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Generation Z's Perceptions of Hunting and Conservation Efforts in Arkansas

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science in Agricultural and Extension Education

by

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Texas A&M University
Bachelor of Science in Agricultural Communications and Journalism, 2021

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University of Arkansas

This thesis is approved for recommendation to the Graduate Council.

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Abstract

Hunting participation numbers have steadily declined since the 1980s and Generation Z is not engaging in hunting. Hunting is one of the most effective tools for managing wildlife populations and ensuring the success and local ecosystem conservation. Many wildlife stewardship institutions, such as Arkansas Game and Fish Commission in Arkansas, are funded by sales taxes imposed on firearms, ammo, and archery equipment. With a decline in hunting participation, it is imperative state-run wildlife stewardship organizations and other hunting institutions learn the best practices for communicating with younger generations. This study sought to understand Generation Z's perceptions of hunting and conservation in Arkansas. Additionally, research sought to learn where Generation Z receives information on hunting and conservation and what information is telling them. Finally, the research sought to learn how Generation Z prefers to spend time outdoors, if not hunting.

The Outdoor Recreation Adoption Model guided the study to explore how societal support and information consumption impacted an individual's opinions and behaviors. The study utilized a mixed-methods explanatory design with the follow-up explanations variant to achieve the research goals. Subjects were selected using stratified purposeful sampling and surveyed using Qualtrics. Following the surveys, 23 survey respondents participated in semi-structured interviews. Survey closed-ended questions were analyzed using descriptive statistics. Follow-up interviews and open-ended questions were analyzed using the constant comparative method and NVivo 11 coding software.

The results showed Generation Z preferred hunting for food over hunting for sport and Generation Z saw a connection between hunting and environmental conservation because of population management for deer and invasive species. Respondents were consuming information

on seasons, animal populations, and trophy hunting in Africa, and their top communication channels were friends and family, websites, and social media platforms including Instagram, TikTok, YouTube, and Facebook. Finally, most respondents spent their time outdoors walking and enjoy spending their time outdoors walking and hiking, among other activities. The results indicated that state-run wildlife stewardship organizations should focus on promoting the ecological and monetary benefits of hunting and individual stories and motivations of current hunters, particularly on social media accounts. Additionally, these organizations should create avenues for those who do not hunt to connect and learn from seasoned hunters.

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Dedication

This research is dedicated to my dad, Stan Chambers, who gave me my love for hunting and the outdoors. Thank you for hauling me down to Cotulla, Texas, that first weekend and for every trip after. I wouldn't be anywhere without you and your guidance. All you have taught me about hunting, the outdoors, and being a steward of our land the way God intended can be summed up with a quote from one of your favorite authors:

“Yet we must never forget that the land and the waters are ours for the moment only, that generations will follow who must themselves live from that land and drink that water. It would not be enough to leave something for them; we must leave it better than we found it.”

– Louis L'Amour, *The Lonesome Gods*

Table of Contents

Chapter One: Introduction	1
Background	1
Need for the Study	2
Statement of the Problem.....	3
Purpose Statement and Research Objectives	4
Predictions.....	5
Limitations	6
Definitions.....	6
Chapter Two: Literature Review	9
Introduction.....	9
Hunting	11
Hunting in Arkansas	17
Hunting and Conservation in Arkansas	20
Generation Z	24
Generation Z and Hunting	26
Generation Z Communication Preferences	29
Theoretical Framework: Outdoor Recreation Adoption Model (ORAM).....	30
Summary of Literature	34
Chapter Three: Methods	37
Introduction.....	37
Design of the Study.....	38
Subject Selection.....	39

Subject Characteristics.....	40
Cognitive Interviews.....	42
Subject Recruitment.....	43
Instrumentation	47
Summary of Procedures for Data Collection.....	51
Procedures for Data Analysis.....	52
Rigor	54
Reflexivity Statement.....	55
Summary of Methodology	55
Chapter Four: Results	57
Introduction.....	57
Methodology Summary	57
Survey	57
Overall Survey Respondent Demographics	58
Survey Respondent Demographics by Group: Hunts	61
Survey Respondent Demographics by Group: Hunted.....	63
Survey Respondent Demographics by Group: Never Hunted	65
Survey Responses: Hunts.....	67
Hunting and Conservation: Hunts Survey Responses	67
Information Consumption: Hunts Survey Responses	84
Communication Channels: Hunts Survey Responses	92
Outdoor Engagement: Hunts Survey Responses	101
Survey Responses: Hunted	103

Hunting and Conservation: Hunted Survey Responses	103
Information Consumption: Hunted Survey Responses	112
Communication Channels: Hunted Survey Responses	116
Outdoor Engagement: Hunted Survey Responses	123
Survey Responses: Never Hunted	126
Hunting and Conservation: Never Hunted Survey Responses	126
Information Consumption: Never Hunted Survey Responses	143
Communication Channels: Never Hunted Survey Responses	152
Outdoor Engagement: Never Hunted Survey Responses	161
Interviews	163
Interviewee Demographics	164
Interviewee Demographics: Hunts	165
Interviewee Demographics: Hunted	166
Interviewee Demographics: Never Hunted	166
Interview Responses: Hunts	167
Hunting and Conservation: Hunts Interviews	167
Information Consumption: Hunts Interviews	175
Communication Channels: Hunts Interviews	178
Outdoor Engagement: Hunts Interviews	183
Interview Responses: Hunted	186
Hunting and Conservation: Hunted Interviews	186
Information Consumption: Hunted Interviews	191
Communication Channels: Hunted Interviews	193

Outdoor Engagement: Hunted Interviews	197
Interview Responses: Never Hunted.....	199
Hunting and Conservation: Never Hunted Interviews.....	199
Information Consumption: Never Hunted Interviews	211
Communication Channels: Never Hunted Interviews	215
Outdoor Engagement: Never Hunted Interviews.....	220
Summary of Key Findings	223
Hunting and Conservation	223
Information Consumption.....	226
Communication Channels.....	228
Outdoor Engagement	231
Chapter Five: Conclusions and Recommendations	233
Introduction.....	233
Research Objective One.....	233
Research Objective Two	236
Research Objective Three	239
Research Objective Four.....	242
Implications for Practice	244
Recommendations for Further Research.....	250
References	252
Appendices.....	267
Appendix A: IRB Approval Letter	267
Appendix B: Professor Solicitation Email.....	268

Appendix C: Follow-up Professor Solicitation Email	269
Appendix D: Survey Flyer	270
Appendix E: University of Arkansas News Email	271
Appendix F: Interview Scheduling Email.....	272
Appendix G: Interview Confirmation Email	273
Appendix H: Interview No-show Email	274
Appendix I: Interview Rescheduling Email.....	274
Appendix J: Interview Final Reminder Email	275
Appendix K: Interview Informed Consent Document.....	276
Appendix L: Survey Informed Consent Document	278
Appendix M: Survey Instrument	280

Chapter One: Introduction

Background

Every U.S. state-run wildlife stewardship organization is associated with the U.S. Fish and Wildlife Service's State Wildlife Grant Program and develops a unique Comprehensive Wildlife Conservation Strategy plan, called the Arkansas Wildlife Action Plan in Arkansas (Arkansas Game and Fish Commission, n.d.). The Arkansas Game and Fish Commission (AGFC) was founded in 1915 and given wildlife regulatory powers in 1944 (Kinion et al., 2020). Bears, turkeys, and white-tailed deer were nearly non-existent within Arkansas in the late 1930s when AGFC used science-based conservation methods to reinstate these species to record levels (Kinion et al., 2020). AGFC has other programs and initiatives designed to conserve wildlife and natural resources, as well as prepare future generations to continue these endeavors. Time spent outdoors is recommended to foster positive relationships with the environment, but studies show a decline in outdoor recreation increasingly replaced with time on a screen in Generation Z (Larson et al., 2019; Malikova, 2021; Reed et al., 2022).

Despite a decline in time spent outdoors, Generation Z is more interested in the environment and its conservation than previous generations, and natural resource departments strive to adapt to societal changes and the effects on management practices in the 21st century (Everett & Raven, 2018; Malikova, 2021). In a recent study by Larson et al. (2019), less than half of Generation Z participants reported spending more than two hours a day outdoors. It was inconclusive how members of Generation Z prefer to spend time outdoors. In past studies, the outdoor activities Generation Z reported participating in included school or community-based sports, camping, swimming, and visiting local parks (Cairn Consulting Group & Kampgrounds of America, 2017; Dexter, 2018; Giachino et al., 2022; Reed et al., 2022). However, Generation

Z characteristics are evolving as the members of the generation age. Absent from the outdoor activities were hunting and fishing. These forms of outdoor recreation have seen a steady decline since the 1980s (Altherr, 1987; Vayer 2020). Few studies have been completed and published analyzing how members of Generation Z perceive hunting and its role in conserving wildlife and natural resources, or what media these members consume to form these perceptions.

Need for the Study

Participation in hunting has steadily declined since the 1980s and few published studies analyzing how hunting organizations can work to recruit newer generations (Altherr, 1987; Vayer 2020). When conducted properly, hunting is highly effective to help maintain balanced ecosystems through managing animal population sizes (Moore, 2021b; Vayer, 2020). At its peak in the 1980s, the U.S. Fish and Wildlife Service recorded around 17 million licensed hunters across the nation, which reduced to approximately 11.5 million individuals by 2019 (Zellers, 2020). According to surveys by the U.S. Department of the Interior, participation in hunting decreased by about 2 million between 2011 and 2016 (U.S. Department of the Interior, 2021). Theories on the reason for this decline include a lack of mentors for new hunters, less societal support for hunting, urbanization, negative portrayals in popular media, changes in land usage, and a lack of appeal for potential new clientele (Larson et al., 2014; Winkler & Warnke, 2013).

The funding for conservation practices conducted by AGFC and other state-run wildlife stewardship organizations primarily comes from conservation sales taxes on firearms, bows, ammo, and other hunting equipment, hunting licenses, and permits (Sellers, 2020). Past projects completed with these funds included Arkansas and White River bear population radio collars and genetic studies of Illinois Chorus Frogs in Arkansas, while proposed projects for 2022 included restoring prairie, woodlands, and glade habitats for Species of Greatest Conservation Need and

monitoring pH levels in the Little River Basin (Arkansas Game and Fish Commission, n.d.). With the steady decline in hunting participation, the funding available to aid in conservation efforts declines as well, which can be particularly devastating for rare and at-risk wildlife species (Sellers, 2020).

In Arkansas, the decline in funds, combined with the changes in weather patterns, has led to stress from floods on Greentree reservoirs needed to create habitats for wintering ducks (Zellers, 2020). The North American Model of Wildlife Management relies on the revenue generated from goods purchased by hunters and anglers to continue conservation efforts (Zellers, 2020). Nationally, most hunting participants are white men from rural backgrounds in the 40+ years age range with an average salary of \$60 thousand (Quartuch, 2017; Zippia, 2019). Because of the decline in new clientele (hunters) state-run wildlife stewardship organizations, and other hunting institutions need new ways to generate interest among the younger generations, such as Generation Z (Quartuch, 2017; Zippia, 2019).

Statement of the Problem

There are few routes to enter hunting as an outdoor activity other than it being passed down from older family members, typically fathers or father figures (Decker et al., 1984; Vayer, 2020). Little is known about Generation Z's awareness of hunting as an outdoor activity, and the industry needs more information on Generation Z's perceptions to better promote hunting to this group. Does Generation Z associate hunting with conservation? Additionally, does exposure to hunting alter the perceptions held by Generation Z? Studies have shown a decline in the number of hours spent outdoors by Generation Z in both rural and urban areas (Larson et al., 2019). This is commonly linked to urbanization and technological advances that changed Generation Z's

preferences for how they spend their free time (Larson et al., 2019). This lack of interaction with nature leads to a decreased connectivity to the environment (Larson et al., 2019).

If Generation Z is one of the most environmentally conscious generations but does not spend as much time outdoors as past generations, according to studies Larson et al. (2019) and Malikova (2021), what outdoor activities, if any, are Generation Z participating in to stay connected with the outdoors? With the decline in members of Generation Z participating in hunting, how are they forming their perceptions of hunting? How does the understanding of hunting and conservation change between participants who have experience with hunting and those who do not? Concurrently, ensuring the industry understands the communication preferences of Generation Z can help organizations create targeted messaging and marketing communication tactics to those preferences.

This research will fill a gap in the literature on how members of Generation Z perceive, understand, and consume information regarding hunting and the potential effects of their perceptions on conservation. Results from this study defined Generation Z's preferred activities when spending time outdoors. Additionally, this research helped professionals within hunting industries and related fields learn how to best communicate with and reach new, younger audiences.

Purpose Statement and Research Objectives

The purpose of this study was to learn Generation Z's perceptions of hunting in relation to environmental conservation efforts and how these opinions were formed. The objectives of this study were to:

1. Describe how Generation Z perceives the relationship between hunting and environmental conservation.

2. Define what information on hunting or conservation Generation Z consumes to form these perceptions.
3. Determine which communication channels were used by Generation Z to receive this information.
4. Discover how members of Generation Z were engaging with the outdoors through outdoor activities.

Additionally, this study sought to compare the personal societal support and adoption of hunting for participants who have hunted in the last five years, participants who hunted as a minor but have not hunted in the last five years, and participants who have never hunted, based on the Outdoor Recreation Adoption Model framework. This study will help state wildlife stewardship organizations, such as AGFC, discover Generation Z's perceptions to better communicate with the Generation Z audience through their preferred channels to engage them in hunting and facilitate effective recruitment, retention, and reactivation (R3) programs. R3 programs are a nationwide effort made by state-run wildlife stewardship organizations and other hunting groups designed to encourage new or continued participation in hunting and fishing through planned programming (CAHSS, n.d.).

Predictions

For the purpose of clarity, the researcher included the following predictions held prior to conducting research:

1. The researcher predicted participants with prior knowledge of or experience with hunting will have an increased understanding of the impact hunting has on conservation efforts.

2. The researcher assumed those who have more experience with or exposure to hunting will have higher positive opinions of the sport compared to those who have little to no experience with hunting.

Limitations

Limitations of this study included:

1. The sampling frame for this study was limited to members of Generation Z at the University of Arkansas. Generation Z students within the University of Arkansas do not describe the knowledge and understanding of Generation Z members in other states or at other universities in Arkansas.
2. While this study focuses on hunting and conservation in Arkansas, the survey participants were allowed to be residents of others states. Hunting experiences vary by state and this had the potential to impact results.
3. Additionally, each state has a unique Comprehensive Wildlife Conservation Strategy plan and state-run wildlife stewardship organization to regulate and manage its natural resources. This study focuses on AGFC and the wildlife commonly hunted within the state of Arkansas.
4. Finally, the lead author has a background in hunting recreation and hunter education. As a result, the research could have unintentional bias.

Definitions

The following definitions are included to provide further clarity for readers:

AGFC – Arkansas Game and Fish Commission. The state-run wildlife stewardship organization for regulating, conserving, and enhancing Arkansas' wildlife and wildlife habitats (Arkansas Game and Fish Commission, n.d.).

AGFF – Arkansas Game and Fish Foundation. The non-profit organization composed of men and women dedicated to assisting in AGFC's mission and promote hunting and conservation to youth (Arkansas Game and Fish Foundation, n.d.).

Bag Limits – the number of a species that can be harvested in one day. The number varies depending on the size and type of species (Kalkomey Enterprises, n.d.).

Carrying Capacity – the maximum population that a habitat can maintain long-term. This number can vary depending on the season, changes in habitat, etc. (Knight, 2008).

Conservation – protecting, preserving, restoring, and managing natural and ecological environments. This often includes considering public benefits and sustainable social and economic uses (USDA NRCS, 2014).

Harvesting – hunting an animal for the purpose of animal products, recreation, taxidermy, managing dangerous predators, or eliminating invasive species (Knight, 2008).

Hunting – the activity of hunting wild animals or game for food or sport using guns, bows, or other weapons (Arkansas Game and Fish Commission, n.d.).

R3 Programs – Stands for Recruitment, Retention, and Reactivation. These programs are created by state-run wildlife stewardship organizations and other hunting groups and are designed to encourage new or continued participation in hunting and fishing (CAHSS, n.d.).

Small Game Animal – wild animals and birds hunted for sport, as rabbits or doves, that are smaller than animals, as deer and bears, classified as big game (Arkansas Game and Fish Commission, n.d.).

Wildlife Management – the science of maintaining and manipulating wildlife habitats and populations through the knowledge of trends, factors of influence, wildlife species interactions, human impact, and surrounding landscapes (Knight, 2008).

Wildlife Refuge/Management Area – an area where the hunting and fishing of wild animals are strictly regulated or entirely prohibited to help protect wildlife (Knight, 2008).

Chapter Two: Literature Review

Introduction

Hunting has played a prominent role in American culture and has been viewed as a form of conservation since the late 1800s (Batcheller et al., 2018). Across the nation, hunting participation has steadily declined since the 1980s, which led to a decrease in funds needed for conservation efforts (Altherr, 1987; Zellers, 2020). While 258,356 Arkansas residents held hunting licenses in 2014, the number dropped to 220,193 by 2019 (Zellers, 2020). Similarly, fishing license sales for Arkansas residents dropped from 381,308 to 312,758 between 2014 and 2019 (Zellers, 2020). State-run wildlife stewardship organizations, such as AGFC, were created to help with wildlife management and conservation through state Wildlife Action Plan using revenue generated from conservation sales taxes and license sales. With the decline in participation, these organizations need to find effective methods for reaching new clientele and future generations, such as Generation Z to boost revenue.

Full of global and technologically savvy members, Generation Z consists of people born from 1997 to 2012 and makes up around 24% of the global population (Dimock, 2019; Madden, 2017). Generation Z is known as the most climate-conscious generation to date, despite declines in time spent outdoors and an increase in time spent on the internet (Everett & Raven, 2018; Larson et al., 2019; Malikova, 2021). There are few studies indicating how Generation Z prefers to spend time outdoors if they are not hunting. Existing studies indicate visiting parks, camping, swimming, and community or school-based sports as preferred outdoor activities for Generation Z, but most studies do not follow Generation Z into adulthood as preferences change, or list hunting as a preferred activity (Cairn Consulting Group & Kampgrounds of America, 2017; Dexter, 2018; Giachino et al., 2022; Reed et al., 2022).

No published studies were found exploring Generation Z's perceptions of hunting industries and their role in conservation, or where Generation Z receives their communication and information on these subjects. When communicating on social media, most members of Generation Z prefer to use Instagram, Snapchat, and TikTok (Auxier & Anderson, 2021; Vitelar, 2013). Older members of the generation, typically those born in 1997-2000, also use Facebook as a second choice and younger members of the generation use Snapchat (Vitelar, 2013). As video platforms, such as Instagram, TikTok, and YouTube, grow in popularity, studies indicate short-form video content produced for these channels is effective in reaching younger age demographics (Gassett, 2021; Genoveva, 2021). While Generation Z spends a considerable amount of time on their phones, many said face-to-face was their preferred communication method (Seemiller, 2017).

The Outdoor Recreation Adoption Model (ORAM) served as the interpretive framework for this study. The ORAM is based on the Theory of Planned Behavior (TPB), which explains how a person's beliefs and behaviors are related based on attitudes, norms, and influences (Ajzen, 1991). The ORAM is a form of Conservation Social Science, which studies the processes, phenomena, and attributes in communication to understand the conservation perceptions of the public (Bennett et al., 2017). As a theoretical construct, ORAM is beneficial when developing recruitment, retention, and reactivation (R3) programs because it helps define recreational behavior and participation based on social support and TPB (Byrne & Dunfee, 2018). The model places emphasis on how an individual's social support system impacts their progression through the eight defined stages of the model (Byrne & Dunfee, 2018). Wildlife organizations hoping to develop effective R3 programs can use the ORAM model to define goals

and measure success when targeting potential clientele such as Generation Z (Byrne & Dunfee, 2018).

Hunting

Hunting for Native Americans varied between regions and nations. For most nations, hunters within the tribe were skilled enough to stalk and kill prey on their own, but tribes used every part of their animal harvest for meat, clothing, and tools, and needed more than single kills to sustain supplies (Staeger, 2014). Because of this, hunting was commonly a group activity, with men on horseback driving deer or bison into pre-constructed corrals to then kill with spears or bows and arrows (Staeger, 2014). For English settlers, hunting in England was only for wealthy landowners as the wild game was considered property of the crown (Geist et al., 2001). Once in North America, settlers defined the wild game as the property of all people, a free resource, and a natural asset (Geist et al., 2001). While colonial settlers hunted for sustenance and to eliminate pests and predators, hunting did not become a cornerstone of the American public until after the American Revolution (Herman, 2014). Hunting as a sport did not gain popularity until the early 19th century, possibly due in part to sport hunting mirroring British elitism too closely (Herman, 2014).

A hunter with a gun became the image of the “ideal American man,” a sentiment commonly attributed to the rise of the frontiersmen, such as Daniel Boone and Davy Crockett, and the success of the American Revolution (Herman, 2014, p. 61). Unfortunately, this shift led to over-harvesting as hunters realized the monetary gains that could be earned from selling the meat or simply hunted for the sport of it, leaving the animal carcass to rot unused (Herman, 2014). With hunting unrestricted, wild game such as deer, bears, elk, bison, and antelope were all on the path to extinction (Herman, 2014). Wealthy businessmen fenced in herds of wild game to

create a private reserve that would transport the sport of hunting back into the hands of a few elites (Herman, 2014). Native Americans signed treaties stating their rights to hunt and fish without regulation on their reservations in exchange for their native lands, but these animal populations were nearly diminished as settlers continued to expand West and the wild game was over-harvested (Herman, 2014; Law Library, n.d.).

In response to this, “hunter-naturalists,” a term created by Theodore Roosevelt to describe hunters who possessed a love and affinity for nature, lobbied for hunting regulations in the form of bag limits and designated seasons (Herman, 2014, p. 62). These hunters were known as humanitarians who were diligent in “quickly, efficiently, scientifically and humanely” harvesting their prey and wanted to keep hunting as a public sport by creating national forests and public game reserves (Herman, 2014, p. 62). As wild animal populations began to increase and flourish, the focus turned to sustainable wildlife management practices to maintain the carrying capacity of various regions (Herman, 2014, p. 62). Bison herds on national park land, a species once nearly extinct, now have their population managed through Native Americans’ traditional tribal hunts (Reese, 2020). Organizations created to help conserve and promote wildlife stewardship were created at national, state, and even local levels by private individuals or local institutions.

One example of an individual dedicated wildlife stewardship is seen through the creation of the Caesar Kleberg Foundation for Wildlife Conservation in 1946, the funding source for the Caesar Kleberg Wildlife Research Institute at Texas A&M University-Kingsville founded in 1981 (Caesar Kleberg Wildlife Research Institute, n.d.). Kleburg was a large landowner and cattleman in South Texas. When he saw the white-tailed deer population dwindle because of over harvesting, he decided to dedicate his life, and his legacy through his last will and

testament, to preserving and managing wildlife for hunters to enjoy for generations (Vandivier, 2022; Caesar Kleberg Wildlife Research Institute, n.d.). The foundation and institute understand the importance of ensuring private landowners have the knowledge and resources available to help preserve the wildlife on their ranches (Vandivier, 2022).

In the 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, 64% of surveyed participants hunted on private lands exclusively and 21% hunted on both public and private lands (U.S. Fish and Wildlife Service et al., 2018). The research institution dedicates time and resources to ensuring local wildlife populations are flourishing through researching prescribed burns to increase quail habitats or creating vaccinations to protect white-tailed deer from anthrax, a deadly bacterial disease, in the soil (Vandivier, 2022). In a YouTube docuseries, SIG Sauer partnered with the Caesar Kleberg Wildlife Research Institute and hunting personality, Stephen West, to showcase how private landowners are conserving their land and wildlife for future generations (Vandivier, 2022). The mini-series generated 27.3k views across the six episodes and demonstrated how hunters and hunting organizations can showcase both the positive environmental impact hunting can have and the humanity and personal connections of the sport through effective storytelling (Kemp et al., 2021; Storr, 2020; Vandivier, 2022).

Hunting is an effective tool to help regulate animal populations and maintain stable ecosystems (Moore, 2021b; Vayer, 2020). When a species overpopulates an area, this leads to an imbalance in the ecosystem, starvation, increased disease, and an increased chance of animals being hit by motor vehicles (SIG SAUER, Inc., 2023c). Apex predators are necessary for balanced and prosperous ecosystems, and the lack of predators results in negative impacts (Vayer, 2020). In Yellowstone National Park, wolves were eradicated and, as a direct result of this, elk surpassed the park's carrying capacity (Yellow Stone National Park, 2021). This caused

beavers, willow stands, and other plants and animals to decline in population or began to die back (Yellow Stone National Park, 2021).

Without a major predator present, the elk did not move and overgrazed on vegetation and trees used by the beavers to make dams (Yellowstone National Park, 2021). This resulted in fewer dams, which negatively impacted the hydroponic habitat for fish and certain songbirds (Yellow Stone National Park, 2021). Once wolves were reintroduced into the Yellowstone ecosystem, they reinstated a balance to the ecosystem and hearing a beaver tail slap the surface of a river is once again a common occurrence (Yellowstone National Park, 2021).

With the expansion of civilization, common apex predators for certain species have declined and impacted the food web, which leads to hunters serving as the new apex predators to manage wildlife populations and prevent overpopulation (Vayer, 2020). The regulation of hunting became a cost-effective and sustainable way to manage wildlife and bring dwindling populations to flourishing numbers and bring necessary balance to local ecosystems (Vayer, 2020). These regulations are economically important for conservation as the conservation taxes provide funding for wildlife agencies and state-run wildlife stewardship organizations (Vayer, 2020).

The Federal Aid in Wildlife Restoration Act, also known as the Pittman—Robertson Wildlife Restoration Act, was approved by congress in 1932 and imposed an additional (11%) sales tax on firearms, ammo, and archery equipment to be used for federal and state conservation effort (Crafton, 2019). The act was created to combat the crisis seen in the late 1800s and early 1900s where wildlife populations across the nation were at record lows because of uncontrolled market hunting and a lack of fund to enforce rules and regulations (SIG SAUER, Inc., 2023a). Since its approval, wildlife populations have greatly increased and the act has generated over \$15

billion dollars to be used for wildlife and habitat protection since its inception (Crafton, 2019; SIG SAUER, Inc., 2023a).

The funds are largely driven by hunters, around 29%, and recreational shooter, approximately 71% (SIG SAUER, Inc., 2023a). State-run wildlife stewardship organizations depend on these funds to successfully conduct their conservation efforts and acquire additional land to preserve and maintain (SIG SAUER, Inc., 2023a). For most of these organizations, around 70% of their funding comes from the Pittman—Robertson Act (SIG SAUER, Inc., 2023c).

In 2021 and 2022, the Pittman—Robertson Act generated \$1,102,578,160 and \$1,150,015,805 in funds respectively, and a considerably increase from previous years (SIG SAUER, Inc., 2023a). This was a \$437,200,091 increase from 2020 to 2021 and can be attributed to the increased purchase of firearms and equipment in the COVID-19 pandemic, where one in five American household purchased a gun and one in 20 were first-time gun owners (SIG SAUER, Inc., 2023a; Young, 2022). The funding is added to the Federal Aid to Wildlife Restoration Fund in the Treasury and is managed by the U.S. Fish and Wildlife Service (FWS) who distributes it to each of the 50 U.S. states and 5 inhabited U.S. territories (Crafton, 2019).

At the time of writing this literature review, the Pittman—Robertson Wildlife Restoration Act, widely considered the most important source of funding to state-run wildlife stewardship organizations and conservation agencies, is facing protentional dissolvment as legislative bill H.R. 8167 was introduced to the U.S. House of Representatives (Clyde, 2022). This bill was designed to dismantle the Pittman—Robertson Act, which would drastically diminish the funding for wildlife stewardship programs and organizations.

SIG SAUER, a popular gun manufacturing brand, partnered with the state wildlife stewardship organizations from Arkansas, New Hampshire, and Main to create a short video series detailing why the repeal of Pittman—Robertson Act would be detrimental to the ability of these organizations to conduct conservation efforts (SIG SAUER, Inc., 2023a). The representatives of the state wildlife stewardship organizations featured in the film all describe how the majority of their funding comes from the funds generated by the Pittman—Robertson Act, followed by the sale of hunting, trapping and fishing license (SIG SAUER, Inc., 2023a; SIG SAUER, Inc., 2023c).

Funds generated from general state tax is not a highly lucrative source of revenue for state wildlife stewardship organizations and they would not be able to function properly on these funds (SIG SAUER, Inc., 2023c). The director of AGFC, Austin Booth, discussed how most individuals are unaware of the positive impacts hunters and recreational shooters have towards conservation and maintaining wild, public lands, saying,

As we look out around the natural state, and we see a rich, rich landscape where people have the opportunity to hike, to camp, to go watch wildlife, to mountain bike, it's easy to get lost and just see the natural resources; what people need to understand is that it's the hunters, it's the recreational shooting, that is completely driving the conservation practices that create all of these other outdoor recreation opportunities (SIG SAUER, Inc., 2023a).

He continued this sentiment in a later video instatement as he explains how the Pittman—Robertson funds allows AGFC to have more conservation impact with their state funds. According to Booth, the outdoor recreation industry accumulates approximately 9.7 billion dollars of economic impact annually in the state of Arkansas and supports roughly 9,600 jobs (SIG SAUER, Inc., 2023c). Throughout the series, the representatives of the state wildlife stewardship organizations describe hunters as the most passionate and helpful supporters of their conservation efforts (SIG SAUER, Inc., 2023c). This mini-YouTube docuseries received 10.7k

views across the 3 videos and showcases the powers of visual storytelling and how it can be applied to create connections with an audience and show the humanity of a polarizing topic (Kemp et al., 2021; Storr, 2020).

Duck stamps are another, less lucrative source of revenue for conservation practices and are a required \$25 purchase for duck hunters, a popular small game animal in Arkansas (Vayer, 2020). Eighty-eight cents of each dollar spent on these stamps is used to help conserve and protect the wetland habitats where ducks flourish (Vayer, 2020). In Arkansas, the beginning of duck season can see upwards of 2,000 hunters per day in popular hunting grounds in the Mississippi Delta, which alone equals approximately \$1,960 generated for habitat preservation in the state (Godfrey, 2021; Vayer, 2020).

Hunting in Arkansas

In 1838, Arkansas was a hunter's paradise with few inhabitants, no regulations, and flourishing wild game populations (Smith and Lehmann, 2014). The Big Lake, an area created by earthquakes in 1811 and 1812, became a popular location for local hunters and anglers, particularly for deer, duck, and fish (Mosby, 2021). After the Civil War and the building of the Texarkana and St. Louis—San Francisco railways, well-off northerners from St. Louis who hunted as a pastime as part of a club would travel the rails to the Big Lake area because of its abundance of wildlife and lack of state and federal regulations (Mosby, 2021). These sportsmen used the railroads to transport wild game to restaurants in the north, which caused hunting for the purpose of feeding a family to compete with mass hunting for profit (Mosby, 2021). Tensions rose as the sportsmen and local hunters competed for use of the same land (Mosby, 2021). Disputes over who rightfully owned the area, and therefore who could hunt, led to court cases,

beatings, shootings, and burning buildings (Mosby, 2021). These altercations became known as the Big Lake Wars and helped demonstrate some of the need for regulations on hunting.

Declining animal populations was another reason hunting needed to be regulated. Arkansans became increasingly worried over the lack of wildlife populations as they continued to be over-harvested across the nation (Mosby, 2021). In 1913, Congress passed the Migratory Bird Act to place the harvesting of ducks and geese under federal control and regulation (Mosby, 2021). Shortly after, additional federal laws were passed to create designated hunting seasons and daily bag limits (Mosby, 2021). The first wildlife refuge in Arkansas, appropriately the Big Lake National Wildlife Refuge, and the AGFC were both established in 1915 (Mosby, 2021).

Influenced by the presence of rice farming, which attracted the migrating duck population, AGFC created the Big Lake Wildlife Management Area to the east of the wildlife refuge and the St. Francis Sunken Lands Wildlife Management Area to the southwest in the early 1950s (Mosby, 2021). By the 1980s, survey reports indicated there were one million ducks in the refuge areas (Mosby, 2021). Through the creation of the AGFC and the implementation of regulations to help maintain wildlife populations, the Big Lake Wars concluded, and the conservation and management of Arkansas' wildlife resources began.

AGFC began with nine part-time game wardens charged with managing the entire state of Arkansas (Mosby, 2021). State senator and future governor Junius Futrell was a central component in the creation of AGFC (Mosby, 2021). Futrell created legislation that the 1915 governor, George Washington Hays, signed into law (Mosby, 2021). In the 1944 General Election, Amendment 35 gave AGFC the power to legislate wildlife regulations, arrest poachers, hand out citations and make arrests in the name of wildlife conservation (Arkansas Game and

Fish Commission, n.d.). In 1996, Amendment 75 created the conservation fund by approving the Conservation Sales Tax (Arkansas Game and Fish Commission, n.d.).

This tax allocates 1/8th of 1 percent of the state sales tax for the AGFC, Arkansas State Parks, Arkansas Heritage Commission, and the Keep Arkansas Beautiful Commission (Arkansas Game and Fish Commission, n.d.). AGFC receives 45 percent of these funds and, since 1966, has used them to purchase land for wildlife habitats, educate Arkansans on conservation, create habitats for threatened and endangered species, and more (Arkansas Game and Fish Commission et al., 2007).

In 2019, Arkansas had 220,193 resident hunters and 21,855 non-resident big-game hunters, and 47,622 non-resident small-game hunters (Zellers, 2020). The small-game hunters have a larger pool of participants because Stuttgart, Arkansas, is known as the duck hunting capital of the world (Arkansas Game and Fish Commission, 2019). Thanks to sitting along a migratory line, maintaining bottomland hardwood acreage, and the abundance of rice fields, Stuttgart brings in between 1,500 to 2,000 hunters a day at the beginning of each duck season (Godfrey, 2021). The deer harvest report for 2021-2022 currently sits at 181,041, while the turkey harvest report for the same period is 869 (Arkansas Game and Fish Commission, 2022).

However, similar to the nationwide decline in hunting recorded by the U.S. Fish and Wildlife Service, Arkansas has witnessed a steady decrease in hunting participation, which results in a decrease in the funds needed for conservation efforts and wildlife management (Zellers, 2020). There was a 9.4% decrease in hunting license sales and a 16.8% decrease in fishing license sales from 2014 to 2019 (English et al., 2021). Remarkably, a recent result of the COVID-19 pandemic seemed to be an increase in hunting participation in 2020, possibly because

of the disruption in commercial meat processing and packaging and many people feeling a need and desire to go outside (Drillinger, 2021; English et al., 2021).

In a short-form documentary released by the gun manufacturer SIG SAUER, Olivia Lappin, a wildlife biologist in Mississippi and new hunter said she began hunting during the pandemic because she wanted a way to get outside (SIG SAUER, Inc., 2023b). Additionally, Lappin explains she used to be vegetarian and somewhat anti-hunting until she was educated about the benefits hunting has towards the wildlife conservation and monetary funds, showing that knowledge and education can positively influence people towards hunting (SIG SAUER, Inc., 2023b). In Arkansas, the number of hunting license purchases rose 17.0% to 343,300, and the number of fishing licenses rose 9.4% (English et al., 2021). This uptick in hunters is beneficial for AGFC as it increases revenue and fund for conservation projects.

Hunting and Conservation in Arkansas

The need to conserve and regulate wildlife species in the United States because of over-exploitation began towards the end of the 19th century (Heffelfinger et al., 2013). AGFC's conservation efforts returned white-tailed deer, turkeys, and bears to flourishing populations. There are many rules and regulations in place that hunters must follow, such as which deer are legal to kill during the season and which need to be left to help maintain well-populated species (Arkansas Game and Fish Commission, 2017). Within the AGFC Arkansas Wildlife Action Plan, rare and declining species are included in a Species of Greatest Conservation Need (SGCN) list and receive special focus programs to aid in improving their population numbers and habitats and maintaining ecosystem carrying capacities (Arkansas Game and Fish Commission, 2017). For habitat management, AGFC divides the state into sections based on its various ecoregions

and creates conservation action plans based on individual needs (Arkansas Game and Fish Commission, 2017).

AGFC promotes hunting and large-scale trapping to maintain invasive species, such as feral hogs that destroy habitats and can carry disease and harmful bacteria (Arkansas Game and Fish Commission, 2017). Hunting can help reduce the feral hog population by 8 to 50 percent, depending on the year (Arkansas Game and Fish Commission, 2017). For nuisance wildlife, such as coyotes, beavers, muskrats, etc., hunters must obtain a Depredation Permit to trap the animal outside of trapping season or shoot it at night (Arkansas Game and Fish Commission, 2017). Additionally, AGFC has an urban wildlife project dedicated to understanding how animals adapt to urban areas to help conserve and enhance these adapted habitats and teach citizens how to co-exist with wildlife (Central Arkansas Urban Wildlife Project, 2022).

To support AGFC in its conservation efforts, the Arkansas Game and Fish Foundation (AGFF) was created in 1982 (Arkansas Game and Fish Foundation, n.d.). This non-profit organization's goals include supporting AGFC's mission, promoting hunting, fishing, and conservation to Arkansas youth, helping ensure hunting opportunities continue in Arkansas and creating conservation education opportunities for educators and students (Arkansas Game and Fish Foundation, n.d.). The foundation organizes education and interactive programs such as the Arkansas Youth Shooting Sports Program, the Arkansas National Archery in the Schools Program, and the Becoming an Outdoor Woman (BOW) Program (Arkansas Game and Fish Foundation, n.d.).

Working in tandem with the foundation, the Arkansas Outdoor Society (AOS) is a member-led, non-profit, young adult organization for individuals aged 21 to 45 who are outdoor enthusiasts (Arkansas Outdoor Society, n.d.). This organization is designed to support AGFF's

mission by creating stewards for wild spaces and providing opportunities for young adults to engage with the outdoors through hunting, camping, hiking, biking, fishing, floating, and more (Arkansas Outdoor Society, n.d.). The work of AGFF and AOS encourages younger generations, particularly Generation Z, to participate in the outdoors through hunting, fishing, and other activities while aiding in AGFC's conservation efforts.

One national organization working to encourage current hunters to provide the gateway for new hunters to begin is the Outdoor Stewards of Conservation Foundation (OSCF). OSCF has an R3 communication program called 'Come With!' designed to provide seasoned hunters with the information and motivation needed to invite potential hunters along on trips (Outdoor Stewards of Conservation Foundation, n.d.). The program is based in research conducted by the organization that described how the number one way to get new hunters involved in the activity is through having a seasoned hunter invite them along and teach them what to do (Outdoor Stewards of Conservation Foundation, 2023a).

This research was consistent with previous findings that most hunters adopt the activity because of fathers and father figures (Decker et al., 1984; Vayer, 2020; Outdoor Stewards of Conservation Foundation, 2023a). OSCF partnered with N.onT.ypical Outdoorsman TV, a program designed to foster participation in hunting for minorities, to promote the 'Come With!' program to minorities and others who statistically are less involved in hunting (Outdoor Stewards of Conservation Foundation, 2023b). Additionally, the organization has a Connecting with Conservation program to teach new and season hunters, anglers and target shooters (HATS) about the many ways they contribute to conservation as stewards of the land through these activities (Outdoor Stewards of Conservation Foundation, n.d.).

In addition to AGFC and OSCF, the Division of Agriculture Research and Extension for the University of Arkansas System (Extension Service) works to inform the public and private landowners about wildlife habitat stewardship. The Extension Service posts bulletins with information on wildlife stewardship and has a page on their website dedicated to providing research-based information on managing wildlife. Topics include feral hog control, how to manage wildlife on private land, youth education, managing invasive plant and animal species, hunting waterfowl and doves on agricultural land, and more (Cooperative Extension Service, n.d).

The interest the public has shown in land-management education, endangered and threatened species, and other forms of conservation has impacted environmental education and its presentation to the public since the early 1970s (Hungerford, 2009). Having an interest and connection to nature typically results in environmentally responsible behavior and interest in conservation and possessing environmental educational knowledge can impact a persons' beliefs on the subject (Frantz & Mayer, 2014).

Some studies have shown wildlife recreationists, who participate in hunting or birdwatching, were more inclined to practice conservation behaviors, such as donating to conservation groups, working to enhance wildlife habitats on public lands, participating in environmental groups, and advocating for wildlife recreation than non-recreationists (Cooper et al., 2015). Wildlife recreationists also showed similar levels of participation in environmental lifestyle behaviors, such as recycling, conscious green purchasing, and energy conservation, between those who are wildlife recreationists and those who are not (Cooper et al., 2015). Other studies found when hunting was advertised to non-hunters as a way to provide a family with an organic source of meat, and the government regulations and wildlife biology aspects were

emphasized, non-hunters were more likely to have improved attitudes towards hunting (Blascovich & Metcalf, 2019).

A recent study by Byrd et al. (2017) indicated people are generally more accepting of hunting for food (87% agree) but are less inclined to agree with trophy hunting (37%). The study also found participants who knew hunters, had participated in related activities, or had been involved in fairs or livestock were more likely to have a favorable opinion of hunters and hunting (Byrd et al., 2017). This indicates creating societal support by providing ways for non-hunters to meet hunters or engage in similar activities can improve perceptions of hunting or be a positive gateway into the sport (Byrd et al., 2017).

The North American Model of Wildlife Conservation (NAMWC) considers hunting to be an ethical, conservation-motivated activity through created regulations (U. S. Fish and Wildlife Service, n.d.). However, hunting is commonly portrayed negatively in mainstream media outlets, which could explain the lack of interest in hunting by potential clientele from Generation Z (Larson et al., 2014; Winkler & Warnke, 2013). Examples of negative connotation through media include PETA's "Shoot Selfies, Not Animals" Facebook campaign (Tuggle, 2017). Alternatively, some hunting organizations and blogs recommend avoiding posting and consuming hunting content on social media for reasons, including but not limited to, lack of discussion on conservation, discouraging new clientele through unequal comparison, overly simplifying complex reasons behind hunting, inviting hate from those who do not hunt, and too much fixation on gear and appearances (McCarney, 2017; Voris, 2021).

Generation Z

Typically considered the generation born from 1997 to 2012, Generation Z is a global, multicultural, technologically savvy generation who has limitless access to information through

the Internet (Dimock, 2019; Malikova, 2021). This generation makes up approximately 24% of the world's population with around 1.8 billion members (Madden, 2017). The oldest members of Generation Z were 10-years-old when the iPhone launched in 2007 and were early teens as social media sites such as Facebook and Instagram began growing in popularity, and studies are ongoing to learn how this change affects behaviors and attitudes (Dimock, 2019). Similarly, Millennials, are known as a highly technological generation as the "World Wide Web" and online sites such as Myspace began launching as they came of age (Madden, 2017, p. 21). This access to technology makes Generation Z the most global generation to date, with a plethora of information readily accessible online (Malikova, 2021).

Generation Z is the most ethically and demographically diverse generation and, despite the increase in time spent online, is one of the most environmentally conscious generations, similar to the Millennials' levels of environmental conscientiousness (Dimock, 2019; Malikova, 2021). Generation Z values ecological awareness and sustainability and are proponents of healthy lifestyles and eating habits (Su et al., 2019). This generation values independence and does not wish to rely on teamwork and instead works to be successful in their definition of the word (Malikova, 2021). They strive to be perceived as unique and consistently promote their personal values and ideals (Malikova 2021).

For Generation Z, connection to online networks is essential, and in-person connections are desired but difficult for them to foster (Madden, 2017). Members of Generation Z are considered self-motivated individuals who believe work should be synonymous with enjoyment (Madden, 2017; Seemiller, 2017). Those born to Generation Z often enjoy activities that feel nostalgic and have a new sense of humor that they value to build connections with others (Madden, 2017; Seemiller, 2017). Likewise, Millennials prioritize lifestyle and global

experiences and believe in traveling, waiting to get married until older ages, and staying in formal education longer (Madden, 2017). Members of Generation Z typically have short attention spans, require stimulation from multiple areas to learn effectively, and hold a lot of value in compassion towards others (Seemiller, 2017).

Generation Z searches for a sense of place and inclusivity, which makes them more aware of their role in the global environment and feel a greater sense of responsibility to help improve it (Vitelar, 2013). A study conducted by Malikova (2021) to learn Generation Z's perceptions of environmental problems found that 64% of the respondents in their study are "not indifferent" to the state of the environment. Despite their reported affinity for nature and the environment, Generation Z is spending less time outdoors compared to previous generations and is replacing this time with the internet and social media (Larson et al., 2019). This phenomenon is occurring in both rural and urban areas and is commonly linked to changes in activity preferences because of the popularity of the internet and increased urbanization (Larson et al., 2019).

Members of Generation Z reported spending an average of fewer than two hours a day outdoors (Larson et al., 2019). Their activity preferences are inconclusive because of a lack of studies on the subject, but related studies listed swimming, visiting local parks, camping, and community or school-based sports teams (Cairn Consulting Group & Kampgrounds of America, 2017; Dexter, 2018; Giachino et al., 2022; Reed et al., 2022). Hunting and did not make these lists of preferred outdoor activities.

Generation Z and Hunting

According to the 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, only two percent of the participants who hunt were aged 16-17 and only 9% were

aged 18-24 (U.S. Fish and Wildlife Service et al., 2018). These are older members of Generation Z, and the survey does not account for participation by the younger members of the generation. There are few studies analyzing who in Generation Z hunts and, according to AGFC the Conservation Wildlife Scientist, wildlife organizations such as AGFC have a hard time getting adequate responses from them in surveys. There are more articles and studies on if Millennials are participating in hunting, how to recruit Millennials for hunting and their general thoughts on hunting. Few, cover these categories for Generation Z.

However, because of the similarities between Generation Z and Millennials, some of these suggestions may continue to apply, particularly for recruiting Generation Z. For example, an article published by the National Rifle Association, suggests encouraging Millennials to participate in hunting by emphasizing how it applies to issues that are important to them: hunting is conservation, hunting is healthy, and hunting can be cheaper than getting bulk meat in the store (McKibbin, 2020). Other suggestions for engaging younger generations included creating condensed versions of state rules and regulations, becoming a mentor as a seasoned hunter, finding them discounts, and loaning them old equipment no longer being used (Izaak Walton League of America, 2018).

Members of Generation Z who do hunt, typically do so during their formative years, ages 12-17, likely because of parental figures, cheaper license prices, organized youth hunts, and other various incentives (Chase & Chase Consulting, 2017; Decker et al., 1984). However, as they grow older, enter college, and become adults, ages 18-26, there is a considerable number who lapse in their participation (Chase & Chase Consulting, 2017). In past generations, those who cease hunting in these years typically return once they have established jobs and disposable incomes (Chase & Chase Consulting, 2017). In response to the decline in hunting participation,

many wildlife institutions implement hunter recruitment, retention, and reactivation (R3) programs. R3 programs are a nationwide effort made by hunters, recreational shooters, and state-run wildlife stewardship organizations designed to strategically increase participation, diversity, and support of shooting sports, hunting, and angling (CAHSS, n.d.).

R3 programs can often fall into the trap of simply focusing on individuals who already plan to participate in hunting and need to shift their focus to those who are not already engaging in the sport (Moore, 2021a). Many of these programs are shifting focus to women, youth, people who value local food, families, and others to try and recruit new demographics (Stayton et al., 2017). In particular, R3 programs target young adults and college students, as recent studies have shown college students are receptive to these programs (Stayton et al., 2017).

To keep up with changing preferences, attitudes, and beliefs, teaching about wildlife management may need to cater to new preferences because terms such as “hunter” and “hunting” are not always looked on favorably by those who are outside of the industry (Everett & Raven, 2018; Lute et al., 2014). Environmental and ecological perceptions are commonly linked to other behavioral biases, but it is unclear what knowledge and understandings are held about hunting and its connection to conservation efforts, particularly by Generation Z (Hawcroft & Milfont, 2010). This is especially prevalent because social networks promoting wildlife management practices can influence stakeholder perceptions over time and because technology is integral in the daily lives of Generation Z and its members tend to spend close to nine hours a day on their mobile devices consuming online media and communicating on these platforms (IPSOS MORI, 2018; Madden, 2017; Triezenberg et al., 2011).

Generation Z Communication Preferences

Because many in Generation Z note they have a short attention span, books, articles, and other information are preferred in the form of quick, short summaries of the information online (Madden, 2017). Generation Z looks to the internet for information before considering a physical book and is less concerned with finding the experts on a topic (Madden, 2017). Instead, they gravitate to the “community” filled with collaborative answers, Google Scholar, or Wikipedia (Madden, 2017, p. 27). They also tend to value experts and seek to find sources that they deem to be credible (Madden, 2017).

Members of Generation Z commonly admit to being addicted to their phones and most spend nine hours on their devices each day (IPSOS MORI, 2018; Madden, 2017). Commonly connected to this, Generation Z prefers short-form content on the internet that is easy to find, consume, and move on (Madden, 2017). Many organizations attempt to adapt to the communication avenues preferred by upcoming generations (Stout, 2020). For Generation Z in particular, social media is utilized throughout most aspects of their lives (Vitelar, 2013).

Out of the various social media platforms, Facebook is used by older members of Generation Z and Millennials, while younger members of Generation Z tend to gravitate towards Instagram and Snapchat (Vitelar, 2013). In a study conducted by Vitelar (2013), 98% of the Generation Z participants had an Instagram and approximately 80% of the participants believed it was an effective platform for building brands. For both Millennials and Generation Z alike, videos are used to help make purchasing decisions, typically seen on YouTube, Instagram, and TikTok (Gassett, 2021; Genoveva, 2021). Likewise, 86% of Millennial participants in a Pew Research study reported using social media and cited Facebook as a top-used platform (Vogels, 2019). Nearly 100% say they use the internet (Vogels, 2019). Online branding is now extremely

important for companies as the younger generations age and enter the work environment and earn disposable incomes.

Between these two younger generations, over 75% follow companies on YouTube, 84% on Facebook, almost 50% on Twitter and around 40% follow brands and corporations on Instagram (Gassett, 2021). The Wildlife Management Institute recognized this trend and partnered with various state wildlife departments to receive a \$150,000 conservation grant to develop short-form videos, typically considered videos 30-60 seconds in length, to promote to and recruit Millennials and Generation Z (Gassett, 2021; Hubspot & Talkwalker, 2022). In recent years, TikTok has become a top platform among members of Generation Z and plays a large role in brand marketing and awareness (Genoveva, 2021).

TikTok saw a large increase in participants during the 2020 COVID-19 pandemic and, many being from Generation Z, and has caused other platforms to emulate the app's formatting through the addition of Instagram Reels, YouTube Shorts, etc. (Hubspot & Talkwalker, 2022) One important factor an organization needs to keep in mind when communicating online is credibility because this allows consumers to have increased trust in the reliability of the information and increases its value and success online and is extremely important to Generation Z (Hajli, 2016). Despite Generation Z's affinity for technology and the time spent on their phones, their preferred communication method is in-person, face-to-face communication (Seemiller, 2017).

Theoretical Framework: Outdoor Recreation Adoption Model (ORAM)

The Outdoor Recreation Adoption Model (ORAM) follows a Social Constructivism Interpretive Framework, which is used to recognize and understand how a participant's background and experiences influence perceptions (Creswell & Poth, 2018). ORAM is driven by

and derived from the Theory of Planned Behavior (TPB). TPB describes the correlation between a person's beliefs and their behaviors and explains how someone's attitudes, norms, and behaviors influence their intentions and performance (Ajzen, 1991). ORAM is a theoretical construct that defines recreational behavior based on social support and expands on the components of TPB to help develop R3 programs (Byrne & Dunfee, 2018).

The model, shown in Figure 1, describes the eight stages of choosing to adopt or reject a new activity: awareness, interest, trial, continuation with support (apprentice), continuation without focused support (no longer apprentice), continuation as a proponent, temporary lapse, and permanent lapse (Byrne & Dunfee, 2018). Using ORAM theory helps define the stages individuals progress through to adopt new activities based on attitudes, social support, and behaviors (Byrne & Dunfee, 2018).

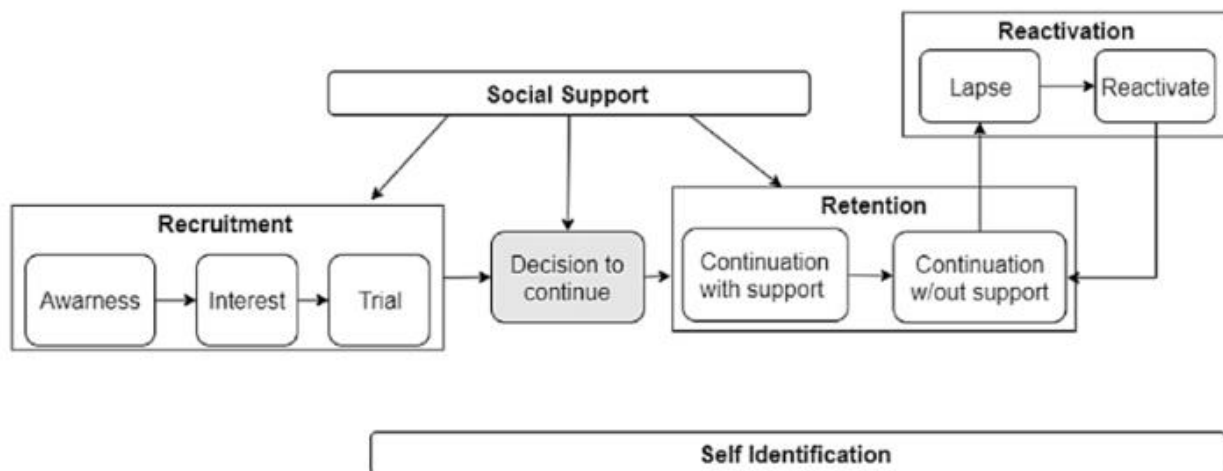


Figure 1. Modified ORAM Model proposed by Byrne & Dunfee in 2016 (Byrne & Dunfee, 2018).

The ORAM theory places great emphasis on the impact an individual's social support network has on their progression through the eight stages (Byrne & Dunfee, 2018). The four

pillars of social support, family, friends, community, and peers must all exist individuals to fully adopt hunting recreation and reach the stage of continuation without focused support (Byrne & Dunfee, 2018). This model helps wildlife organizations know how to best implement their R3 programs to reach defined target audiences and create these much-needed communities of social support, as seen in Figure 2 (Byrne & Dunfee, 2018). The individual's self-identity and social support system determine where in the recruitment, retention, and reactivation program they are, how they arrived there, and what measures must be taken to ensure they continue or start participation (Byrne & Dunfee, 2018).

The ORAM model allows organizations to focus their R3 efforts, visualize their R3 strengths and weaknesses, and clearly define their overarching goals (Byrne & Dunfee, 2018). It is important for state-run wildlife stewardship organizations to understand the motivations, preferences and opinions of a targeted audience to engage with them effectively (Shawky, 2019). Particularly with the computer generations, understanding the best methods for connecting and engaging with Generation Z allows for the creation of improved R3 programming. This study provides a framework for understanding Generation Z as a targeted audience in hunting and conservation communication efforts to help develop effective R3 programs based on their opinions and social support network (Figure 2).

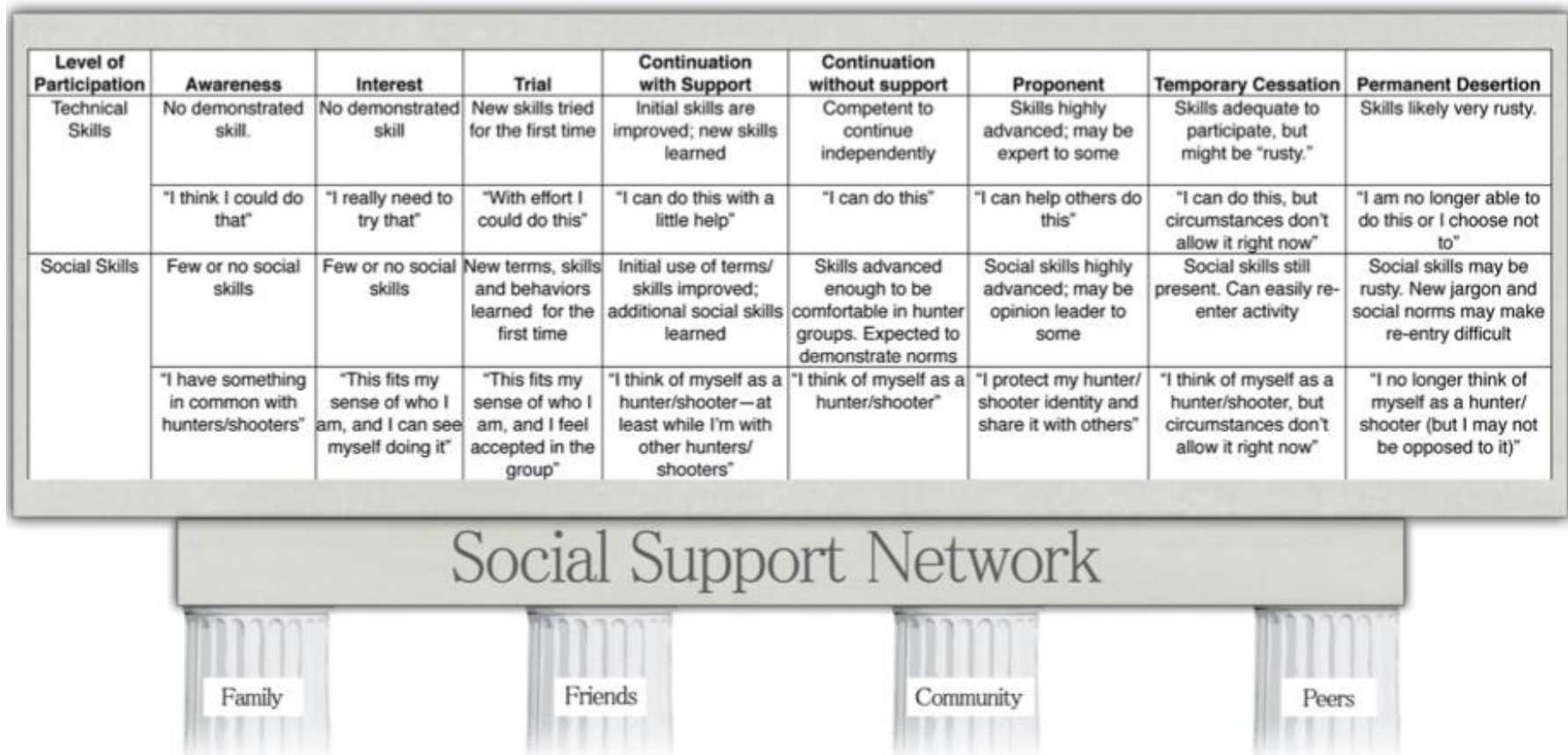


Figure 2. Depiction of the Hunting/Shooting Participation Classification System by the National Shooting Sports Foundation in 2009 (Byrne & Dunfee, 2018).

ORAM is an important component of Conservation Social Science. AGFC's Conservation Social Scientist described natural resource management as a "three-legged stool" involving species, habitat, and people (Arkansas Game and Fish Commission, 2021, 3:18). To better understand the role people play in managing our natural resources, it is necessary to understand Conservation Social Science. Habitat is not merely affected by organizations such as AGFC, hunters, and anglers, but is regularly influenced by landowners, business owners, etc. (Arkansas Game and Fish Commission, 2021). Applied social sciences study processes, phenomena, and individual attributes in the education and communication disciplines (Bennett et al., 2017). When applied to conservation, these methods can be used to understand perceptions and practices in conservation and learn how to make improvements (Bennett et al., 2017).

Individuals are more likely to have higher opinions of an activity if someone they know and value participates in it (Byrne & Dunfee, 2018). This study sought to understand Generation Z's perceptions of hunting and conservation through the lens of levels of participation: continuation, lapse, and awareness (Byrne & Dunfee, 2018). By using ORAM as a framework, responses can be compared by the level of participation by the individual, then further compared by their perceived levels of societal support (Byrne & Dunfee, 2018).

Summary of Literature

While hunting has held a prominent status in American society and played a major role in wildlife conservation since the late 1800s, participation in the activity has steadily declined since the 1980s (Altherr, 1987; Batcheller et al., 2018; Zellers, 2020). This decline leads to a concerning drop in funds for wildlife organizations, such as AGFC, to effectively complete their conservation efforts (Altherr, 1987; Zellers, 2020). Arkansas had 220,193 residents with hunting licenses in 2019, a 38,163 decrease from those registered in 2014 (Zellers, 2020). Anglers are

seeing a similar decline with a 68,550 drop in fishing license sales from 2014 to 2019 (Zellers, 2020). Wildlife organizations rely on revenue generated from the sale of hunting and fishing licenses to help fulfill the goals of their wildlife management plans. As a result, these organizations are looking for new ways to reach new audiences and younger generations, such as Generation Z, to participate in R3 programs.

Members of Generation Z are known for being tech-savvy, environmentally aware, and climate-conscious, despite their lack of time spent outdoors (Dimock, 2019; Larson et al., 2019, Malikova, 2021). There is a lack of research defining how members of Generation Z spend time outside and what their preferred activities are. Some studies suggest camping, swimming, visiting local parks, and participating in community or school-based sports as preferred activities, but few follow Generation Z as they enter adulthood and preferences change (Cairn Consulting Group & Campgrounds of America, 2017; Dexter, 2018; Giachino et al., 2022; Reed et al., 2022). No studies have listed hunting on the list of preferred outdoor activities.

Additionally, no published studies are designed to analyze Generation Z's perception of the hunting industry and how it relates to conservation or where they consume information on these topics. Generation Z members prefer to communicate on Instagram when using social media, though TikTok has become increasingly popular (Genoveva, 2021; Vitelar, 2013). Older members of Generation Z have an additional preference for Facebook and Snapchat (Vitelar, 2013). Short-form video content is one of the most effective methods for reaching this younger audience (Gassett, 2021; Genoveva, 2021). Despite their affinity for the internet, many members of Generation Z say they would call face-to-face communication their preferred method (Seemiller, 2017).

To achieve the purpose of this study, the researcher followed ORAM. This model is based on the TPB and follows a Social Constructivism Interpretive Framework to describe how beliefs and behaviors are influenced (Ajzen, 1991; Creswell & Poth, 2018). As a form of Conservation Social Science, the ORAM helps study the processes and phenomena that can be used to describe public perceptions in relation to conservation (Bennett et al. 2017). The ORAM is a theoretical construct that expands on the elements of TPB but focuses on recreational behavior, social support, and R3 programs (Byrne & Dunfee, 2018). It defines the factors influencing an individual's progress through the eight stages of adopting a new activity and helps wildlife organizations understand how to develop impactful and effective R3 programs for new target audiences (Byrne & Dunfee, 2018).

Chapter Three: Methods

Introduction

This study followed the mixed-methods explanatory research design with the follow-up explanations variant. For this study, focus was placed on the collection of quantitative data through surveys, with some qualitative data collection through open-response questions (Creswell & Clark, 2018). Then, based on the quantitative results, the researcher conducted qualitative data collection through follow-up, semi-structured interviews to expand upon and further explain results found within the survey data (Creswell & Clark, 2018).

Qualtrics surveys were sent to students at the University of Arkansas who were members of Generation Z, based on their birth year, and were United States citizens. Participants were contacted through professors teaching one or more courses, the University of Arkansas email daily news platform, and flyers. Participants who agreed to participate in follow-up interviews were contacted after the survey data collection period and interviews were conducted via Zoom. Quantitative results were analyzed using the SAS program and descriptive statistics were reported. Qualitative results were analyzed using the constant comparative method and NVivo 11 coding software (Miles, 2020).

Within this chapter, the design of the study, subject selection methods, instrumentation used, data collection, and data analysis were discussed. The following research objectives guided this study:

1. Describe how Generation Z perceives the relationship between hunting and environmental conservation.
2. Define what information on hunting or conservation Generation Z consumes to form these perceptions.

3. Determine which communication channels were used by Generation Z to receive this information.
4. Discover how members of Generation Z were engaging with the outdoors through outdoor activities.

Additionally, this study sought to use to the basis of the ORAM theoretical framework to compare individual societal support for participants who have hunted in the last five years, those who hunted as a minor but have not in the last five year, and those who have never hunted.

Design of the Study

To achieve the purpose of this study, the researcher followed the framework of a mixed-methods explanatory study to collect qualitative data that builds on quantitative results. In mixed-method explanatory studies, quantitative results are collected through surveys or other means and are followed by the collection of qualitative to provide further insight (Creswell & Clark, 2018). Quantitative data is designed to collect numbers and statistics to provide numerical explanations to answer quantifiable problems (Creswell & Clark, 2018; Creswell & Poth, 2018). Qualitative research is designed to collect words and study the world and social phenomena in their natural occurrence through the lenses of human experiences and interpretations (Creswell & Clark, 2018; Creswell & Poth, 2018).

Mixed-method studies combine both data collection styles and provide deeper insight into a problem and integrate two forms of data into the results of a study (Creswell & Clark, 2018). For this study, the researcher collected quantitative and qualitative data through a survey with both closed-response and open-response questions, then followed up with some of the participants through semi-structured interviews to gain further clarification on their responses to the questions (Creswell & Clark, 2018).

The researcher used a mixed-methods approach to collect initial data, both qualitative and quantitative, before collecting additional qualitative data through interviews to help explain significant or outlier results, or positive-performing exemplars (Creswell & Clark, 2018). Mixed-methods explanatory research has variants within the research design (Creswell & Clark, 2018). This study followed the follow-up explanations variant, which is the most common among the design variants (Creswell & Clark, 2018). This variant placed focus on the collection of the quantitative data, then qualitative data collection based on the needs seen through the initial data to provide additional explanation (Creswell & Clark, 2018). These can include follow-up interviews with participants or gathering documents to further explain the results of the quantitative portion of the study (Creswell & Clark, 2018).

Strengths for this method include organization and ease of implementation (Creswell & Clark, 2018). Challenges with conducting this form of study include the amount of time needed to complete each data collection period of study (Creswell & Clark, 2018). Additionally, the qualitative phase cannot always be fully specified when beginning, which can make it difficult to receive IRB approval (Creswell & Clark, 2018).

Subject Selection

Stratified purposeful sampling was used to select participants from the University of Arkansas who were members of Generation Z and U.S. citizens. This method of sampling was chosen because it allowed the researcher to survey audiences who meet specific demographic criteria (Creswell & Poth, 2018). The University of Arkansas also served as convenience sampling because of the researcher's access to the university student population, professors, and other resources (Creswell & Poth, 2018). The researcher sought to survey the demographic audience that best contributed to the research by selecting based on a shared social

phenomenon—attending the same university and being members of the same generation—while allowing for unique experiences—different majors and life experiences (Creswell & Poth, 2018).

Selecting an audience in this manner allowed the researcher to compare demographics with certain shared social phenomena while highlighting and analyzing their differences or similarities (Creswell & Poth, 2018). The University of Arkansas was chosen because it contains a diverse set of colleges and majors, and many currently enrolled students are members of Generation Z and U.S. citizens. Studies indicated that a student's major can impact their opinions and personality traits, and students in different majors are affected in vastly different ways (Xicheng et al., 2021).

With stratified purposeful sampling, the researcher can collect samples within their samples and categorize responses based on certain criteria or units (Patton, 2001). This allowed the researcher to further understand the elements influencing a response and helped organize data and answer the research questions (Patton, 2001). In this study, responses were broken into three categories: those who had participated in hunting in the last five years, those who had lapsed in hunting participation and had not hunted in the last five years but hunted as a minor, and those who had never participated in hunting. Subjects participating in this study were protected from harm through a protocol review by the University of Arkansas Internal Review Board, IRB# 2208419579 (see Appendix A).

Subject Characteristics

Generation Z consists of people born from 1997 to 2012. At the time of this study, the members of this generation were between the ages of 11 and 26. Because university students were being recruited, most participants were members of the older side of Generation Z, ages 18-25 (Data USA, 2020). Generation Z is currently the most racially and ethnically diverse

generation (Parker & Igielnik, 2020). According to Pew Research studies, 52% of Generation Z is White, 25% Hispanic or Latino, 14% Black or African American, 6% Asian, and 5% other (Parker & Igielnik, 2020). Generation Z is also expected to be the most educated generation to date (Parker & Igielnik, 2020). Of those no longer in high school, 57% were enrolled in either a two-year or four-year college program (Parker & Igielnik, 2020).

In 2020, 27,562 students were enrolled in the University of Arkansas (Data USA, 2020; University of Arkansas, 2021). Of these, 22,070 were enrolled as full-time students and 5,492 enrolled as part-time students (Data USA, 2020; University of Arkansas, 2021). Out of the total enrollment, which includes both undergraduate and graduate programs, the students were 79.2% White, 9.18% Hispanic or Latino, 4.54% Black or African American, 4.16% mixed race, 2.67% Asian, 0.831% American Indian or Alaskan Native, 0.109% Native Hawaiian or Pacific Islander (Data USA, 2020; University of Arkansas, 2021). For full-time undergraduate students specifically, 42% of students enrolled were White female, 33.5% White male, and 5.4% Hispanic or Latino female (Data USA, 2020). In graduate studies, enrolled students consisted of 37% White female, 30.5% White male, and 3.47% Hispanic or Latino female (Data USA, 2020; University of Arkansas, 2021).

The most common major for University of Arkansas in 2020 was General Marketing and Marketing Management, followed by General Finance and Registered Nursing (Data USA, 2020; University of Arkansas, 2021). The most common master's degrees were Engineering and Industrial Management, General Business Administration and Management, and General Engineering (Data USA, 2020). The majors most enrolled in by male students included General Finance, Engineering and Industrial Management, General Marketing and Marketing Management, General Business Administration and Management, and Logistics, Materials, &

Supply Chain Management (Data USA, 2020; University of Arkansas, 2021). The most common degrees women enrolled in included Registered Nursing, General Marketing and Marketing Management, General Psychology, General Biological Sciences, and Speech Communication and Rhetoric (Data USA, 2020; University of Arkansas, 2021).

Most students attending the University of Arkansas were Arkansas residents (University of Arkansas, n.d.). In 2021, The university's total enrollment increased from 27,562 to 29,068 (University of Arkansas, n.d.). Of these, 14,370 were Arkansas residents: 12,160 undergraduates, 1,948 graduates, and 262 law students (University of Arkansas, n.d.). Because of its proximity to the state and the university, the second largest demographic of students are from Texas. In 2020, 6,300 students at the University of Arkansas were Texas residents, which increased to 7,142 in 2021 (University of Arkansas, n.d.). This included 6,720 undergraduates, 372 graduates, and 50 law students (University of Arkansas, n.d.). The third largest state for enrollment was Missouri with 1,676 total students, 1,483 undergraduates, 177 graduates, and 16 law students, in 2021 (University of Arkansas, n.d.). While both states abut Arkansas, Texas had 5,466 more students than Missouri in 2021.

Cognitive Interviews

Once the survey questions were created, the researcher conducted cognitive interviews with 12 participants to test the effectiveness of the data collection methods. Likewise, the guiding questions developed for the semi-structured interviews were tested through these cognitive interviews to help provide clarity. Cognitive interviews were conducted to ensure the survey and interview questions effectively captured the data needed to successfully answer the research objectives (Creswell & Poth, 2018).

These interviews were conducted with members of Generation Z who were U.S. citizens and University of Arkansas alumni or current students at a different university either in or outside of Arkansas. The cognitive interviews were conducted with four males and eight females, all born between 1997 and 2000. These participants were White (11), Hispanic or Latino (1) and residents of Texas (7), Arkansas (2), Missouri (1), Idaho (1), and California (1). Participants reported political views ranging from very conservative to very liberal and consisted of six who had hunted in the last five years, one who had hunted as a minor but had not hunted in the last five years, and five who had never participated in hunting. This was a diverse pool of test subjects to reflect the potential demographic outcome of the final study.

Additionally, the survey instrument was analyzed and approved by a panel of experts in the field, including members of the thesis committee and a conservation science specialist and survey expert at AGFC. These cognitive interviews were conducted to refine the questions of the initial survey and interview questions to help provide clarity and mitigate any potential bias present (Creswell & Poth, 2018).

Subject Recruitment

Participants for this study were recruited through university professors teaching one or more courses, the University of Arkansas daily news platform, and flyers with a QR code posted in buildings across campus. The survey was developed in Qualtrics and contained both closed-ended and open-ended questions and was organized based on question type (Dillman et al., 2014). The survey received an expert review score of “Fair” in Qualtrics because of the expected duration for completion, 7-10 minutes, and the use of six open-ended questions when 3-5 is the recommended amount (Dillman et al., 2014).

Professors who received the survey fit the criteria of those who taught one or more courses during the data collection semester, giving them direct access to students, based on information provided in university course catalogs. The researcher contacted faculty members from each college at the University of Arkansas who fit the criteria with a recruitment email asking them to share the survey link with their students if they felt so inclined (Appendix B). A follow-up recruitment email was sent to the faculty 15 days later as a final push for survey participants, as seen in Appendix C (Dillman et al., 2014). Flyers were placed across campus in dorms, administrative buildings, the Union, and other locations where flyers were allowed (Appendix D). All necessary inquiries and permissions were received to hand flyers in these locations. Finally, the flyer and a short explanation of the study was published in the University of Arkansas News email newsletter twice a week for three weeks during the data collection period, visible in Appendix E (Dillman et al., 2014).

The researcher received a total of 913 survey responses with 679 usable responses, giving the survey 74.4% usable responses. The response rate was not calculated for this study because of the use of convenience sampling (Stratton, 2021). Of the usable responses, 267 had hunted in the last five years, 48 hunted as a minor but had not in the last five years, and 364 had never hunted. All survey information was kept confidential to the extent allowed by applicable State and Federal laws and university policy, which require that all records of research with human subjects must be maintained for a minimum of three years past the completion of the study. Names and any information shared that could reveal a participant's identity were omitted in the reports of the study. Records of responses were kept secure on a password-protected server.

At the end of the survey, participants were asked if they would be open to participating in semi-structured interviews to add validity to the survey data (Creswell & Poth, 2018). Survey

participants were incentivized to participate in the follow-up interviews with the knowledge that they would be entered to win a \$50 Amazon.com gift card after the completion of an interview (Dillman et al., 2014). At the conclusion of the interview data collection, all participants who had completed an interview were placed into an Excel sheet at randomly assigned numbers. The researcher used a number generator to randomly select the winner of the \$50 gift card. The researcher sent the gift card to the winner electronically through their previously provided email.

Participants interested in the follow-up interviews provided their email at the conclusion of the survey. A total of 307 participants (45.2% of respondents) indicated willingness to be contacted for follow-up interviews. Of these, 115 had hunted in the last five years, 20 hunted as a minor but had not in the last five years, and 172 had never hunted. Because of the high volume of participants, the researcher created three separate SignUpGenius links, an online scheduling platform, to schedule interviews: one for participants who hunt, one for those who hunted as a minor but had lapsed in participation, and one for those who had never hunted.

Each link had ten 30-minute slots participants could choose from to schedule their interview, for a total of 30 open interview slots. This allowed the research to easily organize the participants by group and conduct a manageable number of interviews within an allotted time period. If data had not reached saturation within the 10 interviews conducted, additional interview times would have been sent to the remaining participants interested in completing a follow-up interview (Creswell & Poth, 2018). However, the data reached saturation within the first round of interviews for each group, making a second round of interviews unnecessary (Creswell & Poth, 2018).

The interview scheduling email was sent out to all participants who provided an email and included an IRB approved informed consent document for their review (Appendix F;

Appendix K). Once a participant had signed up for a slot, an interview confirmation email with a scheduled Zoom meeting was sent to their inbox (Appendix G). The researcher initially had ten participants who hunt, five participants who had hunted but did not currently, and ten participants who had never hunted sign up for interviews. A second interview scheduling email was sent to participants who hunted as a minor who had not responded to the initial email (Appendix F). The researcher received two additional signups for a total of seven interview participants in this group.

If a participant was ten minutes late to their scheduled interview time, the researcher sent out a reminder email with the option to contact them directly to reschedule an interview time (Appendix H). Three participants rescheduled their interview times in this manner, one continued to not appear for their scheduled interview time. At the conclusion of the initial interviews, an email was sent to reschedule with participants (6) who had missed their initial interview times and not contacted the researcher (Appendix I). A follow-up rescheduling email was sent to participants who did not respond to the initial email after a period of a few days (Appendix J). Four participants never rescheduled or appeared for their interview (three who hunted as a minor, one who had never hunted).

The interviews concluded with ten participants who had hunted in the last five years, four participants who hunted as a minor but had not in the last five years, and nine participants who had never hunted, for a total of 23 follow-up interview participants. All interview information was kept confidential to the extent allowed by applicable State and Federal law, which require that all records of research with human subjects must be maintained for a minimum of three years past the completion of the study. Names were omitted in the reports of the study, and no information was shared that could reveal a participant's identity. Anonymous transcripts were

made during the interview process and were stored in a password-protected server. Audio recordings of the interviews were destroyed at the end of this study.

Instrumentation

Surveys are a common instrument used in many settings to quickly understand the audience's opinions or perceptions on a subject (Cozby & Bates, 2020). What began as mail-in surveys has rapidly grown and become modernized through computer technology and self-administered questionnaires (Dillman, 2007). The goal of these self-administered surveys is to create clear and concise questions that subjects will interpret in the same manner, and thus, provide accurate responses (Dillman, 2007). A survey was chosen for this study because of its ability to provide the researcher with the participant's perspectives to aid in answering a question or solving a problem (Dillman et al., 2014).

When administering surveys, the theory of social exchange must be considered (Dillman, 2007). This theory helps describe how individual actions are influenced by the expected return on investment or personal motivation of the individual (Dillman, 2007). In the case of self-administered surveys, offering incentive, appearing positive, and building trust helps generate a greater response rate (Dillman, 2007). Some common methods to create this incentive include saying thank you, making the content interesting, providing tangible rewards, and highlighting the important role the individual's response will play (Dillman, 2007). This study provided incentive by offering the chance to win a \$50 Amazon.com gift card to respondents who completed both the survey and a follow-up interview.

The social cost of completing a survey is what it takes from an individual to complete the instrument (Dillman, 2007). To eliminate this social cost, surveys should avoid embarrassing the individuals, should appear short and easy to answer, and should minimize any requests for

personal information (Dillman, 2007). All demographic questions included in this survey followed HubSpot recommendations, a credited marketing and sales platform that provides data and trainings for industry professionals (Fontanella, 2022). Demographic questions regarding race and ethnicity options followed the University of Arkansas verbiage when describing student enrollment statistics (University of Arkansas, n.d).

Trust is an important component to build in any form of research and this remains true for administering surveys. To help build trust with the subjects, the researcher should express their appreciation through words or an incentive at the beginning of the survey, describe the legitimacy of the organization and its work, and explain why receiving responses is important and how it is beneficial (Dillman, 2007). The researcher created trust with respondents by providing a detailed explanation of the study's purpose and intent as the beginning of the survey (Appendix L).

This study exclusively used a web-based survey developed in Qualtrics. The survey opened with the IRB approved informed consent description. If the respondent agreed, they first answered three qualifying questions to ensure they fit within the demographics required for the study: Born between 1997 and 2012, U.S. citizen, and a current student at the University of Arkansas. If they responded no to any of these qualifying questions, they were taken to the end of the survey and thanked for their time. If they responded yes to all qualifying questions, they continued through the open-ended and closed-ended questions until they reached the end of the survey.

The survey had a total of 53 questions with 47 being closed-ended and six being open-ended (Appendix M). Closed-ended questions were used to rate respondents perceived societal support of both hunting and conservation, as well as where they receive hunting and

conservation information from and how they preferred to spend time outdoors (Dillman et al., 2014). Open-ended questions were utilized to collect qualitative data on their perceptions of hunting and conservation but were used sparingly to maintain respondent motivation and encourage a higher response rate (Dillman et al., 2014).

The questions were developed based on the research objectives of the study (Creswell & Poth, 2018). Each question developed was connected to a research objective in a spreadsheet, before placed in the Qualtrics software (Creswell & Poth, 2018). The questions were not presented in order of the objectives, rather they were presented in a manner designed to make logical sense for a participant unaware of the research objectives (Dillman et al., 2014). To understand their perceived social support using ORAM as a model, participants were asked various questions about their community, family, and friend's participation in both hunting and conservation.

The research objective for understanding Generation Z's perceptions of how hunting relates to conservation were collected by asking this in an opened-ended question and through the use of close-ended questions about hunting and ecosystems, population management, etc. Understanding their information consumption was met by asking what the last information they read, heard or saw on hunting and conservation were. Their communication channels were learned by asking where they consumed the last information they read, heard or saw on hunting and conservation and where they typically consume such information. Finally, participants were asked to describe the time they spend outdoors, the activities they participate in outdoors, and who they spend time outdoors with to understand the final research objective.

The survey was tested on both laptop computers and phones to evaluate ease of use and design (Dillman et al., 2014). Questions were divided into categories—qualifying questions,

outdoor engagement, hunting participation, conservation participation, perceived relation between hunting and conservation, and demographic questions—to help participants understand the intent of the survey (Dillman et al., 2014). The survey used consistent university branding throughout to foster trust (Dillman, 2007). Participants were greeted with a welcome screen at the beginning of the survey and were thanked for their participation at the conclusion of the survey. If a respondent declined to participate in the follow-up interview, they were taken directly to the thank you screen. If a participant agreed to the follow-up interview, they provided their email address and were then taken to the thank you screen at the end of the survey. The survey was analyzed and approved by a panel of experts in the field, including members of the thesis committee, and a conservation science specialist and survey expert at AGFC.

Semi-structured interviews allowed the researcher to guide the interview with planned questions while allowing subjects to focus on the experiences relating to them to provide the researcher with valuable, in-depth looks at various viewpoints (Evans & Lewis, 2018). These interviews provide rich, qualitative data from the perspective of the individual (Creswell & Poth, 2018). The use of semi-structure interviews in qualitative research is considered one of the most prevalent data collection methods in social sciences (Bradford & Cullen, 2013).

One-on-one semi-structured interviews were conducted to gain further clarity on data collection results. The interview questions consisted of questions designed to gain further descriptions of open-ended survey responses and explanations for the reasoning behind close-ended survey responses (Creswell & Poth, 2018). While some responses appeared repetitive, the opportunity for participants to elaborate provided rich data and additional insight during the interview portion of the study (Creswell & Poth, 2018). The research objectives and the

statistical and thematic analysis of the survey results were used to form the guiding questions for the interviews to provide additional insight and understanding.

Questions were open-ended and designed to facilitate informative discussions between the researcher and the participant (Creswell & Poth, 2018). Follow-up interviews were conducted over Zoom for ease of transcription and scheduling (Wahl-Jorgensen, 2021). Each interview lasted 30-minutes or less and all participants provided verbal consent to continue with the interview and to be recorded for transcription purposes.

Responses were recorded, transcribed then analyzed and organized through NVivo 11 coding software and the constant comparative method (Merriam, 2009; Miles, 2020). Hand-coding is a heuristic form method of data analysis that allows the researcher to code chunks of data using the constant comparative thematic analysis. The constant comparative method allows the researcher to code and organize data based on emergent themes that become apparent as the researcher sorts through the data (Merriam, 2009).

Summary of Procedures for Data Collection

For purpose this study, the researcher conducted a survey to answer research questions using Qualtrics, a survey development software. The surveys were created with Likert scale, select all that apply, and open-ended questions to gain effective responses for answering the research questions. The survey was administered through the University of Arkansas campus-wide email newsletter, Arkansas News, flyers, and in courses across the university through contact with university faculty. At the end of each survey, participants were asked if they would be willing to answer any follow-up questions the researcher might have through an interview. If they answered yes, they were provided with an area to add their email address. Participants were incentivized to say yes by being told those who completed an interview would be entered to win

a \$50 Amazon.com gift card. Email addresses were stored separately from survey results and were not used when analyzing data. Participants were made aware of these efforts towards maintaining privacy and were assured, even if they provide their email initially, they could withdraw at any time.

Interviews were semi-structured and recorded through Zoom, a popular platform used for virtual video conferencing and business meetings. The interviews allowed the researcher to ask specific questions designed to gain further insight on the answers provided by the subjects while allowing subjects to add additional explanations and insight (Creswell & Poth, 2018). One-on-one interviews helped the researcher collect more personal data on the participants by creating an environment where they felt comfortable sharing information (Creswell & Poth, 2018). These interviews were all conducted in the private home office of the researcher to create additional comfort for the interviewee and avoid unnecessary distractions for both parties (Creswell & Poth, 2018). All interviews were recorded with the participant's verbal consent and followed the guiding questions developed earlier within the study.

Procedures for Data Analysis

Survey data was collected and initially stored through Qualtrics. Results were then downloaded into an Excel sheet where any participants who did not fit the study criteria or did not completely answer the survey were removed. Then, data was converted into a numerical format to be used in formulas in SAS, a statistical analysis program. Closed-ended questions analyzed for frequencies, high and low scores in perceptions of hunting, and high and low scores for personal societal support of hunting from questions based on the ORAM model. Scores rated on a Likert scale were considered high when over the mean score of 3 and low when under the mean score of 3. The data was analyzed as a whole, and between three categories, hunts, hunted,

and never hunted, to compare ORAM societal support and general hunting opinions. The researcher also used descriptive statistics to examine the relationship between respondents who actively hunt, hunted as a minor, have never hunted and their attitudes and perceptions towards hunting (Byrd, 2017). Additionally, descriptive statistics were used to determine the perceived societal support of hunting for participants in each group, based on their responses to questions based on the ORAM theoretical framework (Byrd, 2017).

Open-ended questions were analyzed using the constant comparative method through NVivo 11 coding software to discover emergent themes (Merriam, 2009; Miles, 2020). Codes and themes were cross-checked to provide validity by outside qualitative researchers (Miles et al., 2020). Comparisons were made between participants in each of the three categories. Because of the nature of the study, survey results followed the structure of phenomenology studies because they reflect participants perceptions, feeling about, and experiences with hunting, conservation, and the outdoors (Guest et al., 2012). Results were analyzed with a positivism thematic analysis. This method of analysis emphasizes the importance of deriving results directly from the data collected and demonstrating the systematic and transparent nature of the data collection methods (Guest et al., 2012).

Recordings from follow-up interviews were transcribed then organized and coded using NVivo 11 coding software (Miles, 2020). Interviews were analyzed based on the three participant categories, those who actively hunt, those who hunted as a minor and lapsed in participation, and those who have never hunted to compare ORAM societal support and general hunting opinions. The constant comparative method uses a systematic approach to collect data and discover the emergent themes through the analysis process (Merriam, 2009).

NVivo 11 coding software was utilized to code using the constant comparative method by guiding the axial coding process and organizing the use of specific words or phrases by participants during the interviews (Meriam, 2009; Miles, 2020). These were then used to create the themes and subthemes of the study (Meriam, 2009). Once coding was completed, the subsequent themes were analyzed into findings based on the research objectives (Miles et al., 2020). This study follows a three-step thematic analysis process where the data is reduced, displayed, and then draw into conclusions with verification (Miles et al., 2020). This thematic analysis allows the researcher to effectively describe what the data is saying (Miles et al., 2020).

Rigor

In qualitative research, credibility and trustworthiness are necessary to help establish the validity of a study (Creswell & Poth, 2018). Credibility and trustworthiness were established in this study through triangulation with an extensive literature review describing the situation and need for the study and the use of survey and follow-up interviews. To maintain credibility in the research, biases and assumptions are expressed and challenged through peer debriefing and by triangulation of sources to evaluate the consistency of the data (Creswell & Poth, 2018).

This study demonstrated transferability through providing a thick description to give detailed accounts of the patterns and relationships (Creswell & Poth, 2018). To establish dependability, this study used external auditing by having multiple researchers outside of the study review the methods, survey instrument, and conclusions (Creswell & Poth, 2018). The researcher conducted through notetaking during the entire data collection period and research process and included a reflexivity statement to establish the researcher's role within the study (Creswell & Poth, 2018).

Reflexivity Statement

The researcher strived to maintain objectivity throughout the data collection and analysis process. However, understanding her personal and professional backgrounds is important to add additional context for the study and help explain potential biases in interpretations. The researcher grew up hunting and learning about how hunting relates to conservation and maintaining ecosystems. She continues to hunt and regularly educates herself on the hunting and conservation practices. The researcher has completed hunter education certification in Texas and is the daughter of a former hunter education instructor and avid hunter. She is attending the University of Arkansas but is a Texas resident and, as of writing this statement, has only hunted in Texas. These personal and professional relations to hunting could contribute to the researcher's data analysis and be the source of any subjective interpretations that may appear in the study.

Summary of Methodology

This chapter provides a detailed explanation of the steps the researcher took to collect and analyze data based on research objectives and the purpose of the study. Participants were selected using stratified purposeful sampling to find subjects who are members of Generation Z, U.S. citizens and were enrolled in the University of Arkansas. Quantitative and qualitative data was collected using a Qualtrics survey distributed through in-person classes, flyers, and emails. Follow-up interviews, conducted using Zoom, collected additional qualitative data.

Closed-ended survey responses were analyzed using the SAS software with frequencies, Chi-Square, and logistic regressions. Open-ended survey questions and follow-up interviews were analyzed using the constant comparative method and NVivo 11 coding software. All results were analyzed both as a whole and divided into three categories: those who hunt, those who

hunted as a minor but lapsed in participation, and those who have never hunted. At the completion of the data analysis, findings were organized based on research objectives.

Chapter Four: Results

Introduction

In this chapter, the results generated from the survey and interview responses during the data analysis process. The results in each section were organized based on the research objectives. The first section describes the overall demographics of the survey responses, and the demographics by the three identified groups: those who have hunted in the last five years, those who hunted as a minor but have not in the last five years, and those who have never hunted. The second section describes the survey responses by group. The third section describes the interview results by group and interviewee demographics. The final section presents key findings.

Methodology Summary

Data was collected using a Qualtrics survey with open-ended and close-ended questions. All participants fit the criteria: Members of Generation Z, U.S. citizens, and current students at the University of Arkansas. Semi-structured follow-up interviews were conducted with survey participants following the results. Quantitative survey results were analyzed using descriptive statistics. Qualitative survey and interview results were analyzed using the constant comparative method and NVivo 11 coding software.

Survey

Below includes all qualitative and quantitative data collected from the survey. Demographics were reported for the survey participants as a whole and by hunts, hunted, and never hunted categorizations. Open-ended survey questions were described using themes discovered using the constant comparative method and NVivo 11 coding software and sectioned based on groups. Closed-ended questions were reported using descriptive statistics.

Responses were divided by group, then further divided by the four research objectives:

perceived relationship between hunting and conservation, information consumption on hunting and conservation, communication channels used for this information, and outdoor engagement. Themes included topics that received significant discussion (Meriam, 2009). Subthemes included topics that also received significant discussion but fit within the discussion topics of another theme and is secondary to a larger theme (Meriam, 2009).

Overall Survey Respondent Demographics

Participants in the survey portion of this research were mostly Arkansas residents (n = 367; 54.05%) followed by Texas (n = 175; 25.77%) and Missouri (n = 43; 6.33%). The next highest states of residence were Kansas (n = 23; 3.39%), Oklahoma (n = 21; 3.09%), Tennessee (n = 11; 1.62%), California (n = 6; 0.88%), Illinois (n = 5; 0.74%), Georgia and (n = 4; 0.59%). The remaining participants were from Florida, Louisiana, and Pennsylvania, (all n = 3; 0.44% each), or New York, Ohio, South Carolina, and Washington (all n = 2; 0.29% each), or Alaska, Arizona, Colorado, Mississippi, Nebraska Virginia, and Wisconsin (all n = 1; 0.15% each).

The survey participants consisted of more females (n = 384; 56.55%) than males (n = 275; 40.50) with 20 selecting either non-binary or prefer not to say (2.97%). All participants were older members of Generation Z. Most participants were members of Generation Z born in 2003, followed by 2002 and 2001 (shown in Table 1).

Table 1*Frequencies of Year Born for Survey Participants*

Year	Freq	%	Cumulative Freq	Cumulative %
1997	12	1.77	12	1.77
1998	22	3.24	34	5.01
1999	26	3.83	60	8.84
2000	63	9.28	123	18.11
2001	127	18.70	250	36.82
2002	138	20.32	388	57.14
2003	176	25.92	564	83.06
2004	115	16.94	679	100.00

Survey participants were White (n = 546; 80.41%), followed by Latino or Hispanic (n = 35; 5.15%), Black or African American (n = 32; 4.71%), and mixed race (n = 30; 4.42%). The remaining participants were Asian (n = 13; 1.91%), prefer not to say (n = 13; 1.91%) and American Indian or Alaskan Native (n = 10; 1.47%). Most of the participants had completed high school as their highest level of education (n = 512; 75.41%). Completion of an Associate's degree (n = 78; 11.49%), Bachelor's degree (n = 73; 10.75%) and Master's degree (n = 5; 0.74%) followed. All students were students at the University of Arkansas.

Most participants were enrolled in the Dale Bumpers College of Agriculture, Food and Life Sciences (n = 242; 35.64%), the Sam M. Walton College of Business (n = 210; 30.93%) or the J. William Fulbright College of Arts and Sciences (n = 108; 15.91%). Other participants

hailed from the College of Education and Health Professionals (n = 52; 7.66%) the College of Engineering (n = 49; 7.22%), a combination of colleges because of double majors (n = 11; 1.62%), the Fay Jones School of Architecture and Design (n = 5; 0.74%) or the School of Law (n = 2; 0.29%).

Most participants said their religious beliefs followed Christianity (n = 498; 73.34%). Atheist (n = 61; 8.98%), prefer not to say (n = 55; 8.10%), and other (n = 52; 7.66%) were reported religious beliefs held by respondents. The remaining participants said their religious beliefs followed Judaism (n = 6; 0.88%), Buddhism (n = 4; 0.59%), or Islam (n = 3; 0.44%). When asked about political viewpoints, most participants reported them as slightly conservative (n = 167; 24.59%), very conservative (n = 138; 20.32%), neither liberal nor conservative (n = 128; 18.85%), or slightly liberal (n = 111; 16.35%). The remaining participants reporting being very liberal (n = 82; 12.08%) and other (n = 53; 7.81%).

Two questions were used to divide the participants into the three categories of those who currently hunt, those who hunted as a minor but do not currently hunt, and those who have never hunted: Have you hunted (large game, small game, bird hunting, trophy hunting, etc.) in the U.S. in the last five years, and did you hunt (large game, small game, bird hunting, trophy hunting, etc.) in the U.S. as a minor? If “yes” was selected for both categories the individual was marked as “hunts;” if “yes” was selected for the first question and “no” or “unsure” was selected for the second, the individual was marked as “hunts.” If “no” or “unsure” was selected for the first question and “yes” for the second, the individual was marked as “hunted.” If “no” or “unsure” was selected in both categories, the individual was marked as “never hunted.”

Henceforth, participants who said they have hunted in the last five years will be referred to as the “hunts” groups, participants who said they have not hunted in the last five years but did

as a minor will be known as the “hunted” group, and participants who said they have never participated in hunting will be called the “never hunted” group. 267 participants were placed in the “hunts” category, 48 were placed in the “hunted” category, and 364 were placed in the “never hunted” category. Demographics by category will be discussed in the following section. Results in each category are organized based on the research objectives:

1. Describe how Generation Z perceives the relationship between hunting and environmental conservation.
2. Define what information on hunting or conservation Generation Z consumes to form these perceptions.
3. Determine which communication channels were used by Generation Z to receive this information.
4. Discover how members of Generation Z were engaging with the outdoors through outdoor activities.

Survey Respondent Demographics by Group: Hunts

Participants who hunt were mostly residents of Arkansas ($n = 145$; 54.31%) or Texas ($n = 74$; 27.72%), followed by Missouri ($n = 11$; 4.12%) and Oklahoma ($n = 11$; 4.12%) then Kansas ($n = 9$; 3.37%) and Tennessee ($n = 6$; 2.25%). Other states included Georgia and South Carolina (both $n = 2$; 0.75% each) then California, Illinois, Louisiana, New York, Ohio, Washington, and Wisconsin (all $n = 1$; 0.37% each).

Survey respondents in the hunts category were mostly male ($n = 162$; 60.67%), followed by female ($n = 98$; 36.70%) and prefer not to say ($n = 6$; 2.25%). These participants were mainly born in 2003 ($n = 68$; 25.47%), 2001 ($n = 57$; 21.35%), and 2022 ($n = 54$; 20.22%), followed closely by 48 born in 2004 at 17.98% (shown in Table 2).

Table 2*Frequencies of Year Born for Survey Participants in the “Hunts” Category*

Year	Freq	%	Cumulative Freq	Cumulative %
1997	2	0.75	2	0.75
1998	8	3.00	10	3.75
1999	10	3.75	20	7.49
2000	20	7.49	40	14.98
2001	57	21.35	97	36.33
2002	54	20.22	151	56.55
2003	68	25.47	219	82.02
2004	48	17.98	267	100.00

The majority of respondents in the hunts category listed their ethnicity as White (n = 231; 86.52%). This was followed by Black or African American (n = 11; 4.12), mixed race (n = 9; 3.37%) and American Indian or Alaskan Native (n = 7; 2.62%). The remaining participants were either Latino or Hispanic (n = 5; 1.87%), prefer not to say (n = 3; 1.12%), or Asian (n = 1; 0.37%).

Members of this category said their highest level of education completed was high school (n = 197; 73.78%), Associate’s degree (n = 42; 15.73%), Bachelor’s degree (n = 25; 9.36%) or Master’s degree (n = 1; 0.37%). Most were enrolled in the Dale Bumpers College of Agriculture, Food and Life Sciences (n = 121; 45.32%) or the Sam M. Walton College of Business (n = 85; 31.84%). This was followed by participants in the J. William Fulbright College of Arts and

Sciences (n = 25; 9.36%), the College of Education and Health Professionals (n = 16; 5.99%) and the College of Engineering (n = 15; 5.62%). The remaining participants were either in the Fay Jones School of Architecture and Design (n = 3; 1.12%) or were in multiple colleges because of double majors (n = 2; 0.75%).

Those who hunt were predominately Christian (n = 235; 88.10%). Those who preferred not to say (n = 12; 4.49%), Atheists (n = 10; 3.75%) and other (n = 8; 3.00%) were the next highest. Two participants were Buddhists (0.75%). Political views consisted of primarily slightly conservative (n = 93; 34.83%) or very conservative (n = 85; 31.84%). Neither liberal nor conservative was the next highest (n = 41; 15.36%), followed by slightly liberal (n = 9; 3.37%), other (n = 16; 5.99%) and very liberal (n = 9; 3.37%).

Survey Respondent Demographics by Group: Hunted

Respondents who fell into the hunted category were predominately from Arkansas (n = 36; 75.00%) and Texas (n = 8; 16.67%). The remaining participants were from either from Missouri (n = 2; 4.17%), Louisiana (n = 1; 2.08%), or Florida (n = 1; 2.08%). These respondents consisted of 31 females (64.58%) and 17 males (35.42%) and were primarily born in either 2001 (n = 15; 31.25%) or 2003 (n = 14; 29.17%), as seen in Table 3.

Table 3*Frequencies of Year Born for Survey Participants in the “Hunted” Category*

Year	Freq	%	Cumulative Freq	Cumulative %
1997	4	8.33	4	8.33
1998	3	6.25	7	14.58
1999	3	6.25	10	20.83
2000	4	8.33	14	29.17
2001	15	31.25	29	60.42
2002	4	8.33	33	68.75
2003	14	29.17	47	97.92
2004	1	2.08	48	100.00

Those who had hunted were predominately White (n = 36; 75.00%), followed by mixed race (n = 5; 10.42%), and Latino or Hispanic (n = 3; 6.25%). Others within the group were either Black or African American (n = 2; 4.17%), American Indian or Alaskan Native (n = 1; 2.08%) or prefer not to say (n = 1; 2.08%).

Their highest completed levels of education were high school (29, 60.42%), Bachelor’s degree (n = 10; 20.83%), Associate’s degree (n = 7; 14.58%) and finally Master’s degree (n = 1; 2.08%). Most participants were in the Dale Bumpers College of Agriculture, Food and Life Sciences (n = 15; 31.25%), the J. William Fulbright College of Arts and Sciences (n = 12; 25.00%), and the Sam M. Walton College of Business (n = 11; 22.92%). The remaining participants were enrolled in the College of Engineering (n = 5; 10.42%), the College of

Education and Health Professionals (n = 3; 6.25%), the School of Law (n = 1; 2.08%), or multiple because of dual majors (n = 1; 2.08%).

The majority of participants within this category were Christian (n = 31; 64.58%). Other participants said they were other (n = 7; 14.58%), preferred not to say (n = 5; 10.42%), Atheist (n = 4; 8.33%), or Judaism (n = 1; 2.08%). These participants were mainly neither liberal nor conservative (n = 16; 33.33%) or slightly conservative (n = 10; 20.83%) in political viewpoints. Others were slightly liberal (n = 9; 18.75%), very liberal (n = 8; 16.67%), and very conservative (n = 5; 10.42%).

Survey Respondent Demographics by Group: Never Hunted

Similar to the other groups, participants who had never hunted were predominately from Arkansas (n = 186; 51.10%) and Texas (n = 93; 25.55%). This group was mostly female (n = 255; 70.05%), followed by male (n = 96; 26.37%) and either non-binary or prefer not to say (n = 13; 3.57%). Most respondents were born in either 2003 (n = 94; 25.82%) or 2022 (n = 80; 21.98%), followed closely by 2004 (n = 66; 18.13%) and 2001 (n = 55; 15.11%), as shown in Table 4.

Table 4*Frequencies of Year Born for Survey Participants in the “Never Hunted” Category*

Year	Freq	%	Cumulative Freq	Cumulative %
1997	6	1.65	6	1.65
1998	11	3.02	17	4.67
1999	13	3.57	30	8.24
2000	39	10.71	69	18.96
2001	55	15.11	124	34.07
2002	80	21.98	204	56.04
2003	94	25.82	298	81.87
2004	66	18.13	364	100.00

Respondents who have never hunted were predominately White (n = 279; 76.65%). Additional participants were Latino or Hispanic (n = 27; 7.42%), Black or African American (n = 19; 5.22%), and mixed race (n = 16; 4.40%). The remaining participants were Asian (n = 12; 3.30%), prefer not to say (n = 9; 2.47%), or American Indian or Alaskan Native (n = 2; 0.55%).

Their highest reported level of education completed was high school (n = 288; 79.12%). Others in the group had completed a Bachelor’s degree (n = 38; 10.44%), an Associate’s degree (n = 29; 7.97%), or a Master’s degree (n = 3; 0.82%). Most were enrolled in the Sam M. Walton College of Business (n = 114; 31.32%) or the Dale Bumpers College of Agriculture, Food and Life Sciences (n = 106; 29.12%). Others were enrolled in the J. William Fulbright College of Arts and Sciences (n = 71; 19.51%), the College of Education and Health Professionals (n = 33;

9.07%), and the College of Engineering (n = 29; 7.97%). Eight were enrolled in multiple because of double majors (2.20%), two in the Fay Jones School of Architecture and Design (0.55%), and one in the School of Law (0.27%).

These participants primarily selected Christianity as their religion (n = 232; 63.74%), followed by Atheist (n = 47; 12.91%), prefer not to say (n = 38; 10.44%), and other (n = 37; 10.16%). Five within the group selected Judaism (1.37%), three selected Islam (0.82%) and two selected Buddhism (0.55%). For political viewpoints, 79 reported being slightly liberal (21.70%), 71 neither liberal nor conservative (19.51%), 65 as very liberal (17.86%) and 64 as slightly conservative (13.19%). The remainder were very conservative (n = 14; 13.19%) or prefer not to say (n = 37; 10.16%).

Survey Responses: Hunts

This section includes all survey responses from those who were categorized into the hunts category based on the qualifying questions. The questions are divided based on the four research objectives: perceived relationship between hunting and conservation, information consumption on hunting and conservation, communication channels used for this information, and outdoor engagement. The data below includes all quantitative and qualitative information collected from the surveys through the closed and open-ended questions. Qualitative data collected from the interviews appears in later sections. All quotes given are representative of participants supporting each theme.

Hunting and Conservation: Hunts Survey Responses

The first research objective for this study was to describe how Generation Z perceives the relationship between hunting and conservation. To answer this, participants were asked to define, in their own word, hunting and environmental conservation. To understand their opinions of

hunting, participants were asked if they agreed or disagreed about statements regarding hunting for food, sport, and wildlife management. To see if participants were aware of some of the monetary donations hunters make towards environmental conservation, they were asked about two conservation taxes: one within the state of Arkansas and one a national Act.

Participants were also asked if they cared greatly about environmental conservation and their perceptions of the role AGFC plays in it. Additionally, participants were asked if they believe hunting relates to environmental conservation and then ask to explain the reason for their answer. To understand the perceived relationship between hunting and environmental conservation, participants were asked if they agreed with statements about benefit, population control, balancing ecosystems, invasive and native species, and regulations.

Participants were first asked to define “hunting” in their own words and themes were generated from the responses. One key theme that emerge was that hunting is about getting food or other materials. Often, participants discussed providing food for families saying, “Hunting is the act of killing an animal to provide for your family. Hunting brings me a sense of pride because I feel like I’m adequately providing food for my family,” and “Hunting is the pursuit of an animal with the intention of harvesting its meat in order to provide for one's family.” Many described why hunting is more than just killing an animal:

Harvesting an animal with the intent to eat it. Hunting is more than just killing; hunting is a sport and there's a lot of work and practice that goes into it. If it were just killing animals, it would be called killing. But we hunters don't get all pumped up after a harvest for no reason, it is because of all the work and practice that it took to achieve the reward of the harvest. It's about the chase not just about the killing of the animal.

Participants often mentioned not being wasteful of the animal saying, “Harvesting an animal both for the sport of it and to use every part of it in a non-wasteful manner,” “Going outdoors with the goal of legally killing a wild animal. I do this exclusively for food and other

utility harvested items and do not waste them,” and “Going out and legally harvesting animals (bird, pig, deer, etc.) for fun but also using all of the animal for food, clothes, etc. In order to not be wasteful of what the environment provides.” Oftentimes, participants described this as the intended use of the animal saying, “Bagging animals for meat like they were intended to be used for in the Bible. Helps control the populations.” Many discussed the full process of hunting for food and why:

Hunting can be considered a sport. However, I strongly believe that word makes it sound morbid or even immoral. I’ve grown up hunting my entire life, my dad taught me the ins and outs of guns and how they work. As well as the act of hunting animals. Hunting for me is a fun activity that is spent with family and friends in the great outdoors. Hunting is something that you can get better at with practice and time. Hunting for me, however, is not a sport in which killing animals is the entire goal, if I kill an animal it’s not just for fun, every piece of that animal is used for something, the meat from a deer can feed my entire family for a long time, the hide can be turned into many things. When I am hunting, I am hunting for food and do it in the most moral way possible.

The second theme that emerged was hunting is about spending time outdoors. Many discussed spending time in nature such as, “Sport of adapting to nature to enjoy wildlife and provide food for family and friends,” “The pursuit of an animal for both food and the ability to truly connect with the land around us,” and, “Hunting allows you to be in the outdoors learning about the animal you are trying to hunt and enjoying time in the woods.” Using hunting as a way to be outdoors and relieve stress was discussed:

Hunting is the pleasure of seeking and killing overpopulated wildlife. Hunting is a great way to spend quality time with family as well as provide food on the table. One of the best aspects of hunting is the outdoors and the peacefulness of the quiet. In a loud world, hunting is a stress reliever.

Many focused on the idea of immersing themselves into nature saying, “Hunting is the act of fully immersing yourself in the outdoors with the intent to become closer to wildlife and your personal thoughts, emotions, and actions,” and “The pursuit of a game animal for the

enjoyment of the hunt and the meat that comes from it. Spending time in creation with the Creator.” Connecting with nature was a common phrase used throughout:

Hunting is a way to connect with nature by becoming one with it. You must walk in and walk out without disturbing anything (aside from the potential kill of an animal that you are after). It is a way to learn more about animals in their habitats and learning more about nature as a whole. Shooting is 10% of the hunt, the rest is gauging every other aspect that goes into not being seen by your target animal.

Connection with others was another theme that emerged during the data analysis. Some simply said, “Hunting is spending time with my family,” “Family activity to get food,” and, “Fun and exciting when doing with a group of guys.” Many discuss the memories made on hunting trips saying, “Me and my friends duck hunt every weekend during season. One line to describe duck hunting with your friends is ‘you create a lifetime of memories in those 60 days.’” Others combined this theme with connection to nature:

I think of hunting as an appreciation of nature. Most of the hunt, even if unsuccessful results in a large time spent in the quiet of nature, where I can observe the wildlife and the plants. A successful hunt will result in food for my family and bonding time with my parents.

Hunting as a lifestyle was another emergent theme throughout the responses. Some simply described it as, “a way of life,” and “A necessity of life.” The amount of planning involved was often discussed with some participants saying, “A thrilling activity that requires hours of planning and knowledge. It’s going out and hunting an animal for game.” Participants described how it brings a sense of purpose:

Hunting is a person’s past time and way of life. We put a lot of time and effort into scouting animals. We also spend a lot of money for all the equipment that can be used. Hunting gives people a sense of purpose, if they go out can kill something their happy because they are providing for their families.

Some discussed how there are multiple side to hunting saying, “Hunting is a way of life for many people. Rather it's a need for food or a motivation of conservation. Hunting is the most humane and fair way to gain food.” Proper use of equipment and knowledge were also discussed:

Is taking your time to learn how to use your equipment the right way to take an animal the right way without doing anything wrong. Either taking the game as trophy or for meat. And if you just want to take the game as a trophy animal then donate the meat to a place for people in need.

A subtheme seen in this category was hunting involves learning. Many discussed understanding the animal they are pursuing and knowledge of gear. Some participants defined hunting as, “Analyzing animal behavior and using tactics to then all animals for the purpose of meat.”

Legal killing of animals was another common theme that emerged. Participants described hunting as, “Assisting conservation efforts and obtaining meat through the act of legally stalking and harvesting a wild animal,” and “Legally tracking and slaying animals for a source of food or competition,” or, “The act of going and looking or pursuing wildlife or feral animals for food and sport. But it has to be done under regulation.” Many mentioned actively looking for an animal by defining hunting as, “The pursuit of game animals. Hunters follow limits and season,” and, “Legal chase if wild game.”

The utility of the animal was a common topic as some participants defined it as, “Licensed killing of animals that are of season, necessary removal, or sport,” and “Going outdoors with the goal of legally harvesting a wild animal. I do this exclusively for food and other utility items.” Legally harvesting animals for population control was an additional talking point as some participants said hunting is, “The process of tracking, killing, and harvesting a legal animal for food, or other products that can be made from their body either for sport, survival, conservation/population management, or any mix of those three,” and, “The ethical and

legal killing of animals for food and population control.” Many emphasized the importance of ethics saying, “Hunting to me is harvesting an approved animal to control population/prevent varmints/pleasure. I think it's important to do everything lawfully along with respectfully to the animal.”

Population control was also an emergent theme on its own. Many discussed how hunting can help balance ecosystems in their definition by saying, “The pursuit of game animals (deer, turkeys, pheasants, etc.) in search of food and sport (trophy hunting) or the pursuit of invasive species to eliminate the threat on the ecosystem for a particular area,” and “Hunting is the activity of tracking, gathering, and killing of animals while still being a conservationist because it helps balance ecosystems.” Population management was often listed as a key point in the definition of hunting with participants saying, “Hunting is the privilege of harvesting animals for the purpose of food, land conservation, wildlife management, or population control,” and, “Harvesting a wild animal to provide food and for yourself or others while also managing the population of wildlife in the area.

The benefit hunting has toward land management through population control was also a common topic:

The responsible conservation and maintenance of animal populations in order to keep good, healthy genetics in a species. Hunting also is land conservation. If we don't kill enough animals to maintain the wild population, the land will be over run, causing animals to seek shelter and food here in the city.

Many viewed hunting and population control as a conservation effort saying, “Hunting is a conservation effort to keep animal populations in control,” and “Hunting is a sport-like activity that has evolved from being a survival skill to being a population management and conservation practice when used correctly. Hunting can be for sport or simply to add more meat to the freezer.” Some participants noted that the definition of hunting can vary based on the purpose:

It depends on how you look at it. To me it's conservation and a means to acquire food for my family. If we didn't hunt for ducks, we wouldn't go out of our way to preserve and develop land for their breeding and migration. We hunt for deer to supply food and manage the populations. If we didn't, we would either kill them all or let them take over and it's not good for the ecosystems. If we didn't hunt, then we wouldn't be benefitting the overall well-being for our ecosystems.

The final emergent theme was trophy hunting. While many mentioned hunting for sport or trophy in their definition such as, "It is pursuing an animal and killing it for food and as a possible trophy such as a large buck in order to show off the antlers to others," and "Hunting is using a gun and shooting animals for meat or trophy, these animals mainly include deer, turkey, duck, squirrels, etc." few definitions only described hunting for sport. Those that did defined it as, "Hunting is harvesting animals such as deer, duck, pheasant, or dove for sport," or "Hunting is a sport where humans seasonally and respectfully kill game (waterfowl, deer, etc.)." Most included sport as another element of hunting such as, "Staying in a spot to harvest an animal for food and trophy purposes," and "Hunting is harvesting food to eat but it's also a sport," or "Going into the outdoors to enjoy the scenery and wildlife but also pursue a trophy or meat for the freezer."

Participants were asked to answer questions on a Likert scale from agree to disagree, with points ranging from five to one respectively. The highest mean scores for those in the hunts category were when asked if they agreed with hunting for food ($M = 4.94$, $SD = 0.29$) and when asked if they were in favor of wildlife management ($M = 4.78$, $SD = 0.67$). The lowest mean of 3.58 was for the question of being in favor of the Pittman-Robertson Act (Table 5).

Table 5*Means for Opinions of Hunting in the “Hunts” Category*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
I am in favor of hunting for sport	267	3.82	1.40
I am in favor of hunting for food	267	4.94	0.29
I am in favor of hunting for wildlife management	267	4.78	0.67
I am in favor of the Arkansas State Conservation Tax	267	4.03	1.57
I am in favor of the Pittman-Robertson Act	267	3.58	1.69

The majority of participants said they agree with hunting for sport ($n = 122$; 45.69%) followed by those saying they somewhat agree ($n = 61$; 22.85%). Others said they neither agree nor disagree ($n = 28$; 10.49%), somewhat disagree ($n = 28$; 10.49%), disagree ($n = 26$; 9.74%) or did not know ($n = 2$; 0.75%). When asked about hunting for food, participants said they agree ($n = 255$; 95.51%) somewhat agree ($n = 8$; 3.00%) and neither agree nor disagree ($n = 4$; 1.50%). Most participants said they agree with hunting for wildlife management ($n = 232$; 86.89%), followed by somewhat agree ($n = 20$; 7.49%), neither agree nor disagree ($n = 10$; 3.75%), do not know ($n = 4$; 1.50%), and somewhat disagree ($n = 1$; 0.37%).

Participants were provided a short explanation of each tax with the statement. When asked if they were in favor of the Arkansas State Conservation Tax, most said they agree ($n = 168$; 62.92%), followed by neither agree nor disagree ($n = 32$; 11.99%), somewhat agree ($n = 30$; 11.24%) and do not know ($n = 22$; 8.24%). Others said they disagree ($n = 9$; 3.37%) and somewhat disagree ($n = 6$; 2.25%). In regard to the Pittman—Robertson Act, most said they agree ($n = 125$; 46.82%). The remaining participants either somewhat agreed ($n = 41$; 15.36%),

disagreed ($n = 34$; 12.73%), neither agreed nor disagreed ($n = 33$; 12.36%), somewhat disagreed ($n = 17$; 6.37%) or did not know ($n = 17$; 6.37%).

Participants were then asked to define “environmental conservation” in their own words. The first emergent theme was that environmental conservation means to save and protect the environment. Many kept their definitions simple by saying, “saving and preserving nature,” or, “Protecting wildlife and the environment,” and “The protection of the wild.” Others provided more in their definition such as, “The protection and betterment of the natural environment to promote wildlife habitat, wildlife reproduction, or natural resources,” and “The protection and cultivation of a healthy planet, as well as the creation and implementation of sustainability measures to help achieve this.” Many mentioned protecting a balance as in, “Protection the balance of an ecosystem by protecting the habitat, vegetation and animals” or mitigating the effects of humanity such as, “Environmental conservation is the process of protecting the environment to stop it from collapsing because of human activities like unsustainable agriculture, deforestation, and burning fossil fuels.” A few tied environmental conservation back to hunting:

Environment conservation is doing what you are able to protect an environment or species. This may mean conserving animals. To conserve animals, you must protect each species and leave a proper balance so that one does not consume the other or itself. For instance, if a wolf population is too big, they may kill all the prey. If a deer population is too big, they may develop diseases such as Chronic Wasting Disease. CWD is highly infectious and can spread when deer eat in the same areas that others poop. If a population is too big, this disease could infect the whole population. Environmental conservation also means doing what you can to protect the environment, such as replanting wildflowers native to the areas to keep the species in the area alive.

A subtheme in was that environmental conservation involved managing and preserving the environment. Some tied managing the environment back to hunting and said that it is, “Conserving our environment either by hunting to maintain population or chopping down trees to prevent over population,” and, “Managing the herd to make the rest of the herd better,” or,

“The act of hunting to decrease the population of a species that is overpopulated or a pest.” Many discussed ways humans can participate in managing and preserving such as, “Preventing drastic changes to the environment for the sake of animal and plant life. Also, to keep Earth’s organisms diverse enough to soundly uphold the food chain,” and “The intentional management of land/resources with the intent of improving and maintaining natural beauty, health of the land, etc.”

This introduces a second subtheme that protecting the environment involves human intervention. Some focused on the benefits humans can have on the environment such as, “The intervention of all levels of wildlife to better and restore the natural environment and ecosystem through human guidance,” and, “The preservation and conservation from individuals of natural resources and environment through government, organizations, and/or by themselves,” or, “Man using their strength to help the environment in whatever way possible. Being able to care for the future of animals and the Earth we live on.” Others focused on the negative impacts humans have towards the environment and said, “Preserving nature to prevent it from collapsing as a result of human activities,” and “environmental conservation is keeping the environment good enough to use despite the way humans tend to destroy it.”

Another emergent theme seen during the data analysis was keeping the environment in its natural state. Some focused on leaving the environment untouched saying, “It is keeping the world as it is and not touching it,” and “Conserving the life of our environment by letting to be natural and being untouched.” Others emphasized returning the environment to its natural state such as, “Environmental conservation should be about keeping nature in its most original state, while preventing overpopulation. It’s a careful balance between wildlife and human intervention. It is also the conservation of native species within an area,” and, “Environmental conversation is

about restoring or improving upon habitat to its former condition before human involvement or making it more biodiverse,” or, “Attempt to bring the environment back to what it used to be.”

A subtheme in this area was avoiding overuse of resources. Many participants defined environmental conservation as, “Protection of natural resources,” and, “Conserving natural resources in any way we can as humans to preserve the earth longer and make everyone’s environment healthier,” or “Making sure that the environment is kept nice, and we don’t overuse the resources it provides to us.” Some discussed the continued use of resources but in a sustainable manner saying, “Respected the environment in a way where you are not destroying it but also not letting the resources it provides to waste.”

The final theme that appeared in the data analysis was the mention of future generations. Many participants discussed how the goal of environmental conservation is to ensure the earth stays around for a while saying, “Environmental conservation is taking care of the environment and preserving it and its occupants for future generations,” and “Protection of natural resources for future generations,” or, “Acting responsibly to ensure the next generation can enjoy nature.” Ensuring the future generations have access to the environment was commonly discussed such as, “Taking care of the environment and making wise decisions when enjoying it that will allow us to be able to enjoy the outdoors for years to come,” and “Managing the environment so future generations have the same or more access to wildlife than we have now.”

To understand perceptions of environmental conservation, participants were asked about their personal care of the environment and support of AGFC involvement. Both questions were on a Likert scale with responses from agree to disagree and point of five to one respectively. For participants in the hunts category, the mean score for their care of the environment was 4.57 (*SD*

= 0.69). Believing if state run wildlife stewardship organizations, such as AGFC, help with environmental conservation had a mean of 4.38 ($SD = 1.32$), as seen in Table 6.

Table 6

Means for Opinions of Environmental Conservation in the “Hunts” Category

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
I care greatly about environmental conservation	267	4.57	0.69
State-run wildlife stewardship organizations help with environmental conservation	267	4.38	1.32

Most of the participants answered with agree ($n = 177$; 66.29%) or somewhat agree ($n = 69$; 25.84%) when asked if they care greatly for the environment. Others responded with neither agree nor disagree ($n = 18$; 6.74%), somewhat disagree ($n = 2$; 0.75%) and disagree ($n = 1$; 0.37%). When asked about state-run stewardship organizations, participants mostly responded with agree ($n = 193$; 72.28%). Others said they somewhat agree ($n = 37$; 13.86%), neither agreed nor disagreed ($n = 17$; 6.37%) did not know ($n = 17$; 6.37%), somewhat disagreed ($n = 2$; 0.75%) and disagreed ($n = 1$; 0.37%).

Participants were then asked if they believe hunting relates to environmental conservation. Participants were also asked about their agreement with ways hunting relates to environmental conservation. All questions were on a one to five-point Likert scale from disagree to agree. The statement that hunting is needed for animal population control received the highest mean of 4.63 ($SD = 0.77$) and the question of does hunting relate to environmental conservation received the lowest mean at 2.68 ($SD = 0.77$), as seen in Table 7.

Table 7*Means for Relation of Hunting and Conservation in the “Hunts” Category*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Does hunting relate to environmental conservation	267	2.68	0.77
Hunting is beneficial for the environment	267	4.57	0.82
Hunting is needed for animal population control	267	4.63	0.77
Hunting helps maintain balanced ecosystems	267	4.60	0.87
I support hunting both invasive species and native species	267	4.62	0.91
Hunting must be regulated to be beneficial for the environment	267	4.73	0.80

Most participants said they neither agreed nor disagreed when asked in hunting relates to environmental conservation ($n = 216$; 80.90%). Others said they somewhat disagree ($n = 30$; 11.24%), do not know ($n = 14$; 5.24%) and disagree ($n = 7$; 2.62%). The majority of participants said they agree that hunting is beneficial for the environment ($n = 187$; 70.04%) followed by somewhat agree ($n = 59$; 22.10%) and neither agree nor disagree ($n = 15$; 5.62%). The remaining participants said they do not know ($n = 3$; 1.12%), somewhat disagree ($n = 2$; 0.75%), and disagree ($n = 1$; 0.37%). When asked about population control, participants mostly said they agree ($n = 202$; 75.66%), somewhat agree ($n = 40$; 14.98%) and neither agree nor disagree ($n = 21$; 7.87%). Others said they somewhat disagree ($n = 2$; 0.75%) or do not know ($n = 2$; 0.75%).

Participants mostly said they agree ($n = 201$; 75.28%), somewhat agree ($n = 41$; 15.36%), or neither agree nor disagree ($n = 17$; 6.37%) when asked about hunting balancing ecosystems. The rest said they somewhat disagree ($n = 4$; 1.50%) or do not know ($n = 4$; 1.50%). Participants

were asked if they support hunting both invasive and native species and said they agreed ($n = 213$; 79.78%), somewhat agreed ($n = 27$; 10.11%), and neither agreed nor disagreed ($n = 16$; 5.99%). Others responded with somewhat disagree ($n = 5$; 1.87%), disagree ($n = 3$; 1.12%) and do not know ($n = 3$; 1.12%). Finally, the majority of participants responded with agree ($n = 227$; 85.02%), somewhat agree ($n = 22$; 8.24%) and neither agree nor disagree ($n = 10$; 3.75%) when asked about hunting needing to be regulated to be beneficial. The remaining responses were somewhat disagreed ($n = 4$; 1.50%), do not know ($n = 3$; 1.12%) and disagree ($n = 1$; 0.37%).

After the question of if hunting relates to environmental conservation, participants were asked to explain the reason for their answer to the question. The most prominent theme that emerged was population management. A few discussed how over hunting relates to environmental conservation saying, “Hunting involves human initiatives to foster a healthy environment (environmental conservation). In this case, humans are manually controlling any excesses in the food chain. I do not believe overhunting is a form of conservation though,” but most described how, when following set guidelines, hunting is beneficial for the environment stating, “Hunting, when done following the rules in place by the game and fish commission, controls wildlife populations. When done properly, hunting ensures the health and safety of humans by keeping the wildlife populations at the desired level.” Many described bag limits in responses saying, “It helps conserve the populations. There’s a reason you cannot hunt species of animals when they are low in population. When a species is overpopulated it can hurt the environment in many different ways. That is why we hunt.” Others described the number of tags state stewardship organizations provide:

Certain species in wildlife are wildly overpopulated, causing disease and sickness in genetics passed down. Hunters play an important role in keeping these numbers down, which is why states hand out a certain amount of tags for hunting and reduce the number of animals that you can kill in a year.

Some participants discussed the management of invasive species such as, “Hunting is important to keep species like wild hogs from overpopulating and tearing up fields as well as species like white-tailed deer from overpopulating and causing car wrecks,” and, “I think hunting is related to it because it does benefit the lives of all living things. If invasive species or harmful animals overpopulate that affects unaffected wildlife.” Others focused on hunting of native species and through means other than humans:

Hunting doesn't just relate to people; Yellowstone had an issue with overpopulation of elk some years back and their response was to air-drop wolves into the park to hunt elk. Making sure one trophic level doesn't dwarf another is a major part of environmental conservation.

A second emergent theme was personal responsibility hunters feel for the outdoors. Many participants explained why they believe hunters are active stewards of the environment saying, “Because the average hunter cares just as much about the protection and longevity of species as anyone. Hunting keeps animal populations in check as well,” and, “In most cases, hunters care about the environment the most because they are using the land and care for it. Invasive animals such as hogs have overpopulation issues and destroy the environment. Hunters can keep the population in check.” Many considered hunters to be leaders in conservation efforts saying, “Hunting absolutely contributes to environmental conservation as hunters are often times the only ones that actively use and preserve most land,” and, “I think that outdoorsmen who enjoy hunting have an appreciation for environmental conservation because they enjoy the outdoors along with hunting and you cannot enjoy those things without environmental conservation.” Many said hunters wish to protect the animals they pursue:

Avid hunters often feed and protect animals more than they kill them. Deer are fed corn, rice bran, and other nutrients by hunters. They will feed way more deer than they kill. Hunters care about the environment and want to keep it as close to natural habitat as possible. Hunting also helps to prevent over population.

This sentiment was continued by others saying, “Hunters care about what they are hunting. Hunters want to protect wildlife environments,” and, “A lot of hunters know a lot of information about animals and the environments they live in. They often use this information to help these animals to the best of their ability.” Many continued the idea that hunters take strides to better the environment for animals:

I believe hunting does relate to environmental conservation because hunting is more than just hunting for an animal. The other things include making sure you keep your area clean and there are multiple food plots around hunting areas so have to keep the environment clean, so food plots stay clean. And the healthier the environment is the healthier the animals are.

The theme of hunting relation to conservation because of the monetary contributions hunters make emerged. Some participants said they believed no group contributed more monetarily saying, “Hunters are the ultimate conservationists. No one will ever care about the environment and the species around them more than an ethical hunter. Hunters put forth more money and time every year supporting conservation than anyone else.” Many discussed the ways hunters contribute such as, “Hunters manage population and revenue generated by hunting is a huge profit of conservation money,” and, “Big game hunting/trophy hunting is actually used to help that environment. (Killing a lion in Africa funds environmental processes).” Some participants discussed how the purchase of firearms and taxes allow hunters to contribute monetarily to conservation:

Hunting plays an important role in wildlife management along with helping to fund conservation efforts. When you buy hunting permits, firearms, and ammunition that money gets taxed and is distributed to state fish and wildlife agencies to support the management and conservation of wildlife populations. People who hunt spend money on outdoor gear to send money to states via the Pittman-Robinson Act for conservation as well as buying licenses and stamps for hunting. Hunters care about the outdoors because they enjoy spending time there in pursuit of game, and they want to see the game (and their habitat) flourish.

Others described the personal donations hunters make through corporations:

By buying licenses and outdoor equipment money is raised for land conservation. Most hunters want to see abundant numbers of animals as well as pristine land and they support those efforts through organizations like Ducks Unlimited, Delta Waterfowl, Trout Unlimited, and the National Wild Turkey Federation by raising money and lobbying for federal grant money.

The theme of hunting helps benefit habitats and ecosystems emerged during the data analysis. Some noted it relates regardless of if the outcome is good or bad saying, “I think hunting relates to environmental conservation, whether people think it helps or hurts the environment because it impacts habitats.” Most participants discussed how hunting helps balance ecosystems by saying, “To promote environmental conservation you must hunt animals that might be taking over an ecosystem to conserve the ecosystem as a whole including the land, vegetation, and other animals,” and, “Hunting contributes significantly to conservation efforts and aids state wildlife biologists in controlling the size of particular animal populations. It maintains a healthy equilibrium in nature that the ecosystem can support (carrying capacity),” or, “Hunting is the act of maintaining the population to better be suited for the other animals and be fruitful to the entire ecosystem.” Many discussed ways hunters manage their land to help with habitat for animals:

There are many, many reasons that hunting and environmental conservation go along together. Whether that be unblocking a beaver dam in a duck slough you hunt to help water re-flow back into its pool or cutting down the right trees that need to be cut in order to keep from deforestation. Another way these correlate is like I previously mentioned, there are multiple game animals that are taking tolls daily on farmers crops and their sustainability. In order to help fix this, these game animals have to be hunted in order to either make them move locations, or to slim the herd out. This is one of many ways that hunting and environmental conservation are related.

The final theme that emerged was that hunting needed to be regulated to relate to environmental conservation. Many noted that hunted needs regulations to be beneficial saying, “Hunting under legal practices is safe for the natural environment. However, hunting without abiding by the law can negatively affect the environment,” and, “Hunting can become dangerous

to species that are going extinct if regulations aren't followed." Most focused on how hunting that follows the rules in place is beneficial for the environment such as, "Hunting directly relates, as there are limits of how many and when hunters may hunt certain animals. And the consequence of breaking these laws can result in jail, major fines, and the revocation of any firearms," and, "Population balance of species within an area is important to protect the plant life of a region and the overall health of a species population. The bagging limits of deer from season to season is an important example," or, "There will always be an abundance of wildlife here because a lot of people respect the seasons for hunting and the limits. They strive to make the hunting community honest and uphold their end of the deal with tags." Many discussed the use of seasons and limits to keep hunters accountable:

Hunting has seasons and those are made typically specifically with the animals in mind and to not harm the species in whole. Occasionally, there may also be an added special hunting tag drawing where only a random selected handful of people can hunt a certain animal. Hunting does not affect environmental conservation acts negatively but they may be related.

Information Consumption: Hunts Survey Responses

The second research objective was to define what information on hunting or conservation Generation Z consumes to form these perceptions. To complete this objective, participants were first asked if they participate in hunting or environmental conservation to understand motivations behind seeking information on the topics. For environmental conservation, participants were asked what activities they participate in, if any. Participants were then asked if they actively seek information on hunting or conservation. Finally, respondents were asked to describe what the last piece of information they read, heard or saw on both hunting and environmental conservation was.

Participants were asked how often they hunt in the U.S. in the average year on a Likert scale of questions from never to often and scores of one to five respectively. In the hunted

category, participants had a mean score of 3.64 ($SD = 1.12$). Respondents typically responded with often ($n = 78$; 29.21%), somewhat often ($n = 72$; 26.97%), might or might not ($n = 63$; 23.60%), and almost never ($n = 52$; 19.48%). Two said never (0.75%). Participants were also asked if they purposefully seek information on hunting with a Likert scale of questions ranging from never to often on a scale of one to five points respectively. Those who hunt had a mean score of 3.51 ($SD = 1.27$). Most responded with often ($n = 77$; 28.84%), somewhat often ($n = 65$; 24.34%), and might or might not ($n = 65$; 24.34%). Others said they almost never ($n = 38$; 14.23%) or never ($n = 22$; 8.24%) seek information on hunting.

When asked what content was for the last piece of information the read, heard, or saw on hunting, several themes emerged. One emergent theme included seasons and bag limits, likely because the survey portion of this study was sent out during deer and dove season in Arkansas and Texas. Some were seeking this information saying, “I typically look up hunting seasons in my area and surrounding areas. I’m also in quite a few Facebook groups about hunting” and, “What size bucks you can shoot and the different seasons for each animal.” Other discussed hearing it from other individuals stating, “My dad goes hunting often for deer or various birds during the right seasons so he talks about it when I’m home” and, “I hear a lot about my dad and siblings hunting - especially during the beginning of deer season.” Some mentioned social media saying, “I think it was something about deer hunting season or buying a license from the Oklahoma wildlife Twitter. I don’t know who they have running it but it’s the best. They really get Gen Z humor.”

Others commented on the seasons for different weapons such as, “I looked when modern gun season opened” and, “What the current season for hunting deer is. Bow, muzzle loader, and rifle season happen at different intervals.” Many additional participants mentioned season reports

suck as Ducks Unlimited, “I read the Ducks Unlimited stat report on the upcoming duck season” and AGFC, “I read the Arkansas Game and Fish news publication that says duck season will be moved to the weekend after thanksgiving for the coming season.”

A second emergent theme in relation to information consumed was population management, particularly around wild hogs and chronic waste disease (CWD) in white tailed deer. The damage hogs cause was often a subject with one participant saying, “I last read a piece on how bad the property and agricultural damage is of wild hogs in Texas and how their population must be controlled.” Many discussed CWD and its effects saying, “I read about the Chronic Wasting Disease that was spreading through most of the deer population and the efforts being taken to try and minimize the risk of continuous spreading.” Some discussed the management of overpopulated species saying they read about, “Managing elk in Madison County in Arkansas,” while others discussed populations that have lower populations and said they looked at, “Duck survey numbers for this past year. Information included wetlands drought information, number of breeding ducks, as well as total number of ducks across multiple species.”

The emergent themes included one on rules and licenses. Many said they were looking for license renewal information, sometimes in their home state and sometimes in others saying they looked up, “Buying a license for another state where I went to hunt.” Many mentioned looking for, “Updated AGFC regulations on Arkansas Duck Hunting for the 22-23 season” because, “I try to make sure I’m updated on all the rules, so it was probably updated bag limits and seasons and things like that.” Many focused on knowing what land you can hunt on saying, “I read the laws of hunting on private land. I have hunted only on public land, so I was wondering what the laws were about private land.”

There was a very prevalent emergent theme involving information about the animals they hunt. Some mentioned new information such as, “something looking at if moon phases affect the movement of deer. That has been a new topic that has been swirling around,” or, “Why ducks have slowed their migration to the state of Arkansas in the past few years.” Others mentioned full project being conducted for wildlife such as, “The Arkansas wildlife project to recreate the Bobwhite Quail Habitat. The project focuses on small farms and aims to kill weeds that are not local to Arkansas. They will replant native weeds that belong and are necessary for the proper quail habitat. I read this in a National Geographic magazine.” Many were following population movement and migrations such as, “Mapping whitetail on public land video” and, “The Ducks Unlimited articles about waterfowl migration and waterfowl conservation.”

Another prominent emergent theme involved individuals seeking to learn more about and prepare for hunting. Information related to duck hunting was prevalent with many saying they were looking up, “The best time of day to go duck hunting,” “How to use a duck call,” and, “Ways to wear camouflage in waterfowl hunting.” Deer hunting was also a prevalent search with many saying, “When a deer is in rut and how to find and attract bucks,” “An informational video on how to process and butcher a deer,” “The process of getting deer meat processed into packaged ‘hamburger’ meat, mixed with sausage, etc.” and, “Recently I have been trying to learn how to saddle hunt and I have been watching educational videos over the pros and cons of saddle hunting for deer.”

Some were researching the best gear to use or how to use it effectively such as, “Different types of guns and which ones are best for hunting” and, “Sighting in a new gun at a closer range than intended.” A subtheme in this area was participants saying the last piece of

information they saw on hunting were advertisements for gear, camo, deer stands, bows, and waiters.

Finally, the most prevalent emergent theme based on the number of references that appeared during the data analysis was seeing and hearing other participating in hunting. Most said a family member or friend had recent been hunting saying, “My grandpa killed a hog at his deer lease last week” and, “My dad recently killed a deer he has been trying to kill for a very long time, and he sent my family and I a lot of pictures.” Many said they saw a friend or family member posing on social media after a hunting trip saying, “I saw a family member post a picture of the deer they killed on Instagram, ” “I follow the MeatEater Instagram page and saw a post about moose hunting” or, “One of my friends has a large social media following on his traditional (bow hunting without baiting) hunting account so it was probably one of his posts. Discussions had or overheard about hunting and hunting trips was a highly common occurrence in responses with many saying, “The last thing I heard about hunting was that my dad and brother are going down to central Arkansas to deer hunt, and they invited my boyfriend,” “I was talking to some friends at church, and one of them showed us their friend's 8 point that he shot and that he killed it with a bow” or, “Most likely a conversation with my family, some of them are big hunters.”

In regards to environmental conservation, participants were asked if they purposefully seek information on environmental conservation. With a mean of 1.85 ($SD = 0.91$), most participants said yes ($n = 145$; 54.31%), followed by no ($n = 71$; 26.59%) and unsure ($n = 51$; 19.10%). Likewise, participants were asked if they have actively participated in environmental conservation in the last five years. A Likert scale of questions ranging from no, yes, and unsure, with one to three points respectively, was used to understand conservation participation by the

respondent. Hunts responses had a mean score of 2.28 ($SD = 0.86$) for this question. The majority of participants responded with yes ($n = 145$; 54.31%), followed by no ($n = 71$; 26.59%) and unsure ($n = 51$; 19.10%).

One theme that emerged when asking participants what the last piece of information they read, hear, or saw on environmental conservation was land and water conservation. Some topics related back to hunting such as, “I saw that public land areas for duck hunting or “WMA's” have stopped flooding their woods because leaving water in the woods for a long time can damage the trees” and, “I was able to attend a workshop that covered the conservation of areas for waterfowl.” Many focused on water depletion and conservation such as, “Instagram post about deteriorating river quality” and, “Tail water recovery systems for water storage/how that reduces our dependence on the aquifer.” Others focused more on the dry land saying, “Land use effects on soil carbon content” and, “An episode of MeatEater talking about a group of turkey habitat conservationists.” Others focused on coastlines and effectively using resources:

On YouTube and TV, I like watching content about environmental conservation. Texas Parks and Wildlife has a quality tv program where they talk about various subjects related to environmental conservation. On YouTube, I have seen some interesting videos as well. There was one video I watched where they rebuilt some coastlines in Louisiana with recycled oyster shells from restaurants.

The second emergent theme focused on animal populations. Some focused on invasive species such as, “An invasive beetle has been found to be reproducing in the trees on our land,” “The subject was on the danger of encroaching invasive species. I think one was on plants and the other in Africanized bees,” and, “An article about the exploding populations of wild pigs throughout the country and specifically the southeast.” Others focused on certain populations beginning to rise such as, “how the black bear populations in Ashley county were starting to rise

back up,” or needing to be conserved because of low numbers by discussing, “The environmentally conservative effort to save the Bobwhite Quail population in Arkansas.”

The next emergent themes were not as discussed as the two described above but were prevalent enough to warrant describing. One such theme was about trash and recycling. Participants said they, “see recycling posters all around campus, with information about things like recycled plastics and how it helps the environment” and, “Saw a TikTok of a huge trash pickup machine in the ocean.” Another theme that emerged discussed agriculture. Participants said, “The last piece of information I heard about environmental conservation was the Farm Bill,” “Water qualities throughout Missouri continue to rise after a decrease in harmful pesticides used on farms” and, “Conservation programs and policies for US farmers.”

Climate change and global warming was a theme seen in responses. However, many participants simply said, “Climate change” or, “global warming” in their replies. Some provided more detail saying, “I don’t purposefully search for it but I have seen a lot on climate change and stuff about industry and things we should lobby for,” “Some b.s. news about the world ending because of global warming that was extremely left based” and, “Environmental conservation efforts are good for the environment, but some climate change efforts are misguided to the point of being either detrimental or pointless.” The final theme that emerged was education. Many participants discussed information they heard in classes saying, “I’m a horticulture major I get information on it daily in class. Got some literally an hour ago about the effects of leaving lights on at night,” “A girl on my team is an environmental science major and she tell us the importance of environmental conservation often and points it out when we can improve something,” and, “A speech given in my public speaking class.”

To understand their participation in environmental conservation, respondents were asked what forms of environmental conservation they commonly participate in and were able to fill in the blank. Trash pick-up and recycling was the first emergent theme with many of the respondents simply saying “Recycling,” “I recycle,” “Trash pickups” or, “Picking up trash.” Others elaborated by saying, “I’m an Eagle Scout and have done a number of small conservation projects around the southwest, usually cleanup. As well as continuing cleaning parks with other students in Fayetteville” and, “Recycling, volunteering for clean-up programs and donating as well to other organizations such as the ocean cleanup and other programs protecting endangered animals.”

A second theme that emerged was participants donating to causes they feel help the environment such as, “I donate to Ducks Unlimited” and, “I donate to Ducks Unlimited and Trout Unlimited projects.” Many mentioned purchasing licenses as a form of monetary contribution towards conservation saying, “By buying my state and federal duck stamps, as well as the tax on hunting licenses I have directly contributed to conservation efforts,” “Purchasing a hunting/fishing license from AGFC. That money goes to conservation” and, “I bought fishing licenses, and the money goes to Texas game and wildlife and Arkansas game and wildlife.”

The emergent theme of participating in land management also became prevalent during the analysis. Some discussed managing land to better suit wildlife saying, “The closest thing to environmental conservation I have personally done is planting millet for ducks, putting structure (Christmas trees) in lakes/ponds for fish, and planting food plots for white-tailed deer so they have food” and, “Hunting and making habitats for different species of animals and native plants.” Trail maintenance and ecological thinning saying, “I have helped restore local nature preserves,” “Burning of dead vegetation to allow new growth” and, “I’m a Boy Scout, so I do a

lot of trail restoration, etc. I also hunt which helps with population growth of animals.” Planting native removing invasive plants was a subtheme in this area. Many said they participate by “Planting trees,” “I garden and plant native plants” and by, “Cleaning prairie fields of invasive species such as weeds.”

The final emergent theme when participants were asked what forms of environmental conservation, they participate in was population management through hunting. Many made references to CWD again saying, “Keeping track of and hunting for chronic wasting disease in hunted deer within Arkansas.” Many discussed deer hunting and its uses towards population management such as, “Hunting for deer is environmental conservation. Trying to prevent deer from overpopulating the planet, which would kill the environment,” and, “Hunting deer to keep the population at an environmentally sustainable level.” Another prevalent topic in this theme was hunting for hogs and other invasive species with participants saying they participate in, “Conservation hunts. Hog eradication hunts” and, “I am not sure if this is exactly environmental or not, but where I live and hunt snow geese are a harm to the farmland and the farmers in our area. So, there is a conservation season where you basically can harvest as many snow geese as possible. Me and some of my friends participated and hunted and killed quite a few snow geese.”

Communication Channels: Hunts Survey Responses

The third research objective was to determine which communication channels are used by Generation Z to receive this information. Participants were asked what the source of the last piece of information they read, heard or saw on hunting was, and the same question for environmental conservation. Additionally, respondents were asked what their top three channels of communication for both hunting and environmental conservation information were. Finally, because personal societal support can influence adoption and support of an activity, questions

relating to the ORAM model are included in this section as they can represent the word-of-mouth communication channel.

ORAM questions centered around hunting consisted of asking if the people they spend the majority of their time with were in favor of hunting and if their local community was in favor of hunting. Additionally, they were asked if an immediate family member, extended family member, or close friend hunted in the U.S. in the last five years. In relation to environmental conservation, participants were also asked if the people they spend the majority of their time with were in favor of environmental conservation and if their local community was in favor of environmental conservation. Similarly, participants were asked if an immediate family member, extended family member, or close friend had participated in environmental conservation in the U.S. in the last five years.

In the previous section, respondent described what information they consume on hunting. Participants also reported what the source of that information was, which is described below. The majority of participants said the last piece of information they read, heard, or saw about hunting came from family or friends ($n = 76$; 28.46%). This was followed by websites ($n = 59$; 22.10%), Instagram ($n = 24$; 8.99%), and YouTube ($n = 18$; 6.74%). Next was not consuming information on hunting in the last five years ($n = 11$; 4.12%), magazine ($n = 9$; 3.37%), and email ($n = 8$; 3.00%). All options provided on the list were selected, as seen in Table 8.

Table 8*Frequencies for Last Source of Hunting Info in the “Hunts” Category*

Source	Freq	%	Cumulative Freq	Cumulative %
Family/Friend	76	28.46	76	28.46
Website	59	22.10	135	50.56
Organization	16	5.99	151	56.55
Email	8	3.00	159	59.55
Facebook	12	4.49	171	64.04
Instagram	24	8.99	195	73.03
TikTok	4	1.50	199	74.53
Twitter	7	2.62	206	77.15
Snapchat	1	0.37	207	77.53
YouTube	18	6.74	225	84.27
Podcast	5	1.87	230	86.14
Flyer/Brochure	5	1.87	235	88.01
Magazine	9	3.37	244	91.39
Book	2	0.75	246	92.13
Show/Movie	3	1.12	249	93.26
Other	7	2.62	256	95.88
None	11	4.12	267	100.00

Participants were then asked what their top three communication channels were for seeing information on hunting. Because participants were able to select more than one option in this section, percentages were not calculated in this section and all numbers below reflect the frequency of the selection. The most commonly used communication channel was family and friends with 187 selections and websites with 115. The next most used channels were organizations at 69, Instagram at 66, YouTube at 62, TikTok at 45, Facebook at 28, and Magazine at 21. Others that receive some selections included Podcasts and Twitter at 15 selections each, shows or movies with 12, and email with 12 selections.

Each participant received an ORAM score where the higher the number, the more personal societal support. Community related questions consisted of a 5-point Likert scale from disagree to agree, with disagree being worth one point and agree being worth 5. Finally, Likert scale questions with no, unsure, and yes responses, ranging from one to three points respectively, were used to gauge family and friend participation.

Participants in the hunts category had an overall mean ORAM score of 3.72 in relation to hunting. The highest mean score for this groups of a 4.64 was relating to participants being asked if the people they spend the majority of their time with, friends and family, are in favor of hunting. The lowest mean score was 2.84 and was related to the question of if an immediate family member participated in hunting (Table 9).

Table 9*Means for Hunting ORAM score in the “Hunts” Category*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
The people I spend the majority of my time with are in favor of hunting	267	4.64	0.66
My local community is in favor of hunting	267	4.60	0.87
An immediate family member has hunted in the last five years	267	2.84	0.54
A close friend or extended family has hunted in the last five years	267	2.96	0.28
Overall	267	3.72	1.00

When asked if the people they spend the most time with are in favor of hunting, 196 said they agree (73.41%) and 50 said they somewhat agree (18.73%). Others responded with neither agree nor disagree ($n = 18$; 6.74%) and somewhat disagree ($n = 3$; 1.12%). When asked the same questions in relation to their local community, 197 said they agree (73.78%) and 50 said they somewhat agree (18.73%). The remainder said they neither agree nor disagree ($n = 10$; 3.75%), somewhat disagree ($n = 6$; 2.25%) and do not know ($n = 4$; 1.50%). Respondents were asked if immediate family members had hunted in the U.S. in the last five years. Most responded with yes ($n = 243$; 91.01%) followed by no ($n = 20$; 7.49%), and unsure ($n = 4$; 1.50%). When asked the same question about extended family and close friends, the overwhelming majority responded with yes ($n = 261$; 97.75%), followed by no ($n = 5$; 1.87%) and unsure ($n = 1$; 0.37%).

In the previous section, respondents answered what the last piece of information they consumed on environmental conservation was. The majority source for the last piece of information individuals in the hunts category read, heard, or saw about environment conservation

was Website ($n = 59$; 22.10%), followed by not having consumed information on environmental conservation in the last five years ($n = 50$; 18.73%), and family and friends ($n = 33$; 12.36%). Other top communication channels included organizations ($n = 28$; 10.49%), other sources ($n = 18$; 6.74%), Instagram ($n = 17$; 6.37%) and TikTok ($n = 16$; 5.99%). When selecting other, participants had the option to fill in a text box. Answers including classes or teachers and AGFC were seen multiple times. These selections are reflected in Table 10.

Table 10*Frequencies for Last Source of Environmental Conservation Info in the “Hunts” Category*

Source	Freq	%	Cumulative Freq	Cumulative %
Family/Friend	33	12.36	33	12.36
Website	59	22.10	92	34.46
Organization	28	10.49	120	44.94
Email	4	1.50	124	46.44
Facebook	5	1.87	129	48.31
Instagram	17	6.37	146	54.68
TikTok	16	5.99	162	60.67
Twitter	7	2.62	169	63.30
Snapchat	2	0.75	171	64.04
YouTube	10	3.75	181	67.79
Podcast	5	1.87	186	69.66
Flyer/Brochure	3	1.12	189	70.79
Magazine	3	1.12	192	71.91
Book	1	0.37	193	72.53
Show/Movie	6	2.25	199	74.53
Other	18	6.74	217	81.27
None	50	18.73	267	100.00

Respondents were asked to report what were their top three locations to typically receive information on environmental conservation were. Because participants were able to select more than one option in this section, percentages were not calculated in this section and all numbers below reflect the frequency of the selection. The most used communication channel was websites with 120 selections, followed by family and friends (97) and organizations (83). Other top used channels included Instagram (53), TikTok (45), YouTube (42), and not consuming any information on environmental conservation in the last five years (41). Other channels that were selected consisted of Facebook with 24 selections and Twitter with 22.

Finally, and ORAM scale was also created in regard to environmental conservation. Community related questions consisted of a 5-point Likert scale from disagree to agree, ranging in one to five points respectively. Similarly, a Likert scale of no, yes, and unsure, with one to three points respectively, was used to see if the respondent's family and friends participate in environmental conservation.

Participants who hunt had an overall mean ORAM score of 3.32 for environmental conservation. Their highest mean score related to the people they spend the majority of their time with being in favor of conservation with a mean of 4.36. Their lowest ORAM score was for their immediate family members participating in environmental conservation with a mean of 2.30, as seen in Table 11.

Table 11

Means for Environmental Conservation ORAM score in the “Hunts” Category

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
The people I spend the majority of my time with are in favor of environmental conservation	267	4.36	0.99
My local community is in favor of environmental conservation	267	4.16	1.23
An immediate family member has participated in environmental conservation in the last five years	267	2.30	0.81
A close friend or extended family has participated in environmental conservation in the last five years	267	2.45	0.75
Overall	267	3.32	1.09

When looking at the frequency of responses, 154 participants said they agree that the people they spend the majority of their time with support environmental conservation (57.68%), 80 said they somewhat agree (29.96%) and 20 said they neither agree nor disagree (7.49%). Others said they somewhat disagree ($n = 6$; 2.25%), do not know ($n = 5$; 1.87%), or disagree ($n = 2$; 0.75%). When asked if they believed their community was in favor of environmental conservation, 139 said the agree (52.06%) and 80 said the somewhat agree (29.96%). The remaining participants said they neither agree nor disagree ($n = 25$; 9.36%), do not know ($n = 13$; 4.87%), and somewhat disagree ($n = 10$; 3.75%). From this group, 139 answered yes, an immediate family member has participated in environmental conservation in the last five years (52.06%). Others said they were unsure ($n = 68$; 25.47%) or that they had not ($n = 60$; 22.47%). When asked the same question about extended family and close friends, most said yes ($n = 160$; 59.93%), followed by unsure ($n = 66$; 24.72%) and no ($n = 41$; 15.36%).

Outdoor Engagement: Hunts Survey Responses

The final research objective was to discover how members of Generation Z are engaging with the outdoors through outdoor activities. Participants were asked to select the number of hours they spend outdoors for pleasure in an average week. Participants in the hunts category tend to spend an average of 3-4 hours ($n = 70$; 26.22%) or 5-6 ($n = 58$; 21.72%) hours outdoors for pleasure. This was followed by 1-2 hours ($n = 41$; 15.36%), over ten hours ($n = 33$; 12.36%), and 7-8 hours ($n = 30$; 11.24%). The remaining participants reported spending either 9-10 hours ($n = 26$; 9.74%) or less than an hour ($n = 9$; 3.37%) outdoors for pleasure in an average week.

The next questions asked respondents what activity they spend the majority of their time participating in when outdoors. They were able to select one from the list provided or chose the other option. The majority of participants said they spend most of their time outdoors walking ($n = 102$; 38.20%), followed by hunting ($n = 45$; 16.85%) and community-based sports ($n = 26$; 9.74%), defined as intermural sports or casual playing with friends. The next highest engaged in activities were hiking ($n = 19$; 7.12%), other ($n = 19$; 7.12%) and running ($n = 13$; 4.87%). When selecting the other category, participants were able to fill in the blank. Activities that received multiple references included sitting or relaxing, working on land or projects, playing or working with animals, exercising, and cooking or eating. All activities provided in the list were selected by at least one participant (Table 12).

Table 12*Frequencies for Most Common Outdoor Activity in the “Hunts” Category*

Activity	Freq	%	Cumulative Freq	Cumulative %
Hiking	20	7.49	20	7.49
Mountain Biking	4	1.50	24	8.99
Cycling	1	0.37	25	9.36
Kayaking	4	1.50	29	10.86
Camping	3	1.12	32	11.99
Rock Climbing	2	0.75	34	12.73
Hunting	45	16.85	79	29.59
Fishing	12	4.49	91	34.08
Walking	102	38.20	193	72.28
Running	13	4.87	206	77.15
Swimming	1	0.37	207	77.53
Gardening	3	1.12	210	78.65
Academic Sports	12	4.49	222	83.15
Community Sports	26	9.74	248	92.88
Other	19	7.12	267	100.00

Participants were then asked to rank their top three preferred activities to engage in outdoors from the same list provided. Because participants were able to select more than one option in this section, percentages were not calculated in this section and all numbers below

reflect the frequency of the selection. The top four outdoor activity preferences for respondents in the hunts category were hunting with 128 selections, fishing with 119, walking with 102, and hiking with 101 selections. The next highest selected activities were community-based sports with 64 selections, camping with 43, swimming with 41, and running with 40. Academic sports, defined as sports that are organized sports through a school, and kayaking each received 25 selections. Finally, participants described who they spend the majority of their time outdoors with. The overwhelming majority said they spend most of their time outdoors with friends or family ($n = 196$; 73.41%), followed by alone ($n = 50$; 18.73%) and with a group ($n = 21$; 7.87%).

Survey Responses: Hunted

This section includes all survey responses from those who were categorized into the hunted category based on the qualifying questions. The questions are divided based on the four research objectives: perceived relationship between hunting and conservation, information consumption on hunting and conservation, communication channels used for this information, and outdoor engagement. The data below includes all quantitative and qualitative information collected from the surveys through the closed and open-ended questions. Qualitative data collected from the interviews appears in later sections. All quotes given are representative of participants supporting each theme.

Hunting and Conservation: Hunted Survey Responses

The researcher wished to describe how Generation Z perceives the relationship between hunting and conservation. Participants were first asked to define, in their own word, hunting and environmental conservation. They were asked if they agreed or disagreed about statements regarding hunting for food, sport, and wildlife management to understand their opinions of hunting. Additionally, participants were asked about two conservation taxes, one within the state

of Arkansas and one a national act that imposes a federal tax, to see if they were aware of some of the monetary donations hunters make towards environmental conservation

Next, respondents were asked if they cared greatly about environmental conservation and their perceptions of the role AGFC plays in it. They were also asked if they believe hunting relates to environmental conservation and then ask to explain the reason for their answer. Finally, participants were asked if they agreed with statements about benefit, population control, balancing ecosystems, invasive and native species, and regulations to understand the perceived relationship between hunting and environmental conservation.

First, participants were asked to define “hunting” in their own words to better understand their perceptions. The first emergent theme was hunting for food. Many discussed how hunting is a way to provide food for families saying, “Hunting to me is when people hunt in the woods for food. It’s something that has been around since humans were and is a great way to get meat in for the winter months,” and, “Hunting to me is a great way to connect with nature and hunt animals for food. Hunting is not a sport to me but an activity that provides meals for my family and friends.” Some described the process of hunting such as, “Hunting is the process (some would say sport) of finding and killing (shooting via gun or bow most of the time) wild animals for food or prize,” and, “Hunting is an activity in which you shoot animals for food,” or, “Killing wild animals for food, but sometimes fun. Killing involving stalking, luring and that stuff too.”

The second emergent theme was hunting for population management. Some participants described it as, “A recreational activity of killing game that when done correctly is good for animal control and food supply.” And, “Hunting is the act of killing game animals such as deer, hogs, elk, turkey, ducks, present, etc. for recreational, nutritional, or depopulation purposes.” Some participants focused on the harm animals could have on the plant life such as, “Hunting is

when people kill animals in a large population to consume and to help reduce over grazing,” while others focused on the harm animals could have towards other animals:

Hunting can mean a lot of different things in a lot of different contexts, but for the purpose of this study, hunting is the intentional killing of an animal in order to utilize different parts of the body, to remove an animal from a population (maybe the animal is sick or maybe the person doesn't want it to pass on its genes, etc.), or to receive glory.

Another theme was hunting for trophy or sport. Some definition only included this as a reason such as, “Killing animals for sport,” or, “The sport of killing animals ethically.” Most included hunting for other purposes along with trophy hunting such as, “The pursuit and killing of animals for subsistence, commercial, or sporting purposes,” and, “Hunting to me is going out with some type of gun or bow and killing game. Whether it be for sport or for food,” or, “The purposeful act of killing an animal for sport or food in the wild.”

The final theme that emerged was the definition of hunting involved spending time outdoors. Many described the early morning often involved with hunting by saying, “Waking up super early to sit out in the cold. Then, hoping you see the animal you're looking for and pop pop - try to shoot it,” and, “Sitting in a stand early in the morning and waiting for the targeted animal. Possibly shooting the animal if the opportunity arises.” Some discussed engaging with the natural environment such as, “Hunting to me is a great way to connect with nature and hunt animals for food. Hunting is not a sport to me but an activity that provides meals for my family and friends.” Other described the process of a hunting trip:

Going into the woods, spending time in the outdoors, and being patient for whatever choice of animal you are looking to kill. For example, deer hunting is you waiting either in a deer stand or blind. You're waiting and a deer to pass through your sight and killing them with a rifle or bow.

Participants were then asked to agree or disagree with statements on hunting using a 5-point Likert scale. The lowest mean score, a 2.60, was for the statement that they were in favor

of hunting for sport ($SD = 1.20$). The highest mean was a 4.79 and was for the statement of being in favor of hunting for food ($SD = 0.71$), as seen in Table 13.

Table 13

Means for Opinions of Hunting in the “Hunted” Category

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
I am in favor of hunting for sport	48	2.60	1.20
I am in favor of hunting for food	48	4.73	0.71
I am in favor of hunting for wildlife management	48	4.44	0.94
I am in favor of the Arkansas State Conservation Tax	48	3.79	1.66
I am in favor of the Pittman-Robertson Act	48	3.52	1.69

Most said they neither agree nor disagree ($n = 18$; 37.50%) or disagree ($n = 13$; 27.08%) with hunting for sport. The remaining said they somewhat agree ($n = 9$; 18.75%), somewhat disagree ($n = 6$; 12.50%) and agree ($n = 2$; 4.17%). When asked about hunting for food, most said they agree ($n = 40$; 83.88%), followed by somewhat agree ($n = 5$; 10.42%), somewhat disagree ($n = 2$; 4.17%), and neither agree nor disagree ($n = 1$; 2.08%). Hunting for wildlife management receive responses of agree ($n = 31$; 64.58%), somewhat agree ($n = 11$; 22.92%), neither agree nor disagree ($n = 3$; 6.25%), somewhat disagree ($n = 2$; 4.17%) and disagree ($n = 1$; 2.08%).

When asked about the conservation taxes, participants were provided with a brief description of each with the statement. When looking at the Arkansas State Conservation Tax, most said they agree ($n = 23$; 47.92%) or somewhat agree ($n = 12$; 25.00%). Others reported

back with do not know ($n = 6$; 12.50%), neither agree nor disagree ($n = 5$; 10.42%) and somewhat disagree ($n = 2$; 4.17%). Participants mostly said they agree ($n = 21$; 43.75%), neither disagree nor agree ($n = 10$; 20.83%), and somewhat agree ($n = 6$; 12.50%) with the Pittman—Robertson Act. Others said they do not know ($n = 5$; 10.42%), somewhat disagree ($n = 4$; 8.33%), and disagree ($n = 2$; 4.17%).

Participants were also asked to provide a definition of “environmental conservation” in their own words to better understand their perception. The first highly prevalent emergent theme was protecting and preserving. Some focused on the idea of protecting the environment such as, “To protect and care for plants, animals, and humans,” and, “Taking steps to protect natural resources and the environment, as well as learning about the environment and what needs to be done to protect it,” while others focused on preserving and said, “Preserving the environment for future generations,” and, “The attempt to preserve nature as nature exists without human intervention.” Some discussed sustainability such as, “Keeping the environment at healthy and sustainable levels. Plant/animal populations. Protecting the balance of nature from people and itself,” and, “Working to recreate sustainable processes within the ecosystems around us when natural processes have been disturbed for some reason.” Participants also discussed conservation in terms of the biodiversity:

Environmental conservation is to protect and preserve the environment of a specific type and place, as well as of the broader world. Conservation, as the word implies, aims to protect and conserve the biodiversity of a place, including flora and fauna.

The second and final emergent that became apparent during the data analysis was human stewardship or personal action. Some discussed the use of governmental policies saying, “Environmental conservation is actions, policies, and initiatives that aim to protect, repair, and maintain ecosystems from human and non-human threats,” and others mentioned advocacy by

saying, “Doing things and advocating for the environment to benefit ecosystems and natural forests,” and, “It is the subconscious decision to do good in the environment and the advocacy of the Earth.” Some discussed personal steps to be taken such as, “Actively saving water and being mindful about resources you use and waste you produce,” and, “Taking steps to ensure your environment isn’t negatively impacted by things your community is doing.” A few discussed the negative impacts of hunting by defining environmental conservation as, “Taking action to purposefully conserve the environment and do what you can to deter those who hunt endangered species no matter the reason.”

On a Likert scale with options from agree to disagree and points of five to one respectively, participants were asked their opinions on some environmental related questions. The question of if they care greatly about the environment received a mean score of 4.63 ($SD = 0.64$). A mean of 4.12 ($SD = 1.44$) was received for the statement that state-run stewardship organizations help with the environment (Table 14).

Table 14

Means for Opinions of Environmental Conservation in the “Hunted” Category

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
I care greatly about environmental conservation	48	4.63	0.64
State-run wildlife stewardship organizations help with environmental conservation	48	4.21	1.44

Thirty-three participants agreed that they care greatly about the environment (68.75%). The remainder said they somewhat agree ($n = 13$; 27.08%), neither agree nor disagree ($n = 1$; 2.08%), and somewhat disagree ($n = 1$; 2.08%). The majority of participants said they agree ($n =$

30; 62.50%) or somewhat agree ($n = 11$; 22.92%) that state-run stewardship organizations help the environment. Four said they did not know (8.33%), two said they neither agreed nor disagreed (4.17%), and one said they somewhat disagreed (2.08%).

To further understand their perceptions of how hunting relates to environmental conservation, participants were asked to rank statements using a Likert scale with agree to disagree options and a five to one-point system. The statement that hunting must be regulated to be beneficial to the environment received the highest mean score ($M = 4.81$, $SD = 0.53$). the lowest mean score, a 2.54, was for the question if hunting relates to environmental conservation ($SD = 0.85$), as seen in Table 15.

Table 15

Means for Relation of Hunting and Conservation in the “Hunted” Category

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Does hunting relate to environmental conservation	48	2.54	0.85
Hunting is beneficial for the environment	48	4.04	0.87
Hunting is needed for animal population control	48	4.31	0.95
Hunting helps maintain balanced ecosystems	48	4.13	0.98
I support hunting both invasive species and native species	48	4.19	1.10
Hunting must be regulated to be beneficial for the environment	48	4.81	0.53

Most participants said they neither agree nor disagree that hunting relates to environmental conservation ($n = 34$; 70.83%), followed by somewhat disagree ($n = 9$; 18.75%),

do not know ($n = 3$; 6.25%) and disagree ($n = 2$; 4.17%). Participant reported they somewhat agree ($n = 23$; 47.92%), agree ($n = 15$; 31.25%), neither agree nor disagree ($n = 8$; 16.67%), somewhat disagree ($n = 1$; 2.08%), and don't know ($n = 1$; 2.08%) that hunting is beneficial for the environment. Many said they agree ($n = 25$; 52.08%) and somewhat agree ($n = 18$; 37.50%) that hunting is needed for population control. Others said they somewhat disagree ($n = 3$; 6.25%), disagree ($n = 1$; 2.08%) and neither agree nor disagree ($n = 1$; 2.08%)

When asked if they believe hunting helps balance ecosystems, most said they either agreed ($n = 20$; 41.67%) or somewhat agreed ($n = 19$; 39.58%), followed by neither agreed nor disagreed ($n = 5$; 10.42%), somewhat disagreed ($n = 3$; 6.25%) and disagreed ($n = 1$; 2.08%). Most participants said they agreed ($n = 25$; 52.08%) or somewhat agreed ($n = 14$; 29.17%) with hunting for both invasive and native species. The remaining responses were neither agreed nor disagreed ($n = 4$; 8.33%), somewhat disagreed ($n = 3$; 6.25%) and disagreed ($n = 2$; 4.17%). Responses for if hunting needed to be regulated to be beneficial were agree ($n = 41$; 85.42%), somewhat agree ($n = 6$; 12.50%) and somewhat disagree ($n = 1$; 2.08%).

Finally, participants were asked to explain their reasoning behind their response to the statement that hunting is related to environmental conservation. One overwhelming theme was population management. Many discussed how hunting can help with overpopulation by saying, "Overpopulation is a serious issue that can cause major problems within environmental ecosystems. Hunting is necessary to maintain healthy population levels of certain species," and "Without regular game hunting (like deer) the population of these animals could exponentially increase, and overpopulation would occur." Others discussed how overhunting can lead to dwindling populations by saying, "Hunting relates to environmental conservation as over hunting can cause populations to dwindle, as well as help keep overpopulation more controlled. It is

something that in moderation can greatly benefit environmental conservation, but could also greatly harm it,” through most also included the benefits hunting has towards population control:

Hunting can preserve nature by keeping the population of certain animals from getting too high, although this wouldn't fit within the definition of "environmental conservation" that I put earlier. Hunting can also harm environmental conservation by reducing the population of certain animals too much.

Other benefits of hunting for overpopulation, such as limiting accidents on the road were discussed:

I would say that there is a lack of the natural predators (bear, coyote, wolf, etc.), so there has to be some form of predation to prevent over-population and the suffering that would cause to the herbivorous creatures and over consumption of the plant life that they eat. There would also be, in my opinion, a steep increase in wildlife related accidents with cars. Regulated hunting is an easy way to prevent this while also easing up on the grocery prices of Americans. Since ammo/arrows plus game processing fees are, in my experience, cheaper than buying produce from grocery stores over the course of a season.

Hunting for invasive species was a second emergent theme in the study. Many discussed this as the reason hunting relates to conservation by saying, “Protection against invasive species,” and, “If a species is harming the environment severely, it is necessary to control that species. One way to do that is through hunting. One example is invasive species,” or, “It can when there are invasive species that threaten the environment, those species can be hunted to lessen the impact.” Highway accidents were discussed again in this section with some participants saying, “Hunting can help keep down invasive species. It can also keep animal population in check and keep roads safer from deer and invasive species like hogs.” Participants also discussed how hunting can have negative or beneficial impacts and the belief that hunting for invasive species is beneficial:

Hunting affects wildlife and ecosystems - sometimes good and often times bad. I consider fishing to be a form of hunting, and the effects of overfishing can be quite devastating. On land, over hunting populations can cause ripple effects for other animals. Hunting has also been curative, however. There's one state (I can't remember which) that has a huge number of an invasive species of snake that significantly harms the ecosystems and

environment there. Hunting them can be very beneficial for the wider environment, in that case.

The final emergent theme was overhunting. While touched on in other categories, it was prevalent enough to become a theme of its own. Most discussed how hunting can relate to environmental conservation by saying, “If you deplete a place of all its animals then you're likely hurting the area,” and, “Killing endangered species is harmful to environment and it can disrupt habitats and food chains.” Some discussed ways they felt hunting positively related provided that over hunting did not occur such as, “Without predators, the populations towards the bottom of the food web start to spiral out of control. We must take steps to control this spiraling without overhunting. Hunting certain populations (within a reasonable and legal amount) helps with this.” Others emphasized the point that respect for the animal and avoidance of overhunting were required:

As long as hunting is done in respect to the animal, I think it relates [to environmental conservation]. However, I think it goes against it if it is not. For example, allowing animal to suffer pain for your gain or overhunting populations. We have to be respectful of the land and animals.

Information Consumption: Hunted Survey Responses

The researcher also sought to define what information on hunting or conservation Generation Z consumes to form these perceptions. To do so, participants were asked if they participate in hunting to understand motivations behind seeking information. Likewise, they were asked the same about environmental conservation. Respondents were asked if they participate in environmental conservation and, if so, what these activities were. Participants were then asked if they actively seek information on hunting or conservation and to describe what the last piece of information they read, heard or saw on both hunting and environmental conservation was.

Using a Likert scale of questions from never to often and scores of one to five respectively, participants were asked how often they hunt in the U.S. in the average year. With mean of 1.77 ($SD = 0.72$), most said they almost never hunt in the U.S. in the average year ($n = 21$; 43.75%), followed by never ($n = 19$; 39.58%) and might or might not ($n = 8$; 16.67%). Participants were also asked if they purposefully seek information on hunting. The mean for this question for those in the hunted category was 2.10 ($SD = 1.24$). Most responded with never ($n = 21$; 43.75%), almost never ($n = 11$; 22.92%), or might or might not ($n = 9$; 18.75%). Others said they somewhat often ($n = 4$; 8.33%) or often ($n = 3$; 6.25%) seek information on hunting.

When asked what content they consumed for the last piece of information they read, heard, or saw on hunting, several themes emerged. Others participating was the most relevant theme. Participants often discussed friends and family discussing hunting such as, “When a friend was talking about hunting elk,” and “I heard my friends talk about hunting,” or “My cousin told me when youth season is in Missouri.” Others discussed their family and friends actively participating in hunting and said, “My dad went hunting opening weekend last year and shot a buck,” “A deer hunting camp my male coworkers attend together when deer season starts for one weekend,” and “A friend told me in class last week that he was going deer hunting over the weekend. And now that I think about it my stepdad is also on a hunting trip right now.”

A second emergent theme was hunting seasons and regulations. Participants often mentioned seeing the days each season started and said, “The last piece of information I heard on hunting was about muzzleloader weekend in Arkansas at a national refuge there” or, “the last piece of information I heard/saw what the date for the start of deer hunting season,” and, “Oklahoma Wildlife Department had a post about hunting season. Most of my info comes from them because they’re funny. I don’t even live in Oklahoma.” Others discussed various hunting

regulation they came across saying, “Regulations on hunting and to obtain license” and, “The last piece of information I read on hunting was Utah changing the Elk hunting rules.”

The final emergent theme was animal population control. Many discussed CWD saying, “The last piece of information about hunting that I saw was a while ago. It was warning hunters to be careful because there was an increase in the number of deer that had chronic wasting disease” and, “The last thing about hunting I can remember hearing about had something to do with chronic wasting disease in deer and the possibility of transmission to humans that hunted deer with this disease.” Others discussed managing invasive species such as, “Killing pythons in Florida to protect native species,” or, “killing hogs to help deer flourish.”

A Likert scale of questions ranging from no, yes, and unsure, with one to three points respectively, was used to understand conservation participation by the respondent. When asked if they have actively participated in environmental conservation in the last five years, some respondents said yes ($n = 19$; 39.58%), others said no ($n = 18$; 37.50%) and some said they were unsure ($n = 11$; 22.92%). Responses for this question had a mean of 2.02 ($SD = 0.89$).

Participants were then asked if they purposefully seek information on environmental conservation. The mean for this question was a 1.73 ($SD = 0.92$) with most saying no ($n = 28$; 58.33%) they do not purposefully seek information on environmental conservation. Others said yes ($n = 15$; 31.25%) and unsure ($n = 5$; 10.42%).

One theme that emerged when asking participants what the last piece of information they read, hear, or saw on environmental conservation was information revolving around businesses and cities. Some named specific businesses such as, “Watched a documentary on it by Patagonia,” and, “Information regarding the creation of batteries for electric cars for Tesla and the displacement of pollution to other countries that this incorporates.” Others were more general

in their explanations saying, “My parents are landscape architects and city planners who are concerned with the growing habit of suburbia in our country and the impacts this will have on our future.” Some responses focused on the future:

I think the most recent thing I've read about that was a notification for an article I got from National Geographic today about how a billion people have been added to the Earth in the last 12 years and what kinds of repercussions that will have, particularly around cities.

A second emergent theme involved plants. Many discussed the Great Barrier Reef saying, “A video on the Great Barrier Reef that was in my recommended feed,” and “It likely had to do with the decay of the great barrier reef. Although I don't know if there are current environmental conservation efforts to prevent the bleaching of the great barrier reef.” Others discussed others participating such as, “Mr. Beasts' tree planting” or the repercussion of planting the wrong types saying, “I read an article about how cities created pollen because they would only plant male trees.”

Other themes that were discussed but not quite as prevalent as the ones above were water conservation, animal conservation, and trash and recycling. Some participants discussed seeing information on helping animal species such as, “It would probably be about the changing of Elk hunting laws in Utah for conservation” and, “I am very passionate about wolf conservation efforts,” or, “The National Park Service had a funny but informational post about an animal. I don't remember what animal it was, but I remember I laughed.” Others discussed trash and recycling campaigns they have seen and said they saw, “A commercial on recycling,” or, “I saw information regarding a campus cleanup day and how it would benefit our environment here at the University of Arkansas.” Finally, some participants discussed water conservation on a personal level saying, “It was about ways to conserve water in your home.” Others mentioned learning about water conservation and riverbank management:

I am taking an environmental science class, so I get a lot of information through that, but outside of class, I attend an environmental club. Recently, we had a guest speaker who spoke about stream bank restoration and water conservation. He spoke about the challenges with the streams in Northwest Arkansas and how his team plans to overcome them.

Respondents were then asked what forms of environmental conservation they commonly participate in. The most prevalent theme that emerged based on the number of references was trash pickups. Some participants mentioned cleaning litter through a club saying, “In high school the student club I was a part of would do a yearly highway pickup.” Other participants noted that environmental conservation does not have to be something big saying, “Environmental Conservation can be something small like doing a highway cleanup, which is what I did.” Carpooling was a second theme that emerged. Participants said they do, “Recycling efforts at home, carpooling, trash pickup in parks and donations” or, “Trash cleanup groups, carpooling.” Focus on doing the little things was emphasized as one participant said, “Picking up after myself and other trash that I happen across. Not driving to places that I can easily walk to (also saves on gas money). Little things like that.”

Communication Channels: Hunted Survey Responses

Additionally, the research looked to determine which communication channels are used by Generation Z to receive this information. In this section, respondents describe where the source of the last information they read, heard, or saw on hunting came from. Additionally, respondents were asked what their top three channels of communication for both hunting and environmental conservation information were. Finally, ORAM scores were found to gauge the personal societal support for participants for both hunting and environmental conservation because this may result in oral communication and increased adoption of an activity.

ORAM questions were designed to understand if an immediate family member, extended family member, or close friend hunted in the U.S. in the last five years. Additionally, participants were asked if the people they spend the majority of their time with were in favor of hunting and if their local community was in favor of hunting. In relation to environmental conservation, participants were also asked if an immediate family member, extended family member, or close friend had participated in environmental conservation in the U.S. in the last five years. Likewise, respondent describe if they believed the people, they spend the majority of their time with were in favor of environmental conservation, and if their local community was in favor of environmental conservation.

In the previous section participants described what information they consume on hunting, and this section seeks to describe the communication channels used for this information. The content below describes where this most recent piece of information came from and their top three communication channels to use when seeking information on hunting. The majority of participants said the last piece of information they read, heard, or saw about hunting came from family and friends ($n = 15$; 31.25%), followed by websites ($n = 8$; 16.67%), other ($n = 6$; 12.50%) and Instagram ($n = 4$; 8.33%). When selecting other, participants are invited to fill in a text box to provide an alternative answer. Commonly seen responses included courses and stores. Not all provided options were selected by participants in the hunted category, as shown in Table 16.

Table 16*Frequencies for Last Source of Hunting Info in the “Hunted” Category*

Activity	Freq	%	Cumulative Freq	Cumulative %
Family/Friend	15	31.25	15	31.25
Website	8	16.67	23	47.92
Organization	2	4.17	25	52.08
Facebook	1	2.08	26	54.17
Instagram	4	8.33	30	62.50
TikTok	2	4.17	32	66.67
YouTube	3	6.25	35	72.92
Flyer/Brochure	2	4.17	37	77.08
Magazine	1	2.08	38	79.17
Show/Movie	1	2.08	39	81.25
Other	6	12.50	45	93.75
None	3	6.25	48	100.00

Participants were then asked what the top three communication channels they commonly see information on hunting were. Because participants were able to select more than one option in this section, percentages were not calculated in this section and all numbers below reflect the frequency of the selection. The majority of participants selected friends and family (37 selections), followed by websites with 18 selections. Other commonly preferred methods for

consuming hunting information included TikTok with nine selections, Facebook with eight, Instagram with seven, and YouTube with six.

Each participant received an ORAM score where the higher the number, the more personal societal support. For hunting ORAM scores, Likert scale questions with no, unsure, and yes responses, ranging from one to three points respectively, were used to gauge family and friend participation. Finally, community related questions consisted of a Likert scale from disagree to agree, ranging from one to five points respectively.

Participants in the hunted category had an overall mean ORAM score of 3.49 in relation to hunting. The highest mean ORAM score for hunting in the group was 4.31, relating to if participants believed their local community is in favor of hunting. The lowest score, relating the question of did an immediate family member hunt in the U.S. in the last five years, was a 2.63, as seen in Table 17.

Table 17

Means for Hunting ORAM score in the “Hunted” Category

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
The people I spend the majority of my time with are in favor of hunting	48	4.17	1.26
My local community is in favor of hunting	48	4.31	1.17
An immediate family member has hunted in the last five years	48	2.63	0.76
A close friend or extended family has hunted in the last five years	48	2.83	0.43
Overall	48	3.49	0.88

When looking at the frequencies of their responses, most said they agree ($n = 26$; 54.17%) or somewhat agree ($n = 13$; 27.08%) that the people they spend the majority of their time with are in favor of hunting. Five participants said they neither agree nor disagree (10.42%), two said they did not know (4.17%), one said they somewhat disagreed (2.08%), and one said they disagreed (2.08%). Similarly, most agreed ($n = 30$; 62.50%), somewhat agreed ($n = 9$; 18.75%) or said they neither agreed nor disagreed ($n = 7$; 14.58%) when asked if their local community was in favor of hunting. Two said they did not know (4.17%). The majority of participants in this group said yes ($n = 38$; 79.17%) when asked if an immediate family member hunted in the U.S. in the last five years. Others said no ($n = 8$; 16.67%) or that they were unsure ($n = 2$; 4.17%). Likewise, most said yes ($n = 41$; 85.42%) when asked if a close friend or extended family member had hunted in the U.S. in the last five years. Six said they were unsure (12.50%), and one said no (2.08%).

In the section on information consumption, respondents described what the last piece of information they consumed on environmental conservation was. The majority of participants said they did not consume environmental conservation in the last five years ($n = 11$; 22.92%), followed by participants saying the last piece of information individuals in the hunted category read, heard, or saw about environment conservation was from a website ($n = 10$; 20.83%). Other top channels of communication included organizations ($n = 6$; 12.50%), YouTube ($n = 5$; 10.42%) and Instagram ($n = 4$; 8.33%), as seen in Table 18.

Table 18*Frequencies for Last Source of Environmental Conservation Info in the “Hunted” Category*

Activity	Freq	%	Cumulative Freq	Cumulative %
Family/Friend	3	6.25	3	6.25
Website	10	20.83	13	27.08
Organization	6	12.50	19	39.58
Email	1	2.08	20	41.67
Facebook	1	2.08	21	43.75
Instagram	4	8.33	25	52.08
Twitter	1	2.08	26	54.17
YouTube	5	10.42	31	64.58
Podcast	1	2.08	32	66.75
Book	1	2.08	33	68.75
Show/Movie	1	2.08	34	70.83
Other	3	6.25	37	77.08
None	11	22.92	48	100.00

Participants then described the top three channels the consume information on environmental conservation through. Because participants were able to select more than one option in this section, percentages were not calculated in this section and all numbers below reflect the frequency of the selection. The most selected option was websites with 21 selections, followed by friends and family with 18. Eleven participants said they had not consumed

information on environmental conservation in the last five years. Other notable communication channels included TikTok with 10 selections, organizations with nine, Instagram with eight, and YouTube with five.

Lastly, an ORAM scale was scored in regard to environmental conservation. A Likert scale of questions ranging from no, yes, and unsure, with one to three points respectively, was used to understand conservation participation by the participant's family and friends. Additionally, community related questions consisted of a 5-point Likert scale from disagree to agree, ranging in one to five points respectively.

Participants in the hunted category had an overall mean ORAM score of 3.24 for environmental conservation. The highest mean score was 4.35. This score was in relation to the question of if participants believed the people they spend the majority of their time with are in favor of environmental conservation. The question of whether or not an immediate family member had participated in environmental conservation received the lowest mean score of 2.23, as shown in Table 19.

Table 19*Means for Environmental Conservation ORAM score in the “Hunted” Category*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
The people I spend the majority of my time with are in favor of environmental conservation	48	4.35	0.99
My local community is in favor of environmental conservation	48	4.08	1.23
An immediate family member has participated in environmental conservation in the last five years	48	2.23	0.81
A close friend or extended family has participated in environmental conservation in the last five years	48	2.29	0.75
Overall	48	3.24	1.13

Looking at the frequencies of these responses, most either said unsure ($n = 23$; 47.92%) or yes ($n = 21$; 43.75%) when asked if the people they spend the majority of their time with are in favor of environmental conservation. Four participants said they neither agreed nor disagreed (8.33%). When asked the same question about their community, 25 said they somewhat agree (52.08%) and 16 said they agree (33.33%). Four said they neither agree nor disagree (8.33%), two said they somewhat disagree (4.17%), and one said they did not know (2.08%). When asked if an immediate family member had participated in environmental conservation, participants responded with unsure ($n = 24$; 50.00%), yes ($n = 15$; 31.25%), and no ($n = 9$; 18.75%). Participants were asked the same question in regard to close friends and extended family. Respondents answered yes ($n = 22$; 45.83%), unsure ($n = 18$; 37.50%), and no ($n = 8$; 16.67%).

Outdoor Engagement: Hunted Survey Responses

Finally, the research worked to discover how members of Generation Z are engaging with the outdoors through outdoor activities. Respondents were asked to report the number of hours

they spend outdoors for pleasure in an average week. In the hunted category, the majority spend an average of 3-4 hours ($n = 17$; 35.42%), 5-6 ($n = 10$; 20.83%) or 1-2 ($n = 10$; 20.83%) outdoors for pleasure in the average week. The remaining participants reported spending either 7-8 hours ($n = 5$; 10.42%), less than an hour ($n = 4$; 8.33%), or 9-10 ($n = 2$; 4.17%) hours outdoors in a week.

Participants when then asked to report what activity they engage in the most while outdoors. Most of the respondents reported participating in walking ($n = 26$; 54.17%). The next most participated in activities were hiking ($n = 6$; 12.50%), other ($n = 6$; 12.50%), and community-based sports ($n = 5$; 10.42%), defined as intermural sports or casual playing with friends. When selecting other, participants were able to fill in a textbox describing their most engaged in activity. Activities such as playing with pets, studying, exercising, and hammocking all received multiple references. None of the participants in the hunted category selected cycling, camping, hunting, fishing, swimming or gardening as their most commonly engaged in activity while outdoors, as shown in Table 20.

Table 20

Frequencies for Most Common Outdoor Activity in the “Hunted” Category

Activity	Freq	%	Cumulative Freq	Cumulative %
Hiking	6	12.50	6	12.50
Mountain Biking	1	2.08	7	14.58
Kayaking	1	2.08	8	16.66
Rock Climbing	1	2.08	9	18.74
Walking	26	54.17	35	72.91
Running	1	2.08	36	74.99
Academic Sports	1	2.08	37	77.07
Community Sports	5	10.42	42	87.49
Other	6	12.50	48	100.00

Next, participants were asked to select their top three choices for outdoor activities to engage in. Because participants were able to select more than one option in this section, percentages were not calculated in this section and all numbers below reflect the frequency of the selection. Walking was the top preferred activity with 30 selections, followed closely by hiking with 29 selections. Fishing ranked next with 12 selections, followed by community sports ranked next with 11 selections, camping with 10, kayaking with 8, running with 7, and swimming with 6. To conclude, respondents were asked who they spend the majority of their time outdoors with. Most said they spend their time with friends and family ($n = 37$; 77.08%), alone ($n = 10$; 20.83%) or with a group ($n = 1$; 2.08%).

Survey Responses: Never Hunted

This section includes all survey responses from those who were categorized into the never hunted category based on the qualifying questions. The questions are divided based on the four research objectives: perceived relationship between hunting and conservation, information consumption on hunting and conservation, communication channels used for this information, and outdoor engagement. The data below includes all quantitative and qualitative information collected from the surveys through the closed and open-ended questions. Qualitative data collected from the interviews appears in later sections. All quotes given are representative of participants supporting each theme.

Hunting and Conservation: Never Hunted Survey Responses

The survey instrument asked questions regarding Generation Z's perception of hunting and conservation to describe how Generation Z perceives the relationship between hunting and conservation. Initially, participants were asked to define hunting and environmental conservation in their own words. Next, to understand their opinions of hunting, they were asked if they agreed or disagreed about statements regarding hunting for food, sport, and wildlife management. Participants were also asked about monetary donations hunters make towards environmental conservation through two conservation taxes, one within the state of Arkansas and one a national Act, to see if they were aware of them.

To understand relation to environmental conservation, respondents were asked if they cared greatly about environmental conservation and their perceptions of the role AGFC plays in it. They were also asked if they believe hunting relates to environmental conservation and then asked to explain the reason for their answer. Finally, participants answered questions to understand the perceived relationship between hunting and environmental conservation through

statements about benefit, population control, balancing ecosystems, invasive and native species, and regulations.

To understand their viewpoints, participants were first asked to define “hunting” in their own words. Hunting for food was the first theme that emerged. Many said food is often the driving factor of the hunt saying, “Hunting is where you track an animal and ethically kill it (whether through the heart, lungs, etc.) so that you can consume its meat. Sometimes some hunters will taxidermy the animal they have hunted to remember the hunt,” and “A season of the year when the legal killing of certain species of animals is taken place to use for holiday meals and etc.” Many said the use of the animal for food or other resources is required for them to view hunting as beneficial and said hunting is, “Going out to a blind of some sort, and waiting for the preferred animal in season to show up and using a firearm to kill it. In my terms, hunters need to use the animal for food purposes,” and, “Hunting it is the pursuit of the animal in an ethical way where we must care deeply about the land they live on. We must hunt the animals for food and not trophies.”

The mention of other resources in addition to food was also discussed such as, “The act of using knowledge and skill to track and find animals for the purpose of killing them. The purpose behind the death of the animal varies between people: trophy hunting, food, resources like hides, etc.,” and, “Locating and then using a weapon to kill certain species of animals to be used for purposes such as food, clothing, etc.”

Some discussed how hunting can mean different depending on status and time period:

Depending on the time period the hunter lives in or his or her socioeconomic status, hunting can mean different things. It could be a necessary means of providing for a family through resources. It could also be a disturbing pastime for those who enjoy killing things personally even though pre-packaged meat is available.

The second emergent theme was hunting is killing. Many defined hunting as, “killing,” “killing animals,” “murdering innocent animals,” “Shooting animals for fun,” “A sport in which the purpose is to kill an animal,” or “killing animals for fun.” Some described the activity of hunting by saying, “Hunting is the tracking and execution of animals deemed “game” via the use of lethal methods (e.g., arrows, gunshots, etc.),” and, “Something people do as an activity that typically results in the death of an animal.” Many described killing as the intention behind the hunt saying, “People going to land set aside for this particular activity with the intention of killing deer, ducks, turkey, hogs, and other animals that they are allowed to hunt,” and, “Going outside and killing an animal. Whether for food or for pleasure, it doesn't matter what you kill, as long as you kill something. Especially if you are wearing camo and are all set up in the woods.” The look of a hunter was also commonly discussed in this theme:

Hunting is the act of tracking and killing an intended target. I think it encompasses the mindset of being superior to another being and having the will to follow it and take its life. I usually think of hunting in terms of a rifle and camouflage, but there are so many other variations of hunting.

A subtheme in this area was negative connotations when thinking of hunting as killing. This was seen in definitions such as, “Murdering innocent animals,” “The meditated murder wildlife for fun,” “intentionally harming wildlife,” and, “Acting as a predator of animals. People think it’s fun when it should not be.” Describing animals as innocent was a common occurrence in this subtheme with participants saying, “hunting is where people go camp out and kill innocent animals for entertainment. Sometimes for food but mostly for fun,” and, “Intentionally using a weapon to kill one or multiple innocent living, wild animals for ‘fun’ or another purpose. Essentially, it’s people enjoying murdering animals.”

Hunting for sport or trophies was another commonly seen theme in this group. Some described the activity of hunting as a sport saying, “Sport that involves seeking and killing of

wild animals and birds,” and, “The sport of tracking, and killing wild animals for sport and or survival,” or, “A ‘sport’ that involves seeking or pursuing and killing of animals.” Some emphasized that modern hunting is the sport, but in the past it was not:

Hunting is now a ‘sport’, but it used to be a way of providing game as food for families. It has now shifted from that into a means of showing off a kill for the ‘trophy’ and the pride of doing so, but subsistence still persists.

Others described that hunting is an activity that can be done for sport or for other seasons saying, “Hunting can have a variety of meanings depending on the context, based on the context of outdoors I assume the context is hunting for game and/or sport,” and, “Waking up very early in the morning to go and shoot animals in the wild for either eating purposes or for trophy/collection purposes,” or, “Hunting is the activity or sport that involves killing animals like deer, ducks, or bears for food, competition bragging rights, or trophy.” Some said culture influences the reasons behind a hunt:

The act of using knowledge and skill to track and find animals for the purpose of killing them. The purpose behind the death of the animal varies between people: trophy hunting, sport, food, resources etc. It is also largely dependent on the culture in which this act is taking place. In America, I think I mostly see trophy hunting, although I guess they also use it if it’s a deer or something edible.

The final theme that emerged during the data analysis process was hunting for population control. Many discussed it as an option within a list of reasons saying, “Killing animals for sport, food, or environmental maintenance,” and “Pursuing game to kill for sport, food, and/or wildlife management,” or, “the activity of killing animals to keep a healthy balance of the food chain and to gain personal trophies and get food.” Others described it as the main reason for a hunt such as, “The act of harvesting meat in an ethical way that should help to support the local habitat,” and “A sport and a form of population control for killing animals.” Some said the quantities of hunters changes the definition saying, “As an individual, killing a wild animal for the purpose of

sport or rendering meat and other animal products. As a collective, a means of conservation and population control of species in the environment.” Some defined hunting in the way that believe it should be done:

Hunting should be the killing of an animal that would help aid in the control of a population. It would be best if majority of the animal was either used or left in a place where its decomposition could aid the ecosystem. That doesn’t always happen, but that’s how it should be.

Participants were asked to rank statements about hunting on a Likert scale with responses from agree to disagree and points of five to one respectively. The highest mean for these statements was a 4.18 ($SD = 1.21$) for the statement that they are in favor of hunting for food. The lowest score was a 2.30 ($SD = 1.44$) for the statement that they are in favor of hunting for sport (Table 21).

Table 21

Means for Opinions of Hunting in the “Never Hunted” Category

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
I am in favor of hunting for sport	364	2.30	1.44
I am in favor of hunting for food	364	4.18	1.21
I am in favor of hunting for wildlife management	364	3.96	1.36
I am in favor of the Arkansas State Conservation Tax	364	2.80	1.98
I am in favor of the Pittman-Robertson Act	364	3.09	1.90

Most of the participants in the never hunted category said they disagreed ($n = 155$; 42.58%) or neither agreed nor disagreed ($n = 71$; 19.51%) with hunting for sport. Others said they somewhat agreed ($n = 50$; 13.74%), somewhat disagreed ($n = 44$; 12.09%), agreed ($n = 36$;

9.89%) or did not know ($n = 8$; 2.20%). When asked about hunting for food, the majority of participants said they agreed ($n = 212$; 58.24%) or somewhat agreed ($n = 70$; 19.23%).

Additional responses included neither agree nor disagree ($n = 44$; 12.09%), somewhat disagree ($n = 17$; 4.67%), disagree ($n = 17$; 4.67%) and do not know ($n = 4$; 1.10%). Hunting for wildlife management received mostly agree ($n = 181$; 49.73%), somewhat agree ($n = 79$; 21.70%), and neither agree nor disagree ($n = 55$; 15.11%) responses. The remaining responses were disagree ($n = 21$; 5.77%), somewhat disagree ($n = 17$; 4.67%), and do not know ($n = 11$; 3.02%).

When asked about the conservation taxes, participants were provided with a brief description of each with the statement. Participants mostly responded with agree ($n = 103$; 28.30%) do not know ($n = 103$; 28.30%) and neither agree nor disagree ($n = 88$; 24.18%) when asked about the Arkansas State Conservation Tax. Others said they somewhat agree ($n = 54$; 14.84%), disagree ($n = 9$; 2.47%) or somewhat disagree ($n = 7$; 1.92%). When asked about the Pittman—Robertson Act, most said they agree ($n = 127$; 34.89%), neither agree nor disagree ($n = 75$; 20.60%), do not know ($n = 74$; 20.30%), or somewhat agree ($n = 54$; 14.84%). The remainder responded with disagree ($n = 19$; 5.22%) and somewhat disagree ($n = 15$; 4.12%).

To understand their opinions related to conservation, participants were asked to define “environmental conservation” in their own words. An overwhelmingly apparent theme that emerged was environmental conservation involves protecting and saving the environment. Some described it with quick definitions such as, “Saving the world,” “Protecting the environment,” “Keeping the environment as safe as possible,” and, “The action of protecting the environment from human activities.” Some described ways to protect such as, “Learning about, aiding, and (arguably most importantly) protecting the environment and the resources that flow from it,” and, “Protecting our natural resources by implementing guidelines that help preserve their

quality and control our use of them to responsible levels,” or, “Protecting the environment by limiting consumption of resources and reducing the negative impact we have on the ecosystem.”

Emphasis on taking actions to help protect the environment was often emphasized:

Environmental conservation is the action taken to conserve, preserve, protect, or restore components of the environment such as protecting endangered species, practicing soil erosion prevention techniques, mitigating carbon emissions, etc.

Managing the environment was another notable theme. Many discussed methods such as, “Helping conserve the environment by things like hunting and controlled burns,” and, “Environmental conservation is the act of managing the natural environment by limiting access, population control, and managing waste,” or, “The active management of an ecosystem and the animals and plants within. This includes reintroducing native animals and plants back into the environment.” Some distinguished a difference between preservation and conservation in regard to managing the environment:

Markedly different from preservation, which seems to have a "laissez-faire" approach; preservation doesn't seek to disturb the environment at all. Conservation, being the better approach in my opinion, seeks to be "a good steward" of the environment, not hunting or foresting to depletion, but managing the land and seeking to keep the balance of things while also benefiting from the fruits of the land.

Some focused on managing invasive and endangered species saying, “Environmental conservation is where you maintain the ecosystem in an area to prevent overpopulation with either predators or prey. This generally happens when an invasive species is in the environment, or the animals in the ecosystem are endangered,” and, “Maintaining and taking care of healthy ecosystems and doing things to reduce the impact of things that can upset the ecosystem's homeostasis, like invasive species, overpopulation, disease, and pollution.” Many explained that environmental conservation involved action:

Environmental conservation is the careful management to maintain balanced ecosystems. Environmental conservation focuses on preservation and protection of environments from

dangers of development, disease, invasive species, and over consumption. Environmental conservation is not simply "roping off" an environment, it takes active labor to preserve its ideal conditions.

Another emergent theme seen in the data analysis was the preservation of resources.

Limiting the use of natural materials was a common occurrence with many saying, "Limiting resource use in order to conserve and even restore the environment to as close to its original state as it can be," and, "Protecting the environment by limiting consumption of resources and reducing the negative impact we have on the ecosystem," or, "Efforts made by people to limit unethical consumption of natural resources and habitats." Some participants described the entities in charge of managing resources such as, "Environmental conservation is the activity of governments, institutions, and private citizens preserving the environment. Its goals are to preserve natural resources and the current natural environment, as well as to repair harm and reversal tendencies where practical," and, "Protecting our natural resources and implementing guidelines through the government that help preserve their quality and control our use of them to responsible levels."

A subtheme in this area was preserving for future generations. Many explained that the reason for managing resources was for the next generations saying, "Conserving the natural resources we have so future generations of human and wildlife can enjoy it, and so our ecosystems can thrive without human intervention," and, "Being conscientious of our use of environmental resources in order to preserve the quality of life for future generations," or, "The act of preserving and rationing environmental elements so that they may last for many generations instead of being exploited in a few years." Many emphasized the desire for the next generations to be able to use or experience nature the way current generations do and said, "The act of preserving the environment to allow future generations to experience it," and, "It's where

we would do whatever it takes to make sure our environment is protected and safe for future generations to experience and enjoy.”

Personal actions were another emergent theme seen through the data analysis. Many described small actions people can take that work to conserve the environment such as, “Environmental Conservation is the act of trying to, well, conserve the environment of the earth, by whatever means a person has available to them. Planting Trees, not driving, saving electricity, etc.” and, “Making an effort to conserve the environment by doing things like picking up trash, limiting how many animals you kill, recycle, etc.” or, “Environmental conservation is the aspect of working to do the small things to save the earth, like recycling, picking up litter, etc.” Some focused on more big-picture approaches saying, “Actions prescribed by experts in order to preserve the stability of an ecosystem,” and, “Environmental conservation is when people come together under governmental guidance to help heal the environment our society has damaged and conserve what has yet to be depleted.” The explanations of broad methods of conservation, as well as smaller personal choices, was prevalent:

Environmental conservation is the upkeeping of biodiversity of organisms. This may include water conservation, clean air, protecting endangered species, etc. But mostly, and especially on a personal level, environmental conservation is leaving nature better off than when you found it. Not littering, cleaning after yourself, limiting water usage, etc.

Regulations was a subtheme in this category. Many described it as, “Protecting the natural environment, purposefully prohibiting human infrastructure on land through positive human actions and regulations,” and, “The protection of the environment through political gestures made by Congress, state/local governments, and the President,” or, “It’s regulating how individuals or groups use an environment, and making sure that they use the area responsibly.”

Advocacy was an additional subtheme under personal action. Many described the importance of educating and advocacy saying, “Making people aware of how to conserve natural

resources. Then take this into action by advocating, researching and coming together to conserve our environment,” and “Environmental conservation is the process of gathering information and tools to preserve and educate others about the preservation of our nature and systems and advocate for the world,” or, “Advocating for action concerning the preservation of the natural environment and wilderness.”

The final emergent theme was environmental destruction. Many mentioned avoiding harm and described environmental conservation as, “The field responsible for preventing the destruction of the environment via human behaviors and invasive species,” and, “Taking care of the environment - keeping it healthy from harmful substances or tragic events that could hurt it,” or, “The deliberate prevention of environments from falling into disrepair with the inability to be used.” Many discussed avoiding destruction to keep the environment in its natural state saying, “Limiting destructions and resource use in order to conserve and even restore the environment to as close to its original state as it can be,” and, “the act of protecting the environment, or leaving it the way it is rather than having an impact.”

Then, participants ranked statements involving conservation using a 5-point Likert scale from agree to disagree. The statement that they care greatly about the environment received a mean of 4.43 ($SD = 0.83$). Believing state-run wildlife stewardship organization help the environment through conservation received a mean of 3.26 ($SD = 1.88$), as seen in Table 22.

Table 22*Means for Opinions of Environmental Conservation in the “Never Hunted” Category*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
I care greatly about environmental conservation	364	4.43	0.83
State-run wildlife stewardship organizations help with environmental conservation	364	3.26	1.88

The majority of participants said they agree ($n = 216$; 59.34%) or somewhat agree ($n = 101$; 27.75%) that they care greatly about the environment. Other responses included neither agree nor disagree ($n = 39$; 10.71%), disagree ($n = 4$; 1.10%), somewhat disagree ($n = 3$; 0.82%), and do not know ($n = 1$; 1.10%). When asked if they believed stat-run stewardship organizations help with conservation, participants mostly responded with agree ($n = 132$; 36.26%), do not know ($n = 77$; 21.15%), somewhat agree ($n = 74$; 20.33%) and neither agree nor disagree ($n = 72$; 19.78%). Others responded with somewhat disagree ($n = 7$; 1.92%) and disagree ($n = 2$; 0.55%).

To begin an understanding of their perceptions of the relation between hunting and conservation, participants were asked to respond to various statements using a Likert scale with responses from disagree to agree and points from one to five respectively. The highest mean, a 4.50 ($SD = 1.07$) was for the statement that hunting must be regulated to be beneficial. The lowest mean score was for the question if hunting relates to environmental conservation ($M = 2.28$, $SD = 1.06$), as seen in Table 23.

Table 23*Means for Relation of Hunting and Conservation in the “Never Hunted” Category*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Does hunting relate to environmental conservation	364	2.28	1.06
Hunting is beneficial for the environment	364	3.26	1.33
Hunting is needed for animal population control	364	3.54	1.38
Hunting helps maintain balanced ecosystems	364	3.35	1.48
I support hunting both invasive species and native species	364	3.05	1.57
Hunting must be regulated to be beneficial for the environment	364	4.50	1.07

Responses of the question if hunting relates to environmental conservation were neither agree nor disagree ($n = 220$; 60.44%), somewhat disagree ($n = 77$; 21.15%), do not know ($n = 50$; 13.74%) and disagree ($n = 17$; 4.67%). The statement that hunting is beneficial for the environment received mostly somewhat agree ($n = 135$; 37.09%), neither agree nor disagree ($n = 92$; 25.27%) and agree ($n = 54$; 14.84%) as responses. Others said they somewhat disagree ($n = 29$; 10.71%), disagree ($n = 23$; 6.32%) or do not know ($n = 21$; 5.77%). Most participants somewhat agreed ($n = 130$; 35.71%) or agreed ($n = 96$; 26.37%) or neither agreed nor disagreed ($n = 72$; 19.78%), that hunting is needed for population control. Twenty-five said they somewhat disagree (6.87%), 22 said they disagree (6.04%) and 19 said they do not know (5.22%).

The majority of participants said they somewhat agree ($n = 124$; 34.07%), agree ($n = 83$; 22.80%), and neither agree nor disagree ($n = 74$; 20.33%) with the statement that hunting helps maintain balanced ecosystems. The remaining responses included somewhat disagree ($n = 29$;

7.79%), disagree ($n = 27$; 7.42%), and do not know ($n = 27$; 7.42%). When asked about hunting both native and invasive species, most said they agree ($n = 88$; 24.18%), neither agree nor disagree ($n = 77$; 21.15%) or somewhat agree ($n = 72$; 19.78%). Additional responses were disagreed ($n = 59$; 16.21%), somewhat disagreed ($n = 47$; 12.91%) and do not know ($n = 21$; 5.77%). Most participants said they agree ($n = 274$; 75.27%) that hunting must be regulated to be beneficial. Others said they somewhat agree ($n = 37$; 10.16%), neither agree nor disagree ($n = 36$; 9.89%), do not know ($n = 9$; 2.47%), disagree ($n = 4$; 1.10%) and somewhat disagree ($n = 4$; 1.10%).

Finally, participants were asked to explain the reasoning behind their response to the statement that hunting is beneficial for the environment. Hunting for population control became a common theme. Some participants were unsure of a relation but believe population could be a reason saying, “I think it could for reasons as hunting to help lessen the overpopulated animals in our world, but I'm not too sure if my answer is correct,” and “It might be related. I don't know if for population control or if it has to do something with the way the bodies might decompose into the ground helps with environmental conservation or not,” or, “I believe that sometimes hunting can be important for environmental conservation if there are species overpopulating an area and disturbing the balance of wildlife. However, I do not know an extensive amount of information about it.”

Many discussed why they think hunting is not beneficial for the environment but described population control as a potential positive impact saying, “I believe some hunting is damaging to the environment and may cause a population of a species to dwindle. However, I do believe some forms of hunting are good for population control of certain species,” and, “i think it can disrupt ecosystems but also help control population,” or, “They can be positively and

negatively related. If hunting is needed to keep from overpopulation, that's good for the environment. Hunting for pleasure is not good and doesn't help with environmental conservation in my opinion." This sentiment was continued throughout:

I believe hunting greatly relates to environmental conservation. Hunting for sport can put animals and certain species at risk for extinction; while, on the other hand, hunting can also be used for population control in the case of overpopulation or an invasive species. The two greatly correlate and can be used for good but can also be harmful.

Hunting needing to be regulated was a subtheme in this area. Many participants said this was required for hunting to be beneficial for the environment saying, "Regulations on hunting are required and, in most states, put in place to protect wildlife, manage population, and the environmental impact it has," and "When game and wildlife services assign hunting dates or rules on what to or not to shoot, they are attempting to maintain healthy populations for future use." The use of rules and regulations was a frequent discussion:

The reason for it is that we have a fine line of rules, regulations, and seasons on when we can hunt for certain animals, and the whole premise behind that is that it gives those species ample time to repopulate so that there is enough of that animal for next year's season. The last thing is that we don't want people to hunt over the limit regardless of what animal it is because that is how animals can get endangered, but all of this means is that it's in you as the hunter to understand and respect the rules and laws set in place so we can all be able to keep hunting.

The second emergent theme was that hunting relates to environmental conservation because of invasive or diseased species. Discussion of how invasive species can harm ecosystems was prevalent with participants saying, "The hunting of invasive species can help preserve ecosystems, as well as hunting to reduce populations that would otherwise grow out of control. Also, hunting is regulated by the government to prevent overhunting," and, "I think it relates to lower invasive species in our environmental but not by trophy hunting," or, "Hunting not only prevents invasive species from damaging ecosystems but also teaches people how to respect their environment and develops an appreciation for them." Many said hunting for

invasive species was the only way they saw hunting relate to environmental conservation saying, “I think it does when it comes to hunting for invasive species but in other ways, like illegally hunting for trophies, it directly harms the environment,” and:

The only way I can see it being related to environmental conservation is by hunting invasive species, but even then, I’m unsure about how much we should control that. I don’t think hunting for sport helps at all, and hunting for food doesn’t help but some people require it, so I don’t mind as much.

The lack of native predators was a common discussion:

Hunting benefits the environment by culling diseased members of populations and keeping invasive populations low. Furthermore, since many of our native predators have dwindled in number, there must be some control on prey populations (e.g., deer) to maintain a healthy population. Hunting also indirectly benefits conservation efforts because many hunting organizations (Ducks Unlimited) own massive tracts of land that they tend to want to conserve for hunting purposes.

The discussion that humans are the reason for the lack of native predators was also commonly referenced:

Yes, for the reason that invasive species are tearing up the ecosystems and human intervention is the only way to get it done. No, for the reason that many native species aren’t needed for hunting and most people hunt for personal enjoyment rather than a need for the environment. Also, humans are the reason we need to hunt certain native species because we killed or drove away their natural predators.

Trophy hunting was a prevalent theme in the study. Many described their opinions of trophy hunting saying, “Hunting predators (carnivores like bears, and mountain-lion wolves) is wrong as it goes against nature. Trophy hunting in general is wrong unless you are also going to eat the animal,” and, “Improper and inconsiderate hunting such as trophy hunting impacts the population of native wildlife and ecosystems, often resulting in disastrous effects.” Many participants correlated trophy hunting with overhunting saying, “When it comes to environmental conservation, hunting could cause certain animals to go extinct with trophy hunting, but it could also get rid of animals that are harmful to a habitat,” and “Hunting for sport

can put animals and certain species at risk for extinction; while, on the other hand, hunting can also be used for population control in the case of overpopulation or an invasive species.”

Hunting not relating to environmental conservation was an additional theme. Participants described them saying, “Hunting mostly hurts environmental conservation as some rare species are being killed off, so it’s not conservation,” and, “No because environmental conservation has to do with participating in ways to preserve the environment and economy, and the killing of innocent animals does not correlate,” or, “I’m not sure how killing animals preserves the environment.” Many described the act of killing animals as the reason it does not relate saying, “Hunting is not related to environmental conservation because this practice is based harm wildlife,” and, “I feel that environmental conservation is more about keeping animals safe so technically hunting is not necessarily doing that. Hunting is a human activity that contributes to the loss and deconstruction of species and our environment,” or, “Killing animals does not conserve the environment in any way.” Some said areas that do not allow hunting relate to environmental conservation saying, “Some people don’t allow hunting in certain places, so they might be trying to take care of the environment.” These sentiments were discussed by many:

I don't feel that hunting is saving the environment. Most people that go hunting are hunting deer or large animals. They are doing it for their own good to eat, not for the environment. These large animals help the food chain and eat animals that need to be eaten, so people who hunt aren't necessarily thinking about environment conservation.

Another theme that emerged was ethical hunting. Many said that if the hunting was conducted ethically it would relate to conservation saying, “Hunting needs to be done in a sustainable way and could also benefit an ecosystem in not letting a species get too big,” and, “As long as it is done humanely and with a good reason, I think it can relate, but I have known people to use it as a cop out to inhumanely/illegally hunt,” or, “I think that hunting, when done responsibly and respectfully is very important to maintaining ecosystems. Hunting, when done

ethically, can also help foster a connection between people and nature in a similar way to other outdoor recreation.” Some said hunting ethically pertained to certain cultures and countries:

I say maybe, because it depends on the culture in which the hunting takes place. In Africa and Asia, trophy hunting harms the environment and has led to animals becoming extinct. On the other hand, native groups around the world hunt animals as a part of their culture. They respect the animals and use as much as they can, without decreasing the species at an extreme rate.

Others compared hunting in the past to hunting today:

When the U.S. model revolved around the idea of managing environments via ethical hunting (think the era of Teddy Roosevelt) hunters played a part in ensuring the continued survival of certain species and preserving certain areas to ensure those species’ survival (emphasis on select species; few mourned the extermination of, say, the Arizona Jaguar in 1906 because such a subspecies was deemed a threat to livestock and was actively hunted with bounties) because they were often the only people outside early environmentalists who cared enough about those species to ensure they survived (so that they could continue to be hunted). The current U.S. model of conservation still revolves around the idea of having hunters pay to help support conservation efforts. But a smarter, long-term strategy would be to monetize other, more diverse and more common outdoor recreational activities such as mountain biking, birdwatching, etc. to help fill the financial gap as hunting wanes in present society.

The final emergent theme was hunting relates to environmental conservation simply because it happens in the environment. Some participants said that it relates to environmental conservation because it impacts animals saying, “Hunting involves killing species in the environment,” and, “Hunting relates to environmental conservation because animals are a part of the earth and they affect different ecosystems and habitats in the wild,” or, “Hunting includes our environment and affects it.” Other participants said it has a negative relation because it involves killing animals saying, “Yes, it destroys it,” and, “It could harm the environment and affect the food chain,” or, “Killing of animals relates to conserving our environment because they are simply killing our wildlife, which is not the best.” Some said hunting relates in a beneficial manner:

Often without realizing, hunters and environmentalists have similar goals. To keep the activity of hunting alive, there needs to be natural ecosystems and high-quality habitat for the game species. This protection of habitat generally has an impact on other species, as well as improving water and soil quality.

Others looked at it in a more negative manner:

Well, animals are part of the environment, so when those animals are not actively being killed, then that is conserving the environment. Nature should work itself out, but sometimes a push is needed. If a part of the environment is threatened by another part, then hunting should be allowed to help fix that, but after that, it should be pretty limited in order to protect nature. It mostly relates just because it happens in the environment.

Information Consumption: Never Hunted Survey Responses

The survey also asked questions to define what information on hunting or conservation Generation Z consumes to form these perceptions. To achieve this goal, participants were asked if they participate in environmental conservation to understand motivations behind seeking information. For the same reason, they were asked how often they might hunt in the average year. Respondents were asked if they participate in environmental conservation and what these activities were if they did so. Lastly, participants were asked if they actively seek information on hunting or conservation. They were then requested to describe what the last piece of information they read, heard or saw on both hunting and environmental conservation was.

In the never hunted category, participants were asked how often they hunt in the U.S. in the average year with Likert scale of questions from never to often and scores of one to five respectively. Respondents had a mean score of 1.20 ($SD = 0.37$) when asked how often they hunt in the U.S. in the average year. Most said never ($n = 336$; 92.31%) while a few said almost never ($n = 21$; 5.77%), might or might not ($n = 6$; 1.65%), and somewhat often ($n = 1$; 0.27%) despite providing answers previously that classified them in the never hunted category. Participants were then asked if they purposefully seek information on hunting. With a mean score of 1.56 ($SD = 0.86$), most said never ($n = 227$; 62.36%) and almost never ($n = 87$; 23.90%). Others reported the

might or might not ($n = 35$; 9.62%), somewhat often ($n = 12$; 3.30%) and often (3, 0.82%) seek information on hunting.

Participants were asked what content was for the last piece of information they read, heard, or saw on hunting, and several themes emerged. The first emergent theme was trophy hunting. Many participants mentioned seeing trophy hunting on their social media pages saying, “A picture of someone holding a dead trophy deer by its antlers after they killed it,” “I see photos of trophy hunting often on social media,” and “Sport hunting through social media, which is just wrong and cruel, in my own opinion.” Others discussed trophy hunting information found in other areas such as, “Most likely an article of a politician participating in trophy hunting,” “Dead, bloody animals. Trophy kills of endangered species. Indigenous peoples preserving cultures,” and “Donald Trump trophy hunting.” A few discussed other aspects of trophy hunting:

The subject I last read/heard/saw was about how trophy hunting could actually be helpful from preventing a species from going extinct by creating an incentive to keep the species alive for the trophy hunting. Similar idea on how paper companies keep planting more trees for paper.

A second emergent theme was negative content surrounding the hunting of endangered species and poaching. Most of the discussion in this section focused on Africa with participants saying they consumed information on, “Poachers in Africa hunting down elephants for their tusks and lions for their fur and paws and selling them on a market,” “Maybe something about unethical hunting practices like poaching in Africa,” and “A girl was trophy hunting in Africa and posted a zebra she killed and a lot of people in my city got mad.” Others saw information on endangered species such as, “I saw that many species were going extinct because hunters were killing large game out of season,” and, “Someone hunting down endangered species. A subtheme in this category was overhunting. Many said they consumed content about overhunting such as, “Overhunting leading to problems” and “People overhunting everything everywhere.”

Others participating was another emergent theme found during the data analysis. Some simply stated how their family or friends participated saying, “I last saw a picture of someone I knew holding a dead deer that she killed for fun,” “My dad had set up cameras at his hunting camp and was showing me the deer that were at his blind,” “I just heard that it was duck hunting season coming soon and that guys are very excited to get back out there to hunt,” and “My uncles tell me about hunting for deer. I usually cry.” Others added their viewpoints to the explanation such as, “I see people's stupid pictures on Facebook, Instagram, and Snapchat of them holding a deer after they kill it. It is disgusting and I wish deer hunting was not a thing. They are doing it for fun, and it is disgusting.” Photos after hunting trips were a common discussion with many saying, “I see TikToks of people talking about their hunting habits and trips,” “I see people kill deer and post it to social media,” “I last saw a picture of someone I knew holding a dead deer that she killed for fun,” “I follow the Oklahoma wildlife people because I think they’re funny and they’ll sometimes post pictures of people hunting,” and, “Other than seeing it through friends Instagrams and stories, I have never seen an article about hunting.”

Another emergent theme was regulations and seasons. Many discussed seeing news about upcoming hunting seasons such as, “Typically social media from the Arkansas Game and Fish Commission about licensures and seasons and education,” or “The snow crab population in Alaska is at a lowest, so the hunting season for the snow crabs was cancelled to get the population back on normal levels.” Others focused on regulations around hunting like, “I do not personally look into topics regarding hunting, however I do read about accidents that happen during hunting and also criminal charges for certain animals killed in the process,” “That there can be a limit on how many animals you can kill,” and, “Likely news about regulations or statistics about various commonly hunted animals.”

A subtheme in this category was education. Many participants described learning about these aspect in courses such as, “Had to learn cleaning steps in order to get my GA gun handling license to be on the trapshooting team in high school,” “I read regulations for the hunters ed test in high school that my class required,” and, “In an ecology class I learned about hunting seasons and how they are used for population control of certain species to maintain ecological balance that's been thrown off by other anthropogenic activities.”

The final emergent theme for information on hunting consumed by participants in the never hunted category was population management. Many discussed CWD in their responses saying, “The last piece of information I heard about hunting was how hunting can help control populations of deer for population management. I also have heard about chronic waste disease from my family. My dad deer hunts and either keeps the meat or donates it to an impoverished family, so he talks about these things often,” and, “I read an article on Chronic Wasting Disease in deer near campus.” Overpopulation of deer was also a common talking point with many participants saying, “I know that a few years ago there was an overpopulation of deer in our local park, so they had hunters come out to kill some of the deer,” “How hunting keeps animal population in check,” and, “Mostly info from Arkansas Game & Fish on population of deer and legal rights of hunting "pest" animals for extermination.” Invasive species were also discussed with some saying, “Off the top of my head, it was a VICE news piece about the hunting of feral hogs via private helicopter tour somewhere in Texas.” Some discussed reintroducing populations:

I was researching the potential effects of grey wolf reintroduction in the Rocky Mountain region (specifically CO). I saw an article arguing that wolf reintroduction would be harmful to natural resource conservation because it would reduce the amount of elk tags CO would be able to sell in future years. Thus, reducing the state parks and wildlife budget. The article was published by a pro-hunting organization, and I disagree with the sentiment argued in this case.

Participants were also asked if they have actively participated in environmental conservation in the U.S. in the last five years. Participation in environmental conservation by the respondent was rated using a Likert scale of questions ranging from no, yes, and unsure, with one to three points respectively. The mean for responses from those in the never hunted category was 2.13 ($SD = 0.88$) and responses included yes ($n = 167$; 45.88%), no ($n = 120$; 32.97%), and unsure ($n = 77$; 21.15%). Respondents were asked if they purposefully seek information on environmental conservation. Most answered yes ($n = 184$; 50.55%), followed by no ($n = 133$; 36.54%) and unsure ($n = 47$; 12.91%). The mean for this question was a 1.86 with a standard deviation of 0.92.

One theme that emerged when asking participants what the last piece of information they read, hear, or saw on environmental conservation was climate change and fossil fuels. Many discussed global warming saying, “It was an article about climate change and global warming,” “global warming, ice glaciers melting,” “I see a lot on global warming. Research is suggesting we only have a few years before the damage to our earth is irreversible,” and, “Global warming is causing death and the end of many wildlife and habitats.” Other climate crisis comments included, “TV political advertising about global warming and farming and the need to be more sustainable to protect our natural environment,” “Seen news stories about how the Earth may be beyond saving in the year 2040 or something like that because of the amount of pollution humans cause,” “That we will run out of resources by, I think 2050 if we continue to overuse resources,” and, “The ozone is shrinking and may be gone by 2060!”

A subtheme in this category was climate advocacy and government. Participants also had comments such as, “Those kids who threw soup at a Van Gogh painting in response to something about oil,” “I read about certain political candidates' views on environmental

conservation very recently because of the upcoming election. Most recent was Chris Jones ideas on the environment and what he supports,” “New York is taking more steps post midterms to assist in pollution reduction,” and, “I see a lot of graphics and information from advocacy groups about this topic on my Instagram when people are spreading awareness.”

Land management was a second emergent theme that appeared during the data analysis. Trees were a common discussion point with participants saying, “People planting tons of trees,” and, “A YouTuber by the name of Mr. Beast had a fundraiser for planting millions of trees, and he recently just finished planting all of them.” Soil was another common topic with many saying, “In my environmental science lab we talked about soil conservation,” “The importance of soil erosion and how to mitigate it,” and, “It was something about soil conservation including limiting erosion and conserving the structure of soil.” Many participants discussed invasive and native plant species in their comments saying, “The effects of honeysuckle vine and other invasive species in Arkansas,” and, “To avoid planting invasive trees from my teacher,” and, “A man I follow on TikTok makes content about native plants in Alabama, and how people can apply the same methods to their own cities,” or, “I think the national park people posted something about a cool plant that’s native at one of the parks. I like them because they give you information but they’re always funny with it.”

Water was another common theme seen in responses. Some responses focused on water conservation such as, “Assimilation wetlands as a method for the tertiary treatment of wastewater in Coastal Louisiana cities, and the impact of the effluent on the wetlands,” and, “someone who works for watershed conservation resource center talked about his erosion control and wetland restoration project on the West Fork White River.” Others focused on the loss or decline of water sources such as, “Heard a lot on the salt lakes in Utah coming to an end,” “I’m a

fashion major so I learn about how the fashion industry affects water pollution and the wildlife in those areas,” and “I saw a video on different lakes around the world that have either completely dried up or have diminished greatly.”

A subtheme in this category was specifically trash in the ocean or on beaches. Many had comments saying, “That the oceans are becoming filled with trash,” “I watched a video about glass recycling in Louisiana and how they started a company that recycles glass back into sand to put in beaches and for artists to use rather than just throwing it away,” “That turtles and other underwater wildlife get caught up in the trash in the ocean and suffer because of it,” and, “My boyfriend doing a project over preventing trash in the ocean.” Some discussed this specifically in relation to animals:

The last piece of information that I was reading about was how many of our ocean wildlife, especially sea turtle heads, are getting trapped inside of 6-pack rings that hold cans and it is causing them to die a slow and painful death.

General information about animals was another emergent theme. Some discussed invasive and endangered species saying, “The case for hunting invasive wild hogs in Texas,” and, “I don’t remember exactly, but it was a positive video about some animal no longer being endangered and an effort to clean up plastics in the ocean with a new device was effective.” Others discussed the reintroduction or rediscovery of species such as, “I enjoy reading about efforts to rediscover species throughout the world that have been overlooked historically or presumed extinct and their successes, along with efforts to conserve critically endangered species,” and, “The first wild buffalo were released back into the wild in Britain in hopes that they would reshape that ecosystem into its more wild origins.”

The final emergent theme involved personal choices and participation. Many participants discussed learning about ways they can limit their impact on the environment saying, “How to

improve my home with less harmful chemicals while cleaning my house,” “I see things on social media and I google ways to be less wasteful,” “I saw on TikTok about items or actions that we do on a daily basis that can slowly ruin the environment and ways to slowly improve,” and, “probably something about products we use daily and how we can substitute them for more eco-friendly products.” Some comments focused on seeing or hearing others participate such as, “My friends are environmental science majors, so they care greatly about the environment and I emulate some of their behaviors, like recycling, avoiding single use plastic, and buying things second hand,” and, “My boss was telling me about how important composting is recently.”

Respondents were asked what forms of environmental conservation they commonly engage in to better understand their participation, and some themes emerged from responses. The most common theme was trash pickups and recycling. Similar to in the hunts category, many simply said, “Trash clean up,” “Picking up litter,” “Recycling,” and, “I recycle.” Others often mentioned trash and recycling within a list of their efforts:

We recycle at our house. I always try to limit my carbon footprint. I do research on the products I buy and always consider the ingredients. I educate others about the importance of certain conservation practices that can be easily implemented in their life. I have planted trees and volunteered in cleanup many times. I’ve donated to outreach programs for the environment. Working to reduce water usage and always choosing sustainable options is something I always consider.

The second emergent theme was personal choice. Many described ways they participate in environmental conservation through altering behaviors such as, “I try to limit my electricity use and use public transportation to conserve gas/energy,” “Lifestyle changes such as recycling and being intentional about where I shop and what I buy,” “Using reusable shopping bags and trying to eliminate as much waste as possible by being mindful of what I use,” and “Reducing greenhouse gases, using solar panels, growing our own food, vote in favor of conservation values, etc.” A subtheme in this category was advocacy. Participants discussed ways they

promoted environmental conservation to others saying, “Climate strike, environmental cleanups,” “I was a part of a startup of a youth non-profit that rallied for environmental policy in OKC,” and, “Cleaning trash and advocating for certain environmental conservation bills on social media.”

Donating was a subtheme of this category. Many discussed ways they monetarily contributed to conservation efforts such as, “Donating money to an organization that helps protect animal habitats,” “I haven’t done much, but I’ve picked up trash in fields and on the sides of roads, and I’ve donated to help plant trees,” “I am very interested in ocean life, and I have tried to do lots of research on ocean conservation and donate to organizations that help ocean life,” and, “Trash clean up, donating, etc.”

The final emergent theme was land management. Some described ways their family works on their land such as, “My family owns about 80 acres, and we plant trees every year as well as allow any and all wildlife to do as it pleases there,” “The removal of invasive species of plants and trees/shrubs on our property via targeted weed killing agents and a great deal of time with a handsaw,” and, “Preventing forest fires by clearing brush in our woods.” Some described service project involving land management such as, “I have done my Eagle Project through [organization], and it was a 3-part conservation project...I’ve also helped alongside an [organization]...and I’ve done many hours of service to help keep it clean and beautiful.” Others described ways they participated in land management as a career:

I served over 900 hours as an AmeriCorps chainsaw crew member in northwest Colorado. Our focuses were wildfire fuels reduction, hazard tree felling, and corridor clearing on public lands. Our work also included some pine stand thinning for the benefit of big game and hunters. I also frequently volunteer at two Arkansas State Parks completing trail maintenance and construction.

A subtheme in this category was native and invasive plant species. Participants discussed ways they worked with plant species saying, “Invasive species removal, trash pickups, native planting,” “I’m new to the area, so I’m still finding new opportunities to get involved. I help plant native vegetation in an area that recently was rid of an invasive species. I pull/weed invasive plants from forested areas” and, “Every year I plant native wildflowers to assist in boosting the population of local pollinators.”

Communication Channels: Never Hunted Survey Responses

In addition to the types of information, the survey ask question to determine which communication channels are used by Generation Z to receive this information. In this section, respondent reported where the source of the last information they read, heard, or saw on hunting came from. Participants were also asked what their top three channels of communication for both hunting and environmental conservation information were. Lastly, ORAM scores that can gauge personal societal support that may foster support and adoption of a program were found for participants for both hunting and environmental conservation.

ORAM questions were designed to understand if the people participants spend the majority of their time with were in favor of hunting and if their local community was in favor of hunting. Scores were also based on whether an immediate family member, extended family member, or close friend hunted in the U.S. in the last five years. In relation to environmental conservation, participants were asked to describe their beliefs on if the people they spend the majority of their time with were in favor of environmental conservation and if their local community was in favor of environmental conservation. Finally, participants reported if an immediate family member, extended family member, or close friend had participated in environmental conservation in the U.S. in the last five years.

In the information consumption section, participants described what information they last consumed on hunting was. This section seeks to describe the communication channels used for this information, and the preferred channels for general hunting information. The content below describes where this most recent piece of information came from and their top three communication channels to use when seeking information on hunting

Participants in the never hunted category were asked where they consumed the last piece of information they read, heard, or saw on hunting. The majority said family and friends ($n = 107$; 29.40%). A large amount said they had not consumed any information on hunting in the last five years ($n = 70$; 19.23%). Other communication channels included Instagram ($n = 42$; 11.54%), websites ($n = 39$; 10.71%), other ($n = 25$; 6.87%), and TikTok ($n = 21$; 5.77%). When selecting other, a text box appears for participants to fill in their answer. Answers receiving multiple mentions included classes or teachers and stores. None of the participants selected Twitter as the source of their most recently consumed information (Table 24).

Table 24*Frequencies for Last Source of Hunting Info in the “Never Hunted” Category*

Activity	Freq	%	Cumulative Freq	Cumulative %
Family/Friend	107	29.40	107	29.40
Website	39	10.71	146	40.11
Organization	10	2.75	156	42.11
Email	2	0.55	158	43.41
Facebook	10	2.75	168	46.15
Instagram	42	11.54	210	57.69
TikTok	21	5.77	231	63.46
Snapchat	6	1.65	237	65.11
YouTube	9	2.47	246	67.58
Podcast	1	0.27	247	67.86
Flyer/Brochure	4	1.10	251	68.96
Magazine	4	1.10	255	70.05
Book	3	0.82	258	70.88
Show/Movie	11	3.02	269	73.90
Other	25	6.87	294	80.77
None	70	19.23	364	100.00

Respondents were then asked to select the top three places they typically read, hear, or see information on hunting. Because participants were able to select more than one option in this section, percentages were not calculated in this section and all numbers below reflect the frequency of the selection. The overwhelming majority said family and friends with 193 mentions. This was followed by 78 participants reporting not consuming any information on hunting in the last five years, 78 selecting Instagram, 76 selecting TikTok and 76 selection websites. Others included YouTube with 34 selections, shows or movies with 31 selections, Snapchat with 27, organizations with 23, and Facebook with 21.

ORAM scores were calculated to rate the personal societal support for each group. For hunting ORAM scores, Likert scale questions with no, unsure, and yes responses, ranging from one to three points respectively, were used to understand family and friend participation. Community related questions consisted of a Likert scale from disagree to agree, ranging from one to five points respectively.

The overall mean ORAM score for hunting in the never hunted group was 3.38. The highest mean score was 3.66 and related to the question of if participants believe their local community supports hunting. The lowest score, relating to the question of has an immediate family member hunted in the U.S. in the last five years, was a 1.84 (Table 25).

Table 25*Means for Hunting ORAM score in the “Never Hunted” Category*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
The people I spend the majority of my time with are in favor of hunting	364	3.10	1.26
My local community is in favor of hunting	364	3.66	1.17
An immediate family member has hunted in the last five years	364	1.84	0.76
A close friend or extended family has hunted in the last five years	364	2.49	0.43
Overall	364	3.38	1.05

Looking at the frequencies of the responses, when asked if they felt their family and friends, the people they spend the majority of their time with, are in favor of hunting, most said somewhat agree ($n = 104$; 28.57%). Other answers were agreed ($n = 81$; 22.25%), disagreed ($n = 62$; 17.03%), neither agreed nor disagreed ($n = 56$; 15.38%). Thirty-nine said they somewhat disagree (10.71%) and 22 said they did not know (6.04%). When asked the same question about their local community, most said they agreed ($n = 139$; 38.19%) or somewhat agreed ($n = 118$; 32.42%). The remaining participants responded with neither agree nor disagree ($n = 39$; 10.71%), do not know ($n = 35$; 9.62%), disagree ($n = 18$; 4.95%), and somewhat disagree ($n = 15$; 4.12%). Participants were asked if their immediate family hunts. The responses were either no ($n = 192$; 52.75%), yes ($n = 134$; 36.81%), or unsure ($n = 38$; 10.44%). Participants were asked the same question about their close friends and extended family. The majority responded with yes ($n = 253$; 69.51%) while others said no ($n = 75$; 20.60%) or unsure ($n = 36$; 9.89%).

In the information consumption section, respondents described the last bit of information they consumed on environmental conservation. Most participants said they consumed the most recent piece of environmental conservation on a website ($n = 68$; 18.68%), followed by 64 participants saying they had not consumed environmental conservation information in the last five years (17.58%). Some reported Instagram ($n = 47$; 12.91%), other ($n = 46$; 12.64%), friends and family ($n = 40$; 10.99%), TikTok ($n = 40$; 10.99%), and organizations ($n = 22$; 6.04%). When selecting other, responses for alternatives that received multiple references included classes or teachers, TV news or newspapers, and academic journals or articles. No one from the hunted category reported receiving their last bit of information from a magazine (Table 26).

Table 26*Frequencies for Last Source of Environmental Conservation Info in “Never Hunted” Category*

Activity	Freq	%	Cumulative Freq	Cumulative %
Family/Friend	40	10.99	40	10.99
Website	68	18.68	108	29.67
Organization	22	6.04	130	35.71
Email	4	1.10	134	36.81
Facebook	2	0.55	136	37.36
Instagram	47	12.91	183	50.27
TikTok	40	10.99	223	61.26
Twitter	5	1.37	228	62.64
Snapchat	5	1.37	233	64.01
YouTube	9	2.47	242	66.48
Podcast	2	0.55	244	67.03
Flyer/Brochure	5	1.37	249	68.41
Book	1	0.27	250	68.68
Show/Movie	4	1.10	254	69.78
Other	46	12.64	300	82.42
None	64	17.58	364	100.00

Participants were then asked to select the top three places they consume most of their information on environmental conservation from. Because participants were able to select more than one option in this section, percentages were not calculated in this section and all numbers below reflect the frequency of the selection. Most participants said websites (147 selections), Instagram (103 selections), TikTok (101 selections) and family and friends (100 selections). Organizations received 84 selections and not consuming information on environmental conservation in the last five years received 71 selections. Additional top locations included other with 43 selections, YouTube with 41, Twitter with 22, show or movie with 20, Snapchat with 19, podcast with 17, books with 16, and Facebook with 16. When selecting other, some responses participants wrote that were seen multiple times were school or teachers, TV news or newspapers, are academic journals or articles.

Lastly, an ORAM scale was scored in regard to environmental conservation. Community related questions followed a 5-point Likert scale from disagree to agree, ranging in one to five points respectively. Additionally, a Likert scale of questions ranging from no, yes, and unsure, with one to three points respectively, was used to understand conservation participation by the participant's family and friends.

Participants in the never hunted category had an overall mean ORAM score of 3.07 for environmental conservation. The highest mean ORAM score for this group was a 4.04 in relation to the question of if they believe the people, they spend the majority of their time with, family and friends, are in favor of environmental conservation. The lowest score was a 2.08 and related to the question of if their immediate family members participate in environmental conservation, as seen in Table 27.

Table 27

Means for Environmental Conservation ORAM score in the “Never Hunted” Category

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
The people I spend the majority of my time with are in favor of environmental conservation	364	4.04	1.20
My local community is in favor of environmental conservation	364	3.83	1.28
An immediate family member has participated in environmental conservation in the last five years	364	2.08	0.81
A close friend or extended family has participated in environmental conservation in the last five years	364	2.31	0.77
Overall	364	3.07	1.75

When analyzing the frequencies of the responses, most participants said they agreed ($n = 158$; 43.41%) or somewhat agreed ($n = 124$; 34.07%) or neither agreed nor disagreed ($n = 54$; 14.84%) that the people they spend the majority of their time with are in favor of environmental conservation. Fourteen said they did not know (3.85%), eight said the somewhat disagreed (2.20%), and six said they disagree (1.65%). When asked the same question about their local community, most either somewhat agreed ($n = 127$; 34.89%) or agreed ($n = 127$; 34.89%) while some others neither agreed nor disagreed ($n = 60$; 16.48%), or somewhat disagreed ($n = 21$; 5.77%). The remaining participants said they do not know ($n = 18$; 4.95%) or disagree ($n = 5$; 1.37%). Participants asked if their immediate family members participated in environmental conservation said yes ($n = 134$; 36.81%), unsure ($n = 125$; 34.34%), and no ($n = 105$; 28.85%). Respondents were asked the same question about extended family and close friends and said yes ($n = 183$; 50.27%), unsure ($n = 112$; 30.77%) and no ($n = 69$; 18.96%).

Outdoor Engagement: Never Hunted Survey Responses

Finally, this study sought to discover how members of Generation Z are engaging with the outdoors through outdoor activities. The majority of participants in the hunts category reported intentionally spending 3-4 hours ($n = 113$; 31.04%) or 1-2 hours ($n = 99$; 27.20%) outdoors for pleasure in an average week. This was followed by participants reporting spending 5-6 hours ($n = 69$; 18.96%), 7-8 hours ($n = 37$; 10.16%), and less than an hour ($n = 32$; 8.79%) outdoors for pleasure each week. The remaining participants reported spending an average of over ten hours ($n = 9$; 2.47%) or 9-10 hours ($n = 5$; 1.37%).

When asked what activity they spend the majority of their time outdoors engaging in, the overwhelming majority answered walking ($n = 236$; 64.84%). Other top activities engaged in while outdoor included hiking (36, 9.89%), community-based sports (26, 7.14%), other activities ($n = 18$; 4.95%), academic-based sports ($n = 14$; 3.85%) and running ($n = 13$; 3.57%). Participants were able to fill in the blank when selecting other activities. A few of the alternatives to the list provided the received multiple references included sitting on their porch, studying or reading, marching band, hanging out with friends, and horseback riding. While some activities received only one selection such as mountain biking ($n = 2$; 0.27%), all activities were selected. This included hunting ($n = 2$; 0.55%) despite these individuals saying they did not hunt as a minor and have not hunted in the last five years (Table 28).

Table 28*Frequencies for Most Common Outdoor Activity in the “Never Hunted” Category*

Activity	Freq	%	Cumulative Freq	Cumulative %
Hiking	36	9.89	36	9.89
Mountain Biking	1	0.27	37	10.16
Cycling	3	0.82	40	10.98
Kayaking	1	0.27	41	11.25
Camping	2	0.55	43	11.80
Rock Climbing	5	1.37	48	13.17
Hunting	2	0.55	50	13.72
Fishing	2	0.55	52	14.27
Walking	236	64.84	288	79.11
Running	13	3.57	301	82.68
Swimming	1	0.27	302	82.95
Gardening	3	0.82	305	83.77
Academic Sports	14	3.85	319	87.62
Community Sports	26	7.14	345	94.76
Other	19	5.22	356	100.00

Participants were then asked to select their top three activities that they enjoyed doing outdoors were. Because participants were able to select more than one option in this section, percentages were not calculated in this section and all numbers below reflect the frequency of the

selection. Walking remained the most popular activity with 271 selections, followed by hiking with 186, swimming with 109, and running with 86 selections. Community-based sports, defined as intermural sports or casual playing with friends, received 64 selections, cycling earned 45, camping 40, other 36, fishing 34, gardening 32, kayaking 31, and academic-based sports, defined as sports organized through a school) earned 29 selections.

Some activities listed in the other text box that received multiple references included sitting or relaxing, studying or reading, and hammocking. Finally, participants were asked who they spent the majority of their time outdoors with. The majority of participants who have never hunted said they spend the majority of their time outdoors with friends or family ($n = 223$; 61.26%). This was followed by alone ($n = 108$; 29.67%) and with a group ($n = 33$; 9.07%).

Interviews

Below includes all qualitative data collected from the semi-structured follow-up interviews. Demographics are provided for the interview participants as a whole, as well as by each group: hunts, hunted, and never hunted. Responses to the interview questions are described using themes discovered using the constant comparative method and NVivo 11 coding software and sectioned based on groups. Responses are further divided by the four research objectives: perceived relationship between hunting and conservation, information consumption on hunting and conservation, communication channels used for this information, and outdoor engagement. Themes included topics that received significant discussion (Meriam, 2009). Subthemes included topics that also received significant discussion but fit within the discussion topics of another theme and is secondary to a larger theme (Meriam, 2009).

Interviewee Demographics

At the completion of the interview process, 23 interviews were conducted: ten with individuals in the hunts category, four with individuals in the hunted category, and nine with individuals in the never hunted category. Overall, these participants were from Arkansas ($n = 20$; 86.96%), Texas ($n = 2$; 8.70%), and Missouri ($n = 1$; 4.35%). Interview participants were mostly female ($n = 13$; 56.52%), and male ($n = 9$; 39.13%). The majority were born in 2001 or 2002 (both $n = 6$; 26.09% each), followed by four in 2003 (17.39%), as seen in Table 29.

Table 29

Frequencies of Year Born for Interview Participants

Year	Freq	%	Cumulative Freq	Cumulative %
1997	1	4.35	1	4.35
1998	2	8.70	3	13.04
2000	2	8.70	5	21.74
2001	6	26.09	11	47.83
2002	6	26.09	17	73.91
2003	4	17.39	21	91.30
2004	2	8.70	23	100.00

Interview participants were overwhelmingly White ($n = 19$; 82.61). There was one Black or African American, one Latino or Hispanic, one Asian, and one mixed race (4.35% each). The highest level of education completed was high school ($n = 15$; 65.22%), followed by Associate's degree ($n = 5$; 21.74%) and Master's degree ($n = 3$; 13.04%). Interview participants were

primarily enrolled in the Dale Bumpers College of Agriculture, Food and Life Sciences ($n = 10$; 43.48%) and the College of Engineering ($n = 6$; 26.09%). The remaining participants were enrolled in the J. William Fulbright College of Arts and Sciences ($n = 3$; 13.04%), the Sam M. Walton College of Business ($n = 2$; 8.70%), the College of Education and Health Professionals ($n = 1$; 4.34%) or double majoring ($n = 1$; 4.34%).

Interview participants were primarily Christian ($n = 17$; 73.91%) with two who reported being other (8.70%), two preferred not to say (8.70%), one reported Judaism (4.35%) and one reported Atheist (4.35%). Nine of the interview participants said they were slightly conservative (39.13%), five said they were very conservative (21.74%), and four said they were very liberal (17.39%). The other participants reported being neither liberal nor conservative ($n = 2$; 8.70%), slightly liberal ($n = 2$; 8.70%), or preferred not to say ($n = 1$; 4.35%).

Interviewee Demographics: Hunts

Interview participants in the hunts category were from Arkansas ($n = 9$; 90.00%) and Texas ($n = 1$; 10.00%). They were born in 2002 predominately ($n = 4$; 40.00%), followed by 2001 ($n = 3$; 30.00%), 2003 ($n = 2$; 20.00%), and 1998 ($n = 1$; 10.00%). The hunts group consisted of five males and five females (50.00% each) and all participants were White ($n = 10$; 100.00%). Most in the hunts group had completed high school as their highest level of education ($n = 5$; 50.00%), followed by Associate's degree ($n = 4$; 40.00%) and Bachelor's degree ($n = 1$; 10.00%).

Interview participants in the hunts category hailed from the Dale Bumpers College of Agriculture, Food and Life Sciences ($n = 6$; 60.00%), J. William Fulbright College of Art and Sciences ($n = 2$; 20.00%), the College of Engineering ($n = 1$; 10.00%), and the College of Education and Health Professionals ($n = 1$; 10.00%). They reported being Christian ($n = 9$;

90.00%) and Atheist ($n = 1$; 10.00%). For political views, interview participants in the hunts category were slightly conservative ($n = 5$; 50.00%), very conservative ($n = 3$; 30.00%) and neither liberal nor conservative ($n = 2$; 20.00%).

Interviewee Demographics: Hunted

In the hunted category, participants were current residents of Arkansas ($n = 3$; 75.00%) and Missouri ($n = 1$; 25.00%). There were three females (75.00%) and one male (25.00%) and born in 2002 ($n = 2$; 50.00%), 1998 ($n = 1$; 25.00%) or 1997 ($n = 1$; 50.00%). All interview participants in the hunted category were White ($n = 4$; 100.00%). They had completed a Bachelor's degree ($n = 2$; 50.00%), Associate's degree ($n = 1$; 25.00%), or high school ($n = 1$; 25.00%). Hunted interview participants were enrolled in the College of Engineering ($n = 2$; 50.00%), the Dale Bumpers College of Agriculture, Food and Life Sciences ($n = 1$; 25.00%), and double majoring ($n = 1$; 25.00%). They reported being Christian ($n = 3$; 75.00%) and other ($n = 1$; 25.00%). Finally, interview participants in the hunted group said they were very liberal ($n = 1$; 25.00%), slightly liberal ($n = 1$; 25.00%), slightly conservative ($n = 1$; 25.00%), and very conservative ($n = 1$; 25.00%).

Interviewee Demographics: Never Hunted

Interview participants in the never hunted category were permanent residents of Arkansas ($n = 8$; 88.89%) and Texas (11.11%). There were predominately females ($n = 5$; 55.56%) and males ($n = 3$; 33.33%) born in 2001 ($n = 3$; 33.33%), 2003 ($n = 2$; 22.22%), 2004 ($n = 2$; 22.22%), and 2000 ($n = 2$; 22.22%). Participants in the never hunted were predominately White ($n = 5$; 55.56%), followed by Black or African American ($n = 1$; 11.11%), Latino or Hispanic ($n = 1$; 11.11%), Asian ($n = 1$; 11.11%), and mixed race ($n = 1$; 11.11%). All from this group reported high school as their highest level of education completed (100.00%).

In the never hunted category of interview participants, three were enrolled in the Dale Bumpers College of Agriculture, Food and Life Sciences (33.33%), three in the College of Engineering (33.33%), two in the Sam M. Walton College of Business (22.22%), and one in the J. William Fulbright College of Arts and Sciences (11.11%). They reported following Christianity ($n = 5$; 56.55%), preferred not to say ($n = 2$; 22.22%), Judaism ($n = 1$; 11.11%) and other ($n = 1$; 11.11%). Political viewpoints for interview participants in the never hunted category were very liberal ($n = 3$; 33.33%), slightly conservative ($n = 3$; 33.33%), very conservative ($n = 1$; 11.11%), neither liberal nor conservative ($n = 1$; 11.11%) and prefer not to say ($n = 1$; 11.11%).

Interview Responses: Hunts

This section includes all interview responses from those who were categorized into the hunts category based on the qualifying survey questions. The questions are divided based on the four research objectives: perceived relationship between hunting and conservation, information consumption on hunting and conservation, communication channels used for this information, and outdoor engagement. The data below includes all quantitative data collected from the interviews. All quotes given are representative of participants supporting each theme.

Hunting and Conservation: Hunts Interviews

The research first wanted to describe how Generation Z perceives the relationship between hunting and conservation with this study. In the survey, participants were asked to provide the definition of hunting in their own words. The interviews continued the definition of hunting and multiple themes emerged. The importance of respecting the wildlife being hunted by not wasting anything was a prominent emergent theme. Many discussed the importance of using the animal they harvest even if they are not the ones personally using it such as, "...and if we

want some deer meat then I'll shoot one if I see a big buck. And if my family doesn't necessarily need the meat I'll give it to other family members or something like that." Many described this as the way they were raised to understand hunting:

So, I grew up in rural area. My dad always took me hunting but he always made it where it's like a respectful thing. It's not like you're just going out and killing something, it's, like, understanding that if you kill it then that's going to be meat for our freezer and that's going to be something that we're going to use. And I always thought of it as like you go back to Native American practices. When they hunted, they killed an animal and they used every part of it. And I always thought that was such an interesting and cool thing because you don't want to be wasteful. You don't want to be like, just killing the animals to kill them, but at the same time, if you are respectful in the act of it being a sport, I believe that's okay. So like, it's not really a competition, but hey, if I got like a 10 point buck that's fun. But for me, my first thought is always, like, is this one gonna give us meat to put in the freezer?

In this vein of using the animals you harvest, some discussed how they feel as if some modern definitions of hunting are not the proper definition for what hunting is and means. Some described it as, "Our neighbors hunt and kill for fun and they don't use it the way I do. And, I feel like too much hunting these days is for trophy and that's made it lose its meaning over the years." Many agreed with the opinion that hunting needed to involve the use of the animal saying, "To me, it's for harvest to consume the animal. If you're just out there to kill the animal, you're not, you can say you're hunting but you're not doing the true definition of what hunting is."

Using the animal is an important part of the proper definition for these participants saying, "In my family, we don't kill anything and not eat it. You're expected to eat it if you shoot it unless it's disease ridden of course. I feel like that has shown me the correct meaning of hunting." Enjoyment of game meat continues this sentiment saying, "It's [hunting] not a trophy type of thing, you're not going out there to prove you're better than anything. And I enjoy hunting meats that aren't commercially available. They just have a different flavor to them."

Respect was equally as important with participants saying, “I don’t think hunting should be something you do for kicks and giggles. You’re taking a life so you’re going to do it legally and respect and appreciate what nature gives you.”

Connection with the outdoors was another emergent theme in the interviews. Some described how the process of hunting is an action that connects them with nature and their

Creator:

It’s about connecting with nature and just enjoying like God's creation and the stillness of it. It’s just, kind of being by yourself, even though I'm sometimes my family, but just spending time out there with your thoughts and actively engaging with nature. So, I'll use turkey hunting as an example. Like, I really love turkey hunting because you're not just sitting there and waiting for the animal. Like you sit there, and listen for the gobble, and once you find it—which this is how we hunt—once we hear it, we go to it and try to go around him and try to get him to come to us. And, I don't know, I guess it's the chase and that being one with nature feeling.

This idea of being one with nature was a common occurrence:

Well, first and foremost, I think lots of people think about hunting as shooting and killing something, but I always see it as being one with nature and, you know, that you're part of it. You're a predator hunting prey in a sense, and so you want to not be seen or smelled, and then you want to get in and get it out of there without disturbing it. And by disturbing it I mean, you know, just either causing damage to nature or just disrupting the natural way of it. I really like just slipping in and slipping out of there on foot. And, honestly, my main intent is just to really enjoy being out there. I like watching for example, deer. I just like watching them and getting them super close to me without them knowing I'm there.

The final emergent theme related to the definition of hunting was that hunting is used for conservation. Discussion about the true definition of hunting was continued by saying, “Truly hunting is harvesting an animal to consume later and conservation of the local species. If you get a big buck in the process, great. But it’s not killing to kill like people think.” Others continued the focus on conservation by saying, “Hunting is about food for survival. It’s also, ever since Teddy Roosevelt a large part is conservation. You know, the modern age has replaced our need

for survival but its still about food and conservation at its core.” The idea that others are unaware of the benefits of hunting was often discussed:

There are so many negative connotations to hunting. You know, so many people don't really understand that hunting isn't just about going out and killing an animal. You know, it's about conservation. It's about the pursuit of the animal. It's about bettering the environment and bettering the herd. Just the other day, literally two days ago, I used a DMP tag to manage a deer herd and I took out a doe because that area was overpopulated. And people that don't understand what that is, they don't realize how beneficial hunting really can be. So, it's just a lack of knowledge, you know, it's not really their fault. They've just never been brought up to understand it.

The conservation taxes were discussed during the interviews. Some participants said they were aware of them saying, “I looked into that and where the extra tax on buying your license and stuff goes and I remember seeing that it goes straight to conservation efforts. I can’t remember exactly where I got that information,” while other said they were either unaware of the taxes prior to the study saying, “I did not know about them before this,” or said they were aware of one but not the other such as, “I think I knew about the first one, but I didn't know about the Robertson one.” All participants discussed the benefits of these organizations having the funds they need to conducted conservation efforts and somewhat agreed provided that they were properly conducted saying, “I think any monetary contribution we can make to better protect our environment or conserve our environment is good. So, as long as the money is going where they say it is, I’m okay with it.”

When discussion various opinions on hunting, the theme of hunting for food vs. for sport was prevalent. Many discussed that both could happen simultaneously saying, “I hunt for like meat and stuff. And I feel like a lot of people do that and some do hunt for trophies. I would like to trophy hunt, but I would still use the whole animal,” and, “A buck with a big rack will feed a family the same way one with a small one will so when it’s done like that I think it’s fine. It’s the

same limits we all follow.” Discussion of the slight disapproval of hunting animals in Africa was commonly seen throughout:

I'm the furthest you could possibly get from anti-hunters. You know, I love being in the woods. But when I see some of these photos and videos of people, say like, going out and killing an elephant in Africa, or going out and shooting some animal that I know they're not hunting for meat; They're not hunting for conservation; They're strictly killing it to kill; It kinda makes me a little sick. I don't believe that you should just go out and kill an animal for fun if you don't have any other reason. If you're not gonna process and use the meat and really respect that animal, I don't think you should be doing it.

During these discussions, the theme of hunting both invasive and native species was prominent. Participants agreed with hunting for invasive species because, “If wild hogs came in and people didn’t care and just left them there then that can cause a lot of issues. Not only with, you know, forests and different wildlife areas, but even for like farms and other places,” and, “Hunting to eliminate a nuisance in your area is not hunting to eliminate a species. And if that nuisance is destroying farm land and ecosystems like hogs are then I say go for it.” Many discussed the harm invasive species can have on native wildlife:

There was a hog species that just came in and they way overpopulated themselves and they started tearing up the ground and tearing up food plots and destroying the wildlife habitat...We trapped and we hunted them, and without doing that, I'm afraid they'd eat up all of the vegetation for deer and other wildlife. They destroyed the turkey population. While watching the hog population rise, we watched the Turkey population fall. You know, turkeys lay their eggs on the ground and those hogs would get to 'em just like that. So, I think there's many reasons to hunt and try and control invasive species. If you don't, it's gonna hurt your native species and the species that you actually wanna see thrive.

They also agreed with the hunting of native species saying, “Arkansas Game and Fish issues a number of tags that you can harvest of a species for each season, like deer. And it’s to make sure that the species is not overpopulated or become underpopulated. And people follow that,” and, “You know, there's a lot of deer getting hit on the highway, me being one of them. I hit a deer and it’s not fun. Hunting helps with population management so this happens less and then people can eat.”

Hunting needing regulations was the final theme when discussion opinions on hunting activities. Many said regulations are needed, “Because people will go nuts if it's not regulated and there aren't laws and there aren't consequences, people will take advantage. Most hunters won't but a few would,” and, “You know, hundreds of years ago it was how people got their food and that is such an important part of history to retain and it would be negligent of us to not regulate hunting so we don't overdo it.” Some discussed their support of regulation by providing examples such as, “It makes me so mad. I'm sure some of my neighbors kill just to kill and they don't care. I could probably go on and on about this, but we need regulations to keep people like them in check.” The protection against overhunting was present throughout:

When scrolling through Instagram, sometimes I see old pictures of duck hunting way back in the day before they really had big rules and regulations on duck hunting and when hunting in general wasn't federally regulated. So, I guess you'd call 'em professional hunters or hunters that would go out and kill animals just to sell them. I'd see pictures of two or three people with probably like 500 or 600 ducks, and you read about how the duck population back in the day plummeted in Arkansas. Nowadays, you can go out in your daily limit of mallards is five. It got so low that it used to be you could only go out and hunt two and that was simply due to people going out and way over hunting. If it wasn't regulated, I think people would hunt most game species to extinction.”

Participants were asked to define environmental conservation in their own words in the survey. Themes from these definitions continued in the interviews. During the interviews, the theme of hunting is conservation appeared as many tied conservation back to hunting by saying, “Conservation is such a big part of hunting. Without conservation, we wouldn't really be able to hunt and without conservation we wouldn't really have a reason to hunt,” and, “People get all upset about hunting, but don't realize if it wasn't for hunting deer, you'd probably get in a car accident every other day. It's human's duty to maintain ecological balance, and hunting keeps populations at stable functional levels.” The discussion of managing populations became prevalent with participants:

I mean, it kind of all ties back to being one with nature and not disturbing it too much. Environmental conservation is kind of like taking it a step further to ensure that everything is taken care of in the environment. So, sometimes that means, you know, if the deer population's too low you don't shoot anything that year. But, sometimes it means if it's too high then you have to manage the numbers yourself or they'll overrun the area and some will starve, or maybe they'll be more likely to get hit by a car and injure a human.

A second and final emergent theme was protection of the environment. Some discussed the over development of land saying, "I hate driving and seeing all these areas being built up with subdivisions where I used to hunt. Like, it's just sad to me and I think there should be more areas that we protect for all these animals." Others discussed the protection of animals saying, "I'd say it's bringing the wildlife where we want it to be in terms of health and numbers and protecting them. Making sure they're in a protected place." Others commented on the protecting of native plants saying, "When you're trying to conserve, you take whatever you have and build it up and protect it. I typically think of planting native plants. I think some people think, oh it's just grass and dirt, but that's not the case." Protection of and being mindful of the use of resources was referenced by many:

You know, I don't really know a lot about environmental conservation, but I definitely think that it's about how to conserve and protect the environment and to use it with care and with respect. And you know, be mindful that it's not just yours. It's not unlimited forever. You know, respect it, take care of it, be careful, enjoy it. But, it's not just yours. You share it with the world, with the animals, with everything. So we need to be mindful of how we all use it.

The relationship between hunting and conservation was discussed throughout the interviews. The use of hunting for over population was a common theme throughout. Many discussed the role hunters play in keeping populations at effective operational levels saying, "Well, without hunters, I think many game species would just overpopulate and run their habitat way down. Then on top of that, without hunters directly contributing that money to conservation, there wouldn't be as many areas for wildlife to grow," and, "You know, without wild predators

to kill the deer they get overpopulated and wreak havoc on farmlands and are more likely to get sick with CWD and things like that. So, hunters come in and cull that population.”

A subtheme in the topic of overpopulation is the use of regulation to make it effective. Many discussed the role state-run wildlife stewardship organizations play in this saying, “The whole reason Arkansas Game and Fish, and any game and fish, issues a number of tags over certain species is to make sure the population is not overpopulated because that decreases the health of the species.” Others discussed how regulations are why people are hunting to prevent overpopulation today, when they have heard stories of a different situation during their parent’s day and age:

I feel like people that don't really hunt or think about it, must think that it's just a genocide against deer or whatever animal you're hunting. And I would say that hunting is probably more popular than it's ever been and we have more deer probably than we've ever had. Like, my dad remembers growing up in the 70s and 80s when if you killed a doe and were caught, I mean you were going to jail. Like, that was a sin. I think you only got one tag a year and it was a buck. And he remembers it was a strange thing to find a deer back then. And so, I think people don't realize that it was hunters caring about the environment and caring about the population and rules that brought the population back. And now, we have a thriving deer population.

People don't realize how we hunt to conserve and sometimes that means limiting what we do. And we contribute with our dollars to conservation when we buy literally all of our stuff. I mean, every hunter I know also donates to some conservation organization, whether that be Ducks Unlimited or what have you. I just think it's kind of the misguided people who think hunters are just vicious people out with, you know, a vendetta against animals. That's not at all what it is, though.

The final emergent theme of invasive species also appeared during the interviews. Many discussed how they can damage ecosystems saying, “When you have invasive species, I always think of hogs, they have the capability to destroy our land but also the natural ecosystem. So, taking them out and reinstating that environmental balance is important,” and, “I definitely think there’s an overlap because, like, feral hogs don’t really have a positive impact on any ecosystem,

and they're not native to our area and only cause distress so getting rid of them helps conserve our ecosystems."

Information Consumption: Hunts Interviews

The researcher felt it was important to define what information on hunting or conservation Generation Z consumes to form these perceptions. During the interviews, the reasoning behind why participant did or did not seeking information on hunting was discussed. Themes emerged from these conversations. The first theme was that participants seek information on hunting to improve their skills and knowledge. Participants said they look for information, "Because there's always room to grow and learn. I've been hunting for, shoot, going on 17 years now, and I learn something new just by watching YouTube videos or seeing something on Instagram," and, "I purposely seek out that information because, just being able to learn something and apply it when I'm out in the woods is such a good feeling." Many discussed wanting to become better at hunting saying they look, "Just so I can be better at it. I actively watch YouTube for entertainment with it but then sometimes it's for instruction. I definitely actively see it cause it's one of my top hobbies and I really enjoy learning more about it so I can be better about it and be more ethical."

The second emergent theme was seeking information to find updates from AGFC. The importance of the regulations was often discussed with participants saying, "Well, for one, Arkansas Game and Fish is a very powerful agency and they put out a lot of rules and regulations every year and I don't want to break those," and, "I always look to see what hunting practices have changed and what rules and regulations there are so that I'm aware and can follow them." Some discussed the differences between hunting on private and public land saying, "You know,

in Arkansas there's a lot of public land and there's a lot of private land, and I tend to look up the difference between hunting on the two of them."

Another emergent theme was to read updates on animal populations. Some discussed looking for the numbers on animal populations such as, "I like to look up turkey populations and deer populations and things like that. Just to know how we're doing and where we are." Many discussed CWD in their responses saying, "This year in Arkansas, CWD is growing in our deer population, so making sure I know where the disease is present in our state so that I know if I harvest one in that area I should test it," and, "Definitely bigger events like chronic wasting disease and things like that. My interest in more into wanting to delve deeper because I want to know, oh, what exactly is this? How could it potentially affect me or the surrounding areas?" The discussing of watching for diseases in wildlife continued:

The biggest thing when it came to migratory bird hunting was the avian flu and making sure that I was aware of that and being careful and just knowing that if you were to harvest them and eat them that that is a risk that they might be carrying the disease. So, it just helps me knowing to be careful. Also, just answering questions with that like, well, what do you do with their remains? And how do you prepare them to make sure you're safe?

The final emergent theme was not consistently seeking information. Most said they do not always actively seek information because they are not always hunting saying, "It depends on when I want to go. I haven't as much recently because of school, but when I'm home and want to go [hunting] then I'll actively look for stuff. But, if I'm not hunting, I'm not looking," and, "I haven't looked for stuff recently because it's not on the forefront of my mind. My brain is all school stuff right now and then when I go home it'll change. So, I don't constantly actively look, you know?" Others said they did not consistently seek information on hunting because they never felt the need to:

I'm in the middle ground on that because I've never gone by myself. Just cause I'm not as familiar with guns and stuff on my own. So, I mostly get info from my dad but I'd love to, like, learn more about it and be able to actually do it on my own because I think that'd be kind of cool. But, right now it's easier to just listen to my dad.

Similarly, the interviewees discussed why or why not they seek information on environmental conservation and themes emerged. The first emergent theme was seeking information to better their homes. Many said they actively seek information because their love for their state saying, "...Especially in the state of Arkansas. I mean, it's the natural state and we have so many beautiful environments and ecosystems. So, just trying to learn those little conservation efforts is important to me," and, "I want our state [Arkansas] to remain as environmentally prosperous as possible. I don't want to see, like, family farms get passed down and then sold to corporations who don't care. I want to stop that." Development was a consistent discussion throughout with others saying, "I just like to take care of the land and learn how to make it last longer. The more we build, the more we destroy, and I'd like to see ways for us to preserve land a little better." Others discussed researching about conservation practices they do on their land saying, "When my dad and I plant food plots for the wildlife, we do a lot of research about that because it provides both cover and food. So, each year we're looking for, like, new things to do for conservation."

The second and final emergent theme was not seeking information. A variety of reasons for this were discussed. Some said they do not actively seek it because it is not top of the mind saying, "I'm just not actively thinking about it. If I see it affects the space I'm currently in or if I'm invited to participate in something, then I may look it up. But, it's not something I'm looking up every day." Many discussed a lack of trust in the conversations they see saying, "I think a lot of people today who are in the whole conservation movement area have misguided views about what conservation is." This through was continued in relation to hunting:

And, I would say that those types of people are the kind of people who are against hunting. But also, on the other side of their mouth they, you know, preach about how we're killing the environment and we need to do our part to maintain ecological stability. But, they don't realize that hunting is one of the biggest contributions people have on conservation. With our money, with our population control and our invasive species management and things like that. So, I just think a lot of it is misguided and ultimately counterintuitive, I guess. It's just protesting silly things and yelling just to yell without actually doing anything but pushing people around. Hunters are actually doing something.

This discussion of not consuming environmental conservation information because a lack of trust in the sources was continued as others said, "I get snippets from friends, and family, and the news. But, I try to avoid the news because everyone's kind of biased, you know? And nobody does actual research with articles and stuff, they just share what they see," and:

I kind of want to turn a blind eye to it so I don't look for it. Partly because if something is really going downhill, I don't really want to know about it. And partly because everything is just there to get you scared, you know? It's all about getting you scared about the end of the world, but the end of the world has past five times already according to them. So, I don't really trust half the things I see because it's only about them trying to scare us, and I don't appreciate that.

Communication Channels: Hunts Interviews

Additionally, the research sought to determine which communication channels are used by Generation Z to receive this information. During the survey, participants selected the top three places they typically consume information on hunting. During the interviews, participants discussed why they selected those channels and themes emerged. The first emergent theme was seeing information on social media and digital platforms because of the accounts they follow. Many discussed social media saying, "I mean, across social media I follow those agencies and organizations that I'm a part of because I believe they have good information. And then it's coming across my feed so, it's not constantly, but consistently in my view," and, "I'm in quite a few Arkansas hunting groups on my Facebook and I like going through and seeing what other hunters post. I think that's why I pick it over most because it's real people, real time," or, "I'll

just be scrolling through something and then I'll see a link and think, oh, that's interesting and then I'll click it and I'm on the website or reading an article."

Others discussed additional forms of digital content such as, "There's one podcast, it's called the MeatEater podcast, and there's a few other ones like it but that's a really good one. He's really big into conservation, and talks with other hunters, and things like that," and, "I occasionally watch hunting videos if they show up on my feed. I guess the algorithm knows I like them," or, "...I'll watch short clips or videos and think, wow, that's a cool concept that I can put into my own experience. I think it's just regular people who've learned stuff being out in the woods and wanting to share it." The occasional need to fact check these sources was mentioned such as, "Websites, I trust Arkansas Game and Fish. But, when I see things on my Facebook page and I think it's interesting I'll definitely go fact check it because I believe everything that just floats through."

The second and final emergent theme was getting information from their fathers and families. Many discussed conversations with the people in their lives saying, "Me and my dad, or my friends, will be talking about something hunting related and that where I get a lot of this stuff from. I guess it's just the easiest way to get information," and, "I mean, the people who taught me to hunt are my family members. So, I just hear about information from them a lot." Many described how their family keeps them updated on regulations:

My parents, or my dad mainly, you know, he'll talk to me about different hunting practices or we'll go over certain things that have to do with it. And he makes sure that every year, you know, I'm up to date on whatever new information is being added or make sure I know exactly how, especially like, safety, hunting, safety practices are very important. And so we always go over them and it's not really an actively seeking it out situation, but he would definitely be one of the first people I'd to seek it out, just because he seems to have a pretty broad knowledge of it and, you know, a lot of experience with it.

When discussing the ORAM scores for participants in the hunts category, the person who introduced them to hunting was often discussed. The overwhelming and only theme was fathers and father figures; However, other members in personal social support systems were also discussed. Participants discussed their fathers and said, “I was taught the art of hunting by my dad and my grandpa. And I’ve always grown up with people around me who agreed with it, including my brother and some of my friends,” and, “I would have never started hunting if it wasn't for my dad taking me deer hunting when I was little and teaching me how to do it. That’s actually how I've been introduced to all forms of hunting.” Many described it as main method for learning from and spending quality time with their fathers:

I mean, that's how I got started was with my dad. And, I definitely have had some friends who aren't as ethical about it, and so that's kind of influenced me to be more ethical in a way. I mean some people, you know, if they don't have a good shot, they just try to take one anyway. But, I try to wait for the perfect moment so that the animal can die peacefully and I learned that from my dad. He's the one that told me that shooting is 10% of the hunt, it's like the icing on the cake. But the real thing about the hunt is being out there with him. It's about building that bond with my dad and with creation.

Others discussed the learning to hunt from father figures saying, “One of my uncles took me deer hunting and that’s where it all started,” and, “My grandpa I’d say was the first one just because I went on my first trip with him but my dad too.” Others discussed the importance on siblings participating:

It was definitely my dad and one of my older brothers. I mean, me and my mom have gone hunting too, but it’s definitely my dad and my bother. I have an older brother that’s like twice my age and any time he’d come home he’d say, want to go hunting? And it didn't matter if it was squirrels or what have you because he would always be like, do you want to go? I may have napped, like, most of the time we were out doing it, but it was just him saying, do you wanna go with me and then just getting to, like, have that experience with him that time with him.

Others described a father figure introducing them to hunting later in life:

So ironically, my whole family's fine with hunting. There's really no one that objects to it in principle, but I never grew up hunting. It was just not something we really did. So, I

was influenced in the hunting by my wife's father. He's a big hunter and he took me out deer hunting a few years ago and it's really gotten me into it a lot. And, just learning more about it is a lot of fun because it's one of the oldest practices that humans have ever engaged in. And, it kind of connects you in a way to, you know, your ancestors or humans that lived before us. You know that the way it exists today is a little different, but in the end, it is the killing and taking of an animal for a specified purpose. So, it's just really cool to learn and do something that so many people before me have done.

Additionally, personal societal support was elaborated on during the interviews as participants described their friend's and family's participation in hunting. The first and final emergent theme was that the participants would not currently be hunting if it was not for their family's support. Many participants said, "I think if nobody in my family hunted then I wouldn't be a hunter. But, my dad's family hunts, my mom's family hunts, so it's kind of just in me," and, "My mom and some people I know have never experienced it [hunting] but I 've never encountered many people that are anti-hunting or who don't know what it means to be an outdoorsman," or, "So, my participation in hunting is mainly based off my dad and I would not be hunting if it weren't for him." Many described the importance of surrounding themselves with likeminded individuals:

I definitely think for anybody, if you have a supportive group for anything you do that have similar values or similar idea as to what you're doing, it makes it a lot easier. So, I've never been worried about talking about it or, you know, speaking my opinion on it. Like, you can go to school and be like, hey, did you guys go hunting this weekend? Like, you can talk to people about it and feel more comfortable about it, and you're not worried about, oh, what are people gonna think? So, having, you know, people around that I can talk to and like, we can have that relation definitely makes it better.

Similar to the discussion on hunting, participants in the interviews provided descriptions for why they consume information on environmental conservation from certain platforms and themes emerged. The first and final emergent theme was stumbling across information on various platforms. Some participants said they are no longer as actively looking for information they used to saying, "I think a lot of it is I happen across it because I'm not as active as

I used to be. I'm in a new area and don't know what's here, but I follow groups and organizations on Facebook," and, "You know, if I'm scrolling through and I see something, I may think it's cool and I'll bookmark it. But being in a new place, new city, I'm not actively seeking it out as much as I used to." Others said they do not actively seek information and instead find it by happenstance such as, "Mainly I just stumble across it. Sometimes I'll read about stuff and look up things about, like, invasive plants. But, I don't really actively seek anything," and, "I just find it randomly because I don't know where to look. I don't know where to start and wouldn't know who to trust and if something is more scientific based or more politics and news based."

The ORAM scores surrounding environmental conservation were also discussed as participants describe the activities of their friends and family. The first emergent theme was that they were unsure about family and friend's participation in environmental conservation. Many participants said they viewed their friend's and family's participation as split saying, "I grew up around people who were like, conserve the environment. And then I have extended family that think climate change is false news so I'm kind of like 50/50. Mostly, it's not a topic that's been brought up," and, "I would say 50/50, because my parents don't seem to care as much about the environment but I have a lot of friends that do. I would like them to be more towards conservation, but not everybody does."

The second and final emergent theme was that their family and friend's participation has a positive effect on their own participation. Many tied this back to hunting by saying, "I don't know if they're going out and like cleaning up streams or going out and promoting wildlife growth, but I know that they definitely contribute by buying their tags and their licenses and their duck stamps every year," and, "The first time I ever went hog hunting was because my grandpa

was invited by the farmer that owned the land in which they were running rampant and ruining his crops. So that's kind of how I got into it.” Others discussed the cultivation of land saying, “I mean, my dad is the one who started making the food plots with clover and corn, and we have a couple of those going. But that has influenced how I participate in conservation.” Discussion of similar beliefs such as, “I think it’s just that we have the same attitudes towards all of the things that are going on. I have a lot of the same beliefs,” and the importance of familial support, even if they do not engage with it as fully as the participant were prevalent:

I feel like it’s definitely being around certain people, you kind of get the encouragement to learn different things as well. So, being around family and friends that do support my idea of it is encouraging because I know I can learn more about it and talk to them about it and they're not going to be like, okay whatever, we don't care. But, even though they may not be going as far into it as I am, they are willing to listen to what I have to say. And, in being unsure of their practices and what they do in a way makes me want to do more because it's kind of like picking up the slack in a sense.

Outdoor Engagement: Hunts Interviews

Finally, the research worked to discover how members of Generation Z are engaging with the outdoors through outdoor activities. During the interviews, participants were asked about their responses in the survey regarding outdoor engagement to gain further insight into their responses. An overwhelming theme that emerged for participants who hunt was enjoying spending time outdoors because they find it to be calming. Many referred to enjoying the fresh air with one participant said, “It’s just nice to go outside and get fresh air sometimes...It’s just calming to breathe it in. Cliché but true.” Another participant concurred saying, “It’s always fun, always relaxing, and just a good way to get some fresh air and get away from technology and things like that.”

Others continued the theme of the outdoors being calming by saying, “I just find it soothing or, like, cathartic to just be outside” and, “I guess I just like connecting with nature and

just enjoying God's creation and the stillness of it." Some participants seemed to find the outdoors calming because of a nostalgia, saying, "I find it calms me down a lot. I grew up doing that with my family so I guess it's a little bit nostalgic but it's also, you know, better than looking at a TV screen or something." Another participant noted the reason they find the outdoors relaxing is because of their upbringing:

I grew up in a very rural area and we were surrounded by a lot of nature. There wasn't really much out there except our farm, so I would always spend my time just walking across our fields, going wherever and seeing what I could see. And I guess it was just very calming for me, which is why I enjoy doing it as much as I did. I've just always felt very comfortable outdoors and going out and seeing what I could see. I find that having that time when I can just go out and don't have to worry about the stresses of everyday life, and don't have anything kind of weighing me down, and can just think about how peaceful it [the outdoors] all is. I don't know, it just helps.

While quotes such as, "I can kind of slow down and just relax and in nature and enjoy God's creation and just being by yourself in the stillness," and the one above indicates participants enjoy spending time outdoors alone, a second emergent was the outdoors fostering connections with friends and family. One participant said, "I just love being outside. I guess because I'm usually hunting with my family and my dogs and I love connecting with them and with nature and just enjoying God's creating and the stillness of it." Participants mentioned connecting with friends, "...but then I also love spending time with my friends in the outdoors who also enjoy hunting, and t's a way I can spend time with my dad and just connect with myself," grandparents, "I enjoy spending time outside gardening specifically because my grandma always did a garden and it just one of those things that my family has done forever and just connects me with them," and parents:

I love hunting and fishing because I do that with my dad, and I've been doing that since I was about seven or so I think. I think it's just something that we do to build our relationship and I just love doing that with him. And I also like to garden with my mom because it's fun to me and it's a way for us to connect. And just, I play softball with friends and I would recommend doing that with friends to anybody.

A third emergent theme that was eluded to by some participants above is enjoying the outdoors because they want to see the scenery. One participant said, “I don’t get to do outdoor activities as much as I would like to, but I just enjoy seeing what’s out there. I live next to a park and it’s nice to see the scenery.” Another participant said they enjoy going outside because they love Arkansas saying, “I mean, we really are the natural state. I don’t really go out during the week that much, but on the weekends there’s so much to do and see. Like, have you seen how pretty the Ozarks are?” Others said they loved being outdoors because it was a change of scenery and respite from their daily tasks:

I guess it’s just a nice change of scenery, when I’m outside, from the normal day-to-day. I’m always looking at a computer with work and school, and on my phone and things like that, and being outside lets your mind open up and see new things and think about new things that I might not see otherwise. Also, I have a dog, so I love taking her outside and letting her roam free and exercise. And so, being outside is great because we get exercise by going on a walk or playing fetch or anything like that. And then it stimulates the brain as well. There’s a lot more things to look at, whether that’d be birds flying or anything else; your mind is constantly looking for things to study and so being outside helps stimulate your brain.

The final emergent theme relating to outdoor engagement was the lack thereof. As referenced in a few quotes above, many participants noted they spend less time outdoors than they want to, often citing school and work as the main reasons for the lack of time spent outdoors. One participant said, “Some things keep me from the outdoors. School, work, responsibilities. You know, I go outside for fun and relaxation, and when I don’t have time to do that I can’t be outdoors.” Others noted how they prioritize time outdoors because it is hard to schedule saying, “I guess the main reason is I just don’t have time, so I try to utilize as much time as I can being outside. But, trying to balance school, work, and everything else leaves me with little time left.” Others provided alternative reasons for why they do not spend as much time outdoors as they would like such as, “Honestly, probably just being lazy and liking my couch”

and, “Well, right now it’s freezing cold and I don’t like that. Other than weather I think it’s just general activities around the house that keep me inside.” The weather was another common reason for time spent indoors, with one participant saying:

I mean, one of the first things that comes to mind today would be weather. It’s raining today so I won’t spend as much time outside as I would like. Work-related things keep me from going outside because I need a computer, so things like that. The biggest one is probably just the weather. If it’s too cold, too hot, rainy, or things like that.

Interview Responses: Hunted

This section includes all interview responses from those who were categorized into the hunted category based on the qualifying survey questions. The questions are divided based on the four research objectives: perceived relationship between hunting and conservation, information consumption on hunting and conservation, communication channels used for this information, and outdoor engagement. The data below includes all quantitative data collected from the interviews. All quotes given are representative of participants supporting each theme.

Hunting and Conservation: Hunted Interviews

This study sought to describe how Generation Z perceives the relationship between hunting and conservation. In the survey, participants were asked to provide the definition of hunting in their own words. The theme of hunting for food was prevalent. Many discussed their families hunting for food by saying, “It’s how my family gets most of their meat for the winter, so it has some really good benefits when done correctly,” and, “It’s mainly for food because, I mean, I enjoy the taste of good venison when its prepared correctly,” or, “There’s game hunting and trophy hunting that both exist, but I’d say most do game hunting which is hunting for, you know, food and the purpose of making something or feeding you, your family, or somebody else.” Others discussed how hunting for food showcases life and its cycles:

It's in some ways learning the life cycle per se, because I mean it gives you perspective on how things go like in nature. Like, it's how, you know, organisms like interact in the wild, and it gives you more appreciation as well for, you know, some of the things that we have like just going to the supermarket. I mean, after a while you kind of you kind of forget that there's a process to how all this gets here. And so, when you hunt, I mean, a lot of people take what they kill to a place where they process it for them, ut I mean, I know my uncle does a lot of that himself as well. So, it definitely gives you more perspective on how things get from, you know, I guess in domestic standards, pasture to supermarket or pasture to plate, I should say.

The second and final themed that emerged was trophy hunting. Many discussed how trophy hunting could have conservation benefits saying, "Whereas trophy hunting, I guess would be for fun, but sometimes also they pay people who do the conservation and stuff when they trophy hunt." Others discussed their preferences in the types of hunting saying, "Hunting for gam is for food mainly. I mean, I know there are some trophy hunters, but I don't trophy hunt. I prefer food over having something hanging on my wall." Finally, some discussed the ways trophy hunting can relate to population control:

I know there's been a lot of controversy around it just because it is, in very plain man's terms, it's killing for fun. But, it's not just that if you follow correct laws, and even with trophy hunting, it can be done to help prevent, overpopulation, which can lead to actually more deer's getting hit by cars.

The conservation taxes were discussed during the interviews. The first emergent theme was that participants were unaware of one or both of the taxes with comments such as, "No. I'm originally from Missouri and I barely keep up with stuff there," and, "I knew of the one, I think, that was related to ammo sales. Just because I watch a lot of gin videos," or, "I don't think so. I didn't know about the taxes," and, "I feel like I've heard of at least one of them before because they sound familiar, but I don't know."

The second and final emergent theme was that they agree with the taxes, provided that the money is being utilized as advertised. Some discussed how the taxes make sense to them saying, "The firearms and, bows and things tax, I think that just goes hand in hand with hunting

being used as a way to fund conservation. They already do that with hunting licenses. I think it's totally fine,” and, “I feel like Arkansas Game and Fish does a lot for our state and with them being a government organization they probably don't have all the resources and I feel like giving them a little bit extra will help.” Others discussed how the taxes sounded too good to be true:

I don't know because most of the time I kind of doubt it, you know, like that sounds too good to be true. I think that some people can use firearms incorrectly, so knowing that at least a portion of the sales would go towards conservation would be, I guess, satisfying on my end of it. I mean, environmental conservation, there's nothing wrong with it. There's no negatives about it. So, I think both taxes sound pretty good but I just don't believe it.

When discussing various opinions on hunting, the theme of hunting for food vs. for sport was prevalent. Many discussed how hunting for food might be preferred but hunting for sports was acceptable in moderation saying, “Hunting for sport is okay in moderation, but there's no need to completely obliterate a habitat just for funsies. And then hunting for food I definitely agree with. That's how a lot of people in my hometown get their food,” and “Maybe this is just being from Arkansas because hunting is a big culture here but hunting for food or sport, either way at the end of it you're helping manage populations. As long as you're not abusing the system,” or, “I prefer hunting for food over hunting for sport but if you can get both, like if you can get a buck with a really good antler but you're still going to eat the food, yeah sure, go ahead.” The discussion of ways trophy hunting can be beneficial was also discussed in regards to this topic:

I personally would feel bad, like, shooting an animal and then not using all of it. So, that's my personal opinion. But, I also know that in other countries, like in Africa, if someone wants to go and hunt a lion for trophy hunting—my great aunt lives in Africa—they'll have them go shoot, like, the lion that's doing the most damage in a negative way that they'd need to die anyway and they'll take that funding and put it back into conservation. So like, I do know that there are situations where trophy hunting and sport hunting can be really good for the same reasons that hunting licenses do fund conservation. And if it's carefully planned, and it's an effective strategy for maintaining the local wildlife in a good way. But, I would have moral reservations about doing it.

During these discussions, the theme of hunting both invasive and native species was prominent. The first emergent theme was the discussion of overpopulation in native species. Some commented on deer and how they can become over populated saying, “I think I've talked about deer hunting a lot. Like, it's really good to control the populations so that the deer overall live better lives because there's not too many or too few and nobody's starving to death,” while others focused more on hunting for food saying, “...Since deer are here and I do enjoy venison as I stated earlier so I guess they kind of automatically make it on the hunt list.”

The second and final emergent theme was discussion the destruction on invasive species. Some discussed the ways invasive species harm native wildlife saying, “As far as the uniqueness and beauty, I really enjoy the stuff we have in North America and I guess it's kind of like a pet peeve of mine that they [invasive species] can come to harm what's already there,” while others also described the danger they pose to humans such as, “Hunting invasive species is really obvious. Those are a danger to the native wildlife and to people and things in general. Like feral hogs, you definitely want those gone.” Some participants described the harm they bring to the business of farming:

Well, one of the things I noticed about invasive species is, like I said, we have land, we have crop that part of it we use ourselves to plant, and the other half we rent. And, that's how we afford our land; That's how my retired grandparents pay their bills. And, invasive species can kind of come in and screw that all up. I know sometimes, like when my grandpa goes out with a shotgun, it's not for sport, it's not for food, it's because something's eating or messing up all of the whatever were planting at the time.

Participants were asked to define environmental conservation in their own words in the survey. Themes from these definitions continued in the interviews. The first and final theme that emerged was being stewards of the land. Some discussed this in the context of the earth being our home saying, “The environment is not just our home, but it's the animals' homes, and our

future children's homes. It's not our place to destroy it when we can take small steps to keep it at least at the same level it is," and "So, you know, we only have one planet, and it's kind of degrading at the moment as I'm learning in environmental science. And, we gain a lot of resources from the environment so we should manage that." Others commented on humans acting as the managers of nature saying, "I think the objective of conservation, as I understand it, is to just maintain that balance sort of despite ourselves," and:

Well, I guess this kind of gets you to a Christian theme as well because, you know, as Christians you believe that we were kind of placed here as shepherds. You know, we have to take care of what's been created. And since it's kind of our responsibility, we have to make sure that we, you know, not only take care of it so that we can enjoy it, but also take care of it so that the next people in line can enjoy it as well. Because if we screw it all up, I mean, all they're going to have to go off of is pictures and videos. And, they'll never be able to actually go out and experience it themselves. Because there's a big difference between, you know, seeing it on a screen and seeing out there, and just being out there.

The relationship between hunting and conservation was discussed throughout the interviews. The first and final theme that emerged was the use of hunting to manage populations. Many discussed the use of regulations to make it beneficial saying, "Like, the game and wildlife commission will say, there's this many animals you can shoot. And they can control, as long as you're hunting legally, the population with these measures while people are getting food, which is really cool." Others discussed the impact overpopulations can have on an ecosystem such as, "They [deer] serve a good purpose in our ecosystems but they can become too much sometimes." The discussion of humans as an apex predator was also commented on:

You know, natural predators are not something that we really have near anymore. I've heard stories, you know down at the hardware store, of people hearing or seeing cats but I've never seen one. And without them, the deer numbers would definitely go up. And deer aren't going to be like, okay, we have to stop or we'll have too many deer and we have to stop eating as much. You know, they're just going to keep eating and that would hurt plant life down to the bottom. And I think—it's been a long time since I've read this study—but I wanted to say there was a time in the early 1900s when they tried to really cut back hunting. And, it was right around the time of the automobile and so I believe

there were a lot of, you know, animal related accidents. But also, with more deer there's less food for the deer and there's going to be a little bit of starvation in their population as well while they hurt the ecosystem. Anyway, I think that we need that top of the food chain kind of keeping things in order.

Information Consumption: Hunted Interviews

An additional research objective for this study was to define what information on hunting or conservation Generation Z consumes to form these perceptions. To gauge engagement with hunting, participants were asked how often they hunt in the survey. During the interviews themes emerged to further explain the engagement in hunting those in the hunted category have. Participants described the elements that keep them from hunting. The first emergent theme was a lack of time. These participants commented on the busyness of life saying, "Life has just been really busy. And, I haven't really had time to get my hunter's ed. course, which was a priority a couple years ago, but college kinda interrupted that." Others discussed the struggles being a college student brings:

It's really busy. I do enjoy, you know, graduate school from a work perspective, but it's a lot of work. So yeah, and same thing in undergrad. I did a research project in undergrad and that took a lot of my time. And then, of course, you can't really take your hunting rifle to campus and I lived on campus most of my time. And you know, you spend most of your time up on campus and it's hard to go back home to go hunting. I want to change that, it's just, you know, I gotta schedule it.

The second and final emergent theme was not having the desire or skill to participate. Some participants said the stillness of hunting was not a good fit for them saying, "I tried once [shooting a deer] and I missed. But you know, more often than not, you don't see anything so it would be a lot of just like sitting still and I'm not very good at that." Others had an experience that kept them from wanting to continue:

Last time I hunted, I shot and the kickback nailed me in between the eyes with the scope. So, after that I was kind of done with it. I just never found a reason to go back. I kind of found it boring, but my brothers did not.

Interview participants also discussed whether or not they plan to re-engage with hunting and two themes emerged. The first emergent theme was participants planning to hunt again with them saying, “Oh, yeah. I’d love to,” and “But, if I went and got it [hunters ed. Certification], I’d definitely probably go hunting soon.” The second and final emergent theme was participants did not plan to reengage with hunting saying, “Not really. If someone asked me to go sit with them while they hunt, I probably would. But, I don't see myself doing it on my own,” and, “Maybe not so much. I'd probably fish before I'd hunt just because fishing takes, I think, less equipment and time and hunting is a little more involved.”

The interviewees discussed why or why not they seek information on hunting and themes emerged. The first emergent theme was participants do not because it’s not something they spend their time engaging with. This was explained as participants said, “I’ve never really wanted to know more. What I know about hunting is the base level of it that I overhear in conversation. I’m just not too interested by it so I don't purposely look for information about it,” and, “Well, it's not something I have the time or really the money to do, so I just don't look up stuff about it. Plus, I live in an apartment so having a gun would be weird. Or a bow.”

The second and final emergent theme was participants seeking hunting information to stay updated and because of a general interest. Some participants said, “Like, Arkansas Game and Fish, I follow them on all platforms and even though I’m not actively hunting, I find it interesting what all goes into it. And like diseases and populations, especially because they heavily pertain to agriculture.” Others discussed seeking gear and regulation information related to hunting such as, “I enjoy looking at fire arm related equipment and also just firearms. That and then looking at the new laws so when I do it I can stay within them.”

The reasoning behind why participant did or did not seeking information on environmental conservation was discussed. Themes emerged from these conversations. The first and final theme was not actively seeking information. Some discussed the lack of this content in their algorithm saying, “I don't feel like I actively seek that information out just because it's not something that, like I have a passion or an interest in and so it's not something that usually pops up on my social media or anything.” Others discussed seeing information on their feed that they did not seek such as, “There was that charity fundraiser. Planting trees? I can't remember exactly how many it was. I think Mr. Beast was part of it. It was a big YouTube thing but it just popped up, I didn't really seek it.” Animal content was also discussed with some participants saying, “As far as seeking it out, other than—I was a huge fan of Steve Irwin—but other than that and other nature programs I cannot think of anything.” Not seeking information because their life situation was also mentioned:

I mean, I try and do what I can for the environment. I don't drive unless I have to, I walk almost everywhere, I recycle; but I don't really know what more to do and I feel like it'd just get me in a spiral if I try and find more ways. And, it's not really feasible for me to find more ways at this point in my life because I'm so busy and I'm just one person living in an apartment. Also, it's probably part of me just being lazy and forgetting about it.

Communication Channels: Hunted Interviews

Next, the researcher sought to determine which communication channels are used by Generation Z to receive this information. All survey participants selected the top three places they typically consume information on hunting. The interviews further explored the reasons for these selected channels and themes emerged. The first emergent theme was content coming from friends and family. Some participants said they did not actively seek information on hunting, but still consumed it saying, “Usually it's just family and friends. Most of what I know is from my

family members just talking around the table. Because they obviously hunt and I don't hunt, so most of what I hear is what they know about,” and:

I don't think I actively seek it. Like I said, my like family and friends are all very big on this topic. And so, I feel like they share a lot of things. My dad sends me a lot of things cause he's like, did you hear about this? And so, I don't feel like I actively seek it most of the time. Most of the time it just kind of comes across and I just consume the information. Even my platforms like Facebook, Instagram, like social media platforms, I'll see it on occasion but its friends and family posting about it.

The second emergent theme was content coming from various digital platforms. Some provided a variety of platform options such as, “Probably some social media account or some newsletter or website, something that's super accessible. I don't think of myself as lazy, but I probably wouldn't go really far outta my way to find it. I love a good newsletter.” Others provided specific digital channels such as, “I watch a lot of YouTube. Mostly for gun content but then I see a lot of hunting that way with my recommended. Like Paul Harrell and Garand Thumb, there's a couple of other ones. Hickok45. Those guys,” and, “I know it sounds weird, but LinkedIn just because I follow so many, like, Arkansas conservation stuff. I feel like I'll get some random like hunting information on there as well,” or, “I know like on TikTok, this isn't Arkansas specific, but during hunting season I get a lot of, like, the crazy bucks or catch and release and stuff like that.”

The third and final theme was consuming hunting content through print media. Some discussed seeing print media content through exposure saying, “We used to get the Monthly Wildlife Conservation Magazine when I was younger and I would read through that just because it's on my kitchen counter.” Others discussed seeing pamphlets in various locations such as, “You know, like, at parks and stuff I may look at the fishing or hunting pamphlets and the season dates on the board and things like that.”

Those in the hunted category elaborated on personal societal support from ORAM scores as they discussed their friend's and family's participation in hunting during the interviews. The discussion of who introduced them to hunting was prevalent. The first and final emergent theme was fathers and father figures. Some participants discussed father figures saying, "Well, when I was a kid, I'd go out with a grandpa and most of them are dead. So yeah, it was my grandpas and then like my stepdad for a while, but you know." Others discussed their fathers saying, "I've grown up with my brothers and my dad hunting and I even hunted at one point," and, "Oh, it was definitely my dad that got me into it." Some described multiple family members depending on the season:

So, the first time that hunting with was with my dad, and then my grandpa. Like I said, just super big outdoorsman and they were really big fisherman. And so then my dad, like that was my first experience hunting was with my dad. But then I continued as we got a little older, we would go on group hunts. And, you know, my grandpa was more of a let's walk around for hours where my dad was like, let's sit in the nice, comfy blind with the buddy heater, so I'd much rather be with my dad when I was hunting.

Participants also discussed the general participation of their friends and family. The first and final theme is how growing up around hunting gave them an overall positive viewpoint of it. Some participants said, "I feel like it's had a big impact, like my whole family from both my mom and dad's side are very big hunting families. You just have that bonding of being able to talk about those experiences with them," and, "I mean, it's just what we've always known and done. You know, venison steak or deer sausage in the morning, one of the best ways to get you out of bed. It's what we do for food." Others discussed how their families participation gave them a positive opinion, even while their friends disagree:

My family, the ones that would hunt, they would hunt and you would use all of the animal that you hunted, so you'd eat it and split it up. And it's really good for conservation because otherwise the local populations get out of control and then they're starving to death instead of, you know, dying and being eaten because their natural predators aren't as prevalent because we're around. So like, because of that, I'm very pro

hunting as long as you're doing it legally and following what's recommended. But like I said, a lot of my friends are vegetarian, so it's kind of weird to say like, hey, I think it is good to eat animals and stuff like that sometimes just because, you know, they can sometimes kind of concede to the point of like, yeah, well they're not starving to death, but I could never eat or harm them and like, that's where the conversation ends.

Others discussed seeing the economic benefits it has for their family:

I've grown up my whole life knowing about it. And I mean, you watch Bambi and you think that hunting is bad and it's just killing animals, but I also see that it's how my brothers and my mom bond with their family members. It's how we get a lot of our meat and we donate a lot of meat to the homeless shelter in our town if we have extra. It's how my mom feeds me over the winter and it honestly is really good to keep the deer, turkey, and all that supply low on our property, so it's not getting hit by, you know, passing vehicles or the tractors and it's not eating all our crops. So, I think it's really positively influenced my opinion of it. It's allowed me to see it in a way that it's not just murdering innocent animals because 90% of the time it's done painlessly and ethically and not until they're older and it's usually for good.

Hunting is something my family likes to do for fun, and the fact that we get food out of it saves my mom money. Neither of my parents make a whole lot, and this way we have all this extra food. We have this food that we can have for less money and it's good food and it has a lot of protein and stuff in it. And I have brothers and they need a lot of food. And usually whatever we don't use, we dehydrate into jerky and like I said, we'll donate it.

Just as in hunting, survey participants selected the top three places they typically consume information on environmental conservation. Interview participants elaborated on why those platforms were used during the interviews. The first theme was consuming information from friends and family. Some participants discussed how they get their information from word of mouth saying, "Well, I think family and friends are for convenience. You know, just if somebody hears something, they'll tell it to you and that kind of thing. Word of mouth is always pretty helpful." And, "I'll heard things in classes or from my friends talking. Things like that."

The second and final emergent theme was using digital content as a source for conservation information. Participants said, "So, if I'm looking for specific information, you know, I'm going to a website and I'm reading about something. Plus, I think they're more reliable than like social media," and, "YouTube is a big watch for me and I'll sometimes see that stuff

mainly because that's what they want to push in their algorithm. I have a few streaming subscriptions but YouTube is a big, big watch for me."

Finally, the ORAM scores relating to environmental conservation and the activities of participant's friends and family were also commented upon during the interviews. The first theme was not knowing much about family and friend's stances on conservation. Participants discussed this in the context of friends saying, "All of my friends are kind of in this, like, hard physics STEM field. So, I don't know how much they think about it but it's not something that really comes up with my friends," and, "So I honestly, really, and I know this sounds bad, like especially being an agriculture but I don't really think about it. And I don't know where my friends stand," They also discussed this in the context of family such as, "They talk about it a lot, like litter pickup or this highway was adopted by blah, blah, blah and all that stuff but I don't know if my family goes outta their way to do anything for it."

The second and final theme was having families that support or supported conservation with participants saying, "I think my family's really pro conservation. Everyone, you know, tries to recycle and do things, but we don't get out as much because a lot of my family's gotten older and so they're staying home more," and, "Well, I mean, it encourages me to keep doing it. Even though I'm not down there, I know they try to take care of the place around them as well. I just sort of inherited those Christian values."

Outdoor Engagement: Hunted Interviews

Finally, the fourth objective consisted of discovering how members of Generation Z are engaging with the outdoors through outdoor activities. The first emergent theme related to outdoor engagement for participants in the hunted category was the outdoors is a way to relax and get fresh air. One participant said, "The fresh air is nice, the sun is nice, you're not working

which is extra nice and pretty relaxing. Yeah, it's just a good time." Another said, "Being outdoors is just calming. And doing things outdoors is a fun way to hang out with friends."

Connecting with others, as seen in the quote above, was another emergent theme. One participant focused on the lack of monetary requirements saying, "Well, as one you know that as a broke grad student it's free so it doesn't really require much. And when the temperature is nice it's nice to go outside with friends and see what's going on." Other participants focused on being able to see the scenery with friends saying, "It just brings joy, being outdoors. You know what I mean? I'll take pictures of things and just explore Arkansas with my friends. There's a lot to explore and see in the state you live in." Some focused on the nostalgia of being outdoors by continuing activities they have engaged in since they were young:

A lot of my family likes to spend time outdoors as well and so it's always been kind of like how we spend time together as a family. We would go outside and do things like bonfires. And me and my grandfather, when I was younger, that's when we'd hunt and get to spend time outdoors. Usually on my mom's birthday we go out to the lake and camp, and fish and just spend time out there together. So yeah, you know, family reasons are a big driving factor in me spending time outdoors and, I guess, the ways I like to spend time outdoors. Growing up like that really influenced me.

Staying active while enjoying the outdoors was another theme that emerged during the data analysis. Some participants focused on participating in community-based sorts as a way to enjoy the outdoors saying, "When doing it [community-based sports], you get to move and stay active and be outside, and hang out with your friends. It's just a lot of fun." Another mentioned how staying active while outdoors related to pet care:

I'm just a very active person, so I work out every day anyways. I also have a dog so going outside with him is kind of a way to kill two birds with one stone. I'm getting active and he gets to have some fun too. And plus, when it's a nice day out I just really appreciate it. Honestly, nothing feels better than fresh air. It's always a mood booster and it's a great way to get off my phone. Sometimes I catch myself being on my phone too much and when you go outside you can bird watch, people watch, and all that. I just like going outside. It's a good distraction from responsibilities and other things.

Mentions of technology introduce the final emergent theme relating to outdoor engagement for participants in the hunted category: Explaining why they do not spend time outdoors. Some mentioned technology, classes, and sleeping saying, “Classes, sleeping, being on my phone, that sort of thing keeps me indoors” and, “Usually when I’m not outside I’m at class or sleeping.” Others mentioned the weather saying, “It’s dark and cold outside right now so I’d say I spend more time outdoors once it’s warm.” Most participants credited school and lab work as the reasons they spend less time outside than they would like saying, “I have work and I’m in grad school so I’m in the research lab and doing homework” and, “Well, I’m in a research lab right now, so that would be the number one reason.”

Interview Responses: Never Hunted

This section includes all interview responses from those who were categorized into the never hunted category based on the qualifying survey questions. The questions are divided based on the four research objectives: perceived relationship between hunting and conservation, information consumption on hunting and conservation, communication channels used for this information, and outdoor engagement. The data below includes all quantitative data collected from the interviews. All quotes given are representative of participants supporting each theme.

Hunting and Conservation: Never Hunted Interviews

The first research objective for this study was to describe how Generation Z perceives the relationship between hunting and conservation. Survey participants were asked to provide the definition of hunting in their own words, and these themes continued in the interview discussions. The first emergent theme was hunting for food. Some discussed using wild game as an alternative to the grocery store saying, “I think of hunting as, you know, trying to be sustainable and not have to rely on, you know, going out to like supermarkets and stuff, to buy

food,” and, “Sometimes hunting isn't for sport, it's for more necessity like, you know, maybe meat prices go up and it's easier for you to just get your own deer and hunt yourself.” Others said hunting for food was what they considered acceptable hunting saying, “I personally believe that the only time you should hunt is, like, for survival. Like, if you might not have money to go to the supermarkets hunting might be cheaper because the animal is just roaming around.” Hunting for food was also discussed as the only proper form of hunting:

Well, if you're killing an animal, like in a slaughterhouse, as your job, that's not really hunting. And if you kill an animal because it's like a bear or something, that's more like self-defense. So yeah, like, if you're using the animal after you killed it, then that's hunting. Like, if you're killing, like, a rat or something or a mouse that's not hunting because that's like pest control and you're not really using it afterwards. If you use the animal after you kill it and you're outdoors and it's not, like, your job, then I would say it's hunting.

The second emergent theme was hunting for sport or trophy. Participants discussed how hunting for sport was their initial thought because, “That's just how I think of it. I think of growing up in a rural area where a lot of people did hunt for fun and sport and not agreeing with it just cause, it seems very violent,” and, “Whenever it comes to over hunting or hunting for pride that, like especially going into wherever people hunt endangered species, or intentionally over hunt past what their limit is, I switch from a good opinion to a negative one.” Wanting to show off for friends was also mentioned with participants saying, “Like trophy sometimes, you know, if it's I guess your first deer, like, it's a good deer, like, you want to be able to show your friends, and family and stuff like that.” Some discussed other connotations to the definition of hunting for sport saying, “When I think about hunting, I think about, you know, like a lot of horror movies. You know, they have the *World's Greatest Hunt* where people hunt each other for sport.” Some said they did not view hunting as something for civil society:

So, for me hunting, it's just like, I don't think that it's very like civil anymore just because there's so many ways to, like, get food and like resources nowadays. So, like for me,

hunting means like, just really killing animals or just killing any sort of like organism, I guess. And then to elaborate on that, I would say that hunting like just encompasses just doing things for, like, sport. Because, we don't like need it to survive as much as we used to like now that we like have our own food or we have other ways of like getting like nutrients. I think it's kind of like, I don't know, barbaric if that makes sense. So, I guess I have a negative view of hunting just because like the end goal of it. I guess like it's not used to like sustain a family anymore, if that makes sense.

A subtheme in this category was connection with others. Many discussed those who hunt doing so with their fathers saying, “Usually when people think of hunting, it's more of people think of hunting for, like, sport. Like maybe a dad and his kid going out and hunting a deer and, you know, posing with the rack when it's done.” Others described it as a family activity saying, “I know for some people it's a sport but it's also a bonding activity that they spend with people that are important to them, and it's something that's important to their family.” Participants described understanding this aspect of hunting through discussions with others:

I've personally never hunted before, but from my experience of being around friends and family who have, it's traveling number out to a remote location and really the main intent and purpose behind it is for food or maybe for the big trophy buck. But, I also can see where people see it as kind of just a nice relaxation recreation hobby to get to know someone else or spend time with someone else. But, in my eyes mainly the intent there is for recreational hunting. I'd say I have a neutral opinion of hunting because I see the value in it and I see why other people enjoy it, but I just don't know if that it's something that I would personally connect with.

The third and final emergent theme was hunting for population management. Some discussed population management in terms of protection from predators saying, “...Just like depending on where you live. Sometimes you could have bears, coyotes, stuff like that that come up and aren't always friendly. And so, you want to manage that and protect yourself, and also like, pets or small children.” Some described wanting to have an objective opinion saying, “I wanted to be objective about it. Because, I know hunting can be really beneficial in a lot of ways, for some animal populations. Overall, I would say I am neutral about hunting.” Others, discussed the way AGFC helps manage populations such as, “It feels like they are our resources, like the

game and fish and wildlife commissions to make sure endangered animals here in the U.S., or otherwise, are sort of protected.”

Additionally, the conservation taxes were discussed during the interviews. The first emergent theme was participants being overall unaware of the taxes described in the study with comments such as, “I was not aware of them, no,” or, “I think I’ve heard of the conservation tax, but I’ve not heard of the other one,” or, “I don’t know what those are.” Most of the participants said they were unaware of either tax prior to this study.

The second emergent theme was the support of the Pittman—Robertson tax, but for various reasons. Some described how they believe using guns for trophy hunting does not support conservation so the tax is good saying, “Because some people buy, like, guns to hunt for trophies. You really ain't doing it for conservation. So, I think that's the reason why that tax is there.” Others said the whole tax just seemed political to them saying, “The second one I think is more political because they're taxing ammunition and firearms. I think that's not really related to conservation, I think they're trying to charge more taxes on firearms because they want more gun control.” Some seemed to agree with this sentiment by saying, “It controls, like, the amount of people just having it. I guess it's like the opposite of an incentive to buy, like, a firearm. But I think if it's, like, being allocated towards conservation, I think that makes sense.”

The third and final emergent theme was participants in support of the taxes because the money is going to conservation. Many discussed the importance of giving back saying, “I think it's important to like give back and contribute resources to like conservation just cause like, humans probably aren't going anywhere for quite a while just because we’re pretty advanced.” Others commented on the money needed for conservation saying, “Species management cost money, so we need money to help protect those animals. If you don't have that much money,

ain't much they can do to buy the equipment they need.” Some described conservation efforts AGFC engages in saying, “A lot of times in, like, the spring or fall, the Arkansas game and fish will go out, and put fish into the lakes and rivers and stuff like that. And without having some money they couldn’t do that.” Other described a trust in AGFC:

From what I have learned of and understand about the Game and Fish Commission, they’re pretty knowledgeable and responsible about most environmental things and they are also pretty directly related to hunting. So, in terms of that interface, I feel confident that, that the money from that tax is going to a good cause

When discussion various opinions on hunting, discussions of hunting for food vs. for sport was prevalent. The first emergent theme was not supporting hunting for sport alone. Many discussed not liking the idea of hunting for sport in general saying, “I view animals pretty empathetically and favorably, making a sport out of killing them and taking them as trophies isn't something that I find pleasant as an idea,” and, “When it becomes like a full sport I just, I have some personal disagreements that. Just, that's not anything that I feel really drawn to and I just don't necessarily love the idea.” Some participants referenced hunting for food in their explanations saying, “If you're just trying to go and get the biggest rack, that's kind of douche. But if you're actually using, you know, eating the deer and doing all of that, then I think it's reasonable.” The dislike for wall mounts was discussed with participants saying, “I think the only part of it that even gives me pause is the idea of just, like, mounting the deer head on the wall. Not necessarily inherently evil or anything, but just not enjoyable to consider.”

The second emergent theme was general support of hunting for food. Some described it as a sustainable way to get food saying, “Hunting for food, it's just to try and be sustainable on your own without having to, like, go to grocery stores or stuff like that, and being able to live on your own.” Having more trust in hunters who do so for food was also discussed with participants saying, “I think people who hunt for food tend to be a little more intentional, maybe, about like

following the rules when they hunt everything like that. Because they're targeting species specifically that you can eat." Some commented on not being opposed to hunting for food but not wanting to eat the product:

Like, if that's something that you need to do for your own well-being and health and for needing food, I think that that's different than just killing animals, for the sake of killing animals. I think it alters a little bit. I don't think that I would personally eat that food. But, I'm not going to judge somebody else's decision. I think I would have agreed with it up until, like, the mounting on the wall. Like, I don't think that there is a need to... What's that word? Like, to show off.

The idea of hunting for food being seen as natural was discussed with participants saying, "I kind of grew up in a religious household and we were told that animals were, like, created for our benefit to some extent. And so, like hunting animals for food is just using what God created for us, and that's fine." Others described hunting as a way to not support large food corporations:

If you're eating the deer, then you're not buying meat at the supermarket. You're not, like, contributing to what they call the protein industry, right? You're not contributing to, like, Tyson or whoever, and they're, you know, slaughtering tons of animals in their facilities.

The third and final emergent theme was not seeing a need to hunt for food. Some said they do not feel people actually hunt for food saying, "I think some people use the guise of hunting for food as just as a full sport, basically," and, "Are people hunting for food?" Others commented on not believe people use the whole animal such as, "Like, the head is kind of the byproduct there. I don't think anyone's wanting to make head beef jerky," and, "It just depends on, like, where it is and how that that animal is being used. Like is it just being used to put on a wall or are they actually eating it and, like, using it's like skin." Americans not needing to hunt for food was also referenced:

It's [hunting for food] not really, like, necessary to the environment that most of us live in nowadays. Just because everything, at least in America, like everything's very accessible, you know? Definitely not for places like third world countries or like places that are having to forage for food or like actually kill the food that they eat.

During these discussions, the theme of hunting both invasive and native species was prominent. Support for hunting for invasive species was prevalent with participants saying, “Like, they [wild hogs] tear up the land, and they don't do any benefit to it, cause like they're nasty, and like they sometimes have diseases, and like their meat isn't edible, so they're not really a good species to have,” and, “If those species are not cut down or hunted, then there's so many negative effects on the environment. Like hogs will destroy gardens, destroy like environments. They're very destructive, and so I definitely support them being hunted.” Some participants did not see a need to hunt either because of nature's natural order saying, “Yeah, I mean it's important to have species management that you don't want certain species to overrun, have an impact their environments. But again, it's also like they have their own kind of natural processes of doing that.”

Participants also were fairly supportive of hunting for native species saying. Some discussed how it can impact diseases saying, “You have diseases that make the white-tailed deer not good to have them a population, and they can get in the other white tail deer. It also just helps keep a good manageable population in the forest and ecosystems.” Some said hunting for native species depends on how they are utilized afterwards such as, “For the white-tailed deer one that's definitely a mix just cause, like I said earlier, it depends on the end result. Like are they using an eating like or are they just like, kind of like killing it?” Population management was also a common discussion as participants said, “Deer aren't considered invasive. But with deer populations being so high, it can cause negative effects. Like, it's more likely for deer to run into cars and stuff. And I learned about, what's that disease that literally shuts down? CWD.”

The theme of hunting being beneficial for the environment was also discussed. Many commented on it being beneficial for the environment because of populations control saying, “I

think it's beneficial just because it keeps populations in a manageable area. Sometimes you'll have populations of animals that are just so high that they overrun the forest, and they don't let other species of animals thrive in there.” Some also mentioned population control but did not agree with hunting as a solution:

I think because I see the benefits for like population control. But, two, why is the population out of control? Like, I grew up in a growing suburb, and so a lot of deer got concentrated into one area because we were taking up their land. And so, then there was, like, a population issue because there were so many deer, and so little land for them. So then, I don't think hunting them would make it right because it's our fault for taking up that much space. And like, humans are the ones who made the ecosystem out of control in that case, and so that's why I was neutral about it.

Others said it is beneficial if you are killing the animal for food but not when it is for sport:

Because that's how the ecosystem naturally works for animals. They are hunted and then eaten. And predatory animals hunt and eat, so I think that's how it naturally works. And you're participating in an ecosystem that way. Whereas if you go, whereas if you're, you know, going to Wyoming and shooting, like, a grizzly bear or something just to skin and have a rug, that's not really how the ecosystem naturally works, so I wouldn't say that's beneficial.

A few participants did not want to agree that hunting was beneficial because of the connotations that may bring:

Well, I feel like if you say ‘agree’ there are certain things that come along with that. Like, I've talked to people that support hunting, and they're also, like, support—I have an issue sometimes with like gun control and stuff like that. So, if I feel like if you say that you agree with hunting that also has, like, a connotation that you support, like, the NRA or something. So, I don't really want to say I agree because I do have issues with, like, uncontrolled guns. If you say that you are for hunting, I feel like that comes with like a, I don't know what the word is, but it comes with like a pressure that you support guns. And I don't. But also, I don't disagree with hunting because it is good for the environment in some ways, and if there wasn't hunting then certain animal populations would get out of control. So I'm kind of in the middle with it.

Finally, some described the use of the word “beneficial” as loaded:

So, like, I feel like beneficial is definitely a loaded word just cause like, is it economic beneficial? Is it environmentally beneficial? Like, are we controlling the populations of

an animal because there's too many or, like, it just depends on like how hunting is being used. I guess like the people around you, like what do they want the end result to be. So, I feel like that beneficial is like really like hard to, you know, describe I guess. I know for animal population control, I guess there's not really another way that you could control a population besides, like, you know, ending it or like, you know, getting down on numbers. So, I guess it's just like the mindset of like hunting and the connotation of the word that's put somewhat of a negative idea in mind. I would say so just because like hunting is such a loaded word because there's so many contexts like that it can be used in.

Hunting needing regulations was the final theme when discussion opinions on hunting activities. A few participants saw the need for regulation but is hesitant on government involvement saying, "I do see the necessity of having governmental involvement. There needs to be some regulation. But, on the other hand, if you have private land with animals, I don't necessarily feel that you should have governmental involvement in that." Some discussed regulations in the use of firearms saying, "I would say I'm still in the neutral ground area. I know with hunting, people may not always be the most educated about firearm use and care and everything, because I know it can be delicate." Other participants said they tend to give people the benefit of the doubt such as, "I'm neutral I guess. As long as they're not breaking any laws when it comes to hunting or they're not hunting on someone else's land. Or like, it isn't negatively affecting the environment. I don't care, really."

In the survey, participants were asked to define environmental conservation in their own words. Themes from these definitions continued in the interviews. Protection was a common theme among the participants. Some participants described it as, "I think conservation is from a standpoint of being able to conserve and protect. And so, I think what that looks like is being able to preserve our environments so that way they can exist for future generations," and, "the whole point of it is to try to protect the land and the animals so that the environment could prosper. So just protecting the environment from human disruption basically." Many discussed that what the environment needs protection from is human actions:

I think that conservation is a form of protection and that our world needs more people to actively protect it from the things that are fighting against the environment, like single use plastic in the ocean and all the greenhouse gases. So, I think of protection, too, is like an action against the negative forces and those negative forces are a lot of what we as humans have irresponsibly done and that we need more people to take action in protecting that.

The second emergent theme was managing resources responsibly. Many discussed the importance of not overusing resources such as, “Everything that like goes into that [conservations] cause it's just about resources and like things that, like, are naturally found on Earth and just preserving those and making sure like we still have, you know, something and we don't use everything up,” and, “Any practices that you're doing to avoid damaging the environment excessively. Using environmental resources, but making sure that you're not using them all. Making sure that it's, you know, not damaging it and like allowing it to come back.” A focus on sustainability was also discussed with participants saying, “It’s just making mitigation efforts for resources and lands. Basically, just taking abandoned areas and making them more environmentally friendly and sustainable.” A few participants focused more on water conservation than land saying, “It’s helping clean up the environment, and that's something that we do as an engineer is we can help with water quality. Whether it be for like drinking water or the waste water going into the rivers and stuff.”

The third and final emergent theme was creating biodiverse ecosystems. Participants commented on the importance of biosecurity by saying, “I think biodiversity is, like super huge in, like, advancing as a species as a whole. So, like when we're conserving different things, like I think that's a huge part of what like it means to like, conserve things.” The mention of future generations also appeared such as, “It’s managing it for our kids but that means also preserving at least some biodiversity and ecological integrity. Because, as much influence as we wield over the Earth and its environment, there's a lot more to it than just humans.” Some discussed small

personal actions such as, “Maybe you pick up your trash if you see trash along a trail. And you can help maintain the environment and the wildlife that's out there and keep it, I guess, diverse by washing your boots and stuff.”

The relationship between hunting and conservation was a prevalent topic throughout the interviews. The first emergent theme was population management. Some participants discussed the importance of managing larger animal species so smaller ones can thrive saying, “A lot of smaller animals help, like, the smaller ecosystems within the forest. And, without managing the large animals that prey upon them, you won't be able to manage the smaller ecosystems in the forest without those smaller animals.” Many participants discussed the importance of managing deer populations by saying, “Especially with deer. There can be so many deer around and too many of them would have a negative impact on the environment and certain species.” Others discussed how over hunting and regulation impacts populations management such as, “I think duck season just ended, but if there weren't those regulations in place, certain popular animals like that would—there'd be a decline in their populations.” And it could affect the whole ecosystem.” The discussion on an environment carrying capacity appeared:

There's a caregiving capacity in an environment where, at a certain point, once the population meets that carrying capacity, it will fluctuate above and below it. And that's due to natural predators and available resources. So, if there's too many deer, the wolves will eat a lot of deer and the grass supply will go low and lessens, so then there's not enough food. Deer start dying. Wolves that had a lot of food then, as their population grow wolves over-predate. Their food supply goes low, they start dying, and then that carrying capacity is not met in your S curve for the environment. And so, hunting with the correct laws is also part of that environmental carrying capacity practice.

A subtheme in this category was humans are acting as an apex predator. Some participants described this as, “the larger animals that are predators prey upon the smaller animals and a lot of the time they don't have anything that's a predator to them. So, the only way they can actually be sustained is with natural selection,” and, “Those deer would have been, you

know, hunted by bears and coyotes and whatnot. But, now that the predator populations really low, it's okay and it's natural for you to hunt, you know, within reason,” or, “Well, while we necessarily don't have to hunt as much as we used to do, we still have to eat. And so, we're still a predator species that requires food and that's just part of the system.”

A second subtheme was overhunting. Many discussed how it was important to not take population management too far saying, “I think everything you can take things too far. And so, I think over hunting is an issue that that could exist and so it's important to have that corrective balance of where you're managing species because they have impact,” and, “It's important to manage and have a healthy number and amount of species in animal populations. But it's also important that we don't over harvest on those lands through recreational hunting.”

The third subtheme in population management was managing the populations of invasive species. Some said they disagree that hunting relates, but can see how it would for invasive species saying, “I don't think they relate. But, if it's an invasive animal that's pushing out other native species, and itself driving them to endangerment and extinction. In that case, hunting is sort of a good thing I guess.” Participants commented on how managing species pertains to protecting the environment:

Going back to like, I disagree with hunting for fun. I do recognize how that can be important when there is like, an overpopulation of the species. And I think that goes back to environmental protection and that if there is an invasive species who is taking over an area, that we need to take action for that.

Many discussed the damages wild hogs create:

Like wild hogs, they're totally destroying people's property and it's important to hunt them so people don't lose out on profits and stuff like that. So, for me like to think about hunting like that. Less killing an animal and stuff, and more like trying to protect the environment.

The final emergent theme was participants saying that hunting did not relate to environmental conservation. The most common explanation given was because hunting by nature kills animals, that is in direct contrast with environmental conservation. Participants described this by saying, “I mean because as I sort of define hunting as killing animals, it's a direct interface. Especially if they're endangered because that can be a bad thing. But yeah, it's killing an animal so it's not conserving something,” and, “I know the ways people say hunting helps with it but I don't think it does. Because, we created those problems and it's still killing an animal.”

Information Consumption: Never Hunted Interviews

The second research objective included defining what information on hunting or conservation Generation Z consumes to form these perceptions. In the survey, participants were asked how often they hunt in the average year. During the interviews, those in the hunted category discussed what has kept them from participation. The first emergent theme was a lack of desire to participate. Many responses said, “I'm not likely to do it. I've never had a great interest in it,” and, “I'm personally—it's just not something I see in my future. You know, I don't think I ever want to live, like, in the country,” or, “No, I could never kill an animal. It baffles me sometimes that people even can.” Some participants said they have the skillsets to hunt but not the desire to:

I would not see myself hunting in the future. When I say I've never hunted, it's because I haven't. But I have, you know, I've been educated on how to properly fire a gun and how, in a state of necessity, I would need to hunt. So, I suppose I'm just adding that my knowledge on it isn't from a place of complete ignorance. It's in a place of I more so just choose not to, because that's not something I find joy in. Killing stuff is difficult for me and, you know, I understand some people do it for necessity. It's just not a personal thing that I enjoy.

The second and final theme was a potential desire to participate. Participants described reasons they may hunt in the future such as influence from others and their own home and

stability. These participants said, “I think if my friends and family did it that then I would love to. Then I would do it too. The only reason I haven’t is I just haven’t really had the opportunity,” and, “I definitely think it’s something that I’d participate in in the future. Like right now? Not really, but probably, like, whenever I have my own house and some stability. Then It’d be something that I might want to participate in.” Others discussed how family impacts them:

I’ve never gone hunting and I honestly don’t think I will in the near future just because I don’t see myself having an opportunity. Most of my family, we don’t really talk about it. I mean, I would assume that they’re probably not very in favor of hunting, but I never really heard hear them talking about it just because they haven’t really lived in a place where you could. And like, none of the people they knew hunted. And my mom is actually vegetarian so I think she’s probably not that okay with it. But yeah, that’s pretty much it. I just—I’d like to. I’m just interested in it. I think it’s pretty cool and I’m kind of getting back into going outside. I guess it would be a good excuse to go outside and you know, sit in the woods for a while, right? But yeah, I would like to try but I don’t see how.

The reasoning behind why participant did or did not seeking information on hunting was discussed during the interviews and themes emerged. The first emergent theme was participants not seeking information on hunting because it is not a topic or activity that interests them. Participants described this saying, “It’s just nothing that I’ve particularly ever connected with, so I’ve never taken a great interest in wanting to learn more about it. So, when I see content related to hunting, it’s generally just kind of a neutral,” and, “I don’t seek information on hunting because I never plan on doing it in the future,” or, “I don’t prefer to think about dead animals, I guess, to put it bluntly. Even though I know it, it’s not necessarily a huge bad thing or anything. It’s just something I prefer not to think about.” Some participant commented on how their social media algorithms do not show them hunting information:

I first thought of like, the algorithm and what shows up on my newsfeed pages and what doesn’t. And I think because, like, I don’t surround myself with people who hunt that that’s why the information doesn’t come to me. Because it’s not something that I’m interested in.

The second and final emergent theme was that some participants occasionally look for hunting information, but not regularly. Participants seeking information during a specified time was common with some saying, “Well, at the time, like I was purposely seeking information on hunting for that class. But I haven't, like since that speech, I have not really seen or sought out information since that speech was due, which was December.” Some participants commented of staying updated through AGFC:

Most of the time I'll look at Arkansas Game and Fish stuff, and so I like to look at like some of the population counts that they have, for, like what seasons are open during the time that I'm outside. Just kind of, you know, to know what's going on and be certain I'm not out in the wilderness whenever, like, hunting is going on. I don't always actively seek it. Sometimes it'll just like pop up on Facebook. A lot of times, like, I'll get emails from Arkansas Game and Fish with it just because I'm subscribed to their email newsletters.

Information consumed on social media was also commonly discussed:

Just like, watching YouTube videos and something comes up. Like, I don't like completely ignore anything about hunting but. I don't, like, search for it. It just sometimes and it comes around. Although, I'd say in the past it was more happened upon. Now I'd say it's a little more actively seeking. It's just kind of interesting to me, I guess. Also, I think it's—I might want to go hunting later in the future. So, it's good to know about that stuff.

Likewise, the discussion of why or why not participants seek information on environmental conservation was conducted during the interviews. The first emergent theme was participants not seeking environmental conservation information. Most said they do not seek it because of a lack of time to engage in environmental efforts. Participants described it as, “I guess it's just not something I have time for. Like, I feel like if it was a part of our coursework or something I'd have no issues like going over it. It's just not super relevant to me.” Some participants said they do not seek the information but do consume some in certain avenues:

Like I said, it's something that I've not really ever engaged with so it's nothing that I particularly search out. I think I've received more information about environmental conservation from an academic standpoint, so I feel like I have had some intellectual

exposure in that in a way. But from a personal exposure standpoint, it's just nothing I've ever taken an interest in.

The second and final emergent theme was participants seeking information on environmental conservation. Some participants said they do so because it is a topic that interest them such as, "Well, because it's interesting to me and I just want to be more knowledgeable about it. Especially because there's a lot of misinformation and if you don't seek information, people will give you information that might not necessarily be accurate." The topic of misinformation was also discussed:

I want to stay informed on what's happening in the world, so that way I can best have an educated opinion and also know how to best, like, take action and taking environmental efforts. Unfortunately, I know that climate change and climate science are surprisingly controversial. And a lot of misinformation exists out there about the, like, state of climate change, the directions, its past. And so, I want to make sure, especially as like a scientifically minded person, that I understand it, that I know what I can do, and what I can educate and encourage others to do about it to augment environmental conservation efforts. I think, that would be a good way to say that. Because, it is a pretty fundamental—in my opinion—a fundamental element of how our lives as humans are going to develop and continue. And at this point, it feels like climate change is something I'm witnessing, and we're in it real time. So, it also feels very urgent and like something I should be up to date on.

Many mentioned doing so to learn new conservation efforts saying, "I purposefully will seek information out because I like to take steps to better my environmental footprint. You know find small things that I can do on a personal level," and, "I like to try and recycle so a lot of times it's just trying to find, like, places that are sustainable and recycle something like shoes and clothes and stuff like that." Care for the environment and animals was also discussed with participants saying, "I really care about the environment. It's one of the things that I care about, probably most. A lot of times, I'll watch documentaries on animals. Like, my family and me watched a documentary about Kangaroos in Australia recently."

Communication Channels: Never Hunted Interviews

The third objective was to determine which communication channels are used by Generation Z to receive this information. Participants selected the top three places they typically consume information on hunting in the survey. The reasoning for these channels was discussed during the interviews and themes emerged. The first emergent theme was participants finding hunting information through digital platforms, whether intentionally sought or not. Some participants mentioned social media, but discussed an overall lack of it such as, “You know, Instagram is always looking for people to be on it more like Snapchat, like always looking for engagement so I don’t see it a whole lot there because I think it’s a turn off for the apps.”

Other participants discussed digital content such as email and websites saying, “A lot of times it's through the email. I’m subscribed through the email newsletters for Arkansas Game and Fish and so if I see something interesting on the email, like, I’ll click on the link and go to the website.” Other participants discussed academic digital forums such as, “I haven't been on the UARK database in a long time actually. Probably since that speech, because I haven't needed to. But, I went on the databases so that I could receive information that's called peer checked, or whatever.”

The second emergent theme was participants consuming hunting information from print sources. Some discussed printed contentment seen during engagement with other outdoor activities such as, “Like when you go hiking—like that's not really something I do like often, it’s just a weekend thing—but if I go into the shop to go to the bathroom, like, I see all the Flyers posted.” Others discussed printed content consumed because the involvement of family:

Normally, when I get information on hunting, it isn't sought out. It's just what appears. And so, if I'm going to fetch the mail, my dad has ordered a hunting magazine and I go get it, and I'm walking back to the house from the mailbox. You know, it's a long walk. I'll read the front, or I'll skim the page and that might give me some information.

The third and final emergent theme was participants consuming hunting information from friends and family. Some participants said that is how they get most of their information on hunting such as, “For the most part I get it from, you know, people around me talking about it. Like hearing my friends they’re going to go and things like that. Because, otherwise, I don't find that information.” Others discussed hearing about seasons and regulations from friends such as, “It's more like it's mentioned around me, and I absorb it. Sort of like, maybe someone mentions, ‘Oh yeah this is this new rule for this.’ And then it's like, ‘Oh, okay.’”

Personal societal support from ORAM scores was elaborated on as participants described their friend’s and family’s participation in hunting during the interviews. The first emergent theme was participant having no close family and friends who hunt. This was discovered as participants said, “I used to live in a big city and I've never really lived in a rural area, so people just didn't really hunt,” and, “I don’t think my community supports hunting because a lot of people don't like supporting hunting because it's, like, bad for the environment. And, I feel the same way about hunting because you’re, like, endangering a lot of species,” or, “I will say that since I'm not close with anybody hunting that, definitely I may not have as, like, fully formed of an opinion of it, as you know somebody who does talk to people who hunt more.” Some participants discussed a lack of family hunting because a lapse in participation:

My dad used to hunt, and he had a situation where he and a buddy were hunting and my dad's bullet ricocheted off a tree and almost killed his friend, so he kind quit because of that. He didn't hunt with me growing up, so it was never something I was exposed to directly.

The second and final emergent theme was participants having some family and friends who engage in hunting. Some discussed their community’s support of hunting saying, “I think the community that I'm around first and foremost are pretty pro hunting. So, I do have friends

who go and I have some distant family who does.” Some participants discussed distant relative participations saying, “I actually family in Tennessee and stuff and they have like a whole, like, taxidermy like shop and whatever. So, it was honestly kind of traumatizing to just see all of, like, the heads of these animals and stuff.” Some discussed the southern culture as a reason their family participates:

A lot of my family is from the South. And so hunting is, you know, a big thing down here. And I've had friends and family, you know, offer fresh meat that they've gotten before from a hunt. And it's, it's good. But it's not, like, good enough that I see a necessity for me to go and do it as well, if that makes sense. I'm fine with them doing what they want to do with it, but when it comes to me, I'm not particularly interested in going out to spend that much time hunting. Just because that wasn't something I really got to do as a kid and now it doesn't interest me.

Participation from extended family was common with some participants describing the negative connotations that gives them towards hunting saying, “With, like, some of my other extended family, they're very conservative, and I guess that kind of has a negative perception of hunting on me. Because they'll say some stuff that worries me a little bit.” Forming perceptions over time through conversations was also discussed:

I'm definitely not experienced with hunting. I sort of have an idea of what it's like from stories from classmates and peers and friends, and even just popular media like TV shows. I can't say it's something I would see myself participating in the way I've grown up. But, I know, at least my parents here in Arkansas, definitely are very protective of animals, so it's sort of given me a wary perspective. But that, combined with the perceptions I've gained from everyone else and my state and my communities, I've learned to sort of see it, not just as sort of some evil thing, but as an actual activity that people enjoy. That doesn't have to be something villainous, so to speak.

This concept of friends introducing others to the benefits of hunting was continued:

So, like growing up, I never hunted, and I haven't been hunting before, and that was just kind of because my mother didn't really like the idea of guns, so we never had guns in our house. But, like I have friends that have guns, and they go out, and hunt and they even invited me if I wanted to go. And so like, I guess that affects the way I think about it because I don't think of it as it just being something that you do. Like, it's a time where you go outside and you get to enjoy, you know, the nature and stuff like that. And you

can help be sustainable to the environment, and also help be sustainable to like, save money for yourself.

Just as in the discussion on hunting, participants provided descriptions for why they consume information on environmental conservation from certain platforms in the interviews and themes emerged. The first and only emergent theme was participants consuming information through digital sources. Websites was a prevalent topic with participants saying, “I always want what I, what I read and what I take in to be reliable, so that’s why I mostly go to websites,” and, “I’m just more inclined to go to a website because it’s easier than, like, going to a database and having to look through for information. Just on Google News, I’ll see something on the environment every now and then,” or, “It’s just the easiest to get information from websites, honestly. Like if it pops up on my newsfeed, I’ll click on it.” The importance of a trustworthy website was commented on:

If it’s a popular brand or popular company I’ll see it [website] more and I think that explains why I get my information from them. Also, because, like, a company I’ve never heard of, you know, if you don’t really know them you think they’re kind of shady. So, I don’t get my information from those but one of them is Game and Fish. It’s mostly government companies that I look for. Government companies and the ones that I trust that have, like, experience doing stuff in the past.

Social media was also discussed a lot as participants said, “On Facebook, it’s more just happening upon it. But, like websites and stuff like that, it’s most of the time I’ll go look at it just to see,” and, “For my social media platforms, I do typically seek it out like in an account. I stumble upon it a lot too. Because a lot of times it will simply appear and I’ll be like, ‘Oh, that’s interesting,’” or, “Usually I’m, like, on social media or watching TV. Sometimes around my school there’ll pamphlets or flyers. So, I see them the most in my community and also social media a lot.” In terms of seeking digital content, the prevalence of phones was mentioned such

as, “Everyone's on their phones a lot nowadays, and more often than not, I spend a lot of my free time scrolling on my phone, consuming information.”

ORAM scores for environmental conservation and the activities of their friends and family were also discussed by the interview participants. The first emergent theme was participants having family and friend who engage with or support conservation. Some participants described their upbringing saying, “Growing up, my parents, we’d go out camping and we're always taught to clean up after yourselves and don't just throw away things that could be like recycled. That's what my parents always told me, and, “I grew up being conscientious in my surroundings and protecting the environment and making sure not to litter and cleaning up whenever I’m on hiking trails and making sure I don't leave a trace when I'm in the environment.” Others commented on how those around you can influence your actions:

I think that having other people around you who are actively environmentally conscious encourages you to continue being so and to find new ways to do so. And I think too, that when I take action that also inspires my friends to take action as well. And so, it's important for me to hold myself to the morals and standards that I would expect of other people.

Different forms of interactions were also discussed as participants said, “...it's also been a largely, like peer-to-peer interaction and a largely, like, generational interaction. Because of my study, some of my professors can be sort of involved with conservation efforts.” Many discussed the importance of friends and family influence saying, “Being surrounded by family, that's always been sort of active in gardening environments and outdoors environments and focused on, you know, environmental consciousness, has definitely influenced my opinion that Environmental Conservation is important.”

The second and final emergent theme was participants being unaware of friends and family participation. Some participants said these forms of interactions rarely happen for them

saying, “My direct interaction with those who have engaged in environmental conservation have been very light, and about the only times that I have had that have been in an academic environment.” Others discussed a lack of knowledge of their family’s participation but the assumption they are supportive of it saying, “I’m not really sure about any specific environmental conservation that my friends and family have done. I know that pretty much all of my family would probably call themselves environmentalists. Maybe not conservationists, but environmentalists.” Some discussed how this lack of knowledge and participation influences them to do more:

It's definitely seeing that while some people do participate in environmental consciousness, some people do not go out of their way. And so, it creates a difficult situation where, it's a difficult situation where I have a positive opinion of it, I think it's important and I think it's a necessity for us to continue living on Earth without needing to outsource to other extraterrestrial planets eventually. And seeing others not see that, that's something that just makes me feel that it's more important to keep your environmental consciousness and preservation and conservation skills high in the current future and the present. Because, like, the present we have now is not guaranteed for the future.

Outdoor Engagement: Never Hunted Interviews

Finally, the study worked to discover how members of Generation Z are engaging with the outdoors through outdoor activities. During the interviews, the theme of staying active while outdoors emerged. Some participants said they enjoyed getting their exercise outdoors because of the saying, “I’m lucky enough to live next to a park so I feel like I’m in a good location to enjoy walking and running. Running is my preferred exercise and I especially like doing it outdoors enjoying nature.” Others focused on the connection to nature exercising outdoors brings saying, “I like running a lot because I used to be an athlete and I’m not anymore but running outdoors helps me connect with my old self and with nature.” Some participants mentioned how the fresh air always felt good to them saying, “I like to go out and ride my bike. You know, just riding around the streets in the neighborhood and getting fresh air. It’s better than being inside

because it can feel like a claustrophobic environment after a while.” Ways to stay active for both practicality and pleasure were also mentioned:

I was born in Michigan and so I grew up with the Great Lakes and I definitely spent a lot of time in the water as a kid. And that’s still something that I enjoy a lot, so when it comes to spending time outdoors I like to stay active and go kayaking and swimming. A lot of water activities are definitely my go-to when it comes to being outside. And then I’ll bike a lot for convenience purposes for getting to class and whatnot. I also spend a lot of time outdoors walking just because it’s an easy way to commute around campus right now and stay active.

A second emergent theme included being outdoors to connect with others. Some mention they enjoy the activities they do because it fosters connections saying, “Those are ways I like to spend time outside because I normally do it with a group. We’re either camping as a group or were floating the river, things like that where I can be with friends.” For many, their outdoor activities revolve around spending time with family with some participants saying, “Most of the time I’m outside on Sunday when I’m walking or hiking with my family, because every Sunday I go back home with my family and they’re very outdoorsy.” Some discussed how their upbringing influenced their adoption of outdoor activities saying, “My parents grew up in Colorado so they’re very hiking oriented and as a child I went on hikes all the time...I guess that’s why I keep it up. I feel better when I’m outside and there’s that connection.” Others discussed similar sentiments but explained how it makes them appreciate spending time with others:

I really enjoy walking places, especially with friends. It’s pretty easy and convenient and you can keep the same pace easily and hold a conversation. I grew up in a sort of semi-isolated area without a lot of neighbors and stuff on a large farm. So, I was raised spending a lot of time outdoors and, you know, it was something to do because I didn’t have any neighbor kids to play with. So, a lot of the activities I did outdoors as a child, like rolling down hills, or collecting sticks, or building things and things like that, were outdoors activities I did with myself. So, it’s nice now to do things outdoors with others now and not always alone.

The third emergent theme described how being outdoors was relaxing. Some participants described enjoying being outdoors when the sun was shining saying, “I really enjoy it because it’s a great way for me to relax...I feel like when I get some sun on my face that it helps relax me and brighten my day.” Some focus on how being indoors can feel confining saying, “I like being outdoors because I can breathe better and it gives me a sense of openness and relaxation. I really like nature because it’s more freeing and less confining, if that makes sense.” Others describe the activities that they feel help them relax while outside saying, “I just like walking around and looking at the trees, and the flowers, and the sky. It’s very peaceful. I also really enjoy gardening. It’s very calming to plant flowers and vegetables.” Some participants described the outdoors as relaxing because it distracts from every day stressors:

I just enjoy spending time outdoors because it’s something that normally relaxes me. Sometimes, I get really stressed during the week from school and stuff like that, and going outdoors and just being outside is a way that I’m able to let it all go.

The final emergent theme was reasons participants spent less time outdoors than desired. Some participants said they were simply tended to enjoy the indoors more saying, “I’m probably just more of an indoor person. I’d like to get out more, but I don’t feel like I have a really specific thing to be doing outside.” Indoor hobbies were also discussed with some saying, “A lot of my hobbies are more indoor activities that are difficult to bring outside. It’s hard to take a computer or a vinyl record player outside.” Some mentioned responsibilities during the week saying, “When I go outdoors, it’s normally camping on the weekends. During the week, I always have school and homework and stuff keeping me in.” Others discussed the weather saying, “It’s mostly due to the heat and a lot of bugs.” Many described general daily activities as the reason for less time spent outdoors saying, “I’m a student so it’s mostly class work, classes, homework,

working around my house, cooking, a lot of every day stuff like that.” Most of the discussion revolved around schoolwork:

A substantial amount of my time is spent indoors just because my other obligations tend to be inside, whether that be school work or just being in class. Usually the only time I ever go outside during the week is when I have some free time to go on a walk.

Summary of Key Findings

The following section includes the key findings from each group that emerged from the survey and interview results. The key findings from each group are intermingled together based on the four research objectives: perceived relationship between hunting and conservation, information consumption on hunting and conservation, communication channels used for this information, and outdoor engagement.

Hunting and Conservation

When asked to define hunting in their own words, each group had themes of hunting for food, for sport or trophy, under regulations, and for animal population control. Those in the hunts category had addition themes of hunting to connect with the outdoors, connect with others, and viewing hunting as a lifestyle. Those in the hunted group also described hunting as a way to connect with nature. In the never hunted group, additional theme of hunting is killing was found when analyzing their definitions of hunting.

Overall, participants in the hunts category had higher means scores relating to the questions about hunting, conservation, and the relation between the two. The lowest mean for the hunted and never hunted groups were for the statement that they are in favor of hunting for sport. In the hunts category, the lowest mean was for being in favor of the Pittman—Robertson Act. The highest mean scores in each group were for the statement that they are in favor of hunting for food.

When asked to define environmental conservation in their own words, the themes of protecting and saving were seen across all groups. Those in the hunted and never hunted groups both had themes of personal human actions, while those in the hunts group had a slightly different theme of human intervention. Both participants in the hunts and never hunted categories had themes or subthemes of resources and future generations. The never hunted category had additional themes and subthemes of regulations, advocacy, and environmental destruction.

When asked if they care greatly about the environment, those in the hunted group had the highest mean ($M = 4.63$), followed by those in the hunts group ($M = 4.57$), and finally those in the never hunted group ($M = 4.43$). Participants were also asked if they believe state-run wildlife stewardship organizations, such as AGFC or TPWD, help with environmental conservation. Those in the never hunted category had the lowest mean ($M = 3.26$), those in the hunts group had the highest ($M = 4.38$), and those in the hunted group were in the middle ($M = 4.21$).

Participants were asked to rank their agreement and disagreement with statements relating to environmental conservation and hunting. When asked in hunting relates to environmental conservation, those in the hunts group had the highest agreement with a mean of 2.68, followed by those in the hunted category ($M = 2.54$) and those in the never hunted category ($M = 2.28$). The statement that hunting must be regulated to be beneficial for the environment had the highest mean in each category.

Finally, participants were asked to explain their reason behind their answer the question, “Does hunting relate to environmental conservation?” All groups had themes or subthemes of population management and invasive species. The hunted and never hunted categories shared themes or subthemes of overhunting, while those in the never hunted and hunts group shared themes or sub themes of regulations. Those in the hunts category had additional themes of

monetary contributions, benefiting ecosystems, and hunters being responsible for the environment. The never hunted group had additional themes of hunting being the opposite of environmental conservation, unrelated to environmental conservation, only related because animals are part of the environment, and trophy hunting.

The interviews showed that all participants think of hunting for food when asked to define the activity. In the hunts category, hunting for food focused more on being ethical and respectful of the animal. Those in the hunts category also defined hunting as connecting to the outdoors and engaging in conservation efforts. Those in the hunted and never hunted categories added an additional definition of trophy hunting, but the never hunted category had a subtheme of connections with others. The never hunted category also used definitions of population control.

Discussion of the two conservation taxes referenced in the survey occurred and all categories had participants who discussed not knowing about the taxes. Those in the hunts and hunted category discussed support for the taxes provided that the money is going where it is supposed to. Those in the never hunted category support the taxes because the money goes to conservation. They also support the Pittman—Robertson Act because it can provide a benefit from purchasing firearms and may serve as a disincentive for purchasing one.

When discussing general hunting opinions, all groups preferred hunting for food over hunting for sport. In the hunted category, many commented on how both can be achieved. Those in the hunted were okay with hunting for sport in moderation and those in the never hunted category do not support hunting for sport alone and some did not see a need to hunt for food. With hunting invasive and native species, all groups supported hunting for invasive species and discussed the destruction they cause. Those in the never hunted category were not completely

opposed to hunting native species but were not totally for it. Both the hunts and never hunted categories agreed that hunting needed to be regulated, but those in the never hunted were hesitant about government intervention. When discussion if hunting is beneficial for the environment, those in the never hunted category tended to either agree and discuss population control or disagree.

When discussion their definitions for environmental conservation, those in the hunts and never hunted categories discussed protecting the environment. The hunts group had an additional theme of hunting being environmental conservation. In the never hunted category, additional themes included managing resources and creating biodiverse ecosystems. Those in the hunted category defined environmental conservation as being stewards of the land.

Finally, when discussion their opinions on the relationship between hunting and conservation all categories mentioned overpopulation and managing populations as a way they relate. In the hunts category, this had a subtheme of regulations to be beneficial. The hunts group had an additional theme of invasive species. In the never hunted category, the theme of population management had subthemes on invasive species, humans as the apex predator, and over hunting. This category also had a theme of hunting not relating to environmental conservation.

Information Consumption

Participants in the hunts category were more likely to hunt often in the average year than those in the hunted and never hunted categories. They were also more likely to purposefully seek information on hunting than the other groups. Some common themes of hunting information for each group was population management of species, seasons and regulations, and others participating in or discussing hunting. Participants in each group mentioned the hunting of

invasive hogs and CWD in white-tailed deer. Participants in the hunts category had a theme of looking to learn new information, oftentimes about the best gear to use, how to hunt with a certain method, or new information about the species they hunt. Participants in the never hunted category had an emergent theme of seeing trophy hunted and were more likely to see hunting information that was negative, such as hunting endangered species, or that they viewed as negative, such as saying they see people pose with after a hunt and disapprove.

Participants in the hunts category had the highest mean score for participating in environmental conservation ($M = 2.28$) followed by those in the never hunted group, and finally those in the hunted group. Participants in the never hunted group had the highest mean score when asked about purposefully seeking environmental conservation information ($M = 1.86$) followed closely by those in the hunts group ($M = 1.85$).

Trash and recycling, land management, water conservation, and population management were common themes participants in each of the groups saw recently. The distinction between invasive and native species was often made in each group. Participants in the hunted category saw themes surrounding business and government effect on the environment, while those in the hunts and never hunted categories had similar but slightly altered themes of climate change information. When discussion the ways they participate in environmental conservation, land management, trash pickups and recycling, and personal choice were regularly occurring themes. Advocacy was a subtheme that appeared in the never hunted group and population management through hunting was a theme in the hunts category. Monetary donations appeared as a theme or subtheme in both the hunts and never hunted categories.

In the interviews, participants in the hunted and never hunted categories discussed what factors keep them from engaging in hunting. Both groups discussed a lack of desire to

participate. Those in the hunted category also commented on a lack of time and those in the never hunted category discussed a potential desire to participate but a lack of opportunity. Participants in the hunted category also discussed if they planned to reengage with hunting and some said yes while others said no.

When discussing why they seek information on hunting those in the hunts and hunted category discussed looking for general updates or having a general interest in hunting. In the hunts category, participants also discussed wanting to improve their skills and knowledge and stay updated on animal population numbers. They also discussed not consistently seeking information. Those in the hunted and never hunted categories had themes of not seeking information on hunting, and the never hunted category had an additionally theme of occasionally looking because of curiosity.

When discussing the same questions but in relation to environmental conservation, all groups discussed not actively seeking this information. Those in the hunts category said they do seek information in order to improve their land while those in the never hunted category said they seek information to stay updated.

Communication Channels

Survey responses show that family and friends often provided the most recent information to participants. The majority in each group, 76 in the hunts category, 15 in the hunted, and 107 in the never hunted category, all said family and friends were where they received their most recent piece of information on hunting. Social media apps also tended to rank high or towards the middle in terms of places participants often read, hear, or see hunting information, particularly Instagram and TikTok. YouTube was ranked higher for participants in the hunts category than in other groups. Other was a common response for those in the never

hunted category, and classes or teacher were often provided as the alternative location. Websites were also a top location for each group when asked where the last piece of information they read, heard or saw on hunting came from.

When asked to rank the top three places they commonly see information on hunting, the same trends apply. Family and friends, Instagram, TikTok, websites, and YouTube were often at the forefront. Many in the never hunted category reported not having consumed information on hunting in the last five years and Facebook ranked fairly high for those in the hunted and hunts categories. Communication channels frequently selected in the hunts category but not in the other two included organizations, magazines, and podcasts.

Hunting ORAM scores for personal societal support were the highest in the hunts category with a mean score of 3.72. The hunted group had the second highest mean score with a 4.49 and never hunted ranked third with a 3.38. Mean scores per question tended to be highest for those that asked if the people they spend the majority of their time with and their local community are in favor of hunting. These were highest in the hunts group, followed by hunted and never hunted. Mean scores for the questions asking if an immediate family member, close friend, or extended family member had hunted in the U.S. in the last five years were similar for those in the hunts and hunted category, and slightly lower for those in the never hunted category, particularly in regards to immediate family participating ($M = 1.84$).

For the most recently seen information on environmental conservation, the top two responses for all of the groups were either the last information they consumed on environmental conservation came from a website or they had not consumed environmental conservation in the last five years. The hunts category listed family and friends as another top location, while the hunted group said organizations and the never hunted group reported it being Instagram. Other

top locations participants consumed the last information they read, heard, or saw on environmental conservation were TikTok, YouTube, and for those in the never hunted category, other. When asked to describe the other location, the majority said classes or teachers.

When asked to select the top three locations they commonly consume environmental conservation information from, websites was the top selected choice for all groups, while family and friends were the second selected choice for those in the hunts and hunted groups. In the never hunted category, Instagram and TikTok ranked among the top three selected, and made appearances lower in the selection count for the other groups. Other was also a top choice in the never hunted group and the responses commonly said classes and teachers. Other top commonly used locations included YouTube, organizations, and not having consumed environmental conservation information in the last five years.

The highest environmental conservation ORAM scores was 3.32 in the hunts category. Those in the hunted category had the second highest at 3.24 and participants in the never hunted category had an overall mean score of 3.07. Similarly to the scores seen in the hunting ORAM scales, mean scores for the questions asking if their local community and the people they spend the majority of their time with are in favor of hunting were higher than those for the questions of immediate family, close friends, and extended family participating in environmental conservation in the U.S. in the last five years. For family and friend's participation, mean scores in the hunts category ranked slightly higher than those in the hunted. Respondents in the never hunted category had the lowest mean scores for these questions, with the lowest being for if immediate family participates ($M = 2.08$).

Likewise, during the interview process themes emerged regarding the sources participants use. All groups discussed receiving hunting information from digital sources such as

websites and social media apps. Friends and family and print sources such as flyers and magazines were also themed for those in the hunted and never hunted categories.

When considering ORAM questions related to hunting, participants in the hunts and hunted categories discussed who first engaged them with hunting and the unanimous theme was fathers and father figures. Those in the hunts category had a theme of believing they would not be hunting today if it were not for their families and friends participating. In the hunted category, participants discussed how growing up around hunting gave them a positive view of the activity.. In the never hunted category, participants discussed both not having close friends or family who hunt, and having those that do.

When discussion sources for environmental conservation information, all groups had themes of digital sources such as social media platforms and websites. Those in the hunted category had an additional theme of family and friends. Looking at ORAM questions for environmental conservation, all groups had themes of participants being unaware of their family and friend's participation in environmental conservation; Additionally, there were themes of, when their family and friends participate, they felt encourage and supported to do so as well.

Outdoor Engagement

The top reported number of hours spent outdoors for pleasure in each group was 3-4 hours a week. The hunts group appeared to spend the highest number of hours outdoors overall. While each group had both 5-6 hours and 1-2 hours as their third and second highest (5-6 second and 1-2 third for hunts and hunted groups, 1-2 second and 5-6 third for the never hunted group), the hunts groups had over ten hours as its fourth highest reported number and 7-8 as the fifth. Both hunted and never hunted had 7-8 hours as their fourth top reported number and less than one as the fifth.

Overall, participants in each category had similar outdoor activity preferences and emergent themes when it came to outdoor engagement. Walking was the most engaged in activity by members in all groups, and ranked among the top most liked activity for all groups as well. Hiking often came in second or among the top activities as well both in terms of most engaged in and top preferred. Community-based sports and running were also often top preferences and engaged in for outdoors activities. All of the groups spend most of their time outdoors with friends and family, followed by spending time outdoors alone.

Each group had overlapping emergent themes during the interviews. All groups had an emergent theme involving the outdoors as a way to connect with their friends and family. Additionally, all groups had the emergent theme of the outdoors being a relaxing and calming place for them to get away from the stresses of their day-to-day lives and enjoy nature. Those in the hunts group had the emergent theme of spending time outdoors to enjoy the natural scenery and God's creation.

Both the hunted and never hunted group had the emergent themes of using the outdoors as a way to stay active through forms or exercise or other methods to get their bodies out active. Finally, all groups had the emergent them of not spending as much time outdoors as would be ideal. Each group mentioned school and work as some of the main reasons behind them not being outside as much as they would like.

Chapter Five: Conclusions and Recommendations

Introduction

This chapter represents the cumulation of this research study: Generation Z's Perceptions of Hunting and Conservation in Arkansas. In this chapter, the researcher will discuss the results found throughout the data analysis process described in chapter four and how they relate to the purpose of this study. By way of reminder, the purpose of this study was to learn Generation Z's opinions and perceptions of hunting in relation to environmental conservation efforts and how these opinions are formed.

Additionally, this study used the ORAM theoretical framework to compare the personal societal support and adoption of hunting for participants in each of the three groups: hunts, hunted, and never hunted. Results from this study are intended to help state wildlife stewardship organizations, such as AGFC, understand Generation Z's perceptions of hunting and conservation, how they are formed, and where they are formed, and how this generation prefers to spend time outdoors. This will help AGFC and the like better communicate with Generation Z through their preferred channels to engage them in hunting and facilitate effective R3 programs.

Finally, this chapter will explain how the research conducted in the study helped meet the research objectives described in chapter one and referenced through the text. This chapter is organized by research objective, followed by implications for practice, and concludes with recommendations for future research.

Research Objective One

The first research objective was to describe how Generation Z perceives the relationship between hunting and conservation. Those in the hunts category were more likely to use "harvest" or "gather" in their definitions of hunting instead of "kill." They also tended to link their

definitions of hunting to the experience, rather than the act taking place. While participants in other groups mentioned hunting to connect with others and the outdoors in various capacities, it was never as prevalent a discussion as it was for those who hunt. Participants in the hunts group had the highest mean scores for each category when asked about their general opinions of hunting. Their lowest scores were for support of the Pittman—Robertson Act and hunting for sport. However, both those who reported being aware of the taxes before and those who were not reported a positive likelihood of support provided that the money collected would be used as described (SIG SAUER, Inc., 2023a).

Alternatively, while the word “harvest” was used by some in the never hunted category, most of these participants described hunting as simply “killing” an animal, and some used the word “murdering.” This aligns with research describing how hunting is often portrayed in a negative light in mainstream media outlets (Larson et al., 2014; Winkler & Warnke, 2013). Those in the hunted category would often simply describe hunting as “killing” as well. All groups discussed hesitations with hunting for sport. In the never hunted category, they often described distaste for it through discussions of hunting endangered animals in Africa. Alternatively, the hunts and hunted categories often described distaste in hunting for sport because they value using the whole animal that is harvested and do not like the idea of being wasteful. All groups commonly reported to somewhat agree with the two conservation taxes. Discussion often centered around how the taxes sounded too good to be true, but participants said they were in support of them if they helping as described.

Support of hunting for food was commonplace across the groups. Many in the never hunted category said they were more likely to support hunting if they knew the individual was using the animal. This aligns with research suggesting that emphasizing the ways hunters use an

animal for food and resources can improve a non-hunter's overall attitude towards hunting (Blascovich & Metcalf, 2019), and that people are more inclined to support hunting for food over other reasons (Byrd et al., 2017).

In environmental conservation, those in the hunted category had the highest mean for reporting they care greatly about the environment with a 4.63. They were followed closely by those in the hunts category with a 4.57 and finally those in the never hunted category with a 4.43. Mean scores were calculated on a five-point scale, indicating that all participants placed high importance in their care of the environment, but particularly those who hunt. This aligns with research that those who engage in outdoor activities such as hunting tend to have high levels of concern for the environment (Dimock, 2019; Malikova, 2021). Those in the hunts and hunted categories had higher mean scores when asked if they believe state-run wildlife stewardship organizations help with environmental conservation compared to those in the never hunted category. Some participants in the never hunted category discussed being unsure of the ways AGFC is involved with the environment. This discrepancy may be due in part to the fact that participants who hunt have more exposure to AGFC because they are the regulatory body for hunting in the state of Arkansas (Arkansas Game and Fish Commission, n.d.).

Finally, participants discussed their opinions of hunting relating to conservation. Responses in this study aligned with past research indicating that environmental conservation is viewed as inherently beneficial, while hunting is not (Winkler & Warnke, 2013; Larson et al., 2014). This is often attributed to a lack of knowledge about how hunting is regulated and used to benefit an area (Larson et al., 2014; Winkler & Warnke, 2013). This led to some participants saying hunting did not relate to environmental conservation because they did not believe it benefited the environment, while others said it related simply because it was an act that had an

impact on the environment, whether negative or positive. For those who do not hunt especially, there seemed to be an assumption that environmental conservation involved not interacting with the environment in any way and letting nature remained untouched.

Alternatively, those in the hunts category often said there was a relation between hunting and conservation because of the monetary support hunters provide towards conservation practices and the population management they participate in (Moore, 2021b; SIG SAUER, Inc., 2023a; Vayer, 2020). They also made note of how regulations were needed and were a tool used to make hunting beneficial for ecosystem management. Likewise, those in the hunted category discussed population management. However, it is important to note that not all in the never hunted category believed the two did not relate. Many mentioned population control and the management of invasive species as well. However, participants in this group also discussed the two relating because of the negative impacts hunting can have on the environment through over hunting or hunting endangered species. This again looks at the information they are consuming, which has a higher tendency to be negative towards hunting than compared to other groups, as some past data has suggested (Larson et al., 2014; Winkler & Warnke, 2013).

Research Objective Two

The second research objective was to define what information on hunting or conservation Generation Z consumes to form these perceptions. When asked if they purposefully sought information on hunting, participants in the hunts category had the highest likeliness to do so with a mean score of 3.51. In terms of information on hunting, participants from all groups were highly likely to mention hearing about or searching for information on hunting seasons. The differences being those in the hunted and never hunted categories were mostly stumbling across this information, while those in the hunts category were often seeking it. Another commonality

among the participants was seeing information on animal populations, with many participants making references to CWD both in the survey and interview portions.

Those in the never hunted category were more likely to consume negative information on hunting such as over hunting, hunting endangered animals, or poaching in Africa. They were also more likely to mention hunting in Africa than the other groups. Alternatively, those in the hunts group often saw more positive information and were likely to be looking for information to improve their skills and tactics. However, the most often consumed information on hunting for all groups was friends and family participating in it. Participants in each category described seeing posts of friends on social media or hearing their dad, other relative, or friends discussing hunting. As was discussed in the last section, hunting is more commonly viewed with a negative connotation by those outside of the activity (Larson et al., 2014; Winkler & Warnke, 2013). This may be due in part to the negative information these participants were more likely to consume around hunting.

For environmental conservation, those in the hunts category were more likely to seek information on environmental conservation, based on mean scores for each group. The information consumed for this group was often about animals and animal habitats. Some described consuming information on climate change, though they often seemed to view it in a negative light with one participant reading articles describing mitigation efforts as “pointless” and “misguided.” In the hunted category, information on environmental conservation of businesses and corporations were common. Finally, those in the never hunted category mainly consumed information on climate change and land management practices. Advocacy appeared as a sub theme for the never hunted group and they were more likely to consume information on resources running out or the last year humans have a chance of reversing climate change.

Alternatively, when those in the hunts category discussed seeing topics on advocacy, they did not appear to seek this information nor believe it, with one participant saying it was, “some b.s. news about the world ending.”

Additionally, those in the hunts category were more likely to have participated in a form of environmental conservation in the last five years. This aligns with past studies that those actively engaging with an outdoor activity are more likely to engage in conservation activities (Cooper et al., 2015). Participants in all groups discussed recycling and trash pickups as ways they have participated in conservation efforts, aligning with past studies listing these as common practices (Cooper et al., 2015). Participants in the hunts and never hunted categories both mentioned donations as a way they contribute to environmental conservation. Those in the never hunted category did not name specific organizations they donate to, but in the hunts category, donating to ducks unlimited and purchasing items such as hunting licenses were commonly referenced. In the hunts category, participants often mentioned managing populations as a way they participate in environmental conservation, which contradicts those in the never hunted category earlier who say hunting does not relate to environmental conservation at all. Because of this, it appears that some participants have different viewpoints of environmental conservation.

While many participants in each group said they do not seek environmental conservation information, others said they do actively seek it or place themselves in a position to regularly consume it, typically through following organizations on social media, which aligns with research describing them as the most environmental conscious generation to date (Dimock, 2019; Malikova, 2021). Participants in the never hunted category, and to some degree but a lesser extent in the hunts and hunted categories, often discussed personal practices they participate in to

promote sustainability, which relates to past research describing a sense of personal responsibility (Su et al., 2019).

Research Objective Three.

The third research objective was to determine which communication channels were used by Generation Z to receive this information. The most prevalent source of information around hunting for participants in each category was friends and family. Many discussed their fathers, father figures and friends participating in hunting. This word-of-mouth communication follows studies saying that members of Generation Z prefer to get personalized recommendations from someone they trust (Madden, 2017). These personal promotions were sometimes received in-person through conversation, but were often seen online through social media, particularly Instagram, TikTok, and sometimes Facebook (Gassett, 2021; Vitelar, 2013). Website was the next highest source for each group, and many said it was because they found the source to be both credible and reliable, a necessity to build trust in Generation Z (Madden, 2017). Participants often discussed using these methods because they were easy to access and credible, which are two factors they place high value in (Madden, 2017; Vitelar, 2013).

When comparing ORAM scores for hunting, it is no surprise that those in the hunts category received the highest scores. This aligns with the research that when immediate family members, close friends or extended family hunt, it is more likely to foster involvement by others (Byrd et al., 2017; Byrne & Dunfee, 2018; Outdoor Stewards of Conservation, 2023a). This is because these relationships allow inexperienced hunters to be taught by someone who has experience in a way that builds connections and confidence (Outdoor Stewards of Conservation, 2023a).

In the hunts category, these scores were the highest with a mean of 2.84 for immediate family members and 2.96 for extended family and close friends. In the hunted category, the mean for immediate family members participating in hunting was 2.63, and the mean for extended family and close friends participating was 2.83. Finally, in the never hunted category, immediate family members hunting had a mean score of 1.84 and extended family and close friends had a mean score of and a close friends and extended family member score of 2.49. All of these scores were based on a Likert scale with answers from agree to disagree and points of five to one respectively, with 3 as the median score.

While all scores were lower than the median of 3 on a five-point scale, participants in each group discussed how conversations with friends and family on hunting often leave them with a positive opinion. In the never hunted category, participants often said these conversations encouraged them to adopt more positive viewpoints of the activity. This, particularly when seeing how some in the never hunted category are open to participate if provided the opportunity, aligns with research suggesting that fostering societal support through connecting non-hunters with hunters can create a positive gateway to participation in hunting (Byrd et al., 2017; Byrne & Dunfee, 2018).

Friends and family were also a top communication channel used to consume information on environmental conservation, though not quite as highly ranked as in hunting information. Websites was the highest or second highest in each category and participants often discussed the credibility of the sites they visit as important (Madden, 2017). Once again, social media held prominent positions in the rankings of places the participants receive information. Instagram and TikTok were often reported as places participants regularly consume information, and YouTube and Facebook were also commonly mentioned. During the interviews and qualitative answers in

the surveys, participants mentioned consuming video content on these platforms, an activity evident through research (Gassett, 2021; Genoveva, 2021). There was also discussion of seeing articles on social media platforms that then lead them to the organization's website.

When comparing ORAM scores for environmental conservation, the hunts category had the highest mean score with 3.32. This could be due in part to many of the participants describing how hunting relates to conservation and the higher volume of family and friends they had who hunt. Participants in the hunted category had an overall mean score of 3.24 and those in the never hunted category had one of 3.07. These scores were also based on a Likert scale with answers from agree to disagree and points of five to one respectively. Again, it is important to look at the perceived participation of immediate and extended family members and close friends (Byrne & Dunfee, 2018). Those in the hunts category were more likely to say their family and friends participate in environmental conservation compared to those in the hunted and never hunted categories. Those in the never hunted category has the lowest mean scores in this area.

Some participants described how they believe their parents support environmental conservation but were unsure of ways they participate. Many participants discussed growing up learning about conservation from their parents and often mentioned learning to not litter and clean up after themselves. Some participants discussed how seeing their friends and family participate in environmental conservation encouraged them to do so as well. Alternatively, some were encouraged to do more from seeing how little they perceived their community's participation. Many in the hunts category said their family and friends hunt and they considered that a form of conservation.

Research Objective Four

The fourth and final research objective was to discover how members of Generation Z were engaging with the outdoors through outdoor activities. When discussing this research with the AGFC social conservation scientist to better understand how it could best serve their needs, interest was expressed in understanding how Generation Z spends their time outdoors to try and reaching them in these areas. To discover how participants in the study spend time outdoors, the survey asked how many hours they spend outdoors for pleasure in the average week, what activity they spend most of their time outdoors participating in, what their top three preferred activities were, and who they tend to spend time outdoors with. Responses were then analyzed based on the three groups.

Overall, those in the hunts category spend more time outdoors than those in the hunted and never hunted category; However, the reported number of hours for each group are very similar. All groups showed an average of 3-4 hours as the top reported time. Additionally, as seen in the interview data, the lack of time spent outdoors was often attributed to the same activities: school and work. Other explanations provided by all groups for a lack of time spent outdoors included poor weather—too hot, too cold, rain, etc.—and a general lack of time because of other responsibilities.

Participants were then asked what activity they spent most of their time outdoors engaging in. Walking was the majority winner in each group. Hiking and community-based sports were also top activities for each of the groups. Hiking ranked second and community-based sports ranked third for both the hunted and never hunted groups. For the hunts group, hunting took second place followed by community-based sports in third and hiking in fourth. All of these activities were referenced in the interviews in the emergent theme of fostering

connections. Some of these activities were also referenced in the themes of enjoying fresh air, relaxing, enjoying the scenery, and staying active.

Next, participants were asked to select their top three preferred outdoor activities to engage in. Once again, walking and hiking were top choices for all groups. However, in the hunts group, hunting and fishing had the top two slots. Community-based sports, camping, swimming, and running were also among the top selected for each group, which aligns with some past research (Cairn Consulting Group & Kampgrounds of America, 2017; Dexter, 2018; Giachino et al., 2022; Reed et al., 2022). Many of these activities were referenced in the interviews when discussing bonding with others by spending time outdoors together. Oftentimes, interviewees would describe their love for certain activities by describing nostalgia and explaining how they participated in it as a kid with their family.

Finally, all participants reported spending most of their time outdoors with friends and family. Similar to the responses regarding most engaged in activities, the fostering connections theme was seen throughout the interviews with each group. Many described how they enjoy spending time outdoors because of the connections they make with friends, parents, grandparents, and other family members. The second highest reported way to spend time outdoors for each group was alone. This was seen in the interview response regarding relaxation. Many participants described how spending time outdoors was a way to calm them distract them from outside stressors.

It is important to make note of the similarities between each group and how much they engage in outdoor activities, what activities they are, and who they engage in them with. These similarities could be used to foster connections between those who hunt and those who do not or have lapsed in participation to increase an individual's personal societal support system and

encourage the adoption of hunting as an activity (Byrne & Dunfee, 2018). Additionally, it is interesting to look at the number of hours participants report spending outdoors in comparison with past studies (IPSOS MORI, 2018; Larson et al., 2019; Madden, 2017).

In past research, less than half of Generation Z participants reported spending more than two hours a day outdoors and an average of nine hours a day on their phone, presumably indoors (Madden, 2017; IPSOS MORI, 2018; Larson et al., 2019). Participants in each group most reported spending 3-4 hours outdoors for pleasure in an average week. Those in the hunts and hunted categories showed 5-6 hours to be the second highest selection and those in the never hunted category has 1-2 hours as their second highest selection. This could be due in part to Fayetteville, Arkansas, the town in which the University of Arkansas is located, being surrounded by rural landscapes and the Ozark Mountains, features which can foster engagement with the outdoors (Byrd et al., 2017; Cooper et al., 2015). Additionally, the top activities preferred by participants were often mentioned to be activities their parents exposed them to when they were younger and have nostalgic connotations (Byrd et al., 2017; Madden, 2017).

Implications for Practice

The results of this study indicate a need to showcase the humanity of hunting to those not engaged with the activity. Organizations should include the facts and statistics on animal population control and monetary contributions to conservation, but do not forget to tell the story of hunting and hunters. Stories are how we pull on heartstring, engage emotions, and connect opposing sides of an argument (Kemp et al., 2021; Storr, 2020). The SIG Sauer videos, both over the Pittman-Robertson Act and conservation with the Caesar Kleberg Wildlife Research Institute, showcase how visual storytelling can be used effectively within the industry. These videos have a greater chance of reaching Generation Z because they are already on the apps with video

content and prefer them (Gassett, 2021; Genoveva, 2021). These stories should include a hunter's desire to use the whole animal they kill and demonstrate some of the ways they do so to show those who do not participate how hunters wish to honor the animal's life by not being wasteful.

Additionally, word of mouth remains one to the most effective forms of marketing and the societal support a person feels towards an activity influences their adoption of a practice (Byrne & Dunfee, 2018; Madden, 2017). The interviewees who hunt or had hunted said they participated initially because their dad or a father-figure in their life such as a grandfather, uncle, or father-in-law, first introduced them to it. Throughout the study, participants said part of the reason they hunt is for that communal aspect that allows them to bond with family and friends in the outdoors. Additionally, many participants, even those who do not hunt, said they receive most of their information on hunting from family or friends through conversations or social media posts. If people who hunt discussed the benefits hunting has on environmental conservation in casual conversations and invite others to join them in the sport, both support of and participation in hunting have the potential to increase.

Communication specialists at organizations such as AGFC, as well as other hunting organizations, should create a media plan that focuses on showcasing the humanity of hunting through personal stories (Kemp et al., 2021; Storr, 2020). While these could be posts directing followers to an article on their website, the best option for reaching the widest audience and gaining the attention of Generation Z is through short-form video content sharable on social media (Auxier & Anderson, 2021; Gassett, 2021; Genoveva, 2021). Short 60-second Instagram Reels could direct followers to a 3-5-minute YouTube video, another preferred platform for Generation Z (Gassett, 2021; Genoveva, 2021). These videos should allow a hunter to tell their

own story of how they adopted the activity, what it means to them, how they care for the land, how they aide in conservation, and how they use the animals they harvest. This would allow non-hunters to have a glimpse into the mindset of a hunter to better understand their motivations and what goes into hunting.

While on the topic of those who already hunt, it is important to note that none of these interview participants said they began participating in hunting on their own accord. Most said it was a father or father figure—commonly uncles, fathers-in-law, and grandfathers for the interview participants—who originally got them into hunting. This theme from the interviews perfectly aligns with past research on who helps others adopt hunting as an activity (Decker et al., 1984; Outdoor Stewards of Conservation, 2023a; Vayer, 2020). The question remains: how can organizations such as AGFC and others mentioned in this study provide those who either do not have a father or father figure, or not one that hunts, the opportunity to engage with the activity? Programs promoted on the AGFC website such as the Arkansas Youth Shooting Sports Program, the Arkansas National Archery in the Schools Program, and the BOW Program are certainly steps in the right direction, but careful consideration on other methods of introducing those who do not the ORAM support structure of a father or father figure involved in hunting are warranted (Byrne & Dunfee, 2018; Decker et al., 1984; Vayer, 2020).

Additionally, as seen in the interview responses for those in the never hunted category in the communication channels section, discussions with friends altered opinions. Some participants described how friends invited them to go hunting with them and that helped alter their perceptions for the better. Additionally, participants described how conversations with friends, peers, and classmates helped change their opinion of hunting for the better. We know from studies that Generation Z values personal recommendations, which is evident in the rise of

influencers (Hajli, 2016; Madden, 2017). We also know that word of mouth remains one of the most effective marketing tactics, even when moved online in the digital age (Hajli, 2016; Seemiller, 2017). These strategies could be applied to peer-to-peer conversations, as they appear to have an impact in improving perceptions of hunting, even if they do not result in participation.

While AGFC has programs such as Becoming an Outdoor Woman and the Arkansas Youth Shooting Sports Program, and other organizations like the Arkansas Outdoor Society work to foster a connection with the outdoors for women, youth and others, more should be done in this area. Excursions with these organizations often come with a fee. Though necessary to keep the operation running, this may prevent someone who is interested in participating but hesitant to spend the money from participating. To combat this, these organizations should consider providing a discount for first-time participants, experiential days to introduce participants to hunting, or other means to relieve the potential for a financial barrier.

It would also be beneficial for outdoor stewardship organizations such as AGFC to reach members of Generation Z who enjoy spending time outdoors through their preferred activities. Walking, hiking and community-based sports were all top activities among each group. Finding ways to relate these activities to hunting through community programs could serve as the initial exposure to hunting and encourage participation in other established programming such as those mentioned above. Reaching a new group in this way should include seasoned hunters participating in the activity alongside the potential hunters to build connections and extend an invitation to join them on a hunting trip to achieve the highest success rate (Outdoor Stewards of Conservation, 2023a).

Returning to the topic of word-of-mouth communication, participants from each group said they spend most of their time outdoors with friends and family and view it as a way to foster

connections with others. Additionally, each group said walking and hiking were some of, if not the top, most engaged in and preferred outdoor activity. On a personal level, hunters who are spending time outdoors by walking or hiking with non-hunters or those who have lapsed in participation could use this time as an opportunity to discuss the benefits it has towards conservation (Byrne & Dunfee, 2018; Seemiller, 2017).

Likewise, state-run wildlife stewardship organizations, such as AGFC and TPWD, may benefit from placing informational boards at the head of or throughout trails explaining the ways hunting benefits the environment through monetary donations and ecosystem management. Exposing individuals to this information may help increase their support of hunting and potentially encourage participation (Byrd et al., 2017). Additionally, because spending time outdoors with others was valued, creating ways for individuals to have connections with others through hunting and related activities, such as those seen in the BOW program, appear to have a high chance of generating participation (Byrd et al., 2017; Cooper et al., 2015; Frantz & Mayer, 2014).

One distinct difference in the definitions of hunting from those who regularly hunt compared to those who have not since they were children or never have was a sense of connection. Participants who hunt described the connection they feel with nature, with their friends and family, and with themselves when defining the word 'hunting.' Some even described hunting as a lifestyle (Cooper et al., 2015). For these individuals that hunt, it is not simply the act of killing an animal for game or other purposes, although many do include these points in their definitions as well, it is about connecting with their personal environments (Frantz & Mayer, 2014). Those who hunt also described additional uses for animals aside from the meat. Many said they hunt to get hides, tallow, bone marrow, and other resources from the animal, in addition

to the meat. Fostering connections to include people who have never hunted before and demonstrating the sustainable use of the animal and positive effects on the environment through population control and monetary donations could help increase participation and support in Generation Z (Byrd et al., 2017; SIG SAUER, Inc., 2023b).

Members of Generation Z in this study often consumed information, both for hunting and environmental conservation, from friends and family, websites, and various social media platforms. Particularly with social media platforms, this was information that they happened upon through their feed. Generation Z values connections and community built through social media (Madden, 2017) and some discussed accounts such as the Oklahoma Department of Wildlife Conservation and the National Park Service Instagram accounts because they were seen as funny and relatable but also informative (Madden, 2017; Vitelar 2013).

This study also shows that they enjoy platforms such as Instagram, TikTok, and YouTube when consuming information on both hunting and conservation, but still value credibility (Gassett, 2021; Genoveva, 2021; Madden, 2017). Fostering connections with Generation Z through relatable but informative content on social media could promote a connection to hunting by providing information in an understandable yet credible manner, particularly when citing the information back to the organization website where they may find further research (McCarney, 2017; Voris, 2021). Social media and personal, word of mouth connections may be key communication outlets to reach members of Generation Z to encourage participation in and support of hunting (Byrd et al., 2017; Gassett, 2021; Genoveva, 2021; Madden, 2017). Additionally, prompting the positive environmental impacts hunting has on local ecosystems and the could cater to Generation Z's desires to protect and manage the environment and live

sustainably while further fostering participation and support in hunting (Cooper et al., 2015; Su et al., 2019).

Recommendations for Further Research

Throughout the study, the researcher collected ideas for additional research to be conducted relating to the topic of understanding Generation Z's perceptions and opinions of hunting to better reach them as a target audience. The recommendations for further research included:

1. Further studies analyzing Generation Z students at other universities in Arkansas, from other states in the U.S., or those who are either too young for college or decided not to attend college, are recommended for additional data on this subject in regards to Generation Z.
2. Continuing this study at other universities with city/urban populations where the participants may have limited access to hunting to compare results.
3. Continuing this study at other universities where the predominate ethnicity is not White, such as Hispanic Serving Institutions (HSI) or 1890 land-grant institutions, to collect more diversity in responses and see how different cultures perceive hunting and conservation.
4. Survey former participants of AGFC youth programs to determine factors influencing their continued engagement with hunting and the outdoors.

The results from this study can be used to help develop effective R3 programs for Generation Z by providing an understanding of how they view hunting and conservation and where they receive their information from. This research will help reach a younger audience and foster participation in hunting to help the activity prosper and continue the needed monetary

support of state-run wildlife stewardship organizations. Through this study, R3 programs can be tailored to members of generation Z who currently hunt, lapsed in participation, or have never hunted to generate the most effective plan for the targets audience.

The researcher believes this is a valuable topic to be studied and that additional research should continue. By understanding where members of Generation Z from a variety of locations and backgrounds stand on this topic, state-run wildlife stewardship organizations can better understand how to reach this up-and-coming generation to foster support and increased participation in hunting to ensure the activity remains as a profitable source of income and beneficial method for conservation management practices for generations to come.

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Appendices

Appendix A: IRB Approval Letter



To: Hannah Chambers
From: Douglas J Adams, Chair
IRB Expedited Review
Date: 10/21/2022
Action: **Exemption Granted**
Action Date: 10/21/2022
Protocol #: 2208419579
Study Title: Generation Z's Perceptions of Hunting and Conservation Efforts in Arkansas

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or irb@uark.edu.

cc: Jill Rucker, Investigator

Appendix B: Professor Solicitation Email

Subject: Generation Z Students Needed for Study on Hunting and Environmental Conservation

Dear Faculty,

My name is Hannah Chambers and I am a master's student in the Dale Bumpers College of Agriculture, Food and Life Sciences. I am writing to let you know about a research study that you have the option of sharing with your students. The study is being conducted by myself and my advisor, Dr. K. Jill Rucker, at the University of Arkansas for the completion of my master's thesis.

I am researching Generation Z's perceptions of hunting and environmental conservation in Arkansas. My target demographic is members of Generation Z who are attending the University of Arkansas. I hope to have participation from both people who have experience hunting and those who do not.

I would greatly appreciate it if you would provide this link, https://uark.qualtrics.com/jfe/form/SV_eaOxi17oph4XplQ, to the students in your courses and invite them to participate. I have also attached a QR code to the study that can be added to a PowerPoint slide for students to scan if that method of distribution is preferred. The survey will take your students approximately 7 to 10 minutes to complete.

There is no cost for your students to participate in the study, and all participants will have the option to be entered into a drawing for a \$50 Amazon.com gift card.

If you provide the link, and your students decide to participate in the study, they will complete an online survey. They will also have the option to provide contact information in order to be interviewed at a later date. Taking part in research is voluntary for them and sharing the link is voluntary for you. If you decide not to share the link or your students decide not to take part in this study, those decisions will have no effect on you or your class.

Please do not hesitate to email us if you have any questions as you read over this material. We are happy to review any of this with you and answer any questions you may have.

Thank you for your time.

Sincerely,

Hannah Chambers

AFLS D112 | hc031@uark.edu

University of Arkansas | M.S. Agricultural Extension Education, Communications & Leadership

Texas A&M University | B.S. Agricultural Communications and Journalism

Appendix C: Follow-up Professor Solicitation Email

Subject: Generation Z Students Needed for Study on Hunting and Environmental Conservation

Dear Faculty,

A few weeks ago, you may have received an email message asking you to invite students in your courses to participate in a study being conducted by myself and Dr. K. Jill Rucker at the University of Arkansas to help collect data for my master's thesis.

If you have already shared the survey with your courses, thank you very much. If you haven't shared the survey with your courses, we hope you will make time to invite your students to participate in this important 7 to 10-minute questionnaire related to Generation Z's perceptions of hunting and conservation in Arkansas.

I am researching Generation Z's perceptions of hunting and environmental conservation in Arkansas. My target demographic is members of Generation Z who are attending the University of Arkansas. I hope to have participation from both people who have experience hunting and those who do not.

I would greatly appreciate it if you would provide this link, https://uark.qualtrics.com/jfe/form/SV_eaOxj17oph4XplQ, to the students in your courses and invite them to participate. I have also attached a QR code to the study that can be added to a PowerPoint slide for students to scan if that method of distribution is preferred. The survey will take your students approximately 7 to 10 minutes to complete.

There is no cost for your students to participate in the study, and all participants will have the option to be entered into a drawing for a \$50 Amazon.com gift card.

If you provide the link, and your students decide to participate in the study, they will complete an online survey. They will also have the option to provide contact information in order to be interviewed at a later date. Taking part in research is voluntary for them and sharing the link is voluntary for you. If you decide not to share the link or your students decide not to take part in this study, those decisions will have no effect on you or your class.

Please do not hesitate to email us if you have any questions as you read over this material. We are happy to review any of this with you and answer any questions you may have.

Thank you for your time.

Sincerely,

Hannah Chambers

AFLS D112 | hc031@uark.edu

University of Arkansas | M.S. Agricultural Extension Education, Communications & Leadership

Texas A&M University | B.S. Agricultural Communications and Journalism

Appendix D: Survey Flyer



Appendix E: University of Arkansas News Email

[Generation Z Students Needed for Study on Hunting and Environmental Conservation](#)

The survey will take approximately 7-10 minutes, and participants may be entered into a drawing for a \$50 Amazon gift card.

Generation Z Students Needed for Study on Hunting and Environmental Conservation

Nov. 10, 2022



Participants may be entered into a drawing for a \$50 Amazon gift card. Generation Z students are needed for this study to learn about their perceptions of hunting and conservation in Arkansas.

The survey will take approximately 7-10 minutes and can be found by scanning the QR code or [following this link](#).



CONTACTS

Hannah Chambers, graduate research and teaching assistant
Department of Agricultural Education, Communication and Technology
512-763-6558, hc031@uark.edu

TOPICS

[Studies](#)
[Dale Bumpers College of Agricultural, Food & Life Sciences](#)
[Agricultural and Extension Education Program](#)
[Department of Agricultural Education, Communications and Technology](#)

Appendix F: Interview Scheduling Email

Razorbacks,

Thank you for agreeing to a follow-up interview for my study on hunting and conservation in Arkansas. Your participation is greatly appreciated.

Please select a date and time you are available in the Sign-Up Genius: <https://www.signupgenius.com/go/10C0F4CA5AF2DA3F8C52-generation>. There are limited spots open, and all slots are available on a first-come, first-served basis. If the study warrants it, there may be a second round of interview times, but this is not guaranteed.

The interview will last 30 minutes or less. I will email you with a confirmation of the time and date of your interview along with a Zoom link. If your schedule changes and you can no longer make that time, please let me know and I will re-schedule it based on your availability. If my schedule changes, I will let you know prior to our meeting time and resend the poll.

Additional information on this study, including what you will be asked to do, options for stopping participation, and confidentiality, can be found in the attached document.

At the conclusion of the interview, your name and email will be added to an Excel sheet for the \$50 Amazon.com gift card drawing. This excel form will be stored on a password-protected server according to state and federal guidelines (more information can be found in the attached document). Winners will be selected using a random number generator and contacted at the conclusion of the data collection period.

I look forward to interviewing you.

Thank you,

—

Hannah 'Chambers' Ferguson

AFLS D112 | hc031@uark.edu

University of Arkansas | M.S. Agricultural Extension Education, Communications & Leadership

Texas A&M University | B.S. Agricultural Communications and Journalism

Appendix G: Interview Confirmation Email

Name,

Thank you for signing up to participate in an interview. The interview will last 30 minutes or less and will be on Zoom (information provided below). Due to the nature of my study, I will need to conduct the meeting over Zoom and cannot change to another platform.

Time: Feb 17, 2023 02:30 PM Central Time (US and Canada)

Join Zoom Meeting

<https://uark.zoom.us/>

Meeting ID:

Passcode:

If your schedule changes and you can no longer make that time, please let me know and I will re-schedule it based on your availability. If my schedule changes, I will let you know prior to our meeting time and resend the poll.

Additional information on this study, including what you will be asked to do, options for stopping participation, and confidentiality, can be found in the attached document.

At the conclusion of the interview, your name and email will be added to an Excel sheet for the \$50 Amazon.com gift card drawing. This excel form will be stored on a password-protected server according to state and federal guidelines (more information can be found in the attached document). Winners will be selected using a random number generator and contacted at the conclusion of the data collection period.

I look forward to interviewing you.

Thank you,

—

Hannah 'Chambers' Ferguson

AFLS D112 | hc031@uark.edu

University of Arkansas | M.S. Agricultural Extension Education, Communications & Leadership

Texas A&M University | B.S. Agricultural Communications and Journalism

Appendix H: Interview No-show Email

Name,

I am on the Zoom if you are still available for an interview today. If you are no longer available, please let me know and I can send a sign-up to reschedule.

Thank you,

—
Hannah 'Chambers' Ferguson
 AFLS D112 | hc031@uark.edu
 University of Arkansas | M.S. Agricultural Extension Education, Communications & Leadership
 Texas A&M University | B.S. Agricultural Communications and Journalism

Appendix I: Interview Rescheduling Email

Razorbacks,

I have created a sign up to reschedule missed interviews. Please select a time that works best for you and your schedule. In order to complete my study on time, this is the last opportunity to interview and be entered to win the \$50 Amazon.com gift card. Please sign up through the link below.

<https://www.signupgenius.com/go/10C0F4CA5AF2DA3F8C52-hunting1>

Once you have selected a time, I will send out a confirmation email with a Zoom link. Let me know if you have any questions.

Thank you,

—
Hannah (Chambers) Ferguson
 AFLS D112 | hc031@uark.edu
 University of Arkansas | M.S. Agricultural Extension Education, Communications & Leadership
 Texas A&M University | B.S. Agricultural Communications and Journalism

Appendix J: Interview Final Reminder Email

Razorbacks,

This is a final reminder to sign up to reschedule missed interviews.

Please select a time that works best for you and your schedule. In order to complete my study on time, this is the last opportunity to interview and be entered to win the \$50 Amazon.com gift card. Please sign up through the link below.

<https://www.signupgenius.com/go/10C0F4CA5AF2DA3F8C52-hunting1>

Once you have selected a time, I will send out a confirmation email with a Zoom link. Let me know if you have any questions.

Thank you,

—

Hannah (Chambers) Ferguson

AFLS D112 | hc031@uark.edu

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Texas A&M University | B.S. Agricultural Communications and Journalism

Appendix K: Interview Informed Consent Document

INVITATION TO PARTICIPATE

Having indicated in a previous survey about Generation Z's perception of hunting and environmental conservation in Arkansas that you are willing to participate in audio-recorded interviews, you are being asked to participate in the second phase of this study. By participating in the interview, you are consenting to allow your responses to be used in the research.

WHAT YOU SHOULD KNOW ABOUT THE RESEARCH STUDY

Who is the principal researcher?

Hannah M. Chambers, a master's student at the University of Arkansas
Email: hc031@uark.edu

Who are the secondary researcher(s)?

Dr. K. Jill Rucker, a professor of Agricultural Leadership at the University of Arkansas
Email: kjrucker@uark.edu

What is the purpose of this research study?

The purpose of this study is to learn Generation Z's opinions and perceptions of hunting in relation to environmental conservation efforts and how these opinions are formed.

Who will participate in this study?

The participants in the interview portion of this study are those who indicated in the previous survey portion of the study that they are willing to participate in Zoom interviews. Participants are expected to be members of Generation Z, born between 1997 and 2012, current students at the University of Arkansas, U.S. citizens.

What am I being asked to do?

Your choice to be involved will require you to participate in a short interview conducted through a Zoom call with principle researcher Hannah Chambers. The audio will be recorded for and transcribed at a later time. These audio recordings will be stored on a password-protected online server. At the conclusion of this study, all anonymous audio recordings will be destroyed, while the anonymous transcripts will be retained on a password-protected server for three years after the conclusion of the study to meet state and federal requirements.

How long will the study last?

The Zoom interview will take approximately 30 minutes or less. This interview will be set up at your convenience.

Will I receive compensation for my time and inconvenience if I choose to participate in this study?

Participants are entered into a drawing to win a \$50 Amazon.com gift card. No further compensation will be offered for participating in the interview portion of the study.

What are the possible risks or discomforts?

There are no anticipated risks associated with this study; however, there may be some discomfort in your answers regarding your opinions.

What are the possible benefits of this study?

Participants are entered into a drawing to win a \$50 Amazon.com gift card. Also, participants may develop an awareness of hunting and environmental conservation practices.

Will I have to pay for anything?

No, there will be no cost associated with your participation.

What are the options if I do not want to be in the study?

If you do not want to be in this study, you may refuse to participate. Also, you may refuse to participate at any time during the study. You will not be affected in any way if you refuse to participate.

How will my confidentiality be protected?

All information will be kept confidential to the extent allowed by applicable State and Federal law, which require that all records of research with human subjects must be maintained for a minimum of three years past the completion of the study. Your name will be changed in the reports of the study, and no information will be shared that could reveal your identity. Records of your responses will be kept secure on a password-protected server. An anonymous transcript will be made of the interview and stored in a password-protected server before the audio recordings will be destroyed at the end of this study.

Will I know the results of the study?

At the conclusion of the study, you will have the right to request feedback about the results. You may contact the principal researcher, Hannah M. Chambers, or the co-researcher, Dr. K. Jill Rucker. You will receive a copy of this form for your files.

What do I do if I have questions about the research study?

You have the right to contact the principal researcher or co-researchers as listed below for any concerns you may have.

Hannah M. Chambers
Email: hc031@uark.edu

Dr. K. Jill Rucker
Email: kjrucker@uark.edu

You may also contact the University of Arkansas Research Integrity and Compliance office listed below. If you have questions about your rights as a participant, or to discuss any concerns about, or problems with the research.

~~Ro Windwalker~~ CIP
Institutional Review Board Coordinator
Research Integrity and Compliance
University of Arkansas
105 MLKG Building
Fayetteville, AR 72701-1201
479-575-2208
irb@uark.edu

I have read the above statement and have been able to ask questions and express concerns, which have been satisfactorily responded to by the investigator. I understand all recordings will be kept in a password protected device and not shared. I understand the purpose of the study as well as the potential benefits and risks that are involved. I understand that participation is voluntary. I understand that significant new findings developed during this research will be shared with the participant. I understand that I can save or print a copy of this consent for my records. My completion of this interview indicates my consent for my responses to be used in this research.

Appendix L: Survey Informed Consent Document

WHAT YOU SHOULD KNOW ABOUT THE RESEARCH STUDY

Who is the principal researcher?

Hannah M. Chambers, a master's student at the University of Arkansas
Email: hc031@uark.edu

Who are the secondary researcher(s)?

Dr. K. Jill Rucker, a professor of Agricultural Leadership at the University of Arkansas
Email: kjrucker@uark.edu

What is the purpose of this research study?

The purpose of this study is to learn Generation Z's opinions and perceptions of hunting in relation to environmental conservation efforts and how these opinions are formed.

Who will participate in this study?

The participants of this study are expected to be members of Generation Z who are current students at the University of Arkansas and U.S. citizens.

What am I being asked to do?

Your participation will require you to complete an online survey. In addition, you will have the option to provide contact information to be interviewed at a later date. Providing contact information for the interview is voluntary.

How long will the study last?

The online survey consists of 50 questions, which will take about 7-10 minutes to complete. If you chose to participate in the follow-up interview, the interview will take 30 minutes or less over Zoom. This interview can be set up at your convenience.

Will I receive compensation for my time and inconvenience if I choose to participate in this study?

There is no compensation for this portion of the study. If you agree to a follow-up interview, there is a chance of winning a \$50 Amazon.com gift card.

What are the possible risks or discomforts?

There are no anticipated risks associated with this study; however, there may be some discomfort in your answers regarding your opinions.

What are the possible benefits of this study?

Participants may develop an awareness of hunting and environmental conservation practices.

Will I have to pay for anything?

No, there will be no cost associated with your participation.

What are the options if I do not want to be in the study?

If you do not want to be in this study, you may refuse to participate. Also, you may refuse to participate at any time during the study. You will not be affected in any way if you refuse to

participate.

How will my confidentiality be protected?

All information will be kept confidential to the extent allowed by applicable State and Federal law, which require that all records of research with human subjects must be maintained for a minimum of three years past the completion of the study. Your name will be changed in the reports of the study and in any information shared that could reveal your identity. Records of your responses will be kept secure on a password-protected server. Your responses that include identifying information will be automatically separated from the rest of your survey responses so that your name will not be tied directly to any of your other responses.

Will I know the results of the study?

At the conclusion of the study, you will have the right to request feedback about the results. You may contact the principal researcher, Hannah M. Chambers, or the co-researcher, Dr. K. Jill Rucker. You will receive a copy of this form for your files.

What do I do if I have questions about the research study?

You have the right to contact the principal researcher or co-researchers as listed below for any concerns you may have.

Hannah M. Chambers
Email: hc031@uark.edu

Dr. K. Jill Rucker
Email: kjrucker@uark.edu

You may also contact the University of Arkansas Research Integrity and Compliance office listed below. If you have questions about your rights as a participant, or to discuss any concerns about, or problems with the research.

~~Ro Windwalker, CIP~~
Institutional Review Board Coordinator
Research Integrity and Compliance
University of Arkansas
105 MLKG Building
Fayetteville, AR 72701-1201
479-575-2208
irb@uark.edu

I have read the above statement and have been able to ask questions and express concerns, which have been satisfactorily responded to by the investigator. I understand the purpose of the study as well as the potential benefits and risks that are involved. I understand that participation is voluntary. I understand that significant new findings developed during this research will be shared with the participant. My completion of this survey indicates my consent for my responses to be used in this research. By clicking the next button, I know I am agreeing to all of the above.

Appendix M: Survey Instrument

Qualifying Questions

Were you born between 1997-2012?

- ☐ Yes
- ☐ No

What U.S. state are you a resident of?

- ☐ Alabama
- ☐ Alaska
- ☐ Arizona
- ☐ Arkansas
- ☐ California
- ☐ Colorado
- ☐ Connecticut
- ☐ Delaware
- ☐ District of Columbia
- ☐ Florida
- ☐ Georgia
- ☐ Hawaii

- ☐ Idaho
- ☐ Illinois
- ☐ Indiana
- ☐ Iowa
- ☐ Kansas
- ☐ Kentucky
- ☐ Louisiana
- ☐ Maine
- ☐ Maryland
- ☐ Massachusetts
- ☐ Michigan
- ☐ Minnesota
- ☐ Mississippi
- ☐ Missouri
- ☐ Montana
- ☐ Nebraska
- ☐ Nevada
- ☐ New Hampshire
- ☐ New Jersey
- ☐ New Mexico
- ☐ New York
- ☐ North Carolina
- ☐ North Dakota
- ☐ Ohio
- ☐ Oklahoma
- ☐ Oregon
- ☐ Pennsylvania
- ☐ Rhode Island

- ☐ South Carolina
- ☐ South Dakota
- ☐ Tennessee
- ☐ Texas
- ☐ Utah
- ☐ Vermont
- ☐ Virginia
- ☐ Washington
- ☐ West Virginia
- ☐ Wisconsin
- ☐ Wyoming
- ☐ Other

Are you currently a student at the University of Arkansas?

- ☐ Yes
- ☐ No

Outdoors

How many hours do you intentionally spend outdoors for pleasure in an average week?

- ☐ Less than an hour
- ☐ 1-2 hours
- ☐ 3-4 hours
- ☐ 5-6 hours

- ☐ 7-8 hours
- ☐ 9-10 hours
- ☐ Over 10 hours

I spend the majority of my time outside doing this activity:

- ☐ Hiking
- ☐ Mountain Biking
- ☐ Cycling
- ☐ Kayaking
- ☐ Camping
- ☐ Rock Climbing
- ☐ Hunting
- ☐ Fishing
- ☐ Walking
- ☐ Running
- ☐ Swimming
- ☐ Gardening
- ☐ Academic Based Sports (Organized sports through a school)
- ☐ Community Based Sports (Intermural sports or casual playing with friends)
- ☐ Other

How do you enjoy spending time outdoors? Select your top three:

- ☐ Hiking
- ☐ Mountain Biking
- ☐ Cycling

- ☐ Kayaking
- ☐ Camping
- ☐ Rock Climbing
- ☐ Hunting
- ☐ Fishing
- ☐ Walking
- ☐ Running
- ☐ Swimming
- ☐ Gardening
- ☐ Academic Based Sports (Organized sports through a school)
- ☐ Community Based Sports (Inter-mural sports or casual playing with friends)
- ☐ Other

The majority of my time outdoors is spent:

- ☐ Alone
- ☐ With friends and/or family
- ☐ With a group
- ☐ With strangers

Hunting

Define "hunting" in your own words:

I am in favor of hunting for sport (ie. trophy hunting):

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

I am in favor of hunting for food:

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree

- ☐ Disagree
- ☐ I do not know

I am in favor of hunting for wildlife management (invasive species, population management, etc.):

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

The people I spend the majority of my time with (family, friends, etc.) are in favor of hunting:

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neither agree nor disagree
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

My local community is in favor of hunting:

- ☐ Agree
- ☐ Somewhat Agree

- ☐ Neither agree nor disagree
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

Have you hunted (large game, small game, bird hunting, trophy hunting, etc.) in the U.S. in the last five years?

- ☐ Yes
- ☐ No
- ☐ Unsure

Did you hunt (large game, small game, bird hunting, trophy hunting, etc.) in the U.S. as a minor?

- ☐ Yes
- ☐ No
- ☐ Unsure

How often do you hunt in the U.S. in an average year?

- ☐ Often
- ☐ Somewhat Often
- ☐ Might or might not
- ☐ Almost Never
- ☐ Never

Has an immediate family member hunted in the U.S. in the last five years?

- ☐ Yes
- ☐ No
- ☐ Unsure

Has a close friend or extended family member hunted in the U.S. in the last five years?

- ☐ Yes
- ☐ No
- ☐ Unsure

I purposefully seek out information on hunting:

- ☐ Often
- ☐ Somewhat Often
- ☐ Might or might not
- ☐ Almost Never
- ☐ Never

Whether you intentionally sought it out or not, what was the content/subject of the last piece of information you read, heard, or saw on hunting?

What was the source of this information on hunting?

☐ Family Member/Friend

☐ Website

☐ Organization

☐ Email

☐ Facebook

☐ Instagram

☐ TikTok

☐ Twitter

☐ Snapchat

☐ YouTube

☐ Podcast

☐ Flyer/Brochure

☐ Magazine

☐ Book

☐ Show/Movie

☐ Other

☐ I have not consumed information on hunting in the last five years

Where do you receive or consume most of your information on hunting from? Select your top three:

☐ Family Member/Friend

☐ Website

☐ Organization

☐ Email

☐ Facebook

☐ Instagram

☐ TikTok

☐ Twitter

☐ Snapchat

☐ YouTube

☐ Podcast

☐ Flyer/Brochure

☐ Magazine

☐ Book

☐ Show/Movie

☐ Other

☐ I have not consumed information on hunting in the last five years

Conservation

Define "environmental conservation" in your own words:

I care greatly about environmental conservation:

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree
- ☐ Disagree

The people I spend the majority of my time with (family, friends, etc.) are in favor of environmental conservation:

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neither agree nor disagree
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

My local community is in favor of environmental conservation:

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neither agree nor disagree
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

Have you actively participated in environmental conservation efforts in the U.S. in the last five years?

- ☐ Yes
- ☐ No
- ☐ Unsure

What types of environmental conservation efforts have you participated in?

Has an immediate family member actively participated in environmental conservation in the U.S. in the last five years?

- ☐ Yes
- ☐ No
- ☐ Unsure

Has a close friend or extended family member actively participated in environmental conservation in the U.S. in the last five years?

- ☐ Yes
- ☐ No
- ☐ Unsure

Do you purposefully seek information on environmental conservation?

- ☐ Yes
- ☐ No
- ☐ Unsure

Whether you intentionally sought it out or not, what was the content/subject of the last piece of information you read, heard, or saw on environmental conservation?

What was the source of this information on environmental conservation?

- ☐ Family Member/Friend
- ☐ Website
- ☐ Organization
- ☐ Email
- ☐ Facebook
- ☐ Instagram
- ☐ TikTok
- ☐ Twitter
- ☐ Snapchat
- ☐ YouTube
- ☐ Podcast
- ☐ Flyer/Brochure
- ☐ Magazine
- ☐ Book
- ☐ Show/Movie

☐ Other

☐ I have not consumed information on environmental conservation in the last five years

Where do you receive or consume most of your information on environmental conservation from? Select your top three:

☐ Family Member/Friend

☐ Website

☐ Organization

☐ Email

☐ Facebook

☐ Instagram

☐ TikTok

☐ Twitter

☐ Snapchat

☐ YouTube

☐ Podcast

☐ Flyer/Brochure

☐ Magazine

☐ Book

☐ Show/Movie

☐ Other

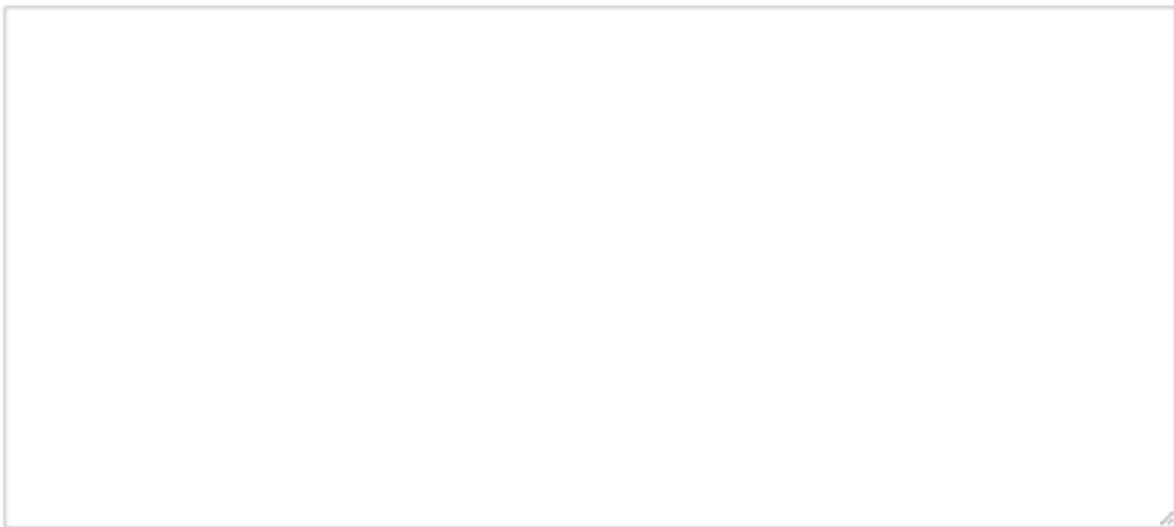
☐ I have not consumed information on environmental conservation in the last five years

Hunting and Conservation

Does hunting relate to environmental conservation?

- ☐ Yes
- ☐ No
- ☐ Maybe
- ☐ I do not know

Please explain the reason for your answer on the previous question:



Hunting is beneficial for the environment.

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree
- ☐ Disagree

☐ I do not know

Hunting is needed for animal population control.

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

Hunting helps maintain balanced ecosystems.

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

I support hunting both invasive species (ie. feral hogs) and native species (ie. white tailed deer).

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree

- ☐ Disagree
- ☐ I do not know

Hunting must be regulated (rules, policies, procedures) to be beneficial to the environment.

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

I am in favor of the Arkansas State Conservation sales tax that gives Arkansas Game and Fish Commission 1/8 of 1 Cent of the general state sales tax for conservation

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

I am in favor of the Pittman-Robertson Act which places additional taxes on firearms, ammo, and archery equipment sold in every U.S state to be used for conservation.

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

State-run wildlife stewardship organizations (Ex: Arkansas Game and Fish Commission or Texas Parks and Wildlife Department) help with environmental conservation.

- ☐ Agree
- ☐ Somewhat Agree
- ☐ Neutral
- ☐ Somewhat Disagree
- ☐ Disagree
- ☐ I do not know

Demographic

What year were you born?

- ☐ 1997
- ☐ 1998
- ☐ 1999
- ☐ 2000
- ☐ 2001

- ☐ 2002
- ☐ 2003
- ☐ 2004
- ☐ 2005
- ☐ 2006
- ☐ 2007
- ☐ 2008
- ☐ 2009
- ☐ 2010
- ☐ 2011
- ☐ 2012

What is your gender?

- ☐ Male
- ☐ Female
- ☐ Non-binary
- ☐ Prefer not to say

Please specify your ethnicity.

- ☐ White
- ☐ Black or African American
- ☐ Latino or Hispanic
- ☐ Asian
- ☐ American Indian or Alaskan Native
- ☐ Native Hawaiian or Pacific Islander

- ☐ Mixed race
- ☐ Prefer not to say

What is the highest degree or level of education you have completed?

- ☐ Some high school
- ☐ High school
- ☐ Associate's degree
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Ph.D. or higher
- ☐ Trade school
- ☐ Prefer not to say

What University of Arkansas college are you enrolled in?

- ☐ Dale Bumpers College of Agriculture, Food and Life Sciences
- ☐ Fay Jones School of Architecture and Design
- ☐ J. William Fulbright College of Arts and Sciences
- ☐ Sam M. Walton College of Business
- ☐ College of Education and Health Professionals
- ☐ College of Engineering
- ☐ School of Law
- ☐ Other

Please specify your religion.

- ☐ Christianity
- ☐ Judaism
- ☐ Islam
- ☐ Buddhism
- ☐ Hinduism
- ☐ Atheist
- ☐ Other
- ☐ Prefer not to say

How would you describe your political view?

- ☐ Very liberal
- ☐ Slightly liberal
- ☐ Neither liberal nor conservative
- ☐ Slightly conservative
- ☐ Very conservative
- ☐ Prefer not to say

Interview

Are you willing to be contacted at a later date to answer additional questions in a Zoom interview? If you complete an interview, you will be entered into a drawing to win a \$50 Amazon gift card.

- ☐ Yes
- ☐ No

Please provide your email:

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