

Black Hunters: Reclaiming the Tradition

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The purpose of this project was to identify the real and perceived barriers to hunting participation that impact Black Americans, and by doing so, improve hunter-vested organizations' ability to implement engagement strategies for Black outdoors persons that can reinforce and re-vitalize the tradition of Black hunters in North America.

The research team would like to offer special thanks to the state fish and wildlife agency staff who were so critical to the success of this study through their assistance in providing license purchase data of their Black hunter populations. Additionally, the research team would like to thank the individuals from Outdoor Afro, Hunters of Color, and the Minority Outdoor Alliance who offered their time and expertise in providing guidance on this project's tone and sequence.

Views, statements, findings, conclusions, recommendations, and data in this report do not necessarily reflect views and policies of the Wildlife Management Institute and/or consulting and university partners. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

Editorial note:

Race is defined by the U.S. Census as a defining category of people who share specific physical characteristics inherited from birth. The Census Bureau currently tracks five major categories of race including "Black or African American".

Throughout this report we use the term Black as people within this racial category, rather than African American because not all Black people in the United States trace their ancestry to Africa; therefore, Black is considered the more inclusive term.

When referring to race throughout this report, the authors chose to follow the conventions of the American Psychological Association and the MacArthur Foundation [22] in capitalizing references to Black and White individuals. We chose not to capitalize the word "race"—as some do—in making generic references to a demographic category following the practice of the Pew Research Center [22].

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TABLE OF CONTENTS

ABOUT THE AUTHORS	3
Co-Principal Investigator: Harrison Pinckney IV	3
Co-Principal Investigator: Aby Sène-Harper.....	3
Co-Principal Investigator: Chris Wynveen.....	3
Co-Principal Investigator: Robert Holsman	3
Co-Principal Investigator: Matt Dunfee	3
TABLE OF CONTENTS.....	4
LIST OF FIGURES	7
LIST OF TABLES	8
EXECUTIVE SUMMARY	9
Highlights of research findings:.....	9
INTRODUCTION	12
Why focus on race?	12
Race in the outdoors	12
Antecedents to hunting participation	14
METHODS IN BRIEF.....	15
RESULTS	16
Respondent demographics	16
State residence	16
Gender.....	17
Age.....	17
Education level.....	17
Household income	18
Hunter social world.....	18
Age of initiation	18
Hunting mentor	19

Hunting buddies	20
Organization membership.....	20
Hunting location and land tenure	21
Hunter experience	22
Hunt quality	23
Hunter motivations	23
Black hunter identity.....	25
Hunter constraints	25
Most significant constraint.....	29
Other barriers to hunting.....	29
Race-related barriers	30
Future hunting intentions.....	33
Hunter retention and recruitment	34
Encouraging hunting participation.....	34
Suggestions for outreach.....	35
Antecedents to discussing the importance of new hunter recruitment	39
Hunter retention	39
Constraint type influence on future hunting	40
DISCUSSION AND RECOMMENDATIONS.....	43
Collect Race/ethnicity demographic information at point of license sale.	44
Feature Black hunters in print, web, and social media content	44
Highlight small game hunting opportunities	45
Connect with and promote Black hunting organizations on national and local levels	45
Law Enforcement considerations	45
Recruit, train, and support Black hunters for roles as mentors.....	45
Future research needs.	46

REFERENCES	47
APPENDICES	50
Appendix 1: Detailed Methods	50
Mixed mode design.....	50
Sampling	50
Focus group implementation.....	51
Focus group qualitative analysis.....	51
Survey Data Collection.....	52
Survey design.....	52
Survey procedure	52
Survey quantitative analysis	53
Limitations	54
Appendix 2: Focus group thematic results	55
Appendix 3: Copy of survey instrument.....	58
Appendix 4: Copy of email invitation	89

LIST OF FIGURES

Figure 1. Number of respondents by state (n = 779; Range: 0-163), Map created using https://www.danielpinero/how-to-create-heat-map-united-states	16
Figure 2. The sources of hunting initiation for Black hunters.	19
Figure 3. The hunting companions of Black hunters during their most recent outing.	20
Figure 4. The types of land ownership that Black hunters report using for access.	21
Figure 5. Percentages of Black hunters using private and public land. Error! Bookmark not defined.	
Figure 6. Distribution of average scales scores for Black hunters on five major categories of constraints (1= Not a constraint, 5=Extreme constraint)	29
Figure 7. Frequencies of most significant constraints reported by lack hunters.....	29
Figure 8. Likelihood respondents will still be hunting in five years.....	33

LIST OF TABLES

Table 1. Summary of theoretical explanations for leisure participation patterns by Black people in wildland/ park settings (from Floyd 1999).....	13
Table 2. Respondents by state of residence (n = 779).....	17
Table 3. Respondent education level (n = 1,095).....	18
Table 4. Respondent income level (n = 1,043).	18
Table 5. Age respondents started hunting (n = 1,597)	19
Table 6. Species hunted by respondents most frequently and over their lifetime.....	22
Table 7. Respondent overall hunt quality by species hunted.	23
Table 8. Descriptive statistics of respondent hunting motivations.....	24
Table 9. Hunter identity scale descriptives and reliability (n = 1,170).	26
Table 10. Hunting constraint descriptive statistics.....	28
Table 11. Respondent willingness to discuss new hunter recruitment (n = 1,125).....	34
Table 12. Ranking of respondents' opinion of likely effectiveness of R3 strategies.....	35
Table 13. Analysis of Variance (ANOVA) test of mean scores of hunting related barriers by category of Black hunter identity.	38
Table 14. Respondent characteristics regressed on willingness to discuss hunter recruitment (n = 846).....	39
Table 15. Respondent characteristics regressed on likelihood of future hunting (n = 590).....	40
Table 16. Respondent characteristics regressed on likelihood of future hunting (n = 1,154).....	41
Table 17. Constraint type influence on likelihood of future hunting (n = 625).	43
Table A1. Focus groups state representation.	51
Table A2. Schedule of online survey administration.	53

EXECUTIVE SUMMARY

Since the mid-2010's, recruitment, retention, or reactivation (R3) efforts across the United States have prioritized outreach to underrepresented demographic groups and constituencies as part of a broader strategy to increase and diversify participation in hunting, fishing, boating, and shooting sports. Research into the motivations, values, and barriers of underrepresented audiences in hunting, specifically, produced insights into tactics and R3 practices that, if embraced and implemented by organizations, could improve the engagement rate of a broader audience of participants [6]. As a continuation of this body of research, this project represents the first of its kind to examine the constraints and opportunities of hunting participation among Black Americans as a unique segment of current and potential outdoor recreationists.

The needs for research into this group of Americans are both ethical and pragmatic. Currently, Black people participate in hunting at a rate slightly lower than their proportion of the population in the United States [28]. Furthermore, there is currently little, if any, published research that has specifically examined Black hunters' motivations, constraints, experiences, and social aspects relative to the activity and culture of hunting. The related studies that have been published have mostly been limited to those that merely compare hunting participation among racial and ethnic groups with White hunters being the comparison group. The intent of this research project was to begin closing the gap in this social science data to assist R3 practitioners in their efforts to serve and engage Black Americans who hunt or are interested in becoming hunters.

Upon receiving an Association of Fish and Wildlife Agencies Multistate Conservation Grant, the Wildlife Management Institute (WMI) assembled a research team of social scientists working in the areas of parks and recreation and human dimensions of wildlife with expertise in outdoor recreation, hunting, and Black identity. WMI also partnered with multiple NGO's that specialize in supporting Black American hunters and outdoor recreationists to assist in the design and review of this study. Finally, WMI contracted with DJ Case & Associates for technical support, communication expertise, analysis review, and assistance in the development of the final research report. This research utilized focus groups and an online survey of Black hunters drawn primarily from the hunting license databases of participating state fish and wildlife agencies that collect race and/or ethnic information of their license purchasers.

Highlights of research findings:

- Black hunters display very similar motivational profiles and perceived barriers to participation that have been documented in research using random samples of all hunters [20, 23, 31]. The top three motivations for hunting reported by participants in this study were “to have a spiritual connection to nature”, “to relax or escape from everyday life” and “to obtain meat”. Land access constraints, competing time commitments, and costs were the top-rated barriers.

- White-tailed deer were the most frequently targeted species by Black hunters (93%), but high percentages of respondents reported hunting for small game (79%), turkey (57%), and furbearers (43%).
- Most (43%) Black hunters who participated in this study were introduced to hunting by their fathers or other family relatives, but 26% were self-taught—many of these cases represent “Adult-Onset™” [4] hunters.
- Friends were the most frequently cited as hunting companions for Black hunters in this study (40%), though 36% of survey respondents said they hunted alone on their most recent outing.
- Respondents were heavily reliant on private land for hunting. Access to private land included properties owned by the respondents or their families, those owned by friends and membership in hunting clubs. Overall, 77% of respondents did all or most of their hunting on private land.
- Both in focus groups and in open-ended survey questions, study participants were asked directly to relay any incidents or experiences they had while hunting that they would interpret as race-related conflicts. In focus groups, examples of these interactions rarely arose organically and usually required direct prompting from the facilitator, Dr. Aby Sene-Harper. Similarly, two-thirds of survey respondents indicated that they had not experienced any race-related incidents directly while hunting. Those who did provided written examples of behavior they encountered as prejudicial or racist in nature from White hunters, landowners, and conservation law enforcement officers. Incidents ranged from minor (e.g., “strange looks”) to more serious threats of violence. There were multiple examples where respondents shared comments detailing negative treatment by state fish and wildlife agency conservation officers.
- Survey results indicated that race was, at best, a moderate factor for most participants in terms of their identity as hunters. More notably, racial aspects were a constant underlying factor for most participants when considering and or reflecting specifically on their *future* hunting behaviors. Thus, it is important to note that race is an issue that likely warrants deeper consideration in R3 and outreach efforts seeking to engage Black hunters.
- This study represents a needed first step in the examination of hunting from the perspective of Black Americans. However, it has significant limitations; most notably, its narrow geographic coverage due to the very small number of state fish and wildlife agency license customer databases that currently incorporate race/ethnic identification. Additionally, by nature of participant selection from license purchase databases, this study is strongly biased towards individuals who are already committed hunters and have thus successfully navigated hunting culture in the United States by finding ways to address any constraints that impact them. Future work should attempt to broaden the

geographic reach of this research and seek to identify the interests, motivations, and needs of Black Americans who have considered hunting but have yet to do so.

INTRODUCTION

Why focus on race?

This question was posed by participants throughout the progress of the project. For example, some respondents emphasized their preference to be viewed as “hunters” and that race should have nothing to do with that identity. These questions present an opportunity to reflect upon the validity, if not necessity, to engage in the type of inquiry represented in this study’s design, at least from the perspective of this project’s research team. According to recent Census figures, Black Americans comprise 13% of the U.S. population. Meanwhile, Black Americans represent 10.4% of the U.S. hunter population in 2022 [29]. How should R3 practitioners interpret this 2.5% under-representation of Black hunters? Can it be explained on the basis of race disparities alone, or more to the point, do Black people encounter unique barriers as a consequence of their race compared to those experienced by their White counterparts? And if so, are there structural or tactical solutions that the wildlife management and professional R3 community could consider that might make hunting and its culture more inclusive, and thereby attractive to Black Americans and potentially other underrepresented groups?

The origins of this study can be traced to conversations among several members of the project team where the above questions were posed, but unfortunately, remained unanswered due to a deficit of documented social science capable of illuminating any aspect of the issue. Unlike many other demographic segments within the U.S. hunter population (i.e., women, locavores, youth), little scientifically rigorous or defensible data (qualitative or quantitative) have been collected to reliably document the antecedents of hunting participation among Black hunters. Consequently, natural resource management agencies and conservation non-governmental organizations have been chronically ill-equipped to deliver programs, policies, practices, and engagement points to Black Americans that effectively address the specific, and often obscured, needs of this community. For these reasons, WMI and its partners committed to this project, not only to provide answers to some of the aforementioned questions, but to also present a standard for how future research into this topic can and should be conducted.

Race in the outdoors

Though many past hunting-related R3 research projects have included Black Americans as a cohort in sample populations, these efforts have, a) proven too generalized to capture the critical nuance behind the barriers, needs, motivations and experiences of Black outdoors persons, b) insufficiently incorporated established social science best-practices and standards for researching marginalized communities, and c) failed to provide actionable and effective recommendations for R3 stakeholder organizations that are committed to serving and engaging broader constituencies.

Table 1. Summary of theoretical explanations for leisure participation patterns by Black people in wildland/ park settings (from Floyd 1999).

Theoretical perspectives	Key assumptions	Strengths	Weaknesses
Marginality hypothesis	Lack of socioeconomic resources and historical discrimination limit park visitation.	Addresses role of historical discrimination Direct measures of marginality factors are suggested	Does not address contemporary discrimination Not clear how to apply to affluent individuals and groups Implications for explaining on-site use not clear
Subcultural hypothesis	Visitation patterns reflect differences in values, norms, and socialization patterns (independent of socioeconomic factors).	Directs attention to cultural determinants of outdoor recreation preferences	Specific cultural determinants often not identified or measured Neglects intra-ethnic diversity
Assimilation theory	Park use reflects an acquisition of the dominant culture's characteristics.	Well-established in the literature Accounts for intra-ethnic diversity Suggests measurable indicators of cultural characteristics	Associated with ideological assumptions Implications for non-immigrant populations not understood
Discrimination hypothesis	Park visitation is affected by perceived, actual, or institutional discrimination.	Directs attention to contemporary forms of discrimination	Little is known of the range, types, and responses to contemporary discrimination

One explanation presented in past research to account for the lower outdoor recreation participation rates among Black people is reflected in the marginality theory. This theory suggests that socio-economic barriers—byproducts of limited equity in opportunities—present significant barriers to participation in outdoor recreation, which could include hunting [31]. Data collected by the Pew Research Center indicated that Black Americans are significantly more likely to live within lower income brackets than White Americans [21]. The costs associated with hunting (gear, licenses, travel, etc.) have been established as a constraint in studies of hunters [12,24]. Black people may be more likely to face cost barriers than White people.

Second, there exists a body of scholarship that has concluded that lower rates of participation by Black people in the outdoors can trace its roots to systemic racism in the social construction of things like nature, wilderness, and the Great Outdoors [9,10,25]. For example, Black people in some recent focus groups conducted by DJ Case & Associates were reluctant to engage in small game hunting for reasons that included evoking suspicion among White hunters and a general lack of representation in hunting-related media [6].

Third, the subcultural hypothesis suggests that Black and White Americans make different leisure choices based on different values and interests. Sometimes, this gets oversimplified as

“Black people don’t like hunting” [18]. The Nature of Americans study did find evidence that Black people were more likely to fear being in nature than were White people, an outcome that may partially be explained by less exposure to nature centers and parks in childhood [14].

Yet, historical scholars have also advanced another narrative that is instructive when it comes to understanding the relationship between Black people and hunting. Scott Giltner’s (2008) book documents the important role that hunting played in the lives of Black Americans in the Antebellum South [11]. His research establishes that hunting not only provided a source of family subsistence and economic security to early generations of freed slaves, but it became a symbol of equality and independence from the power structure of plantation landowners. In other words, Black Americans have an important wellspring of hunting tradition. The title of this report is a nod to that established history and tradition.

Antecedents to hunting participation

Social scientists (a.k.a. “Human Dimensions” researchers) have accumulated a large body of knowledge to explain why some people adopt hunting as part of a lifestyle while others do not. On its most basic level, hunting can be considered a set of behaviors that are pursued to achieve an underlying set of motivations or desired goal. Commonly established motivations for hunting include seeing wildlife, spending time with friends and family, harvesting wild game and spending time in nature [34]. Often, exposure starts with familial or cultural support to try hunting and, for some, later blossoms into part of their self-identity as competencies develop in the social world that allow for goal fulfillment [2,15]. Dozens of studies throughout past decades have examined both the factors that enable participation in hunting as well as those that constrain it. Hunting tends to be facilitated by childhood exposure (at least in prior generations), typically by family members, and among people residing in or within proximity to places where hunting can occur—undeveloped spaces, legal access, etc. [20,23]. Historically, this has meant that those residing in rural areas have greater affinity for hunting than people raised in urban areas given easier access to land and greater cultural support [25].

Meanwhile, lack of time from work and family obligations and lack of access to land have consistently shown to be the top constraints to hunting participation [13,23]. Census data show that Black people are much more likely to be clustered in urban areas in much of the U.S., meaning the barriers of land access, travel time, and community support are likely to lower participation rates just as they would for White urbanites [22,26]. In approaching research questions in both focus groups and the survey, project researchers were cognizant of the fact that attempts to isolate influences of race on hunting participation were confounded by socio-economic status and living in urban areas and that these issues may or may not be directly related to one’s race.

METHODS IN BRIEF

Data for this project were collected using a mixed-mode design of focus groups and an online survey. Black hunters were primarily recruited from license data customer information provided by seven participating state agencies that collect demographic data. The focus groups were used to reveal the meaning behind hunting experiences and to uncover important themes that could inform survey development. The thematic areas identified through the focus groups guided the development of the survey instrument (Appendix 2). Additionally, components of the Multidimensional Inventory of Black Identity were included in the survey [28]. Recognizing the complexity of one's racial identity, this tool was created to measure the multiple ways in which a person's racial (Black) identity might impact their beliefs and behaviors around a specific activity such as hunting. The components of this tool that were incorporated into the survey were public regard (how the respondent believes others view Black people), private regard (how the respondent views Black people) and centrality (the level of significance the respondent placed on their race within a given activity). An online survey was administered to quantify various socio-psychological variables of interest following the best practices established in the Total Design Method [7]. Both qualitative and quantitative results are included in this report.

It is important to acknowledge that this study has three key limitations. One, by nature of the only state fish and wildlife agencies that collect race and/or ethnic characteristics of their hunting license buyers, most of the study respondents were drawn from primarily Southeastern states. To the extent that Black hunters in the Southeast may be unique in their culture and experiences, we caution against generalizing these findings to other regions. Two, the online survey had a very low response rate (6%) despite the application of the widely used Total Design Method for online survey implementation [7]. Consequently, the potential for non-response bias exists. However, the sample contained 1,581 respondents who identified as Black, hence the sample size was adequate to conduct the analysis and identify relationships that can contribute to the managerial and theoretical conversation about R3 among Black hunters. Three, this study suffers from a common shortcoming of hunting and the broader recreation research in that it captured the views of those already participating in the focal activity. Only 8% of the sample had not been hunting since 2020. Full details on methods including recruitment schedules, data coding and statistical analysis are included in Appendix 1.

RESULTS

Respondent demographics

Our sample was predominately drawn from state fish and wildlife agency license data that identified the purchaser's race and/or ethnicity. Hence, the sample used for this analysis is composed entirely of Black Americans. We verified this by asking all respondents about their race. Except for a handful who chose not to respond to the demographic questions, we confirmed that the entire sample population identified as Black ($n = 1,581$). Those who did not confirm their race or who indicated another race were removed from the analysis in this report. Ninety-three percent of the Black persons in this study said they hunted in the past five years; 82% indicated they hunted during the prior two seasons.

State residence

Unsurprisingly, most respondents were from either the state where license purchase data was used to create the sample or adjacent states. Over two-thirds of the respondents were from the southeast: Alabama (20.9%), Virginia (19.3%), Tennessee (16%), and Florida (13.7%). However, as depicted in Figure 1, the sample population included respondents from 36 states and the District of Columbia.

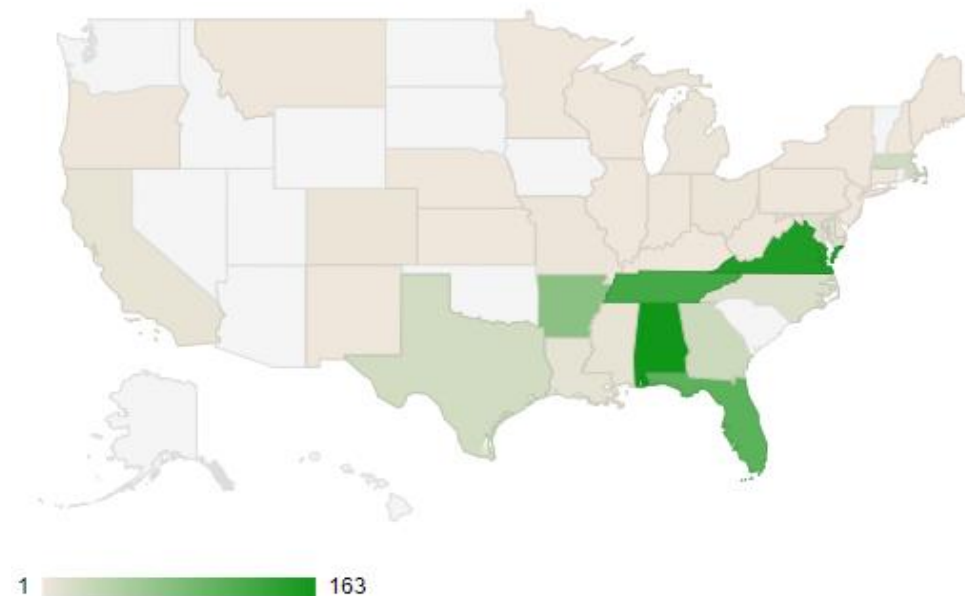


Figure 1. Number of respondents by state ($n = 779$; Range: 0-163), Map created using <https://www.danielpinero/how-to-create-heat-map-united-states>

Table 2. Respondents by state of residence (n = 779).

<i>State</i>	<i>Number of respondents</i>	<i>Percent</i>
Alabama	163	20.9
Virginia	150	19.3
Tennessee	125	16.0
Florida	107	13.7
Arkansas	74	9.5
Georgia	26	3.3
Massachusetts	23	3.0
Texas	22	2.8
North Carolina	15	1.9
Maryland	11	1.4
Louisiana	8	1.0
California	7	.9
Mississippi	7	.9
Colorado	4	.5
Ohio	4	.5
Michigan	3	.3
Missouri	3	.3
20 other states and the District of Columbia	27	3.4

Gender

Men comprised 94% (n=1,038) of survey respondents, women (n=51) were 5% and 1% selected non-binary. However, gender was not significantly related to other variables of interest in this study, hence we proceeded with the analysis without weighting the sample.

Age

The mean age of the respondents was 48.4 years (SD = 12.4).

Education level

Most respondents (59.1%) held a college degree or higher. Less than 3% did not have at least a high school diploma.

Table 3. Respondent education level (n = 1,095).

<i>Education level</i>	<i>Frequency</i>	<i>Percent</i>
Some high school	25	2.3
High school graduate	144	13.2
Some college, vocational, or trade school	278	25.4
College, business, vocational, or trade school graduate	400	36.5
Some graduate school	43	3.9
Master's, doctoral, or professional degree	205	18.7

Household income

Respondents were relatively well-off with just over half (n = 543) having a household income over \$100,00 per year. Only 15% (n = 163) reported an income under \$50,000 in 2022.

Table 4. Respondent income level (n = 1,043).

<i>Income level</i>	<i>Frequency</i>	<i>Percent</i>
Less than \$25,000	42	4.0
\$25,000 - \$49,999	121	11.6
\$50,000 - \$74,999	169	16.2
\$75,000 - \$99,999	168	16.1
\$100,00 - \$124,999	174	16.7
\$125,000 or more	369	35.4

Hunter social world*Age of initiation*

Most respondents (60%) started hunting before they were 15 years old. However, 17.6 % did not have their first hunt until they were over 30 years old.

Table 5. Age respondents started hunting (n = 1,597)

<i>Age at first hunt</i>	<i>Frequency</i>	<i>Percent</i>
Before age 10	561	35.1
11 – 14	392	24.5
15 – 18	137	8.6
19 – 24	127	8.0
25 – 30	99	6.2
31 or older	281	17.6

Hunting mentor

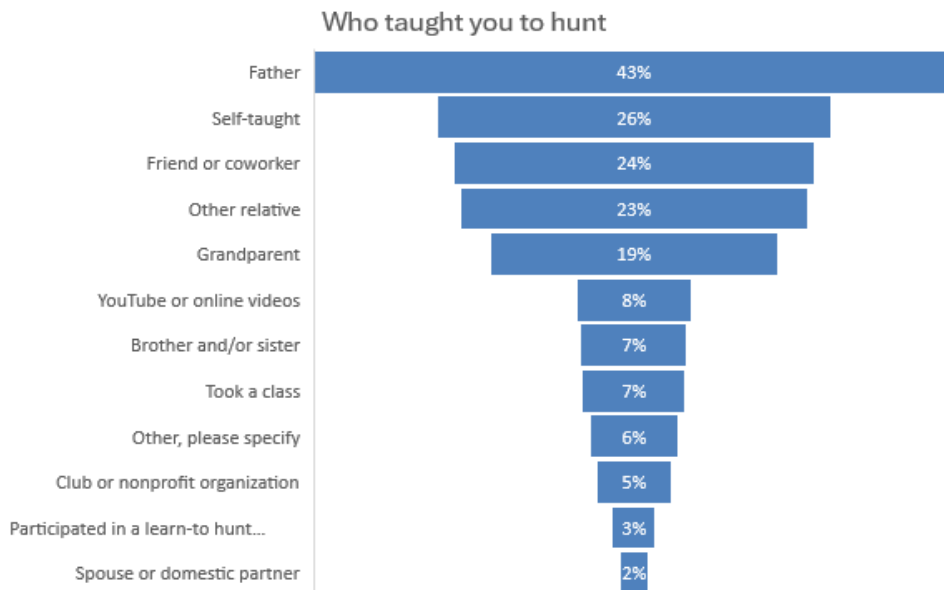


Figure 2. The sources of hunting initiation for Black hunters.

Most respondents learned, at least partially, to hunt from their father (44%) or another family member (52%; e.g., grandparent, sibling). Twenty-three percent indicated that they were taught some hunting skills by friends. Only 10% indicated that they learned through a formal class or mentoring program.

Hunting buddies

About one-third (n = 555) indicated that they hunted alone. Many (40%) hunted with friends/co-workers. Only about a tenth hunted with their own children (under 18) (9%) or an unrelated youth (2%) on their last hunt.

Regarding respondents’ hunting social circle, most hunters reported that their friends (46%, n = 680) and/or immediate family members hunted (~40%). Only 38 respondents (<1%) indicated that no one else in their social circle hunts.

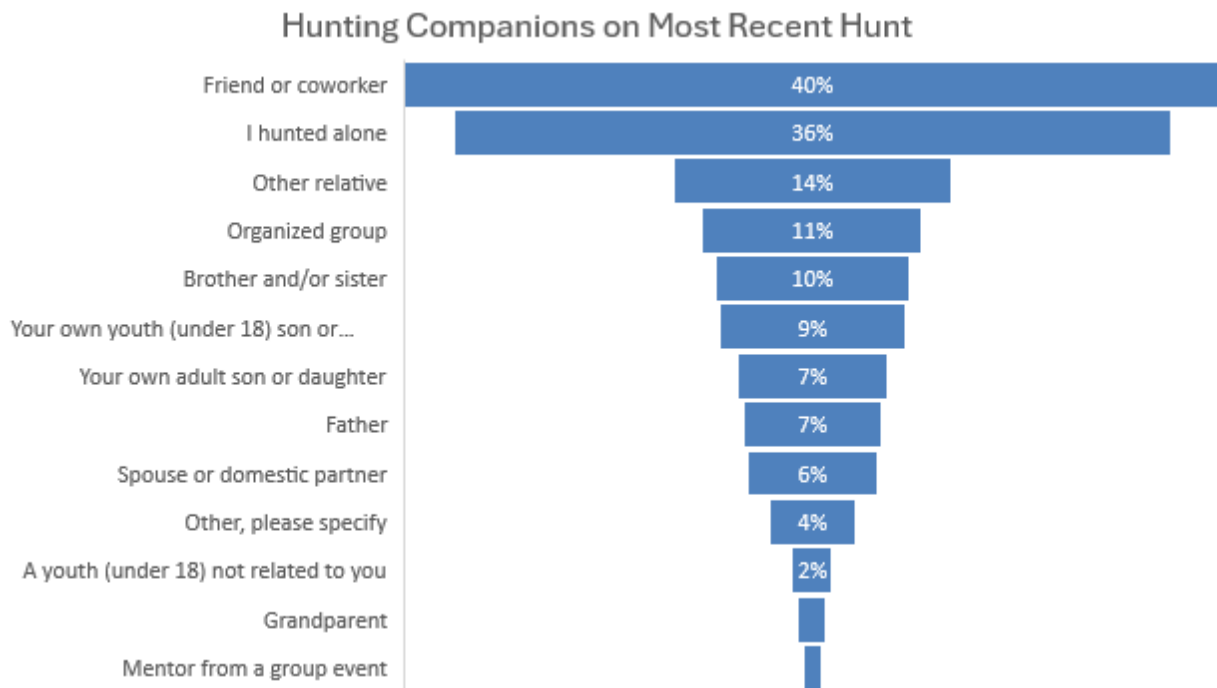


Figure 3. The hunting companions of Black hunters during their most recent outing.

Organization membership

About 79% (n = 1,234) of respondents indicated that they were not members of any hunting, conservation, or environmental organization. When asked to indicate why they chose not to be a member of a hunting organization, many indicated that they “Didn’t know they existed” or didn’t know that there were chapters of national organizations in their area. Others indicated that “cost” and “time” were factors in their decision. Lastly, multiple respondents indicated that race was a factor, for example, “A lot of them [organizations] don’t have people of color and its [sic] hard to get information to get in one.”

Hunting location and land tenure

Sixty-five percent of respondents hunted private land exclusively; only 24% hunted public land exclusively. Among those hunting private land, 48% accessed land owned by friends. Four in ten respondents were part of hunt clubs or leased land. Twenty-two percent of respondents hunted on land they owned themselves.

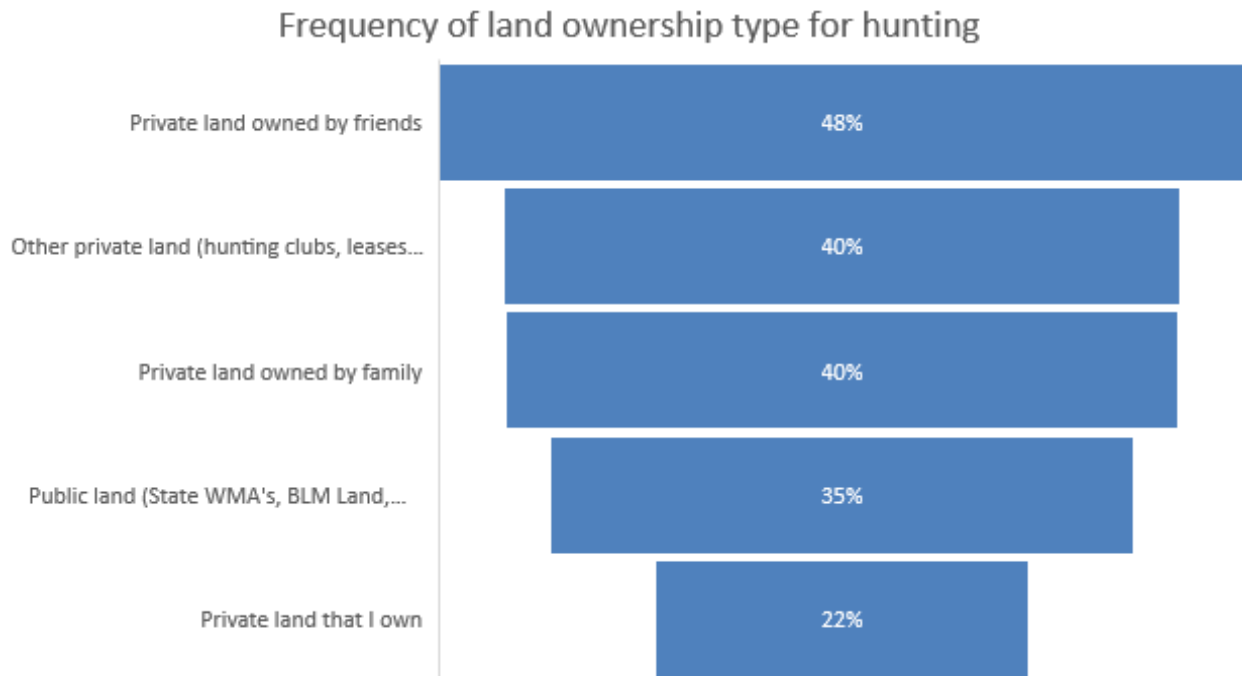


Figure 4. The types of land ownership that Black hunters report using for access.

The respondents hunted on property across a range of land tenure (Figure 4). The most frequently hunted property type was private land owned by friends (48%). The least (22%) was self-owned property. A little over a third (35.1%) of respondents hunted public lands. For those that hunted on private self-/family-owned property, most (59%, n = 439) had held the property for over 50 years.

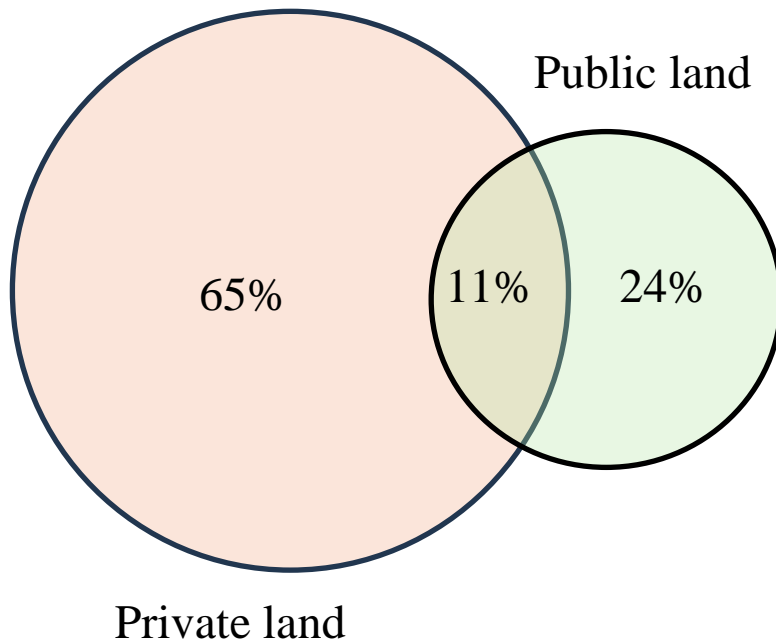


Figure 5. Percentages of Black hunters using private and public land.

Hunter experience

Species hunted

Most respondents indicated that they hunted big game (deer, elk, moose) (65.2%) or small game (rabbit, squirrel, etc.) (17.5%) most often. However, as Table 6 indicates, respondents have pursued a diverse range of huntable species during their hunting tenure.

Table 6. Species hunted by respondents most frequently and over their lifetime.

<i>Species</i>	<u>Lifetime</u>		<u>Most Often</u>	
	<i>Number of respondents</i>	<i>Percent</i>	<i>Number of respondents</i>	<i>Percent</i>
Big game (deer, elk, moose)	1345	92.8	942	65.2
Small game (rabbits, squirrels)	1148	79.2	252	17.5
Turkey	824	56.8	52	3.6

Table 6 (cont.)

<i>Species</i>	<u>Lifetime</u>		<u>Most Often</u>	
	<i>Number of respondents</i>	<i>Percent</i>	<i>Number of respondents</i>	<i>Percent</i>
Furbearers (raccoons, coyotes, foxes)	618	42.6	22	1.5
Upland birds (quail, pheasants, etc.)	549	37.9	24	1.7
Doves	542	37.4	29	2.0
Feral hog	518	35.7	58	4.0
Waterfowl	333	23.0	65	4.5
Other	43	3.0	-	-

Hunt quality

Respondents rated the overall mean quality of their hunting season at 3.2 (SD = 1.2) or “Good” on a five-point scale. Table 7 provides results of this overall quality item by the species the respondents indicated they most often hunted.

Hunter motivations

Respondents indicated that they hunted for a variety of reasons (Table 8). The two motivations that received the highest score, (mean for both = 4.3), were “to have a spiritual connection to nature” and “to relax or escape from everyday life.” The motivation receiving the lowest mean score, 2.8, was “to network with colleagues at work.”

Table 7. Respondent overall hunt quality by species hunted.

<i>Species</i>	<i>Mean</i>	<i>Standard deviation</i>
Big game (n=903)	3.3	1.2
Small game (n=236)	3.1	1.1
Turkey (n=49)	2.9	1.2
Furbearers (n=21)	3.3	1.3
Upland birds (n=22)	3.3	1.3
Doves (n=26)	2.7	1.3
Feral hog (n=54)	2.9	1.0
Waterfowl (n=61)	3.0	1.3

Table 8. Descriptive statistics of respondent hunting motivations.

<i>I hunt:</i>	<i>Mean</i>	<i>Standard deviation</i>
To have a spiritual connection to nature	4.3	1.0
To relax or escape from everyday life	4.3	1.1
To obtain meat to eat	4.2	1.0
To experience a challenge	4.0	1.0
To be closer to nature and the outdoors	4.0	1.1
To spend time with friends	3.9	1.1
To develop my skills	3.9	1.0
To spend time with other generations of my family	3.8	1.1
To test my abilities	3.8	1.1
To provide stewardship of the land and wildlife.	3.8	1.1
To seek a new adventure	3.7	1.0
To maintain a tradition passed down in my family from generation to generation	3.7	1.2
To control wildlife populations that are damaging ecosystems	3.6	1.1
To express my identity as a hunter	3.4	1.1
To keep family-owned hunting land in the family	3.3	1.3
To harvest a trophy animal	3.3	1.3
To network with colleagues at work	2.8	1.1

Black hunter identity

The mean scores of the Multidimensional Inventory of Black Identity (see “Methods in Brief” section for a description) suggest that ‘Private Regard’ is high among Black hunters. In this context, Private Regard means that Black hunters have a strong positive perception of Black hunters. The means of the other two factors suggest that Black hunters 1) do not emphasize their racial group membership within their identity (Centrality) and 2) hold a neutral perspective of how other hunters view Black hunters (Public Regard). It must be noted that these results are specific to the activity of hunting and the scores for all three factors could change if these same individuals are engaged in a different activity or within the same activity of hunting but under different circumstances. The ‘Private Regard’ mean scores lends some support for the notion that Black hunters appreciate other Black hunters and have a sense of pride in specifically being a Black hunter.

Hunter constraints

Respondents indicated relatively low ratings of perceived constraints to their hunting participation. The barrier rated by respondents as the most constraining was the “cost of access to hunting land” (mean = 3.0) (Table 10). The least constraining was being “worried non-hunting friends and family may judge me” (mean = 1.1). As with the hunter motivations above, although the relative strength of these constraints is similar to that of the general population [20], the inferential statistics below paint a more comprehensive picture.

Table 9. Hunter identity scale descriptives and reliability (n = 1,170).

<i>Dimension</i>	<u>Item</u>		<u>Dimension</u>		
	<i>Mean</i>	<i>St. Dev</i>	<i>Mean^R</i>	<i>St. Dev</i>	<i>α</i>
Centrality			3.0	.7	.78
Overall, being a Black hunter has very little to do with how I feel about myself. ^R	4.0	1.2			
In general, being a Black hunter is an important part of my self-image.	3.5	1.3			
My destiny as a black hunter influenced by me and other Black people who hunt.	3.5	1.1			
Being a Black hunter is unimportant to my sense of what kind of person I am. ^R	3.5	1.3			
I have a strong sense of belonging with other Black hunters.	3.5	1.1			
I have a strong attachment to other Black people who hunt.	3.6	1.1			
Being a Black hunter is an important reflection of who I am.	3.4	1.2			
Being a Black hunter is not a major factor in my social relationships. ^R	3.6	1.1			
Private regard			4.3	.6	.80
I feel good about Black people who hunt.	4.3	.8			
I am happy that I am a Black hunter.	4.4	.8			
I feel that Black people have made major accomplishments and advancements to hunting.	3.9	1.0			
I often regret that I am a Black hunter. ^R	1.4	.8			
I am proud to be a Black hunter.	4.6	.8			
I feel that the Black community has made valuable contributions to the hunting world.	4.1	.9			

Table 9 (cont.)

<i>Dimension</i>	<u>Item</u>		<u>Dimension</u>		
	<i>Mean</i>	<i>St. Dev</i>	<i>Mean^R</i>	<i>St. Dev</i>	<i>α</i>
Public regard			3.1	.7	.84
Overall, Black hunters are considered good by non-Black hunters.	3.2	.9			
In general, other hunters respect Black hunters.	3.3	1.0			
Most people consider Black hunters, on the average, to be less successful at hunting than other racial groups of hunters. ^R	3.1	1.1			
Black hunters are not respected by the broader hunting society. ^R	3.2	1.0			
In general, other groups of hunters view Black hunters in a positive manner.	3.2	.9			
The hunting world views Black hunters as an asset.	3.0	.9			

Items measured on a 5-point scale: 1 - Strongly disagree, 2 - Disagree, 3 - Neither agree nor disagree, 4 - Agree, 5 - Strongly agree.

^R Item was reverse coded to calculate dimension mean

Table 10. Hunting constraint descriptive statistics.

<i>Constraint</i>	<i>Mean</i>	<i>Standard deviation</i>
Cost of access to hunting land	3.0	1.5
Lack of available hunting land	2.9	1.6
Work/family commitments	2.3	1.3
Too many other hunters at location competing for space and/or game	2.2	1.4
Crowding by too many other hunters creates a safety concern	2.1	1.4
Other recreational activities take up my free time	2.1	1.2
Lack of representation of people that look like me or I identify with in hunting industry materials	2.1	1.4
Desire to do other activities	2.0	1.2
Don't have anyone to go hunting with	1.9	1.3
Costs of hunting equipment	1.8	1.2
Moved away from the area I typically hunt	1.8	1.3
Lack of a network of hunters that I identify with	1.7	1.2
Don't feel comfortable due to the lack of racial and ethnic diversity associated with hunting	1.7	1.2
Lack of support from state agency that regulates hunting	1.7	1.2
Lack of support from other hunters	1.6	1.1
Cost of processing	1.6	1.0
Hunting regulations are too confusing	1.6	1.0
Don't feel comfortable around hunters and hunting culture	1.6	1.0
Lack of a hunting mentor	1.5	1.1
Lack knowledge/skills required to hunt	1.5	1.0
Cost of licenses/permits	1.5	.9
Lack knowledge/skills required to prepare game meat to eat	1.4	1.0
Health problems	1.4	.8
Lack of transportation to get to hunting areas	1.3	.9
Feel discouraged or frightened by negative experiences I've had in the outdoors	1.3	.8
Lack knowledge about hunting and firearm laws	1.3	.8
Worried non-hunting friends and family may judge me	1.1	.6

Most significant constraint

The most-cited barrier to hunting participation was work and family commitments, 26% (Figure 6). The least cited (reported by at least 1% of respondents) was “lack of representation of people that look like me or I identify with in hunting industry materials” (2%).

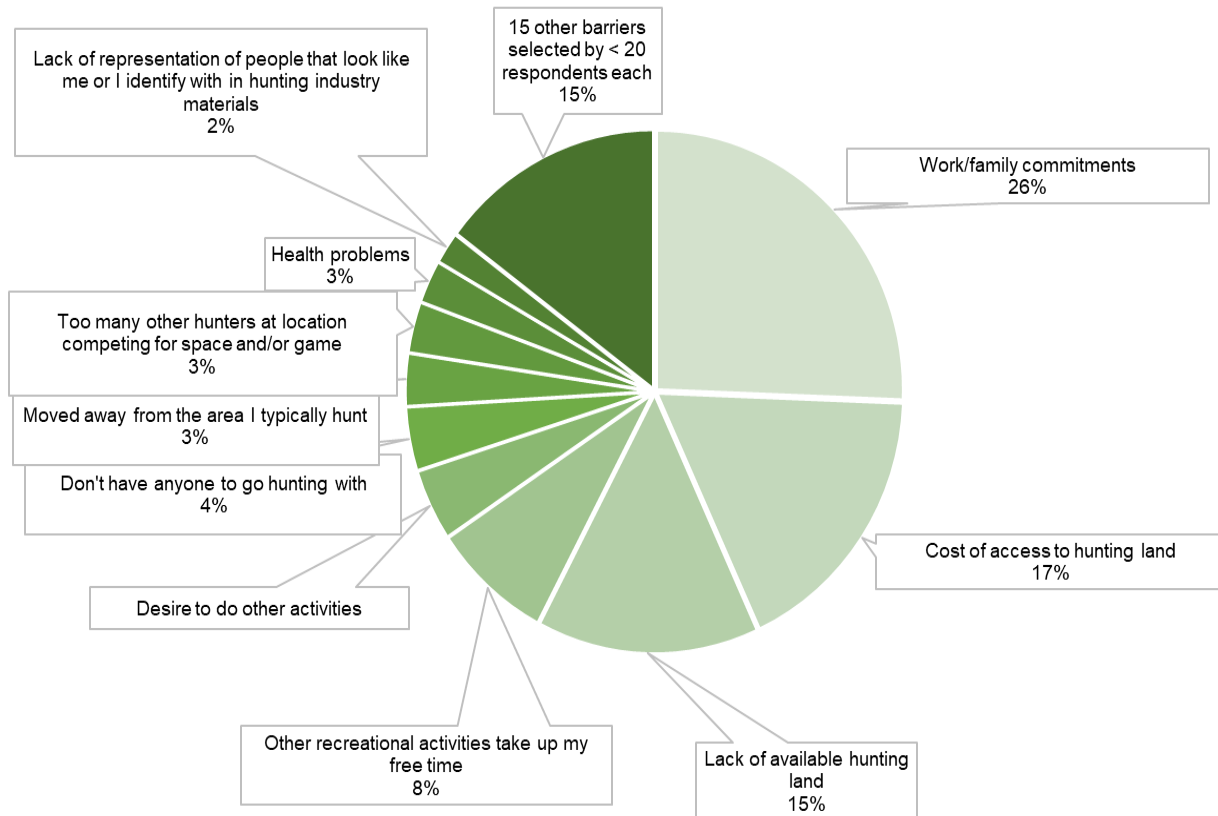


Figure 6. Frequencies of most significant constraints reported by lack hunters.

Other barriers to hunting

There were several barriers identified by the respondents not included in the survey response categories for this question. Project social science experts grouped these barriers into six thematic areas: personal barriers, laws & regulations, people, hunting-related barriers, other commitments, and lingering effects of the COVID-19 pandemic. These are reflected below in terms and phrasing similar to how they were submitted in open ended text boxes by respondents.

Personal barriers:

- Age - respondents indicating their age (e.g., 65, 82) impacting their hunting
- Health - respondents identifying failing health, injuries, and surgeries as impacting their hunting
- Laws & regulations
- No hunting on Sunday
- Firearm laws, degrees, and regulations
- Seasons are too short

Barriers related to other people:

- Public perceptions of guns, including politicians and anti-hunters
- Hunting areas being overcrowded with others including dog walkers and joggers

Hunting-related barriers:

- Lack of access to land
- Cost
- Posted land (no description provided)

Other commitments:

- Family, with spouses/partners being specifically mentioned
- Work
- Lack of time
- COVID-19
- New restrictions caused by the pandemic
- Overcrowding due to the pandemic
- Shortage of some hunting-related items due to the pandemic
- Increase in non-hunters in hunting spaces due to the pandemic

Race-related barriers

Respondents were asked in the survey the following open-ended question: “Have you ever experienced race-related incidents while hunting?”

Most of the respondents indicated they had not experienced any race-related incidents while hunting (n=846). The responses (reflected here as written by respondents with only locations or individual identifiers removed for anonymity) confirming race-related incidents while hunting (n=331) can be arranged on a continuum from minor to serious. These subcategories are presented below.

1) The first subcategory of ‘yes’ responses have been categorized as “looks,” defined as Black hunters not having physical interactions with others, but perceiving they are being stared at or that they stand out when engaged in hunting spaces.

“Intangible looks and incredulous smirks.”

“I’m usually guarded when other races are around due to them looking as though we don’t belong there.”

“Look at you, like you should not be out there.”

2) Some respondents identified race-related incidents in the form of verbal harassment. These comments included using “racial epithets.”

“Was called the N word one time by a group that set up too close to us waterfowl hunting.”

“White hunting club members outright calling us the N word while we were hunting.”

“I was called the N word and told that I would die in the swamp once while hunting [place redacted for privacy]. I hunted in places far from other hunters after that.”

“I was told I couldn’t hunt certain land because I was black or better word was no niggers can hunt this land.”

Some responses indicated incidents around the issue of “believability”, where individuals commented on having to prove they were capable of hunting.

“Even though I have over 40 years’ experience in the field, and I’m considering extremely knowledgeable in the bird dog and upland hunting world. When I meet someone new, they expect me to prove I know about hunting. If I walk into a situation with a white counterpart and they say they are a bird hunter, there is no explanation needed. When I say the same, I get a game of 20 questions so they can vet my experience to make sure I am what I say I am.”

The most common comment was *“I didn’t know black people hunted.”*

Similarly, some respondents stated they faced issues of belonging, in which they were asked to provide proof that they were allowed to hunt (e.g., hunting permit) or they were allowed to hunt within a specific area. A few indicated they were hunting on land they owned when they were asked to prove they were in the right hunting location.

“Yes, white people did not think we own the land we were hunting. Told us we were trespassing.”

“Asked if I belonged in an area.”

Finally, respondents gave examples in which they were lied to regarding encroachment.

“Yes, was told I was trespassing on our family’s land.”

“White man said I was hunting his land, and the land belongs to my grandfather.”

“Thinking my land was not my land and called the Game Warden.”

3) While some of the respondents had not directly experienced race-related incidents while hunting, they did report second-hand race-related incidents in which they had either witnessed or heard of the experiences of other Black hunters. These second-hand incidents reflected the themes mentioned within the space of verbal harassment.

“I haven’t but my grandfather and father have, they shield me from that talk and judgement. My grandfather is a fair skinned Black man that can pass as white and has repeatedly left or been kickout of hunting clubs in VA and NC for standing up to them or bringing my father or myself hunting with him on their land.”

“I have seen incidents where the game warden only asked the people of color to show that they had a license to hunt.”

4) Several respondents listed race-related interactions with game wardens. In some cases, the game wardens were responding to the complaints reported by White hunters.

“White boy wanted to dictate how my family accessed our property because we had to travel across land that he had access to hunt. He didn’t even own the land. My family resolved the issue by building direct road access to our land. This White person also called a game warden on us, lying that we had poached on the land he did not own. We found out later from other landowners in the area that that White boy had been poaching on our land prior to my family buying it.”

“The white landowner next to where I hunt called the game warden when he hears us shoot. Are drive around on his four-wheeler to see what we got. Say we killing his deer.”

In other situations, respondents reported that a game warden-initiated contact with the respondents.

“Yes, harassment by law enforcement (game wardens). I’ve had my hunting license checked 7 times in one season by the same officer.”

“Game wardens oftentimes treat Black hunters and fisherman differently from White counterparts.”

5) The race-related incidents of greatest concern involved “threats against safety.” Respondents described interactions with White hunters in which their physical safety or life was threatened.

Some interactions resulted in verbal threats, while others involved attempts to harm Black hunters.

“Yes. One time I went on an uncle’s lands that no one in his family had hunted on for generations. So, two white guys had been hunting it for years without permission. So, when they saw me, they tried to tell me I was trespassing, and they even called the police on me. So, when the police came, he actually knew my uncle and had to tell the guys to leave. I have found that some White people think just because they are White, and I am Black that they can do what they please or own whatever they want. That was a big issue that day cause we all had guns and one White guy threatened to shoot a cousin of mine that was with me that was before the police got there.”

“Yes...been shot at, been harassed about where I hunt. Just a lot of hating among people. Vehicle tampered with...all sorts of issues.”

“Yes shot at or close to me when I knew the hunter saw me, giving wrong directions, needed vehicle help, and was passed right by.”

Future hunting intentions

Fifty-nine percent of respondents indicated that they would “definitely still be hunting in five years.” Only two percent indicated they would not be hunting (Figure 7).

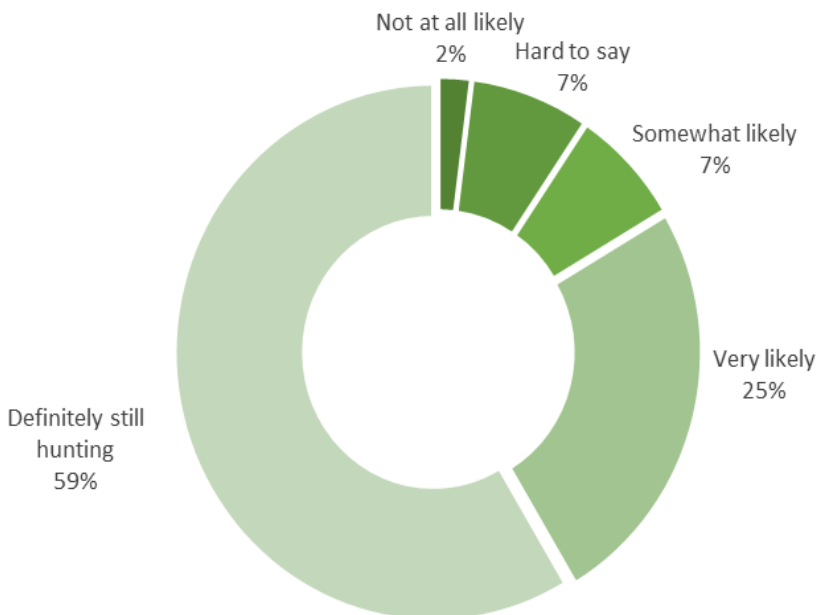


Figure 7. Likelihood respondents will still be hunting in five years.

Hunter retention and recruitment

Almost 66% of respondents were likely or very likely to discuss the importance of recruiting new hunters with others (Table 11).

Table 11. Respondent willingness to discuss new hunter recruitment (n = 1,125).

<i>Education level</i>	<i>Frequency</i>	<i>Percent</i>
Extremely unlikely	53	4.7
Unlikely	84	7.5
Neutral	245	21.5
Likely	403	35.8
Extremely likely	340	30.2

Encouraging hunting participation

We asked respondents to rank their top three preferences for encouraging greater participation in hunting within the Black community. Individual mentoring was ranked number one by 35% of respondents; that strategy also was the highest ranked based on combined scores (3 pts for first, 2 pts for second, and 1 pt for third) (Table 12). Formal mentoring programs for kids and efforts to get kids outside more were the second and third place ranking, respectively.

Table 12. Ranking of respondents' opinion of likely effectiveness of R3 strategies.

<i>Items</i>	<i>% who ranked</i>			<i>Weighted score</i>
	<i>First</i>	<i>Second</i>	<i>Third</i>	
Individual mentoring	35	10	10	135
Formal mentoring programs for kids	8	31	14	100
Education/outreach to get kids hunting and into the outdoors	17	18	12	99
Programs to increase land access	17	11	13	86
Hunter education courses offered in middle school or high school	11	13	11	70
Membership in hunt club	4	5	26	48
Programs that encourage/teach hunting with friends and family	2	4	5	19
Programs to increase Black representation in fellow hunters	2	2	2	12
Increase networking opportunities with other hunters	1	2	3	10
Programs to increase Black representation agency staff	1	1	2	7
State agency programs that facilitate access to broader network of Black hunters	1	1	1	6
State agency programs designed to increase opportunities for Black hunters such as lottery systems or special hunts	1	1	1	6
Programs to rent hunting equipment (but not firearms)	0	1	1	3

Suggestions for Outreach

Many of the suggestions offered in the responses were not specific to race but reflected recommendations to promote hunting culture in general. Those recommendations have been grouped as follows:

- Fewer hunting restrictions: allow for bow hunting, allow for rifle hunting (specific to Massachusetts), allow for ATVs, remove Sunday hunting restrictions, decrease setback distances.
- Education: provide education for three distinct audiences.
 - Educate the public: Advocate on behalf of the hunting community. Educate the public about the benefits of hunting and the conservation efforts of hunters.
 - Provide hunter safety courses.
 - Offer youth-focused hunting courses. Recommendations were made for both state-sponsored programs, as well as reintroducing hunting courses to the high school curriculum.

- Advertising: Commercials and social media posts were recommended to advertise/promote the following:
 - Promote positive images of the hunting community to the general public to counter narratives that depict hunters negatively.
 - Promote opportunities to hunt as well as programs to teach people how to hunt.
- Mentoring programs: respondents viewed mentoring programs as a means of increasing hunting participation and educating new hunters.
- Training was recommended for game wardens to improve their interactions with the hunting community and provide consistency in how they interacted with hunters.
- Hunters recommended increasing access to land by purchasing more land or simplifying the process to gain access to public and private lands.
- Lower the cost of permits and licenses.

Some race-specific recommendations were also provided by the respondents.

- Developing outreach programs to specifically recruit non-White, non-male hunters. In addition to highlighting the desire to see racial diversity, some respondents recommended reaching out to women and the LGBTQ+ community.
- While some respondents generally discussed game wardens' interactions with hunters regardless of race, there were some specific recommendations to provide diversity training for game wardens.
- Display more hunters of color in advertisements and media representation of hunting activities as well as product marketing.
- It was suggested that agencies should hire more people of color at various levels (e.g., check stations, outreach, and game wardens).

Finally, one theme around race deviated from those previously listed. Several respondents emphasized that the focus, in the context of hunting culture, should be taken off of race. These respondents believed that discussions and research related to hunting should not give specific attention to racial differences between hunters themselves.

The following responses were not categorized with those listed above due to their being submitted as one-word responses and thus could not be reliably interpreted by project social science experts. These were related to skills and knowledge desires for online training.

- Scouting: including 'tracking'
- Safety: hunting, gun, and food handling

- Hunting etiquette
- Archery/Bow hunting
- Butchering
- Dressing wildlife
- Shot placement
- Land access
- Equipment: including tree stand, how to use a scope
- Animal anatomy

Black Hunter Identity and Perceived Constraints

To understand how Black Hunter identity related to perceived constraints to go hunting, researchers utilized three categorical levels of Black Hunter identity to perform an analysis of variance on select constraints. Table 13 documents the significant differences observed across the categorical levels. Curiously, the association between strength of identity and perceived constraints were not linear for many items. In other words, mean scores for constraints were often highest among those in medium category of Black hunter identity, while those in both the lower and higher categories tended to score lower on the constraint items. This finding suggests that Black Hunter identity has a complex and nuanced relationship with one's perceived hunting constraints and merits further study to untangle the relationship.

Table 13. Analysis of Variance (ANOVA) test of mean scores of hunting related barriers by category of Black hunter identity.

<i>Barrier</i>	<u>Mean (SD)</u>			<u>ANOVA</u>	
	<i>Low</i>	<i>Medium</i>	<i>High</i>	<i>f</i>	<i>p</i>
Cost of access to hunting land	2.8 (1.5) ^a	3.4 (1.5) ^b	2.8 (1.5) ^a	18.59	<.01
Desire to do other activities	1.9 (1.1) ^a	2.1 (1.2) ^b	2.0 (1.2) ^{a,b}	3.19	.04
Don't have anyone to go hunting with	1.9 (1.2) ^{a,b}	2.0 (1.4) ^a	1.7 (1.2) ^b	5.22	.01
Don't feel comfortable around hunters and hunting culture	1.5 (.9) ^a	1.8 (1.2) ^b	1.4 (.8) ^a	13.39	<.01
Lack of support from other hunters	1.5 (1.0) ^a	2.0 (1.2) ^b	1.4 (.9) ^a	26.07	<.01
Lack of available hunting land	2.8 (1.6) ^a	3.3 (1.6) ^b	2.5 (1.6) ^a	16.79	<.01
Lack of transportation to get to hunting areas	1.2 (.7) ^a	1.4 (1.0) ^b	1.3 (.8) ^{a,b}	4.65	.01
Too many other hunters at location competing for space and/or game	2.0 (1.3) ^a	2.4 (1.5) ^b	1.9 (1.3) ^a	13.50	<.01
Lack of representation of people that look like me or I identify with in hunting industry materials	1.7 (1.1) ^a	2.7 (1.6) ^b	1.7 (1.1) ^a	66.58	<.01
Costs of hunting equipment	1.7 (1.1) ^a	2.0 (1.3) ^b	1.7 (1.1) ^a	10.06	<.01
Cost of processing	1.5 (.9) ^a	1.7 (1.1) ^b	1.5 (1.0) ^a	5.11	.01
Feel discouraged or frightened by negative experiences I've had in the outdoors	1.3 (.7) ^a	1.5 (.9) ^b	1.1 (.6) ^a	13.34	<.01
Crowding by too many other hunters creates a safety concern	1.9 (1.2) ^a	2.4 (1.5) ^b	1.8 (1.3) ^a	19.19	<.01
Health problems	1.3 (.8) ^a	1.5 (.9) ^b	1.3 (.8) ^a	4.34	.01
Lack of a network of hunters that I identify with	1.6 (1.1) ^a	2.1 (1.4) ^b	1.5 (1.0) ^a	25.08	<.01
Don't feel comfortable due to the lack of racial and ethnic diversity associated with hunting	1.5 (1.0) ^a	2.2 (1.4) ^b	1.4 (.9) ^a	48.15	<.01
Lack of a hunting mentor	1.5 (1.0) ^{a,b}	1.7 (1.2) ^a	1.4 (1.0) ^b	4.80	.01
Lack of support from state agency that regulates hunting	1.6 (1.0) ^a	2.0 (1.3) ^b	1.5 (1.0) ^a	17.91	<.01
Hunting regulations are too confusing	1.5 (.9) ^a	1.7 (1.1) ^b	1.5 (1.0) ^{a,b}	4.13	.02

^{a,b} Means with differing superscripts are significantly different

Antecedents to discussing the importance of new hunter recruitment

In the analysis of survey results, project researchers considered the question “What is the correlation between respondent characteristics and their willingness to engage in discussion of the importance of recruiting new hunters for the future of hunting?” The research team hypothesized that the specialization and Black hunter identity variables would influence the respondents’ willingness to discuss new hunter recruitment. To test this, specialization was included in a linear regression model to help control for the respondents’ hunting experience and expertise when interpreting the role of racial identity in recruitment. The regression results indicated that all three dimensions of Black hunter identity and the skill and equipment dimensions of specialization significantly influenced the respondents’ willingness to discuss new hunter recruitment. As the respondents’ scores on the dimension of each of these scales increased, so did their willingness to discuss new hunter recruitment. These variables explained about fifteen percent of the variance (Table 14).

Table 14. Respondent characteristics regressed on willingness to discuss hunter recruitment (n = 846).

<i>Construct</i>	β	<i>t</i>	<i>p</i>
Black hunter identity: Centrality	.13	3.56	<.01
Black hunter identity: Private regard	.18	5.00	<.01
Black hunter identity: Public regard	.07	2.31	.02
Specialization: Skill	.09	2.05	.04
Specialization: Equipment	.12	2.90	<.01

Fdf=5,841 = 30.42, $p < .001$; $R^2 = .15$

Hunter retention

Given that racial identity was correlated with barriers to hunting, the influence of racial identity and hunting constraints on future hunting intention among survey respondents was investigated. Researchers hypothesized that the specialization and Black hunter identity constructs, respondents’ household income, and constraint count (number of barriers respondents reported that impacted their hunting) would influence the respondents’ likelihood of hunting in the future. Household income was included as a control variable to better interpret the results related to

racial identity. This was necessary due to the existing documentation of the correlation between race and income [22].

The regression results indicated that the public regard dimension of Black hunter identity, the centrality and experience dimensions of specialization, and the number of constraints the respondents reported were related to the likelihood that the respondents thought they would be hunting in five years (Table 15). Identity and specialization were positively related, whereas number of constraints was a negative influence. The relationships explained about 22 percent of the variance.

Table 15. Respondent characteristics regressed on likelihood of future hunting (n = 590)

<i>Construct</i>	β	<i>t</i>	<i>p</i>
Black hunter identity: Public regard	.09	2.52	.01
Specialization: Centrality	.36	8.87	<.01
Specialization: Experience by age	.10	2.49	.01
Household income	.08	2.17	.03
Constraint count	-.14	3.8	<.01

Fdf=5,585 = 33.39, $p < .001$; $R^2 = 0.22$

Constraint type influence on future hunting

Given that both Black hunter identity and number of constraints encountered demonstrated an influence of future hunting intention, project researched examined the significance of constraint type on future hunting intention.

To facilitate this analysis, an exploratory factor analysis (with varimax rotation) was conducted to identify items that grouped together to form categories of constraints. The analysis revealed seven constraint types: race related barriers, lack of knowledge, crowding, costs, desire to do other recreational activities, agency related barriers, other barriers.

Table 16. Factor analysis results of hunting constraints.

<i>Constraint item</i>	Item Factor Loadings						
	<u>Constraint type (Cronbach's alpha)</u>						
	<i>Race-related barriers</i> ($\alpha=.78$)	<i>Lack of knowledge</i> ($\alpha=.87$)	<i>Crowding</i> ($\alpha=.76$)	<i>Costs</i> ($\alpha=.84$)	<i>Desire to do other recreational activities</i> ($\alpha=.75$)	<i>Agency related barriers</i> ($\alpha=.74$)	<i>Other barriers</i> ($\alpha=.62$)
Don't feel comfortable due to the lack of racial and ethnic diversity associated with hunting	.80						
Lack of representation of people that look like me or I identify with in hunting industry materials	.75						
Lack of a network of hunters that I identify with	.73						
Lack of support from other hunters	.63						
Lack of a hunting mentor	*	*	*	*	*	*	*
Don't feel comfortable around hunters and hunting culture	*	*	*	*	*	*	*
Don't have anyone to go hunting with	*	*	*	*	*	*	*
Feel discouraged or frightened by negative experiences I've had in the outdoors	*	*	*	*	*	*	*
Lack knowledge/skills required to prepare game meat to eat		.85					
Lack knowledge/skills required to hunt		.80					
Lack knowledge about hunting and firearm laws		.77					
Too many other hunters at location competing for space and/or game			.81				

Table 16 (cont.)

<i>Constraint item</i>	<i>Race-related barriers ($\alpha=.78$)</i>	<i>Lack of knowledge ($\alpha=.87$)</i>	<i>Crowding ($\alpha=.76$)</i>	<i>Costs ($\alpha=.84$)</i>	<i>Desire to do other recreational activities ($\alpha=.75$)</i>	<i>Agency related barriers ($\alpha=.74$)</i>	<i>Other barriers ($\alpha=.62$)</i>
Crowding by too many other hunters creates a safety concern			.70				
Lack of available hunting land	*	*	*	*	*	*	*
Moved away from the area I typically hunt	*	*	*	*	*	*	*
Cost of access to hunting land	*	*	*	*	*	*	*
Costs of hunting equipment				.80			
Cost of processing				.72			
Cost of licenses/permits				.71			
Other recreational activities take up my free time					.83		
Desire to do other activities					.75		
Work/family commitments	*	*	*	*	*	*	*
Hunting regulations are too confusing						.69	
Lack of support from state agency that regulates hunting						.57	
Worried non-hunting friends and family may judge me							.68
Health problems							.63
Lack of transportation to get to hunting areas							.52

*Item removed due to low factor loading and/or cross-loading among factors

Again, researchers included household income as a control variable as it has been previously established that as income increases so does one's ability to negotiate various constraints [29].

The results revealed that the only significant constraint type that influenced future hunting (at least at a 5-year time scale) was race-related constraints (Table 17). The greater the perception of racial barriers to their hunting the less likely the respondents were to indicate that they would still be hunting in five years ($\beta = -0.19$, $t = 5.27$, $p < .01$). Interestingly, the inclusion of constraint type in the regression minimized the significance of Black hunter identity to the point that it was not a significant predictor of future hunting.

Table 17. Constraint type influence on likelihood of future hunting (n = 625).

<i>Construct</i>	β	<i>t</i>	<i>p</i>
Race related constraints	-.19	5.27	<.01
Specialization: Centrality	.34	8.72	<.01
Specialization: Experience by age	.10	2.62	<.01
Household income	.08	2.08	.04

Fdf=4,621 = 41.89, $p < .001$; $R^2 = .21$

DISCUSSION AND RECOMMENDATIONS

As reflected by both the qualitative and quantitative data analysis reported here, issues related to race in relation to the recruitment, retention, and reactivation of Black hunters do not immediately stand out. In fact, taken one at a time, the description of constructs related to R3 did not seem to significantly differ between this study's participant sample and those of previous studies of non-Black Hunters [2, 15]. However, upon closer examination, the data indicated that race-related considerations and concerns are at least underlying factors for some Black hunters as they experience and reflect upon their hunting activities.

Data from this sample of Black hunters indicated that their identity as Black hunters was associated with their likelihood of hunting in the future. While acts of intentional and unintentional discrimination were reported by some of the study participants, the effect of race in Black hunters' experience is much more than racism and discrimination in Black hunter R3. These data suggest that participants' identity as a Black hunter influenced:

- Their perceptions of the degree to which they were impacted by common barriers to hunting (although the types of barriers were identical to that of non-Black hunters).

- Their likelihood to engage in new hunter recruitment.
- Their likelihood to continue hunting in the future (retention). As stated above, the data indicated that many of the barriers, real and perceived, faced by Black hunters were the same as those previously identified and reported for all hunters. This is encouraging for hunter R3-vested organizations given that many of their recent efforts to engage new hunters by addressing documented barriers to initiation are likely to be effective for Black Americans.
- However, given the unique barriers to hunting participation, and specifically, retention, that race considerations present to a segment of Black hunters, it is important for hunting R3-vested organizations to consider how they might improve their policies, culture, and practices to make their efforts more attractive to, and encouraging of, Black Americans who wish to join the long-standing tradition of hunting in the U.S.

The following recommendations for organizational approaches to hunter R3 are supported by the data collected in this research project:

Collect Race/ethnicity demographic information at point of license sale.

Fewer than 10 U.S. states collect customer information capable of determining the race or ethnic identity of license purchasers. Given that this research project has documented barriers to hunting that uniquely impact Black Americans (primarily related to future hunting intentions), there is an obvious need to communicate with and market to this demographic group in order to address those barriers. This is commonly done in modern R3 efforts for other demographic groups within the hunter population (e.g., women, youth, and Hispanic Americans) all of whom are also impacted by unique barriers to participation that require customized solutions. Without the ability to interact directly with Black hunters, it will remain unnecessarily difficult for R3 practitioners to develop and deliver effective solutions to their barriers as well as evaluate the impacts of those efforts over time.

Feature Black hunters in print, web, and social media content

A noteworthy observation that emerged from the focus group phase of this project was the surprise many participants experienced upon seeing and interacting with their peers in the Black hunter community. This emphasizes a long-understood marketing principle that people identify with activities where others like them are already present. Thus, R3-vested organizations should regularly promote images, influencers, and media content that reflect Black hunters as an established presence in North America's hunting culture. There are many good images for use now on in the R3 Clearinghouse at www.CAHSS.org.

Highlight small game hunting opportunities

Four out of five Black hunters participating in this study have hunted small game in the past, and 18% reported that it was currently their favorite species group to pursue. In addition, several survey respondents observed that, in their opinion, state fish and wildlife management agencies do not do enough to manage or improve habitat for small game. Given that small game hunting represents a low-cost entry point for most newcomers and can often present participants with more access opportunities, R3 practitioners should consider small game as a focus of efforts to engage prospective and existing Black hunters.

Connect with and promote Black hunting organizations on national and local levels

Focus group facilitators noted that participants in this research often engaged in spontaneous networking with others in their group, sometimes necessitating a firm hand in getting the focus group back on task. Participants demonstrated a clear hunger to be part of a like-minded community, whether that be in a casual setting or as part of an organization or club that includes Black hunters. Many survey respondents indicated they did not belong to organizations, groups, or clubs because they were not aware of their existence or any opportunities to do so. Thus, hunter R3-vested organizations should identify and promote national, state, and local Black-supporting hunting organizations. In addition, R3 organizations should develop a strategy to facilitate more networking/partnering between and among their peer hunting organizations, particularly those that serve and engage Black hunters.

Law Enforcement considerations

This research documented a clear need to build and/or foster a more positive relationship between conservation officers (i.e., game wardens) and Black outdoors participants. Based upon this research, it is unclear as to how structural these negative interactions may be, or what tactics would best address them. At a minimum, conservation law enforcement officers and trainers are encouraged to carefully review this report and incorporate the experiences of the participants into training protocols. An awareness of the perceived negative bias among some Black hunters towards conservation officers caused by past negative experiences may help current officers interact with Black hunters in a more nuanced and mutually supportive fashion. Establishing community policing programs in conjunction with Black hunt clubs and organizations might also generate more trust among Black hunters. Finally, allowing conservation officers to engage in non-hunting community events (community gardens, habitat projects, community food events) may foster relational partnerships with Black community groups and lead to long-term trust building.

Recruit, train, and support Black hunters for roles as mentors.

Survey respondents indicated support for youth mentor and outreach programs, yet relatively few reported hunting with youth participants in recent hunts (though that is likely a selective

influence introduced by average respondent age). Multiple studies have documented the desire of prospective hunters to learn from a trusted and expert instructor [31, 32]. Organizations implementing hunter R3 efforts should strategically develop a Black hunter instructor/mentor training program to support mentorship and instruction of new Black hunters by other Black hunters or teams that include Black hunters.

Future research needs.

As noted previously, this study was constrained by several factors: 1) respondents were primarily from a small number of southeastern U.S. states, 2) the survey had a low response rate, and 3) the participants were primarily established hunters. Additionally, the sample of respondents was highly educated (59.1% held college degrees) and relatively wealthy (half of the respondents had household incomes over \$100,00 per year, and only 15% reported annual household income under \$50,000), placing them in education and income brackets far above those of average Americans. Thus, readers are cautioned to temper their generalization of this research's findings regarding conclusions about all Black hunters. Future research on Black hunter barriers and motivations should be conducted to establish a more reliable picture of how Black hunters experience hunting across geographic area, hunting cultures, and among more diverse cohorts (youth, women, rural, urban, annual income, etc.). Additionally, a better understanding of the barriers that face *prospective* Black hunters would be of value to R3 professionals and vested organizations. Finally, similar research into other areas of recreation including angling, shooting sports, and trapping is critically needed to better capture the nuances of Black American experiences and expectations in outdoor recreation.

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APPENDICES

Appendix 1: Detailed Methods

Mixed mode design

This study utilized a mixed mode design of focus groups and an online survey. Researchers conducted focus groups to help uncover the universe of ideas or experiences that Black hunters hold about their experiences with hunting. This qualitative data was used to identify topics and variables to be included in a subsequent large-scale survey of the same population. Since focus group data are qualitative, they cannot be generalized as representing the opinion or experiences of all Black hunters. That said, the narratives derived from focus group data richly illustrated the important perspectives held by participants. The results of the focus groups were used to provide context, specific to Black hunters, to the individual survey items.

The online survey built upon the themes derived from coding the focus group transcripts and also incorporated a number of constructs derived from the existing hunter, recreation, and race literature. Specific items and constructs were developed from the following sources:

Hunter characteristics, constraints, and motivations modified items utilized by Stayton (2017) and Miller and Stephens, (2020).

Specialization (Bryan, 2000) was assessed following the procedure and modification to items outlined in Needham, et al. 2007.

Hunt quality was adapted from measures used in Wynveen et al., (2005)

Black Hunter Identity was modified from the Multidimensional Model of Black Identity (Sellers, 2013).

Sampling

Few states collect data on race or ethnicity at point of sale for license transactions thereby greatly reducing the potential sample pool available to this study. Project team leads reached and requested license data from states that do collect race as part of customer contact information and received cooperation from only a handful of state wildlife management agencies: Alabama, Arkansas, Florida, Kansas, Tennessee, and Virginia). These agencies provided the names and email addresses of Black hunters from their public hunting license databases. License holders are made aware that their emails may be shared when applying for their hunting license. In addition, Massachusetts—a state that does not collect racial information— provided a large sample of email addresses (no names) from their hunter license database.

Focus group implementation.

Participants for the focus groups were recruited through purposive sampling to identify Black hunters with the help of several state wildlife management agencies. The study started with focus groups covering Black hunters in Alabama, Arkansas, Tennessee, Virginia. Project researchers recruited up to 10 people via email to fill predetermined dates and time slots. \$125-dollar gift cards were offered as an incentive to participate, and these were mailed to those who attended the focus groups following completion. The Minority Outdoor Alliance assisted in recruiting participants from their membership for the last two focus groups to ensure broad geographical representation hunters from all AFWA regions. A total of 64 Black hunters were interviewed over 10 focus groups. The table below shows which states were represented in the focus groups.

Table A1. Focus groups state representation.

States represented in focus groups	Number of participants (n=64)
Alabama	7
Arkansas	11
Tennessee	17
Virginia	11
New York, North Carolina, South Carolina, Kansas, Colorado	7
Missouri, Ohio, Georgia, Oregon, Louisiana, Arizona, Washington	11
Total	64

The focus groups were conducted on a recorded Zoom meeting and lasted between 60-90 minutes. A lead facilitator conducted all groups using a question script designed to illicit information to inform strategies for recruitment, retention, and reactivation. Follow-up questions were occasionally interjected by co-investigators by texting. Prior to the interviews, the moderator read the consent script and requested verbal permission to record the interview. Once verbal consent was given by all participants, the moderator began the recording. All participants consented to be recorded. Each interview opened with introductions from the participants.

Focus group qualitative analysis

These interviews were carefully transcribed by a commercial transcription service and checked for accuracy. The transcripts were coded using in vivo coding technique. In vivo coding involves using participants' exact words or phrases as codes to capture their lived experiences and perspectives. After which, the co-principal investigators gathered to discuss the codes and place them into

categories that were used to develop the survey questions. The codes were also used to determine the salient themes from the focus group interviews which are summarized in the results section of this report.

Survey Data Collection

Project researchers did receive contact information including email addresses of Black hunters from Alabama, Arkansas, Florida, Kansas, Tennessee and Virginia. Massachusetts provided an email list of hunting license purchasers that was stripped of names and other contact information. These contacts formed the basis of the projects sampling recruitment for this study as other states declined participation for a variety of reasons including statutory or policy prohibitions against sharing data. In the face of this challenge, researchers inquired about having states send out a survey link to their own license holders to bypass having to share data with us directly, but those requests were also denied, often upon the advice of agency attorneys.

Survey design

A pilot test was conducted with a sub sample of the potential respondents. All survey items and scales underwent psychometric analysis and were deemed valid and reliable. Format and appearance of the online survey was informed by the suggestions contained in Dillman, Smyth, & Christian (2014).

Survey procedure

An invitation email (Appendix 4) was sent to each of the email address provided by the state agencies. All recipients were asked to complete an online survey and told that that their participation is voluntary. If willing, they followed a link to the online survey (Appendix 3). Reminders for the survey were sent to the email addresses following a modified Dillman et al. (2014) method. The schedule for survey invitations is shown in Table A2.

Table A2. Schedule of online survey administration.

Date	Day	Time	Sent	Bounced	Complaints	Completes	Response rate
Multi-state sample							
6-Sep	Wed	4:30pm	31582	1441	57		
8-Sep	Friday	8:15am	29743	19	40		
11-Sep	Monday	10:45am	29001	30	16		
16-Sep	Saturday	12:00pm	28423	35	8		
22-Sep	Friday	1:00pm	28218	11	8		
				1536	129	1699	6%
Massachusetts sample			Sent	Bounced	Complaints	Completes	
12-Sep	Tuesday	3:30pm	35052	876	46		
15-Sep	Friday	7:15am	31281	18	8		
22-Sep	Friday	12:00pm	29715	6	1		
				900	55	4382	13%

This process resulted in 1,699 respondents to the Black hunters' multi-state survey for a 6% response rate. Of these, 1,591 identified as Black. The Massachusetts sample attained a 13% response rate with 4,382 completed responses of which only 24 identified as Black hunters.

Survey quantitative analysis

Analysis began by calculating the appropriate descriptive statistics for each variable. These included measures of central tendency (mean, median, and mode), measures of dispersion (range and standard deviations, and frequencies).

To identify statistical trends in the data, project researchers used analysis of variance (ANOVA) to compare means and regression analysis to identify correlations. Lastly, an exploratory factor analysis was used to identify the underlying structure (sub-groups) of the constraints (barriers) to hunter recruitment, retention, and reactivation.

Limitations

The geographic limitations of participating states in this study pose an important limitation for the ability to generalize these findings nationally. The preponderance of the study respondents reside in the Southeast. Hunting in the South has its own set unique traditions and cultural roots that influence the experience of participants. For example, private hunt clubs are more common in the Southeast than in other regions of the country. Game species assemblages differ as well. Consequently, it is worth considering how these results may have differed with the inclusion of Black hunters in other regions of the US.

An immediate challenge for this project was that few state fish and wildlife agencies collect demographic data as part of license transactions so there is no way to efficiently and randomly sample Black hunters in most states. The initial sampling plan was based on a three-pronged strategy: 1) recruit Black hunters to participate in this research (focus groups and online survey) from states that do collect demographic data; 2) contact Black hunters through membership lists of cooperating Black hunter organization and 3) rely on states without demographic data to administer the survey large samples of random hunters from states theirs. WMI worked to secure commitments from many states to cooperate in the research, especially those with demographic data, before submitting this project for a multi-state grant.

It is important to acknowledge up front that this study has three key limitations. One, by nature of the only state fish and wildlife agencies that collect race and/or ethnic characteristics of their hunting license buyers, most of the study respondents were drawn from primarily Southeastern states. To the extent that Black hunters in the Southeast may be unique in their culture and experiences, we caution against generalizing these findings to other regions. Two, the online survey had a very low response rate (6%) despite the application of social science best practices for online survey implementation opening up the potential of non-response bias. Three, this study suffers from a common shortcoming of research designed to inform ways to encourage participation in hunting and fishing, and that is we captured the views of those already doing the activity; we did not hear from

Appendix 2: Focus group thematic results

The focus groups thematic results are divided into tradition, barriers and challenges, opportunities and advantages, tradition and recommended programs/policies.

Tradition: Hunting is an important tradition that many families have reserved from generations to generation. According to the interviews, this is common practice among Black families in the US. Most Black hunters learnt the rudiments of hunting from a family member, very few learned from a friend or as a result of learning programs. Few reported to have learned from White hunters.

“So I've been hunting now for just over two years. Um, my maternal family is from West Virginia and there was lots of hunting and trapping and moonshine. Um, and they moved to New Jersey and became city folk. And that is the tradition that I was born, um, into, but always like fishing, gardening, those types of things. And so, um, at the top of the pandemic, I, um, we wanted... My husband and I wanted to get a dog and decided to, um, get a dog that we can do an activity with. And so, we got a German Shorthaired Pointer and, um, started upland hunting and so joined a chapter of, um, the North American Versatile Hunting Dog Association, NAVHDA.”

“All right. I'll go. Um, I've been hunting since I was a kid. Let's see, I'm 33 now, so about just over two decades. I run bird dogs. I have labs and setters and I travel the country every year, start the north and work my way south and come back home to Kansas. Yep, my parents and my brothers. And my grandparents.”

In support of the hunting tradition within the Black American families, Justin added that hunting has always been a family affair. He said, “hunting's always been a family activity. Um, my uncle first took me hunting when I was 13 and then as time went on, uh, just got, life got busier. I kind of, he stopped taking me and that was really my only mentor. So, I just kind of figured out hunting on my own from that point up there. And then in 2019, I moved to South Carolina, and that's really whenever I fell deep and that's when I got bird dogs and I started bird dog hunting.”

Barriers and challenges: Results from the interviews revealed that the barriers Black hunters faced were mostly related to issues around access to land, safety, economic capacity, low representation of Black hunters and lack of knowledge, and perceived discrimination. Because of the salience of access to land and its connection to safety as a barrier to entry and participation in hunting, we report on this finding separately in the next subsection.

The issue of economic capacity mostly revolved around the affordability to purchase hunting equipment and joining hunting clubs. Participants noted that the cost of equipment limited their ability to participate in certain types of hunting activities; while others observed that the high costs of joining hunting clubs was a barrier for them.

The issues of lack of knowledge and low representation of Black hunters are connected. The lack of representation of Black hunters, both in personal circles and outdoors media publications often undermine Black knowledge about the relevance of hunting for their communities. Simply put, many don't know that hunting is an activity that is also practiced by Black people because they don't see

Black hunters represented or know any within their personal circles. It's important to note that Black female hunters felt this low representation even more acutely. The following two quotes capture this finding:

“Everywhere I go, when I go to, you know, different hunts, or, you know, a- a dove shoot, or I'm out somewhere, I never see anybody that looks like me and that was always confusing, you know? And I- I'm trying to jump into the social media game and I'm looking at all these vendors that I spend money on, different, you know, different vendors that I support, and when I get their literature in the mail, I never see anybody like me.”

“I don't think I've met any other Black female hunters, so, it's- it's another intersectionality of, how can I find a place, in a sport that is inherently dangerous for me to own the equipment for, on top of, sometimes guys are weird... no offense. And so, how do I find, you know, a peer group, especially of people my age. So, that's kind of been the challenge behind it.”

The perceived discrimination was also reported by many to be an important challenge in Black hunters' experience. Overall, participants who reported on this issue noted that they felt racial discrimination from mainly other hunters and game wardens.

Access to land: One common point across the interviews was that Black hunters mostly hunted on private lands owned by families, close friends or clubs they formed. Access to private land is may be a limiting factor to participation because of low economic capacity. While some reported to own family land, many rely on their personal network/circle to access private lands for hunting. A few of them have used public lands but due to some of the experiences they have had, many of them stick to hunting on private lands. The issue of safety emerged mostly in relations to public lands, when they reported that they felt less safe on public lands due to crowding or racial profiling by game wardens. The following two quotes capture these sentiments.

“Well we, we only hunt private land, we don't hunt any of the wildlife management areas. I mean, the only places that the guys that I'm with are hunting are only private land, and we know the landowners around us.”

“And I'm fortunate that my daughter-in-law has relatives in Clarksville, and, uh, they have a small place, I can go there to hunt. And then I have a friend that has a, um, pasture area that's surrounded by woods, and not far from where I live and I'll go there to hunt. But, uh, as of late, I haven't had any, um, major issues.”

Opportunities, advantages: While they have had barriers and challenges, responses from the interviews showed that some of them have had opportunities that improved their hunting experiences. Access to mentors, club membership, family land ownership, hunting programs among others have contributed positively to their entry or retention in hunting. According to a participant from Virginia, membership to family club has been an advantage for the hunter to hunt and maintain the tradition within the family.

“Um, so they pooled their resources together, uh, and, uh, they were people they liked, they trusted, and, and they became part of the hunt club. They would actually share the, uh, the deer, too. They would, you know, because at that point in time, people didn't have a lot of money. So they shared their resources, um, were able to get enough, either had, had family land or pooled their resources to rent land or to lease it rather. Um, and, and that tradition, the hunt club is still around to this day so I guess that's what 40, 60-something years that it's been going on, so it has facilitated, you know, sort of training of hunters and just keeping.”

Others have also reported similar sentiments about the advantages of hunting club:

“In, in my club, it's, um, it, I just joined because my grandfather was in it, but it's, his friends from work and their families and their friends and their families and it's just, it, I guess you could say, it's kind of sort of public but it's only friends of friends and their families.”

“Um, so I'm pretty much a brand-new hunter. I just started, um, last year, so I was 31 when I started. Um, and I, it's something that I had been wanting to do for a long time, but had really no one in my life who was a hunter. Um, I didn't know who to reach out to. Like none of my friends really hunted, no one in my family hunted previously. Um, but I found some really amazing opportunities through different nonprofit organizations that put on different clinics on intros to how to hunt. And um, the big one was through the Minority Outdoor Alliance. They did a full weekend. Um, it was an overnight thing where they taught us the ethics of hunting, how to get started, equipment that you need, where to go.”

Programs policies for change: Participants proposed several programs and policies for change. One was regional learning programs, review of the preference points system and lottery system to allow smooth participation for new hunters, outreach programs for kids, Bblack mentorship programs, funding initiatives for the Black communities among others.

A female participant was strong on the preference point and said that “With the preference points, it definitely rewards the hunters who have been hunting the longest, which I mean, the good for you. Like, someone got you in early and you know what you're doing. Um, but it's really hard if you're brand new as an adult. Like, there are people that save up these preference points for like, 10 years just to get the unit that they want. Um, and if you're, if you're brand new, you just like, you feel like you have no chance at- at getting into some of these- these different areas. And, if there was a way to maybe balance that out a little bit and make it just not so extreme, um, that might incentivize it for new hunters too.”

On learning outreach programs, another one added “So we need to figure out something to help educate, make that learning curve easier and give people resources and a national program is nice, but there needs to be smaller, regional ones.”

Appendix 3: Copy of survey instrument



**Hunter
Perceptions
Survey**



Consent Page

Dear Hunter:

We need your help in understanding the experiences and perceptions adult hunters have toward their hunting experiences. Specifically, the study purpose is:

To understand the past and present experiences (positive and negative) of adult hunters, their needs, perceptions and attitudes toward hunting and the outdoors, and how these factors shape participants' current perspectives.

Your participation is voluntary, but very important. We expect that the survey will take you about 15 minutes to complete. Your responses to this will be reported without any personally identifiable information and will inform decision making regarding hunting policies in states across the country. Thank you for your time and effort.

Sincerely,



Aby
Sene-Harper, Ph.D.
Clemson University



Harrison
Pinckney, Ph.D.
Penn State University



Chris
Wynveen, Ph.D.
Baylor University

Survey Instructions and Consent

Instructions: Please respond to each question by providing responses to each blank or selecting the most appropriate choice given. You may skip questions, if you choose. **To start the survey, click the button at the bottom of this page.**

Compliance Information

Risks and Benefits: To the best of our knowledge, there are no risks to you for taking part in this study. If you are uncomfortable with some of the questions and topics we will ask about, you do not have to answer any questions that make you feel uncomfortable. Although there are no direct benefits to you from taking part in this study, the information you provide will help wildlife managers make future policy decisions.

Confidentiality: Confidentiality will be maintained to the degree permitted by the technology used. Your participation in this online survey involves risks similar to a person's everyday use of the Internet, which could include illegal interception of the data by another party. If you are concerned about your data security, contact the researcher to schedule a time to complete a printed survey with the same questions/you should not participate in this research.

We will keep the records of this study confidential by deleting your email address from our records once data collection is complete and reporting data in aggregate, without identifying information. We will make every effort to keep your records confidential. However, there are times when federal or state law requires the disclosure of your records. Authorized staff of Baylor University may review the study records for purposes such as quality control or safety.

Questions or concerns about this research study: You can call us with any concerns or questions about the research, please contact Dr. Chris Wynveen at chris_wynveen@baylor.edu, 254-710-4056. If you have questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), you may contact the Baylor University IRB through the Office of the Vice Provost for Research at 254-710-3708 or irb@baylor.edu. Taking part in this study is your choice. You are free not to take part or to stop at any time for any reason. No matter what you decide, there will be no penalty or loss of benefit to which you are entitled. If you decide to withdraw from this study, the information that you have already provided will be kept confidential. Information already collected about you cannot be deleted. The protocol for this project is on file with the Baylor University Institutional Review Board (protocol number: 1868920).

By continuing with the research and completing the study activities, you are providing consent.

Hunting Background

Hunting Background

Please identify which state you most often hunt in?

What age did you start hunting?

- Before age 10
- 11-14
- 15-18
- 19-24
- 25-30
- 31 years or older

Who taught you to hunt? (Select all that apply)

- Club or nonprofit organization
- Father
- Mother
- Grandparent
- Brother and/or sister

- Son and/or daughter
- Spouse or domestic partner
- Other relative
- Friend or coworker
- Participated in a learn-to hunt/mentored program
- Took a class
- Self-taught
- YouTube or online videos
- Other, please specify

What year did you last hunt?

Where do you most frequently hunt? (Select all that apply)

- Private land that I own
- Private land owned by family
- Private land owned by friends
- Other private land (hunting clubs, leases, lands with permission to hunt, etc.)
- Public land (State WMA's, BLM Land, National Forest Land, etc.)
- Other, please specify

If your hunting land is owned by your family, how many years has it been in your family?

Who did you hunt with the last time you hunted? (Select all that apply)

- I hunted alone
- Father
- Mother
- Grandparent
- Brother and/or sister
- Your own adult son or daughter
- Your own youth (under 18) son or daughter
- Spouse or domestic partner
- Other relative
- Friend or coworker
- A youth (under 18) not related to you
- Organized group
- Mentor from a group event
- Other, please specify

Who else in your immediate social circle hunts? (Select all that apply)

- Father
- Mother
- Brother/sister
- Grandparent
- Other family member (uncle, aunt, cousin, etc.)
- Friends
- Other, please specify

Do you belong to any of the following organizations?
(Select all that apply)

- Hunting or wildlife conservation organizations (e.g., Ducks Unlimited, Rocky Mountain Elk Foundation, etc.)
- Minority outdoor groups (e.g., Hunters of Color, Minority Outdoor Alliance)
- Other environmental or nature-based organizations (e.g., The Nature Conservancy, The Bird Conservancy, etc.)
- I am not a member of any hunting, conservation, or environmental organizations

If no, why have you not considered joining any of these types of organizations?

How likely is it that you will be hunting five years from now?

- Not at all likely
- Hard to say
- Somewhat likely
- Very likely
- Definitely still hunting

Hunting Motivations

Hunting Motivations

People choose to participate in hunting for a variety of reasons. From the following list, please indicate the extent to which you agree or disagree that these are reasons that motivate you to hunt.

Black Hunter R3

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
To engage in recreation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To relax or escape from everyday life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To be closer to nature and the outdoors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To have a spiritual connection to nature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To harvest a trophy animal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To spend time with friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To spend time with other generations of my family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To seek a new adventure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To test my abilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To network with colleagues at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To develop my skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To experience a challenge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Black Hunter R3

To express my identity as a hunter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To obtain meat to eat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To maintain a tradition passed down in my family from generation to generation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To keep family-owned hunting land in the family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To provide stewardship of the land and wildlife.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To control wildlife populations that are damaging ecosystems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Hunting Quality

Hunting Quality

Which of the following types of animals, if any, have you hunted at some point in your life? (Select all that apply)

- Big game (deer, elk, moose)
- Upland birds (quail, pheasants, etc.)
- Furbearers (raccoons, coyotes, foxes, etc.)
- Turkey
- Small game (rabbits, squirrels, etc.)
- Feral hog
- Waterfowl
- Doves
- Other, please specify

What species do you hunt **most often**?

- Big game (deer, elk, moose)
- Upland bird (quail, pheasants, etc.)
- Furbearer (raccoons, coyotes, foxes, etc.)
- Turkey
- Small game (rabbits, squirrels, etc.)
- Feral hog
- Waterfowl
- Dove

Considering hunting, please respond to the following:
Throughout the year, when I am preparing to hunt or after
hunting, I:

Spend sufficient time maintaining and using hunting equipment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am able to spend plenty of time with hunting companions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spend sufficient time scouting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spend time sighting in my weapon.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regularly read magazines about hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch plenty of television programs on hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am able to attend seminar(s) about hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am able to interact with other hunters online (social media, open/closed forums, etc.).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am able to teach someone the skills of hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Spend time cooking or learning to cook harvested meat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spend time learning about the culture and tradition of hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spend time talking to others about the culture and tradition of hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Considering hunting, please respond to the following:

When I hunt, I:

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
Feel close to nature.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am able to get away from everyday problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel reasonably safe while in the woods.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am able to get away from civilization.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

See and hear plenty of other wildlife beyond the species I am hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am able to spend plenty of time with hunting companions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am able to spend time with companions (e.g., family and friends who are not hunting but come with the group to the hunting area).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
See very few other hunters while hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hear/see plenty of evidence of the species I am hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have the opportunity to shoot at the species I am hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Am able to attract the species I am hunting successfully.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall, how do you rate the quality of your last hunting season?

- Poor
- Fair
- Good
- Very good
- Excellent

Hunting Specialization

Consider hunting, please respond to the following:

	Strongly disagree	Moderately disagree	Slightly disagree	Neither	Sligh agr
a. If I stopped \${q://QID12/ChoiceGroup/SelectedChoices} hunting, an important part of my life would be missing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. \${q://QID12/ChoiceGroup/SelectedChoices} hunting is an annual tradition that has become important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Participation in \${q://QID12/ChoiceGroup/SelectedChoices} hunting is a large part of my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Given effort I have put into \${q://QID12/ChoiceGroup/SelectedChoices}, it would be difficult to find a replacement activity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Given the \${q://QID12/ChoiceGroup/SelectedChoices} hunting skills/knowledge I have developed, it is important I continue to hunt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Testing/improving my \${q://QID12/ChoiceGroup/SelectedChoices} hunting skills is more important to me than harvesting an animal.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. I would describe my skill level in \${q://QID12/ChoiceGroup/SelectedChoices} hunting as advanced or expert.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. I have accumulated a lot of \${q://QID12/ChoiceGroup/SelectedChoices} hunting equipment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Black Hunter R3

f. I have invested a lot of money in
\${q://QID12/ChoiceGroup/SelectedChoices}
hunting equipment.



Considering hunting

[\\$ {q: // QID1 2 / ChoiceGroup / SelectedChoices}](#), please respond to the following:

If I could not deer/elk hunt, I would:

- Not miss it at all
- Miss it slightly
- Miss it more than most of my other activities

Considering hunting

[\\$ {q: // QID1 2 / ChoiceGroup / SelectedChoices}](#), please respond to the following:

How many years have you hunted

[\\$ {q: // QID1 2 / ChoiceGroup / SelectedChoices}](#)?

- 1-5 years
- 6-10 years
- 11-20 years
- 21-30 years
- 31-40 years
- 41-50 years
- More than 50 years

Filter demo

Are you Hispanic or Latino?

- Yes
- No

Which of these categories best indicates your race?
Answer only for yourself. (Select one or more).

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or other Pacific Islander
- White
- Other, please specify
- Prefer not to respond

Hunter Identity

Hunter Identity

Importance

Please indicate your level of agreement or disagreement with the following statements.

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
Overall, being a hunter has very little to do with how I feel about myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, being a hunter is an important part of my self-image.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My destiny as a hunter influenced by me and other people who hunt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being a hunter is unimportant to my sense of what kind of person I am.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a strong sense of belonging with other hunters.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a strong attachment to other people who hunt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being a hunter is an important reflection of who I am.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Being a hunter is not a major factor in my social relationships.

Self-reflection

Please indicate your level of agreement or disagreement with the following statements.

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
I feel good about people who hunt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am happy that I am a hunter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that people like me have made major accomplishments and advancements to hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often regret that I am a hunter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud to be a hunter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that the people like me have made valuable contributions to the hunting world.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Hunter Identity

Importance

Please indicate your level of agreement or disagreement with the following statements.

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
Overall, being a black hunter has very little to do with how I feel about myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, being a black hunter is an important part of my self-image.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My destiny as a black hunter influenced by me and other people who hunt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Black Hunter R3

Being a black hunter is unimportant to my sense of what kind of person I am.

I have a strong sense of belonging with other black hunters.

I have a strong attachment to other black people who hunt.

Being a black hunter is an important reflection of who I am.

Being a black hunter is not a major factor in my social relationships.

Self-reflection

Please indicate your level of agreement or disagreement with the following statements.

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
I feel good about black people who hunt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am happy that I am a black hunter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that black people have made major accomplishments and advancements to hunting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often regret that I am a black hunter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud to be a black hunter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that the black people have made valuable contributions to the hunting world.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Public Perception

Please indicate your level of agreement or disagreement with the following statements.

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
Overall, Black hunters are considered good by non-Black hunters.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, other hunters respect Black hunters.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most people consider Black hunters, on the average, to be less successful at hunting than other racial groups of hunters.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black hunters are not respected by the broader hunting society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, other groups of hunters view Blacks hunters in a positive manner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The hunting world views Black hunters as an asset.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Hunting constraints

Hunting Constraints

Please rate the following factors on the degree to which they have been a barrier to your hunting participation (or a reason that make it difficult for you to go hunting)?

	Not a barrier	A slight barrier	Somewhat of a barrier	Moderate barrier	Extreme barrier
Cost of access to hunting land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desire to do other activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other recreational activities take up my free time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't have anyone to go hunting with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't feel comfortable around hunters and hunting culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of support from other hunters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of available hunting land	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moved away from the area I typically hunt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of transportation to get to hunting areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worried non-hunting friends and family may judge me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Too many other hunters at location competing for space and/or game	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Black Hunter R3

Lack of representation of people that look like me or I identify with in hunting industry materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work/family commitments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack knowledge/skills required to hunt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack knowledge/skills required to prepare game meat to eat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack knowledge about hunting and firearm laws	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost of licenses/permits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Costs of hunting equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost of processing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feel discouraged or frightened by negative experiences I've had in the outdoors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Crowding by too many other hunters creates a safety concern	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of a network of hunters that I identify with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't feel comfortable due to the lack of racial and ethnic diversity associated with hunting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of a hunting mentor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of support from state agency that regulates hunting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hunting regulations are too confusing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="text"/>					

From the list of barriers, identify the most significant one that has limited the number of days you go hunting.

Describe your family and friends' perceptions to your participation in hunting.

Has anything else kept you from hunting in the past?

Have you ever experienced race-related incidents while hunting. If so, explain.

R 3

What can be done to encourage others

How likely are you to discuss the following topic with others?

The importance of recruiting new hunters for the future of hunting.

- Extremely unlikely
- Unlikely
- Neutral
- Likely
- Extremely likely

Below is a list of items that others like yourself have suggested to encourage greater participation in hunting.

Pick the top 3 activities that you think may be most effective and please put them in order from which you think will be most effective to least effective.

Select and drag the top 3 activities in ranking order.

Individual mentoring

Formal mentoring programs for kids

Membership in a hunting club

Education/outreach to get kids hunting and in the outdoors

Programs to increase land access for hunting

Programs to increase Black representation in fellow hunters

Programs to increase Black representation in state agency staff

Increase networking opportunities with other hunters

Hunter safety course offered in middle or high schools

Programs that encourage/teach hunting with friends or family

State agency sponsored programs that facilitate access to broader network of Black hunters

State agency programs designed to increase opportunities for Black hunters such as lottery system and special hunts.

Program to rent hunting equipment (other than firearms)

Do you have suggestions for how state wildlife agencies and conservation organizations can make hunting more welcoming to others?

What types of hunting skills or knowledge training would you find useful in an online tool?

Demographics

In what year were you born?

What is your gender? (Please select one).

- Male
- Female
- Non-binary / third gender
- Prefer to self-describe
- Prefer not to respond

What is your zip code?

What is the highest level of formal education you have completed? (Please select only one response).

- Some high school
- High school graduate
- Some college, vocational, or trade school
- College, business, vocational, or trade school graduate
- Some graduate school
- Master's, doctoral, or professional degree

Which category best represents your 2022 household income?

- Less than \$25,000
- \$25,000 – \$49,999
- \$50,000 – \$74,999
- \$75,000 – \$99,999
- \$100,00 – \$124,999
- \$125,000 or more

Appendix 4: Copy of email invitation



Dear Hunter:

We, Drs. Aby Sene-Harper, Harrison Pinckney, and myself, Chris Wynveen, are working with the Wildlife Management Institute to understand Black hunter perceptions and experiences. Specifically, we are asking you to complete a survey so that we can learn more about your past and present experiences (positive and negative), needs on hunting and the outdoors and how they shape your current perspectives.

This 15-minute survey is only being given to a select number of hunters, so your participation is voluntary, but very important.

To access the online survey, click on the link or copy and paste it into the address bar of your web browser. <https://qualtrics.com/xxx/xxxx/xxxxxxxxxx>

Thank you,



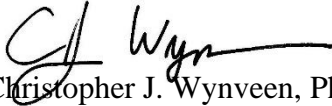
Aby Sene-Harper, Ph.D.
Clemson University



Harrison Pinckney, Ph.D.
Penn State University



Christopher Wynveen, Ph.D.
Baylor University


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Confidentiality will be maintained to the degree permitted by the technology used. Your voluntary participation in this online survey involves risks similar to a person's everyday use of the Internet, which could include illegal interception of the data by another party. If you are concerned about your data security, please contact the researcher to schedule a time to complete a printed survey with the same questions. The protocol for this project is on file with the Baylor University Institutional Review Board (protocol number: 1868920).