

Report

Asian Carp Survey (Tracking)



Invasive
Species
Centre

DATE 2018-01-26 PROJECT NUMBER 15273-004



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The background of the slide is a landscape photograph. It shows a calm body of water, likely a lake or a wide river, reflecting the sky. The sky is filled with large, dramatic, grey and white clouds. In the distance, there is a line of green trees. In the foreground, there are tall, green reeds or grasses, some of which are in focus. A semi-transparent dark grey banner is overlaid across the middle of the image, containing the text 'CONTEXT AND OBJECTIVES' in white, bold, sans-serif capital letters.

CONTEXT AND OBJECTIVES

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.

A landscape photograph of a calm lake under a dramatic, cloudy sky. The water reflects the sky and the surrounding green trees. In the foreground, there are tall, green reeds or grasses.

METHODOLOGY



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 $\pm 3.1\%$, 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.

A landscape photograph of a calm lake under a dramatic, cloudy sky. The water reflects the sky and the surrounding green trees. In the foreground, there are tall, green reeds or grasses. A semi-transparent grey bar is overlaid on the lower half of the image.

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%).

KEY FINDINGS (continued)

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 than 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.

The background image is a landscape photograph of a lake. In the foreground, there are tall, green reeds with some brown seed heads. The middle ground shows a calm body of water reflecting the sky and the distant shore. The far shore is a dense line of green trees. The sky is filled with large, dramatic, grey and white clouds. A semi-transparent dark grey banner is overlaid across the middle of the image, containing the text "DETAILED RESULTS" in white, bold, sans-serif capital letters.

DETAILED RESULTS

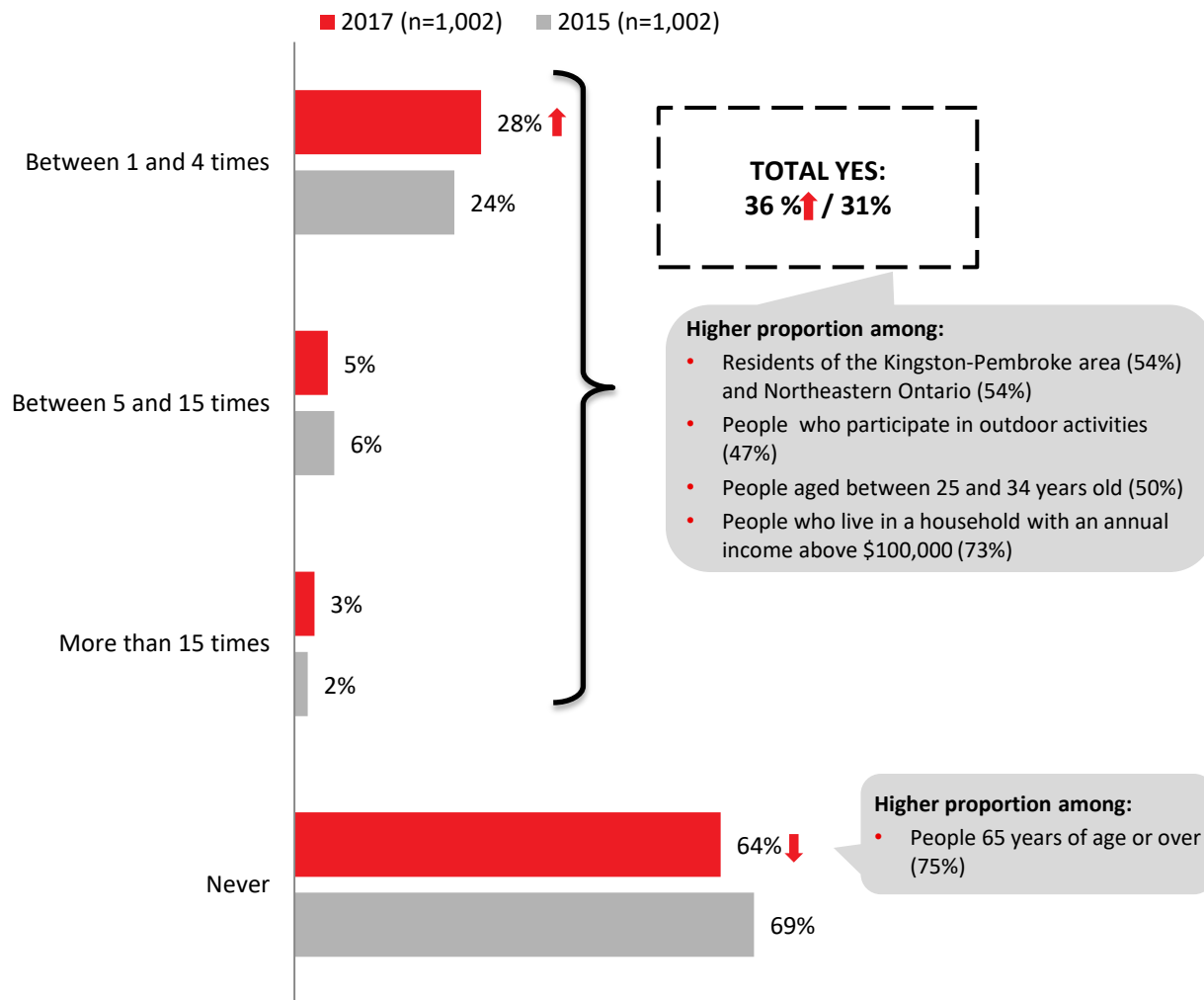


DETAILED RESULTS

1. Participating in Outdoor Activities

FREQUENCY OF RECREATIONAL FISHING ANNUALLY

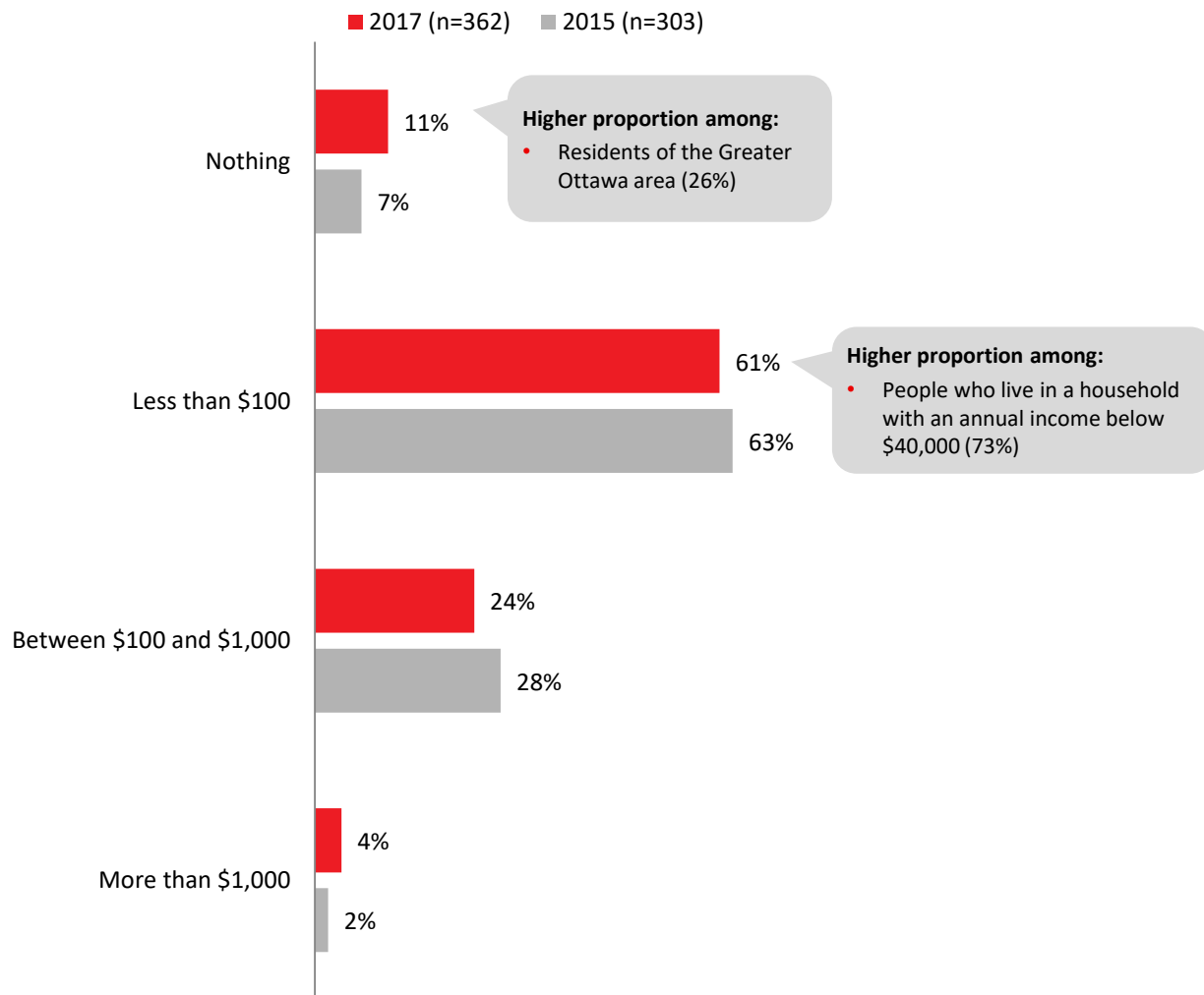
Q10. How often do you fish recreationally each year?



Base: All respondents

ANNUAL EXPENDITURES FOR RECREATIONAL FISHING

Q11. How much does your family spend on recreational fishing annually?

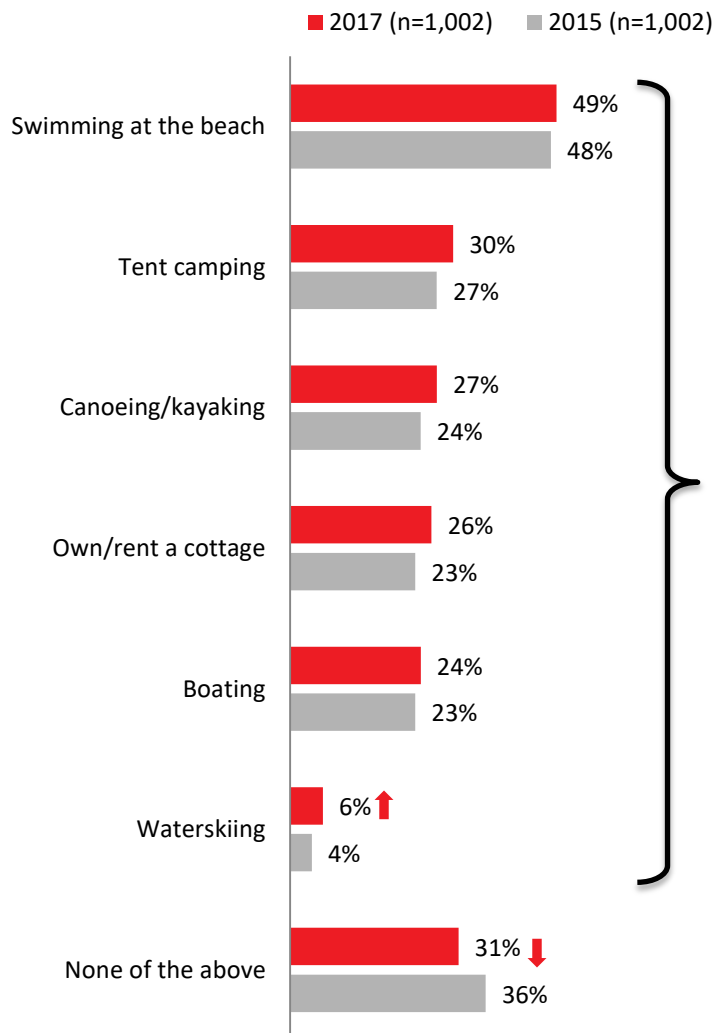


Base: Respondents who fish recreationally on an annual basis

OUTDOOR ACTIVITIES PRACTICED IN ONTARIO

Q12. Do you participate in any of the following activities in Ontario?

MULTIPLE ANSWERS ALLOWED
– UP TO 6 RESPONSES*



**TOTAL
AT LEAST ONE ACTIVITY:**
69 % ↑ / 64%

Higher proportion among:

- People under 25 years of age (90%)
- People who live in a household with an annual income above \$100,000 (79%)
- People who fish recreationally (91%)

Base: All respondents

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



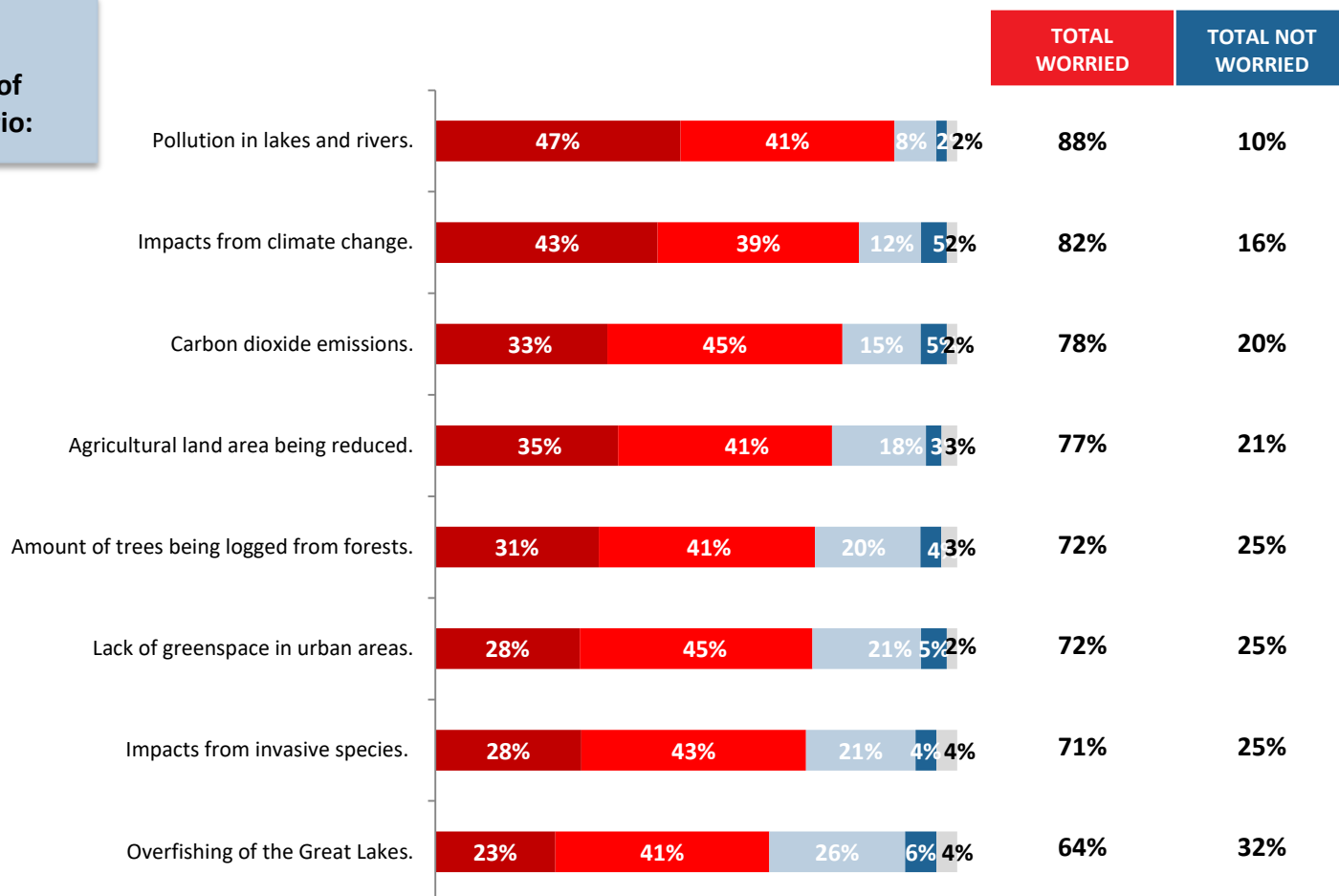
DETAILED RESULTS

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:

- Very worried
- Somewhat worried
- Not very worried
- Not worried at all
- DNK / Refusal



Base: All respondents (n=1,002)

LEVEL OF CONCERN WITH VARIOUS ENVIRONMENTAL PROBLEMS IN ONTARIO (Tracking)

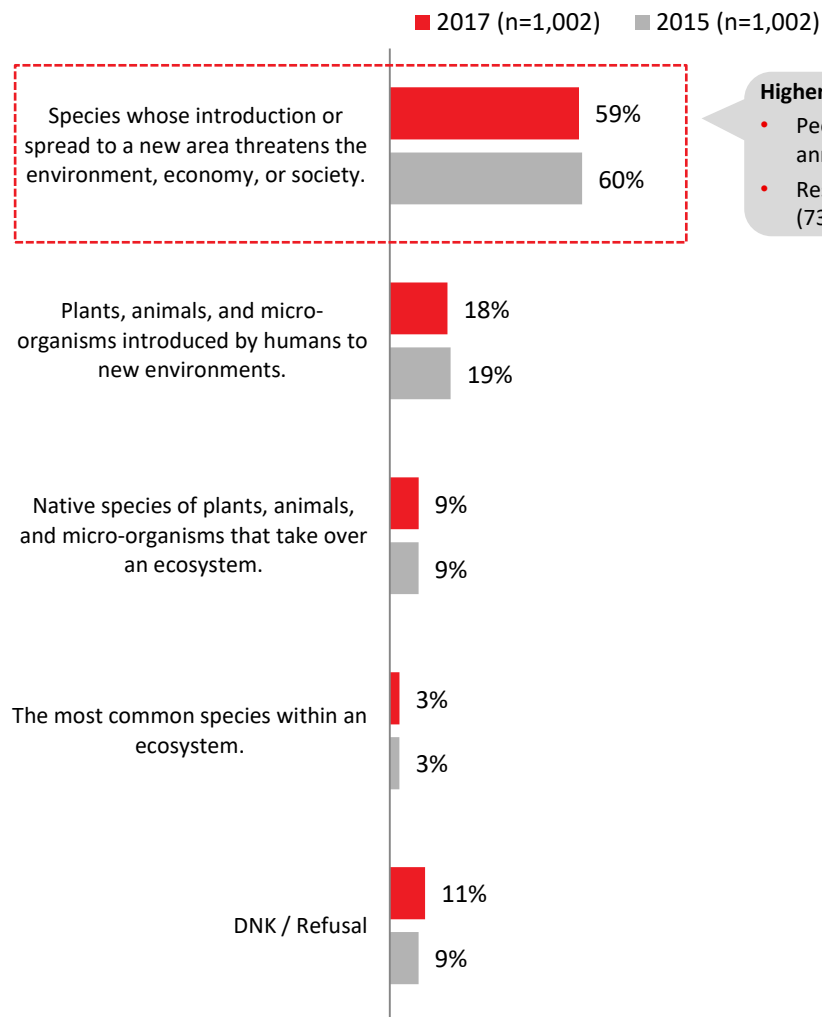
Q1_1 to 8. Personally, how worried are you about each of the following issues in Ontario:

	TOTAL WORRIED		TOTAL NOT WORRIED	
	2017 (n=1,002)	2015 (n=1,002)	2017 (n=1,002)	2015 (n=1,002)
Pollution in lakes and rivers.	88%	88%	10%	11%
Impacts from climate change.	82% ↑	77%	16% ↓	21%
Carbon dioxide emissions.	78% ↑	74%	20% ↓	24%
Agricultural land area being reduced.	77%	77%	21%	21%
Amount of trees being logged from forests.	72%	70%	25%	28%
Lack of greenspace in urban areas.	72% ↑	64%	25% ↓	34%
Impacts from invasive species.	71%	72%	25%	26%
Overfishing of the Great Lakes.	64% ↑	59%	32% ↓	37%

Base: All respondents

KNOWLEDGE OF THE DEFINITION OF AN INVASIVE SPECIES IN ONTARIO

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



Higher proportion among:

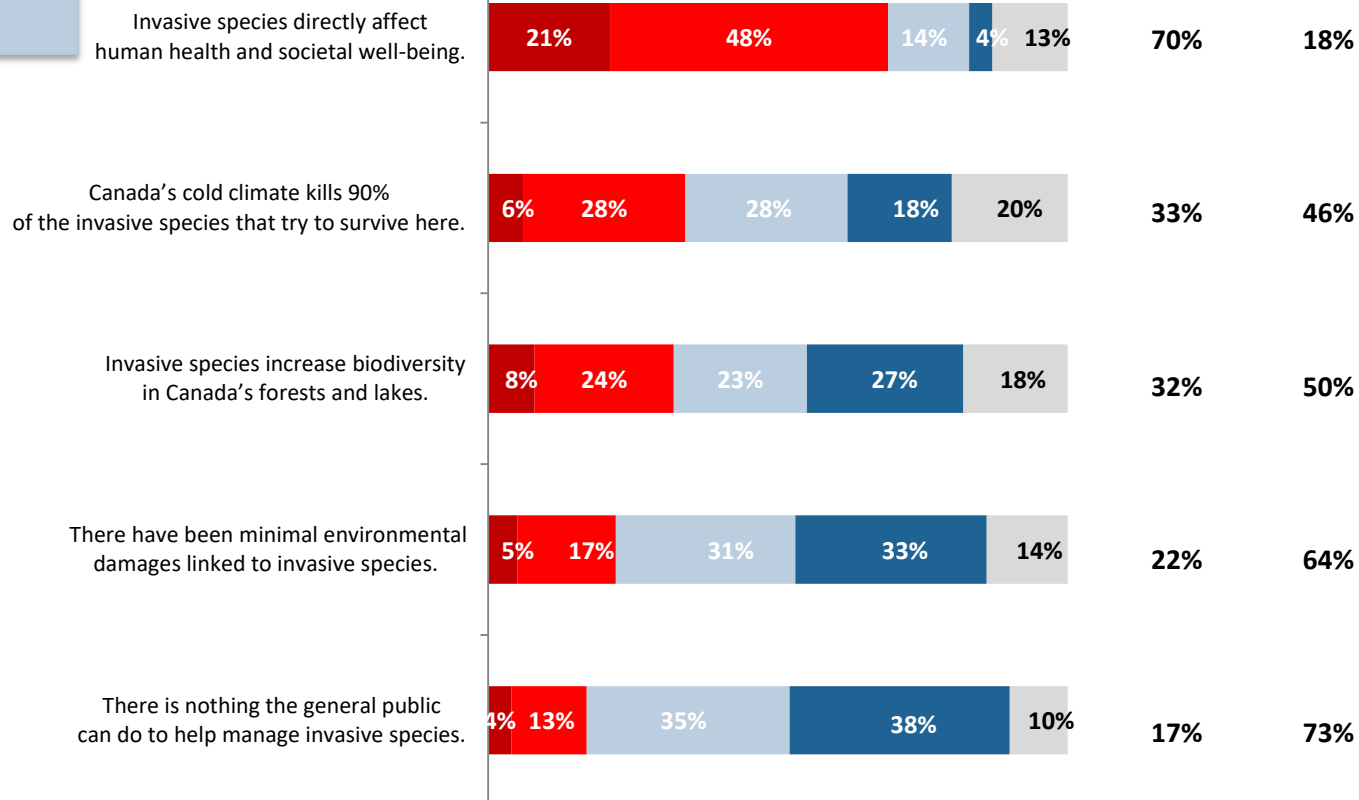
- People who live in a household with an annual income above \$100,000 (70%)
- Residents of Northeastern Ontario (73%)

Base: All respondents

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:

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- DNK / Refusal



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:

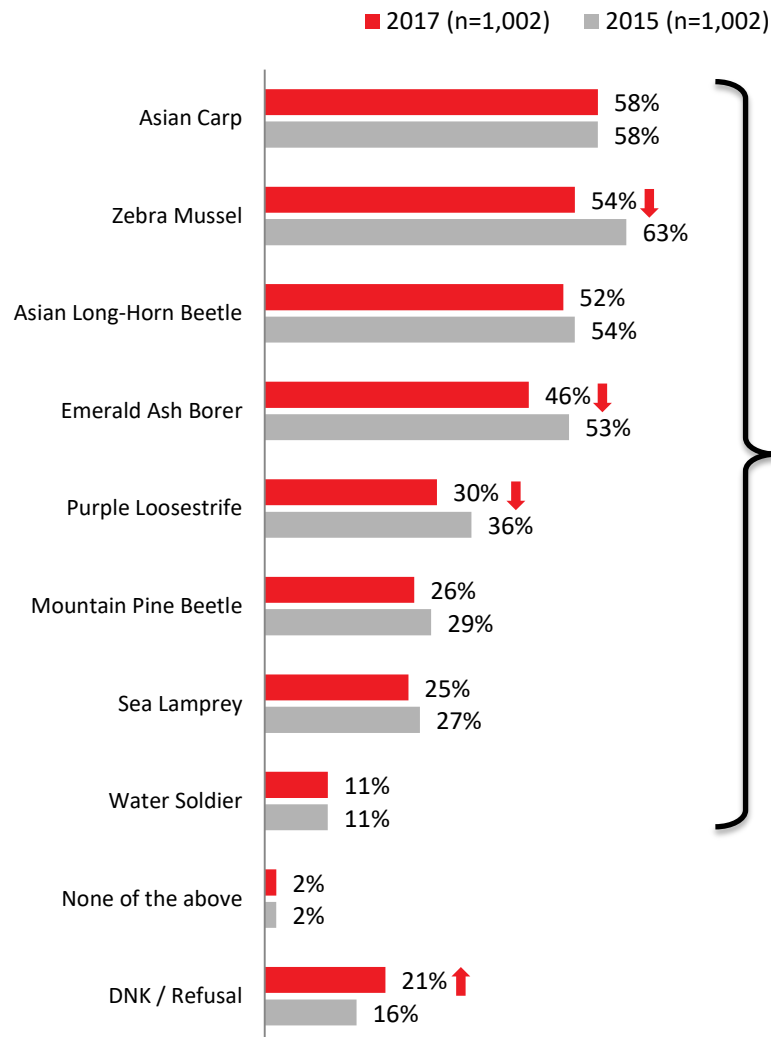
	TOTAL AGREE		TOTAL DISAGREE	
	2017 (n=1,002)	2015 (n=1,002)	2017 (n=1,002)	2015 (n=1,002)
Invasive species directly affect human health and societal well-being.	70%	71%	18%	17%
Canada's cold climate kills 90% of the invasive species that try to survive here.	33% ↑	26%	46% ↓	54%
Invasive species increase biodiversity in Canada's forests and lakes.	32%	30%	50% ↓	55%
There have been minimal environmental damages linked to invasive species.	22%	20%	64%	67%
There is nothing the general public can do to help manage invasive species.	17%	16%	73%	76%

Base: All respondents

KNOWLEDGE OF INVASIVE SPECIES

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

MULTIPLE ANSWERS ALLOWED – UP TO 8 RESPONSES*



TOTAL ALL SPECIES:
7% / 7%

TOTAL AT LEAST ONE SPECIES:
77% ↓ / 82%

Higher proportion among:

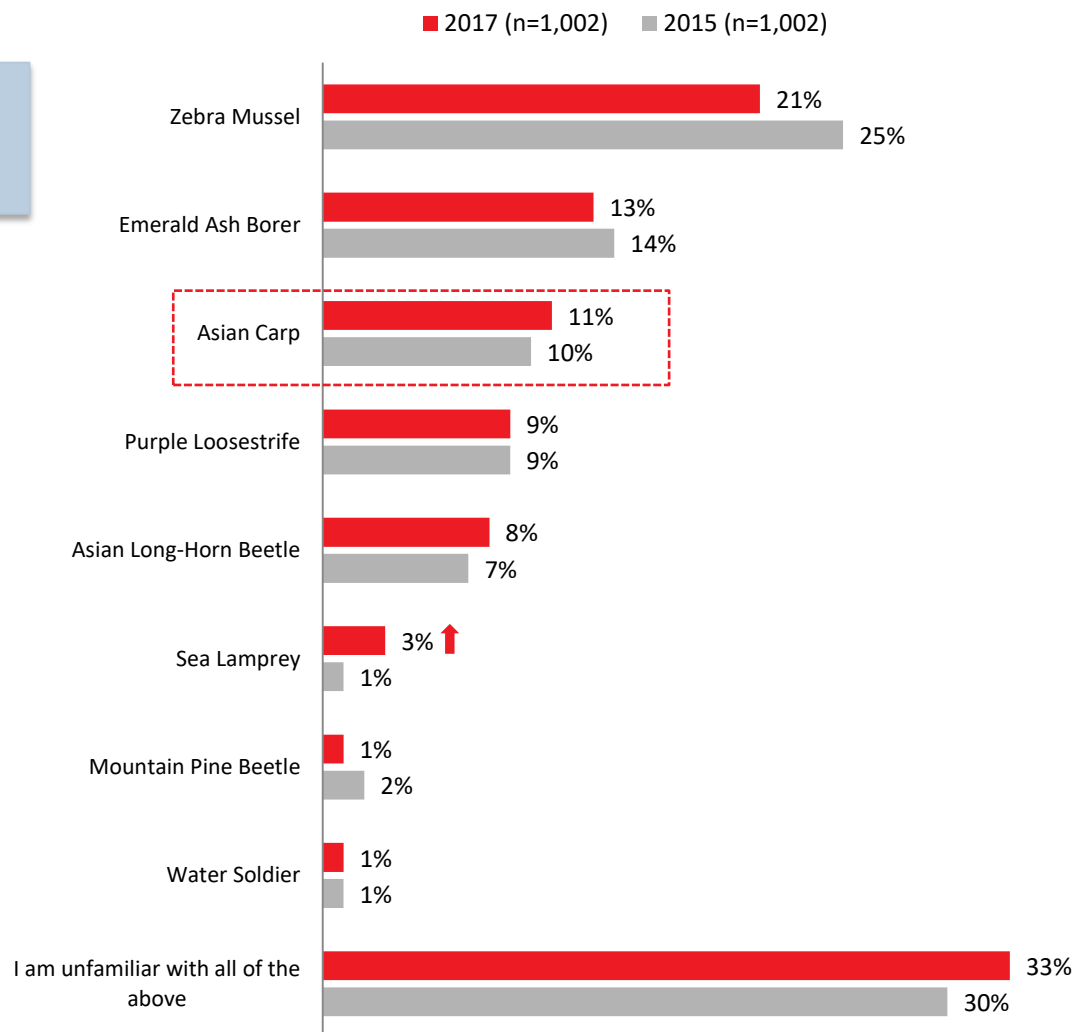
- People 55 years of age or over (90%)
- People who live in a household with an annual income above \$100,000 (88%)
- Residents of Northeastern Ontario (90%)
- People who have heard about Asian carps (96%)

Base: All respondents

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

MOST FAMILIAR INVASIVE SPECIES

Q6. Among the following, what invasive species do you know the most about?

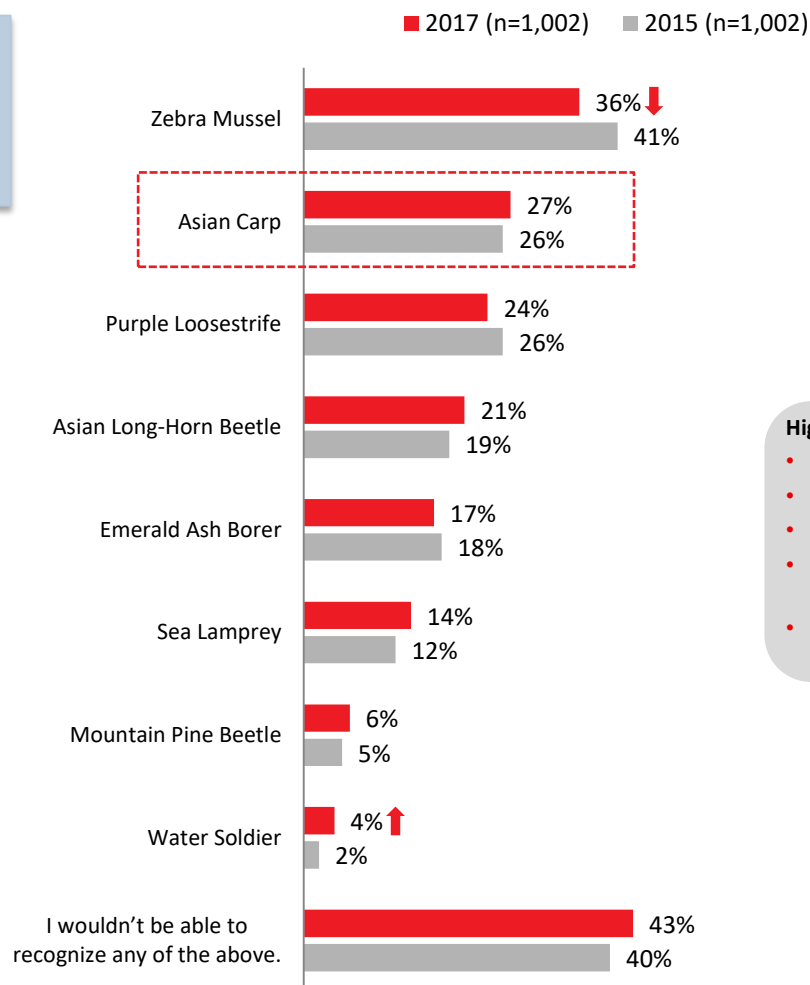


Base: All respondents

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*



**TOTAL AT LEAST ONE SPECIES:
57% / 60%**

Higher proportion among:

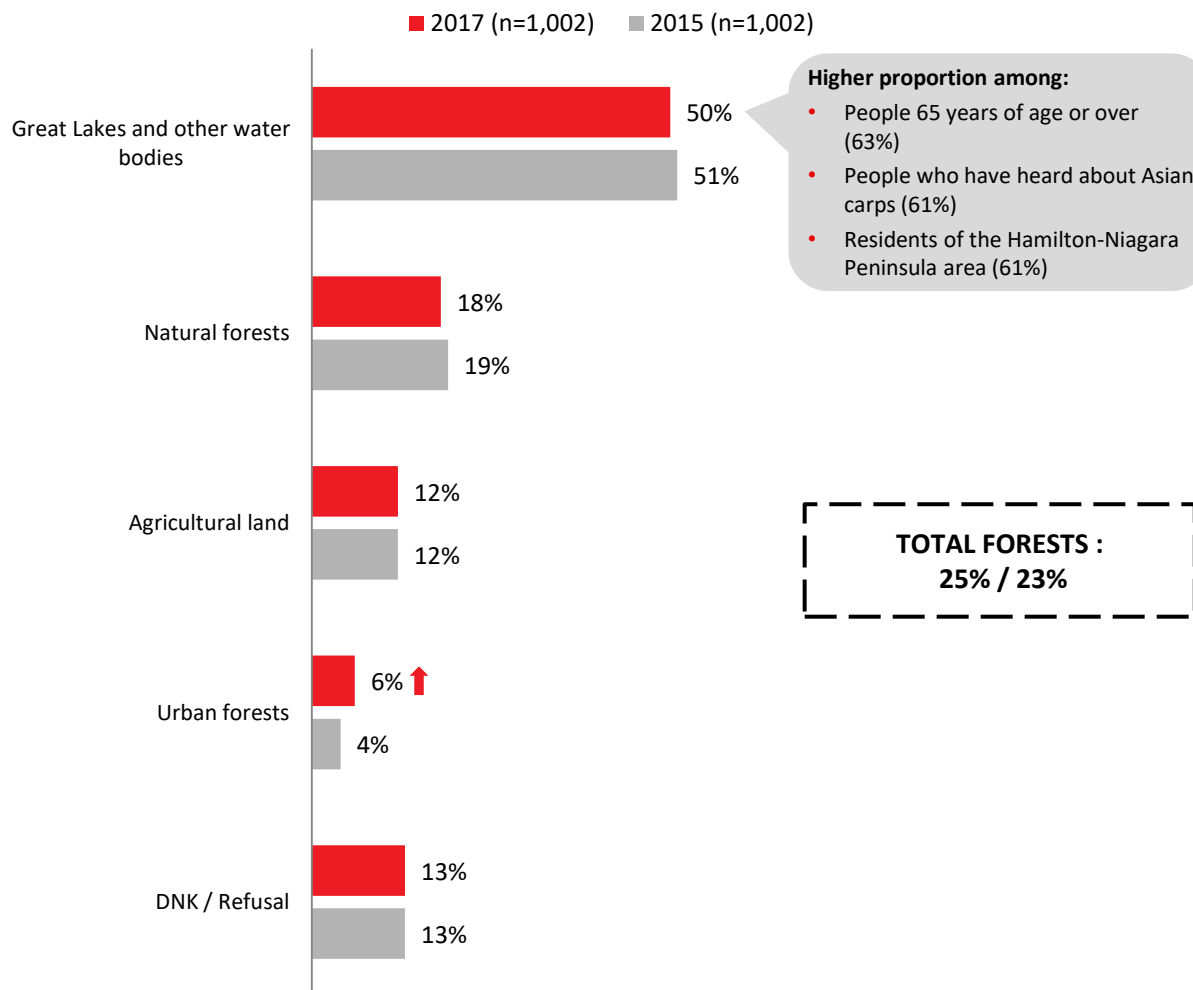
- People 55 years of age or over (69%)
- People who fish recreationally (74%)
- Residents of Northeastern Ontario (77%)
- People who spend on recreational fishing (76%)
- People who have heard about Asian carps (76%)

Base: All respondents

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

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?



Base: All respondents



DETAILED RESULTS

3. Knowledge and Perceptions of Asian Carps

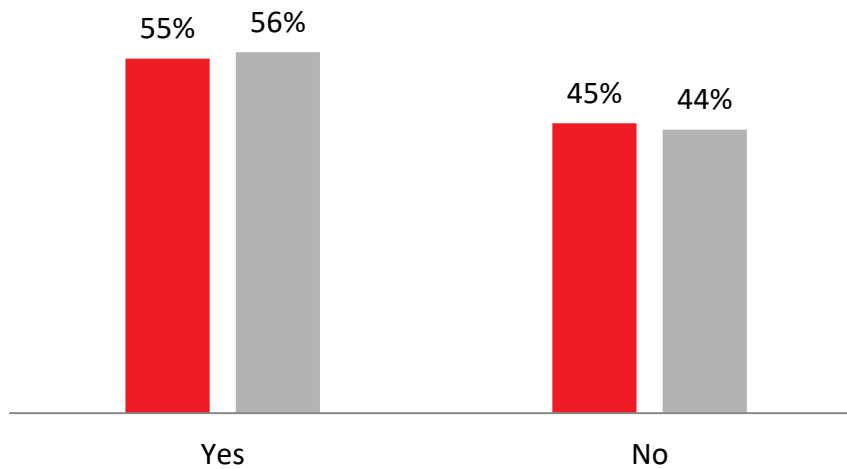
AWARENESS OF ASIAN CARPS

Q13. Before today, have you ever heard, read or seen anything about Asian carps?

■ 2017 (n=1,002) ■ 2015 (n=1,002)

Higher proportion among:

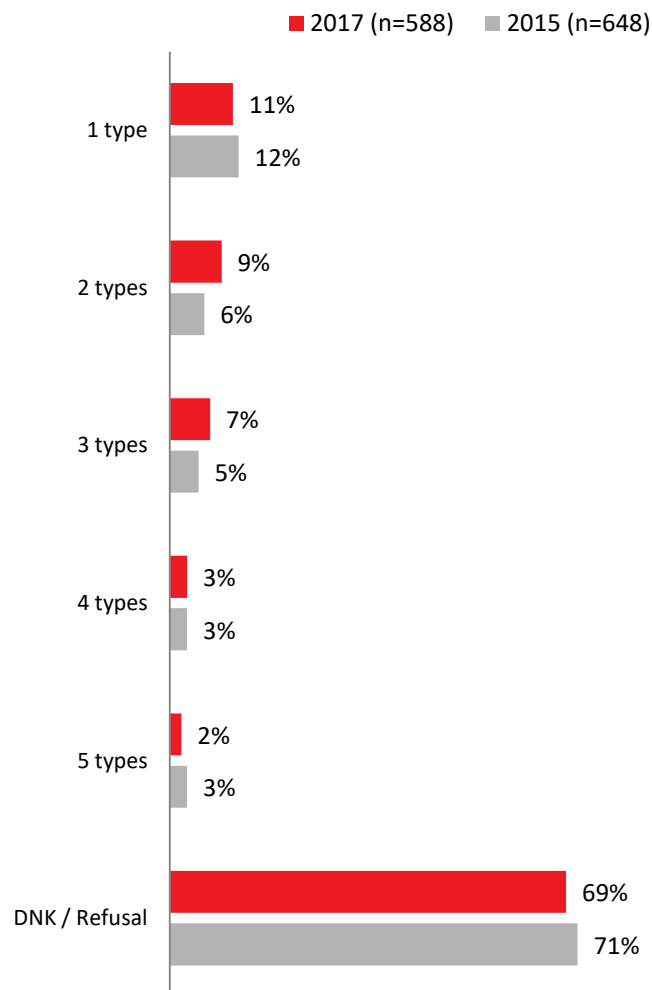
- People 55 years of age or over (70%)
- People who live in a household with an annual income above \$100,000 (68%)
- People who spend on recreational fishing (67%)
- Residents of Northeastern Ontario (73%)



Base: All respondents

KNOWLEDGE OF THE TYPES OF ASIAN CARPS

Q15. According to you, how many types of Asian Carp are there?

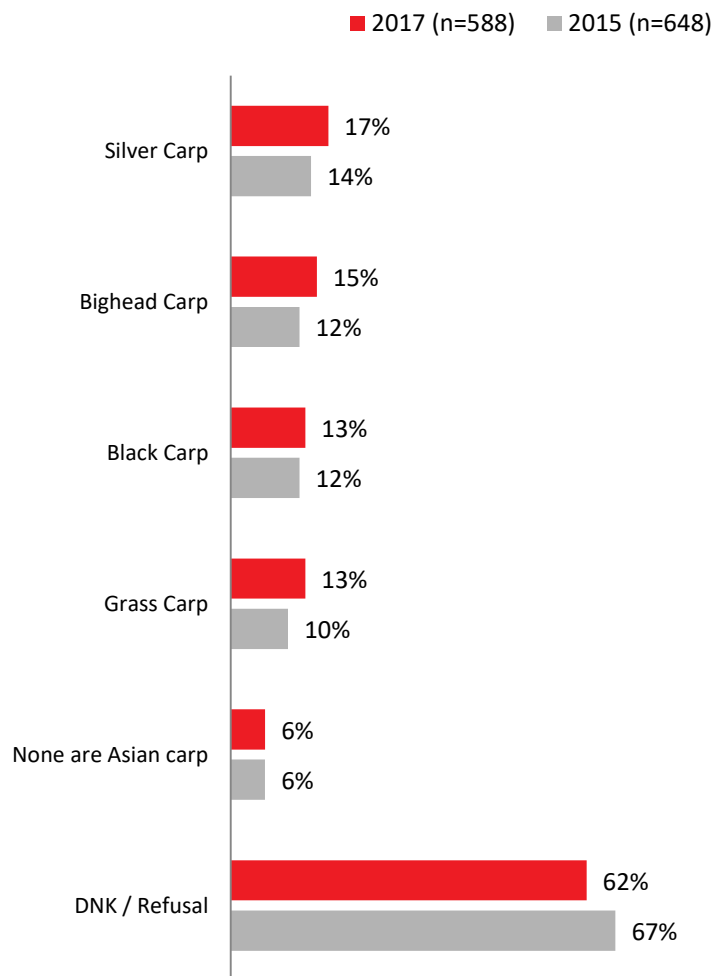


Base: Respondents who have seen, read or heard information about the Asian carp

KNOWN TYPES OF ASIAN CARP

Q17. According to you, which of the following is a type of Asian carp?

MULTIPLE ANSWERS ALLOWED
– UP TO 8 RESPONSES*



**TOTAL
ALL CARP SPECIES:
5% / 5%**

**TOTAL
AT LEAST ONE CARP SPECIES:
33% / 28%**

Higher proportion among:

- People who fish recreationally (51%)

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

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

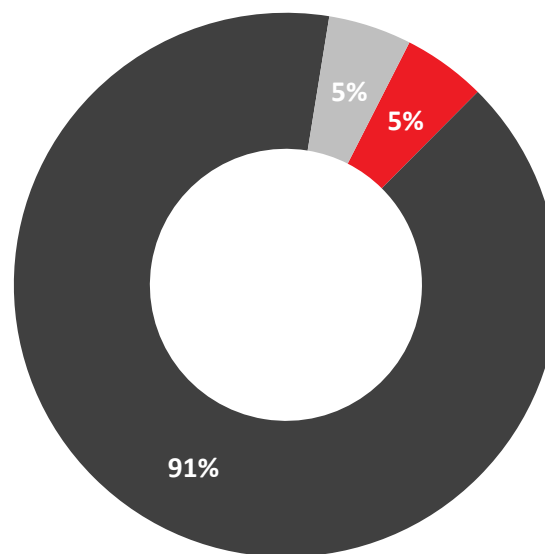
PROBABILITY OF HAVING EVER CAUGHT AN ASIAN CARP

Q17A. Have you ever caught this fish out of the Great Lakes?*



(This image was shown to respondents)

■ Yes ■ No ■ DNK / Refusal



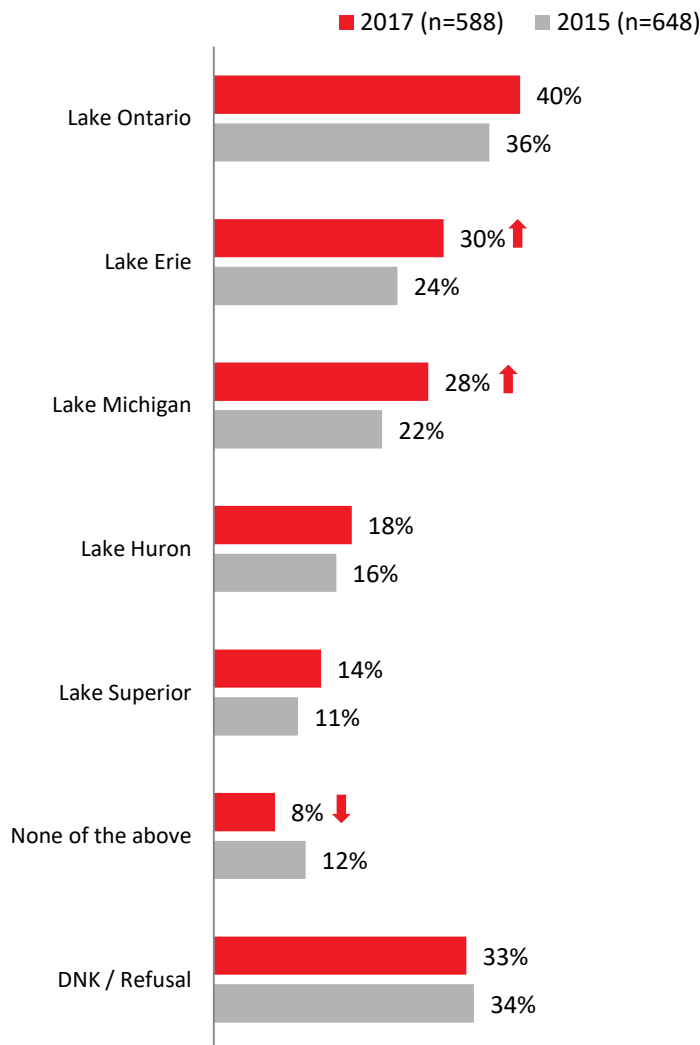
Base: All respondents (n=1,002)

*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*



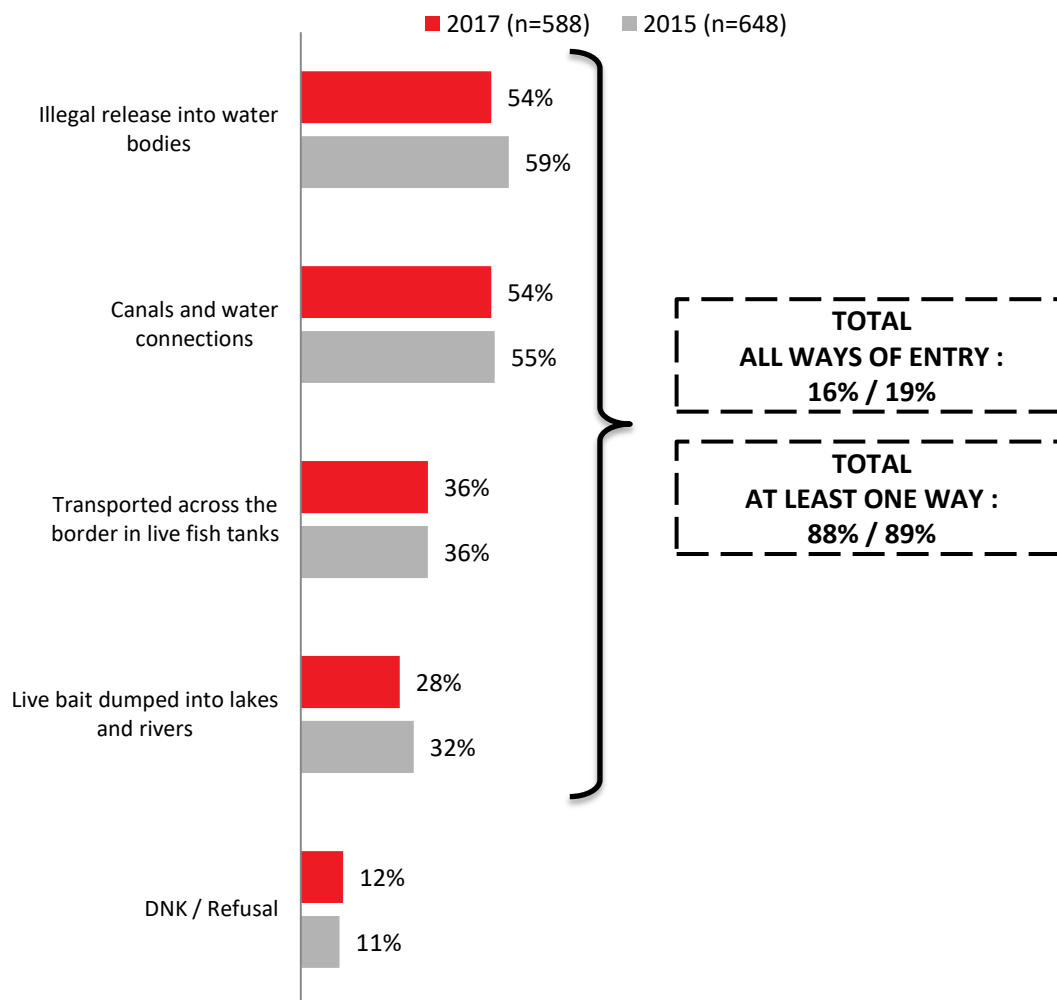
Base: Respondents who have seen, read or heard information about the Asian carp

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

KNOWN WAYS OF ENTRY OF ASIAN CARPS IN LAKES AND RIVERS

Q19. According to you, how can Asian carps enter the Great Lakes?

MULTIPLE ANSWERS ALLOWED
– UP TO 4 RESPONSES*

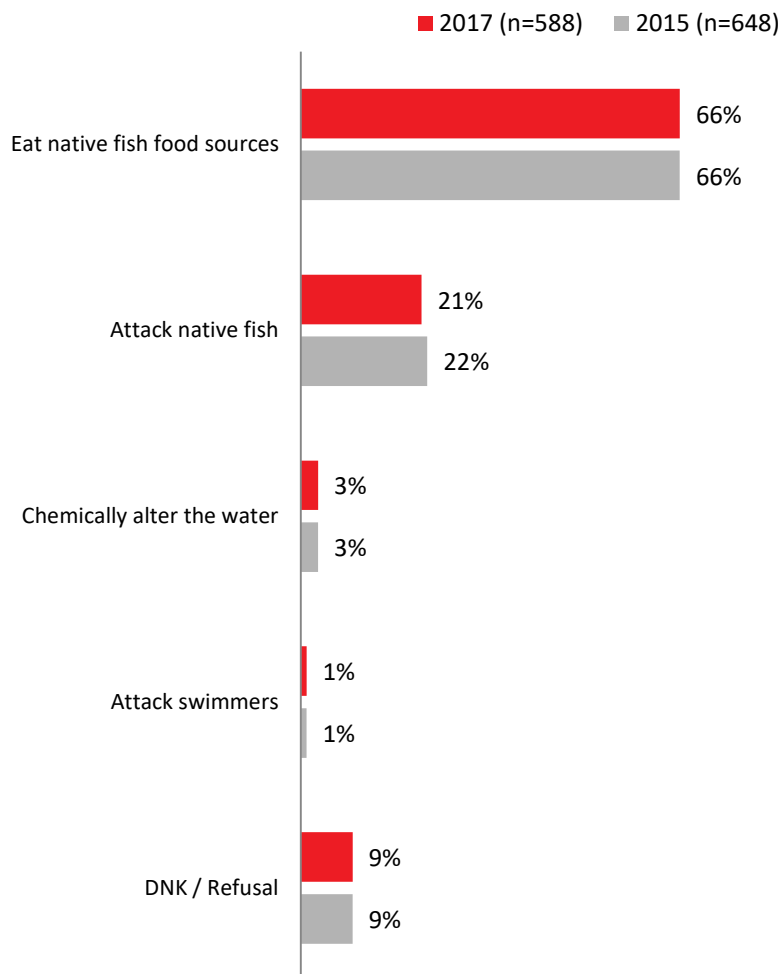


Base: Respondents who have seen, read or heard information about the Asian carp

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

KNOWN THREATS POSED BY PRESENCE OF ASIAN CARPS IN LAKES AND RIVERS

Q18. Among the following, what threat do Asian carps present in lakes and rivers that they invade?



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

LEVEL OF AGREEMENT WITH VARIOUS STATEMENTS ABOUT ASIAN CARPS

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

Strongly agree Somewhat agree Somewhat disagree Strongly disagree DNK / Refusal

TOTAL
AGREE

TOTAL
DISAGREE

50%
or
more

Asian carp are a serious threat to the Great Lakes economically.



84%

10%

If Asian carps enter the Great Lakes, they will destroy the ecosystem.



83%

12%

Canada should spend more money on Asian carp prevention.



82%

10%

Asian carps will enter the Great Lakes regardless of prevention efforts.



44%

47%

An Asian carp invasion into the Great Lakes will have no impact on my life.



17%

77%

If Asian carps enter the Great Lakes, I will have more fish to catch.



14%

75%

Less
than
50%

Canada should not worry about a fish that is not in the Great Lakes yet.



11%

85%

Asian carp will not affect other fish populations.



9%

87%

Asian carps cannot survive in the Great Lakes.



8%

80%

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:

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

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



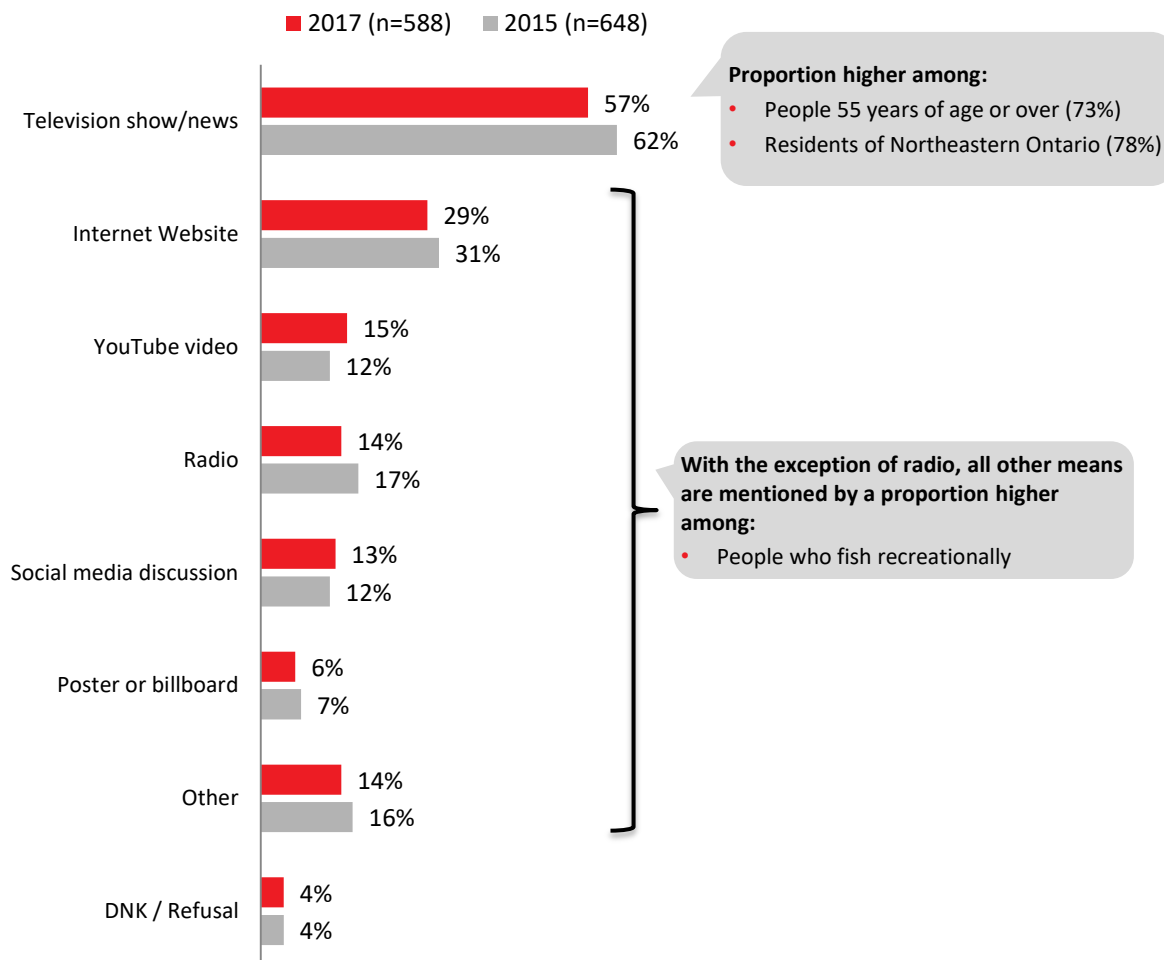
DETAILED RESULTS

4. Knowledge of Organizations and Sources of Information on Invasive Species

SOURCES OF INFORMATION ABOUT ASIAN CARPS

Q14. Where did you see, read or heard about Asian Carps?

MULTIPLE ANSWERS ALLOWED
– UP TO 7 RESPONSES*

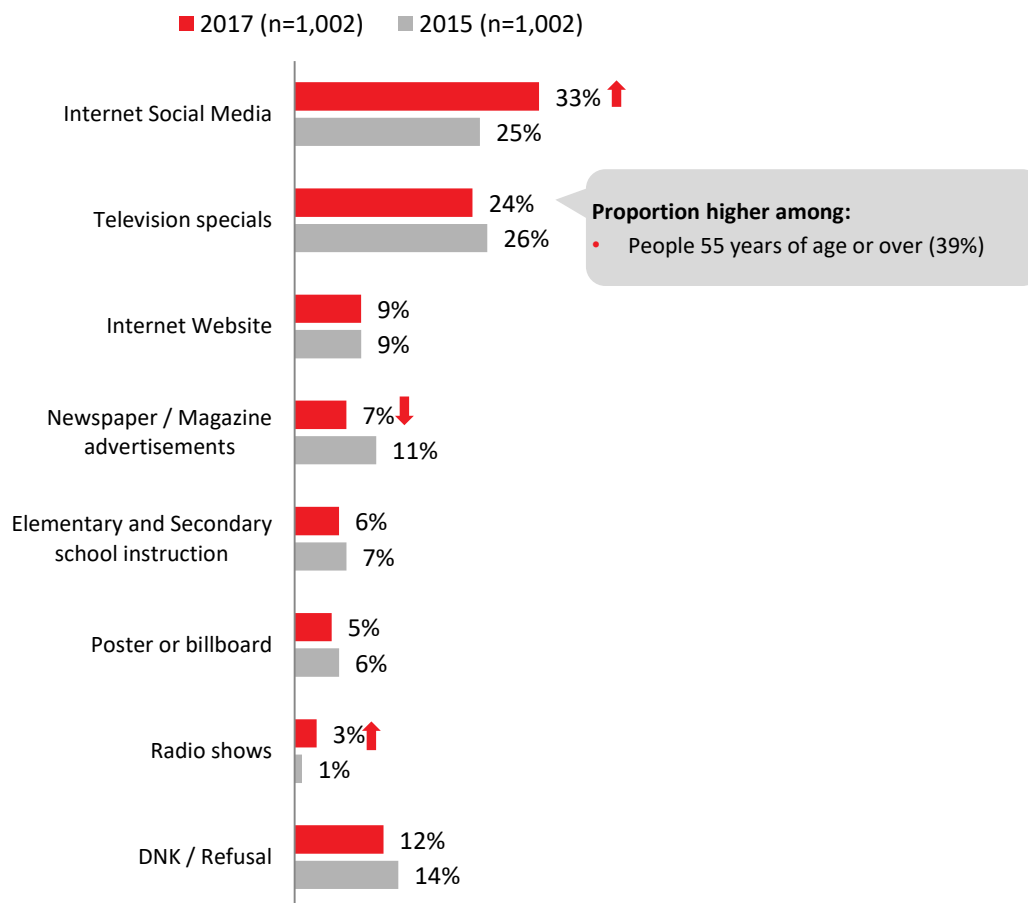


Base: Respondents who have seen, read or heard information about the Asian carp

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

PREFERRED SOURCES FOR INFORMATION ABOUT ASIAN CARPS

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

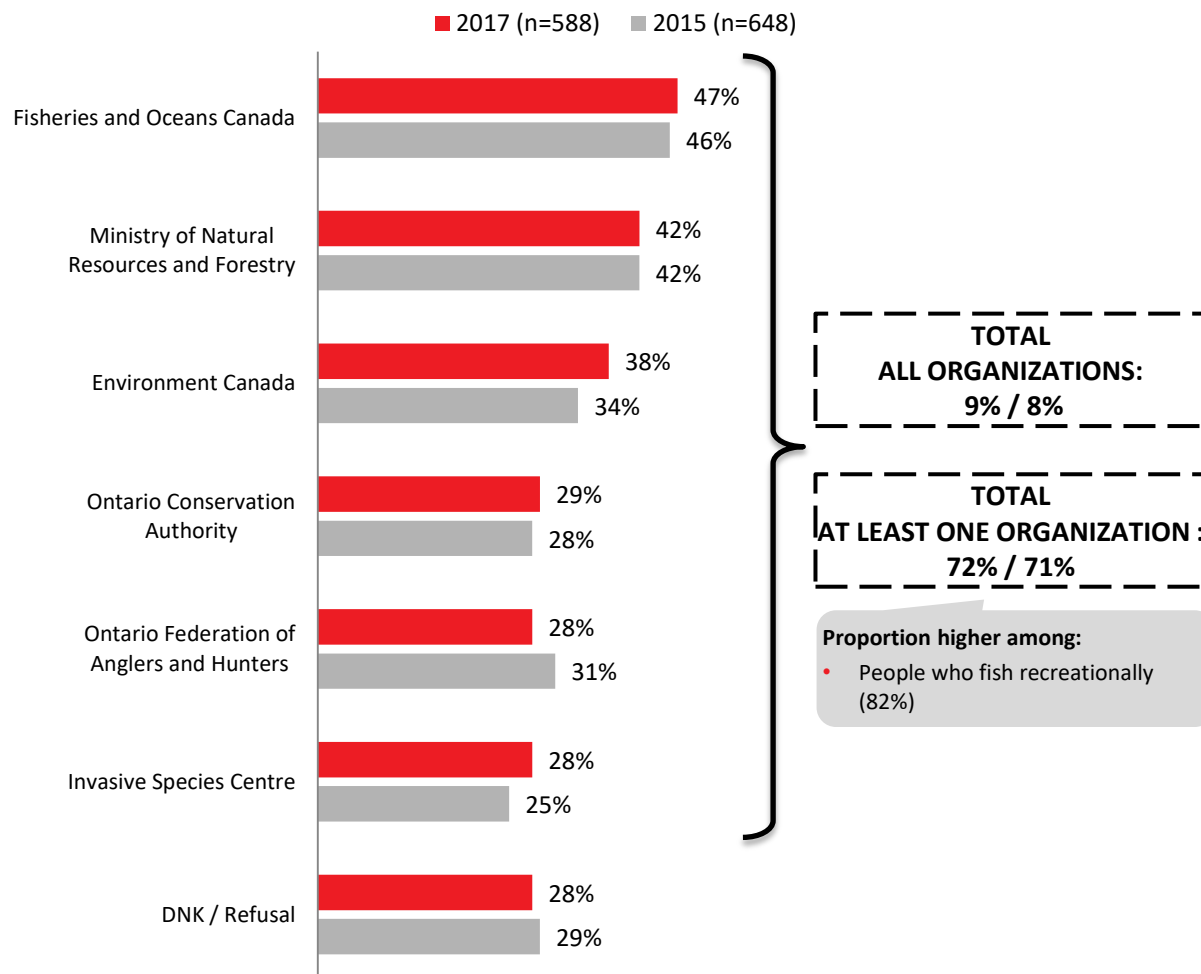


Base: All respondents

AWARENESS OF CANADIAN ORGANIZATIONS THAT CONTRIBUTE TO MONITORING AND PREVENTING ASIAN CARPS FROM ENTERING THE GREAT LAKES

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

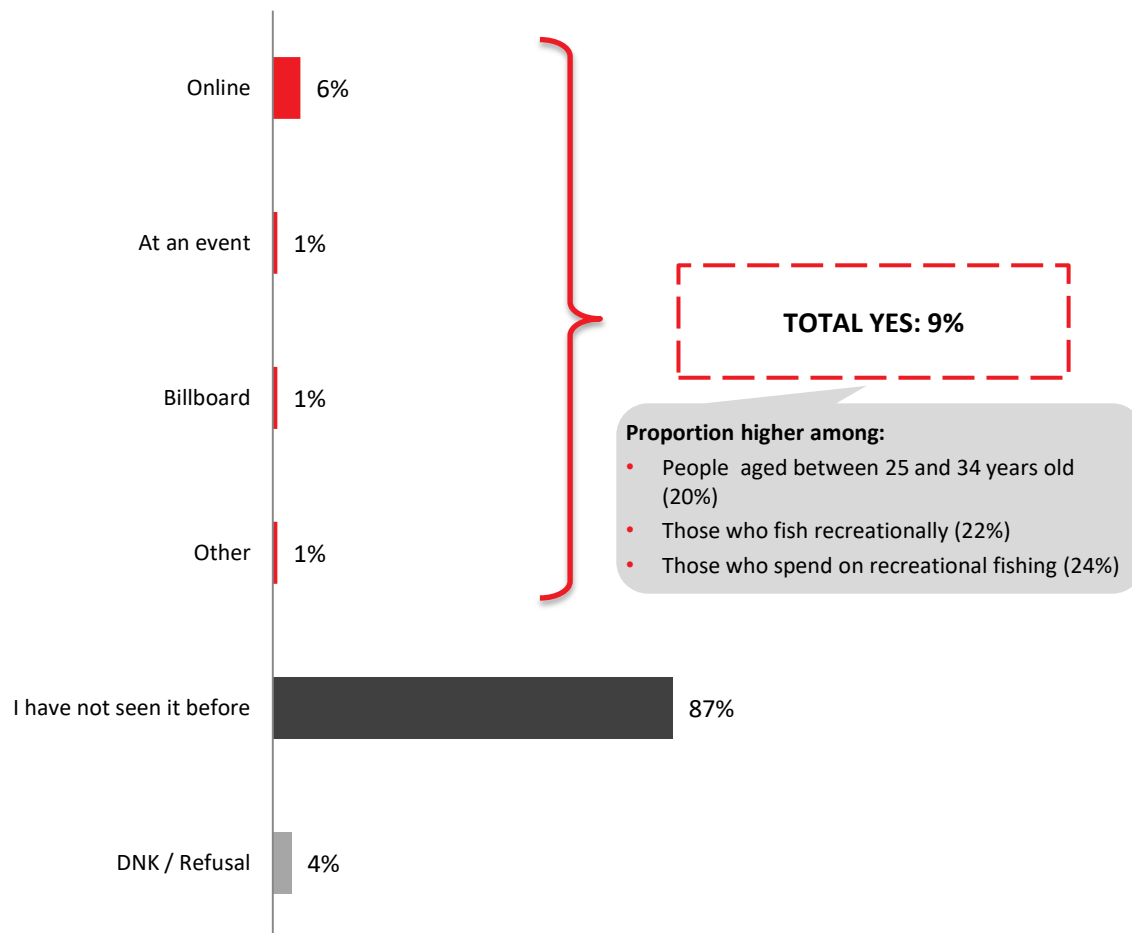
*Since respondents could provide multiple answers, total mentions may exceed 100%

AWARENESS OF THE LOGO OF THE WEBSITE ASIANCARP.CA

Q8. Where have you seen this logo before?*



(This logo was shown to respondents)

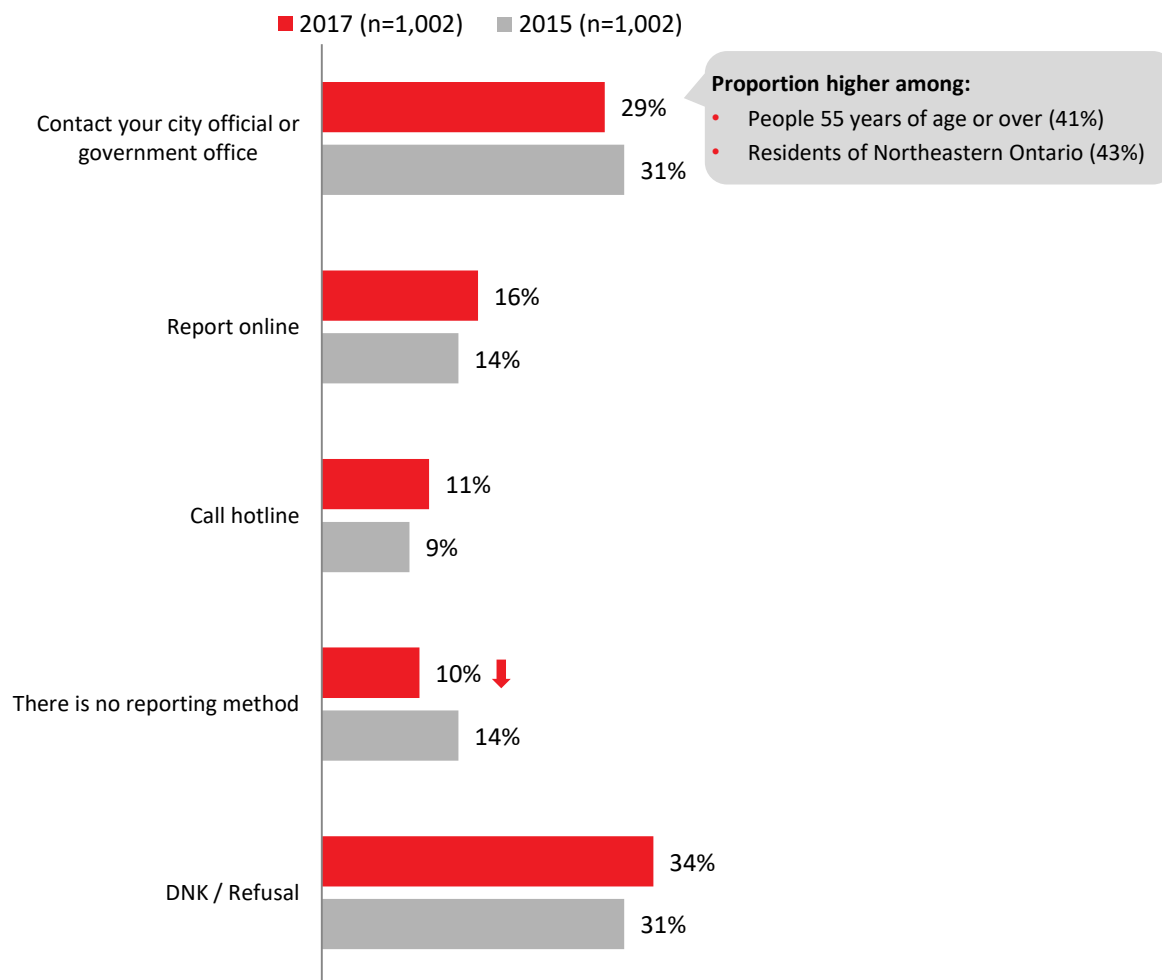


Base: All respondents (n=1,002)

*New question in 2017

PREFERRED METHOD TO REPORT AN INVASIVE SPECIES SIGHTING

Q9. How would you report an invasive species sighting?



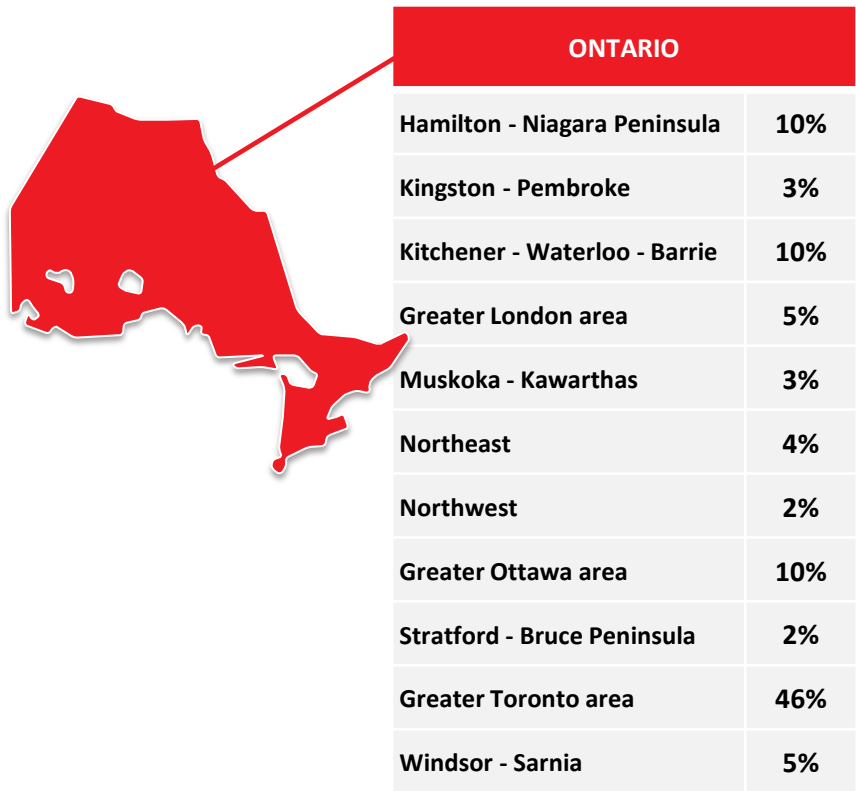
Base: All respondents

A landscape photograph of a calm lake under a dramatic, cloudy sky. The water reflects the sky and the surrounding green trees. In the foreground, there are tall, green reeds or grasses.

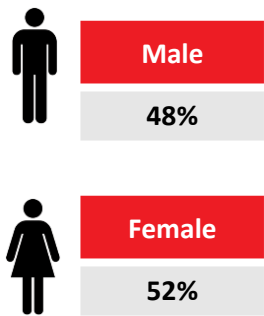
PROFILE OF RESPONDENTS

PROFILE OF RESPONDENTS

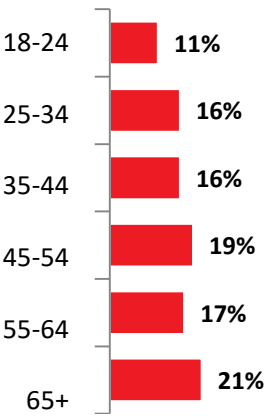
REGION



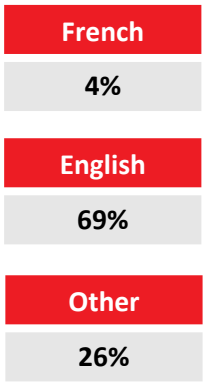
GENDER



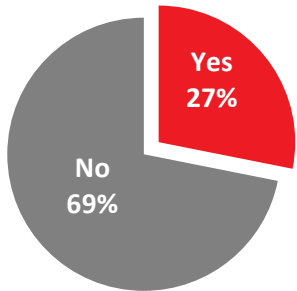
AGE



LANGUAGE



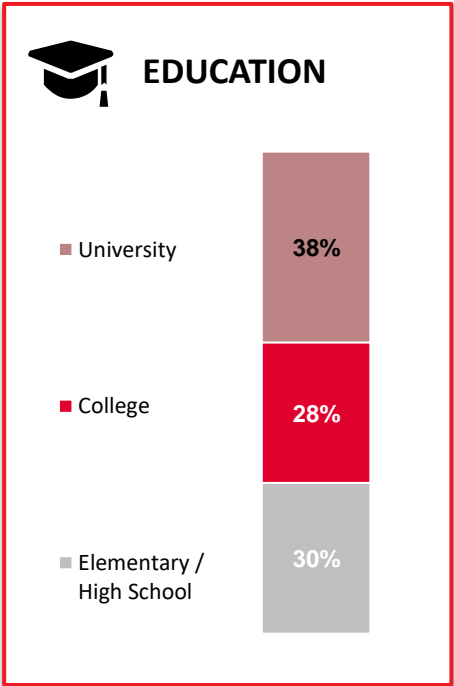
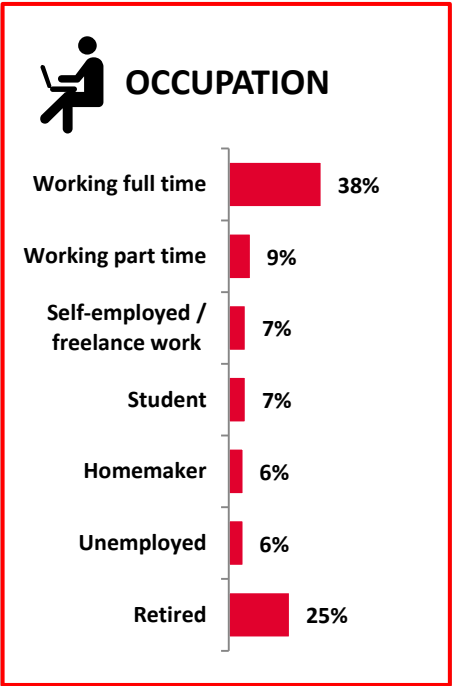
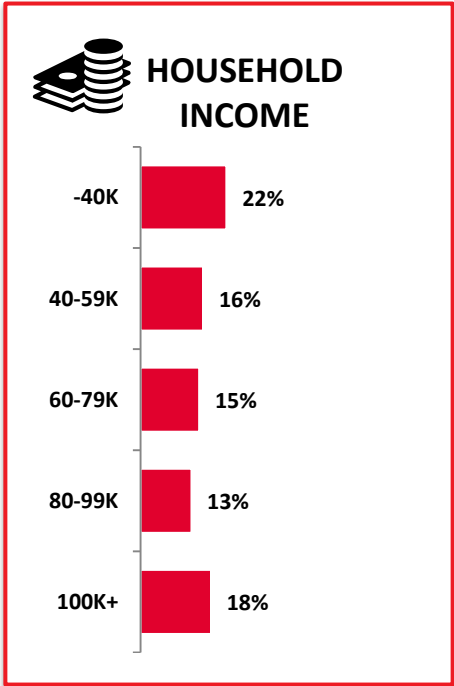
CHILDREN



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".

The background of the slide is a landscape photograph. The top half shows a sky filled with large, dark, dramatic clouds. Below the sky is a line of green trees. In the foreground, there is a body of water reflecting the sky and trees. The bottom half of the slide is covered by a semi-transparent grey overlay, and at the very bottom, there is a close-up of tall green grass with golden seed heads.

TEAM


TEAM

For more information, please contact :

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OUR SERVICES

- **Leger**
Marketing research and polling
- **Leger Metrics**
Real-time VOC satisfaction measurement
- **Leger Analytics**
Data modeling and analysis
- **Leger UX**  iMarklab
UX research and optimization of interactive platforms
- **Legerweb**
Panel management
- **Leger Communities**
Online community management
- **International Research**
Worldwide Independent Network (WIN)
- **Qualitative Research**
Room Rentals

400
EMPLOYEES



75
CONSULTANTS



6
OFFICES

MONTREAL | QUEBEC | TORONTO | EDMONTON | CALGARY | PHILADELPHIA

OUR CREDENTIALS



Leger is certified **Gold Seal** from the [Marketing Research and Intelligence Association \(MRIA\)](#). As such Leger and its employees are committed to applying the highest ethical and quality standards of the [MRIA Code of Ethics for market and opinion research](#).



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