

A COMPARATIVE ANALYSIS OF WHITE AND BLACK COLLEGE STUDENTS’  
ATTITUDES AND BEHAVIORS TOWARD PARTICIPATING IN WILDLAND  
RECREATION

by

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A Comparative Analysis of White and Black College Students' Attitudes and Behaviors  
toward Participating in Wildland Recreation

A Thesis submitted in partial fulfillment of the requirements for the degree of Master of  
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by

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## Dedication

This is dedicated to my loving husband, Jacob; my two adventurous children, Sophia and Wyatt; and my mother, Diane. In addition, to my committed and supportive committee who worked with me step by step. I would not be here without you all.

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## Abstract

### A COMPARATIVE ANALYSIS OF WHITE AND BLACK COLLEGE STUDENTS' ATTITUDES AND BEHAVIORS TOWARD PARTICIPATING IN WILDLAND RECREATION

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George Mason University, 2018

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Research has noted that Blacks are noticeably absent from wildlands, even in regions of the country where Blacks are highly concentrated. Surveys of public lands and other wildland areas have shown that an overwhelming majority of the recreationists are White. It is suggested that more research is needed in order to understand the visitation, recreation patterns, attitudes and behavior toward participation in natural areas (e.g., wildlands) among Blacks. Using a sample of Black and White students who attend George Mason University as the target population, the purpose of this study was to examine college students' attitudes and behaviors toward participating in wildland recreation, as well as their perceived cause for national low participation trends of Blacks and facilitators to increase their participation rate. A non-experimental convergent parallel mixed methods design was used to assess the attitudes and behavioral differences of students toward wildland recreation using online survey. It was found that Blacks were not absent from wildlands and parks, as literature suggests. However, it was

discovered that the majority of Blacks had higher visitation rates in natural areas that were in suburban and urban settings. In comparison, Whites were more likely to visit areas that were more solitude and required specialized equipment, skill-sets, and education.

## Chapter One: Introduction

*“Just as we track trends in species loss and forest cover as a key environmental indicator, we need to pay attention to trends in human behaviors and attitudes as the ultimate driver of global change.” (Kareiva, 2008, p. 2757)*

Wildland recreation refers to those activities that occur in natural, unmanaged, minimally managed, or areas that are managed to appear natural (e.g., elements of nature, terrain, presence of plants and wildlife, or water bodies) (Hammitt, Cole, & Montz, 2015). The most recognized and visited wildland areas are public lands (e.g., National Parks, National Forests, Wildlife Management or Conservation Areas, State Parks, County Parks), areas not designated for recreational use, or privately owned wildlands (e.g., non-profit organizations, private or personal property) (Hammitt et al., 2015). The concepts of danger and risk have been found to be a common facilitator among participants when visiting wildland areas (Lougheed, 2008; Williams, 2014); as such, activities occur in areas where users are expected to be self-reliant as they may come into situations that are hazardous. Limited facilities may be provided for visitor safety and resource protection such as boardwalks, footbridges, and designated camping spots (Hammitt et al., 2015).

The terms nature-based recreation, outdoor recreation, and wildland recreation are often used interchangeably in the literature; however, they hold different meanings with regard to individual's attitudes, engagement, and behaviors in areas dependent on nature

(Cordell, 2008; Cordell, Betz, & Green, 2008; Floyd & Mowatt, 2014; Johnson, Bowker, English, & Worthen; 1998; Johnson, Bowker, Green, & Cordell, 2007; Johnson-Gaither, 2014; Miles, Ritzel, Cordell, & McDonald, 1995; Washburn, 1978). While outdoor recreation, nature, nature-based recreation and wildland recreation are four forms of recreation that occur outside, research suggests that outdoor recreation also consists of sports (e.g., football, soccer), and social events (Cordell, Betz, & Green, 2009; Manning, 2010).

Comparing outdoor recreation to wildland recreation, the activities associated with outdoor recreation are not easily achievable in wildland settings due to its limitation in facilities and unmanaged areas (Cordell, Betz, & Green, 2009; Louv, 2005; Outdoor Foundation, 2016; Manning, 2010). Nature-based recreation is defined as activities in which individuals engage in a natural setting involving some form of direct or indirect contact with elements of nature, terrain, plants, wildlife, or water (Cordell, 2008). These activities can occur in any outdoor setting where some form of nature is present, including urbanized or suburbanized areas or locations (Cordell, 2008; Cordell, Betz, & Green, 2009; Hammitt et al., 2015; Feutcher, 1986). This definition does not suggest areas are minimally managed or require levels of self-reliance as in wildland recreation. People from different recreational, economic, racial, ethnic, and cultural demographics have varied approaches to nature, recreation and wildlands (Li, Absher, Hsu, & Graefe, 2008; Williams, 2014). Furthermore, the terms nature-based recreation and outdoor recreation do not allow researchers the opportunity to explain the attitudes and behaviors

individuals have toward wildland situations that require specific skill sets, knowledge, risks, or limitations of resources and facilities.

### **Benefits of Wildland Recreation**

Chavez and Olsen (2009) assert that recreation that takes place in natural areas is a cultural value that “glues” a healthy society. Activities can include but are not limited to social gatherings, jogging, meditating, observing wildlife and scenery, walking, hiking, fishing, water sports, and cycling (Cordell, 2008; Feutcher, 1986; Hammitt et al., 2015; Manning, 2010; Outdoor Foundation, 2016). As previously noted, wildland recreation involves the potential for higher risk when participating in wildland activities. The concepts of danger and risk have been found to be a common facilitator among participants when visiting wildland areas (Lougheed, 2008; Williams, 2014). Such individuals view these negative risks as thrilling or educational (Lougheed, 2008; Williams, 2014). While wildlands may have negative elements, recreating in wildlands may prove to have a multitude of positive benefits.

Recreational benefits are defined as “voluntarily engaging in recreation behaviors for intrinsic rewards when basic needs like survival, comfort, material needs, and social commitments have already been met” (Burns, Covelli, & Graefe, 2008, p. 129). Although research on the benefits of wildlands is limited, it suggests that natural settings provide many personal, cognitive, physical, psychological, and social benefits (Cordell, 2008). Participation in recreational activities can provide personal benefits, including an escape from a routine life, the ability to feel one with nature, or to improve physical or psychological health (Burns et al., 2008; Louv, 2012; Hammitt et al., 2015). Natural areas

often serve as places in which to recreate, connect with nature, and develop spiritual or personal importance (Chavez & Olson, 2009; Howell et al., 2011; Louv, 2005).

Researchers have also reported that natural environments help people develop and nurture healthy relationships among each other and help people recognize value as part of their community and philanthropy (Howell, Dopko, Passmore, & Buro, 2011; Louv, 2012).

Wildlands are much more than just places to recreate, they also help clean air and filter water, provide protected and managed habitat for flora and fauna, and stand as economic drivers for local communities (Louv, 2012). For example, proximity to wildland or natural areas has been shown to increase the economic value of homes (Louv, 2012). Louv (2012) also found that hospital patients in rooms with tree views had shorter hospitalizations and less pain management medications compared to patients with views lacking any elements of nature. As a result, more doctors are now prescribing patients time in nature as a way to reduce depression and improve psychological well-being (Louv, 2012). Interestingly, individuals vary greatly in how they feel or engage in nature rich settings, with some feeling great sense of positive benefits and some feeling extreme fear and anxiety. As a result, it is recognized that not all people hold the same values, meanings, or symbolism towards wildlands (Driver, Brown, & Peterson, 1991; Cordell, 2008; Williams, 2014).

### **Trends in Outdoor and Wildland Recreation**

Since the early 1900s, the United States of America has rapidly evolved from 40% to over 80% urban population as of 2010, coincidentally reflecting a declining trend in

wildland recreation participation (Kareiva, 2008; Metcalf, Burns, & Graefe, 2013). Research suggests that the American interest in and appreciation for outdoor recreation has increased as sports “continue[d] to be a growing sector in the outdoor industry” (Outdoor Foundation, 2016, p. 1). Such engagement has evolved to incorporate more formal outdoor programming through schools and businesses, technology, and sport related activities that may distract others from connecting with nature on a personal basis (Cordell, Betz, & Green, 2009; Louv, 2005). In 2007, 138.4 million Americans (50%) participated in at least one outdoor activity (Outdoor Foundation, 2008), while in 2016, 144 million Americans (48.6%) participated in at least one outdoor activity (Outdoor Foundation, 2017). While there has been a modest decrease in participation over a relatively brief timeframe, the total number of individuals participating in at least one outdoor activity has increased (due to growth in the population overall).

Pergams and Zardic (2008) explain that there is clear evidence of an ongoing and fundamental shift away from recreation that occurs in public lands (i.e., wildlands). While studying the evolution and changing trends of recreation, researchers have also noted demographic differences (e.g., race, age, education, income, gender) with regard to participation patterns, constraints, motivations and desire to recreate (Johnson et al., 1998; Kareiva, 2008; Louv, 2012; Manning, 2010; Williams, 2014). Whites have historically been the primary participants in outdoor recreation as a whole, and especially in wildland recreation, including visits to national parks and other public lands, earning the name in parks as White spaces (Johnson et al., 2007; Martoglio, 2012). Surveys of public wilderness areas show that an overwhelming majority of the recreationists are

White college-educated, middle to upper income males who are (Johnson & Bowker, 2004; Johnson et al., 1998). Hammitt et al. (2015) state that more recently, however, White females are starting to comprise a greater proportion of wildland visitors.

There is strong evidence supporting an increase in outdoor recreation, however, wildland activities have not shown to be as popular, especially among racial minorities (Cordell, 2008; Cordell, Betz, & Green, 2009; Martoglio, 2012; Outdoor Foundation, 2017). According to Martoglio (2012), national, state, and regional studies show that those individuals self-identifying as White visited national parks at a higher rate than racial and ethnic minorities who were found to primarily use urban parks. The Outdoor Foundation, one of the leading nonprofit outdoor recreation organizations, reported that in 2004, Whites had a participation rate of 79%, which declined to 70% in 2016. Blacks, however, only had an 8% participation rate in 2004, which grew to 9% in 2016 (Outdoor Foundation, 2017; Outdoor Industry Association, 2005). In a survey that examined the primary goals of participating in outdoor recreation among those 18-24 years (college-aged), 33.7% preferred jogging/running, 18.7% preferred biking, and only 8% sought out activities for birding or wildlife viewing (Outdoor Foundation, 2016). White participants sought out activities such as birding, viewing wildlife, and camping, whereas Black participants sought out such activities (Outdoor Foundation, 2016).

Similar results appeared in a study by the National Park Service in 2008-09, 78% of all park visitors were White, 7% were Black, 9% were Hispanic, and 6% other (Martoglio, 2012). Additional research has revealed that Blacks are less likely than Whites to engage in activities such as camping, hiking, or water activities (Outdoor

Foundation, 2016). Johnson et al. (2007) noted that Blacks are noticeably absent from public lands, parks, and green spaces, even in regions of the country where Blacks are highly concentrated. In areas with a larger proportion of minority visitation, participants sought out areas that were in urban settings, were aesthetically pleasing for social or group oriented activities, were sport oriented, or were used for picnicking (Bryne & Wolch, 2009; Burns, Covelli, & Graefe, 2008; Johnson, Bowker, Cordell, & Johnson 2004; Sasidharan, Willits, & Godbey, 2005). Burns, Covelli, and Graefe (2008) found that a low percentage of Blacks showed interest in nature-based activities, with most expressing that their interest did not include wildlands and areas “off the beaten path.”

### **Problem Statement**

Historical research has consistently shown that Blacks participate less in outdoor and wildland recreation compared to Whites (Johnson, Bowker, Green, & Cordell, 2007; Martoglio, 2012; Outdoor Foundation, 2016). Given the physical, psychological, and social benefits of participating in outdoor and wildland recreation, the low representation of persons of color is an important societal issue. To address this underrepresentation, researchers have thus espoused the need for research on the attitudes and behaviors that Blacks and Whites have towards participation in wildland recreation. Martoglio (2012) and Williams (2014) suggest that more research is needed to describe visitation patterns, constraints, recreation patterns, environmental values and participation attitudes in natural areas. Kareiva (2008) asserts “[j]ust as we track trends in species loss and forest cover as a key environmental indicator, we need to pay attention to trends in human behaviors and attitudes as the ultimate driver of global change” (p. 2757). Hence, to

ensure that underrepresented populations have equal access to these public benefits, an understanding of behaviors and attitudes that impact participation rates is warranted.

### **Research Purpose and Questions**

The purpose of this study is to expand the knowledge of White and Black behaviors in and attitudes towards participating in wildland recreation, through a comparative analysis of George Mason University (GMU) college students. Many studies have included data from participants whose ages are in the range of traditional matriculating students that attend college (18 – 22), however, little research has specifically focused on college students, and their perceptions by race. Age has been found to be a factor in regard to ones' participation in recreation, as it is theorized that children take on parental recreational patterns or constraints due to family, cultural, or economic situations (Gordon & Luloff, 2010; Louv, 2012). College students, however, are typically exposed to varied experiences, interactions and opportunities that may differentiate their recreational patterns from their parents. Hence, investigating college students' attitudes and behaviors can provide insight into past and current personal and social factors that influence their attitudes about wildland recreation.

Extant research also does not provide data on how Blacks and Whites conceptualize wildlands and wildland recreation. This study seeks to differentiate Black and White college students' definitions of wildland and wildland recreation, as research has shown that due to cultural and social interests, each group may define wildland or nature differently as such definitions may hold different meanings (Chavez & Olsen 2009, Ho et al., 2005, Williams, 2014). Studying the attitudes and behaviors toward

participation in wildland recreation among both White and Black college students will provide a better explanation of how they are similar and different from each other; so that wildlands may become a place where underrepresented populations have equal access to these benefits.

In alignment with said purpose and to address gaps in the literature, this study seeks to answer two research questions:

1. What are the attitudes of college-students toward wildlands and participating in wildland recreation; and what differences exist on the basis of race, gender, educational level, and geographic upbringing?
2. What are the behaviors of college-students in wildland recreation and what racial differences exist?

Beyond these questions, supplementary questions will be explored to better discuss factors that may impact national participation trends and what may facilitate future use of wildlands among Black will be distinguished from student survey responses.

### **Significance of Research**

Manning (2011), Chavez, (2009), and Louv (2005) argue that with the challenge of leisure constraints and development of technology, the American culture, particularly among young people, is shifting away from areas where nature is present. As a result, individuals are seeking more sedentary interests leading to a poor future for public lands, outdoor recreation, and most importantly, environmental policy and conservation. In order to conserve and sustain natural places, it is important to recognize peoples' leisure and recreation patterns in order to illuminate the attitudes and behaviors people have towards wildlands and nature (Chavez & Olsen 2009; Ho et al., 2005; Martoglio, 2012; Williams, 2014).

This investigation will provide an opportunity to explain the attitudes and behaviors of college-students toward wildland recreation. Recognizing demographic differences in behaviors and attitudes towards participating in wildland recreation will provide valuable information needed in order to increase underrepresented groups' participation in wildland recreation (Chavez & Olsen 2009; Ho et al., 2005; Williams, 2014).

## Chapter Two: Literature Review

Chapter Two will provide an explanation of wildland recreation, the history of how outdoor and wildland recreation was recognized as a field of leisure, and the importance such lands hold in the recreation and environmental communities. This chapter will also review the literature of Black participation in nature-based recreation and research on leisure, marginal, ethnic, and discrimination theories in regard to participation constraints. Currently, White populations are the most represented demographic participating in outdoor recreation, especially among wildlands. Accordingly, many of their values and ethics are present in the outdoor and environmental community.

### **Wildland Recreation**

**Defining Wildland Recreation.** Wildland recreation is defined as participation in an activity that occurs in natural, unmanaged, minimally managed, or areas that are managed to appear natural (e.g. elements of nature, terrain, presence of plants and wildlife, or water bodies) (Hammit et al., 2015). It can occur in many places, but is most commonly found to be in public lands (e.g., national parks, national forests, wildlife management or conservation areas, state parks, county parks), and areas not designated for recreational use, or privately-owned wildlands (e.g., non-profit organizations, private or personal property) (Hammit et al., 2015). Danger and risk have been found to be a

common facilitator among participants when visiting wildland areas (Lougheed, 2008; Williams, 2014). As a result, activities occur in areas where users are expected to be self-reliant as they may come into situations that are hazardous. Limited facilities may be provided for visitor safety and resource protection such as boardwalks, footbridges, and designated camping spots (Hammit et al., 2015).

The Recreation Opportunity Spectrum (R.O.S), a management tool used by the United States Forest Service and United States Department of Agriculture to identify physical, social, and management expectations from visitors, identifies six different levels of wildland settings (Feutcher, 1986):

- **Primitive:** Area is characterized by essentially unmodified natural environment of fairly large size (5,000 acres). Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.
- **Semi-Primitive Non-Motorized:** Area is characterized by essentially unmodified natural environment of fairly large size (5,000 acres). Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.
- **Semi-Primitive Motorized:** Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size (2,500 acres). Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on site controls and restrictions may be present, but are subtle. Motorized use is permitted.
- **Roaded Natural:** Area is characterized by a predominantly natural-appearing environment with moderate evidence of the sights and sounds other humans. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate but with evidence of other users prevalent. Resource modification and utilization practices are evident but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities.
- **Rural:** Area is characterized by substantially modified natural environment. Resource modification and utilization practices are to

enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available.

- **Urban:** Area is characterized by a substantially urbanized environment, although the background may have natural-appearing elements. Renewable resource modification and utilization practices are to enhance specific recreation activities. Vegetative cover is often exotic and manicured. Sounds of humans on-site are predominant. Large numbers of users can be expected, both on-site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site (p. 32).

Referring to the R.O.S., the majority of outdoor recreational activities may occur on the urban or rural side of the spectrum (Feutcher, 1986). Using the focus wildlands recreation, the importance of limited or non-structured recreational situations, which are natural and heavily dependent on nature that is present, would appear on the primitive side of the R.O.S. (Feutcher, 1986; Hammitt et al., 2015).

**History of Wildland Recreation.** Wildland recreation and outdoor-based recreation emerged as a way to show national pride for the country's wilderness in response to a discontent with civilization beginning during the Industrial Revolution and the inception of the Appalachian Mountain Club in 1876, Theodore Roosevelt's Boone and Crockett Club in 1888, and the Boy Scout movement in 1907 (Bustam & White, 2010). In 1916, the National Park Service was assigned the duty of protecting some of the Nation's most pristine natural environments and historical monuments for the benefit and enjoyment of the American people (Martoglio, 2012). In the 1950s, after World War II, outdoor recreation developed rapidly as an American lifestyle (Cordell, 2008). In the

1960s, the United States population reached 131 million and families began exploring parks for vacation and recreation, becoming a cultural norm of leisure (Cordell, 2008). As a result, the Wilderness Act of 1964 was put into place, which ensured set wilderness locations were to be untrammled, protected and managed to preserve its natural conditions, and contain scientific, educational, spiritual, scenic, or historical value (Williams, 2014).

In response to this growth in outdoor recreation in the 1960s, the federal government initiated quantitative surveys to study the supply and demand of parks for recreation and preferred activities of leisure within them (Cordell, 2008). Manning (2010) stated, “outdoor recreation was ecologically” oriented and managed primarily towards those who were ecologist, foresters, or some sort of environmental/biologist who studied specifically, not including the visitor (p. 5). It was not yet managed by how people engaged or perceived outdoor recreation. However, due to an increase in outdoor recreation, visitor participation as an opportunity for individuals to attain a leisure goal emerged as a field of research (Bustam & White, 2010). The line of research has since have shown that individuals participate in recreation with the expectation of psychological, educational, social, relaxation, physiological, or aesthetic satisfaction (Bustam & White, 2010).

Wildland recreation has recently become an area of study within outdoor recreation. It has evolved over the past 30 years with the help of Wilson’s (1984) biophilia hypothesis, which maintaining that we have an innate connection with nature and other living systems (Howell, Dopko, Passmore, & Buro, 2011). In 2005, Louv

developed an awareness of the psychological and physical toll that the American culture is having by moving away from this natural connection theory of the nature-deficit disorder and the rise of constraints individuals have to overcome in order to experience nature. The term nature is being recognized as a vital term to comprehend people's perception of wildland as the definition can lead to one's values towards nature (Gordon & Luloff, 2010; Williams, 2014). For example, people from certain cultural, social, and political interests may define nature or value wilderness differently as it holds different meanings to each group (Williams, 2014).

Chavez and Olson (2009) found that wildland recreation serves as a place to make social, personal and natural connections. It improves a person's quality of life, helps develop bonds people have with a place, and can provide a healthy understanding of the environment and wildlife (Bustam & White, 2010). Neill (2008) reported that there is a growing body of research demonstrating that exposure to natural environments improve short and long term psychological and physical effects. Exposure to nature include awe and wonder, relaxation, mood, anxiety, attention, physical health and health-oriented behavior, hospital recovery, self-constructs such as self-esteem and self-concept, life satisfaction, and mental illness (Piff, Feinberg, Dietz, Stancato, & Keltner, 2015; Louv, 2005; Neill, 2008). Additionally, Lougheed's (2008) experimental study found that when people looked out at natural scenery through a window it brought down their heart rate faster than watching television or a blank wall (Lougheed, 2008).

In addition to positive benefits, Neill (2008) asserted that nature-based recreation has potential negative effects also. For example, nature can provoke a range of

distressing emotional reactions including dislike, fear, disgust, and engagement that may cause or death. These negative emotional and physical reactions to nature are potential constraints, but some people may view these as educational or therapeutic as they seek out more connection with the environment (Neill, 2008).

Some outdoor recreational experts conclude that American interest in participation in outdoor recreation is increasing in general (Cordell et al., 2009) but all major lines of evidence support a pervasive decline in wildland recreation (Kareiva, 2008; Louv, 2005). As people seek out more modern needs, technology and changes in life styles, they begin to disconnect with what nature has to offer (Louv 2005). Many argue that technology is to blame for current low participation rates in wildland recreation (Cordell et al., 2009; Lougheed, 2008; Pergams & Zaradic, 2006). Pergams and Zaradic (2006), say this trend to visit natural recreational areas began to fall in 1988, at the same time electronic entertainment media was introduced, shifting the value on biodiversity, conservation and environmentally responsible behavior. Since then, “personal travel has evolved dramatically, so that many children spend much of their time enclosed in vehicles, often being shuttled from one indoor activity to another, perhaps without even glancing up from a handheld game or cell phone” (Lougheed, 2008, p. 437).

Natural environmental areas are costly to establish, manage, and maintain while costing about \$2.3 billion annually (Siikamaki, 2011). Most of the funding comes from local, state, or federal taxes; but, public lands are experiencing spending cuts that are impacting their ability to operate and stay open (Siikamaki, 2011). This impacts the nation economically as most of the funding comes through taxes and it is an interest of

many researchers and outdoor enthusiasts by influencing outdoor programs (Siikamaki, 2011). Furthermore, experiencing wildlands has evolved to incorporate more formal outdoor programming through schools and businesses, technology, and sport related activities which may distract others from connecting with nature on a personal basis (Cordell, Betz, & Green, 2009; Louv, 2005). The influence of outdoor education programs on participants remains a topic among practitioners and researchers (Neill, 2008). Some argue that visiting natural spaces are now dependent on school and educational programming rather than families introducing time outside together (Louv, 2005). As research in this field has become more prevalent, it has been found that measuring diversity in recreation has become important (Li et al., 2008). Chavez and Olsen (2009) explain that the ethnic and racial profile of the U.S. is undergoing a major shift in future decades racially and ethnically diverse people will constitute a majority of the populations. These environmental values among the nation are critical and are what must be defined if individuals are to advocate or manage natural recreational sites sustainably in spite of political, budget and environmental changes (Chavez & Olson, 2009).

### **Participation Constraint Theories in Wildland Recreation**

Outdoor recreational studies, and more so wildland recreational studies, are very new fields of studies in regard to how people perceive and pursue leisure (Hammitt et al., 2015; Manning, 2010). For decades, outdoor recreation was considered to be just a part of the American lifestyle (Manning 2010). However, current studies are revealing that wildland recreation has not been as culturally inclusive. White populations are the most

represented demographic participating in outdoor recreation, especially among wildlands. Accordingly, many of their values and ethics are present in the outdoor and environmental community. Martoglio (2012) argues that current constraints of ethnic and racial groups were shaped by this development of recreation in our Nation's park systems. With reports that Whites may become the minority in 30 years (Chavez & Olson, 2009), researchers are starting to recognize the significance of studying recreational and environmental trends and values among people of color in order to increase their representation in wildlands (Williams, 2014). These environmental values among the nation are critical and are what must be defined if individuals are to advocate or manage natural recreational sites sustainably in spite of political, budget and environmental changes (Chavez & Olson, 2009).

Motivation is a driving force that directs human behavior but what is less clear now is how environmental values and beliefs are shaped and what causes those attitudes and motivations to change (Budruk & Stanis, 2013; Kareiva, 2008). The ecological perspective systems theory states:

One can only understand the individual by understanding his or her environment, just as understanding the development of a leaf on a tree requires knowledge of not only the tree but the environment in which the tree exists. An ecological perspective of human development is concerned with understanding the contexts in which an individual exists, and incorporates the interactions between the individual, other individuals and the social structures of society to explain human development. (Raymore, 2002, p. 41)

Raymore (2002) identified constraints as "factors that are assumed by researchers and perceived or experienced by individuals to limit the formation of leisure preferences and to inhibit or prohibit participation and enjoyment in leisure" (p. 38). It is presumed that

in order to participate in an activity, one must have a desire or need to participate. If they desire to participate in an activity, but can not due to various factors, they must overcome or negotiate constraints in order to participate (Raymore, 2002). Assessing constraints allow for recreational researchers and park managers to construct more culturally inclusive programs (Bustam & White, 2010). While there are many theories of leisure, for the purpose of this study marginality, ethnicity and discrimination constraints will be individually explored as participation constraints in nature-based recreation.

**Leisure Constraints Theory.** In the 1990s, Crawford and Godbey proposed the theory of leisure constraints using a hierarchy model that suggested constraints are a result of intrapersonal, interpersonal, and structural constraint factors (Bustam & White, 2010; White, 2008). In the first hierarchy level of the leisure constraints model, intrapersonal constraints are defined as an individual's psychological qualities that affect their leisure preferences. This may be due to personality needs, stress, anxiety, specific leisure needs, and perceived attitude toward leisure activities. In recreation, a lack of knowledge when visiting or participating in activities or early exposure as a child may allow for participants to overcome psychological preferences so that perceived attitudes cannot be influenced in participation (Roberts & Rodriguez, 2008).

In the second tier, interpersonal constraints are defined as social factors that affect an individual's development of leisure (White, 2008). Safety concerns, personal discomfort, socialization are potential barriers that arise during social interactions and may cause individuals to not feel part of a culture (Bustam & White, 2010; Roberts & Rodriguez, 2008; White, 2008). Additionally, discrimination, historical contexts, and lack

of ethnic minorities participating in recreation serve as interpersonal constraints (Roberts & Rodriguez, 2008; White, 2008).

In the third level of the constraints, structural constraints can only be successful if both intrapersonal and interpersonal constraints have been successfully negotiated (White, 2008). Looking at the leisure constraints model as a whole, Bustam and White (2010) state that:

Intrapersonal constraints are the most important hierarchy because they are nearest to the leisure participant or they are encountered more frequently than other types of constraints; additionally, structural constraints are assumed to be least important because they are furthest from the hierarchy and only encountered after the other two categories have been surpassed. (p. 3)

Examples of structural constraints consist of financial resources, perceived lack of time or money, and knowledge of leisure activities often are considered structural constraints (Roberts & Rodriguez, 2008).

**Marginality Theory.** In 1978, Washburne advanced a theory of marginality, which posits, “groups such as Blacks and Hispanics do not participate in outdoor recreation due to poverty, socioeconomic consequences, discrimination, or historically unmet needs” (Burns et al., 2008, p. 124). Additionally, age, sex, education, residency, access opportunities, transportation, and economic limitations prevent equal participation between ethnic and racial groups (Burns et al., 2008; Gomez, 2002; Sasidharan et al., 2005). As evidenced in Washburne’s model (see Figure 1), he shared that once these marginal constraints are identified among individuals, participation in recreation will be possible (Gomez, 2002).

**Ethnicity Theory.** Ethnic and racial groups have social and cultural norms and values they have developed uniquely which can influence their attitude toward recreational activities. Culture is a phenomenon that forms how people believe, act, feel, perceive, and connect with others in and outside of their society (Li et al., 2008). It has shown to be a larger influence for some ethnic minority groups than for others (Roberts & Rodriguez, 2008). Washburne, therefore, theorized that research should not focus on race, but rather on how people identify themselves within their culture or subcultures (Gomez, 2002). Evaluating one's culture is important in order to explain what participation constraints they have towards nature and the activities they choose in natural environments. As seen in Figure 1, Washburne hypothesized that nonparticipation is a result of cultural identity differences, and how racial/ethnicity groups perceive segregation or experience discrimination by others outside their culture (Gomez, 2002; Sasidharan et al., 2005). When being introduced to a new activity, discrimination or segregation may be perceived, leading to participation constraints (Gomez, 2002; Sasidharan et al., 2005). Chavez and Olsen (2008) and Ho, Sasidharan, Elmendorf, Willits, Graefe, and Godbey (2005) complement this theory by adding several studies where people of color exhibited different participation patterns based on cultural preferences and possessed different motivations for visiting natural areas. However, in 1987, it was theorized by Hutchison that when researching participation constraints, both ethnicity and marginality approaches were important, as race, culture, ethnicity and social compositions impact activity choices and participation.

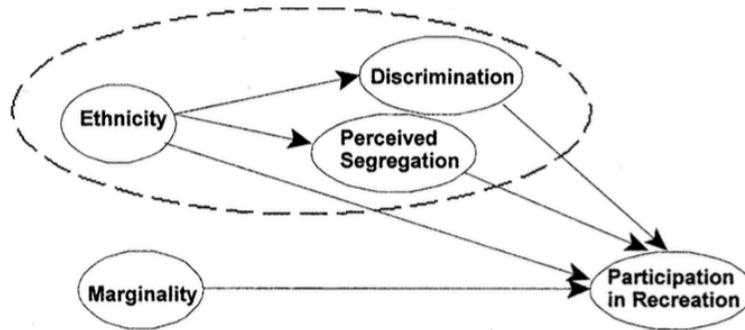


Figure 1. Washburne’s Marginality and Ethnicity Theory (Gomez, 2002)

**Discrimination Theory.** Martoglio (2012) and Ramiah, Hewstone, Dovidio, and Panner (2010) assert that more research is needed regarding how overt, subtle, and unconscious forms of discrimination exists within culture and organizations and how these social processes impact individuals in recreation. Accordingly, Martoglio’s (2012) discrimination theory looks at *current* trends in racial and ethnic populations. Martoglio asserted that ethnic and racial minorities are not in public lands because they are not portrayed in media that promotes natural activities; as a result, they cannot connect with nature because their world around them does not include the natural world. Additionally, there are cases of economic discrimination, an outcome of historical patterns of discrimination that result in limited access to socioeconomic resources, which causes low participation in nature-based recreation among ethnic and racial minorities (Martoglio, 2012). It is believed that even if the economic constraints improved, it may not result in increased participation, as there will still be cultural ties to their ethnicity and race which mold leisure needs (Martoglio, 2012; Williams, 2014). This framework “has proved

beneficial in that several studies show that economic barriers are a significant and relevant barrier for minority participation in national parks” (Martoglio, 2012, p. 11).

### **History of Blacks in Wildland Recreation**

Whites have historically been primarily visitors in federal and public wildlands, thus earning them the name “white spaces” (Johnson et al., 2007; Martoglio, 2012).

Blacks continue to trend low in comparison to Whites in outdoor recreation participation despite the research that has developed over the years to try to improve their participation rates. As mentioned earlier, the ethnic and racial profile of the U.S. is shifting from Whites being the majority group; and it is predicted that wilderness use will increase less than half the rate of the general population adding pressure to wilderness resources (Williams, 2014). It is important, therefore, to recognize current racial/ethnic minority groups’ (e.g. African American/Black, Hispanic/Latino, Asian) attitudes and beliefs towards nature and the constraints or facilitators they have for wildland recreation.

**Blacks in Wildland Recreation.** Blacks have a deep-rooted history in the United States causing their needs, constraints, and experiences in recreation to greatly vary greatly from other races, ethnicities, cultures, and subcultures. In comparison to the national population, Blacks have the lowest participation rates in outdoor recreation potentially leading them to have dissimilar perceptions than Whites in nature-based and outdoor-based recreation (Metcalf, Burns, & Graefe, 2013; Outdoor Foundation, 2016). Blacks are noticeably absent from areas such as national parks, forest, and most wildland, even in regions of the country where Blacks are highly concentrated and natural areas and green spaces are available (Johnson et al., 2007). Their association with lands in the

United States may be more tightly bound by place attachment due to their history of slavery providing memories of oppressive land relationships (Johnson et al., 2007).

Blacks have shown to have stronger attachment to their culture based on their sense of identity, connections to cultural norms and traditions, and ethnic interaction preferences, allowing them to have some forms of established sought out leisure (Roberts & Rodriguez, 2008).

At the end of the Civil War, Blacks in the south experienced relative inequality where Jim Crow ideology prevented them from sharing the same space as Whites. Bryne and Wolch (2009) explained that while not legally segregated, many northern and mid-western cities also had separate parks for Whites and Blacks, with people of color confined to poor managed parks in urban centers and outskirts; whereas Whites had well managed parks in suburban outskirts. Furthermore, some states such as Louisiana, Mississippi, and Texas allowed Blacks in some areas of the park, but park facilities were off limits to them (Bryne & Wolch, 2009).

Built in the 1930s, one example of federal park segregation occurred in Virginia's Shenandoah National Park (Onion, 2013). What made this park stand out was the park's Skyline Drive, which was a common leisure activity to drive through, even for Blacks (Onion, 2013). Often visitors would park in lots along the drive so that they could hike or picnic. Following local Jim Crow Laws, the Shenandoah National Park segregated their park by providing a Negro Area, shown in Figure 2 (NPS, 2017; Onion, 2013). Lead Interpretive Park Ranger, Michael Panches (2017), explained that despite these limitations and the support from the park, large populations of Blacks would bus into

picnic with family and friends They were provided clean facilities, cabins, a small campground, and a café. Blacks found this park to be a great place to visit so they revisited, despite racial discrimination among White visitors and staff. This park began to assert a stance on how federal programs should treat environmental spaces since the park’s director supported Separate but Equal; ensuring that Blacks have the same resources and benefits of White visitors on federal lands (Punches, 2017).



Figure 2: Lewis Mountain Negro Area (NPS, 2017)

Discrimination prevailed as “parks created for blacks were smaller, received less funding, and had few facilities than those for Whites” (Bryne & Wolch, 2009; Onion, 2013, n.p.). By 1950, the parks became desegregated with the support of local protesting, but, Black patrons experienced discrimination in parks by encountering signs stating, “Niggers not welcome here” or told to leave by White visitors and park staff (Martoglio, 2012, p. 9). Accordingly, with the rise in outdoor recreation, Whites visitors were

primarily visiting parks. By 1978, one of the first studies that looked at participation constraints in Blacks concluded that “Blacks do not participate because of poverty and various consequences associated economic discrimination” (Metcalf, Burns, & Graefe, 2013, p. 31).

### **Black Participation Constraints and Facilitators Towards Wildland**

**Recreation.** Various researchers (Bryne & Wolch, 2009; Burns et al., 2008; Martoglio, 2012; Roberts & Rodriguez, 2008) have identified numerous constraints impacting Blacks from visiting parks:

- Believe the park employees gave poor service
- Lack of information of park
- Need for clean facilities
- Need for law enforcement in parks for safety concerns
- Not large enough for there after recreation interest
- Overall costs and fees in parks or recreation are too expensive
- Parks were uncomfortable places to be for people similar to themselves
- Personal safety concerns against other visitors
- Prefer less management and more freedom to do what they would like
- Threatened by wildlife
- Travel distances too far
- Lack of Black visitors and staff in parks

These constraints have been recognized by some parks and staff to help identify programs to draw Blacks into parks; however, these met needs cater to urban and suburban settings and not wildlands.

Robert and Rodriguez (2008) identified Blacks’ strong attachment to their culture and sense of identity based on their connection to cultural norms, traditions, and ethnic interaction preferences. Areas of participation that are sought out include: aesthetically pleasing areas with a view of water or green space; social or group oriented activities; sports oriented venues; urban park settings; hiking; and picnicking (Bryne & Wolch,

2009; Burns et al., 2008; Johnson et al., 2004; Sasidharan et al., 2005). Benefits in recreational areas included time spent with family and friends, meeting new people, and solitude (Burns et al., 2008). Many of the activities that they pursue may, however, not be in wildland settings because primitive settings will have limited or no facilities, areas to have social gathering, and wildlife may make them feel threatened.

### **Attitudes of Blacks towards Nature and Wildland Recreation**

As illustrated in this chapter, the field of recreation has evolved in many forms and participation patterns among participants have become important areas of research in order to meet visitor needs. Participation constraint theories provide researchers with levels of explanations on what participation barriers exist in outdoor recreation; however, most researchers have not developed or studied how values of Blacks impact participation in nature-based recreation. In order to assess the values that Blacks have toward nature and their experiences in wildland recreation, values need to be defined. Gordon and Luloff (2010) states that values help give weight to preferences when making decisions and can shape one's attitude and behavior. Environmental values are "guiding principles which serve as the basis for organizing an individual's beliefs, attitudes [positive or negative evaluations of something], and behaviors regarding the natural environment" (Gordon & Luloff, 2010, p. 4). For example, a person might value biodiversity and oppose deforestation. Gordon and Luloff's (2010) literature review suggests that environmental concerns and values are instilled by one's self-interest; concern about the environmental consequences for one's self, family, community, and society; and concern about the state of the entire ecosystem. It has been recognized that

gaps exist between Blacks and Whites in regard to their attitude towards nature due to their differences in cultural upbringing; leading Blacks to be generally be less concerned with environmental issues (Gordon & Luloff, 2010).

Miles, Ritzel, Cordell, and McDonald (1995), conducted a study among Blacks in wildland outdoor recreation to address their absence among nature-based recreation. In their study, they were able to identify traditional patterns and activities among Blacks that appear to be common among other studies; however, they argued that cultural constraints impacted their environmental values toward wildlands. Miles and colleagues (1995) found that facilities and social gatherings were primary motivators for Blacks visiting parks, but they felt no need to travel or experience wildland recreation. Participants were, however, willing to travel further to go fishing as a recreational experience (Miles et al., 1995).

It is evident that research suggests that Blacks have been shown to have low interest in environmental concerns and their history and culture have been geared to urbanized areas, however, knowing that fishing is an activity they find enjoyment in is an important cultural value to present. Most areas where fishing is legal occur in parks that are managed, therefore it is mandated that all people have the same access regardless of race, age, income, or ability. Furthermore, Black participation in wildlands are important for economic development as their visitation may increase revenue to improve park programs and conservation that can cultivate the tradition of fishing for many more generations.

## **Overview of Participation Constraints and Values of Wildland Recreation Among Blacks**

Blacks have deep roots in the country's history that are very significant to their culture and identity. Their culture has value and meaning to them that is very unique which leads individuals to pursue distinctive patterns of recreation behavior (Ho et al., 2005). It has been recognized that wildlands have earned the name "white spaces" as Whites have been the dominant group in nature-based recreation. In these settings, some Black people may not feel welcomed, may be discriminated against, or are unable to experience due to structural constraints or unawareness of recreation opportunities. As a result, Blacks have evolved over the years to have their own unique patterns of leisure that are not nature dependent. In order to improve their participation rates in wildland recreation, researchers must examine their culture, environmental values, leisure, marginal, ethnic, and discriminatory constraints (Chavez, 2009; Chavez & Olson, 2009; Gordon & Luloff, 2010; Sasidharan et al., 2005).

## Chapter Three: Methodology

The purpose of this study is to expand the knowledge of White and Black attitudes and behaviors towards participating in wildland recreation, causes for low national participation trends among Blacks in wildland recreation, and facilitators to improve participation rates among Blacks in wildland recreation through a comparative analysis of GMU college students. Within this chapter will be discussed the research design, instrumentation, population and sample, data collection, and data analyses.

### **Research Design and Instrumentation**

A non-experimental, mixed methods design was used to assess White and Black college students' attitudes and behaviors toward participating in wildland recreation, and explanations for national racial disparities in wildland visitation. A convergent parallel mixed methods design allowed for the simultaneous collection of qualitative and quantitative data; and the subsequent merging of data to form a conclusion (Creswell, 2014). This approach allows for a better understanding of the research problem than using one approach alone (Bryman, 2006). Moreover, triangulating data for corroboration and explanation purposes enhanced the integrity of findings.

### **Population and Sampling**

The target population for this study was undergraduate college students that self-identify as Black or White. The population sampled consisted of students participating in special interest student organizations and all National Pan-Hellenic Council fraternities

and sororities. One hundred and fifty-seven groups were classified under the special interest category and eight National Pan-Hellenic fraternities and sororities (Get Connected at Mason, 2017). Targeting student organizations—especially ones targeting racial minority groups—was deemed a useful sampling strategy to recruitment the targeted population.

According to Kowarski (2017), the national average of college students participating in a student organization is 56 students per club. Exact information about the number of GMU students registered in each student organization or the average number per student organization could not be obtained. Given that GMU is primarily a commuter campus, it was speculated that a lower number of students may participate in student organizations. Moreover, with reports that Survey Monkey historically has a 19% response rate among surveys conducted through GMU (Survey Monkey, 2017), all 157 student organizations listed as special interest and all eight National Pan-Hellenic Council fraternities and sororities were emailed (see Appendix C for full list of organizations recruited). Following the initial recruitment email, a follow-up email was sent one week later to all student organizations reminding them to forward and share the survey to their members.

This sampling strategy, unfortunately, only resulted in 37 students (13 Black students and 24 White students) participating in the study. Eighty-six percent ( $n = 32$ ) of participants in the study are females. Black students consisted of twelve females and one male, whereas twenty White females and four males participated in the study. In regard to level of college classification, there were four freshmen (2 Black, 2 White), six

sophomores (4 Black, 2 White), nine juniors (3 Black, 6 White), eleven seniors (4 Black, 7 White) and seven graduate students (all White). The majority of the students grew up in suburban communities, but there was a distinct difference between the geographic area that White students grew up in compared to Black students. Approximately 87 percent (n = 11) of Black students grew up in suburban neighborhoods and 13 percent (n = 2) grew up in urban areas. Furthermore, 13 percent (n = 3) of White students grew up in rural areas, 71 percent (n = 17) in the suburbs, and 16 percent (n = 4) in urban areas.

### **Research Setting**

GMU is located 15 miles outside of Washington, D.C. and is a beautiful wooded residential campus near a fast pace urban setting. GMU has three campuses in the commonwealth of Virginia, located in Fairfax, Arlington, and Manassas, and one international campus in Songdo, Korea (George Mason University, 2017). Additionally, the university partners with the Smithsonian-GMU School of Conservation in Front Royal, Virginia. In Fairfax, the University's largest campus consists of 677 wooded acres, while the Science and Technology (Manassas) campus consists of 134 wooded acres (George Mason University, 2017). Students can access county, state and federal parks within close proximity to the campuses. As of 2009, GMU established an outdoor team development and challenge course called The EDGE for students and the public on the Science and Technology campus; and in 2014, a student outdoor recreation department was developed on the Fairfax campus (The EDGE at Mason, 2017; Outdoor Adventures, 2017).

GMU's Fall 2017 official student enrollment was 35,909 (Office of Institutional Research and Assessment, 2017). Among these students, 16,136 (45%) are White and 3,786 (11%) identify as African American/Black (George Mason University, 2017). There are over 521 student organizations and diverse degrees, minors, and concentrations (Academic Advising, 2017). With the large number of varied organizations, programs and activities that GMU offers, there are plenty of opportunities for students to seek out experiences in natural spaces for social, personal, or recreational purposes.

### **Data Collection and Measures**

After the approval of the Institutional Review Board (IRB), students were recruited in October 2017. The researcher emailed the presidents all 165 student organizations asking them to share information about the study with members of their organization (see Recruitment Letter in Appendix B). No identifiable information in regard to students' club organization and association was collected. As a result, this study was not able to identify who responded to the survey. Survey Monkey secured the researcher's private account, monitored surveys, and ensured selected questions were completed before submitting. This online survey consisted of six sections and 17 questions. Questions were obtained from a review of literature on outdoor and wildland recreation (see Survey Questions in Appendix D). The questions were developed by the researcher and/or modified from various researchers who studied outdoor recreation, nature-based recreation, or wildland recreation (Le, Holme, & Kulesza, n.d.; Louv, 2005; Martoglio, 2012; Payne, Mowen & Orsega-Smith, 2002; Outdoor Foundation, 2016; Williams, 2014; Witt, 2013).

Section one introduced the research procedures, benefits of participating in survey, participation confidentiality, incentive for participation, researcher and IRB contact information (see Consent Form in Appendix A), and a yes or no question stating they have read the informed consent form and agreed to the participate in the study. Participant who selected “no” were no longer able to continue the survey; however, if they selected “yes” they were taken to the next page where section two began.

Section two sought out to examine attitudes of students by looking at their level of importance towards nature and the environment using a 0-100% sliding scale, a short answer for their personal definition of wildlands and wildland recreation, and a five-point scale for their personal importance towards wildland protection. Both sets of questions were developed by the researcher to address how students define nature and the wildlands and place their level of importance.

Adapting from Outdoor Foundations (2017) participation survey, section three oversaw student’s wildland recreation behavior and attitudes. This section began first with providing the study’s definition for wildland recreation and where it takes places. Students were then asked to select all of the wildlands they have visited in the past year and what activities they participated in the past year. In addition, students provided short answers on the benefits they experienced when visiting wildlands.

Section four focused on the supplemental questions concerning current constraints and facilitators of Blacks in wildland recreation. Students were presented with statistics of current trends of wildland visitors and asked to share (a) why they believed the trends existed among Blacks in wildland recreation, (b) what can be done to increase

participation rates, and (c) any additional information they would like to share about Blacks participating in wildland recreation. Lastly, students were given a yes or no question as to if they experienced any forms of racism or discrimination when visiting wildlands. If they did, they were asked to explain in the comment box.

Section five collected information on demographics of participants in the survey. Students were asked to identify their race/ethnicity, age, gender, college classification, geographic upbringing.

The final section provided a chance for students to receive the results of this study. Students that selected “yes” were told to provide their email address in the comment box, also making them eligible for the gift card. Students who said “no” were still eligible for a chance to win the incentive as long as they provided their email address. Only five students were selected for this incentive. The five selected students were then emailed a virtual gift card to use on Amazon.com. Students remained anonymous as their email information and survey answers were not shared with other participants.

### **Data Analysis**

Upon the completion of the online survey segment of this study, the quantitative and qualitative survey responses of students were compared collectively, as well as by demographic group. Quantitative data was exported into Microsoft Excel in order to assess demographic differences and trends in the data. To explore demographic differences in students’ mean scores for the level of importance that they hold towards nature and wildland protection, an ANOVA was ran for geographic upbringing (rural,

suburban, and urban) and a t-test for race (Black and White), gender (male and female) and education level (undergraduate and graduate). Remaining quantitative questions were explored using modes, means, and frequencies to examine behaviors among students in wildlands. Qualitative data was analyzed using an inductive approach by using thematic categories that were drawn directly from the data. This method did not begin with preconceived codes or categories based on relevant theories, research, or literature (Cho & Lee, 2014). These themes were narrowed and presented to thesis committee members for review as a secondary critique. Themes were then finalized for the presentation of this study; however, they were not used to develop a theoretical perspective but rather explain observations and responses among GMU students only.

## Chapter Four: Results

This chapter will describe the results of the study's research questions: (1) The attitudes of college-students toward wildlands and participating in wildland recreation, and what differences exist on the basis of race, gender, educational level, and geographic upbringing, and (2) the behaviors of college-students in wildland recreation. Moreover, this chapter will highlight students' responses to the supplementary questions.

Specifically, students' thoughts about factors that contribute to racial inequities in wildlands and ways to increase the representation of Black individuals were investigated.

### **Attitudes of College Students Toward Wildlands and Wildland Recreation**

**Definition of Wildlands.** Students were asked to share their personal definitions of wildlands and wildland recreation. Both Black and White students referred to wildlands as areas that are natural and unmanaged where wildlife and natural scenery is preserved. For example, two Black students responded with “space uninhabited and undeveloped by humans, allowing a diverse range of animals and plants to flourish naturally without human interference” and “land which serves humans no agricultural purpose...unfit for development on, and therefore only fit for wild animals to live in.” Two White students responded that wildlands are “areas of land where there a lot of wildlife roam” and “where nature is free to create the landscape and is unbridled.”

When asked how they defined wildland recreation, students disclosed that it was a type of activity that occurs in wildlands, where there is a stronger presence of wildlife. Black students claimed that wildland recreation is the use of wildlands for “entertainment” without “altering or changing the land” to “hike,” “rock climb,” “camp,” “four wheeling,” “ropes courses,” “zip lines,” and “white water rafting.” White students disclosed that wildland recreation is “human interaction with this land without much disturbance” or “undeveloped or under-developed land that can only be accessed by foot (hiking, backpacking, climbing, or trail running) or by non-motorized transportation (e.g. mountain bike, horse).” Additional activities that White students expressed were “canoeing,” “geocaching,” and “enjoying nature.” In addition to this definition, White students expressed that wildland recreation is a place that “could be dangerous.” With this increased risk, it was defined as a place where people could practice their skills of self-reliance (planning, orienteering, shelter building, water purification, safety, familiarity with plants and animals), and solitude away from other people. For example, a White student stated that wildland recreation is “unsupported and require one to be self-sufficient for all your own food, water, shelter, and safety.”

**Importance of Nature and the Environment.** Students were asked to reflect on the level of importance they attribute to nature and the environment on a scale of 0 – 100. Collectively, students indicated that they had a somewhat high level of importance for nature and the environment with an average of 81.35. Race was not found to have a statistically significant impact on students’ scores for the level of importance that they place on nature/environment ( $t(16.63) = -1.73, p = .10$ ). The average score for Black

students was 72 (SD = 27.3); whereas White students had an average level of importance scoring of 86.3 (SD = 15.3). Although not statistically significant, responses demonstrated that White students attribute a slightly higher level of importance to nature and the environment. Similar to race, students' gender was not found to be statistically significant when assessing students' scores for the level of importance they hold towards nature/environment ( $t(7.16) = .19, p = .85$ ). Male students had an average attitude score for nature and the environment of 83 (SD = 14.8); while female students' attitudes were at 81.2 (SD = 22.1).

Participants were also divided into three groups according to the types of areas in which they grew up in (Group 1: Rural, Group 2: Suburban; Group3: Urban). As seen in Table 1, there was no significant difference among areas with regard to importance of nature and the environment at the  $p=.05$  [ $F(2) = .04, p = .96$ ]. Rural students had an average attitudinal score for the importance of nature and the environment of 84.8 (SD = 18.58); suburban students scored 81 (SD = 22.51), and urban students scored 81 (SD = 17.93). Hence, students' geographic upbringing does not appear to impact attitudes they hold towards nature and the environment.

Table 1: Geographical Upbringing and Attitudes Towards Nature and the Environment.

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Between Groups</b>	36.43	2	18.22	0.04	0.96
<b>Within Groups</b>	15,974	34	469.82		
<b>Total</b>	16010.43				

There was a significant difference among students on the basis of educational level with regard to their importance of nature and the environment [ $t(23.93) = .271, p = .01$ , two tailed]. Specifically, graduate students indicated greater importance of nature and the environment (mean = 87, SD = 22.1) than undergraduate students (mean = 78, SD = 22.2). Nevertheless, it is important to note that graduate students' scores showed they still viewed the importance of nature and the environment as high.

**Importance for Wildland Protection.** Students were additionally asked to reflect on the level of importance (1 = very important to 5 = not very important) that they place in protecting wildlands. Students scored an average of 1.84, demonstrating that they placed a high level of importance on protecting wildlands. There were no statistically significant differences between participants' race, gender, educational level, nor geographic upbringing with regard to level of importance. Specifically, Black students (mean = 2.15, SD = .99) and White students' (mean = 1.77, SD = .92) held similar beliefs about the importance for wildland protection ( $t(23.19) = 1.47, p = .16$ , two tailed) with Whites place a higher level of importance. When investigating gender effects, male (mean = 2.4, SD = .95) and female students (mean = 1.75, SD = .92) also had similar views about wildland protection ( $t(5.51) = -1.5, p = .18$ , two tailed) with females scoring higher.

In contrast to the effect that students' educational level had on the level of importance they placed on nature and the environment, undergraduate (mean = 1.9, SD = .96) and graduate students (mean = 1.57, SD = .98;  $t(8.92) = 8, p = .44$ , two tailed) did not have a significant difference in scores for importance of wildland protection. Finally,

as shown in Table 2, rural (mean = 1.33, SD=.96), suburban (mean = 1.89, SD = .99) and urban students (mean = 1.8, SD = .98) did not have significantly different attitude scores. Rural students' attitudes towards wildland protection were slightly higher than suburban and urban students and was approaching significance with  $p = .06$

Table 2: Geographical Upbringing and Attitudes Towards Wildland Protection.

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Between Groups</b>	93.17	2	46.58	3.96	0.06
<b>Within Groups</b>	105.75	9	11.75		
<b>Total</b>	198.92				

**Benefits of Wildlands.** Results of the content analysis revealed that students believed that wildlands were a place that allowed them to experience restoration and a sense of awe. Black students felt that visiting wildlands provided them “a release of endorphins,” “beneficial for relieving stress,” “spiritual,” “a healthy dose of fresh air, sunshine, and exercise that I don't normally get from my school/work/gym routine,” and multiple counts of “calming” and “relaxing.” Similarly, White students also expressed that wildlands improve their “mental health” and allows them to “escape” from their stressors of “academic life” and personal anxieties; and as a result, they felt refocused and “calm.”

While many Black students also expressed that visiting wildlands brought many positive benefits. It was found that only Black students expressed discomfort in wildlands, stating, “I don't feel comfortable there because of animals and bugs” and “I'm

not an outdoorsy person.” Conversely, White students responded by saying that visiting wildlands provided a sense of solitude and social connectedness with friends and family. A few students stated: “I feel very at peace and it reminds me of how I love solitude and the sounds of nature,” “I enjoy looking at the world around me. It also offers me the ability to have adventures,” and “It is peaceful to me to get away from the hustle and bustle of the city and instead find relaxation in the bird calls and rustling trees.”

### **Behaviors of College Students in Wildland Recreation**

In exploring students’ visitation patterns in the past year, it was observed that the majority of students visited bodies of water and suburban or urban parks. Black students had a higher rate of visiting suburban or urban county parks (100%) than White students and types of parks and wildlands. Similarly, Black students had higher visitations compared to White students in bodies of water (92%), regional parks (84%), and national parks (77%). White students had a lower rate of visitation in suburban or urban county parks, bodies of water regional parks, and national parks, but had higher visitation rates in wildlife management areas (42%) and national forests (46%). Lastly, both groups of students visited state parks at the same rate (54%).

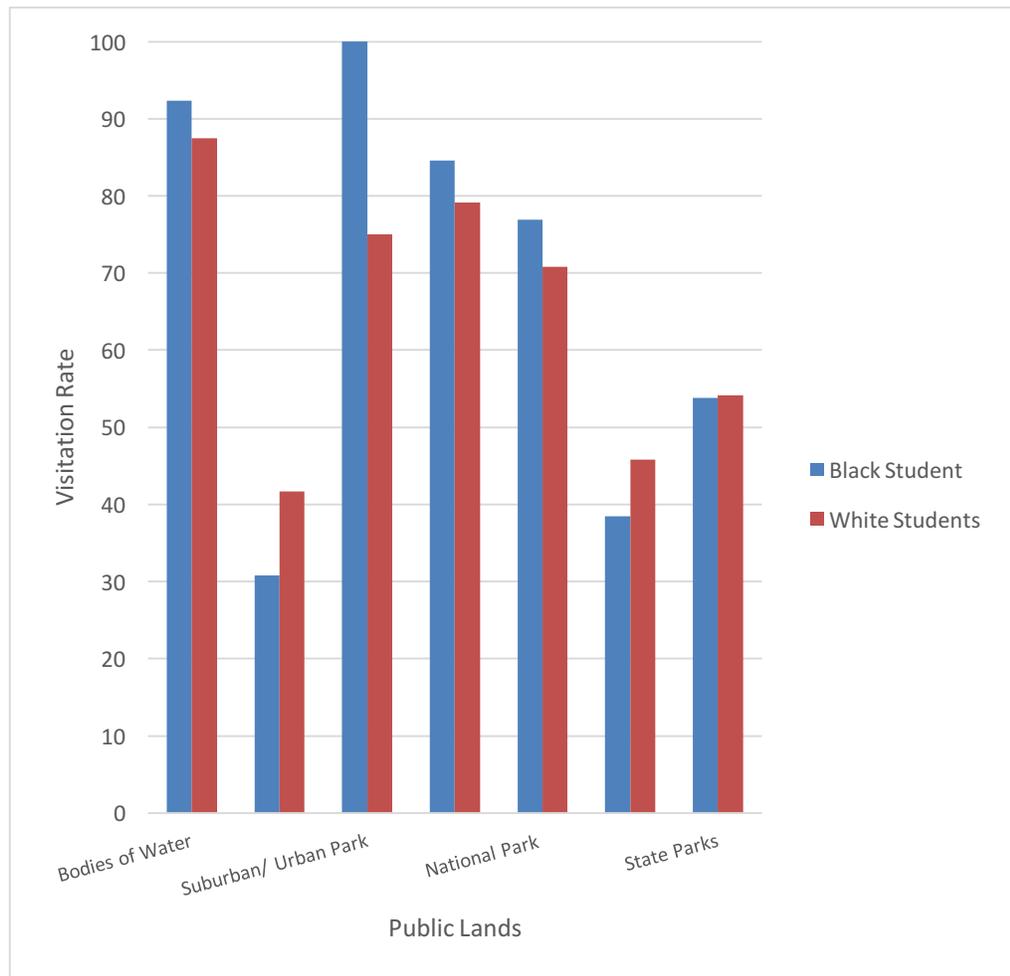


Figure 3: Frequencies of Black and White Students Visiting Wildlands and Parks in the Past Year.

\*Note: Black Students n=13; Whites Students n=24

Looking at the responses White students gave for their visitation of wildland activities, it was found that the most popular activity they participated in were observing scenery (96%) and hiking (96%). The second most popular activity that was observed was viewing wildlife (88%). The third most popular wildland activity selected was

exploring (e.g., rolling over logs, looking for bugs, or animals, picking flowers) with 83% and building bonfires (83%).

The most popular activities Black students did this past year was viewing scenery (100%), viewing wildlife (69%) and building bonfires, exploring in nature, and stargazing (62%). The findings of this investigation revealed that students shared similarities in what they perceive is needed in order to achieve the wildland recreation experiences that they desired: 1) someone to go with (Black: 39%; White: 24%), 2) education and outdoor recreational skills (Black: 29%; White 32%), 3) and a guide (Black: 20%; White: 21%).

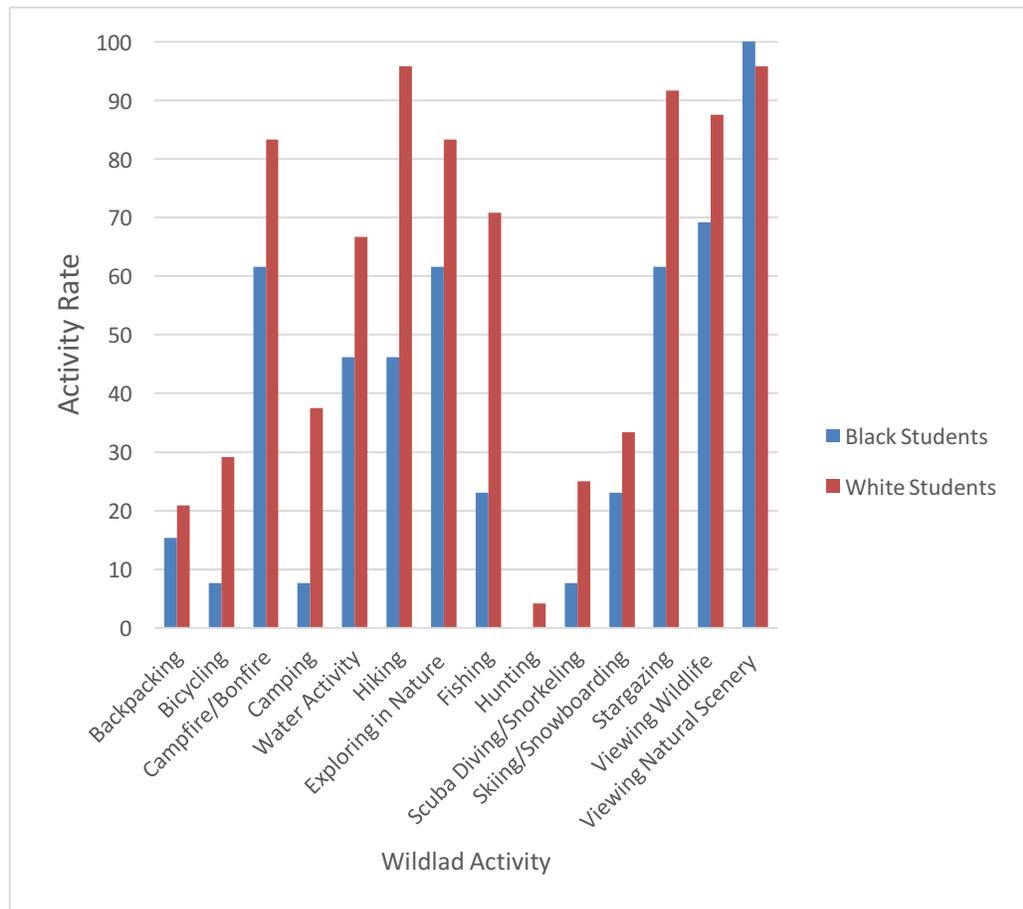


Figure 4: Frequencies of Wildland Activities in the Past Year for Black and White Students.

\*Note: Black Students n=13; White Students n=24

### **Causes That May Impact National Participation Trends Among Blacks in Wildland**

In an analysis of responses of the students' perceptions of potential causes for the current low participation rates of Blacks in wildlands, four themes emerged to explain racial trends: 1) recreational constraints, 2) concerns for safety or health, 3) racism, 4) cultural identity. These themes were identified primarily by Black students, who were able to articulate personal and cultural experiences; whereas White students expressed a

sense of uncertainty stating that they “have no idea,” “unsure,” and used terms like “perhaps” and “probably,” with even one student stating that they found the “statistics hard to believe.”

**Recreational Constraints.** Recreational constraints are barriers that prevent a culture from being able to experience, desire, or pursue a recreational activity.

Regarding the short answer responses from the survey, on average, most students agreed that the expenses involved in wildland activities and cost of traveling to wildlands were the most constraining factors. Examples of recreational constraints that were expressed by Black students consisted of lack of time, transportation, not living near wildlands or natural spaces, financial constraints, and cultural constraints. For example, multiple Black students shared that they felt there were a lack of wildlands in predominant Black communities “that were accessible and safe.” In addition, Black students felt that a lot of the activities they have to travel to may be too expensive. White students agreed that Black communities did not have “enough time/money to visit wildlands due to working/insufficient funds” or “no predisposed interest.” One White student expressed that “high-income communities are more likely to have time and money invested in wildlands” and another stated because they “live in environmentally racist / poor communities.” White students appeared to express more direct ideas as to why they felt Blacks were not in wildlands as they recognized “historically, they have had access to fewer resources than Whites that would enable wildland recreation” (e.g. transportation, living in rural areas, disposable income).

**Concerns for Safety and Health.** Concerns for safety and health were less common themes that aroused the potential of risks involved with wildlands, people, and personal health concerns or limitations. For example, one Black student expressed that Blacks feared nature and stating, “I hate spiders and wildland recreation would be more fun if they didn't exist.” Other Black students contended that Blacks do not have “much education in wildlife such as the certain plants to avoid-poison ivy...I don't not know how to identify plants, animals, and insects to avoid.” Weather also is perceived to play a big role as noted by one student: “The weather is usually a reason we do not like being outside.” One Black student recognized that along with the activities associated in wildlands, they “require equipment and oftentimes mandatory classes in order to do the activities safely.” Lastly, one Black student expressed a concern for her health, stating, “I am personally allergic to different strains of grass and trees.” White students’ responses did not contain any suggestions that safety or health played a role on why Blacks have low participation trends in wildlands. These responses demonstrated that students felt Blacks experienced personal, social and natural concerns for safety and health in regard to wildland participation.

**Racism or Discrimination.** All but two of the students in the sample reported not being discriminated against in wildland settings. One Black student shared their experience, stating:

I believe that there is some sorts of connotation or indirect looking down on black people by white tour guides because they know that we do not know as much on the topic. It's not what they say, it [is] the tone in which they say it.

Although other students have not faced discrimination, many do believe that Blacks do face some discrimination in wildlands. Another Black student stated, “African Americans don't feel as welcomed to parks.” Adding to this, another black student commented that

It's already tiring enough being one of the only Black women in school and work. I don't want to deal with that in my recreational activities as well.

Only one White student identified racism and discrimination as a constraint for Blacks in wildlands, stating:

Gentrification, the systemic pushing of Blacks/African Americans into urban centers and away from suburbs where wildlands are more easily accessible, fallout from discrimination in the past in wildland spaces, and economic disparity (recreation activities can often be expensive, from purchasing of equipment to affording guides/instructors)

**Cultural Identity.** The last theme that surfaced from the data was that participation in wildlands is not a part of Black’s cultural identity. As aforementioned, stigmas exist among Blacks in wildlands (Covelli & Graefe, 2008; Bryne & Wolch, 2009; Johnson, Bowker, & Cordell, 2004; Metcalf et al., 2013; Outdoor Foundation, 2017; Sasidharan et al., 2005). With this, Blacks have developed a unique cultural identity that they believe roots from Black historical and cultural events, or as one student stated, “it’s not culturally something Black folks do.” Black students repeatedly expressed that wildland visitation and exploration was discouraged or not encouraged in early childhood from family or nearby resources, schools, or programs; and as a result, they did not grow up visiting areas that are natural. Black students shared that their culture places a “heavy emphasis on sports,” especially among Black men, which leads to

the idea that Blacks “do not see themselves in those [wildland] activities.” One Black student viewed the act of interacting with wildlife as “nonproductive or educational.” When Blacks do seek out nature-based or wildland type activities, they feel like they are not accepted while engaging in those activities because of their cultural identities and stigmas. While a majority of White students recognized that “tradition” and “culture” play a big role in the current attitudes and behaviors among black students, many felt that Blacks do not appreciate nature.

Students revealed current stigmas and stereotypes that suggested Black people do not go into natural areas. One Black student shared “in my social circle, camping and hiking is seen as a ‘white people thing’ to do.” Other Black students shared: “Blacks were not taught or allowed to swim; so there have been stigmas within the black community about swimming and being afraid of the outdoors... a lot of Blacks’ hobbies are not found outdoors or in wildland” and “I think that these activities are more encouraged in society for white people.”

### **Facilitators That May Impact National Participation Trends Among Blacks in Wildland Proposed by Students**

When students were asked about the national Black participation trends in wildlands and what they believed would help improve their national trends, two themes emerged: (1) early exposure and education and (2) cultural inclusion within wildlands and outdoor recreation.

**Early Exposure and Education.** The themes of early exposure and education emerged as a way to improve national Black trends in wildland participation. For example, students stated that predominately Black communities should:

- Start wildland exploration at an early age [it would be] beneficial and would leave a memorable imprint on a child's development
- Introduce us to wildlands and natural places when we are younger and lose the stigma that black people don't go outside
- Emphasize the importance and beauty of wildlands so that people will advocate for the protection of the wildlands that are in their area
- Bring wildlife animals to the schools because many students never experience wildland in schools

The need for early exposure among children is believed to be a vital element in order to help Blacks feel comfortable in visiting wildlands. Most students believed that this exposure should come from schools and programs because they did not feel that their families would be able to provide the education and skills they felt they needed to visit natural areas and wildlands.

**Cultural Inclusion.** In addition to early exposure and education, the last theme that emerged as a meaningful factor to help improve national visitation trends in wildlands was to create cultural inclusiveness within wildlands. Students felt that the lack of Black “leaders in the community participating in wildlands” and the underrepresentation of Blacks in nature are cultural barriers to increasing Black populations participation rates. One student mentioned that Black “nature show hosts [and media]” is needed and everyone should have “equal access” to wildlands.”

## Chapter Five: Discussion

Studies have shown that people's attitude and behavior towards nature and the environment is important to comprehend in order to preserve and sustain natural places (Williams, 2014; Karevia, 2008; Louv, 2012; Gordon & Luloff, 2010). Therefore, the purpose of this study was to contribute to extant knowledge by identifying and comparing students' attitudes and behaviors about wildlands and participating in wildland recreation. This study additionally sought to address perceived reasons that students had towards the cause of national low trends of Black participation in wildlands and facilitators to help increase their participation rates. A discussion of major findings related to the research questions, along with explanations for the meanings of these findings and how they relate to other studies is herein presented.

### **Summary of Major Findings and Conclusions**

Students illustrated similar wildland visitation patterns and wildland activities. Black students reported higher visitation rates in wildlands and natural areas or parks and participated less in wildland activities compared to White students. Student responses reinforce the traditional definition of wildlands as they were in tune with what wildlands are. It was also observed that wildland use varies as students engage in different activities or experiences. For example, Black students focus on active recreation; whereas White students focus on active and passive recreation. White students were

more likely to backpack, mountain bike, build a bonfire, camp, canoe, hike, fish, hunt, scuba/snorkel, ski/snow board, stargaze, and observe wildlife. Black students primarily viewed and explored nature (e.g., rolling over logs, looking for bugs or animals, picking flowers). This study's data supports the assertion that marginal (e.g., time, access, and financial) and ethnic constraints (cultural identities) play a large role as to why students do not participate in wildland recreation.

### **Attitudes about Wildlands and Wildland Recreation**

**Definition and Importance of Wildlands.** Due to differences in cultural upbringing, it has been observed that dissimilarities exist between Black and Whites in regard to their attitude towards nature; and each group may define wildland or nature differently, as such definitions may hold variances in meanings (Chavez & Olsen 2009; Ho et al., 2005; Williams, 2014). Wildland was described as participating in an activity that is in a wild or natural area or an area that is managed to appear natural (e.g., elements of nature, terrain, presence of plants and wildlife, or water bodies) (Hammit et al., 2015).

A comparison of students' personal definitions of wildlands revealed that they generally held a similar conceptualization of wildlands. Students associated wildlands with natural and unmanaged areas with wildlife and natural elements are strongly present. Moreover, students proposed wildland recreation as a place for activity and a place to spend time with family. White students, however, were the only group to express that wildland recreation was a place where people could practice their skills of self-reliance (e.g., planning, orienteering, shelter building, water purification, safety, familiarity with plants and animals), and solitude away from other people. This captures a closer

meaning to the definition for wildland recreation in which this study provided, suggesting that participants are expected to be self-reliant as they may come into situations that are hazardous due to natural elements and its' limitation of facilities (e.g., boardwalks, footbridges, designated camping spots) (Hammit et al., 2015). As previously noted, wildland recreation involves the potential for higher risk when participating in activities. The concepts of danger and risk have been found to be a common motivator among participants when visiting wildland areas (Williams, 2014; Lougheed, 2008). This may suggest that race or the cultures associated with race influences attitudes of how people perceive locations, activities and recreational goals in wildland.

It has also been asserted that Blacks are less concerned with environmental issues, compared to Whites (Gordon & Luloff, 2010). This study, however, found no significant statistical differences in students' beliefs about the importance of nature and the environment in regard to race, gender, and geographic upbringing. Results of this study revealed that students generally view the protection of nature and the environment as important. However, when considering practical significance, it is important to note that Black students had a lower average of importance (72) compared to White students (86). Thus offering some support for assertions that Blacks compared to Whites have lower levels of importance for the environment. Statistical significance was found for level of college education, as graduate students had a significantly higher average for the importance of nature and the environment (mean = 93) compared to undergraduates (mean = 78). This difference is likely a result of race effects, as all of the graduate students self-identified as White.

The investigation of students' beliefs about the importance of wildland protection revealed no statistically significant findings across race, gender, or level of college education. The students, as a whole, typically reported high levels of importance for wildland protection; yet there was a statistical difference found among students' geographic upbringing. Students coming from rural upbringings had the highest level of importance for wildland protection, whereas suburban and urban students reported lower level of importance. Similar to the effect that level of education had on students' views of the importance of nature/environment, race likely played a significant role in these differences. All of the rural students self-identified as White, the majority of students that grew up in urban areas were Black (85%), and 71% of the students that grew up in rural areas were White (Bryne & Wolk, 2009). In regard to national racial differences in urban and rural areas, literature shared that historically, Blacks come from urbanized areas that where outdoor recreational areas consisted of poorly managed parks in urban centers and outskirts; whereas Whites had well managed parks in suburban outskirts and rural settings. Furthermore, literature has been able to suggest evidence that Blacks have been shown to have low interest in environmental concerns as their culture has been geared toward urbanized areas. The findings of this study correlate with national U.S. trends, in that the Black students in this study were raised predominately in urban areas. This is an important trend to note, because the growth of populations in urban areas has been correlated to a declining trend in wildland recreation participation (Metcalf, Burns, & Graefe, 2013; Kareiva, 2008). Therefore, as ethnic minority populations continue to increase in the U.S. (Cordell, 2008; Cordell, Betz, & Green, 2009; Martoglio, 2012), with

the majority residing in urban settings, the declining trend in wildland recreation may continue.

**Benefits of Visiting Wildlands.** Common themes that emerged about benefits students gained from wildland recreation included experiencing restoration and a sense of awe, wherein students expressed feelings of positive mental, emotional, and spiritual benefits. Both groups also expressed that wildland recreation served as a place for social connectedness with friends and family. White students additionally expressed that visiting wildlands provided a sense of “solitude.” Research that highlights the benefits of visiting wildlands is limited; however, literature suggests that natural settings, in general, provide many personal, cognitive, physical, psychological, and social benefits that add to quality of life (Bustam & White, 2010; Cordell, 2008). It also strengthens the bonds and respect people have towards nature and an understanding of the environment and wildlife (Bustam & White, 2010; Cordell, 2008). Additionally, participation in outdoor recreational activities can be an escape from routine, a sense feeling one with nature and a sense of awe and wonder (Burns, Vovellie, & Graefe, 2008; Elshayyal, 2007; Hammitt et al., 2015; Louv, 2012).

As noted in the findings, the White students solely identified benefits of wildland recreation. Whereas, some Black students expressed discomfort in participation in wildland recreation because of fauna. Neil (2008) similarly explained that nature can provoke a range of distressing emotional reactions including dislike, fear, and disgust. Given such risk, some people find these effects as educational, therapeutic, adventurous, or thrill seeking, leading this type of recreation to be a motivator to seek out (Neil, 2008).

In review of the attitudes that students had, this study found that Black and White students hold the same perspectives on the environment, wildland protection, and the benefits of wildlands and nature can provide. Mainly, students value the environment and recognize the important benefits that it can provide. White students, however, may seek, desire or view wildlands as a place of solitude away from others compared to Black students.

### **Participation Behaviors in Wildland Recreation**

**Actual Trends of Black and White Students in Wildland Recreation.** National visitation and recreation patterns show that Whites have the highest participation rates in wildland areas (Burns, Covelli, & Graefe, 2008; Bryne & Wolch, 2009; Johnson, Bowker, Cordell, 2004; Outdoor Foundation, 2017; Sasidharan et al., 2005). Adding to the body of knowledge in regard to the wildland national trends for Blacks, over that past year, Black students demonstrated that they had a higher occurrence of visitation in natural spaces, parks, and some wildlands than White students. Black students had a higher rate of visiting suburban or urban county parks; the most frequent was bodies of water, regional parks, and national parks. Comparatively, White students had a lower rate of visitation in those areas, but had higher visitation rates in wildlife management areas and national forests. It is clear that Blacks are not completely absent from wildlands, public lands, parks, and green spaces as asserted by Johnson and colleagues (2007). In examining the areas that Blacks are visiting and aligning it with the definition of wildlands, areas such as urban or suburban, regional or county parks, fail to meet wildland characterizations. Furthermore, these findings reflect literature findings that

Blacks have high visitation rates in urbanized settings in comparison to White students (Martoglio, 2012).

Both groups of students had low frequencies for visiting each type of wildland. GMU is located in an urbanized setting; and as Pergams and Zardic (2008) explained, there is clear evidence of an ongoing and fundamental shift away from recreation that occurs in wildlands. Within 15 miles of GMU's Fairfax campus, there are a multitude of wildlands such as Fairfax County's Burke Lake (4.3 miles), Fountainhead Regional Park (5 miles), Northern Virginia Regional Park Authority's, Bull Run Park (9 miles), National Park Services' Manassas National Battlefield (10.3 miles), and C and O Canal Trust's Carderrock Recreation Areas (11.5 miles). However, these parks require fees to access and involve travel along high traffic systems requiring students to have reliable transportation. Recognizing such constraints may provide an idea as to why students' participation frequencies are low as both groups mentioned having transportation and financial constraints that are entailed with visiting wildlands.

Research has revealed through various studies that Blacks are less likely than Whites to engage in activities such as camping, hiking, or water based activities (Outdoor Foundation, 2017). This is in alignment with this study as it was found that Black students were also less likely than White students to participate in backpacking, bicycling, bonfires, camping, water activities, hiking, exploring in nature, fishing, hunting, scuba diving/snorkeling, skiing/snowboarding, stargazing and viewing wildlife. The only activity that Black students participated in at a higher rate was observing scenery, in which they had a 5% higher participation rate.

Taking a closer look at national trends for Black and Whites in outdoor recreation/wildland recreation, this study found that its' student trends did not imitate Outdoor Foundation's (2017) low participation rates for Blacks, as Black students had a higher visitation rate in visiting outdoor recreational sites, compared to White students; however, this is not the case for wildland visitation. The Outdoor Foundation (2017) reported the most frequented activities for Black and White participants (18-24 years old) were hiking, camping/backpacking, and biking; yet, the racial breakdown among this age group was not presented. In a comparison to these trends, a majority of students hiked, but camping and biking were not reported at a high frequency. The Outdoor Foundation's report did not elaborate on the racial differences on these activities, but in this study, it was found that Whites students participated in these activities at a higher rate than Black students.

Comparing the data for wildland activity participation patterns for students showed that the students at GMU enjoyed activities involving natural scenery and observation (e.g., viewing scenery, viewing wildlife, and tying in third were campfires/bonfires). Whereas, their least frequented activities (e.g., hunting, scuba/snorkeling, bicycling, camping, and backpacking) appear to consist of activities that require more gear, skill sets, experience, and education.

### **Proposal for the Cause of Current National Trends for Black**

**Participation in Wildlands.** In order to improve participation rates among racial and ethnic minorities in wildlands, researchers have tested marginal, ethnic, and discriminatory constraints among Blacks (Chavez, 2009; Chavez & Olson, 2009; Gordon

& Luloff, 2010; Sasidharan et al., 2005). This study, similarly, sought to identify explanations from students on their beliefs for low participation trends for Blacks in wildlands and recommendations for what Blacks need in order achieve wildland activities. Four themes emerged from the data: constraints, concerns for safety or health, racism, and cultural identity. It was observed that Black students provided the most confident answers, whereas White students were unsure. This suggests that Blacks can provide significant insight on their own personal and cultural perspective over other ethnic and racial groups.

In relation to leisure constraint model, students identified intrapersonal, interpersonal, and structural constraints as factors that contribute to the low national representation of Blacks in wildlands (Bustam & White, 2010; White, 2008). Among these three factors, the most discussed constraints were interpersonal constraints. Students identified safety concerns, personal discomfort, socialization, not feeling part of a culture, discrimination, historical contexts, and lack of Black patrons as reason for Blacks low representation in wildlands. The finding of these interpersonal constraints aligns with research suggesting that racism/discrimination, historical contexts, and lack of ethnic minorities participating in recreation serve as interpersonal constraints (Roberts & Rodriguez, 2008; White, 2008).

Intrapersonal constraints were discussed the least by students, however, the responses they provided are not frequently discussed in literature for wildlands. Bustam and White (2010) stated that “[i]ntrapersonal constraints are the most important hierarchy because they are nearest to the participant or they are encountered more frequently than

other types of constraints” (p. 3). Consequently, it is believed that overcoming these intrapersonal constraints will play a vital role in increasing the participation trends for Black in wildlands. In order to participate in any activity, identifying an individual’s intrapersonal constraint towards wildlands may prove to be the most effective tool for facilitating their needs.

The theories of marginality and ethnicity (Chavez & Olsen, 2008; Ho et. al, 2005) also provide some insight on Blacks’ participation constraints. In examining the themes that emerged in the study, a large majority of Black students agreed that Blacks experienced marginal constraints in time, financial, and educational constraints towards wildland recreation. In addition, they asserted that societal “representations” of Blacks play a key role on how people look at Black culture norms. For example, students felt Blacks have been historically influenced to not include wildlands as part of their culture, causing negative stigmas and attitudes toward wildland recreation. Additionally, it was hypothesized that predominantly Black communities do not have accessible wildlands or natural spaces that are considered safe. As a result, this could play a role as to why they felt “no portrayal” of Blacks in wildlands. It was revealed in this study that students believed that adverse stigmas and myths are still socially accepted among Blacks, which play a vital constraint among Blacks if they are to participate in wildland recreation.

Extant research on Black culture and the results of this study, demonstrate Blacks have a deep-rooted history in the United States that results in their needs, constraints, and experiences in wildland recreation to vary significantly from other race and ethnic groups. Black students expressed that their culture did not promote wildland recreation,

as it was not something “Black people do”. Hence this study is in agreement with Roberts and Rodriguez (2008) who espoused that Blacks have shown to have stronger attachment to their culture based on their sense of identity, connections to cultural norms and traditions, and ethnic interaction preferences, allowing them to have some forms of established sought out leisure. Students’ responses demonstrated that they believed that cultural identity plays a significant role in wildland trends. They expressed that they view the strong cultural norms of Blacks as one that does not choose to raise their kids to understand or appreciate nature nor teach the importance of spending time in nature or being outside. While both perspectives from students may serve to be true, it is clear that the ethnic constraints have been strongly rooted over history. When exploring both marginality and ethnicity in the themes that students provided, it is clear that they provide an important insight on how history has cultivated recreational norms for Blacks in wildlands. Exploring ways to integrate wildlands into Black’s recreational norms should be explored more in further research.

While interpersonal, intrapersonal, marginality, and ethnicity constraints presented important themes for why Blacks are not visiting wildlands, this study further explored the presence of discrimination as a potential cause for low wildland participation trends exist. Two Black students stated that they experienced forms of racism or discrimination in wildlands or perceived that they would if they did visit. The explanation for these experiences revealed that they recognized that they may not be as knowledgeable in wildland topics; and thus when visiting or speaking with experienced professionals/staff in wildlands, they are indirectly being looked down on as not be

skilled or educated about wildlands and wildland recreation. Lastly, it was revealed that while the words being used among professionals/staff in wildlands may not reflect racism or discrimination, the tone in which they say things to Black patrons makes them feel different from other visitors. Student results and literature has suggested that Blacks do feel different or not as accepted in wildlands based on their interactions with people who are not of the same race in parks and other natural spaces (Bryne & Wolch, 2009; Burns, Covelli, & Graefe; Martoglio, 2012; Roberts & Rodriguez, 2008). As a result, in terms of cultural identity, these responses illustrate that while Blacks may pursue visitations in wildlands, cultural stigmas about Blacks in wildlands are still viewed by Whites, leading Blacks to perceive forms of discrimination.

The discrimination framework “has proved beneficial in that several studies show that economic barriers are a significant and relevant barrier for minority participation in national parks [wildlands]” (Martoglio, 2012, p. 11). Accordingly, it was also reported that forms of gentrification, institutional, and systemic discrimination existed. For example, students expressed that economic barriers have resulted in Black people being more financially constrained and living in more urbanized areas where wildlands are not [easily] accessible while. This realization among students is not a new concept for recreational constraints. One of the first studies that looked at participation constraints in African-Americans shared that “blacks do not participate because of poverty and various consequences associated economic discrimination” (Metcalf, Burns, & Graefe, 2013, p. 31). Students believe that this still holds to be a true issue that prevents equal access in wildlands and the benefits of wildlands. While primarily Black dominant communities

still exist, this further nurtures the cultural identities and norms for wildlands among Blacks.

Nevertheless, it is important to recognize that overt, subtle, and unconsciousness forms of discrimination have shaped Black people's cultural norms, attitudes, and behaviors for wildlands. Furthermore, the longer Blacks do not include natural spaces into their culture, it is hypothesized by researchers that participation constraints will continue to grow and become harder to overcome (Howell, Dopko, Passmore, & Buro, 1984; Louv, 2005). Consequently, identifying constraints, attitudes, values and definitions toward nature and the environment are vital in developing Black's perceptions of wildlands (Gordon & Luloff, 2010; Williams, 2014).

## Chapter Six: Conclusion

To summarize and conclude this study, this chapter will overview the (1) research purpose and questions; (2) main findings and contributions to literature; (3) practical implications and recommendations; (4) limitations and future research; and (5) concluding statement.

### **Research Purpose and Questions**

Historically, research has consistently shown that Blacks participate less in wildland recreation compared to those who are White. Given the environmental, economic, physical, and psychological benefits of participating in outdoor and wildland recreation, and the support of such resources based on public means, the low representation of persons of color is an important societal issue. The purpose of this study was to expand the current literary knowledge of what students' attitudes and behaviors are towards participating in wildland recreation, through a comparative analysis of GMU college students. The questions addressed for this study consisted of: (1) What are the attitudes of college-students toward wildlands and participating in wildland recreation and what differences exist on the basis of race, gender, education level, and geographic upbringing? (2) What are the behaviors of college-students in wildland recreation and what racial differences exist?

In addition to the main research questions, this study additionally explored students' beliefs about national racial disparities in wildland recreation. Studying the attitudes and behaviors toward participation in wildland recreation among both White and Black college students will provide a better explanation of how Blacks and Whites are similar and different from each other; so that wildlands may become a place where underrepresented populations have equal access to these benefits.

### **Main Findings and Contributions to Literature**

#### **Attitudes of College Students Toward Wildlands and Wildland Recreation.**

The results of this study address the call for future studies that focus on the attitudes of Blacks in wildlands and how they define them (Gordon & Luloff, 2010). Based on the research work completed in this study, the findings demonstrated that the attitudes of students did not have any racial significant differences and they held a general positive attitude towards nature, the environment and wildland protection. However, it was observed that education level and geographic upbringing influenced students' level of importance for nature, the environment, and wildland protection. Specifically, students who were graduate level and grew up in rural settings scored higher levels than graduates and undergraduate students who grew up in suburban or urban areas. Both discoveries are believed to be impacted by race, as all of the graduate students are White and the majority of Black students come from urban and rural areas.

One factor this study provided in which research has not addressed is how students define wildlands and wildland recreation. Students agreed that wildlands were natural unmanaged areas where wildlife and natural elements are preserved or strongly

present. In regard to wildland recreation, both groups agreed it was a type of activity that took place in more natural spaces than most recreational situations. Additionally, only White students expressed that wildland recreation was a place where people could practice their skills of self-reliance, and experience solitude away from people. This suggests that race can influence attitudes of how people perceive locations, activities and recreational goals in wildland.

Another attitude that was measured were the benefits students felt wildlands provided them. While the majority of students expressed many positive benefits (e.g., relaxation, a sense of awe, calmness, energized, spiritual), Black students were the only group to express negative effects (e.g., fear and discomfort towards wildlife, plants, and weather). Whites students found some of these elements to be positive motivators for participating wildlands. These findings correlate with extant research on this topic (e.g., Outdoor Foundation, 2017; Martoglio, 2012; Hammitt et al., 2015; Neil, 2008) and additional explorations of these differences would be very valuable as this study shows that certain elements of wildlands are demotivating for Blacks. Exploring intrapersonal, interpersonal, and structural constraints would be the best framework to explore as it focuses on the individuals' fears, anxieties, preferences, and needs. As attitudes toward the environment become stronger and comfortable, people are more likely engage in wildland recreation (Gordon & Luloff, 2010).

### **Behaviors of College Students Toward Participating in Wildland Recreation.**

Extensive research has been conducted on Black and White persons' participation trends in outdoor recreation and wildland recreation; however, the study does not reflect the

findings of all of the literature that was explored for this study. Black students had a higher visitation rate in outdoor settings, especially in urbanized and suburbanized settings, but not necessarily in wildlands. These results correspond with Martoglio's (2012) research that found that Blacks have higher visitation rates in urbanized settings in comparison to White students. Hence, it is clear that Blacks are not completely absent from wildlands, public lands, parks, and green spaces, however, future research should explore the frequencies at which they visit these parks, how far they travel to visit, and how much money they spend when visiting. While White students had lower visitation rates compared to Black students, it was observed that they had higher wildland activity participation rates for all activities listed. White students were more likely to participate in activities that required more gear, skillsets experiences, education, etc. (e.g. backpacking, mountain biking, camp, canoe, hike, fish, hunt, scuba/snorkel, ski/snow board). Black students were observed to participate in activities that did not require additional skills or gear, such as viewing scenery, wildlife and hiking.

#### **Perceived Causes and Remedies for National Low Wildland Participation**

**Trends of Blacks.** Historically, researchers have addressed demographic differences among visitors for public lands and outdoor recreation by addressing leisure, marginal, ethnic, and discriminatory constraints. This study adds additional insight from students on their beliefs for why national participation trends for Blacks in wildlands are low and perceptions for what they need in order to participate in wildland activities. This focus revealed four themes for low participation trends: recreational constraints (e.g., cultural, time, financial, or access), concerns for safety or health, racism, and cultural identity.

These factors may have an overall impact on Blacks' ability to gain knowledge and education for wildlands. This study also revealed that students perceive Blacks experience treatment discrimination in wildlands in regard to how professionals communicate to them. These findings consequently illustrate that while Blacks may pursue visitations in wildlands, cultural stigmas that say Blacks do not visit wildlands may be viewed by Whites, leading Blacks to perceive forms of discrimination.

Age has been found to be a factor in regard to ones' participation in recreation, as it is theorized that children take on parental recreational patterns or constraints due to family, cultural, or economic situations (Gordon & Luloff, 2010; Louv, 2012; Roberts & Rodriguez, 2008). Black students repeatedly expressed that wildland visitation and exploration was discouraged or not encouraged in early childhood from family or nearby resources. Students suggested that Blacks do not to have the education or skills needed for wildlands when compared to Whites who have historically participated in wildlands. As a result, it is argued that the most important structural constraint among Blacks are their lack of access to learn about wildlands. Students agreed that in order to increase participation rates among Blacks in wildlands, recreational programmers should develop specialized programs that focus on integrating Black culture into the wildlands.

### **Practical Implications and Recommendations**

Recognizing that persons of color are recreating in suburban and urban recreational situations should be taken into consideration when exploring how existing programs can develop opportunities to engage different demographics in wildlands. It is believed that regional park master plans should develop a demand-based needs

assessment plan supported by the results of public involvement to support individuals' desires and needs for natural spaces. This will also demonstrate how the public would like to use natural spaces as part of their community. Furthermore, these needs assessments can be catered to parks, natural areas, and wildlands that are nearby to determine how lands, facilities, and programming should be managed. This will in turn allow cultures and subcultures to explore the benefits of nature and wildland recreation. Developing such plans should not be made by the assumption found in national averages and experiences among people. Individuals have different attitudes and behaviors toward wildlands based on their cultural and subcultural identity towards wildlands, opportunities to visit wildlands, and education on wildlands.

Parks and recreational facilities hold a power in the fact that they can provide a unique culture within their communities, however, as demonstrated, it is not an easy process and it takes work to get the right people together to provide a strong program that lasts. The article "Involvement of Park and Recreation Professionals in Pedestrian Plans" states:

Parks [and recreational facilities] can offer opportunities for residents of diverse age groups and cultures to come together to socialize and engage in health-promoting activities. Integrating a park and recreation perspective into a more comprehensive planning process can enhance access to parks, inform programs, support multiple community goals, facilitate efficient use of resources, and promote partnerships for greater sustainability. (Evenson, Aytur, Rodriguez & Salvensen, n.d., p. 140)

Public lands and parks serve as an important space for health and wellbeing. While cities may not have a full understanding and concept of their demographics' needs, they will be able to work with organizations for programming, experiential and financial support.

Outcomes of this collaboration can help provide a culture that is unique to their area by providing educational events, natural spaces, and facilities that the public can use and experience. With these opportunities being used among the public, cultures will evolve around such experiences as it begins to be part of the community's means for leisure, social, or event gatherings.

Additionally, they can design "living laboratories" as it is a place people can share information and people can come to learn and overcome ignorance for wildlands. For example, in regard to wildland benefits and education, churches, farmers markets, school visitations, and other public events are places people can learn about local wildlands and educational opportunities that support engagement of their community. These types of community events provide a culture of "norms." Ultimately, as programing continues to help a city unfold their community's culture for natural spaces and wildlands, it will not just benefit the public, but the economic impact of the neighborhoods and city (Harvard Business Review, 2015).

This really stretches the concept of recreation in a tax funded setting as it is primarily focused on trends and what people want long term in their communities. In order to provide a service or activity that is very unique for a community, it requires more than just marketing. It requires taking time to talk to people and educate them on the activity to draw them in for bigger experiences. To ensure a program lasts, communities should: 1) improve organizational efficiencies of the city's parks, recreation, and cultural services; 2) increase recreational opportunities based on the results of assessments,

community demand, and industry trends; and 3) increase financial support and opportunities for parks, recreation and cultural facilities and programs (GreenPlay, 2014).

### **Limitations and Future Research**

While the results of this study found many valuable themes among students' attitudes and behaviors in wildland recreation participation, there were a few limitations that need to be discussed. First, this study experienced lower response rates; and thus, smaller sample sizes than expected. This may have been due to the fact that the researcher was not able to ensure that the recruitment emails reached targeted student organizations because the email database for student organizations was outdated. Survey Monkey determined that 56 students accessed Survey Monkey and the average completion rate was 75%. From the responses, 37 students provided complete information. Despite having a small sample size, this study was still able to obtain valuable data about racial differences in college students' wildland choices and activities. However, in regard to bodies of water visited, students had high visitation rates; but it is believed that all students may not necessarily have gone to a body of water in a wildland settings.

Among most of the responses for the quantitative questions, no significant differences were observed among students' attitudes and behaviors; therefore, it was concluded that Black and White students generally hold similar behaviors toward wildland participation. A statistical significant difference may have been detected with a larger sample size, especially with a larger number of Black respondents. It would also be beneficial to use a larger national sample when exploring reasons for the low national

averages among Black in wildland recreation. Finally, it is important to note that a selection bias may be present in the findings. The 37 students that participated in the survey may have felt passionate about the topic of wildlands and participating in this study; therefore, the data may illustrate responses from students who actively participate in wildland recreation. As a result, this sample may not reflect the attitudes and behaviors of Black and White students at GMU for wildland recreation.

Given the exploratory nature of this study, it is necessary for further research to build on findings in this thesis and expand theoretical frameworks used to study this topic. First, this research was able to highlight a number of new findings that most wildland literature does not often reflect. For example, while both groups illustrated high rates for viewing wildlife and looking at natural scenery, qualitative data revealed that the presence of nature (e.g., bugs, spiders, poison ivy) prevented Blacks from pursuing certain wildland situations and activities. More should be examined on why these fears exist, how they were developed, and how they may be overcome. As aforementioned, wildlands are managed or minimally managed to maintain its naturalness (Hammitt et al., 2015); thus, the removal and extermination of certain wildlife and plants is not often an option.

Results also revealed that Blacks had a higher visitation rate in outdoor settings, especially in urbanized and suburbanized settings, but not necessarily in wildlands. Additionally, even though Whites had a lower visitation rate for natural spaces (wildlands and non-wildland spaces), they had higher participation rates for activities in wildlands. Having a larger number of survey participants may be valuable for explaining why this

pattern evolved and answer what activities Black students are choosing to participate in. While this study did not aim to represent data on the national trends of Black students, but rather GMU students, research should explore if Black GMU students' attitudes and behaviors reflect the national trends. Additionally, if Black students demonstrate behaviors that do not reflect the low national trend of Blacks participating in wildlands, more should be explored as to why they exist. Furthermore, it should be investigated how the wildland culture and identity of Black students be employed to facilitate other Black communities that do not participate wildland activities.

In addition to studying race effects, researchers should explore levels of education as it was the only variable to illustrate a significant difference among students. Future research should also explore outdoor recreation groups that target race/ethnicity groups, such as Outdoor Afro and Latino Outdoors. Surveying groups similar to this will show how racial minority groups have been able to overcome stigmas and constraints. Potential groups can identify how they overcame their barriers and how they perceive Blacks can experience equal access in wildlands.

Studying discriminatory, marginal and ethnic barriers to wildland participation has been a common theme amongst researchers in this field. While these frameworks provide significant insights toward this topic, they do not take into consideration personality needs, stress, anxiety, specific leisure needs, preferences, attitudes, or values toward wildlands participation and activities. Future research should, therefore, explore intrapersonal, interpersonal and structural constraints, as they can be primary issues that inhibit people's participation in wildland recreation. Lastly, using a mixed methods

approach was found to be beneficial, however, future research should consider a personal interaction with participants, such as focus groups or one-on-one interviews, as conversations and open discussion allows for the researcher to explore more about participants answers.

### **Concluding Statement**

Black students who participated in this study finished their survey stating that this topic “peaked their interest” and motivated them to learn more about wildland recreation. Students’ participation in this study served as a cultural awareness among wildland recreation and motivated Black students to educate themselves further on the issues of low participation trends. In turn, friends and family members of students may also visit wildlands, changing their cultural norms and identity toward wildlands. As this study illustrated, Blacks students are not absent from wildlands, but are experiencing wildland participation constraints caused by economic barriers and cultural identity, stigma, and stereotypes that do not encourage wildland recreation. The biggest constraint that Black communities have towards participating in wildlands are current stigmas and stereotypes that are accepted among Black and Whites that says, “Black people don’t go outside” and “it’s a White thing to do.”

People of all backgrounds have equal access to wildlands; and as a culture and society, these stigmas and stereotypes need to be eliminated. To combat such stereotypes, Blacks need to be educated more and earlier in childhood about wildlands, the importance and benefits, and how to participate safely in them. Additionally, more is needed to explore how to integrate wildlands into the cultural identity of Blacks while

maintaining the definition of wildlands (unmanaged, solitude, and self-reliant). As a result, exploring intrapersonal, interpersonal, and structural constraints may be a gateway to learn how we may include wildlands into Black culture and identity. Visiting wildlands should not change how people look at one's culture, race, or ethnicity as it benefits everyone equally.

## Appendix A

## Survey Questions

# A Comparative Analysis of White and Black College Students' Attitudes and Behaviors Toward Participating in Wildland Recreation

### Section 1: Consent for Participation

#### RESEARCH PROCEDURES

*This research is being conducted to identify the attitudes and behaviors that White and Black college students hold toward participating in wildland recreation. Secondly, this study seeks to find similarities and differences that exist among group each of students. If you agree to participate, you will be asked to complete in an online survey through Survey Monkey, which may take you no longer than 15 minutes to complete. This survey will consist of multiple choice, single choice, short answer, and likert or sliding scales.*

#### RISKS

*There are no foreseeable risks for participating in this research.*

#### BENEFITS

*There are no benefits to you as a participant other than to further research in nature-based recreation.*

#### CONFIDENTIALITY

*The data in this study will be confidential. This online survey will be anonymously conducted; no names will be collected for this research study. We will ask for your email address if you want to enter the drawing for a chance to win a \$15.00 electronic gift card or request results for this study after it is completed, but your email address will be collected separately and will not be connected or associated with your survey responses. This survey is a private study, which is not available to the public hence Survey Monkey ensures that data and identifiable information will not be shared or sold. Correspondence among students made by the Co-investigator will take place using the investigators' George Mason University email account. These emails and the content*

*within them will not be shared outside of this study and will be saved on those accounts until the end of data collection.*

## **PARTICIPATION**

*Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party.*

*All students who complete the online survey and provide their email will be eligible to enter a drawing for an electric gift card for Amazon.com. Five students will be randomly selected and emailed a virtual gift card to use on Amazon.com.*

## **CONTACT**

*This research is being conducted by Virginia Wine through the School of Recreation, Health and Tourism at George Mason University. She may be reached on her phone number, 571-344-5764 or her email, vgriffit@gmu.edu for questions or to report a research-related problem. Additionally, you may also call her advisor, Dr. Jacqueline McDowell at 703-993-7088 or email her at jmcadowe7@gmu.edu. Lastly, you may contact the George Mason University Institutional Review Board office at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.*

*This research has been reviewed according to George Mason University procedures governing your participation in this research.*

1. I have read the Informed Consent Form and I agree to participate in this study?
  - Yes
  - No

## **Section 2: Wildland Recreation**

2. How important are nature and the environment to you?

0 Not Very Important                      Moderately                      100 Very Important



3. What is your personal definition of wildlands and wildland recreation?

4. How important is the protection of wildlands?

	Very Important to Me	Sort of Important to Me	Moderately Important to Me	Little Importance to Me	Not Very Important to Me
Wildland Protection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Section 3: Wildland Recreation Participation

**For the purpose of this study, wildland recreation have been described as:**

- *Participating in an activity that is in a natural area or an area that is managed to appear natural. (e.g. elements of nature, terrain, plants, wildlife, or water bodies)*
- *Activities occurring in areas with limited facilities provided for visitor safety and resource protection. (e.g. such as boardwalks, footbridges, designated camping spots, etc.)*
- *Social interactions are in small groups with less inter party contact.*
- *Few services may be provided and users are expected to be self-reliant*

**Areas where wildland recreation can take place are very broad, as they can take place on:**

- *Public Lands National Parks*
- *National Forests*  
*Wildlife Management or Conservation Areas State Parks*  
*County Parks*
- *Areas not designated for recreational use Private or personal property*

5. Please share which of the following wildlands you have visited in the past year. (Select all that apply)

- *Bodies of Water/Beaches, Lakes, River (e.g. Potomac River, Virginia Beach, Myrtle Beach)*

- Wildlife management areas (GR Thompson State Wildlife Management Area
- Suburban or Urban County Park (e.g. Fairfax Villa Park )
- Regional or CountyPark (Fountainhead Regional Park
- Visited privately owned wildlands (friend, family, personal property)
- National Park (Manassas National Battlefield Park or Great Falls National Park)
- National Forest (George Washington National Forest)
- State Parks (Leesylvania State Park or Mason Neck State Park\_
- Other:\_\_\_\_\_

6. Do you experience any benefit of visiting wildlands? If so, what benefits do you experience? (e.g. I think of the natural world as a community to which I belong; Spending time outdoors is spiritual for me; Being in nature calms or energizes me; etc.)

7. Which of the following have you participated in within the past? (Select all that apply)

- Backpacking (overnight)
- Bicycling
- Campfire/Bonfire
- Camping
- Hiking
- Exploring in Nature (rolling over logs, looking for bugs or animals, picking flowers, etc.),
- Fishing
- Hunting
- Scuba Diving/Snorkeling
- Skiing/Snowboarding
- Star Gazing
- Viewing Wildlife (e.g. observing animals such as birds)
- Viewing Natural Scenery (e.g. mountains, waterfalls)
- Water Activitie9 (Canoeing/Kayaking/Stand up Paddling/Boardsailing/Windsurfing)
- Other:\_\_\_\_\_

**Section 4: Blacks/African Americans in Wildlands**

**Answer questions 8-11 with the understanding that African Americans only have a participation rate of 9% in outdoor recreation and Caucasians have a 74% participation rate, according to the 2016 report from Outdoor Foundation.**

**Briefly provide a short answer for the following:**

8. Why do you believe these trends exist among Blacks/African Americans in Wildland recreation?

9. What do you believe can be done in order to help increase Black/African American participation rates in wildland recreation?

10. Have you ever felt any form of racism or discrimination when visiting wildlands? If yes, please share with us in the comment box below.

- Yes
- No
- Other: \_\_\_\_\_

11. Is there any additional information you would like to provide about your attitude (what you think) or beliefs (what you do) toward your participation in wildland recreation?

## Section 5: Demographics of Participants

12. Select one which you self identify as. African American/Black

- Asian/Pacific Islander
- Hispanic or Latino
- Asian
- Native Hawaiian or other Pacific Islander
- White/Caucasian
- American Indian or Alaskan Native
- Other : \_\_\_\_\_

13. What is your age?

14. Which gender do you most identify with?

- Cisgender Male (born biologically male)
- Transmale
- Cisgender Female (born biologically female)
- Transfemale

15. Which educational level are you classified as?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate Student PhD Student

16. Which of the following geographic regions did you grow up in?

- Rural area (Community that is very spread out. There are lots of plants, fields; however not a lot of people, buildings or vehicles.)
- Suburban (Located near a bigger city where buildings and people are more spread out. There are plants, trees and vegetation.)
- Urban (Big cities where lots of people, tall buildings, stores, businesses and vehicles which are very close to on another. Plants and trees are found mostly in green spaces or managed parks.)

Section 6: Request to see the results of this study after it is completed.

**Once you have completed the survey and you volunteer to provide your email address at the very end of this study, you will be eligible to win one of the five \$15.00 electronic gift cards for Amazon.com.**

17. Would you like to learn more about the results of this study once it completed?

*\*If "yes", please provide your email so the researcher may contact you after the study has been completed. If "no", you are still eligible for a chance to win a \$15.00 gift card for Amazon.com.*

- Yes
- No
- Please share you email address: \_\_\_\_\_

## Appendix B

### Recruitment Letter

Dear (Name of Student Organization),

My name is Virginia Wine and I am a graduate student at George Mason University earning my M.S in Sport and Recreation Studies. I am writing to invite you and members of your student organization to participate in a research study about Black and White college students participating in wildland recreation.

For this study, I will be seeking to understand the trends, constraints, attitudes and behaviors that Black and White college students have towards participating in wildlands. Secondly, I will be studying what similarities and differences exist among group of students. For more information on this study and consent, please review the Informed Consent Form attached to this email.

You and members of your organization will be able to provide this study with information that will be valuable to scientific literature and the recreation and environmental community. Additionally, this information may help Wildland recreation programs and recreational areas that encourage all individuals to seek out recreational experiences that are dependent on nature.

Can you please forward this email to members of your organization?

They can complete the online survey at <https://www.surveymonkey.com/r/VNQXGSC>. This study will take less than 15 minutes to complete. Students will be eligible for one of five drawings for a \$15.00 electronic gift card for Amazon.com.

If you have any questions or concerns please contact me at [vgriffit@gmu.edu](mailto:vgriffit@gmu.edu).

Thank you very much,

Sincerely,

Virginia Wine

M.S Sport and Recreation Studies Candidate  
George Mason University

## Appendix C

### Full List of Student Organizations Recruited

AcademyHealth GMU Student Chapter	Chi Upsilon Sigma National Latin Sorority, Inc.
Active Minds	Christians United for Israel at GMU
African and African American Historical Society	College Diabetes Network, GMU Chapter
Agora	Colleges Against Cancer – Relay For Life
Águilas Mentoring Program	Collegiate Black Men
AIGA-Mason: The Professionals Association for Design	Computer- Human Interaction Student Group
Akoma Circle	Cure Mental Illness GMU
Alpha Kappa Alpha Sorority, Inc.	Delight
Alpha Kappa Psi	Delta Kappa Alpha
Alpha Phi Alpha Fraternity, Inc.	Delta Sigma Pi, Mu Tau Chapter
Alpha Psi Omega	Delta Sigma Theta Sorority, Inc.
American Choral Directors Association	Engineers for international Development
American Statistical Association, GMU Chapter	F1RST Gen Mason
Apostles Campus Church	Fishermen
Ascend	Folklore Roundtable
Associations of Public Policy PhD Students	Forensic Science Student Association
Azucar, GMU Salsa Club	Freedom Connection: Against Human Trafficking
Ballroom Club	Friends of Tibet GMU
Best Buddies Organization	Generation Actions
Bhakti Yoga and Vegetarian Club	GenFKD
Biology Club	George Mason Anime and Gaming Society
Black Student Alliance	George Mason Army ROTC
Cadenza Dance Crew	George Mason Badminton Club
Capoeira Club	George Mason College Republicans
Chess Club	

George Mason Cycling Club  
George Mason Democrats  
George Mason Fencing Club  
George Mason Men's club  
Volleyball  
George Mason Patriots for Choice  
George Mason Powerlifting  
George Mason Quidditch Club  
George Mason Swing Dance Club  
George Mason Taekwondo Club  
George Mason Women's Rugby Club  
George Mason Women's ultimate Club  
George Mason Young Democratic Socialists of America  
GMU Bhangra  
GMU\_Cosplay Club  
GMU eSports  
GMU Motorsports  
GMU Organic Gardening Association  
Green Patriots  
Green Patriots at Mason  
Human Factors and Ergonomics Society, Student Chapter  
Industrial-organizational Psychology Student Association  
Institute of Electrical and Electronics engineers,  
Intelligence Community Club  
International Friendship Connection  
International Tuba Chapter at Mason  
Investment Club of George Mason  
Irish Dance Club  
Israel Student Association  
Japanese Student Association  
Kappa Alpha Psi Fraternity, Inc.  
Kappa Kappa Psi  
Lambda Alpha Epsilon  
Longboarding Club  
Mariposas Mentoring Program  
Mason Athletic Training Society  
Mason Conservation Society

Mason Consulting Club  
Mason CS:GO Club  
Mason DanceWorks  
Mason Dreamers  
Mason Fashion Society  
Mason GNU/Linux User Group  
Mason Improv Association  
Mason Ke RangMason Mahima  
Mason Mappers  
Mason MTG  
Mason Muslim Affairs Council  
Mason Noise CrowdSource  
Mason Pokemon League  
Mason Quiz Bowl  
Mason Snow  
Mason Some Noise  
Mason Veteran Patriots  
MedX Global  
MHA Leaders of Tomorrow  
Militarily Appreciation Club  
Model United Nations  
Multicultural Association of Pre-Health Students  
Mural Brigade  
Music Productions Club  
Muslim Writers Collective GMU Chapter  
My Natural at George Mason  
NAACP, GMU Student Chapter  
NAfME  
Nepaese Student Association  
Nerdstock  
Networking Club  
Noteworthy  
Omega Psi Phi Fraternity, Inc.  
Oriental Culture Club  
OSI Films Fan Club  
Patriot Pitches  
Phi Beta Lambda  
Phi Beta Sigma Fraternity, Inc.  
Phi Mu Alpha Sinfonia  
Phi Sigma Pi  
Pride Alliance  
PROJECT PRINCESS

Public Relations Student Society of America  
Reign Model Troupe  
Roosevelt At Mason  
RPG Club a George Mason  
School of integrative studies peer ambassadors (School of Integrative Studies Envoys)  
Secular Student Alliance  
SERVE  
Sigma Alpha Lota, Mu Epsilon Chapter  
Sigma Gamma Rho Sorority, Inc.  
Society of Data Analytics Engineers at Volgenau School of Engineering  
SoleTap  
Spoon  
Sport Management Society  
Steam Undergraduates for Renewable Energy  
Student Against Israeli Apartheid  
Student Historian Society

Student-Run Computing and Tech  
Students Engaged in Ending Displacement  
Students for a Democratic Society  
Students Helping Honduras  
The Alexander Hamilton Society  
TQ Mason  
Transparent GMU  
Treat Yourself  
Tu Bhi Nachle  
UNICEF  
University Parents  
UrbanKnowlogy 101  
Vegan Society at GMU  
Virginia Student Environmental Coalition  
Virginia21  
Women of Color STEM  
Women's E-Learning in Leadership Student Organization  
Young American for Freedom  
Zeta Phi Beta Sorority, Inc.

## Appendix D

### **Informed Consent Form**

#### RESEARCH PROCEDURES

This research is being conducted to identify the attitudes that Blacks hold towards nature and the environment and how those attitudes were developed. Furthermore, it seeks to understand the participation constraints Blacks have in nature-based recreation and what facilitators may increase their participation rates. If you agree to participate, you will be asked to participate in an online survey through Survey Monkey, which may take you no longer than 30 minutes to complete. This survey will consist of multiple choice, single choice, short answer, and likert or sliding scales.

#### RISKS

There are no foreseeable risks for participating in this research.

#### BENEFITS

There are no benefits to you as a participant other than to further research in nature-based recreation.

#### CONFIDENTIALITY

The data in this study will be confidential. This online survey may be completed as anonymously where names and other identifiers will not be collected for the research of this study. Additionally, if you choose to provide your email for a chance to win a \$15.00 electronic gift card or request results for this study after it is completed, your answers will not be connected or associated with your answers that you provide in this study. This survey is a private study, which is not available to the public hence Survey Monkey ensures that data and identifiable information will not be shared or sold. Correspondence among students made by the Co-investigator will take place using the investigators' George Mason University email account. These emails and the content within them will not be shared outside of this study and will be saved on those accounts until the end of data collection.

#### PARTICIPATION

Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party.

All students who complete the online survey and provide their email will be eligible to enter a drawing for an electric gift card for Amazon.com. Five students will be selected for this incentive. The five selected students will then be emailed a virtual gift card to use on Amazon.com.

#### CONTACT

This research is being conducted by Virginia Wine through the School of Recreation, Health and Tourism at George Mason University. She may be reached on her phone number, 571-344-5764 or her email, [vgriffit@gmu.edu](mailto:vgriffit@gmu.edu) for questions or to report a research-related problem. Additionally, you may also call her advisor, Dr. Jacqueline McDowell at 703-993-7088 or email her at [jmcdowe7@gmu.edu](mailto:jmcdowe7@gmu.edu). Lastly, you may contact the George Mason University Institutional Review Board office at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.

This research has been reviewed according to George Mason University procedures governing your participation in this research.

#### CONSENT

I have read this form, all of my questions have been answered by the research staff, and I agree to participate in this study.

## References

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