Asian Carp Survey (Tracking)
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CONTEXT AND OBJECTIVES
Leger was commissioned by the *Invasive Species Center* to conduct a study with Ontarians about their perceptions of invasive species and their level of knowledge of these species. This study is the second wave of a previous project conducted by Léger in 2015.

More specifically, the elements addressed in this study are as follows:

- Participating in outdoor activities in Ontario;
- Knowledge of invasive species;
- Perceptions of invasive species;
- Knowledge of Asian carps;
- Perceptions of Asian carps;
- Knowledge of organizations and sources of information on invasive species, such as the Asian carp.

When possible, the results are compared to those of 2015 to show any significant statistical changes since the first wave.
METHODOLOGY

To meet these objectives, Leger conducted a Web survey from December 7 to December 14, 2017, with a representative sample of 1,002 Ontarians, 18 years of age or over, and who could speak French or English.

Using data from Statistics Canada, the results were weighted by gender, age, language spoken at home, education, presence of children in the household and region, to ensure a representative sample of the study population overall.

For comparison purposes, a probability sample of 1,002 respondents would have a margin of error of ±3.1%, 19 times out of 20.

Reading the Report:
• The numbers presented in this report have been rounded out. These numbers (before rounding) have been used to calculate the sums presented. For this reason, sums might not correspond to the manual addition of the numbers presented.
• Results presenting significant and relevant statistical differences are indicated in boxes next to the presentation of overall results.
• Results presented with a downward arrow ↓ represent statistically lower differences when compared with the last study, while results presented with an upward arrow ↑ indicate statistically higher differences when compared with the last study.
KEY FINDINGS
KEY FINDINGS

Outdoor activities remain popular with Ontarians

Seven Ontarians out of ten (69%) participate in at least one outdoor activity in Ontario. Swimming is still the most popular activity (49%), followed by camping (30%), canoeing or kayaking (27%), owning or renting a cottage (26%) and boating (24%).

The proportion of Ontarians who enjoy recreational fishing has increased from 31% in 2015 to 36%. Recreational fishing is more popular among residents of the Kingston-Pembroke area (54%) and Northeastern Ontario (54%).

Among these fishing enthusiasts, 61% estimate that their family spends less than $100 per year on recreational fishing, while one-quarter (24%) spend between $100 and $1,000 per year. Only 4% of Ontarian families spend more than $1,000 on recreational fishing.

Ontarians are concerned about invasive species, but think that pollution and climate change are more important issues

All of the environmental problems surveyed worry at least two-thirds of Ontarians, especially women and those who fish recreationally. Pollution in lakes and rivers (88%) along with impacts from climate change (82%) seem to be of greater concern to Ontarians than those related to invasive species (71%). The proportion of Ontarians who are concerned about the impacts from invasive species has remained stable (71% vs. 72%), however Ontarians are more concerned about impacts from climate change, carbon dioxide emissions, the lack of greenspace in urban areas and overfishing in the Great Lakes than two years ago.

Six out of ten Ontarians (59%) correctly described invasive species as a threat to the ecosystem. The majority of Ontarians are aware of the problem caused by invasive species: seven out of ten (70%) agree that invasive species are a problem for human health and societal well-being, and a similar proportion (73%) disagree with the statement that there is nothing the general public can do to help manage invasive species. Almost two-thirds of Ontarians (64%) disagree with the statement that there have been minimal environmental damages linked to invasive species.

According to Ontarians, the Great Lakes and water bodies in general should receive the most protection against invasive species (50%), ahead of forests (25%).
Ontarians are aware of invasive species, but are more familiar with the Zebra Mussel

Close to eight Ontarians out of ten (77%) can identify at least one invasive species, and 6 out of ten (57%) could recognize at least one kind of invasive species if they saw one. 36% of Ontarians would recognize a Zebra Mussel if they saw one, and 27% would recognize an Asian Carp.

The Asian carp is the most known type of invasive species (58% of Ontarians) but the Zebra Mussel remains the species respondents are most familiar with (21%).

Half of Ontarians have heard of the Asian carp, but remain unfamiliar with its main source of propagation

More than half of Ontarians (55%) have heard of Asian carps, a similar proportion to 2015 (56%). However, two-thirds (69%) of them do not know how many types of Asian carps there are. Only a minority (3%) of those who have heard about the Asian Carp said there are four types. 5% of them are able to recognize all the species of fish presented as varieties of Asian Carp, and one-third (33%) at least one type.

Regarding the presence of Asian carps in water bodies, four out of ten Ontarians who have heard about the Asian carp (40%) believe that Lake Ontario is affected by this problem, followed by Lake Erie (30%) and Lake Michigan (28%). Less that one Ontarian out of ten (5%) has caught an Asian carp in the Great Lakes.

The majority of them (88%) are able to identify at least one ways of entry. However, the most cited way of entry are illegal release (54%) and water channels and connections (54%). Live-bait dumping — the most problematic way of entry — is not as well known (28%).

Two-thirds of respondents (66%) are aware that Asian carps are a problem because they eat native fish food sources. The majority of Ontarians who have heard about the Asian carp think that it is a serious threat to the Great Lakes economically (84%) and that it will destroy the ecosystem (83%). An increasing proportion of people think that Canada should spend money on Asian carp prevention (82% vs. 77% in 2015).
KEY FINDINGS (continued)

Knowledge of organizations and sources of information on invasive species

The main source of information on the Asian carp appears to be television (57% of respondents), but social media is more cited as the best way to inform people (33% of respondents).

Among Ontarians who have heard about the Asian carp, seven out of ten (72%) know at least one organization that contributes to monitoring and preventing Asian carps from entering the Great Lakes, and three out of ten (28%) are aware of the Invasive Species Center.

Nine percent (9%) of Ontarians have seen the asiancarp.ca website logo before.

If they witnessed the presence of an invasive species, three out of ten Ontarians (29%) said that they would contact their city official or government office. However, a similar proportion (34%) would not know what to do and 10% believe that there is no reporting method.
DETAILED RESULTS

1. Participating in Outdoor Activities
FREQUENCY OF RECREATIONAL FISHING ANNUALLY

Q10. How often do you fish recreationally each year?

- Between 1 and 4 times: 28% (2017) vs. 24% (2015)
- Between 5 and 15 times: 5% vs. 6%
- More than 15 times: 3% vs. 2%
- Never: 64% vs. 69%

Total Yes: 36% in 2017 vs. 31% in 2015

Higher proportion among:
- Residents of the Kingston-Pembroke area (54%) and Northeastern Ontario (54%)
- People who participate in outdoor activities (47%)
- People aged between 25 and 34 years old (50%)
- People who live in a household with an annual income above $100,000 (73%)

Higher proportion among:
- People 65 years of age or over (75%)

Base: All respondents
Q11. How much does your family spend on recreational fishing annually?

Base: Respondents who fish recreationally on an annual basis

- **Nothing**
  - 2017: 11%
  - 2015: 7%
  - Higher proportion among: Residents of the Greater Ottawa area (26%)

- **Less than $100**
  - 2017: 61%
  - 2015: 63%
  - Higher proportion among: People who live in a household with an annual income below $40,000 (73%)

- **Between $100 and $1,000**
  - 2017: 24%
  - 2015: 28%

- **More than $1,000**
  - 2017: 4%
  - 2015: 2%
Q12. Do you participate in any of the following activities in Ontario?

MULTIPLE ANSWERS ALLOWED
– UP TO 6 RESPONSES*

Base: All respondents

*Since respondents could provide multiple answers, total mentions may exceed 100%
2. Knowledge and Perceptions of Invasive Species
LEVEL OF CONCERN WITH VARIOUS ENVIRONMENTAL PROBLEMS IN ONTARIO

Q1_1 to 8. Personally, how worried are you about each of the following issues in Ontario:

- **Pollution in lakes and rivers.**
  - Very worried: 47%
  - Somewhat worried: 41%
  - Not very worried: 8%
  - Not worried at all: 2%
  - TOTAL WORRIED: 88%
  - TOTAL NOT WORRIED: 10%

- **Impacts from climate change.**
  - Very worried: 43%
  - Somewhat worried: 39%
  - Not very worried: 12%
  - Not worried at all: 52%
  - TOTAL WORRIED: 82%
  - TOTAL NOT WORRIED: 16%

- **Carbon dioxide emissions.**
  - Very worried: 33%
  - Somewhat worried: 45%
  - Not very worried: 15%
  - Not worried at all: 52%
  - TOTAL WORRIED: 78%
  - TOTAL NOT WORRIED: 20%

- **Agricultural land area being reduced.**
  - Very worried: 35%
  - Somewhat worried: 41%
  - Not very worried: 18%
  - Not worried at all: 33%
  - TOTAL WORRIED: 77%
  - TOTAL NOT WORRIED: 21%

- **Amount of trees being logged from forests.**
  - Very worried: 31%
  - Somewhat worried: 41%
  - Not very worried: 20%
  - Not worried at all: 43%
  - TOTAL WORRIED: 72%
  - TOTAL NOT WORRIED: 25%

- **Lack of greenspace in urban areas.**
  - Very worried: 28%
  - Somewhat worried: 45%
  - Not very worried: 21%
  - Not worried at all: 52%
  - TOTAL WORRIED: 72%
  - TOTAL NOT WORRIED: 25%

- **Impacts from invasive species.**
  - Very worried: 28%
  - Somewhat worried: 43%
  - Not very worried: 21%
  - Not worried at all: 4%
  - TOTAL WORRIED: 71%
  - TOTAL NOT WORRIED: 25%

- **Overfishing of the Great Lakes.**
  - Very worried: 23%
  - Somewhat worried: 41%
  - Not very worried: 26%
  - Not worried at all: 6%
  - TOTAL WORRIED: 64%
  - TOTAL NOT WORRIED: 32%

Base: All respondents (n=1,002)
**LEVEL OF CONCERN WITH VARIOUS ENVIRONMENTAL PROBLEMS IN ONTARIO (Tracking)**

Q1_1 to 8. Personally, how worried are you about each of the following issues in Ontario:

<table>
<thead>
<tr>
<th>Issue</th>
<th>2017 (n=1,002)</th>
<th>2015 (n=1,002)</th>
<th>2017 (n=1,002)</th>
<th>2015 (n=1,002)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution in lakes and rivers.</td>
<td>88%</td>
<td>88%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>Impacts from climate change.</td>
<td>82%</td>
<td>77%</td>
<td>16%</td>
<td>21%</td>
</tr>
<tr>
<td>Carbon dioxide emissions.</td>
<td>78%</td>
<td>74%</td>
<td>20%</td>
<td>24%</td>
</tr>
<tr>
<td>Agricultural land area being reduced.</td>
<td>77%</td>
<td>77%</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>Amount of trees being logged from forests.</td>
<td>72%</td>
<td>70%</td>
<td>25%</td>
<td>28%</td>
</tr>
<tr>
<td>Lack of greenspace in urban areas.</td>
<td>72%</td>
<td>64%</td>
<td>25%</td>
<td>34%</td>
</tr>
<tr>
<td>Impacts from invasive species.</td>
<td>71%</td>
<td>72%</td>
<td>25%</td>
<td>26%</td>
</tr>
<tr>
<td>Overfishing of the Great Lakes.</td>
<td>64%</td>
<td>59%</td>
<td>32%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Base: All respondents
Q2. According to you, which of the following statements best describe invasive species in Ontario?

- Species whose introduction or spread to a new area threatens the environment, economy, or society.
  - 2017: 59%
  - 2015: 60%

- Plants, animals, and micro-organisms introduced by humans to new environments.
  - 2017: 18%
  - 2015: 19%

- Native species of plants, animals, and micro-organisms that take over an ecosystem.
  - 2017: 9%
  - 2015: 9%

- The most common species within an ecosystem.
  - 2017: 3%
  - 2015: 3%

- DNK / Refusal
  - 2017: 11%
  - 2015: 9%

Higher proportion among:
- People who live in a household with an annual income above $100,000 (70%)
- Residents of Northeastern Ontario (73%)
LEVEL OF AGREEMENT WITH VARIOUS STATEMENTS ABOUT INVASIVE SPECIES

Q3. To what extent do you agree or disagree with the following statements about invasive species:

- Invasive species directly affect human health and societal well-being.
  - Strongly agree: 21%
  - Somewhat agree: 48%
  - Somewhat disagree: 14%
  - Strongly disagree: 4%
  - DNK/Refusal: 13%

- Canada’s cold climate kills 90% of the invasive species that try to survive here.
  - Strongly agree: 6%
  - Somewhat agree: 28%
  - Somewhat disagree: 28%
  - Strongly disagree: 18%
  - DNK/Refusal: 20%

- Invasive species increase biodiversity in Canada’s forests and lakes.
  - Strongly agree: 8%
  - Somewhat agree: 24%
  - Somewhat disagree: 23%
  - Strongly disagree: 27%
  - DNK/Refusal: 18%

- There have been minimal environmental damages linked to invasive species.
  - Strongly agree: 5%
  - Somewhat agree: 17%
  - Somewhat disagree: 31%
  - Strongly disagree: 33%
  - DNK/Refusal: 14%

- There is nothing the general public can do to help manage invasive species.
  - Strongly agree: 8%
  - Somewhat agree: 13%
  - Somewhat disagree: 35%
  - Strongly disagree: 38%
  - DNK/Refusal: 10%

Base: All respondents (n=1,002)
LEVEL OF AGREEMENT WITH VARIOUS STATEMENTS ABOUT INVASIVE SPECIES (Tracking)

Q3. To what extent do you agree or disagree with the following statements about invasive species:

<table>
<thead>
<tr>
<th>Statement</th>
<th>TOTAL AGREE</th>
<th>TOTAL DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invasive species directly affect human health and societal well-being.</td>
<td>70%</td>
<td>18%</td>
</tr>
<tr>
<td>Canada’s cold climate kills 90% of the invasive species that try to survive here.</td>
<td>33%↑</td>
<td>46%↓</td>
</tr>
<tr>
<td>Invasive species increase biodiversity in Canada’s forests and lakes.</td>
<td>32%</td>
<td>50%↓</td>
</tr>
<tr>
<td>There have been minimal environmental damages linked to invasive species.</td>
<td>22%</td>
<td>64%</td>
</tr>
<tr>
<td>There is nothing the general public can do to help manage invasive species.</td>
<td>17%</td>
<td>73%</td>
</tr>
</tbody>
</table>

Base: All respondents
Q4. Among the following, please indicate the ones that are invasive species according to you?

MULTIPLE ANSWERS ALLOWED – UP TO 8 RESPONSES*

Base: All respondents

*Since respondents could provide multiple answers, total mentions may exceed 100%
Q6. Among the following, what invasive species do you know the most about?

<table>
<thead>
<tr>
<th>Species</th>
<th>2017 (n=1,002)</th>
<th>2015 (n=1,002)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zebra Mussel</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td>Emerald Ash Borer</td>
<td>13%</td>
<td>14%</td>
</tr>
<tr>
<td>Asian Carp</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Purple Loosestrife</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Asian Long-Horn Beetle</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>Sea Lamprey</td>
<td><strong>3%</strong></td>
<td>1%</td>
</tr>
<tr>
<td>Mountain Pine Beetle</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Water Soldier</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>I am unfamiliar with all of</td>
<td><strong>33%</strong></td>
<td>30%</td>
</tr>
</tbody>
</table>

Base: All respondents
ABILITY TO RECOGNIZE VARIOUS INVASIVE SPECIES

Q5. Among the following, what invasive species would you be able to recognize if you would see one?

MULTIPLE ANSWERS ALLOWED – UP TO 8 RESPONSES*

Zebra Mussel: 2017 (36%) 2015 (41%)
Asian Carp: 2017 (27%) 2015 (26%)
Purple Loosestrife: 2017 (24%) 2015 (26%)
Asian Long-Horn Beetle: 2017 (21%) 2015 (19%)
Emerald Ash Borer: 2017 (17%) 2015 (18%)
Sea Lamprey: 2017 (14%) 2015 (12%)
Mountain Pine Beetle: 2017 (6%) 2015 (5%)
Water Soldier: 2017 (4%) 2015 (2%)
I wouldn’t be able to recognize any of the above: 2017 (43%) 2015 (40%)

Base: All respondents

*Since respondents could provide multiple answers, total mentions may exceed 100%

TOTAL AT LEAST ONE SPECIES: 57% / 60%

Higher proportion among:
- People 55 years of age or over (69%)
- People who fish recreationally (74%)
- Residents of Northeastern Ontario (77%)
- People who spend on recreational fishing (76%)
- People who have heard about Asian carps (76%)
HABITATS THAT SHOULD RECEIVE THE HIGHEST PROTECTION AGAINST INVASIVE SPECIES

Q7. Which of the following habitat do you feel should receive the highest protection against invasive species in Ontario?

- Great Lakes and other water bodies: 2017 (50%) / 2015 (51%)
- Natural forests: 2017 (18%) / 2015 (19%)
- Agricultural land: 2017 (12%) / 2015 (12%)
- Urban forests: 2017 (6%) / 2015 (4%)
- DNK / Refusal: 2017 (13%) / 2015 (13%)

Higher proportion among:
- People 65 years of age or over (63%)
- People who have heard about Asian carps (61%)
- Residents of the Hamilton-Niagara Peninsula area (61%)

Base: All respondents
DETAILED RESULTS

3. Knowledge and Perceptions of Asian Carps
Q13. Before today, have you ever heard, read or seen anything about Asian carps?

Higher proportion among:
- People 55 years of age or over (70%)
- People who live in a household with an annual income above $100,000 (68%)
- People who spend on recreational fishing (67%)
- Residents of Northeastern Ontario (73%)
Q15. According to you, how many types of Asian Carp are there?

Base: Respondents who have seen, read or heard information about the Asian carp

- 1 type: 11% (2017) vs 12% (2015)
- 2 types: 9% (2017) vs 6% (2015)
- 3 types: 7% (2017) vs 5% (2015)
- 4 types: 3% (2017) vs 3% (2015)
- 5 types: 2% (2017) vs 3% (2015)
Q17. According to you, which of the following is a type of Asian carp?

MULTIPLE ANSWERS ALLOWED – UP TO 8 RESPONSES*

Silver Carp: 17% (2017) vs 14% (2015)
Bighead Carp: 15% (2017) vs 12% (2015)
Black Carp: 13% (2017) vs 12% (2015)
Grass Carp: 13% (2017) vs 10% (2015)
None are Asian carp: 6% (2017) vs 6% (2015)

Base: Respondents who have seen, read or heard information about the Asian carp

*Since respondents could provide multiple answers, total mentions may exceed 100%
Q17A. Have you ever caught this fish out of the Great Lakes?*

(This image was shown to respondents)

Base: All respondents (n=1,002)

*New question in 2017
### KNOWN PRESENCE OF ASIAN CARPS IN VARIOUS WATER BODIES

Q16. According to you, Asian carps are currently established in which of the following water bodies?

MULTIPLE ANSWERS ALLOWED
– UP TO 5 RESPONSES*

<table>
<thead>
<tr>
<th>Water Body</th>
<th>2017 (n=588)</th>
<th>2015 (n=648)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Ontario</td>
<td>40%</td>
<td>36%</td>
</tr>
<tr>
<td>Lake Erie</td>
<td>30%</td>
<td>24%</td>
</tr>
<tr>
<td>Lake Michigan</td>
<td>28%</td>
<td>22%</td>
</tr>
<tr>
<td>Lake Huron</td>
<td>18%</td>
<td>16%</td>
</tr>
<tr>
<td>Lake Superior</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>None of the above</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>DNK / Refusal</td>
<td>33%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Base: Respondents who have seen, read or heard information about the Asian carp

*Since respondents could provide multiple answers, total mentions may exceed 100%
Q19. According to you, how can Asian carps enter the Great Lakes?

**MULTIPLE ANSWERS ALLOWED – UP TO 4 RESPONSES**

- Illegal release into water bodies
  - 2017 (n=588): 54%
  - 2015 (n=648): 59%

- Canals and water connections
  - 2017 (n=588): 54%
  - 2015 (n=648): 55%

- Transported across the border in live fish tanks
  - 2017 (n=588): 36%
  - 2015 (n=648): 36%

- Live bait dumped into lakes and rivers
  - 2017 (n=588): 28%
  - 2015 (n=648): 32%

- DNK / Refusal
  - 2017 (n=588): 12%
  - 2015 (n=648): 11%

**BASE:** Respondents who have seen, read or heard information about the Asian carp

*Since respondents could provide multiple answers, total mentions may exceed 100%
Q18. Among the following, what threat do Asian carps present in lakes and rivers that they invade?

- Eat native fish food sources: 66% (2017), 66% (2015)
- Chemically alter the water: 3% (2017), 3% (2015)
- DNK / Refusal: 9% (2017), 9% (2015)

Base: Respondents who have seen, read or heard information about the Asian carp
## LEVELOF AGREEMENT WITH VARIOUS STATEMENTS ABOUT ASIAN CARPS

Q20. To what extent do you agree or disagree with the following statements about Asian carps:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Somewhat agree</th>
<th>Somewhat disagree</th>
<th>Strongly disagree</th>
<th>DNK / Refusal</th>
<th>Total Agree</th>
<th>Total Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian carps are a serious threat to the Great Lakes economically.</td>
<td>50%</td>
<td>34%</td>
<td>5%</td>
<td>6%</td>
<td>6%</td>
<td>84%</td>
<td>10%</td>
</tr>
<tr>
<td>If Asian carps enter the Great Lakes, they will destroy the ecosystem.</td>
<td>40%</td>
<td>43%</td>
<td>7%</td>
<td>5%</td>
<td>5%</td>
<td>83%</td>
<td>12%</td>
</tr>
<tr>
<td>Canada should spend more money on Asian carp prevention.</td>
<td>30%</td>
<td>52%</td>
<td>6%</td>
<td>4%</td>
<td>8%</td>
<td>82%</td>
<td>10%</td>
</tr>
<tr>
<td>Asian carps will enter the Great Lakes regardless of prevention efforts.</td>
<td>7%</td>
<td>37%</td>
<td>33%</td>
<td>14%</td>
<td>9%</td>
<td>44%</td>
<td>47%</td>
</tr>
<tr>
<td>An Asian carp invasion into the Great Lakes will have no impact on my life.</td>
<td>9%</td>
<td>13%</td>
<td>36%</td>
<td>41%</td>
<td>6%</td>
<td>17%</td>
<td>77%</td>
</tr>
<tr>
<td>If Asian carps enter the Great Lakes, I will have more fish to catch.</td>
<td>5%</td>
<td>9%</td>
<td>19%</td>
<td>56%</td>
<td>11%</td>
<td>14%</td>
<td>75%</td>
</tr>
<tr>
<td>Canada should not worry about a fish that is not in the Great Lakes yet.</td>
<td>8%</td>
<td>7%</td>
<td>23%</td>
<td>63%</td>
<td>4%</td>
<td>11%</td>
<td>85%</td>
</tr>
<tr>
<td>Asian carp will not affect other fish populations.</td>
<td>8%</td>
<td>6%</td>
<td>18%</td>
<td>70%</td>
<td>3%</td>
<td>9%</td>
<td>87%</td>
</tr>
<tr>
<td>Asian carps cannot survive in the Great Lakes.</td>
<td>3%</td>
<td>6%</td>
<td>23%</td>
<td>57%</td>
<td>11%</td>
<td>8%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Base: Respondents who have seen, read or heard information about the Asian carp (n= 588)
### Level of Agreement with Various Statements About Asian Carps (Tracking)

Q20. To what extent do you agree or disagree with the following statements about Asian carps:

<table>
<thead>
<tr>
<th>Statement</th>
<th>2017 (n=588)</th>
<th>2015 (n=648)</th>
<th>2017 (n=588)</th>
<th>2015 (n=648)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian carp are a serious threat to the Great Lakes economically.</td>
<td>84%</td>
<td>83%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>If Asian carps enter the Great Lakes, they will destroy the ecosystem.</td>
<td>83%</td>
<td>80%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Canada should spend more money on Asian carp prevention.</td>
<td>82%</td>
<td>77%</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>Asian carps will enter the Great Lakes regardless of prevention efforts.</td>
<td>44%</td>
<td>40%</td>
<td>47%</td>
<td>50%</td>
</tr>
<tr>
<td>An Asian carp invasion into the Great Lakes will have no impact on my life.</td>
<td>17%</td>
<td>18%</td>
<td>77%</td>
<td>75%</td>
</tr>
<tr>
<td>If Asian carps enter the Great Lakes, I will have more fish to catch.</td>
<td>14%</td>
<td>13%</td>
<td>75%</td>
<td>78%</td>
</tr>
<tr>
<td>Canada should not worry about a fish that is not in the Great Lakes yet.</td>
<td>11%</td>
<td>9%</td>
<td>85%</td>
<td>87%</td>
</tr>
<tr>
<td>Asian carp will not affect other fish populations.</td>
<td>9%</td>
<td>9%</td>
<td>87%</td>
<td>87%</td>
</tr>
<tr>
<td>Asian carps cannot survive in the Great Lakes.</td>
<td>8%</td>
<td>7%</td>
<td>80%</td>
<td>79%</td>
</tr>
</tbody>
</table>

Base: Respondents who have seen, read or heard information about the Asian carp
DETAILED RESULTS

4. Knowledge of Organizations and Sources of Information on Invasive Species
Q14. Where did you see, read or heard about Asian Carps?

MULTIPLE ANSWERS ALLOWED – UP TO 7 RESPONSES*

Base: Respondents who have seen, read or heard information about the Asian carp

*Since respondents could provide multiple answers, total mentions may exceed 100%

Proportion higher among:
- People 55 years of age or over (73%)
- Residents of Northeastern Ontario (78%)

With the exception of radio, all other means are mentioned by a proportion higher among:
- People who fish recreationally
PREFERRED SOURCES FOR INFORMATION ABOUT ASIAN CARPS

Q22. According to you, what is the best way to inform people about Asian carps?

<table>
<thead>
<tr>
<th>Method</th>
<th>2017 (n=1,002)</th>
<th>2015 (n=1,002)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Social Media</td>
<td>33%</td>
<td>25%</td>
</tr>
<tr>
<td>Television specials</td>
<td>24%</td>
<td>26%</td>
</tr>
<tr>
<td>Internet Website</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Newspaper / Magazine</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>advertisements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary and Secondary</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>school instruction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poster or billboard</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Radio shows</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>DNK / Refusal</td>
<td>12%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Base: All respondents

Proportion higher among: People 55 years of age or over (39%)
Q21. Among the following, which Canadian organizations are you aware of that are doing work to help monitor and prevent Asian carps from entering the Great Lakes?

MULTIPLE ANSWERS ALLOWED  
– UP TO 5 RESPONSES*

Base: Respondents who have seen, read or heard information about the Asian carp

*Since respondents could provide multiple answers, total mentions may exceed 100%
AWARENESS OF THE LOGO OF THE WEBSITE ASIANCARP.CA

Q8. Where have you seen this logo before?*

- Online: 6%
- At an event: 1%
- Billboard: 1%
- Other: 1%
- I have not seen it before: 87%
- DNK / Refusal: 4%

Proportion higher among:
- People aged between 25 and 34 years old (20%)
- Those who fish recreationally (22%)
- Those who spend on recreational fishing (24%)

Base: All respondents (n=1,002)

*New question in 2017
Q9. How would you report an invasive species sighting?

Base: All respondents

- Contact your city official or government office: 29% (2017) vs 31% (2015)
- Report online: 16% (2017) vs 14% (2015)
- Call hotline: 11% (2017) vs 9% (2015)
- There is no reporting method: 10% (2017) vs 14% (2015)
- DNK / Refusal: 34% (2017) vs 31% (2015)

Proportion higher among:
- People 55 years of age or over (41%)
- Residents of Northeastern Ontario (43%)
PROFILE OF RESPONDENTS
PROFILE OF RESPONDENTS

REGION

ONTARIO

- Hamilton - Niagara Peninsula: 10%
- Kingston - Pembroke: 3%
- Kitchener - Waterloo - Barrie: 10%
- Greater London area: 5%
- Muskoka - Kawarthas: 3%
- Northeast: 4%
- Northwest: 2%
- Greater Ottawa area: 10%
- Stratford - Bruce Peninsula: 2%
- Greater Toronto area: 46%
- Windsor - Sarnia: 5%

GENDER

- Male: 48%
- Female: 52%

AGE

- 18-24: 11%
- 25-34: 16%
- 35-44: 16%
- 45-54: 19%
- 55-64: 17%
- 65+: 21%

LANGUAGE

- French: 4%
- English: 69%
- Other: 26%

CHILDREN

- Yes: 27%
- No: 69%

Base: All respondents (n=1,002)

Note: For each profile category, the complement to 100% represents the mentions “Don’t know” and “Refusal”.
PROFILE OF RESPONDENTS

Base: All respondents (n=1,002)

Note: For each profile category, the complement to 100% represents the mentions “Don’t know” and “Refusal.”
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• **Qualitative Research**
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