Maine Anglers’ Participation in and Opinions on Freshwater Fishing

Presented to the Maine Department of Inland Fisheries and Wildlife
March 1, 2016
Mark Damian Duda, Responsive Management
Focus of Fish and Wildlife Management

Fish and Wildlife Populations

Fish and Wildlife Professionals

Fish and Wildlife Habitats

Human Populations
Responsive Management

Research Update

Recent Studies at Responsive Management

Responsive Management has recently completed more than 30 studies on public opinion on and attitudes toward natural resource, fish and wildlife, and outdoor recreation issues. Currently, we are working on numerous additional studies, including a study on Utah Off-Highway Vehicle (OHV) use, knowledge of environmental impacts of use, and awareness of related marketing campaigns; a survey of Northeast U.S. residents’ to determine attitudes toward and experiences with wildlife causing problems; and an assessment of hunting license marketing campaigns to calculate economic lift and determine the overall effectiveness of different messages and...
Reach of Responsive Management

➢ 1,000 human dimensions projects
➢ Almost $60 million in research
➢ 50 states – 15 countries
➢ Every state fish and wildlife agency and most federal resource agencies; most DNRs and NGOs
➢ Industry leaders such as Yamaha, Winchester, Vista Outdoor (including Bushnell, Primos, Federal Premium, etc.), Trijicon, and many others
➢ Data collection for the nation’s top universities: Auburn 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, and West Virginia University
PRESENTATION OVERVIEW

- Methodology
- Open Water Fishing
- Ice Fishing
- General Attitudes Toward Fishing in Maine
- Opinions on Specific Aspects of Fishing Access
- Attitudes Toward Fishing Regulations in Maine
- Credibility of Information Sources
Methodology
Methodology

- Scientific multi-modal survey of Maine licensed resident and nonresident anglers
  - \( n=1,205 \ (\pm \ 3.16) \)
- Data collected by telephone and mail
- Sampling and analysis by region:
  - Northern
  - Downeast
  - Central
  - Southern
- Survey conducted January–February 2016
Maine Survey Regions
Survey Results
Open Water Fishing
Q13. Did you open water fish on inland ponds, lakes, brooks, streams, or rivers in Maine during the 2015 open water fishing season?

- Yes: 75%
- No: 24%
- Don't know: 1%
Q19. What inland freshwater species did you fish for during the 2015 open water fishing season? (Asked of those who fished in Maine during the 2015 open water fishing season.)

- Trout: 58%
- Bass: 48%
- Salmon - landlocked: 22%
- Perch: 11%
- Pickerel: 7%
- Crappie: 2%
- Northern Pike: 2%
- Salmon - not landlocked: 2%
- Sunfish: 1%
- Char: 1%
- Anything / no particular species: 8%
- Don't know which species fished: 1%

< 1%: Muskellunge, Smelt, Splake, Whitefish

*Multiple Responses Allowed*
Q189. How would you rate the quality of the open water fishing during the 2015 open water season? Would you say excellent, good, fair, or poor? (Asked of those who fished in Maine during the 2015 open water fishing season.)

- Excellent: 22
- Good: 48
- Fair: 21
- Poor: 8
- Don't know: 2

Percent (n=911)
Percent of the following groups who rated open water quality in Maine as excellent or good:

- Education level is bachelors degree or higher: 75%
- Lives in a large city or urban area: 74%
- Lives in Central region: 74%
- Is female: 74%
- Household income is $60,000 or more: 73%
- Younger than the median age (49): 72%
- Is a nonresident: 71%
- Total: 70%
- Is male: 69%
- Lives in Downeast region: 69%
- Lives in a small city/town or rural area: 69%
- Median age (49) or older: 67%
- Education level is less than bachelors degree: 67%
- Lives in Southern region: 66%
- Household income is less than $60,000: 65%
- Lives in Northern region: 55%
Percent of each of the following groups who rated open water fishing quality in Maine as fair or poor:

- Lives in Northern region: 42.4%
- Household income is less than $60,000: 33.8%
- Lives in Southern region: 32.9%
- Education level is less than bachelors degree: 31.2%
- Median age (49) or older: 30.1%
- Is male: 30.0%
- Lives in a small city/town or rural area: 29.7%
- Lives in Downeast region: 29.4%
- Total: 29.0%
- Is a nonresident: 27.8%
- Younger than the median age (49): 27.4%
- Lives in a large city or urban area: 25.5%
- Household income is $60,000 or more: 25.5%
- Education level is bachelors degree or higher: 24.4%
- Lives in Central region: 24.2%
- Is female: 23.5%
Ice Fishing
Q190. Did you ice fish in Maine during the 2015 ice fishing season?

- Yes: 23%
- No: 77%
- Don't know: 0%

(Percent n=1205)
Q196. What inland freshwater species did you ice fish for during the 2015 ice fishing season? (Asked of those who ice fished in Maine during the 2015 ice fishing season.)

<table>
<thead>
<tr>
<th>Species</th>
<th>Percent (n=298)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trout</td>
<td>64</td>
</tr>
<tr>
<td>Salmon - landlocked</td>
<td>31</td>
</tr>
<tr>
<td>Bass</td>
<td>16</td>
</tr>
<tr>
<td>Northern Pike</td>
<td>8</td>
</tr>
<tr>
<td>Perch</td>
<td>7</td>
</tr>
<tr>
<td>Pickerel</td>
<td>6</td>
</tr>
<tr>
<td>Crappie</td>
<td>4</td>
</tr>
<tr>
<td>Salmon - not landlocked</td>
<td>4</td>
</tr>
<tr>
<td>Cusk</td>
<td>3</td>
</tr>
<tr>
<td>Smelt</td>
<td>3</td>
</tr>
<tr>
<td>Splake</td>
<td>3</td>
</tr>
<tr>
<td>Whitefish</td>
<td>11</td>
</tr>
<tr>
<td>Anything / no particular species</td>
<td>12</td>
</tr>
<tr>
<td>Don't know which species fished</td>
<td>0</td>
</tr>
</tbody>
</table>

< 1%: Bullhead, Char, Muskellunge, Sunfish

*Multiple Responses Allowed
Q357. How would you rate the quality of the ice fishing during the 2015 ice fishing season? Would you say it was excellent, good, fair, or poor? (Asked of those who ice fished in Maine during the 2015 ice fishing season.)

- Excellent: 19
- Good: 43
- Fair: 25
- Poor: 13
- Don't know: 1

Percent (n=298)
Percent of each of the following groups who rated ice fishing quality in Maine as excellent or good:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is a nonresident</td>
<td>75.9</td>
</tr>
<tr>
<td>Lives in Downeast region</td>
<td>72.7</td>
</tr>
<tr>
<td>Is male</td>
<td>64.8</td>
</tr>
<tr>
<td>Education level is less than bachelors degree</td>
<td>63.9</td>
</tr>
<tr>
<td>Median age (49) or older</td>
<td>63.2</td>
</tr>
<tr>
<td>Household income is $60,000 or more</td>
<td>63.0</td>
</tr>
<tr>
<td>Lives in a small city/town or rural area</td>
<td>62.8</td>
</tr>
<tr>
<td>Lives in Southern region</td>
<td>62.3</td>
</tr>
<tr>
<td>Total</td>
<td>61.4</td>
</tr>
<tr>
<td>Lives in Central region</td>
<td>60.0</td>
</tr>
<tr>
<td>Younger than the median age (49)</td>
<td>59.6</td>
</tr>
<tr>
<td>Education level is bachelors degree or higher</td>
<td>55.6</td>
</tr>
<tr>
<td>Lives in a large city or urban area</td>
<td>55.5</td>
</tr>
<tr>
<td>Household income is less than $60,000</td>
<td>55.0</td>
</tr>
<tr>
<td>Lives in Northern region</td>
<td>41.9</td>
</tr>
<tr>
<td>Is female</td>
<td>36.0</td>
</tr>
</tbody>
</table>
Percent of each of the following groups who rated ice fishing quality in Maine as fair or poor:

- Is female: 58.1%
- Lives in Northern region: 56.8%
- Household income is less than $60,000: 44.5%
- Lives in a large city or urban area: 44.5%
- Education level is bachelors degree or higher: 41.9%
- Younger than the median age (49): 39.2%
- Lives in Central region: 38.3%
- Total: 37.8%
- Lives in Southern region: 37.7%
- Median age (49) or older: 36.4%
- Lives in a small city/town or rural area: 36.2%
- Education level is less than bachelors degree: 35.9%
- Household income is $60,000 or more: 35.5%
- Is male: 35.1%
- Lives in Downeast region: 25.8%
- Is a nonresident: 24.1%
General Attitudes Toward Fishing in Maine
Q358. Which fishing season do you enjoy the most: the open water fishing season, the ice fishing season, or do you enjoy both seasons equally? (Asked of those who fished open water and ice fished in Maine during the 2015 fishing season.)

- Open water fishing season: 37%
- Ice fishing season: 19%
- Both seasons equally: 42%
- No preference: 2%
Q465. What is your state of residence? (Asked of those with nonresident licenses.)

- Massachusetts: 34
- New Hampshire: 10
- Pennsylvania: 8
- Connecticut: 6
- Florida: 6
- Vermont: 5
- New Jersey: 4
- New York: 4
- Virginia: 3
- Maryland: 2
- Rhode Island: 2
- North Carolina: 2

*26 states with representation < 2% not shown*
Q360. What was your primary reason for fishing in Maine over the past 5 years?

- To be with family and friends: 31%
- For relaxation: 31%
- For the sport: 25%
- To be close to nature: 8%
- To catch fresh fish for food: 4%
- To catch large or trophy fish: 1%
- None of the above: 0%
- Don't know: 0%
Q361. Over the past 5 years, would you say your fishing activity in Maine has increased, decreased, or remained about the same?
Percent of each of the following groups whose fishing activity in Maine has increased in past 5 years:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lives in Southern region</td>
<td>30.2</td>
</tr>
<tr>
<td>Younger than the median age (49)</td>
<td>27.1</td>
</tr>
<tr>
<td>Household income is less than $60,000</td>
<td>24.3</td>
</tr>
<tr>
<td>Education level is less than bachelors degree</td>
<td>24.2</td>
</tr>
<tr>
<td>Household income is $60,000 or more</td>
<td>23.7</td>
</tr>
<tr>
<td>Is female</td>
<td>23.5</td>
</tr>
<tr>
<td>Lives in a small city/town or rural area</td>
<td>23.0</td>
</tr>
<tr>
<td>Total</td>
<td>22.7</td>
</tr>
<tr>
<td>Lives in Central region</td>
<td>22.7</td>
</tr>
<tr>
<td>Is male</td>
<td>22.6</td>
</tr>
<tr>
<td>Lives in a large city or urban area</td>
<td>21.3</td>
</tr>
<tr>
<td>Lives in Downeast region</td>
<td>21.0</td>
</tr>
<tr>
<td>Education level is bachelors degree or higher</td>
<td>20.9</td>
</tr>
<tr>
<td>Is a nonresident</td>
<td>20.2</td>
</tr>
<tr>
<td>Median age (49) or older</td>
<td>19.3</td>
</tr>
<tr>
<td>Lives in Northern region</td>
<td>13.5</td>
</tr>
</tbody>
</table>
Percent of each of the following groups whose fishing activity in Maine has decreased in past 5 years:

- Lives in Southern region: 29.7%
- Lives in Northern region: 29.0%
- Lives in Downeast region: 27.0%
- Household income is less than $60,000: 27.0%
- Median age (49) or older: 25.3%
- Education level is less than bachelors degree: 24.8%
- Lives in Central region: 24.6%
- Is male: 24.0%
- Lives in a small city/town or rural area: 23.7%
- Total: 23.7%
- Lives in a large city or urban area: 23.3%
- Is female: 22.2%
- Education level is bachelors degree or higher: 21.8%
- Younger than the median age (49): 21.6%
- Household income is $60,000 or more: 19.8%
- Is a nonresident: 18.0%
Q364. Do you agree or disagree that Maine's freshwater fishery resources are currently well managed by the Department of Inland Fisheries and Wildlife?

- Strongly agree: 57
- Moderately agree: 28
- Neither agree nor disagree: 4
- Moderately disagree: 4
- Strongly disagree: 3
- Don't know: 5

Total respondents: 1205

85% of respondents agree or moderately agree.
Percent of each of the following groups who agree that Maine's freshwater fishery resources are currently well managed by the Department of Inland Fisheries and Wildlife:

- Is female: 87.5%
- Lives in Southern region: 87.1%
- Younger than the median age (49): 86.9%
- Household income is less than $60,000: 86.8%
- Household income is $60,000 or more: 86.2%
- Education level is less than bachelors degree: 86.0%
- Lives in a small city/town or rural area: 85.4%
- Lives in Central region: 85.2%
- Total: 84.9%
- Is male: 84.3%
- Is a nonresident: 84.2%
- Lives in a large city or urban area: 83.6%
- Education level is bachelors degree or higher: 83.5%
- Median age (49) or older: 82.9%
- Lives in Northern region: 81.5%
- Lives in Downeast region: 81.5%
Percent of each of the following groups who disagree that Maine's freshwater fishery resources are currently well managed by the Department of Inland Fisheries and Wildlife:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lives in Northern region</td>
<td>13.0</td>
</tr>
<tr>
<td>Lives in Central region</td>
<td>8.4</td>
</tr>
<tr>
<td>Lives in a small city/town or rural area</td>
<td>7.9</td>
</tr>
<tr>
<td>Median age (49) or older</td>
<td>7.7</td>
</tr>
<tr>
<td>Is male</td>
<td>7.5</td>
</tr>
<tr>
<td>Lives in Southern region</td>
<td>7.4</td>
</tr>
<tr>
<td>Household income is less than $60,000</td>
<td>7.1</td>
</tr>
<tr>
<td>Education level is less than bachelors degree</td>
<td>7.0</td>
</tr>
<tr>
<td>Lives in Downeast region</td>
<td>7.0</td>
</tr>
<tr>
<td>Total</td>
<td>6.6</td>
</tr>
<tr>
<td>Household income is $60,000 or more</td>
<td>6.4</td>
</tr>
<tr>
<td>Education level is bachelors degree or higher</td>
<td>5.8</td>
</tr>
<tr>
<td>Younger than the median age (49)</td>
<td>5.5</td>
</tr>
<tr>
<td>Is a nonresident</td>
<td>3.5</td>
</tr>
<tr>
<td>Is female</td>
<td>2.7</td>
</tr>
<tr>
<td>Lives in a large city or urban area</td>
<td>2.6</td>
</tr>
</tbody>
</table>
Q368-Q374. Percent of respondents who strongly or moderately support each of the following regulations:

- Waters that are catch-and-release only: 77%
- Low bag limits: 73%
- Slot limits: 66%
- Waters that are fly fishing only: 65%
- Waters that are artificial lures only: 63%
- High length limits: 62%
- Waters where live bait fish are prohibited: 60%
Respondents' mean rating of how much each of the following should be a priority for the Department of Inland Fisheries and Wildlife:

- Managing waters for the health of native fish populations where possible: 8.7
- Managing waters for the health of threatened and endangered fish and wildlife species, even if it impacts recreational fishing opportunities: 8.0
- Providing as many recreational fishing opportunities as possible to help boost the state's economy: 7.7
- Working with landowners to allow more fishing access via private properties: 7.4
- Setting aside more land in Maine for conservation purposes: 7.4
- Providing a diversity of fishing opportunities to satisfy a wide variety of recreational angler interests: 7.3
- Acquiring more land for public fishing access: 7.3
- Managing waters for the health of non-sport fish species, even if it impacts recreational fishing opportunities: 6.3
Respondents' mean rating of the importance of each of the following to them personally in deciding where to fish in Maine:

- That the area offers solitude and pristine views of nature: 7.9
- That the water body offers the type of fishing that I prefer: 7.7
- That the water body has easy access: 7.1
- That the water body allows the type of tackle that I prefer: 7.0
- That the water body offers a variety of fish species to be caught there: 6.9
- That the water body is managed for a large quantity of the fish: 6.7
- That the water body is managed for high quality fish, but less quantity: 6.7
- That my camp, cabin, or home is on or near the body of water: 6.6
Opinions on Specific Aspects of Fishing Access
Q413. Did you have any problems accessing waters you fished or wished to fish during the last season in which you went fishing in Maine? If yes, what were they?

- No, did not experience any access problems: 91%
- Land closed / posted: 4%
- Poor maintenance of access areas: 1%
- Lack of areas to fish in general: 1%
- Crowded access areas: 1%
- Unable to find place to launch a boat: 1%
- Not sure where to go: 1%
- No parking: 0%
- Had to travel too far to fish: 0%
- Other: 2%
- Don’t know: 0%

[Multiple Responses Allowed]
Q420. Overall, in the past 5 years, would you say fishing access in Maine has gotten better, gotten worse, or stayed about the same?
Q421. Do you agree or disagree that there are an adequate number of state owned boat ramps in Maine?

- Strongly agree: 32
- Moderately agree: 36
- Neither agree nor disagree: 4
- Moderately disagree: 7
- Strongly disagree: 6
- Not applicable / never needs them: 5
- Don't know: 11

(Percent n=1205)
Attitudes Toward Fishing Regulations in Maine
Q423. How often do you look for information about fishing regulations in Maine?

- Always: 30%
- Frequently: 22%
- Sometimes: 25%
- Rarely: 16%
- Never: 7%
- Don't know: 0%
Q433. Do you think the fishing regulations in Maine are too strict, not strict enough, or about right?

- Too strict: 10
- About right: 85
- Not strict enough: 3
- Don't know: 3

(Percent n=616)
Q444. Do you agree or disagree that the fish consumption guidelines for various fish species issued by the Department are clear and easy to understand?

- Strongly agree: 63
- Moderately agree: 26
- Neither agree nor disagree: 1
- Moderately disagree: 5
- Strongly disagree: 3
- Don't know: 1

Percent (n=403)
Credibility of Information Sources
Q447-Q454. Percent of respondents who rated each of the following as an extremely or very credible source of information on fisheries management in Maine:

- A game warden with the Maine Department of Inland Fisheries and Wildlife: 84%
- A biologist with the Maine Department of Inland Fisheries and Wildlife: 79%
- A biologist with the U.S. Fish and Wildlife Service: 66%
- A professor of biology or natural resources at the University of Maine: 59%
- A local angler organization: 37%
- A local environmental organization: 34%
- The American Sportfishing Association: 32%
- Trout Unlimited: 29%