

Responsive Management Report



Specializing in Survey Research on Natural Resource and Outdoor Recreation Issues

Fall 2016

The Human Dimensions of Fish and Wildlife Management in Maine



For the past year, Responsive Management has been working with the Maine Department of Inland Fisheries and Wildlife (the Department) on a series of human dimensions studies to provide the agency with new insights into Maine residents' attitudes toward the agency itself as well as big game and freshwater fisheries management in the state. Through Responsive Management's extensive data collection and consultation based on decades of human dimensions

research, the Department is tailoring its communications and marketing strategies affecting how the public perceives the agency, its priorities, and its accomplishments.

The Department is also in the process of applying the research findings to the new iterations of its big game and freshwater fisheries management plans. "Over the past few months, Responsive Management has provided the most comprehensive assessment of stakeholder opinions and attitudes our agency has ever had," says Nate Webb, special projects coordinator with the Department. "Thanks to their efforts, we now have a solid foundation on which to base our management plans for big game and freshwater fisheries." With new data regarding Mainers' opinions on the management of black bear, moose, deer, and turkey

(Maine's four primary big game species), as well as the state's multitude of freshwater fish species (including the iconic brook trout), the Department is better able to balance biological goals and objectives with the needs and preferences of residents.

continued on page 2



Inside

The Process: An Overview of Project Methodologies	2
Communications Plan.....	2
Big Game and Fisheries Management Plans.....	3
The Findings: An Overview of Project Results	4
Communications Plan.....	4
Big Game Management Plan.....	6
Freshwater Fisheries Management Plan.....	7
Responsive Management	8

continued from page 1

The first of the three studies, which resulted in the new agency-wide communications and marketing plan, was initiated in June 2015; the final research for the updated big game and fisheries management plans was completed the following June. Data collection for the three projects involved Maine general population residents, hunters, anglers, wildlife viewers, trappers, boaters, and landowners, and included surveys, focus groups, public meetings, and interactive online “Town Hall” discussion forums.

To develop the communications and marketing plan for the agency, Responsive Management partnered with Mile Creek Communications, a firm specializing in strategic marketing and communications for the conservation and outdoor recreation community. The newly created communications roadmap was written to raise overall public awareness and support for the Department’s mission, programs, and projects, and to measurably increase support for and participation in activities and programs administered by the Department. More generally, the plan was designed to strengthen the agency’s relationship with residents.

The other two studies centered on the human dimensions of wildlife and fisheries management. Historically, the Department has updated its big game and fisheries management plans every 15 years, partly based on input from working groups made up of citizen stakeholders, landowners, sportsmen’s groups, wildlife and conservation nonprofits, and tourism groups. For the new plans, the Department was interested in expanding the public input process so that as many Maine residents as possible could participate in the planning. Thus, rather than engaging only a small number of key individuals, the new management plans were developed based on input from thousands of Maine residents.

The Process: An Overview of P

Data Collection for the Department’s Communications and Marketing Plan

To ensure that the Department moved forward with the most current and accurate data, Responsive Management conducted substantial research with Maine residents and core agency constituent groups.

Planning Workshop. To kick off the project, Responsive Management Executive Director Mark Damian Duda and Mile Creek Communications President Jodi Valenta coordinated a day-long planning workshop with Department personnel. The workshop allowed for an open-ended discussion about the agency’s recent history, current direction, mission statement, and goals as an organization.

Research Review. The next step in the development of the plan was a thorough review of relevant research; this component examined data from 33 sources pertaining to outdoor recreation participation trends, recreational expenditures, and residents’ attitudes toward wildlife management and associated values.

Scientific Multi-Modal Survey of Maine Residents and Agency Constituents. Responsive Management then conducted a scientific probability-based random sample survey of Maine residents and key agency constituent groups, namely hunters, anglers, wildlife viewers, trappers, and boaters. The survey provided new quantitative data regarding participation in various activities, awareness and knowledge of the Department and its programs, conservation and wildlife values, and attitudes toward Department priorities and decision-making.

To ensure that every Maine resident had an equal chance of being contacted for the survey, the overall general population sample included both telephone and mail components. The constituent groups were surveyed using Department licensing and registration records; these individuals were contacted by telephone, mail, and email. The overall survey sample was stratified based on three regions (northeast, central, and south). In total, 2,118 surveys were completed with residents and constituents.

Responsive Management conducted extensive crosstabulations comparing various subgroups within the data; these analyses examined regional differences in attitudes, opinions, and participation rates, as well as differences between residents and the various constituent groups.

Focus Groups With Maine Residents and Agency Constituents. Responsive Management next conducted two focus groups with Maine residents and agency constituents to obtain qualitative data expanding on the survey results. The first group was conducted in Portland with a sample of Maine general population residents. The second group was conducted in Bangor with a sample of agency constituents (hunters, anglers, wildlife viewers, trappers, and boaters were represented in the group). In addition to examining some of the same topics from the survey, the focus groups explored potential messaging themes and topics, opinions on potential agency spokespersons, and delivery methods for information and outreach from the Department.

All of these components were instrumental in formulating a comprehensive, data-based communications and marketing plan for the Department.

Project Methodologies

Data Collection for the Department's Big Game and Fisheries Management Plans

Like the communications and marketing plan, the big game and freshwater fisheries management plans were updated based on new data with Maine residents, hunters, anglers, and landowners.



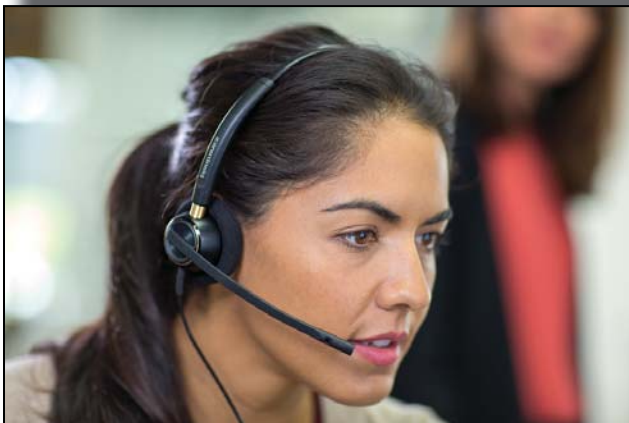
Scientific Multi-Modal Surveys. Each study began with a scientific multi-modal probability-based random sample survey. The big game survey was conducted to determine the opinions of the general population, landowners of large tracts of land, and hunters regarding the management and hunting of deer, moose, bear, and wild turkey. Respondents were contacted by mail (address-based sampling), telephone (random digit dialing), and email (for hunters with an email address).

For the fisheries management project, resident and nonresident licensed anglers were surveyed to determine their participation, practices, and opinions regarding freshwater fishing in the state. After a probability-based random sample was selected from the Department's license database, Responsive Management called selected anglers to administer the survey. When telephone numbers were not available, anglers were sent hard copy letters that included a toll-free number for them to use to schedule a time to complete the survey with an interviewer.

Focus Groups With Maine Residents, Hunters, Anglers, and Landowners. For the big game study, Responsive Management conducted three focus groups on black bear management issues and three focus groups on general big game management issues with Maine residents, including hunters and landowners, in Presque Isle, Orono, and Portland. The Department was also interested in learning specifically about how to best communicate with the public about the bear hunting techniques addressed in a contentious 2014 ballot referendum, in which 47% of Mainers (concentrated mostly in the southern portion of the state) voted to ban bear baiting, trapping, and hunting with dogs. For this reason, Responsive Management conducted a seventh focus group in Portland solely with residents who had voted in support of the proposed ban. For the fisheries study, Responsive Management conducted a total of four focus groups with licensed Maine anglers in Presque Isle, Orono, Farmington, and Portland.

The final stage of data collection for the two studies entailed an extensive public input process:

Regional Public Meetings. For the big game study, Responsive Management facilitated six public meetings, including three on black bear management and three on general big game management; a meeting on each topic was held in Presque Isle, Orono, and Portland. For the fisheries study, four public meetings were held in the same locations as well as in Farmington. The public meetings provided open forums in which Maine residents could share their thoughts on priority issues and concerns. Department biologists and wardens attended each meeting in uniform and responded to comments and questions.



Online "Town Hall" Discussion Forums. To provide a further opportunity for Maine residents to contribute input, Responsive Management facilitated online forums featuring open-ended discussion threads. Commenters could address basic questions on the study topics through a typical online discussion format. The forums were launched via news releases distributed to media outlets and blogs as well as by email from the Department.

Throughout each study, Responsive Management collected additional public input via emails and letters from residents, all of which was incorporated into the final reports.

The Findings: An Overview

Communications and Marketing Plan for the Department



Responsive Management's research determined that the Maine Department of Inland Fisheries and Wildlife is a highly regarded state fish and wildlife agency—both the Maine general public and core agency constituent groups (hunters, anglers, boaters, and trappers) expressed high

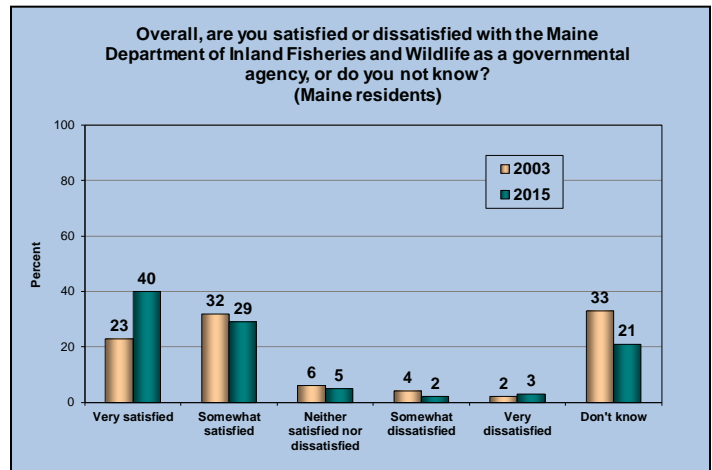
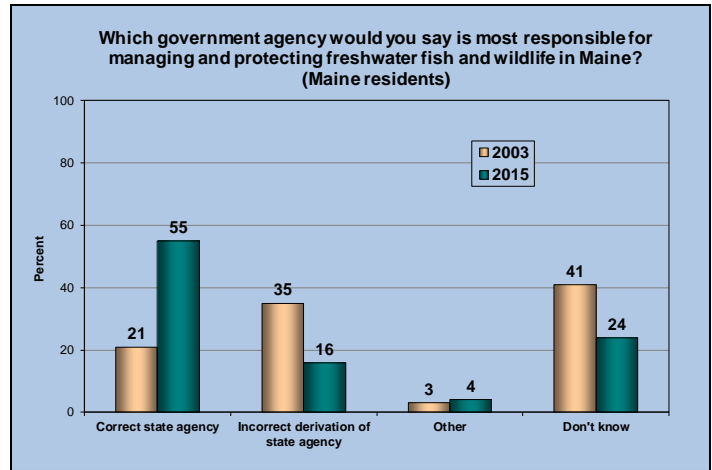
levels of awareness of and satisfaction with the agency. In fact, comparisons with a survey from 2003 indicate that the Department has made remarkable strides in both areas over the past decade (see graphs right).

The research also found that the Department is widely viewed as a very credible source of information on fish, wildlife, and outdoor recreation: in a ranking of eight different potential sources, the top two entities in the list (i.e., those with the highest credibility ratings) are a Department game warden and a Department biologist (see graph at bottom left).

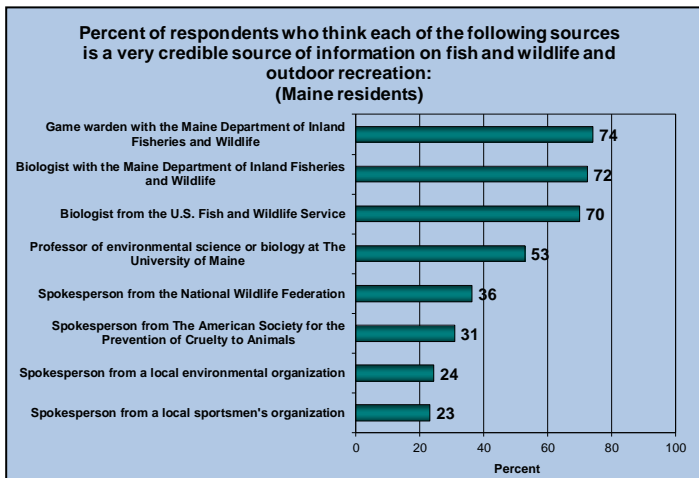
One of the only apparent deficits in ratings of the Department's current efforts was in the area of communications. Qualitative findings from the study also reinforced the impression that Mainers simply would like to know and hear more about what the agency is doing.

Based on the data, some of the top recommendations for increasing awareness of and support for the Department and its programs included the following:

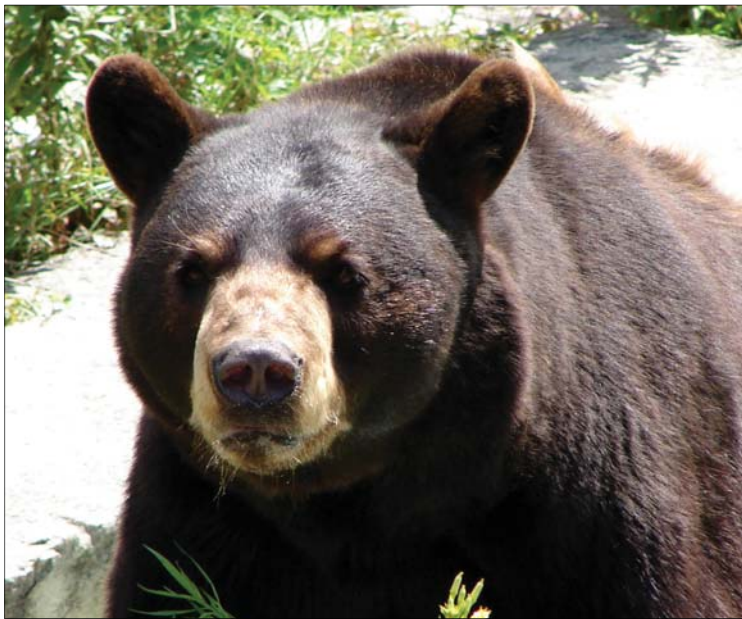
- Create a unified look for the Department to ensure consistent and recognizable branding
- Recognize that all Department staff are potential agency spokespersons, as communication with the public goes far beyond the responsibility of an information and education division alone



- Promote the concept of “a healthy Maine,” a theme that resonated in the focus groups
- Distribute messages taking full advantage of the Department's credibility
- Enlist two different Department spokespersons, ideally a biologist and a game warden
- Maintain continuous communication with the public—do not wait to build support and awareness
- Recognize the importance of water quality issues, a top issue of concern as determined by the survey
- Emphasize the Department's biological and ecological programs, which Mainers view as highly important
- Use familiarity with the Maine Loon License Plate and the Maine Wildlife Park (two prominent sources of Department name recognition) as gateways to more detailed information about the agency
- Develop communications specific to key groups
- Ensure that core constituent groups are aware of the agency programs relevant to them
- Use popular mainstream entertainment like *North Woods Law* (a reality TV program about Maine game wardens) and associated Twitter followers to engage the public



view of Project Results



Another set of recommendations focused entirely on ways to increase participation in activities overseen or managed by the Department, the second major objective of the study:

- **Enlarge, rather than shift, the Department's management of and focus on outdoor recreation**
- **Recognize the importance of game species to wildlife viewing, beyond just hunting**
- **Use wildlife viewing as an entry point for more detailed communications about agency efforts**
- **Ensure the Department's essential coordination with recreational providers by taking an active role in the next Maine SCORP planning process (while the Department lacked the resources to participate in the last SCORP, its participation would have been very worthwhile)**
- **Promote activities according to the survey findings on latent demand for various recreational pursuits**
- **Emphasize the locavore appeal of hunting and fishing, especially to engage nontraditional audiences**
- **Recognize the differences in attitudes toward hunting in the southern and northern parts of Maine**
- **Strive to improve access for various outdoor recreation activities through programs and continuously communicate such improvements**
- **Recognize that social constraints are bigger obstacles to outdoor recreation participation than resource or structural constraints**
- **Cross-market outdoor recreation activities to the relevant groups**

Based on the research findings, the plan developed by Responsive Management and Mile Creek Communications recommended an overall marketing theme centered on the concept of "a healthy Maine," particularly as the term "health" lends itself to multiple relevant meanings (the

health of fish and wildlife resources, the health of Maine citizens actively engaged in outdoor recreation, the health of the state economy, etc.). Finally, the plan included a detailed set of steps on how to implement communications, marketing, and public relations efforts—a few of the most important ones included the following:

- **Increase the number of Department staff positions dedicated to marketing, communications, and public relations:** recommended new staff included a webmaster, graphic designers, writers, social media coordinators, and videographers to create educational online publications, videos, and podcasts
- **Improve data collection efforts to better utilize databases:** focus on building lists of nontraditional users and improving targeting capabilities through data mining
- **Fully implement the branding and theme tied to "a healthy Maine"**
- **Update and modernize the Department website:** the goal is a user-friendly, visually appealing, mobile-friendly site with corresponding apps for specific audiences (e.g., maps for recreationists)
- **Increase frequency of communication with traditional audiences and implement new outreach to nontraditional users:** use Department mailing lists to communicate biological and ecological efforts, followed by recreational opportunities
- **Improve media relations:** ensure that information is readily available and accessible, and focus efforts on content that educates nontraditional users about the Department's successes
- **Consider implementing a new funding source:** a new dedicated source of funds would help to engage nontraditional users and provide support for conservation efforts affecting all natural resources
- **Maintain key relationships:** traditional (hunters, anglers, boaters, and trappers) and nontraditional audiences (wildlife viewers, hikers, canoeists, kayakers, etc.), as well as key media (outdoor, online, special interest, etc.)

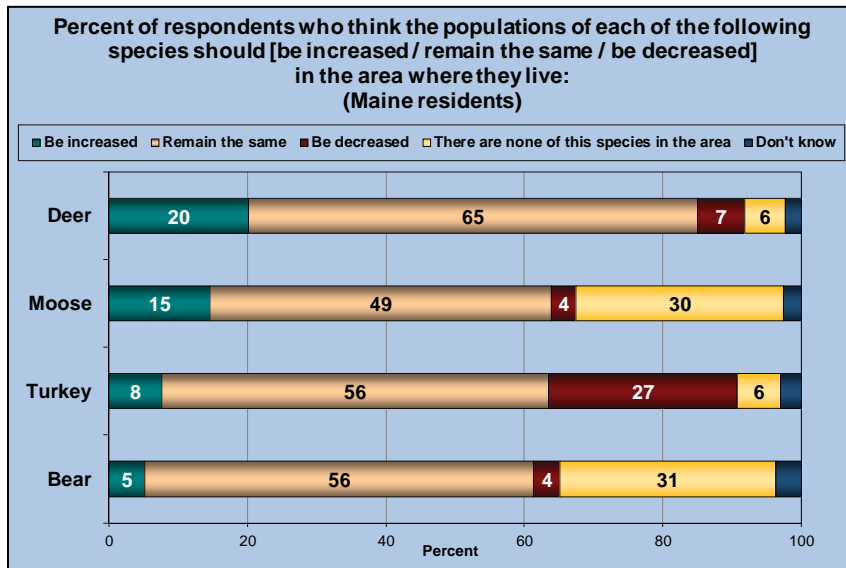


The Findings: An Overview of

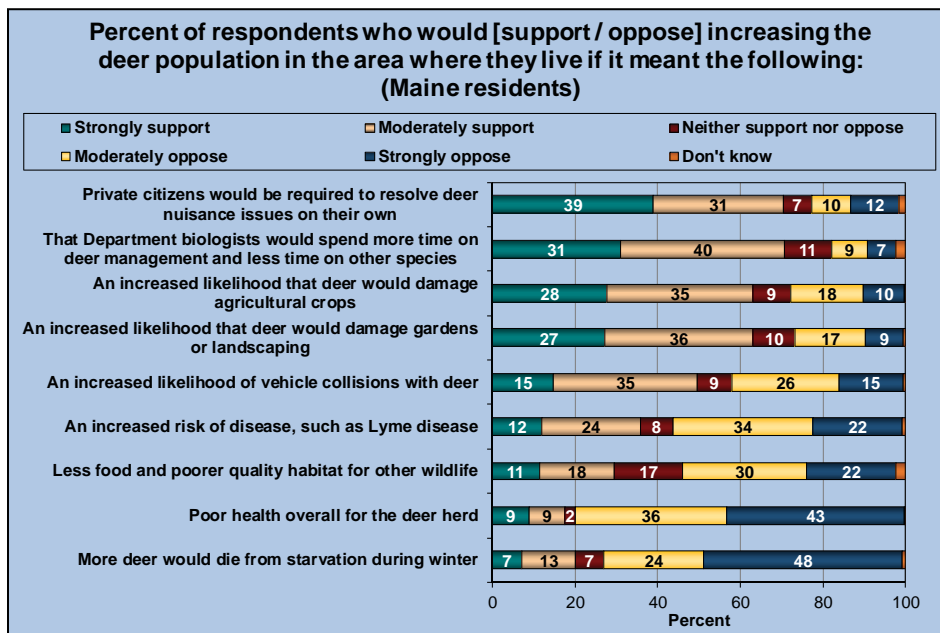
The Human Dimensions of Big Game Management

Responsive Management’s research to examine Maine residents’ attitudes toward big game species touched on many individual topics within the larger context of black bear, deer, moose, and turkey management in the state. The survey of residents, landowners, and hunters, for example, explored interest in and knowledge of wildlife, participation in hunting (including opinions on access, licensing and fees, regulations, and potential constraints), land management issues, problems experienced with wildlife, and opinions on each of the four big game species.

Attitudes toward current population levels and reasons for wanting an increase or decrease in the population of



Note that the numbers were removed from the “don’t know” portions of the graph bars for overall legibility.



a certain species were covered extensively in the research. As shown in the graph (left), residents most commonly feel that the deer, moose, turkey, and bear populations in the area where they live should remain the same. Interestingly, those who desire an increase in a population are most likely to reconsider when faced with negative ecological consequences. For example, large majorities of those who favored an increase in deer reversed their opinion when consequences of the increase included poor health of the herd, more deer dying of starvation during the winter, and an increased risk of Lyme disease (see graph bottom left).

Black bear, a prominent species eliciting concern over both its well-being and the potential for its population to expand problematically, was given its own specific focus in the research.

In addition to focus groups and public meetings devoted solely to black bear issues, Responsive Management conducted a focus group in Portland entirely with residents who had voted “yes” on a 2014 state ballot referendum proposing to ban bear baiting, trapping, and hunting with dogs. While this focus group helped to shed light on perceptions of the fair chase principle, it also revealed that many Maine residents may have the impression that bear baiting, trapping, and hunting with dogs are allowed to occur virtually unchecked—future outreach may therefore focus heavily on the fact that the practices are, in actuality, highly regulated. Some public meeting attendees addressed the same issues.

Project Results (continued)



The Human Dimensions of Freshwater Fisheries Management

Like the big game study, Responsive Management's research with Maine anglers covered numerous topics, including motivations for fishing, attitudes toward various aspects of fisheries management in Maine, opinions on fishing access, opinions on fishing regulations, and a multitude of participation characteristics relating to both open water and ice fishing. To examine potential differences in attitudes among anglers, many of the survey results were crosstabulated by the species fished by anglers and by the average number of days anglers fished.

The research considered every species of freshwater fish in Maine, including black bass, crappie, northern pike, pickerel, perch, landlocked salmon, brook trout, lake trout, brown trout, and many others.

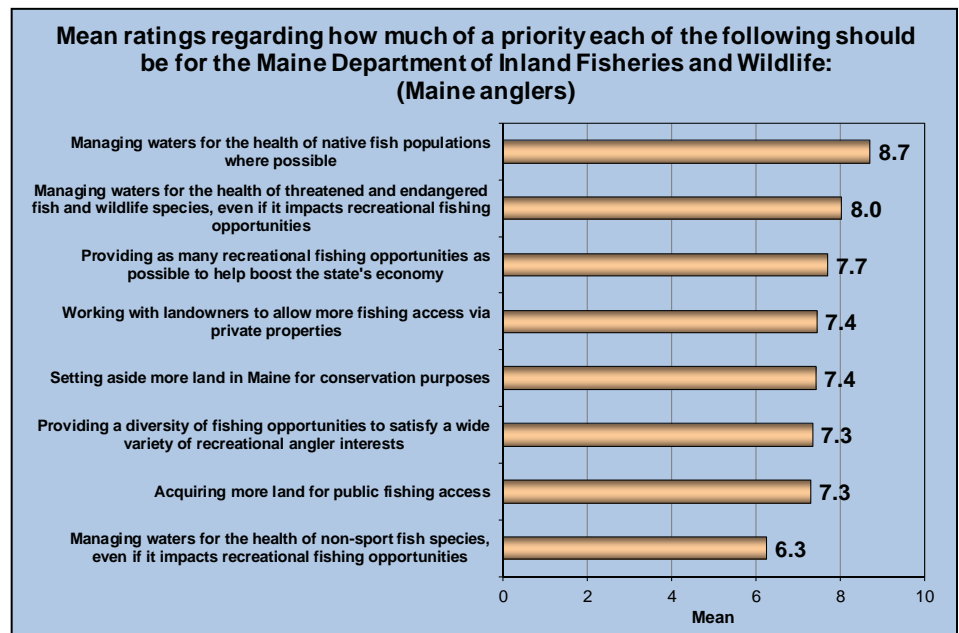
Regarding attitudes toward fishing regulations, the survey found that the most support is for catch-and-release-only waters and low bag limits (both regulations are strongly supported by about three-quarters of Maine anglers). On the other hand, waters where live bait fish are prohibited has only 60% of anglers in strong support, indicating a notable degree of opposition to the regulation.

Another series of questions examined anglers' attitudes toward priorities for fisheries management. Here, the top priorities were found to be the health of native fish populations and the health of threatened and endangered fish and wildlife species (see graph below).

One important consideration applying to both the fisheries and big game management studies concerns the differences between those residents randomly selected to take part in the surveys and focus groups and those who self-selected to participate in the public meetings and online forum discussions. With the latter venues typically attracting only the most engaged constituents (often members of associations or clubs), it is essential to remember that the truly representative picture of attitudes comes from the survey and focus group findings, which are based on randomly selected participants. It is only through random samples, in which each member of the population has an equal chance of being selected, that research studies may be guaranteed to include the perspectives of individuals representing all backgrounds and levels of avidity and knowledge—in other words, the population as a whole.

Consider a finding from the fisheries survey regarding access. While a popular Maine sportsmen's blog decried the quality of access at certain fishing spots, the survey, by contrast, found that nine out of ten anglers had not experienced any access problems during the last season in which they had gone fishing in Maine. In another example, some attendees at the public meetings (typically older and more avid anglers strongly invested in trophy fishing) were surprised to learn that the most common reasons for fishing in Maine—among all anglers—were the social reason of being with family and friends or, more simply, for relaxation.

This newsletter covers only a fraction of the data collected for the studies, which resulted in a total of six quantitative and qualitative reports.





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The Reach of Responsive Management

- Twenty-six years of continuous human dimensions research only on natural resource and outdoor recreation issues
- More than 1,000 research studies, with research conducted in all 50 states and 15 countries worldwide
- Research for every state fish and wildlife agency, most federal resource agencies, and most DNRs
- Research for many NGOs, including the National Wildlife Federation, National Shooting Sports Foundation, National Rifle Association, Archery Trade Association, Izaak Walton League, Rocky Mountain Elk Foundation, Ducks Unlimited, SCI, Dallas Safari Club, and many more
- Research for numerous outdoor recreation industry leaders, such as Winchester, Vista Outdoor (which includes Bushnell, Primos, Federal Premium, etc.), Trijicon, and Yamaha
- Data collection for the nation's top universities, including Stanford, University of Southern California, and Colorado State University

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