mainly caused by human activities both directly and indirectly (Wake, Vredenburg, 2008). Human activities like over-harvesting, spreading invasive species, and increasing emission of greenhouse gases are causing the current extinction (“Halting the Extinction Crisis,” n.d.). In the coming decades, over one million species are at risk of becoming extinct (“Halting the Extinction Crisis,” n.d.). The current declining species crisis is so drastic that it has been predicted that half of earth’s species could go extinct by 2050 (O’Hare, 2017). All animal groups are at risk, especially amphibians; it is estimated that one-third of all amphibian species are at risk of going extinct (Wake, Vredenburg, 2008). For example, one of the biggest threats to amphibians is a chytrid fungus, which can be spread by humans, and can spread more easily in ecosystems which have been damaged by climate change (Ceballos, 2020). The Intergovernmental Panel on Climate Change (IPCC) has come to a consensus that humans are the reason for the current and projected mass species die-offs (Wake, Vredenburg, 2008). Researchers have found that humans are responsible for ninety-nine percent of species being threatened (Dublin, 2019). Habitat loss, the spread of invasive species, the over-extraction and use of natural resources such as fossil fuels, and human population spread into previously undeveloped environments are major factors hurting species across the globe (“Halting the Extinction Crisis,” n.d.). Conservation, the preservation and protection of species and biodiversity, is needed in order to curb the extinction threat of current and future endangered species (“Understanding Conservation,” n.d.; Cho, 2019). The United Nations (UN) has identified 17 sustainable development goals and two of them, Life Below Water and Life on Land, are aimed at conserving wildlife and resources (The 17 Goals, n.d.). The UN is not only focused on conservation but also creating equality among people.

The UN recognizes that conservation of species and human equality are interconnected, and that an increase of both is needed in order for the planet to thrive and grow. One kind of inequality that is a large issue right now is a lack of rights for LGBTQ+ people. Even in the United States, LGBTQ+ people face many struggles and threats (Green, 2019). In a 2019 study from the Williams Institute at UCLA, researchers found that 41 percent of queer people were bullied in school compared to fourteen percent of heterosexual people. Additionally, 60 percent of queer people were denied a job versus 40 percent of non-queer people (Meyer, 2019). It has been over fifty years since the historic Stonewall riots in New York City, and gay marriage has been legalized across all fifty states, but LGBTQ+ people still face discrimination (Curry, 2017). Many Americans believe that since gay marriage has been legalized, there

are no more hardships that LGBTQ+ people face (Jones, 2018). That is far from the truth. A study from the National Opinion Research Center at the University of Chicago found that one in three LGBTQ+ Americans faced discrimination in the past year and three out of five transgender people faced discrimination (Gruber et al., 2020). Trans people of color face even more discriminations. In fact, a 2020 survey from the Center for American Progress found that 68 percent have reported discriminatory treatment from a doctor or health care provider compared to 27 percent of white trans people (Mahowald, 2021). LGBTQ+ people face threats of unprovoked violence, discrimination in the workplace and healthcare system, parenting discrimination, and general hardships in everyday life (Curry, 2017). Hardships can be so extreme that many LGBTQ+ people end up struggling with mental illnesses and even suicidal thoughts (Curry, 2017). In fact, LGBTQ+ youth are about three times as likely as heterosexual youth to attempt suicide (Facts about Suicide, 2017).

This project analyzes how LGBTQ+ leaders can enhance the conservation of wildlife. Even though LGBTQ+ people have been minimized in the conservation movement in the past, there are countless LGBTQ+ leaders making important contributions to conservation. There are queer scientists in every field from ornithology and marine biology to mycology and arachnology (“6 Important LGBTQ Scientists”, 2020), as well as environmental studies more broadly. In order for conservation and climate change to be taken more seriously, more people need to be engaged personally with it and get more connected. LGBTQ+ leaders in this field have the power to connect with the LGBTQ+ community and push conservation forward. Because of their unique lived experiences and impacts from climate change, LGBTQ+ people have the ability to enhance and benefit wildlife conservation. Both the decline of biodiversity and need for conservation as well as the continued discrimination against LGBTQ+ people are pressing issues in the United States. Even though these two issues seem unrelated, they are actually interconnected. That is why the purpose of this paper is to explore connections between LGBTQ+ rights and conservation

To explain how queer leaders can enhance wildlife conservation, I conducted a literature review and interviewed queer people who are leaders in conservation and/or the interdisciplinary field of queer ecology. The literature review takes an in-depth look into the history of the US environmental movement, how species loss specifically impacts the queer community, past and current systems of oppression of queer people, queer ecology, and how queer ecological thought can benefit conservation and the LGBTQ+ community. This provides background information on conservation and LGBTQ+ issues that is needed to give context to the interviews I conducted. I then move on to the interview section of my project. I interviewed five queer people who are active in the conservation or ecology fields. After the literature review and interviews, I go on to discuss what queer-informed conservation currently looks like and how this research can move forward.

To understand the current state of conservation in the United States, it is necessary to understand the environmental history of the US. Historically, the environmental movement has been centered around wealthy white people and the environmental concerns they identify, a legacy that continues today (Kashwan, 2020). John Muir, the founder of the Sierra Club and celebrated environmentalist, was a vocal racist (Merchant, 2003). His “grand idea” of creating Yosemite National Park in order to enshrine the landscape’s natural beauty, in reality, was not technically achieved because it was already lived on and was a sacred place for the Ahwahneechee people (Fox, 2020). Muir wanted to preserve this land for the benefit of white people, specifically tourists (Merchant, 2003). He was quoted saying to visitors of the National Parks, “As to Indians, most of them are dead or civilized into useless innocence” (Kashwan, 2020, para. 2). This quote shows his true racist nature and what he intended the parks for. Muir was not only interested in preserving the country’s natural spaces for wealthy white people’s benefit, there was no regard for the native people’s who were being harmed by his “grand idea”. The natural environment was, and still is, seen as a commodity that is to benefit white, wealthy people, even if the commodity is just natural beauty. These were the driving principles behind the founding of the parks and these philosophies still last today (Fox, 2020). America’s environmental efforts were founded on racism and discrimination (Merchant, 2003). To make progress, American environmental principles need to move past their historical roots and become inclusive and not exploitative.

The racist and harmful past of the US environmental movement is still present today. Not all people contribute equally to climate change; in fact, Oxfam and the Stockholm Environment Institute have identified that the top 10 percent of the global income bracket are responsible for 46 percent of consumption-related emissions (Andrews, 2021). Wealthy white people, usually of European descent, tend to have the greatest negative impact on the environment; this is due to Western ideologies centered around dominance and power (Gamble, 2009). These ideals are what have made wealthy, white, Westerners participate in great amounts of extractive, materialistic, and individualistic activities that ultimately harm others (Harvey, 2020). People of color are more likely to be impacted by environmental hazards like pollution, natural disasters, and extreme temperatures (Patnaik et al., 2020). This is due to the fact that people of color are more likely to live in poverty and vulnerable neighborhoods without resources to protect them from these changes in the weather. Wealthy people and countries need to acknowledge and act on the power imbalance that has negatively impacted the environment and in turn harms those in low-income and marginalized communities (Williams, 2022). Additionally, forms of oppression such as heteropatriarchy end up harming the queer community because they do not fall into the category of rich, white, heterosexual men that these systems are actually built to benefit (Arvin et al., 2013). Heteropatriarchy is defined as a system of power and control that places cis-straight white men in a position of superiority and as the norm in their expression of gender and sexuality (York University,

2021). Because the queer community does not benefit from dominant systems they are then left more vulnerable to the impact of conservation loss.

The queer community specifically is a group that is being disproportionately affected by climate change and species loss. This is due in part to the fact that LGBTQ+ people are more likely to experience homelessness and poverty; in fact, 40 percent of homeless youth identify as LGBTQ+ (Lesley University, n.d.). This is an extremely large amount considering that only 7 percent of youth identify as LGBTQ+. Extreme weather, including heat waves, are becoming more common. In fact, every year since 2015 has broken records for extreme heat. For homeless LGBTQ+ people, their health and safety are at risk due to the extreme heat (Goodwin, 2019). Because queer people are more likely to experience economic instability, the decrease of resources like fresh food and clean water due to species loss will affect queer people disproportionately. Sea-level rise is another major threat to people as the climate changes, especially to people who live in coastal areas and on islands. In the Kingdom of Tonga, sea-level rise is a large issue and is already affecting people. Currently sea-level rise is occurring at double the global rate at six millimeters per year; additionally strong storms also threaten citizens (Mulhern, 2020). People are already having to relocate to larger islands in the archipelago because infrastructure and coastlines are being destroyed. Many who are forced to relocate end up having to go to emergency shelters. The Tonga Leitis Association is currently training emergency shelters on how to correctly accommodate LGBTQ+ people. Additionally, the Tonga Leitis Association is campaigning to have the queer community involved in future planning on climate change related issues for the Kingdom (Willy, 2021). LGBTQ+ people are more likely to experience displacement due to severe weather and ocean-level rise because of the increased likelihood that they will live in low-income areas, which are more prone to be affected by these circumstances. It is important that measures are taken, like in Tonga, so that LGBTQ+ people are specifically supported in crisis situations.

Both the decrease of biodiversity and the discrimination against LGBTQ+ people are heavily impacting the world right now, yet these are issues that are often hard to get people to care about, especially if people feel that they are not directly impacted by them (Bickford, 2012). Conservation is a topic that can be challenging to get people to care about, even though human activities are the largest contributor to species loss. As noted above, vulnerable populations, including low-income people, are disproportionately affected by species loss. Barrett et al. (2011) explain: “Extreme poverty and biodiversity hot spots are geographically coincident, concentrated in rural areas where livelihoods depend disproportionately on natural capital embodied in forests, rangelands, soils, water, and wildlife”(para 2). This means that people living in poverty are more reliant on the environment and natural resources to survive. If species continue to decline and natural habitats are degraded even more, poor rural peoples’ lives will be disproportionately impacted.

The World Health Organization explains that continued biodiversity loss will impact human health; low-income people will be even more affected, and this includes LGBTQ+ people. Well-functioning ecosystems with ample biodiversity supply clean air, fresh water, medicines, and food security (World Health Organization, 2015). As biodiversity declines, these resources will become more scarce and will be harder to access, especially for low-income people. For example, more than 6,000 different plant species are cultivated as crops, but only nine account for 66% of total crop production (United Nations, 2019). This shows how much of the crops are a monoculture. If a disease were to spread through one of these large staple-crop species, it would have drastic consequences to humans. Additionally, an estimated 24% of wild food species are at risk of becoming extinct (Saladino et al., 2019). If staple crops were to become scarce, they would become harder to access, especially for low-income people. Both issues—large monocultures and increasing risk for wild crop extinction—show that conserving plant species and properly taking care of them is essential for humans. If these resources become scarcer, demand and therefore prices will increase. The already insufficient resources available to vulnerable human populations will become even more scarce and unattainable. LGBTQ+ people will be directly impacted by declining food availability because they are more likely to face food insecurity. According to the UCLA Williams Institute School of Law, in 2015, 27 percent of LGBTQ+ adults faced food insecurity, meaning they did not have enough money to feed themselves or their families (Brown et al., 2016). Due to the fact that the queer community is already facing hardships with accessibility to food, a decline in crops and available food due to biodiversity decline would only exacerbate this issue. These studies show how humans are directly impacted by species loss, but unfortunately certain groups of people will be affected more, including LGBTQ+ people.

By recognizing how the environment and the queer community are harmed by dominant groups and oppressive systems, the protection and progress of both groups can continue. Systems of power, such as heteropatriarchy, actively harm minority groups as well as the environment. Heteropatriarchy places everyone in a system to be racialized and gendered in comparison to white, cisgender men, and additionally forces people into Western ideals (Arvin et al., 2013). Heteropatriarchal thought is harmful to LGBTQ+ people because it forces heteronormative and cisgender expectations onto sexuality and gender. This does not allow for variation or a spectrum of gender and sexuality, and makes LGBTQ+ people out to be deviant and not normal. Heteropatriarchy is also harmful to the environment because it pushes colonial ideals which hold the values of domination, excess, and power (Arvin et al., 2013). These values are what continuously harm the environment and encourage extractive processes and habitat destruction. Established ways of thought, such as heteropatriarchy, are actively working against the environment and the LGBTQ+ community, but there are groups who are beginning to push back against this.

Oppression towards the queer community comes from current systems and expectations that place normative standards on LGBTQ+ people. These norms can be challenged through other systems of thought such as queer ecology. Queer ecology is an interdisciplinary area of study that explores how the environment, and the queer experience are connected. Queer ecology comes from the belief that humans are capable of more than what people in power give them credit for (Hoffner, 2011). Additionally, it takes from both queer theory and ecofeminism, the area of feminism that looks into the link between the oppression of women and nature, to try and further the efforts of conservation and ecology (Ourkiya, 2020). Queer ecology is a field that comes from combining the work done in ecofeminism and queer theory (Dietz, et. al, 2021) In an interview with environmental studies scholar Alex Johnson, he explains that “Queer ecology begins by questioning our understanding of sexuality in relation to Nature, but it certainly does not end there. As I suggest in my essay, if straight identity means ‘I am,’ and gay identity means ‘I am not,’ then queer can mean ‘I am also’” (Hoffner, 2011, para 10). Hoffner and Johnson explain that all living things are capable of a variety of behaviors, and heteronormative thinking represses a being’s full capabilities and normalizes binary thinking at the expense of creative, divergent, and fluid ways of thinking. Heteronormativity is the assumption that heterosexuality and cisgender identity is the norm, while also forcing cis-straight values and agendas onto all people. This is harmful because it minimizes and erases people’s unique identities and experiences (Anti-oppression, n.d.). Microaggressions against queer people are a common way that cis-straight values are forced because they communicate hostility towards others because of their identity. Common microaggressions are “You don’t look/sound gay,” and “How did you turn gay?” (University of Edinburgh, 2021). These phrases impose heteronormative values and experiences onto queer people.

Queer ecology is also very interconnected with social issues, such as the struggles of people in poverty and those of non-white people. Dietz, Heuser, and Hülsmann (2021) explain that queer ecology can connect the struggles of nature with the struggles of marginalized people. The environment has also been exploited and marginalized, much like many groups of people. Queer ecology explains that the similarities in being oppressed by dominant groups is a way that queer people can engage with the environment and relate to the environmental movement more. Queer ecology is extremely interdisciplinary because it can help the environment while also fighting for rights for marginalized communities (Dietz et al., 2021). This is due to the fact that the movement draws on feminist theory, queer theory, geography, and history (Sandilands, n.d.)

Queer ecology sheds light onto the biases and limitations that a heterosexual view has on nature. A heterosexual view on nature consists of looking at the environment in a two-dimensional way, that things just “are how they are.” A heterosexual view says things are supposed to be that way (Toorn et al., 2020). But there are examples of sexuality and gender diversity everywhere in nature: one example is

hermaphroditism in fish like the gag grouper and the California sheephead. These fish can change their sex between male and female. There is evidence that this special trait in fish can help them to recover depleted populations, including populations that have been decimated from overfishing (Ecological Society, 2020). Compared to fish that do not change sex, the special characteristic of changes sex is gratefully beneficial in recovering depleted populations. Besides variation in gender, there are many examples of animals challenge the heteronormative expectations of nature. (Johnson, 2011). Female geese have been observed having long-term female partners; red squirrels are known to be seasonally bisexual; and dolphins often pleasure themselves with other dolphins of the same sex. There are countless examples of queerness in nature. Humans have just chosen to ignore it and rewrite it as heteronormative. By acknowledging the queerness of nature, humans can then begin to accept that queerness in humans is also natural.

Many researchers have delved into the idea of exploring “gray areas” and redefining what and who communities are. Right now, most of society is constructed in a heteronormative way (Toorn et al., 2020). By having society constructed this way there are detrimental effects inflicted on anyone not in a dominant population. This means women, non-white people, non-wealthy people, disabled people, and people who are not straight or cisgender are impacted negatively (Gray, 2017). In our heteronormative society, anyone who falls within any of these groups is defined as “not natural.” Gray (2017) explains, “From gender norms to biological reproduction, heteronormativity relies on implicit assertions of what is and is not natural” (p. 137). Queer ecology helps to redefine what is “natural.” It acknowledges that nature is full of gray areas and exceptions. By accepting that human nature is as diverse as nonhuman nature and that people also do not fit into neat boxes, society can become more inclusive and equal.

Queer ecology is also very interconnected with social issues, such as the struggles of people in poverty and those of non-white people. Reimann (2021) explains that people need more social, environmental, and racial justice and that these factors can be brought about and demonstrated through queer ecology. Queer ecology can create more diversity, equity, and inclusion in communities. Reimann (2021) explains, “Queerness in ecology embodies the in-between, the gray area, plurality, and it represents the elements of nature and reality that don’t fit into neat boxes” (para 5). Nature is not heteronormative and binary like mainstream Western environmental science makes it out to be; rather, it is full of contradictions, exceptions, and fluidity. There are gender and sexual variations all throughout nature. By acknowledging that nature is full of diversity and variation, gender and sexuality differences among people can start to be accepted more as well.

The diversity present in the natural world should also be represented in the fields that study it. There is great variation and diversity in nature, and conservation should be intersectional, bringing many different views and identities together (Gaard, 2011). As described by the Center for Intersectional

Justice, “intersectionality describes the ways in which systems of inequality based on gender, race, ethnicity, sexual orientation, gender identity, disability, class and other forms of discrimination ‘intersect’ to create unique dynamics and effects” (para 1). Even though having more perspectives and diverse thinking would be beneficial in the fight against environmental degradation, there is still discrimination in the fields of conservation and environmental science (Dodds, 2020). A study from the University of Michigan found that dominant cultures in environmental organizations can be exclusive and alienating towards minorities including LGBTQ+ people (Taylor, 2014). Bringing together many views will allow for more creative ideas and diverse solutions.

By making conservation more inclusive and having more LGBTQ+ people, there will be more unique and valuable perspectives that can help increase conservation. A key idea of queer ecology is that queerness and the ethos of the LGBTQ+ rights movement can add camp, gaiety, frivolity, and joy to environmentalism (Seymour, 2018). Traditionally, the environmental movement has had a general mood of being doom and gloom, somber, and not hopeful. This is opposite to the LGBTQ+ movement. The somber nature of mainstream environmentalism can make it scary and harder for people to engage with (Seymour, 2018). Queer ideologies can aid the environmental movement by infusing some of the feelings and values it embodies. Despite the history of the LGBTQ+ rights movement being marred by sadness and tragedy, the movement is also filled with joy, jubilation, and fun (Rosenzweig, 2018). Even when there are struggles and sadness, queer folks still celebrate the community and the joys that life has. For example, pride parades and drag shows are popular events that all different people often enjoy. If the conservation movement used some of these ideologies, then the movement would be more appealing and easier for a diverse range of people to engage with. As Seymour (2018) writes, the “lack of queer modes in environmental movements has instrumental political implications — say, alienating certain groups from those movements” (p. 115). By making the environmental movement more joyful and engaging, it is able to become more inclusive.

The environmental movement also needs to engage local communities, not just try and do work on the federal and global scale (Seymour, 2018). It is very hard for people to care about events that are not directly affecting them; to get people to care about the environment when it seems very abstract is hard. If people begin to see the climate crisis as a local issue, people will be more likely to care. Communities do work in their own areas to benefit the people who live there. In Las Vegas, for example, cultural program supervisor Irma Varela has organized a program where local families can be taken to nearby public lands. The goal of this is to get families out of the polluted air and to have people make meaningful connections with nature (The Wilderness Society, 2021). By creating memories in public lands, people are more likely to care about nature and environmental issues. Engaging local people and the community is a tactic that the environmental movement can learn from LGBTQ+ activism.

A skill that the LGBTQ+ rights movement has that could benefit the conservation movement is the ability to connect with and engage the local community. For example, many LGBTQ+ groups are using the arts to get their communities more involved with conservation and climate change issues. The group Queers for the Climate created a theatrical performance called “It Gets Wetter” to draw attention to sea-level rise using drag iconography (Seymour, 2018). By using familiar fun sights like drag, the group makes a serious topic like sea-level rise more relatable, digestible, joyful, and attention-getting. A video made by Queers for the Climate titled “Climate Change Ground Zero: Fire Island Pines” shows how a satirical and tongue-in-cheek video can get people’s attention. In this video, Joseph Huff-Hannon, a member of Queers for the Climate, goes to Fire Island, a popular vacation destination for gay people, to explain to beachgoers that the island is in danger of being swallowed up by the ocean (Merchant, 2014). By doing this, Huff-Hannon is able to connect climate change issues to the community he is talking to, while inspiring more people to care about sea-level rise and the ways it will impact them.

Queer people in the environmental studies and conservation fields can engage community due to their lived experiences. Often, queer people find new communities outside of their family of origin. These communities that are found are called chosen families. These family units are found by queer folks because often they do not belong, fit in, or do not feel safe with their families of origin. Many of the people interviewed discussed how nature is a very queer and surprising place. There are countless examples of how societal norms are challenged outdoors. By having experiences of chosen family and not being confined by heteronormative community expectations, queer conservation leaders are able to engage communities.

Community-building is a central part of LGBTQ+ activism, and the conservation movement can learn from its efforts. Currently there are groups that are actively working to make conservation more inclusive and accessible to all, especially LGBTQ+ people. One group doing this is Queer Nature. Their mission is to create programming that employs Indigenous and ancestral skills and traditions and teaches people tactical and wilderness survival skills (“Queer Nature,” n.d.). They work to bring people in the LGBTQ+ community together to learn about and be healed by nature, because the queer community often does not have access to wilderness programming. Their mission statement claims that it is important for queer people to have opportunities to connect with nature. They explain that by increasing people’s ecological literacy and wilderness skills, people can gain more appreciation for the environment (“Queer Nature,” n.d.). Queer Nature also promote a safe and inclusive space for LGBTQ+ people to be themselves while also gaining more awareness about the environment. For conservation to move forward and for species decline to decrease, it is beneficial to have people from all backgrounds, including LGBTQ+ people, contribute to potential solutions (Dodds, 2020).

Interviews

After conducting a literature review, I interviewed queer people who are presently working in the field of conservation. I decided to conduct interviews because stories and experiences from queer people in the field add a real-world lens and provide context to the theories found in the literature. This is critical because having examples from people currently working in the fields of conservation and ecology makes inclusive conservation seem more attainable and possible. I interviewed a variety of people who work in different areas of wildlife conservation and queer ecology. The first person I interviewed was Lauren Esposito, an archaeologist at the California Academy of Sciences. Another conservationist I talked to was David Mizejewski, a naturalist with the National Wildlife Federation. I then interviewed Carla Littleton who works at the Carnegie Science Center as the manager of wildlife habitats. Next, I had a conversation with Dr. Cate Sandilands who is a professor of environmental studies at York University. The last person I interviewed was Haymar Lim, who is the community engagement coordinator at the Richardson Bay Audubon Center and Sanctuary. By interviewing a wide range of people, I was able to learn about and hear different perspectives on queer involvement in conservation.

I found these scientists through news articles and gray literature about queer conservationists. I emailed these people and asked if they would be interested in being interviewed via video call or phone. All of the information about the project was provided to the interviewees, including what the project is about, what information I have researched, and where the information will be published. The questions I asked are:

- How did you get involved in conservation?
- What has your journey to success been like as an LGBTQ+ person?
- Do you think it is important for more LGBTQ+ people to be involved in wildlife conservation?
Why?
- Do you think LGBTQ+ people specifically can contribute to wildlife conservation?
- Why do you think LGBTQ+ people have a connection to the environment?
- Do you have any suggestions for young LGBTQ+ people who are interested in pursuing conservation or environmental science?

I asked Dr. Sandilands a few different questions because she does not directly work in conservation, rather she works in queer ecology and environmental studies. My original questions did not directly apply to her interview, so I modified them. The questions I asked her are:

- How and when did you become interested in queer ecology?
- What has your journey to success been like as an LGBTQ+ person?
- Do you think it is important for more LGBTQ+ people to be involved in and engaged with the environment and nature?
- Why do you think LGBTQ+ people have a connection to the environment?
- Do you have any suggestions for young LGBTQ+ people who are interested in pursuing environmental studies and ecology?

During these interviews I did not ask every person all of the questions. During each conversation I tailored the questions to the flow of the conversation. If the interviewee was already alluding to or answering another question unintentionally, I did not ask them anything repetitive. The questions I did ask everybody were the first, second, and sixth questions. I also recorded each interview with the consent of the other person so I could re-watch the conversation and ensure I didn't miss any details.

To present the information found in the literature reviews and from the interviews, I created a website. The website will contain summarized and simplified versions of the background information I found from the literature. The stories and answers gathered in my interviews will also be on the website, with the permission of the interviewees. Pictures and information about the interviewees will also be included. I chose to create a website because people being able to engage with this information is important. I want this information easily available so LGBTQ+ people can see examples of other queer people doing conservation work and making a difference for the Earth.

The interviews I conducted helped to illuminate my understanding of queer ecology. All of the people I interviewed have different backgrounds and work in different areas, but many of them share similar ideas and values relating to the topics of conservation and queer ecology.

Lauren Esposito (she/her, they/them) is the curator of arachnology at the California Academy of Sciences in San Francisco. They work in the area of biodiversity, and they also work with invertebrates. They also work to engage and educate the public on the topics of conservation and the environment. (L. Esposito, personal communication, December 1, 2021)

Haymar Lim (they/she) is the Community Engagement Coordinator at the Richardson Bay Audubon Center and Sanctuary in Tiburon, CA. They work with volunteers in different projects including habitat restoration and do educational programming. They also lead bird walks and conduct surveys. (H. Lim, personal communication, February 2, 2022)

Cara Littleton (they/them) is the manager of the Animal Habitats department at the Carnegie Science Center in Pittsburgh. They manage a collection of about 100 different species of animals that are mostly native to Pennsylvania. They also develop education material, develop exhibits, and train volunteers. (C. Littleton, personal communication, January 18, 2022)

Dave Mizejewski (He/Him) is a naturalist with the National Wildlife Federation (NWF). He works in different forms of media including television, radio, and blogging where he engages with the general public. He works to educate and inspire people to get involved with the National Wildlife Federation. He also works in publishing literature from the NWF including Ranger Rick and Zoo Books. (D. Mizejewski, personal communication, December 20, 2021)

Dr. Cate Sandilands (she/her) is a professor of environmental studies at York University in Toronto. Her areas of study include environmental humanities and ecocriticism, queer and feminist ecologies, as well as biocultural diversities. Her books include *Queer Ecologies* and *The Good-Natured Feminist*. (C. Sandilands, personal communication, January 12, 2022)

)

Like me, all of the conservation leaders I interviewed have a personal connection and passion for conservation. I became interested in wildlife and protecting it at a very young age. My mom would take me to the zoo and teach me all about the different animals. Some of the interviewees have a similar story to this, while others gained their passions later in life. Mizejewski and Littleton grew up playing outside and exploring the natural world. Mizejewski talked about his childhood where he played outside, often climbing trees and catching critters like bugs and frogs. He explained that he's always had an "innate draw to nature." Similarly, Littleton talked about how they went with their dad on nature walks as a kid and that their whole family had jobs that revolved around nature. From a young age they were learning about the outdoors and conservation. Esposito and Lim had different paths to finding out they were interested in conservation. Esposito first became interested in conservation during graduate school when they saw the consequences of human enacted change while they were doing field work. Lim was first drawn to conservation during college as they were studying biology. They realized that academic science wasn't for them and that they wanted more hands-on work. Sandilands's experience is a bit different because she is not a conservation scientist, but rather an environmental humanist. She became involved in queer ecology specifically in 1994 when she was asked to work on a publication for *Undercurrents Magazine*, where she wrote on queer nature. From then on, she has been exploring the field of queer ecology and questions that center around it. Despite taking different paths, all the people interviewed learned that they were passionate about conservation and wanted to communicate and educate people about it.

All of these people have found success in the conservation field, but finding their way was not always easy. LGBTQ+ people are becoming more accepted and are gaining more rights in the United States, but there is still discrimination. All the professionals I talked to discussed how their identities impacted their careers and journey to success. Lim explained how their work has been impacted due to their identity as a transgender person of color. They recalled that sometimes when working in the field they have felt uneasy because they've had to work in conservative places. Because of experiences like this they said that their "queer identity is at odds with conservation." Esposito, Mizejewski, and Littleton all talked about how it took them time to feel comfortable being out as queer in the workplace. Heteronormative ideals made them feel not able to be fully themselves at work. Esposito explained that there is lots of pressure in the science community to leave your personal life out of your work, and that your work is the only thing that matters. Even though they felt this pressure for a while, they ended up learning that their queer identity informs their work. Esposito explained "The way that I do science and the way that I approach science is a direct result of my identity and who I am. It shapes how I frame questions; it shapes how I interpret data, and it makes me a better scientist. So why shouldn't we be celebrating that aspect of who we are as people?" Littleton started off feeling similar pressures. They felt that they couldn't be authentic when they were first entering the science world. They explained, "I was going into the sciences in the 80s and 90s as a girl and the push to be a girl, to be celebrated as a girl, actually kept me from coming out for a long time even though my family was accepting of me, the people around me were accepting of me. There was a lot of pressure to stay girl." They felt the need to identify as a woman because there was pressure on women to work and excel in the science fields. Despite hardships and societal pressures, all the people interviewed have found success in their fields as out and proud queer people.

Even though it can be challenging for LGBTQ+ people to be out in a professional setting, it is important for people with minoritized identities, including queer people, to be involved in conservation. I asked the interviewees if they think it is important for more LGBTQ+ people to be involved in conservation and why. Many of them pointed to LGBTQ+ people having unique perspectives, and those queer folks bring diversity and new ideas to conservation. Esposito talked about how queer people ask different questions and that they approach problems differently. Lim said that because LGBTQ+ people have been treated like outsiders, they have different perspectives and attitudes when it comes to conservation. Sandilands also had a similar sentiment, in that if more queer people are in conservation and science in general the field will be healthier. The way that science and the environment is thought about will no longer be as heteronormative. Esposito brought up an additional point that spoke to the idea of found family, which is very important to the queer community. They said, "For most LGBTQ people,

they have a different understanding of the importance of community because oftentimes many of us have created our own community and our own families, so in turn we understand the importance of a community's involvement in decision-making and the sort of autonomy over that decision-making that the community needs.” This statement from Esposito relates back to the notion that the LGBTQ+ movement is very community-oriented and that actions are made at a grassroots level. An example of grassroots work I learned from Lim is that they help conduct bilingual and Spanish language bird walks. They told me how people whose first language is not English sometimes do not know the depth and detailed consequences that climate change is having on their specific communities. By doing bird walks in people’s first language, they can engage people and meet them where they are. All of the individuals I spoke with emphasized that it is important for queer people to be more involved in conservation and the importance of engaging different communities.

I asked what specifically LGBTQ+ people can contribute to wildlife conservation. Esposito talked about how queer people have a valuable perspective of being able to understand that natural history is not heteronormative. They stated, “LGBTQ people absolutely have a role to play and a perspective that's necessary for the future of conservation. Particularly when it pertains to interpretation of gender and gender roles in natural history.” Littleton responded to this question with a different perspective. They discussed how places that need lots of conservation work are often places that are struggling for LGBTQ+ rights. They explained to me that “a lot of the places where we are dealing with high needs for conservation, typically Africa or other places, where they are still struggling for LGBTQ rights in general and I think that combination of a researcher that's open can do much for the wildlife but also social norms in [these] areas.” Queer researchers could benefit these places in more than one way: they could advocate for LGBTQ+ rights while also doing conservation work. Conservation work needs to be done worldwide but there is also lots of work that needs to happen here in the United States. LGBTQ+ community leaders have the power to engage their communities and encourage conservation work in their own backyards.

The next question I asked was based on my own up-bringing and experiences. I asked the people I interviewed if they feel that LGBTQ+ people have a unique connection to the environment. Many of them responded with a resounding yes. When I asked this question to Mizejewski, he explained that he’s always had an affinity for plants and animals and that LGBTQ+ people do have unique connections to nature. He explained, “I don't know why that is, maybe our wounded souls, and in some way we all go through trauma if you have one of our identities, and animals are healing and animals always represent, I think, a lot of times sort of like a pure innocence that our wounded souls are drawn to.” Littleton also explained their thoughts on this question. They talked about the loneliness and isolation that can come with being a queer person. They told me, “Personally I think the ostracization you feel can push you out of the indoors, whether that’s by choice because where there is no one around feels comfortable, or

whether that is some other reason.” Nature is a safe space for people who don’t traditionally belong. Lim also echoed these sentiments. They said that nature can be healing and that it’s non-judgmental. They explained that “nature is not binary, dogmatic, or heteronormative.” Because of this, anyone can find a place in it. This is important because queer people have a connection to nature not just by choice but sometimes out of necessity.

Because of injustices still present in the science community, I asked each interviewee what kind of advice they would give to a young person who is interested in entering the conservation, ecology, or environmental field. Esposito said that there is room for a queer person’s passion for conservation and for their identity: “Don’t ever feel like that is a choice that has to be made.” Mizejewski explained that there is space in the field for queer people, and that queer voices are essential. He said in regards to himself as a gay person, “we are here to say this is who we are and knowing that there’s a world with wildlife is important and we are going to use our unique talent and perspective.” He emphasized that there is a place for queer people in science to make strides. Littleton’s response was to reach out to organizations who are doing work that interests you. They explained that organizations can be a lot more accepting than you think, because many are working to put policies into place that protect LGBTQ+ workers. Sandilands explained that there are countless ways to get involved in ecology and conservation. There are many different university programs and different professions that touch on this field. She also added, “I do think that it is important to go into a field in which one’s sexual and gender identity and choices are respected and valued as an important part of one’s contribution.” Lastly, Lim said that queer people should not be discouraged by the dangers and cishet culture that could be present. The passion for conservation is already in people’s hearts and they should follow their passions. A similar sentiment was presented by each person in that there is a place for queer people in conservation, and that despite societal pressures, young people should feel encouraged to find their place in the field.

Discussion

Each person I interviewed has a very different background, and each works in conservation and environmental studies in different capacities. Despite all of the differences, a common thread is that engaging everyday people and local communities is very important to conservation. In some way, each person I talked to works to inform people in their local communities about the importance of conservation and ecology to their own area. As Seymour (2018) explains in her book, people are more willing to care about conservation and climate issues if they relate to them personally. The queer leaders that I talked to all have recognized this and are working to get people to care about what is happening in their local communities. A few ways that they are doing this is by creating engaging educational materials, creating

curricula for people to learn from, directly taking people out into nature, and by talking about conservation in the media. These are all effective ways that can get the everyday person involved in conservation.

Another theme is that there is still discrimination within science despite more equality laws being passed and the world being considered more accepting. All the people I talked to discussed at least some sort of challenges they faced relating to their queer identity. No one discussed blatant homophobic or transphobic experiences, rather they talked about more personal struggles or covert discrimination. Esposito, for example, talked about how typical science culture got in the way of them being open about their identity at work. They explained that typically in the science field you leave your personal experiences outside of your work, you're supposed to let your science speak for itself. This culture of leaving your identity out of your work stopped Esposito from feeling comfortable being out at work. This same pressure was reflected in Mizejewski's and Littleton's stories to some extent. Both felt pressure to conform to the normative culture of the science world. Hearing these experiences was surprising. I was expecting to hear about more blatant discrimination, but the kind I heard about was a lot more inconspicuous. The discrimination that I learned about from my interviews comes from the heteronormative culture that is engrained in the science community. Science is still very much tied down to its affluent, male, white roots. This lingering dominant culture creates an environment that people do not always feel comfortable in. This can be a big barrier for people when it comes to wanting to become involved in the sciences. People's success can be greatly hindered by the pressures to conform and not be open.

It was encouraging to hear about five different people who have been able to push through the heteronormativity of their fields and be authentic. One way that science, specifically the conservation field, can become more accepting is for there to be out LGBTQ+ leaders. By having prominent queer people in positions of power, the heteronormative culture within the field can begin to change. Queer leaders and allies can begin to dismantle harmful structures and make their places of work safer for all people. Littleton specifically discussed what they are doing to make their place of work more accepting. When they are interviewing and hiring young people for internships they will often try and hire queer people. If they know that the person they are interviewing is part of the LGBTQ+ community, they will often try and hire them. They want to be able to create a comfortable place for young queer people to work. They explained that they feel a responsibility as manager to be a leader and make their place of work welcoming to all. There are many LGBTQ+ leaders within the conservation field and they have the power to bring change. The challenge is making them more visible and letting their work be seen.

An area that needs further investigation is how race plays into queer people's experiences as conservation leaders. Because of the scope and time frame of this project, all aspects of intersectional

identities could not be looked at in-depth. A few people I interviewed did touch on this topic, but not in great detail. Sandilands did talk about how her identity as a white woman impacted her. She said that she had it “pretty easy” compared to other people. She grew up in a community that was accepting of her lesbian identity and she did not face challenges related to race. This made her path to success somewhat smooth identity wise. On the other hand, Lim, who I interviewed, discussed how their identity as a person of color sometimes impacted their experiences in the field. They explained to me how their identity as a trans person of color did make them feel uneasy in some areas where they were working. Oftentimes, they would have to work with landowners in more conservative areas and they would be worried about dangers. A person's race can heavily impact their journey to success. Queer people of color have to then deal with the intersections of multiple identities. This can often create obstacles to their success. Further research could explore how conservation leaders with intersectional identities can support community building.

An additional area that needs to be explored further is specific actions or initiatives being taken that benefit the queer community while simultaneously aiding conservation efforts. From my literature review and the interviews, I learned that the queer community and conservation are linked, and now I want to know what specific actions are being taken. Is there a city that is actively working to place more green spaces in lower income neighborhoods? Are there places where public transportation is being made more accessible to low-income people? These are questions that could be looked into more. Projects such as expanding green spaces and public transportation in poorer communities would benefit both local wildlife as well as queer people. Another example of progressive initiatives that could be investigated are if local politicians, organizations, or companies are directly working with LGBTQ+ people in conservation and environmental matters. This could be a way that the queer community could be put into leadership roles in a community while helping wildlife conservation. Now that I know the power that the queer community holds in terms of pushing conservation forward, I want to know what actions are currently being taking in local communities that benefit both queer people and wildlife.

There are groups and events that are putting in the work to make conservation a more progressive and inclusive space. These groups and events are working to conserve wildlife while also supporting and uplifting marginalized communities like LGBTQ+ people and people of color. One event is Black Birders Week. The event started in 2020 directly after an incident in Central Park where a woman called the police on a black birder named Christian Cooper who asked her to put her dog on a leash (Mock, 2020). She then claimed that Cooper was threatening her life. Cooper got this whole incident on video and it went viral. After this all occurred, Black Birders Week was quickly organized out of the need for a welcoming space for Black people to participate in outdoor recreation. One of the creators of the week, Corina Newsome, explained, “For far too long, Black people in the United States have been shown that

outdoor exploration activities are not for us” (Mock, 2020). Covert or overt racism often gets in the way of Black people being able to enjoy and participate in outdoor recreation. The first goal of the week is to counter the narrative that the outdoors is not a place for Black people, and the second is to educate the birding and outdoors community about the challenges Black birders face. The third goal is to encourage increased diversity among birders and conservation (Mock, 2020). Black Birders Week is creating a space for Black people to feel welcomed as well as educating others about racial bias within the outdoor community. It is also acknowledging the importance of having a diverse group of people involved in conservation.

Another group that is currently doing the work of making the outdoors an inclusive space is Queers X Climate (QXC). They recognize that marginalized groups, like the LGBTQ+ community, are most affected by the climate crisis, which is why they have created an international organization that unites and supports climate activism and LGBTQ+ activism (QXC, n.d.). QXC’s goal is to have LGBTQ+ activists use their platforms to speak up and act against climate change. The group’s main objective is to have the LGBTQ+ community engaged with climate activism. QXC also is committed to being a diverse organization that is inclusive of all ages, religions, races, and social backgrounds (QXC, n.d.) By having an inclusive group, more perspectives and ideas can be contributed in hopes of making the most impact. The group also strives to be multilingual, in order to get their message across to the most people (QXC, n.d.). By doing this, climate action can become accessible to all people despite what language they speak. There are numerous groups who are currently tackling the climate crisis while centering around inclusivity.

As demonstrated by Black Birders Week and QXC, there are groups tackling issues of climate change and conservation while fighting against the oppression of marginalized groups. In order for the groups to have the biggest impact possible, they need to have a large platform. If these groups were given a large platform and publicity, then their messages and values could be heard by more people. Their work is influential and impactful and is what the climate movement needs. Minority leaders, including LGBTQ+ leaders, are powerful and can make a great impact in the climate and conservation movements.

References

- About. Queers X Climate. (n.d.). Retrieved March 11, 2022, from <https://www.queersxclimate.org/about>
- Andrews, E. (2021, June 17). Are white people bad for the environment? *Grist*. Retrieved March 27, 2022, from <https://grist.org/ask-umbra-series/are-white-people-bad-for-the-environment/>
- Anti-oppression: Anti-queerphobia. Salem State. (n.d.). Retrieved December 7, 2021, from <https://libguides.salemstate.edu/anti-oppression/anti-queerphobia>
- Arvin, M., Tuck, E., & Morrill, A. (2013). Decolonizing Feminism: Challenging Connections between Settler Colonialism and Heteropatriarchy. *Feminist Formations*, 25(1), 8–34. <http://www.jstor.org/stable/43860665>
- Barrett, C. B., Travis, A. J., & Dasgupta, P. (2011). On biodiversity conservation and poverty traps. *Proceedings of the National Academy of Sciences of the United States of America*, 108(34), 13907–13912. <https://doi.org/10.1073/pnas.1011521108>
- Bickford, David, et al. “Science Communication for Biodiversity Conservation.” *Biological Conservation*, vol. 151, no. 1, July 2012, pp. 74–76., doi:10.1016/j.biocon.2011.12.016
- Ceballos, G., Ehrlich, P. R., & Raven, P. H. (2020). Vertebrates on the brink as indicators of BIOLOGICAL annihilation and the sixth mass extinction. *Proceedings of the National Academy of Sciences*, 117(24), 13596–13602. <https://doi.org/10.1073/pnas.1922686117>
- Center for Intersectional Justice. (n.d.). What is Intersectionality. Center for Intersectional Justice. Retrieved March 29, 2022, from <https://www.intersectionaljustice.org/what-is-intersectionality>
- Cho, R. (2019, March 26). Why Endangered Species Matter. Retrieved December 03, 2020, from <https://blogs.ei.columbia.edu/2019/03/26/endangered-species-matter/>
- Curry, C. (2017, June 20). 9 Battles The LGBTQ Community In The US Is Still Fighting. Global Citizen. Retrieved April 27, 2022, from <https://www.globalcitizen.org/en/content/9-battles-the-lgbt-community-in-the-us-is-still-fi/>
- Dietz, K., Heuser, A., & Hülsmann, K. (2021). Gender, Nature, Body – Ecological Crises and Conflicts over Nature from Feminist Perspectives. Freie Universität Berlin. <http://dx.doi.org/10.17169/refubium-30511>
- Dodds, J. (2020, June 29). Pride Month, LGBTQ+ and the Environmental Movement. Retrieved October 07, 2020, from <https://www.endangered.org/pride-month-lgbtq-and-the-environmental-movement/>
- Dublin, H. (2019, November 22). Endangered species. Retrieved December 03, 2020, from <https://www.britannica.com/science/endangered-species>
- Ecological Society of America. (2020, January 13). The advantage of changing sex in fish population recovery: Harvesting of male fish near Marine Protected Areas affects sex-changing

species differently from fixed-sex species. *ScienceDaily*. Retrieved March 8, 2022 from www.sciencedaily.com/releases/2020/01/200113175644.htm

Facts about suicide. The Trevor Project. (2017, September 20). <https://www.thetrevorproject.org/resources/preventing-suicide/facts-about-suicide/>. <https://www.globalcitizen.org/en/content/9-battles-the-lgbt-community-in-the-us-is-still-fi/>

Fox, A. (2020, July 24). Sierra Club grapples with founder John Muir's racism. *Smithsonian.com*. Retrieved March 9, 2022, from <https://www.smithsonianmag.com/smart-news/sierra-club-grapples-founder-john-muir-racism-180975404/>

Gaard, G. (2015). Ecofeminism and climate change. *Women's Studies International Forum*, 49, 20-33. doi:10.1016/j.wsif.2015.02.004

Gamble, A. (2009). The Western Ideology. *Government and Opposition*, 44(1), 1–19. <http://www.jstor.org/stable/44484162>

Goodwin, N. (2019, March 15). There is no planet b: Why climate change is an LGBTQ issue. GLAAD. Retrieved March 10, 2022, from <https://www.glaad.org/amp/no-planet-b-why-climate-change-is-an-lgbtq-issue>

Gray, J. M. (2017). Heteronormativity without Nature: Toward a queer ecology. *QED: A Journal in GLBTQ Worldmaking*, 4(2), 137–142. <https://doi.org/10.14321/qed.4.2.0137>

Green, E. (2019, August 17). America moved on from its gay-rights moment-and left a legal mess behind. *The Atlantic*. Retrieved December 03, 2020, from <https://www.theatlantic.com/politics/archive/2019/08/lgbtq-rights-america-arent-resolved/596287/>

Halting the extinction crisis. Center for Biological Diversity. (n.d.). Retrieved March 10, 2022, from https://www.biologicaldiversity.org/programs/biodiversity/elements_of_biodiversity/extinction_crisis/

Harvey, F. (2020, September 20). World's richest 1% cause double CO2 emissions of poorest 50%, says Oxfam. *The Guardian*. Retrieved April 26, 2022, from <https://www.theguardian.com/environment/2020/sep/21/worlds-richest-1-cause-double-co2-emissions-of-poorest-50-says-oxfam>

Hoffner, E. (2011, March 29). How to queer ecology and the environmental movement. *Grist*. Retrieved October 07, 2020, from <https://grist.org/article/2011-03-28-sex-geese-and-the-queering-of-ecology/>

Hughes, B. E. (2018, March 14). Coming out in STEM: Factors affecting retention of sexual minority STEM students. *Science Advances*, 4(3). <https://doi.org/10.1126/sciadv.aao6373>
Johnson, A. (2011, March). How to queer ecology: One goose at a Time. *Orion Magazine*.

Retrieved December 4, 2021, from <https://orionmagazine.org/article/how-to-queer-ecology-once-goose-at-a-time/>

Jones, A., DeFilippis, J. N., Yarbrough, M. W. (2018). *The Unfinished Queer Agenda After Marriage Equality*. Routledge. Retrieved March 28, 2022.

Kashwan, P. (2020, September 2). American environmentalism's racist roots have shaped global thinking about conservation. *The Conversation*. <https://theconversation.com/american-environmentalisms-racist-roots-have-shaped-global-thinking-about-conservation-143783>

Lesley University. (n.d.). The cost of coming out: LGBT youth homelessness. Lesley University. Retrieved March 29, 2022, from <https://lesley.edu/article/the-cost-of-coming-out-lgbt-youth-homelessness>

Mahowald, L. (2021, June 24). LGBTQ people of color encounter heightened discrimination. Center for American Progress. Retrieved March 28, 2022, from <https://www.americanprogress.org/article/lgbtq-people-color-encounter-heightened-discrimination/>

Mahowald, L., Gruberg, S., & Halpin, J. (2020, October 6). The State of the LGBTQ Community in 2020. Center for American Progress. <https://www.americanprogress.org/issues/lgbtq-rights/reports/2020/10/06/491052/state-lgbtq-community-2020/>

Merchant, B. (2014, September 5). '*Queers for the Climate*' are trying to save Fire Island from Rising seas. *VICE*. Retrieved March 9, 2022, from <https://www.vice.com/en/article/9akqqy/queers-for-the-climate-fire-island>

Merchant, C. (2003). Shades of darkness: Race and environmental history. *Environmental History*, 8(3), 380–394. <https://doi.org/10.2307/3986200>

Meyer, I. H. (2019, April). Experiences of Discrimination among Lesbian, Gay and Bisexual People in the US. Retrieved December 03, 2020, from <https://williamsinstitute.law.ucla.edu/publications/lgb-discrimination-experiences/>

Mock, J. (2020, June 1). 'Black Birders Week' promotes diversity and takes on racism in the outdoors. Audubon. Retrieved March 11, 2022, from <https://www.audubon.org/news/black-birders-week-promotes-diversity-and-takes-racism-outdoors>

Mulhern, O. (2020, August 6). *Sea level rise projection map - Tonga*. Earth.org. Retrieved March 10, 2022, from https://earth.org/data_visualization/sea-level-rise-by-2100-tonga/.

O'Hare, J. (2017, February 27). Half of the species on Earth could go extinct by 2050: Scientists. Global Citizen. Retrieved March 8, 2022, from <https://www.globalcitizen.org/en/content/half-earths-species-extinct-2050/#:~:text=Half%20of%20Earth's%20species%20could,dinosaurs%20famously%20bit%20the%20dust>

- Ourkiya, A. (2020, February 24). All you ever wanted to know about ecofeminism. RTÉ. Retrieved March 29, 2022, from <https://www.rte.ie/brainstorm/2020/0219/1116323-ecofeminism/>
- Patnaik, A., Son, J., Feng, A., & Ade, C. (2020, August 15). Racial disparities and climate change. Princeton University. Retrieved March 27, 2022, from <https://psci.princeton.edu/tips/2020/8/15/racial-disparities-and-climate-change>
- Pearce, F. (2015, August 17). Global Extinction Rates: Why Do Estimates Vary So Wildly? Yale Environment 360. Retrieved 12 2, 2020, from https://e360.yale.edu/features/global_extinction_rates_why_do_estimates_vary_so_wildly
- Queer Nature (n.d.). Our Mission.. Retrieved October 16, 2020, from <https://www.queernature.org/what-we-do>
- Reimann, T. (2021, September 1). Creating inclusive communities: Lessons from queer ecology. *PM Magazine*. Retrieved December 5, 2021, from <https://icma.org/articles/pm-magazine/creating-inclusive-communities-lessons-queer-ecology>.
- Rosenzweig, L. (2018, March 14). Queer history is often presented as a series of dour protests. but fun was just as important. *Slate Magazine*. Retrieved March 9, 2022, from <https://slate.com/human-interest/2018/03/joy-and-fun-are-underappreciated-parts-of-lgbtq-history.html>
- Saladino, D., Pearce, F., & Newsome, M. (2019, February 22). Biodiversity Loss is endangering food security, UN warns. *Yale E360*. Retrieved March 9, 2022, from <https://e360.yale.edu/digest/biodiversity-loss-is-endangering-food-security-un-warns>
- Sandilands, C. (n.d.). Queer Ecology | Keywords. Keywords: NYU Press. Retrieved April 26, 2022, from <https://keywords.nyupress.org/environmental-studies/essay/queer-ecology/>
- Scicchitano, D. (2020, July 27). No trespassing: The U.S. environmental movement's long history of exclusion. Environmental Law Institute. Retrieved November 11, 2021, from <https://www.eli.org/vibrant-environment-blog/no-trespassing-us-environmental-movements-long-history-exclusion>.
- Seymour, N. (2018). *Bad environmentalism: Irony and irreverence in the ecological age*. University of Minnesota Press.
- Taylor, D. E. (2014). The State of Diversity in Environmental Organizations. Retrieved from https://orgs.law.harvard.edu/els/files/2014/02/FullReport_Green2.0_FINALReducedSize.pdf
- Toorn, J. van der, Pliskin, R., & Morgenroth, T. (2020). Not quite over the rainbow: The unrelenting and insidious nature of heteronormative ideology. *Current Opinion in Behavioral Sciences*, 34, 160–165. <https://doi.org/10.1016/j.cobeha.2020.03.001>

“Understanding Conservation.” *National Wildlife Federation*, www.nwf.org/Educational-Resources/Wildlife-Guide/Understanding-Conservation

United Nations. (n.d.). *The 17 Goals*. United Nations. <https://sdgs.un.org/goals>

United Nations. (2019, February 22). Shrinking biodiversity poses major risk to the future of global food and agriculture, landmark UN report shows. UN News. Retrieved April 26, 2022, from <https://news.un.org/en/story/2019/02/1033331>

The University of Edinburgh. (2021, February 8). Common sexuality-based microaggressions. The University of Edinburgh. Retrieved March 29, 2022, from <https://www.ed.ac.uk/equality-diversity/students/microaggressions/lgbtq-microaggressions/sexuality-based-microaggressions/common-sexuality-based-microaggressions>

Queers X Climate .Values. . (n.d.). Retrieved March 11, 2022, from <https://www.queersxclimate.org/values>

Wake, D. B., & Vredenburg, V. T. (2008). Are we in the midst of the sixth mass extinction? A view from the world of amphibians. *Proceedings of the National Academy of Sciences*, 105 (Supplement 1), 11466-11473. doi:10.1073/pnas.0801921105

The Wilderness Society. (2021, June 5). Communities at the heart of climate action. The Wilderness Society. Retrieved March 29, 2022, from <https://storymaps.arcgis.com/stories/bbcb97ec5255495babfaf78ecc7c82e5>

Williams, J. (2022, January 26). Why climate change is inherently racist. BBC Future. Retrieved March 27, 2022, from <https://www.bbc.com/future/article/20220125-why-climate-change-is-inherently-racist>

Willy, K. (2021, July 8). Feature: Why LGBTQ communities will be disproportionately affected by the climate crisis. *EnvironmentJournal*. Retrieved March 10, 2022, from <https://environmentjournal.online/articles/feature-why-lgbtq-communities-will-be-disproportionately-affected-by-the-climate-crisis/>

World Health Organization. (2015, June 3). Biodiversity and health. World Health Organization. Retrieved March 28, 2022, from <https://www.who.int/news-room/fact-sheets/detail/biodiversity-and-health>

York University. (2021, August 12). Cis-Heteropatriarchy. UnLeading. Retrieved March 28, 2022, from <https://www.yorku.ca/edu/unleading/systems-of-oppression/cis-heteropatriarchy/>

6 Important LGBTQ scientists who left a mark on STEM fields. (2020, June 25). Retrieved October 16, 2020, from <https://www.osc.org/important-lgbtq-scientists-who-left-a-mark-on-stem-fields/>