Maryland Hunting and Fishing Marketing Initiative: 2019 Survey of Nonresident Hunters and Anglers



Conducted for the Maryland Department of Natural Resources and the Maryland Office of Tourism Development



By Responsive Management 2019



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EXECUTIVE SUMMARY

This study was conducted for the Maryland Department of Natural Resources (the Department) and the Maryland Office of Tourism Development to assess the effectiveness of strategies for promoting hunting and fishing opportunities in the state. In particular, the study was intended to gauge sportsmen's awareness of and the effectiveness of the "Fish & Hunt Maryland" website and Facebook page, as well as other promotional efforts. The study entailed a scientific telephone survey of nonresident Maryland hunting or fishing license holders, age 18 or older. This report also provides a trends analysis on some questions, which compares the results of this survey to a similar survey conducted in 2014.

For the survey, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among the nonresident hunters and anglers in the sample (both landlines and cell phones were called). Additionally, telephone surveys, relative to mail or Internet surveys, allow for more scientific sampling and data collection, provide higher quality data, obtain higher response rates, are more timely, and are more cost-effective. Telephone surveys also have better representation of the sample than Internet and mail surveys because those types of surveys systematically exclude people who are not literate enough to complete the surveys or who would be intimidated by having to complete a survey that they have to read to themselves—by an estimate of the U.S. Department of Education's National Institute of Literacy (2016), up to 43% of the general population read no higher than a "basic level," suggesting that they would be reticent to complete a survey that they have to read.

The samples of nonresident hunters and anglers who had purchased a nonresident Maryland hunting or fishing license were provided by the Department. A screener question was used to limit the survey to those who had hunted or fished *anywhere* in the past 3 years. There were six states of particular interest in the survey: Delaware, New Jersey, New York, Pennsylvania, Virginia, and West Virginia (shown in the map that follows). Nonresident hunters and anglers in Maryland come predominantly from those states.

The telephone survey questionnaire was developed cooperatively by Responsive Management and the Department, based on the 2014 survey. Telephone surveying times were Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 7:00 p.m., and Sunday from 2:00 p.m. to 9:00 p.m., local time. The survey was conducted in November 2019.

The analysis of data was performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management. The sampling error for hunters is 4.35 percentage points, based on a sample size of 500 and a population size of 38,705 Maryland nonresident licensed hunters. The sampling error for anglers is 4.37 percentage points, based on a sample size of 500 and a population nonresident licensed on a sample size of 140,195 Maryland nonresident licensed anglers.

The Department and the Maryland Office of Tourism Development supported several outreach efforts since the 2014 survey that was referenced previously. This survey, in part, was administered to help assess those efforts, including the part of this report in which respondents indicate their awareness of the efforts.

These efforts include the *Fish & Hunt Maryland* campaign, which includes a web page and a presence on social media. It also includes outreach in the Hunting Pavilion and the Fishing Pavilion at The Great American Outdoor Show in Harrisburg, Pennsylvania. There are specific sections of the report that have data about these efforts.

HUNTING/FISHING IN STATE OF RESIDENCE AND IN MARYLAND

Just about two thirds of nonresident hunters/anglers went hunting/fishing in their state of residence in the 2019-2020 season. These groups were then examined regarding hunting/fishing in Maryland. This crosstabulation shows that, in the 2019-2020 season, about a third of those nonresident hunters who hunted in their state of residence (37%) also hunted in Maryland, which is about the same as those hunters who did not hunt in their state of residence (34% of these hunters hunted in Maryland). In other words, nonresident hunters hunting in Maryland are about the same regarding whether they had hunted in their own state or not.

This same analysis on anglers found them to be more likely to fish in their home state. In the 2019-2020 season, 68% of anglers who fished in their state of residence also fished in Maryland, while 59% of anglers who did not fish in their state of residence fished in Maryland.





The survey assessed interest in and likelihood to go hunting/fishing in Maryland among hunters/anglers, using a 0 to 10 scale where 0 is not at all interested or likely and 10 is extremely interested or likely. The majority of nonresident hunters (61%) and anglers (55%) give the highest rating to their interest, and overwhelming majorities give a rating above the midpoint (85% of nonresident hunters and 84% of nonresident anglers). Similar results were found in the question about likelihood to go—it appears that most of those who are interested also think it is likely that they will go. The mean ratings of interest are 8.34 for nonresident hunters and 8.24 for nonresident anglers; the mean ratings of likelihood to go are 8.22 for nonresident hunters and 8.28 for nonresident anglers.



Other data gathered regarding hunting/fishing in Maryland asked nonresident hunters to name the species they typically hunt for and nonresident anglers the species they typically fish for in Maryland. The majority of nonresident hunters seek white-tailed deer (64% of them do) or waterfowl (41%), with wild turkey distantly in third (11%)—the only species with substantial percentages. When respondents were asked to name the single species they hunt most often in Maryland, white-tailed deer (57%) and waterfowl (34%) are the only important species.

The most common fish species sought by nonresident anglers in Maryland are white bass/striped bass and hybrids (34%) and black bass (which includes smallmouth and largemouth bass) (29%). These are distantly followed by catfish/bullheads (15%), flatfish/flounder/halibut (13%), and trout (12%). No other species is fished for by more than 10% of anglers. Another graph shows the single species they most often fish for in Maryland, with white bass/striped bass/hybrids and black bass leading the list—both at 18% of nonresident anglers.

Nonresident anglers in Maryland are divided into nearly equal thirds: approximately one third fishes in freshwater only in Maryland, a third fishes in saltwater only, and a third fishes in both freshwater and saltwater.



The survey also asked about hunting/fishing companions when nonresident hunters/anglers go hunting/fishing in Maryland. Female companions are more common for fishing than hunting. Trends are shown, as well. In 2019, there was a drop in those going with any friends among both nonresident hunters and nonresident anglers.



TRIPS TO MARYLAND TO HUNT AND FISH

Among those who had hunted/fished in Maryland in the past 3 years, just under half of nonresident hunters (44%) and about a third of nonresident anglers (36%) took no more than 5 trips to Maryland primarily to hunt/fish in the past 3 years; nonetheless, 30 or more trips were taken by 16% of these nonresident hunters and 15% of these nonresident anglers. The median number of trips was 6 among nonresident hunters and 8 among nonresident anglers.

The survey identified people who took an overnight trip to go hunting/fishing in Maryland. The mean length of time of those overnight trips (among those who took overnight trips) is 2.96 days among nonresident hunters and 2.89 days among nonresident anglers. Most commonly, nonresident hunters on these overnight trips stay with family or friends (33% do so), followed by those who stay at a hunt club or leased property in a cabin or camper (29%) or a hotel or other commercial lodging (24%). Among nonresident anglers, the most common location for the overnight trips is also to stay with family or friends (26%), followed by a hotel or other commercial lodging (23%) or at a campground or other public land (19%).



The months in which nonresident hunters and anglers travel to Maryland are shown. Nonresident hunters' most common months are November, December, and January, with a smaller percentage also going there in October or September. Nonresident anglers, on the other hand, are most commonly visiting Maryland in the warmer months; their visitation follows a bell curve with the peak in the summer months.



More than a quarter of nonresident hunters (28%) use a guide when hunting in Maryland, while 9% of nonresident anglers do so.

The survey explored the number of people who typically go on hunting/fishing trips with nonresident hunters and anglers. The majority of these nonresident hunters (51%) and nonresident anglers (64%) travel with no more than three other people.

CROSSOVER PARTICIPATION BETWEEN HUNTING AND FISHING

The survey asked nonresident hunters if they had gone fishing in the past 3 years, and they asked nonresident anglers if they had gone hunting—in other words, if they had done fishing or hunting as a crossover activity. More hunters had gone fishing (62% of them had) than anglers had gone hunting (36%). Nonetheless, both these percentages represent robust participation in the crossover activity. These results give a relative idea of the size of the crossover market.

The survey identified hunters who had fished outside of their state of residence but the other state(s) was not Maryland. Likewise, anglers who had hunted outside their state of residence but not in Maryland were also identified. These respondents were asked for the main single reason that they had not done the activity in Maryland. Lack of time, lack of interest, and already having a place to do the activity are the most common responses.



Interest in doing the crossover activity in Maryland is middling; for both nonresident hunters and nonresident anglers, the most common rating on the 0 to 10 scale is 0. Nonetheless, there are some people expressing interest: 22% of nonresident hunters and 12% of nonresident anglers give the highest rating of 10 for their interest in doing the crossover activity in Maryland.



QUALITY RATINGS OF HUNTING AND FISHING IN MARYLAND AND IN OTHER STUDY STATES

One set of questions asked nonresident hunters/anglers to rate the quality of hunting/fishing opportunities in the study states as well as in Maryland. The results are shown all together. Maryland received higher ratings than any other state, as shown in the graph below, as well as in the percentages giving a rating of 10 (with the exception of anglers regarding Pennsylvania, where the percentages giving a rating of 10 are the same), as shown in the individual state graphs in the body of the report.



Another analysis compared ratings of hunting/fishing experiences in the respondents' home states with those in Maryland. It may be that some amount of dissatisfaction with home states' hunting/fishing is prompting some of these nonresident hunters/anglers to go to Maryland. This is particularly true of hunters: 76% of hunters are satisfied with their home states, compared to 98% of nonresident hunters hunting in Maryland. Likewise, 79% of anglers are satisfied with their home states, compared to 91% of nonresident anglers fishing in Maryland.





A question in a similar vein asked nonresident hunters and anglers directly how hunting/fishing opportunities in Maryland compared to the opportunities in their home states. For both groups, the most common response was that Maryland has better opportunities than their home state: 49% of nonresident hunters and 44% of nonresident anglers said Maryland was better. The next most common response was *about the same* (both hunters and anglers at 37%), leaving only low percentages in the *worse* or *don't know* responses.



Based on the respondents' ratings of their likelihood to recommend Maryland for hunting/fishing, it would appear that Maryland would get good word-of-mouth from these nonresident hunters and anglers. The question used a 0 to 10 scale, where 0 was not at all likely and 10 was extremely likely. Nearly half of each group (49% and 47%) gave the highest rating to their likelihood, and 86% of hunters and 87% of anglers gave a rating above the midpoint of 5. In other words, it would seem to be efficacious if Maryland could prompt these people to talk about hunting/fishing in Maryland and even organize outings with their friends and family.



Those nonresident hunters and anglers, regardless of whether they had hunted/fished in Maryland, were asked to rate several aspects of hunting/fishing in Maryland, using a 0 to 10 scale where 0 is poor and 10 is excellent. Among nonresident hunters, health of game in Maryland is the top-rated aspect (a mean of 8.91), followed by three more aspects at nearly 8 or better: quantity of game (8.14), chances of harvest success (8.00), and the seasons (7.90). Other aspects were not rated as highly, with the poorest ratings going to cost of licenses and permits (6.34) and access to private lands (6.26).



Among anglers, three aspects have mean ratings over 8: access to water (8.22), health of fish (8.14), and boating access (8.10). On the other hand, the lower rated aspects include the cost of licenses and permits and quantity of fish/harvest success.



MOTIVATIONS FOR HUNTING/FISHING IN MARYLAND

The survey explored motivations for hunting and fishing in Maryland. The top reason by far that nonresident hunters go hunting in Maryland is to be with family and friends (given by 26% of nonresident hunters). This is more distantly followed by three aspects: for the sport/recreation (16%), for the meat (13%), and because there is good game in Maryland (11%).

Among nonresident anglers, for the sport/recreation is the top reason by far (28%), followed by being with family and friends (16%) and for relaxation (15%).





The survey asked about things that influenced nonresident hunters and anglers to start hunting/fishing in Maryland. Friends and family were prominent as influencers, being the top two responses for both nonresident hunters and anglers. Good access was also an important influencer for nonresident hunters. For nonresident anglers, doing so as part of a vacation is an important influencer as well as friends and family previously mentioned.



TRAVEL DISTANCE TO MARYLAND

Just under half of hunters (48%) and a bit more than half of anglers (55%) typically travel no more than 50 miles to hunt or fish. The obvious implication is that most portions of the study states, with the exception of Delaware, are located more than 50 miles from Maryland.



To further explore this aspect of hunting, the survey identified the counties from the study states that contributed hunters and anglers to Maryland. The maps show the counties that border (or are very close to) Maryland and those that contributed hunters and anglers to Maryland. Note that Delaware is not shown because all three counties border Maryland and all three counties contributed hunters and anglers to Maryland. The other five states are shown.





















SOURCES OF INFORMATION ON HUNTING AND FISHING

The internet in general (including blogs) is the most popular source for information about hunting/fishing, followed closely by the state fish and wildlife agency (including its website). Social media is another important source. For anglers, a substantial percentage use printed travel or guidebooks. Note that the list was read to respondents. Of the social media sites (among those who use them), Facebook is the most commonly used for hunting/fishing information.



Another question presented five possible sources of information for when respondents were planning trips or booking travel arrangements. Of the five potential sources, personal recommendations from family and friends is, by far, the most used.



FISH & HUNT ADVERTISING CAMPAIGN

Just under half of nonresident hunters (49%) and half of nonresident anglers (50%) had seen advertisements for hunting *or* fishing in Maryland; note that this is not simply a sum of the responses because respondents could select more than one. In the question wording, both activities were asked about. Unlike the rest of the survey where the question wording included only a single activity, both the activities were included in the wording. Nonresident hunters and anglers were asked if they had seen anything about either activity. Most commonly, those who had seen advertisements had seen print ads.



* This is not a sum because respondents could select more than one response; percentage shows those who gave any of those responses.

Those who had seen ads promoting hunting or fishing in Maryland were asked specifically if they had seen the campaign, *Fish & Hunt Maryland*. Coding the question out of all nonresident hunters and anglers finds that 21% of nonresident hunters had seen the campaign, and 19% of nonresident anglers had seen it.

Of those who had seen the *Fish & Hunt Maryland* campaign, 41% of those nonresident hunters and 36% of those nonresident anglers had visited the *Fish & Hunt Maryland* website. Additionally, 13% of those hunters and 18% of those anglers had visited the campaign's Facebook page.

Those who had interaction with the *Fish & Hunt Maryland* campaign by visiting its website or its Facebook page were asked to rate its effectiveness at increasing their interest in going hunting/fishing in Maryland. Nonresident anglers considered it more effective than did nonresident hunters: the mean among anglers is 5.86, which is just slightly higher than the hunters' mean of 5.52. Another way to examine the data is that 80% of anglers gave a rating of the midpoint (5) or higher, which is just a bit higher than the 71% of hunters who gave a rating of the midpoint or higher.



The Great American Outdoor Show in Harrisburg, Pennsylvania, was attended by 29% of nonresident hunters and 14% of nonresident anglers. Attendees were asked about how much contact they had made with the Maryland booth in the Fishing Pavilion at the Show: just under a quarter of these hunters and just more than a third of these anglers had visited the booth. Another 16% of hunters and 23% of anglers saw the booth but did not visit, a sum of 38% of nonresident hunters and 60% of nonresident anglers who had attended the Show.



In a similar vein, these attendees to the Show were asked about visiting the Maryland booth in the Hunting Pavilion at the Show: 28% of these hunters and 19% of these anglers had visited the Maryland booth, with 40% of these hunters and 33% of these anglers having at least seen the Maryland booth.





SUNDAY HUNTING IN MARYLAND

Well more than half of nonresident hunters (59%) were aware that Maryland had increased its Sunday hunting opportunities in the state. Of those who were aware *and* who had hunted in Maryland in the past 3 years, 42% of them had hunted on a Sunday in Maryland in the past 3 years. Regardless of whether they had hunted in Maryland or not or whether they were aware of the increased Sunday hunting opportunities, they were asked if Sunday hunting opportunities increase or decrease their interest in hunting in Maryland. More than half of nonresident hunters (52%) indicate that this increases their interest.

Q184. Have you hunted in Maryland on

Sunday in the past 3 years? (Asked of







CHRONIC WASTING DISEASE

Just under half of nonresident hunters (48%) were aware, prior to the survey, that deer harvested in Allegany County, Maryland, in 2010 tested positive for Chronic Wasting Disease (a fatal disease of the brain in deer that is similar to Mad Cow Disease in cattle). Of those who were aware and had hunted in Maryland, 11% indicate that they changed where they hunt in Maryland because of Chronic Wasting Disease. In a separate question, 6% of all nonresident hunters agree that Chronic Wasting Disease has caused them to hunt deer less or not at all in Maryland.






In response to Chronic Wasting Disease, the Maryland Department of Natural Resources created a Chronic Wasting Disease Management Area to help control the spread of the disease. There are regulations regarding transporting a deer carcass harvested in the CWD Management Area outside of the area. After informing respondents of this, the survey then asked all nonresident hunters if the regulations regarding the transport of carcasses from the Management Area had caused them to hunt deer less or not at all in Maryland: 10% of nonresident hunters agreed that the regulations had done so.

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INTRODUCTION AND METHODOLOGY

This study was conducted for the Maryland Department of Natural Resources (the Department) and the Maryland Office of Tourism Development to assess the effectiveness of strategies for promoting hunting and fishing opportunities in the state. In particular, the study was intended to gauge sportsmen's awareness of and the effectiveness of the "Fish & Hunt Maryland" website and Facebook page, as well as other promotional efforts. The study entailed a scientific telephone survey of nonresident Maryland hunting or fishing license holders, age 18 or older. This report also provides a trends analysis on some questions, which compares the results of this survey to a similar survey conducted in 2014. Specific aspects of the research methodology are discussed below.

USE OF TELEPHONES FOR THE SURVEY

For the survey, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among the nonresident hunters and anglers in the sample (both landlines and cell phones were called). Additionally, telephone surveys, relative to mail or Internet surveys, allow for more scientific sampling and data collection, provide higher quality data, obtain higher response rates, are more timely, and are more cost-effective. Telephone surveys also have better representation of the sample than Internet and mail surveys because those types of surveys systematically exclude people who are not literate enough to complete the surveys or who would be intimidated by having to complete a survey that they have to read to themselves—by an estimate of the U.S. Department of Education's National Institute of Literacy (2016), up to 43% of the general population read no higher than a "basic level," suggesting that they would be reticent to complete a survey that they have to read. Finally, telephone surveys also have fewer negative effects on the environment than do mail surveys because of reduced use of paper and reduced energy consumption for delivering and returning the questionnaires.

SURVEY SAMPLES

The samples of nonresident hunters and anglers who had purchased a nonresident Maryland hunting or fishing license were provided by the Department. A screener question was used to limit the survey to those who had hunted or fished *anywhere* in the past 3 years.

There were six states of particular interest in the survey: Delaware, New Jersey, New York, Pennsylvania, Virginia, and West Virginia (shown in the map that follows). Nonresident hunters and anglers in Maryland come predominantly from those states. Some respondents were from states other than those six, but those six were selected as most pertinent to the survey, particularly because some promotional efforts were aimed at those states. References to "study states" refers to these six states.

QUESTIONNAIRE DESIGN

The telephone survey questionnaire was developed cooperatively by Responsive Management and the Department, based on the 2014 survey and the research team's familiarity with hunting and fishing, as well as natural resources and outdoor recreation in general. The telephone survey was coded using Responsive Management's proprietary computer-assisted telephone interviewing (CATI) system, which is software used for telephone data collection. Note that the computer only controls which questions are asked; the survey is administered by a live interviewer. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.



TELEPHONE INTERVIEWING FACILITIES

A central polling location in Responsive Management's national office allowed for rigorous quality control over the interviews and data collection. Responsive Management maintains its own in-house telephone interviewing facilities. These facilities are staffed by interviewers with experience conducting computer-assisted telephone interviews on the subjects of outdoor recreation and natural resources.

To ensure the integrity of the telephone survey data, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers and other professional staff conducted a project briefing with the interviewers prior to the administration of this survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey questionnaire, reading of the survey questions, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaire.

INTERVIEWING DATES AND TIMES

Telephone surveying times were Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 7:00 p.m., and Sunday from 2:00 p.m. to 9:00 p.m., local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted in November 2019.

TELEPHONE SURVEY DATA COLLECTION AND QUALITY CONTROL

The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey questionnaire was programmed to branch and substitute phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection.

The Survey Center Managers and statisticians monitored the data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge to evaluate the performance of each interviewer and ensure the integrity of the data. The survey questionnaire itself contained error checkers and computation statements to ensure quality and consistent data. After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness. Responsive Management obtained a total of 500 completed interviews with nonresident Maryland hunters and 500 completed interviews with nonresident Maryland anglers.

DATA ANALYSIS

The analysis of data was performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management.

The proportions of hunters and anglers from the six nearby states of interest (Delaware, New Jersey, New York, Pennsylvania, Virginia, and West Virginia) were compared between the survey results and the nonresident hunter/angler databases provided by the Department. Because these proportions (for both hunters and anglers) matched up well, it was decided that weighting of survey results by state was not necessary. In addition, the median ages of nonresident hunters and anglers in the survey results closely matched the sample databases; this further indicated that these results provided an accurate representation of hunters and anglers in those states.

On questions that asked respondents to provide a number (e.g., days spent hunting or fishing), the graphs may show ranges of numbers rather than the precise numbers. Nonetheless, in the survey each respondent provided a precise number, and the dataset includes this precise number, even if the graphs show only ranges of numbers. Note that the calculation of means and medians used the precise numbers that the respondents provided.

SAMPLING ERRORS

The sampling error for hunters is 4.35 percentage points, based on a sample size of 500 and a population size of 38,705 Maryland nonresident licensed hunters. The sampling error for anglers is 4.37 percentage points, based on a sample size of 500 and a population size of 140,195

Maryland nonresident licensed anglers. The sampling errors were calculated using the formula described below.

Sampling Error Equation

$B = \left(\sqrt{\frac{\frac{N_{p}(.25)}{N_{s}}25}{\frac{N_{s}}{N_{p}} - 1}}\right) (1.96)$	Where:	B = maximum sampling error (as decimal) $N_P = population size (i.e., total number who could be surveyed)$ $N_S = sample size (i.e., total number of respondents surveyed)$
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Derived from formula: p. 206 in Dillman, D. A. 2000. Mail and Internet Surveys. John Wiley & Sons, NY.

Note: This is a simplified version of the formula that calculates the <u>maximum</u> sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).

OUTREACH EFFORTS MADE TO NONRESIDENTS

The Department and the Maryland Office of Tourism Development supported several outreach efforts since the 2014 survey that was referenced previously. This survey, in part, was administered to help assess those efforts, including the part of this report in which respondents indicate their awareness of the efforts.

These efforts include the *Fish & Hunt Maryland* campaign, which includes a web page and a presence on social media. It also includes outreach in the Hunting Pavilion and the Fishing Pavilion at The Great American Outdoor Show in Harrisburg, Pennsylvania. There are specific sections of the report that have data about these efforts.

ADDITIONAL INFORMATION ABOUT THE PRESENTATION OF RESULTS IN THE REPORT

In examining the results, it is important to be aware that the questionnaire included several types of questions:

- Open-ended questions are those in which no answer set is read to the respondents; rather, they can respond with anything that comes to mind from the question.
- Closed-ended questions have an answer set from which to choose.
- Single or multiple response questions: Some questions allow only a single response, while other questions allow respondents to give more than one response or choose all that apply. Those that allow more than a single response are indicated on the graphs with the label, "Multiple Responses Allowed."
- Scaled questions: Many closed-ended questions (but not all) are in a scale, such as better-about the same-worse.
- Series questions: Many questions are part of a series, and the results are primarily intended to be examined relative to the other questions in that series (although results of the questions individually can also be valuable). Typically, results of all questions in a series are shown together.

Responsive Management analysts read through all the open-ended comments and assigned them into response categories so that the results could be quantified and displayed in "Multiple Responses Allowed" graphs. In the hunter survey, over 2,900 comments were categorized; in the angler survey, over 3,400 comments were categorized.

Some graphs show an average, either the mean or median (or both). The mean is simply the sum of all numbers divided by the number of respondents. Because outliers (extremely high or low numbers relative to most of the other responses) may skew the mean, the median may also be shown. The median is the number at which half the sample is above and the other half is below. In other words, a median of 15 days means that half the sample gave an answer of more than 15 days and the other half gave an answer of less than 15 days.

Most graphs show results rounded to the nearest integer; however, all data are stored in decimal format, and all calculations are performed on unrounded numbers. For this reason, some results may not sum to exactly 100% because of this rounding on the graphs. Additionally, rounding may cause apparent discrepancies of 1 percentage point between the graphs and the reported results of combined responses (e.g., when "very satisfied" and "somewhat satisfied" are summed to determine the total percentage who are satisfied).

Although the hunter and angler surveys were conducted separately, the survey questions are mostly identical for the two groups. Therefore, most question results are shown as 2-bar graphs so that the hunter and angler responses can be shown together for comparison. Also, as previously indicated, this report provides a trends analysis. For several survey questions that match between the 2014 and 2019 surveys, the graphs of overall results are followed by trends graphs that show 2014 and 2019 results side-by-side for comparison.

HUNTING/FISHING IN STATE OF RESIDENCE AND IN MARYLAND

Just about two thirds of nonresident hunters/anglers went hunting/fishing in their state of residence in the 2019-2020 season. These groups were then examined regarding hunting/fishing in Maryland. This crosstabulation shows that, in the 2019-2020 season, about a third of those nonresident hunters who hunted in their state of residence (37%) also hunted in Maryland, which is about the same as those hunters who did not hunt in their state of residence (34% of these hunters hunted in Maryland). In other words, nonresident hunters hunting in Maryland are about the same regarding whether they had hunted in their own state or not.

This same analysis on anglers found them to be more likely to fish in their home state. In the 2019-2020 season, 68% of anglers who fished in their state of residence also fished in Maryland, while 59% of anglers who did not fish in their state of residence fished in Maryland.







The survey explored the number of years out of the past 3 years that nonresident hunters had been hunting in Maryland and the number of years that nonresident anglers had been fishing in Maryland. Most commonly, hunters and anglers were avid in that they had hunted all 3 years in Maryland: 43% of nonresident hunters had hunted all 3 of the past 3 years in Maryland, and 46% of nonresident anglers had fished all 3 of the past 3 years in Maryland. Another graph shows the typical number of days of hunting and fishing in Maryland annually, among those who hunted/fished there in the past 3 years.







Trends are shown for the days typically hunt/fish in Maryland. Typical annual hunting days in the 2014 survey exceed the days in the 2019 survey, which is particularly evident in the means. There is little difference regarding typical number of fishing days annually in Maryland.





The survey assessed interest in and likelihood to go hunting/fishing in Maryland among hunters/anglers, using a 0 to 10 scale where 0 is not at all interested or likely and 10 is extremely interested or likely. The majority of nonresident hunters (61%) and anglers (55%) give the highest rating to their interest, and overwhelming majorities give a rating above the midpoint (85% of nonresident hunters and 84% of nonresident anglers). Similar results were found in the question about likelihood to go—it appears that most of those who are interested also think it is likely that they will go. The mean ratings of interest are 8.34 for nonresident hunters and 8.24 for nonresident anglers; the mean ratings of likelihood to go are 8.22 for nonresident hunters and 8.28 for nonresident anglers.



Other data gathered regarding hunting/fishing in Maryland asked nonresident hunters to name the species they typically hunt for and nonresident anglers the species they typically fish for in Maryland. The majority of nonresident hunters seek white-tailed deer (64% of them do) or waterfowl (41%), with wild turkey distantly in third (11%)—the only species with substantial percentages. When respondents were asked to name the single species they hunt most often in Maryland, white-tailed deer (57%) and waterfowl (34%) are the only important species.



Q88. Which one species do you hunt most often in Maryland? (Asked of those who hunted in Maryland in the past 3 years.) White-tailed deer Waterfowl Wild turkey Pheasant, quail, chukar, upland game birds Rabbit / hare / snowshoe / cottontail



The most common fish species sought by nonresident anglers in Maryland are white bass/striped bass and hybrids (34%) and black bass (which includes smallmouth and largemouth bass) (29%). These are distantly followed by catfish/bullheads (15%), flatfish/flounder/halibut (13%), and trout (12%). No other species is fished for by more than 10% of anglers. Another graph shows the single species they most often fish for in Maryland, with white bass/striped bass/hybrids and black bass leading the list—both at 18% of nonresident anglers.







Trends are shown regarding species hunted and fished. There were no marked changes regarding the species hunted. Regarding fishing, there were slight drops in the percentages fishing for white bass/striped bass/hybrids and for trout; there were increases in those fishing for any type of fish in saltwater and freshwater.









Nonresident anglers in Maryland are divided into nearly equal thirds: approximately one third fishes in freshwater only in Maryland, a third fishes in saltwater only, and a third fishes in both freshwater and saltwater. Trends are also shown; "any freshwater" is higher in 2019 than in 2014.





The survey also asked about hunting/fishing companions when nonresident hunters/anglers go hunting/fishing in Maryland. Female companions are more common for fishing than hunting. Trends are shown, as well. In 2019, there was a drop in those going with any friends among both nonresident hunters and nonresident anglers.





Q104. With whom do you typically fish in Maryland each year? (Asked of those who fished in Maryland in the past 3 years.) (Top responses only) (Anglers)



TRIPS TO MARYLAND TO HUNT AND FISH

Among those who had hunted/fished in Maryland in the past 3 years, just under half of nonresident hunters (44%) and about a third of nonresident anglers (36%) took no more than 5 trips to Maryland primarily to hunt/fish in the past 3 years; nonetheless, 30 or more trips were taken by 16% of these nonresident hunters and 15% of these nonresident anglers. The median number of trips was 6 among nonresident hunters and 8 among nonresident anglers.



The survey identified people who took an overnight trip to go hunting/fishing in Maryland. The typical length of time of those overnight trips is shown. The mean length of such overnight trips (among those who took overnight trips) is 2.96 days among nonresident hunters and 2.89 days among nonresident anglers. Most commonly, nonresident hunters on these overnight trips stay with family or friends (33% do so), followed by those who stay at a hunt club or leased property in a cabin or camper (29%) or a hotel or other commercial lodging (24%). Among nonresident anglers, the most common location for the overnight trips is also to stay with family or friends (26%), followed by a hotel or other commercial lodging (23%) or at a campground or other public land (19%).





The months in which nonresident hunters and anglers travel to Maryland are shown. Nonresident hunters' most common months are November, December, and January, with a smaller percentage also going there in October or September. Nonresident anglers, on the other hand, are most commonly visiting Maryland in the warmer months; their visitation follows a bell curve with the peak in the summer months.



More than a quarter of nonresident hunters (28%) use a guide when hunting in Maryland, while 9% of nonresident anglers do so.



The survey explored the number of people who typically go on hunting/fishing trips with nonresident hunters and anglers. The majority of these nonresident hunters (51%) and nonresident anglers (64%) travel with no more than three other people. A second graph regarding travel companions found that not all of them participated in hunting/fishing as part of the trip.



Q149. How many people typically travel with you on a [hunting / fishing] trip to Maryland who do not [hunt / fish] on the trip? (Asked of those who traveled to Maryland to [hunt / fish] as the main reason for visiting Maryland in the past 3 years.)



The survey asked about trips to Maryland in which hunting/fishing was not the main reason but during which respondents hunted or fished anyway. There were a few such trips among nonresident hunters and anglers. The mean number of those types of trips is 2.06 among nonresident hunters and 4.95 among nonresident anglers. The mean length of such trips are 3.18 days among nonresident hunters and 5.70 days among nonresident anglers. Typically, these trips are mainly for nonresident hunters and anglers to visit family or friends or as a vacation in general.



Q165. How long, in days, do you typically stay in Maryland for a trip in which [hunting/fishing] is not your main reason for going? (Asked of those who traveled to Maryland to [hunt / fish] in the past 3 years and who had at least one trip in which [hunting / fishing] was not the primary reason for visiting Maryland.)



Q168. What is typically your main reason for visiting Maryland when [hunting / fishing] is not your main reason for going? (Asked of those who [hunted / fished] in Maryland in the past 3 years but at least once [hunting / fishing] was not the primary reason.)



CROSSOVER PARTICIPATION BETWEEN HUNTING AND FISHING

The survey asked nonresident hunters if they had gone fishing in the past 3 years, and they asked nonresident anglers if they had gone hunting—in other words, if they had done fishing or hunting as a crossover activity. More hunters had gone fishing (62% of them had) than anglers had gone hunting (36%). Nonetheless, both these percentages represent robust participation in the crossover activity. These results give a relative idea of the size of the crossover market. Another graph shows that just over two thirds of these recreationists are quite avid, doing the crossover activity all 3 of the past 3 years.





The survey identified hunters who had fished outside of their state of residence but the other state(s) was not Maryland. Likewise, anglers who had hunted outside their state of residence but not in Maryland were also identified. These respondents were asked for the main single reason that they had not done the activity in Maryland. Lack of time, lack of interest, and already having a place to do the activity are the most common responses.



Interest in doing the crossover activity in Maryland is middling; for both nonresident hunters and nonresident anglers, the most common rating on the 0 to 10 scale is 0. Nonetheless, there are some people expressing interest: 22% of nonresident hunters and 12% of nonresident anglers give the highest rating of 10 for their interest in doing the crossover activity in Maryland.



KNOWLEDGE OF HUNTING/FISHING OPPORTUNITIES IN MARYLAND

Nearly three quarters of nonresident hunters (74%) and two thirds of nonresident anglers (66%) know a *great deal* or *moderate amount* about hunting/fishing opportunities in Maryland.



QUALITY RATINGS OF HUNTING AND FISHING IN MARYLAND AND IN OTHER STUDY STATES

One set of questions asked nonresident hunters/anglers to rate the quality of hunting/fishing opportunities in the study states as well as in Maryland. The results are shown all together and then for each state compared to Maryland. Because there was a high percentage of *don't know* responses, particularly for the study states because so many respondents had not been to those states for the activity, the *don't know* responses were removed and the percentages run.

Maryland received higher ratings than any other state, both the means, as shown in the graph below, as well as in the percentages giving a rating of 10 (with the exception of anglers regarding Pennsylvania, where the percentages giving a rating of 10 are the same), as shown in the individual state graphs that start on the following page.





Q25. How about Delaware? (How would you rate the quality of fishing opportunities in this state, on a scale of 0 to 10, where 0 is poor and 10 is excellent?)











Q28. How about New York? (How would you rate the quality of fishing opportunities in this state, on a scale of 0 to 10, where 0 is poor and 10 is excellent?)





Q29. How about Pennsylvania? (How would you rate the quality of fishing opportunities in this state, on a scale of 0 to 10, where 0 is poor and 10 is excellent?)




Q30. How about Virginia? (How would you rate the quality of fishing opportunities in this state, on a scale of 0 to 10, where 0 is poor and 10 is excellent?)





Q31. How about West Virginia? (How would you rate the quality of fishing opportunities in this state, on a scale of 0 to 10, where 0 is poor and 10 is excellent?)



Another analysis compared ratings of hunting/fishing experiences in the respondents' home states with those in Maryland. It may be that some amount of dissatisfaction with home states' hunting/fishing is prompting some of these nonresident hunters/anglers to go to Maryland. This is particularly true of hunters: 76% of hunters are satisfied with their home states, compared to 98% of nonresident hunters hunting in Maryland. Likewise, 79% of anglers are satisfied with their home states, compared to 91% of nonresident anglers fishing in Maryland.





A question in a similar vein asked nonresident hunters and anglers directly how hunting/fishing opportunities in Maryland compared to the opportunities in their home states. For both groups, the most common response was that Maryland has better opportunities than their home state: 49% of nonresident hunters and 44% of nonresident anglers said Maryland was better. The next most common response was *about the same* (both hunters and anglers at 37%), leaving only low percentages in the *worse* or *don't know* responses.



Based on the respondents' ratings of their likelihood to recommend Maryland for hunting/fishing, it would appear that Maryland would get good word-of-mouth from these nonresident hunters and anglers. The question used a 0 to 10 scale, where 0 was not at all likely and 10 was extremely likely. Nearly half of each group (49% and 47%) gave the highest rating to their likelihood, and 86% of hunters and 87% of anglers gave a rating above the midpoint of 5. In other words, it would seem to be efficacious if Maryland could prompt these people to talk about hunting/fishing in Maryland and even organize outings with their friends and family.



Those nonresident hunters and anglers, regardless of whether they had hunted/fished in Maryland, were asked to rate several aspects of hunting/fishing in Maryland, using a 0 to 10 scale where 0 is poor and 10 is excellent. Among nonresident hunters, health of game in Maryland is the top-rated aspect (a mean of 8.91), followed by three more aspects at nearly 8 or better: quantity of game (8.14), chances of harvest success (8.00), and the seasons (7.90). Other aspects were not rated as highly, with the poorest ratings going to cost of licenses and permits (6.34) and access to private lands (6.26).



Among anglers, three aspects have mean ratings over 8: access to water (8.22), health of fish (8.14), and boating access (8.10). On the other hand, the lower rated aspects include the cost of licenses and permits and quantity of fish/harvest success.



MOTIVATIONS FOR HUNTING/FISHING IN MARYLAND

The survey explored motivations for hunting and fishing in Maryland. The top reason by far that nonresident hunters go hunting in Maryland is to be with family and friends (given by 26% of nonresident hunters). This is more distantly followed by three aspects: for the sport/recreation (16%), for the meat (13%), and because there is good game in Maryland (11%).

Among nonresident anglers, for the sport/recreation is the top reason by far (28%), followed by being with family and friends (16%) and for relaxation (15%).





Trends were run on the motivation questions (showing just the top responses). Among nonresident hunters, being with family and friends as a reason to hunt in Maryland increased in 2019 over 2014, while there was a drop in nearly all other reasons, particularly hunting for the sport/recreation, for relaxation, and for the meat. Likewise, in the trends regarding reasons to fish in Maryland, the same phenomenon was seen: there is an increase in the percentage in 2019

fishing in Maryland to be with family and friends, while there was a drop in those doing it for the sport/recreation and for relaxation. Note that good access as a reason was mentioned in 2019 but not mentioned at all in 2014.



Q106. What is your most important reason for fishing in Maryland? (Asked of those who fished in Maryland in the past 3 years.) (Anglers) 100 ■2014 □2019 80 Percent 60 43 40 33 28 15 <u>16</u> 20 9 9 8 6 3 4 2 1 0 0 For the sport For To be with To catch Good / To be close To catch a and relaxation family and fresh fish to convenient to nature large fish friends recreation eat access

The survey asked about things that influenced nonresident hunters and anglers to start hunting/fishing in Maryland. Friends and family were prominent as influencers, being the top two responses for both nonresident hunters and anglers. Good access was also an important influencer for nonresident hunters. For nonresident anglers, doing so as part of a vacation is an important influencer as well as friends and family previously mentioned.



CONSTRAINTS TO HUNTING/FISHING PARTICIPATION IN MARYLAND

All respondents were asked to name any disadvantages or difficulties associated with hunting/fishing in Maryland. The distance/travel time was the most common response, although no single response was in the double digits.



TRAVEL DISTANCE TO MARYLAND

Just under half of hunters (48%) and a bit more than half of anglers (55%) typically travel no more than 50 miles to hunt or fish. The obvious implication is that most portions of the study states, with the exception of Delaware, are located more than 50 miles from Maryland.



To further explore this aspect of hunting, the survey identified the counties from the study states that contributed hunters and anglers to Maryland. The maps show the counties that border (or are very close to) Maryland and those that contributed hunters and anglers to Maryland. Note that Delaware is not shown because all three counties border Maryland and all three counties contributed hunters and anglers to Maryland. The other five states are shown.





















SOURCES OF INFORMATION ON HUNTING AND FISHING

The internet in general (including blogs) is the most popular source for information about hunting/fishing, followed closely by the state fish and wildlife agency (including its website). Social media is another important source. For anglers, a substantial percentage use printed travel or guidebooks. Note that the list was read to respondents. Another graph shows the most popular websites/blogs; most commonly, respondents on this question indicated a general search engine. In this question, no response set was read to the respondents. A third graph shows the social media used; Facebook is the most common social media used for hunting/fishing information.





Q226. Specifically, which social media sites, pages, or feeds do you typically use? (Asked of those who use social media.)



Another question presented five possible sources of information for when respondents were planning trips or booking travel arrangements. Of the five potential sources, personal recommendations from family and friends is, by far, the most used.



FISH & HUNT ADVERTISING CAMPAIGN

Just under half of nonresident hunters (49%) and half of nonresident anglers (50%) had seen advertisements for hunting *or* fishing in Maryland; note that this is not simply a sum of the responses because respondents could select more than one. In the question wording, both activities were asked about. Unlike the rest of the survey where the question wording included only a single activity, both the activities (hunting and fishing) were included in the wording. Nonresident hunters and anglers were asked if they had seen anything about either activity. Most commonly, those who had seen advertisements had seen print ads.



* This is not a sum because respondents could select more than one response; percentage shows those who gave any of those responses.

Those who had seen advertisements for hunting and fishing in Maryland were further explored in an analysis that compares many demographic characteristics in one graph. The graph shows the percentage of various groups who had seen any ads. The analysis suggests that Delaware residents, New Jersey residents, suburban dwellers, Pennsylvania residents, and those in the upper income bracket are more likely to have seen advertisements for hunting and fishing in Maryland, compared to nonresident hunters as a whole. The text box accompanying the graph further explains how to interpret the data.



This analysis was also run on nonresident anglers. It found that nonresident anglers from Delaware, nonresident anglers 35 to 54 years old, and nonresident anglers from West Virginia are the most likely to have seen advertisements for hunting and fishing in Maryland. (Household income is about the same regarding seeing ads—the two income groups are next to each other in the graph. Other than for income, as explained further on, note that one group being above the total bar means that a counterpart group will be below the total bar. For instance, males are above the total bar and females are below, indicating that males are more likely than nonresidents anglers overall to have seen the ads, and females are less likely. The exception to this rule is for income; this is because a third income group actually exists that would be below the total bar, consisting of those who answered "refused" or "don't know" on the income question. However, that group is *not* shown to improve legibility of the graph and because it seems of little utility to include a group identified as "Refused or does not know household income" on the graph.)



Those who had seen ads promoting hunting or fishing in Maryland were asked specifically if they had seen the campaign, *Fish & Hunt Maryland*. Coding the question out of all nonresident hunters and anglers finds that 21% of nonresident hunters had seen the campaign, and 19% of nonresident anglers had seen it.



The multi-demographic characteristic analysis was run on those who had seen the *Fish & Hunt Maryland* campaign. Among nonresident hunters, those from West Virginia were the most likely to have seen the campaign. Other groups who saw the campaign at a higher rate than nonresident hunters overall include those living in small cities and towns, and those in the higher income bracket.



In looking at nonresident anglers, those from New Jersey and West Virginia have a markedly higher percentage who saw the *Fish & Hunt Maryland* campaign. None of the other groups are markedly above the overall percentage.



Of those who had seen the *Fish & Hunt Maryland* campaign, 41% of those nonresident hunters and 36% of those nonresident anglers had visited the *Fish & Hunt Maryland* website. Additionally, 13% of those hunters and 18% of those anglers had visited the campaign's Facebook page.





Those who had interaction with the *Fish & Hunt Maryland* campaign by visiting its website or its Facebook page were asked to rate its effectiveness at increasing their interest in going hunting/fishing in Maryland. Nonresident anglers considered it more effective than did nonresident hunters: the mean among anglers is 5.86, which is just slightly higher than the hunters' mean of 5.52. Another way to examine the data is that 80% of anglers gave a rating of the midpoint (5) or higher, which is just a bit higher than the 71% of hunters who gave a rating of the midpoint or higher.



The Great American Outdoor Show in Harrisburg, Pennsylvania, was attended by 29% of nonresident hunters and 14% of nonresident anglers. Attendees were asked about how much contact they had made with the Maryland booth in the Fishing Pavilion at the Show: just under a quarter of these hunters (22%) and just more than a third of these anglers (37%) had visited the booth. Another 16% of hunters and 23% of anglers saw the booth but did not visit, a sum of 38% of nonresident hunters and 60% of nonresident anglers who had attended the Show.



Q247. Did you see or visit the Maryland booth in the Fishing Pavilion at the show? (Asked of those who attended the Great American Outdoor Show in Harrisburg, Pennsylvania, within the past 2 years.)



In a similar vein, these attendees to the Show were asked about visiting the Maryland booth in the Hunting Pavilion at the Show: 28% of these hunters and 19% of these anglers had visited the Maryland booth, with 40% of these hunters and 33% of these anglers having at least seen the Maryland booth.



SUNDAY HUNTING IN MARYLAND

Well more than half of nonresident hunters (59%) were aware that Maryland had increased its Sunday hunting opportunities in the state. Of those who were aware *and* who had hunted in Maryland in the past 3 years, 42% of them had hunted on a Sunday in Maryland in the past 3 years. Regardless of whether they had hunted in Maryland or not or whether they were aware of the increased Sunday hunting opportunities, they were asked if Sunday hunting opportunities increase or decrease their interest in hunting in Maryland. More than half of nonresident hunters (52%) indicate that this increases their interest.





CHRONIC WASTING DISEASE

Just under half of nonresident hunters (48%) were aware, prior to the survey, that deer harvested in Allegany County, Maryland, in 2010 tested positive for Chronic Wasting Disease (a fatal disease of the brain in deer that is similar to Mad Cow Disease in cattle). Of those who were aware and had hunted in Maryland, 11% indicate that they changed where they hunt in Maryland because of Chronic Wasting Disease. In a separate question, 6% of all nonresident hunters agree that Chronic Wasting Disease has caused them to hunt deer less or not at all in Maryland.







In response to Chronic Wasting Disease, the Maryland Department of Natural Resources created a Chronic Wasting Disease Management Area to help control the spread of the disease. There are regulations regarding transporting a deer carcass harvested in the CWD Management Area outside of the area. After informing respondents of this, the survey then asked all nonresident hunters if the regulations regarding the transport of carcasses from the Management Area had caused them to hunt deer less or not at all in Maryland: 10% of nonresident hunters agreed that the regulations had done so.



EXPENDITURES ON HUNTING/FISHING TRIPS TO MARYLAND

Mean expenditures by nonresident hunters and anglers are shown in the graphs that follow. For nonresident hunters, the "other" expense category, which includes access fees, hunting guide fees, and so forth, is the top expense category.



Q193-Q216. Mean expenditures on each while hunting in Maryland during the 2019-2020 season. (Asked of those who hunted in Maryland during the 2019-2020 season.) (Part 2)



Among nonresident anglers, the top expenses are gas for cars and other land vehicles (as opposed to boat fuel) and food/groceries for the fishing trips.



Q193-Q216. Mean expenditures on each while fishing in Maryland during the 2019-2020 season. (Asked of those who fished in Maryland during the 2019-2020 season.) (Part 2)



ABOUT RESPONSIVE MANAGEMENT

Responsive Management is an internationally recognized survey research firm specializing in natural resource and outdoor recreation issues. Our mission is to help natural resource and outdoor recreation agencies, businesses, and organizations better understand and work with their constituents, customers, and the public.

Focusing only on natural resource and outdoor recreation issues, Responsive Management has conducted telephone, mail, and online surveys, as well as multi-modal surveys, on-site intercepts, focus groups, public meetings, personal interviews, needs assessments, program evaluations, marketing and communication plans, and other forms of human dimensions research measuring how people relate to the natural world for more than 30 years. Utilizing our in-house, full-service survey facilities with 75 professional interviewers, we have conducted studies in all 50 states and 15 countries worldwide, totaling more than 1,000 human dimensions projects and almost \$70 million in research *only* on natural resource and outdoor recreation issues.

Responsive Management has conducted research for every state fish and wildlife agency and every federal natural resource agency, including the U.S. Fish and Wildlife Service, the National Park Service, the U.S. Forest Service, Bureau of Land Management, U.S. Coast Guard, and the National Marine Fisheries Service. Additionally, we have also provided research for all the major conservation NGOs including the Archery Trade Association, the American Sportfishing Association, the Association of Fish and Wildlife Agencies, Dallas Safari Club, Ducks Unlimited, Environmental Defense Fund, the Izaak Walton League of America, the National Rifle Association, the National Shooting Sports Foundation, the National Wildlife Federation, the Recreational Boating and Fishing Foundation, the Rocky Mountain Elk Foundation, Safari Club International, the Sierra Club, Trout Unlimited, and the Wildlife Management Institute. Other nonprofit and NGO clients include the American Museum of Natural History, the BoatUS Foundation, the National Association of Conservation Law Enforcement Chiefs, the National Association of State Boating Law Administrators, and the Ocean Conservancy. As well, Responsive Management conducts market research and product testing for numerous outdoor recreation manufacturers and industry leaders, such as Winchester Ammunition, Vista Outdoor (whose brands include Federal Premium, CamelBak, Bushnell, Primos, and more), Trijicon, Yamaha, and others.

Responsive Management also provides data collection for the nation's top universities, including Auburn University, Clemson University, Colorado State University, Duke University, George Mason University, Michigan State University, Mississippi State University, North Carolina State University, Oregon State University, Penn State University, Rutgers University, Stanford University, Texas Tech, University of California-Davis, University of Florida, University of Montana, University of New Hampshire, University of Southern California, Virginia Tech, West Virginia University, Yale University and many more.

Our research has been upheld in U.S. Courts, used in peer-reviewed journals, and presented at major wildlife and natural resource conferences around the world. Responsive Management's research has also been featured in many of the nation's top media, including *Newsweek*, *The Wall Street Journal*, *The New York Times*, CNN, National Public Radio, and on the front pages of *The Washington Post* and *USA Today*.

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