

# FOCA Member “Lunch and Learn”

## Protecting our Great Lakes from Asian Carps



### 1. Learn how to ID carp:



### 2. Report sightings: EDDMapS

## Welcome Notes:

- the event begins at 12:00pm
- it is being recorded
- you will receive a link to the recording later
- you are muted; please post questions in Zoom “Chat”

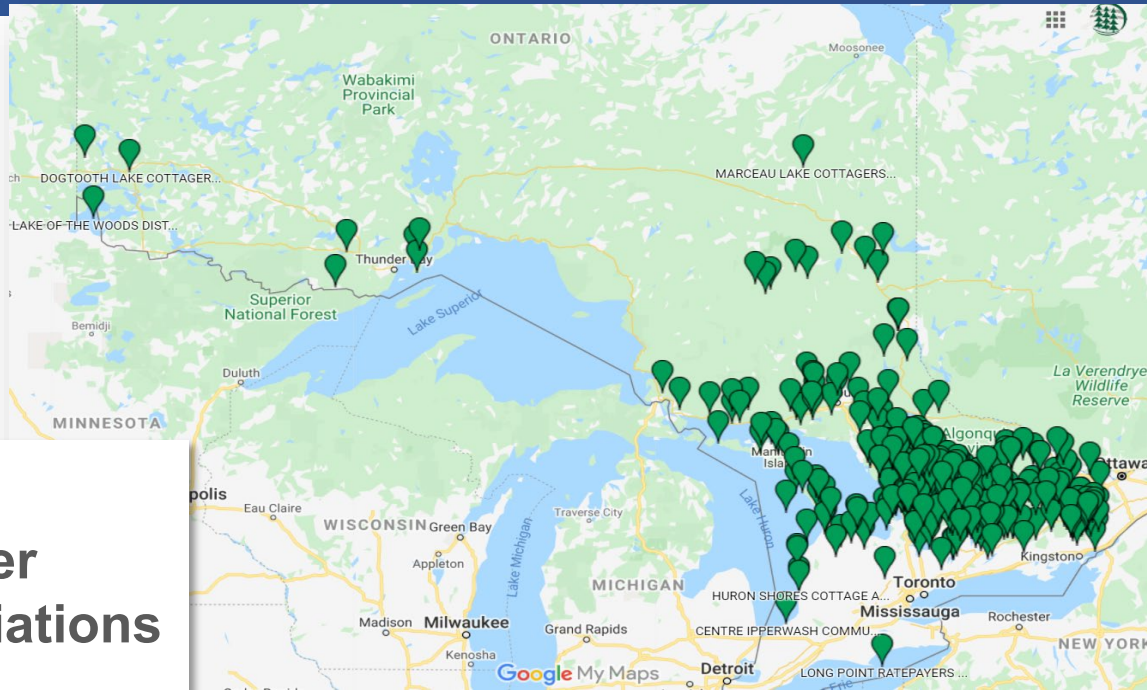
# About FOCA



**Terry Rees**

**FOCA Executive Director**

# FOCA's Community



**520+**  
member  
Associations

**50,000**  
families

**As the voice of Ontario's waterfront community, FOCA serves a collective purpose where we are more effective together than individually.**

# FOCA Member Benefits



## Key Services provided to the Association:

- Association Liability Insurance coverage at a member rate  
>including a **LEGAL HELPLINE** for the Association
- Policy updates & government advocacy on rural issues
- Articles, fact sheets, videos & brochures on hot topics (septics, invasives, cottage succession ...)
- Members' only web login for detailed information, association governance tips & more.

**Also: Benefits, Event Access & Discount Offers for all Member families!**

<https://foca.on.ca/benefits/>



# Read more about FOCA's work



## FOCA's Strategic Update

In 2020 FOCA conducted an in-depth survey of membership as part of a Strategic Planning process undertaken by the Board of Directors on a three-year cycle.

From the hundreds of survey responses, we were pleased to see that you appreciate FOCA's programs, publications and communications like this! We note that you value FOCA's role as the voice of the Ontario waterfront community.

Read FOCA's Strategic Plan 2020 to 2023, posted here.

The headings on the following pages reflect the priorities identified in the new plan:

- promoting healthy lands, lakes and rivers
- advocating for responsive government
- serving local lake and road associations
- championing affordable and safe rural living
- building capacity, and
- fostering community.

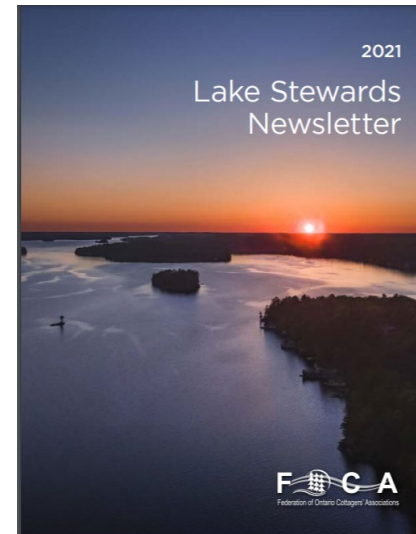


## MEMBER FEEDBACK

"I really appreciate that FOCA acts, as it is a great way to learn and advocate for cottage owners. Family cottages are very special places that tie families together and they need to be protected and recognized as important to the fabric of society."

## MEMBER SURVEYS

Communication is a two-way street, and FOCA's surveys are where we collected most of the comments and feedback reported throughout this publication. Thanks for continuing to share your valuable feedback with us!



## Preventing the Spread of Asian Carps

Everyone in Ontario should be on the lookout to prevent the spread of invasive species including Bighead, Silver, Grass and Black Carp.

To date, there have been no Silver Carp or Black Carp found in the Great Lakes, and there have been only a few captures of individual Bighead Carp and Grass Carp in the Canadian waters of the Great Lakes, including a recent capture of a single Grass Carp in Jordan Harbour (Wagons Point) in July 2020. Of those captured fish, most were found to be infertile, or "triploid". It is likely that the fish caught were escaped from areas where populations were being used for aquaculture plant control, or live releases.

### Why all the concern, and vigilance around this threat?

There is a considerable ecological threat from these invaders. In particular, the Silver and Bighead carps have steadily been outcompeting native fishes in the Mississippi River and in the lakes and tributaries that feed the river. They are voracious eaters, able to consume 50 to 200 per cent of their body weight each day, leaving far less of the microscopic plant and animal life (phytoplankton and zooplankton) to support native fishes.

Grass Carp primarily consume aquatic plants, and their foraging can disturb lake and river bottoms, and destroy valuable wetlands. Their foraging also results in increased turbidity of the water, making it more difficult for other fish to find food. The destruction and loss of aquatic vegetation also leaves native juvenile fishes without adequate cover from predators and reduces possible spawning habitats.

These carps are also prolific breeders and in some areas where they have established they have dominated habitats, making up as much as 80 per cent of the biomass. That extent of biodiversity loss is apt to make the entire ecosystem more fragile.

Silver and Bighead carps can also impact fishing gear and nets as a result of their "large size, the density of their schools and their rigorous movement. The established population of Silver carps in the Mississippi and Illinois River systems poses a threat to boaters' safety. Because Silver Carp can grow to as large as 40 kilograms, their leaping behaviour presents a serious danger for anyone on the surface of the lake or river where the fish are present.

The socio-economic threat is also considerable. Should these invaders reach the Great Lakes, they are expected to have a huge impact on many of the activities and industries that currently take place there including commercial, recreational and subsistence fishing, recreational boating, wildlife viewing, and beach and lakeside use.

Government action to stop the spread

The search for evidence of these invaders comprises a major part of the efforts of Fisheries and Oceans Canada (DFO). In addition to traditional electrofishing and net sampling techniques, U.S. and Canadian researchers are currently exploring the results of environmental DNA (eDNA) testing (Great Lakes eDNA Monitoring Program), for its use in carp surveillance.

In Canadian waters, biologists from the Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry (MNMRNF) and DFO work closely together to collect information and share findings and implement response activities following any find of Bighead, Silver, Grass or Black Carp in Canadian waters. Coordinating with the Province of Ontario, DFO's Response Plan ensures effective communications among the various agencies involved, follow-up monitoring, and eDNA sampling to find out whether the specimen is an isolated incident or indicative of the species having successfully established.

## Did You Know?

Grass Carp forage for food by digging into banks and uprooting vegetation.

This feeding behavior may cause loss of vegetation, bank erosion, erosion to shoreline and increased turbidity in the adjacent waters. The lost sediment could reduce the size of waterfront property and damage nearshore habitats and water quality since plants along the shoreline slow surface runoff and filter contaminants before they reach the lake.



22 2021 LAKE STEWARDS NEWSLETTER

<https://foca.on.ca/2020-year-in-review/>

<https://foca.on.ca/2021-lake-stewards-newsletter/>

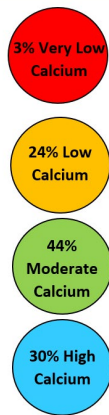
# FOCA's Priority Goals include...



Promoting Healthy Lands,  
Lakes and Rivers



Advocating for  
Responsive Government



Very Low Ca (< 1.5 mg/L)  
Low Ca (1.5 - 3 mg/L)  
Moderate Ca (3.1 - 20 mg/L)  
High Ca (> 20 mg/L)



Lake Partner Program – Distribution of lake calcium (Ca) concentrations  
Source: Lake Partner Program Report Card, 2015



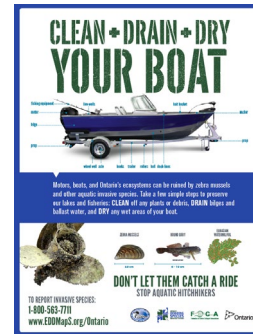
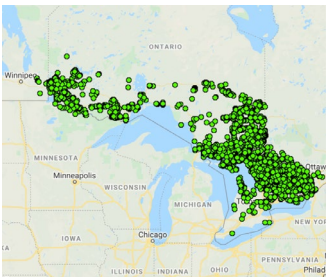
## A Guide to Municipal Engagement for Ontario Lake Associations



# FOCA's Programs include...

## Lake Partner Program of water quality monitoring

[https://foca.on.ca/  
lake-partner-program/](https://foca.on.ca/lake-partner-program/)



## Invasive Species preventing the spread

<https://foca.on.ca/invasive-species/>  
<https://foca.on.ca/phragmites/>  
<https://foca.on.ca/isampleon/>

## Asian Carps awareness & prevention

[https://foca.on.ca/  
asian-carp/](https://foca.on.ca/asian-carp/)



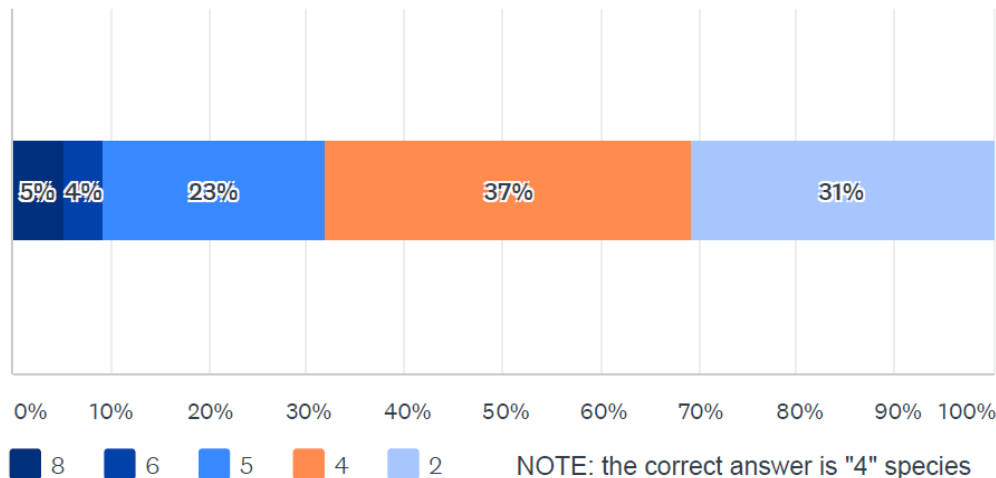
two images above courtesy Fisheries and Oceans Canada

# In FOCA's recent survey...

**Just over 1/3** of respondents were correct,  
that we are monitoring for **4** different species of Asian carps

To prevent their establishment in the Canadian Great Lakes, how many different types of Asian carp species are currently being monitored or considered invasive?

Answered: 153 Skipped: 0





# Quick Poll #1:

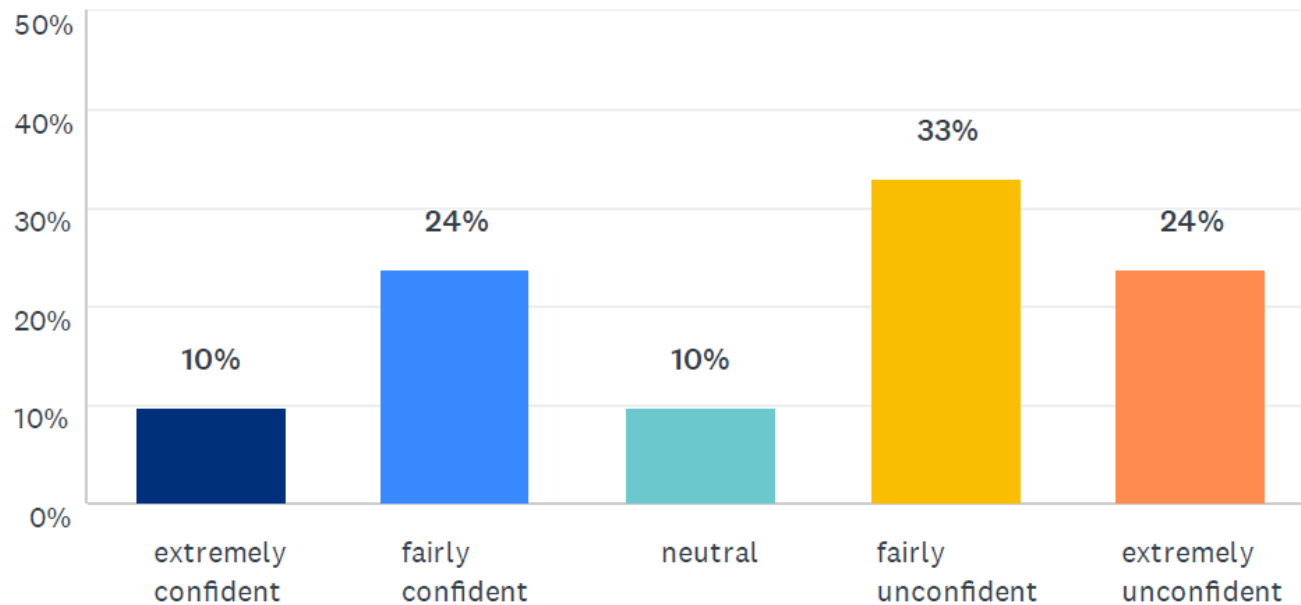
**If you saw one in the Great Lakes, how confident are you that you could identify an Asian carp?**

- extremely confident
- fairly confident
- neutral
- fairly unconfident
- extremely unconfident

# Results from FOCA's survey

If you saw one in the Great Lakes, how confident are you that you could identify a species of Asian carp?

Answered: 152   Skipped: 1



# Quick Poll #2:

**Which  
of these  
(if any)  
is a  
Grass Carp?**

**A**



**B**



**C**



# Quick Video presentation

Perspectives on Asian Carp Prevention in Canada: Cottager



<https://www.youtube.com/watch?v=OoSy5V--ORM>



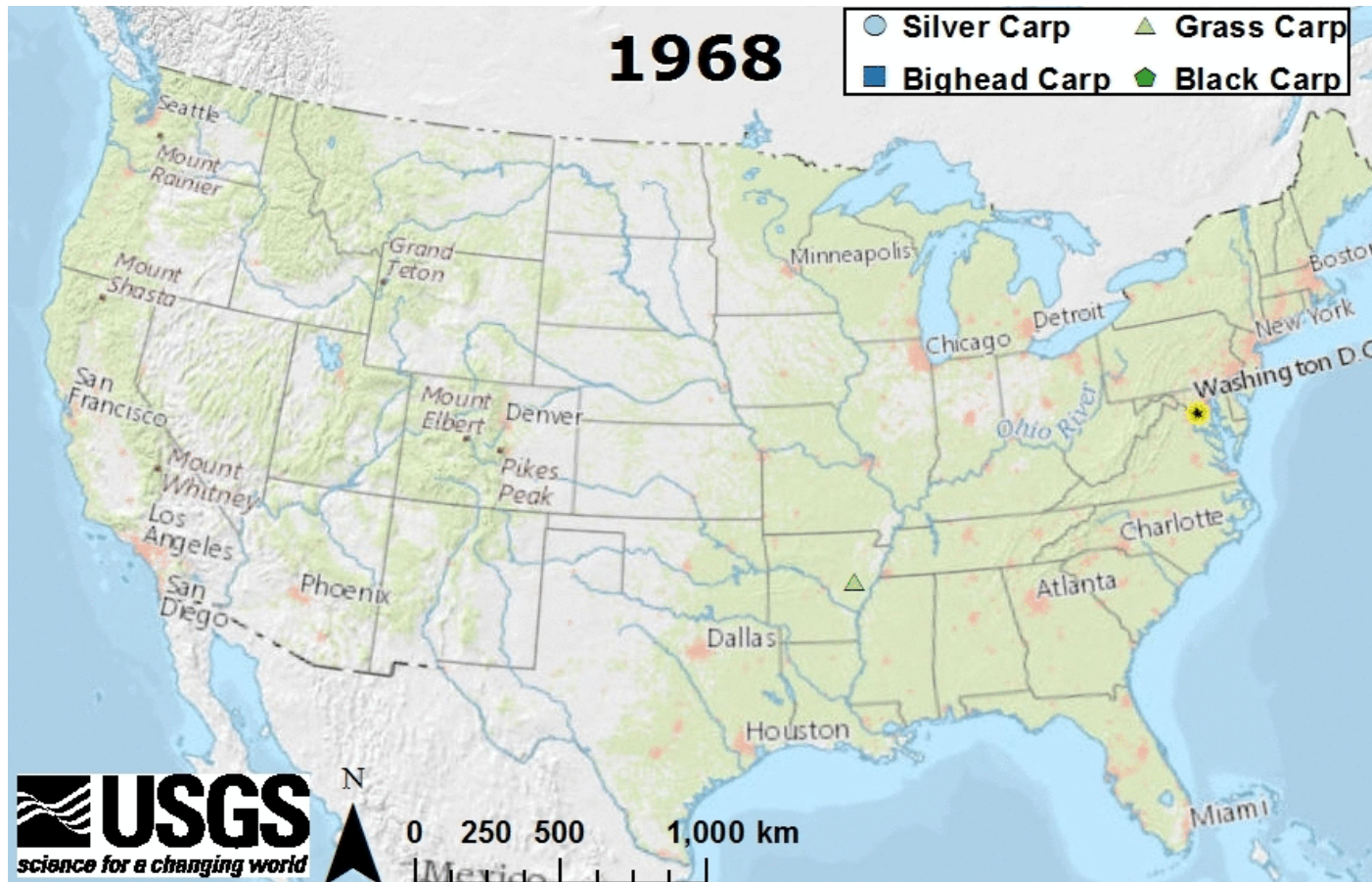


# Protecting our Great Lakes from Asian Carps

Federation of Ontario Cottagers' Associations  
Lunch & Learn Webinar

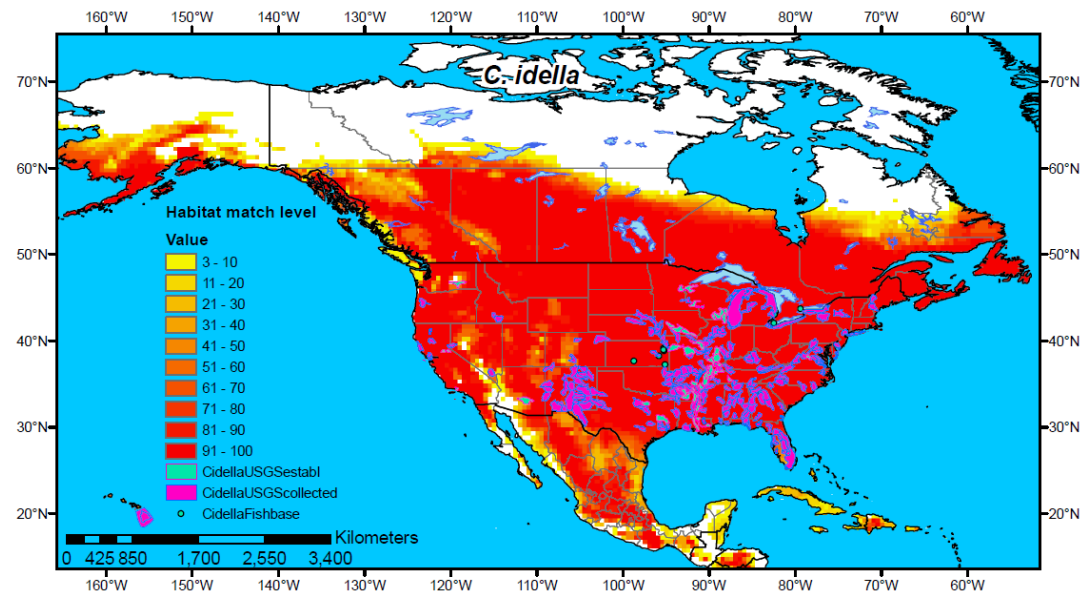
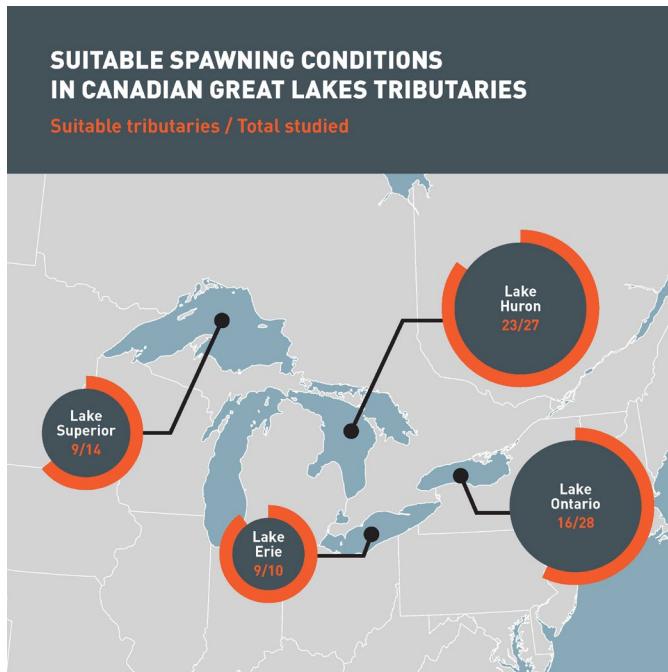
September 22, 2021

# Where do Asian carps come from?

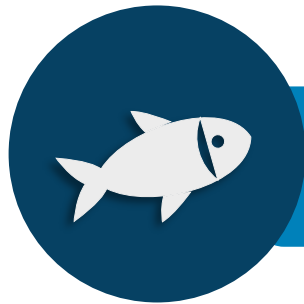




# How do Asian carps survive?



# Broader impacts of Asian carps



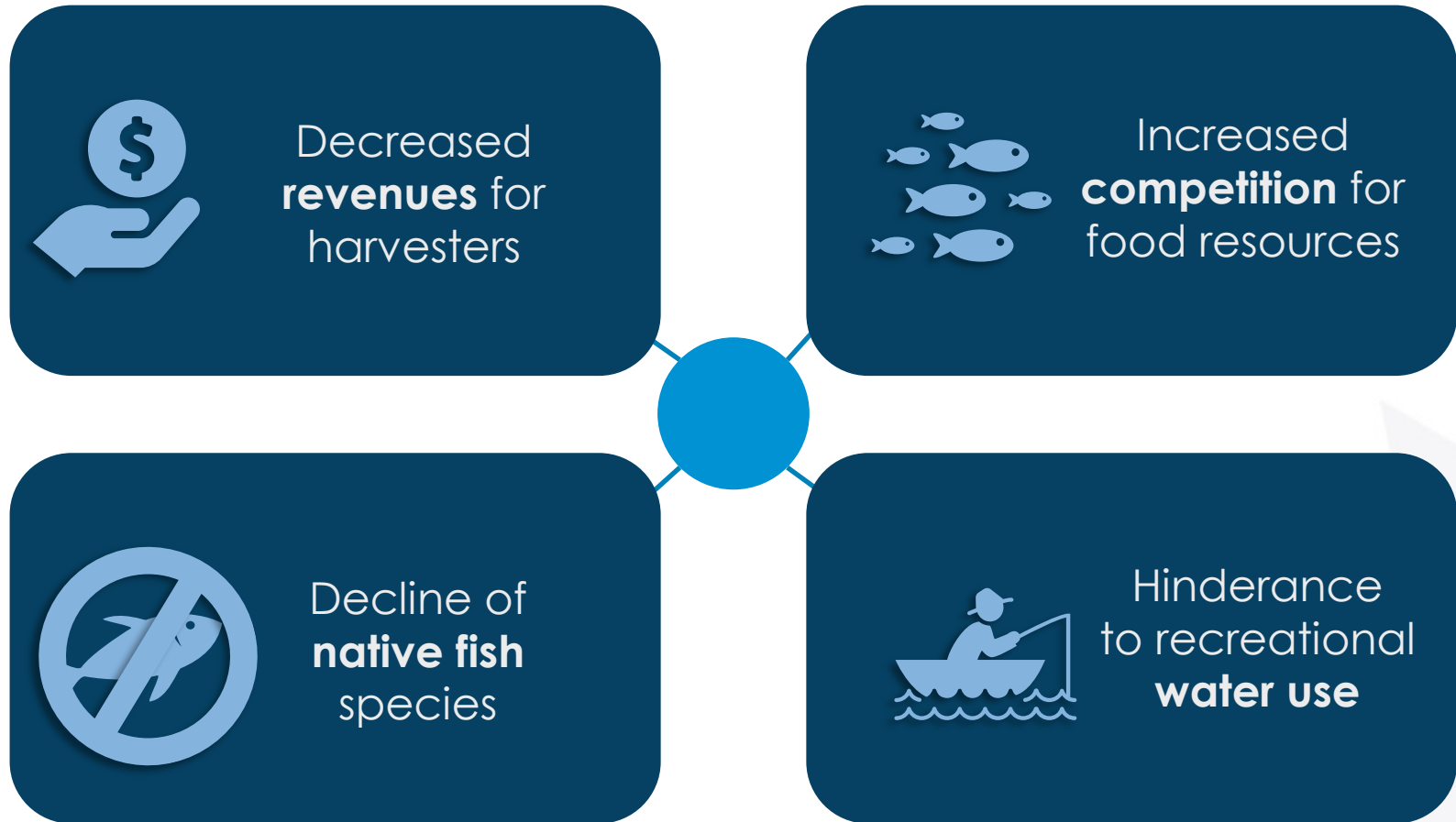
**Outcompete native fishes**



**Dominate habitats**



# Impacts of Asian carps on the angling community





# Grass Carp – Immediate Threat

# Grass Carp – an immediate threat

**20**  
**FISH** COULD  
TAKE OVER THE  
GREAT LAKES





# Grass Carp – an immediate threat

EATS UP TO  
**40%**  
ITS WEIGHT  
/ DAY

GROWS TO  
**4.5'**  
LONG\*\*

GAINS  
**2** LBS/  
MO\*



\* Equivalent metrics: 0.9 kilograms

\*\* Equivalent metrics: 1.4 metres



# Grass Carp – ecological impacts



# Are Grass Carp likely to spread?

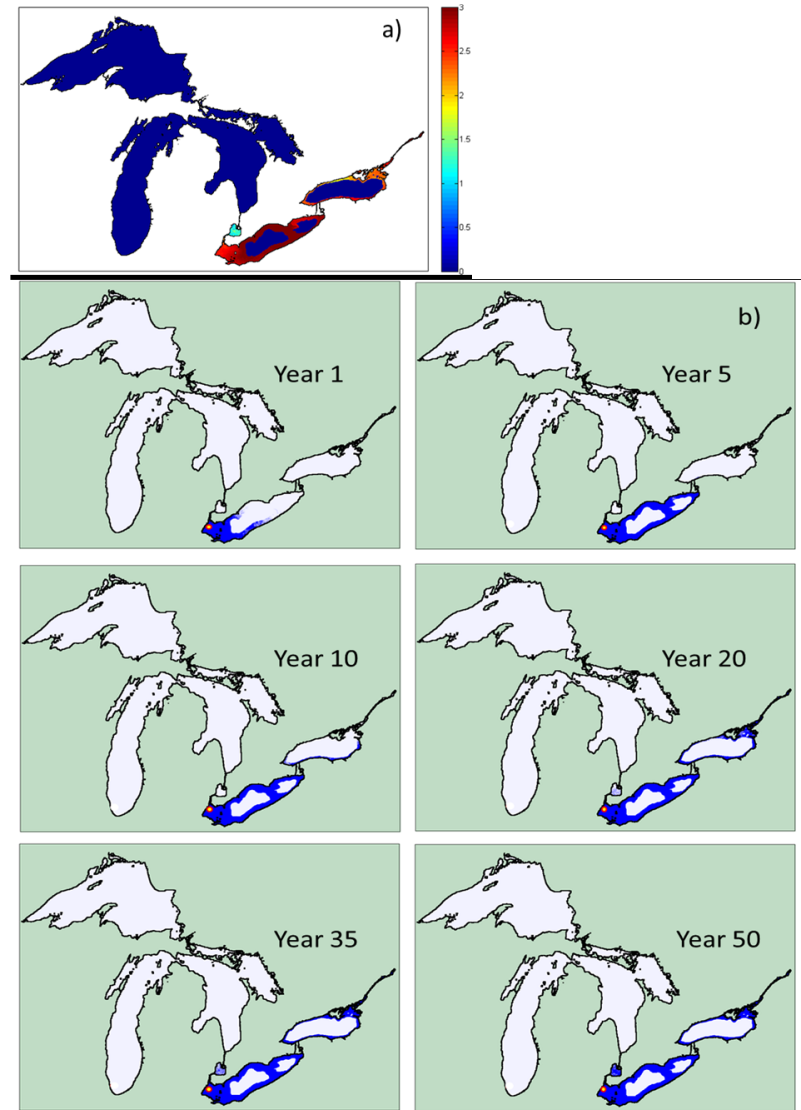
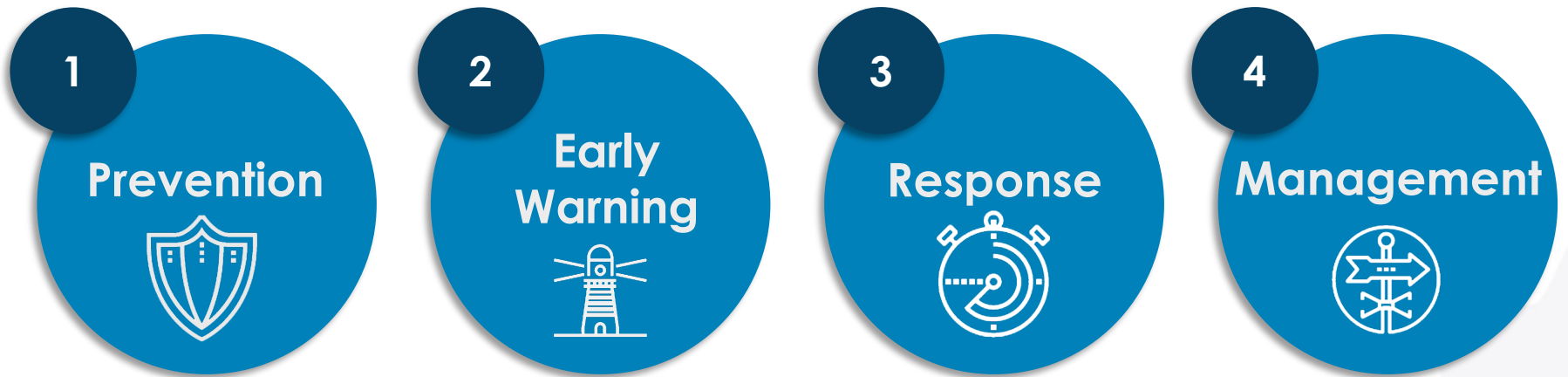


Figure from: Currie WJS, Kim J, Koops MA, Mandrak NE, O'Connor LM, Pratt TC, Timusk E, Choy, M. 2017. Modelling spread and assessing movement of Grass Carp, *Ctenopharyngodon idella*, in the Great Lakes basin. DFO Can. Sci. Advis. Sec. Res. Doc. 2016/114. v + 31 p.



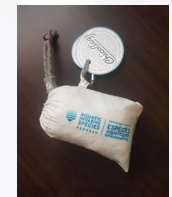
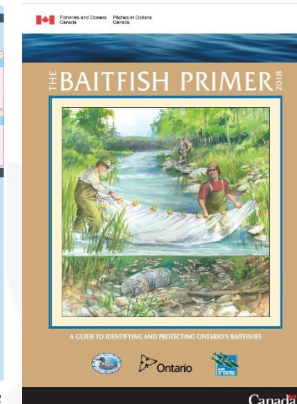
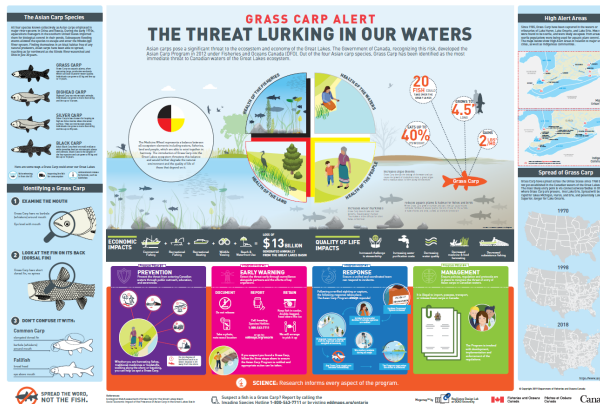
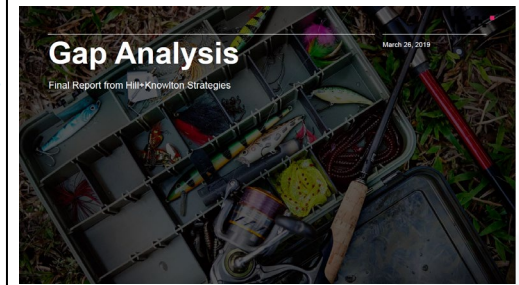
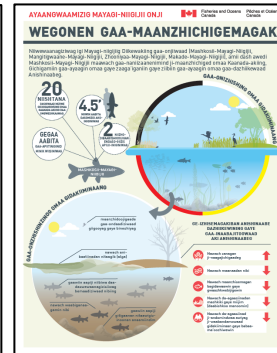
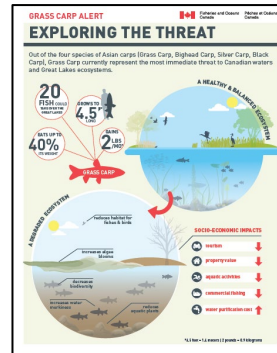
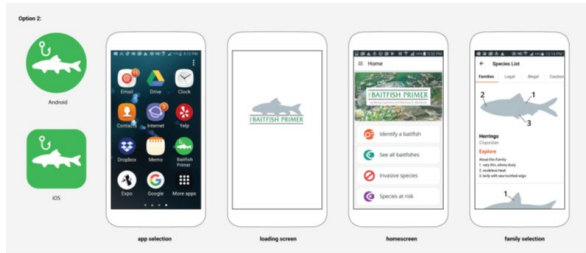
# The Asian Carp Program

# The program pillars

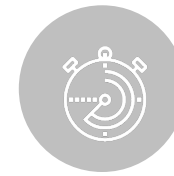




# DFO Outreach Projects



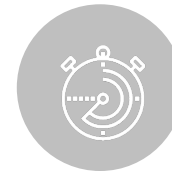
# Science & Research



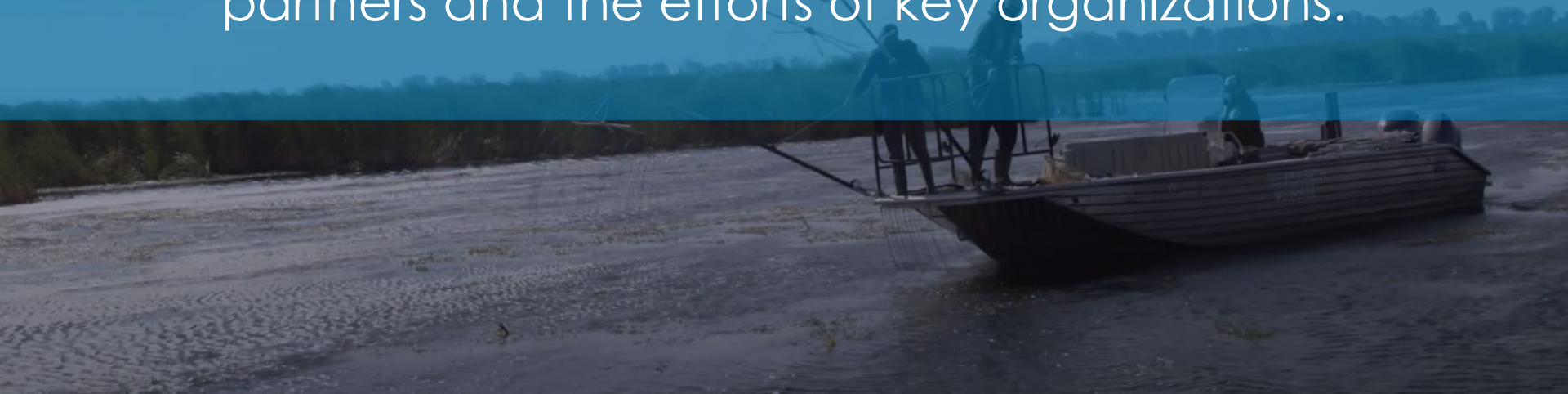
- Research to Support Risk Assessments
- Fish Movement
- Control Technologies
- Water Collections
- Hydrological Measurements
- Fish Detection Modelling
- Research & Risk Assessment Advice to Support Outreach Efforts



# Early warning

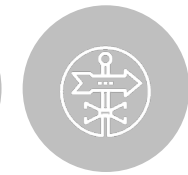
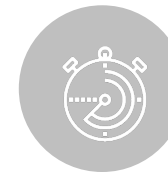


Detect the threat early through **surveillance** alongside partners and the efforts of key organizations.



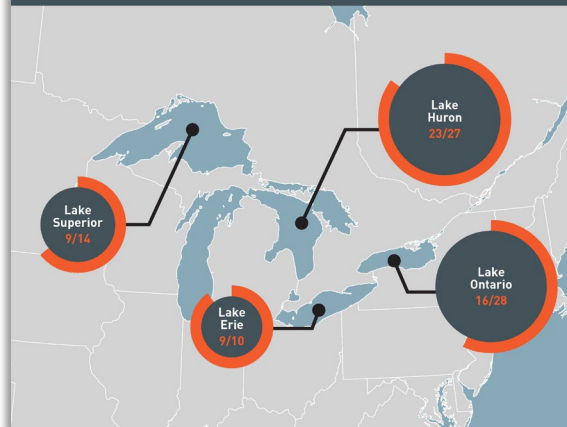


# Early warning

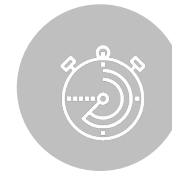


## SUITABLE SPAWNING CONDITIONS IN CANADIAN GREAT LAKES TRIBUTARIES

Suitable tributaries / Total studied



# Early detection surveillance field program



**Early detection of  
Grass Carp**



**Pre-impact baseline  
fish community**

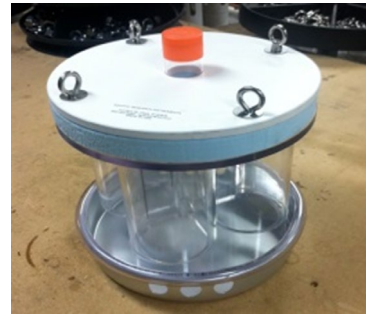




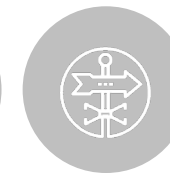
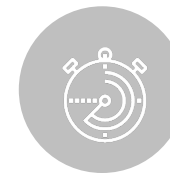








# Early detection surveillance summary



	2013	2014	2015	2016	2017	2018	2019	2020	ALL YEARS (preliminary)
Number of Sites	291	743	1,056	1,333	1,211	1,145	1,197	980	7,956
Number of Waterbodies	25	37	36	40	34	36	36	30	48
Total Number of Fish	16,123	47,188	61,765	79,834	67,862	64,169	57,027	61,247	455,215
Number of Species	83	93	98	100	89	90	86	84	113
Number of Buffalo	193	346	762	1157	887	914	864	434	5,557
Number of Common Carp	489	1,774	3,200	2,661	2,024	2,576	1,876	995	15,595
Number of Grass Carp	1	0	1	0	0	0	0	1	3
Mean Number of Fish per Site	74	59	61	64	47	56	48	62	60
Mean Number of Species per Site	8	6	6	7	6	6	6	6	6

ALL GRASS CARP DETECTED  
BY TRAMMEL NETS

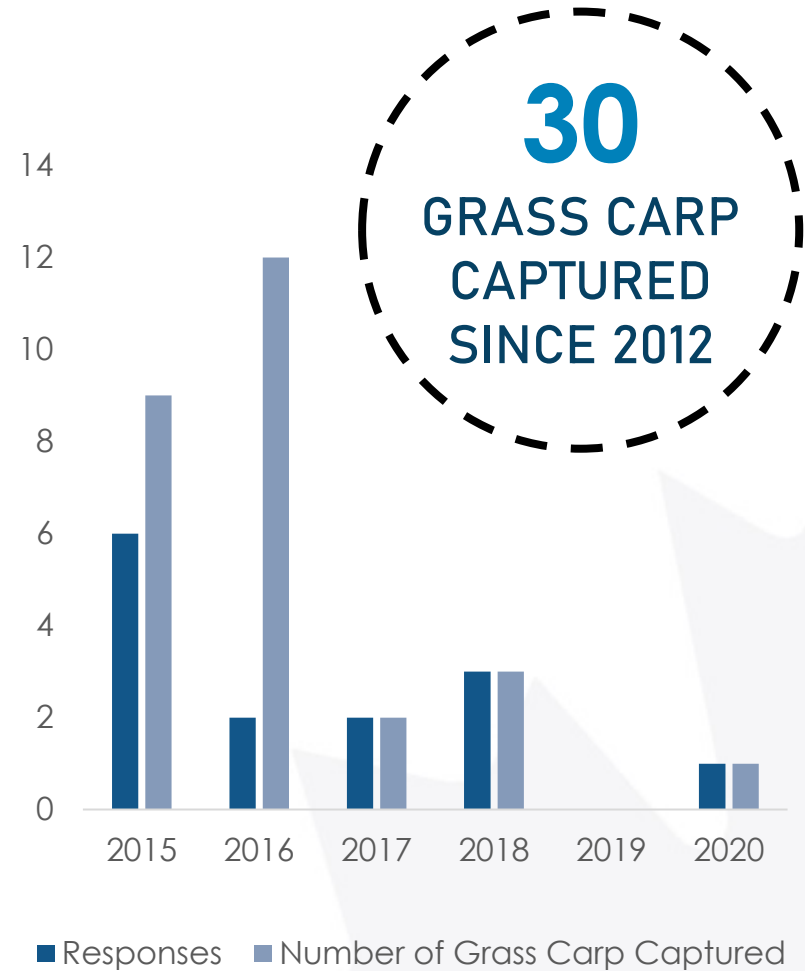


# Response

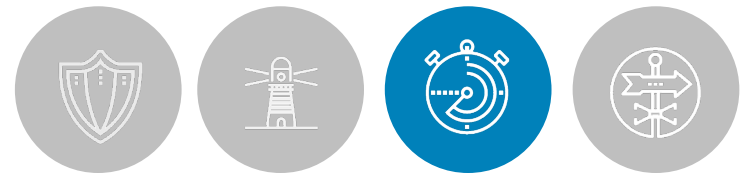


Ensure a **unified** and **coordinated team** can respond to incidents.

# Grass Carp captures

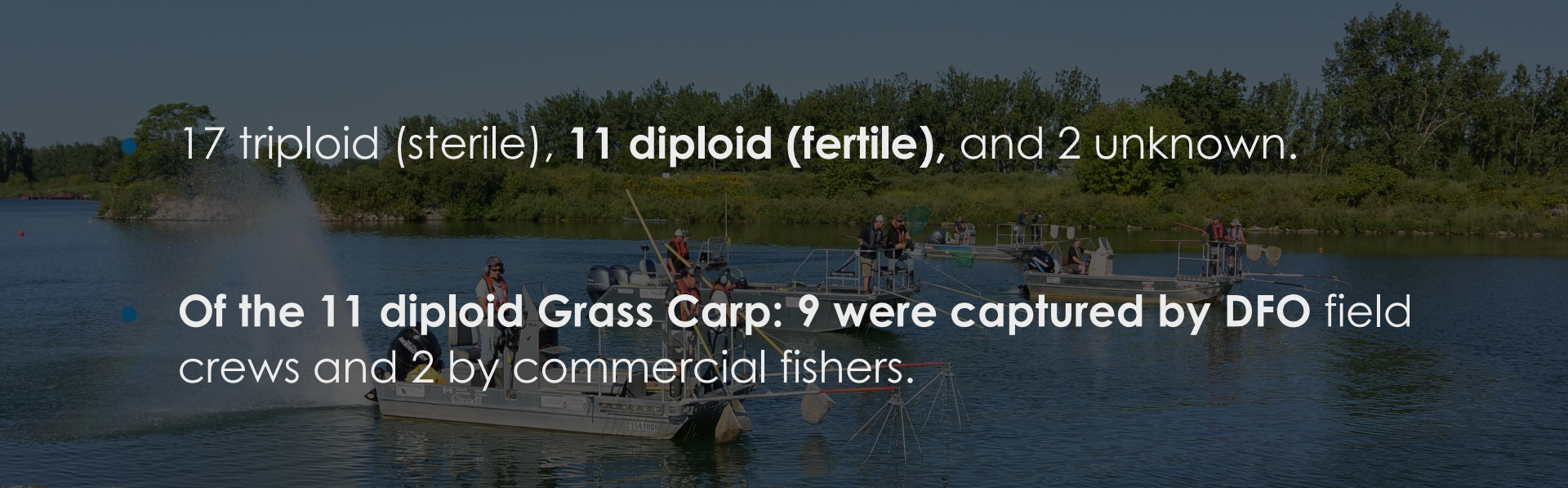






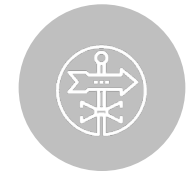
# Grass Carp captures

- **12 captures** resulted in **on-the-water response operations**.
- **3 captures** occurred during **early detection surveillance**.
- 17 triploid (sterile), **11 diploid (fertile)**, and 2 unknown.
- **Of the 11 diploid Grass Carp: 9 were captured by DFO field crews and 2 by commercial fishers.**



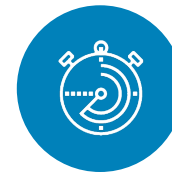


# Where have Grass Carp been captured?



These are considered **High Alert Areas** where Grass Carp have been captured in the past or could be seen.

# Our team



# Response operations



## Toronto Islands Response

September 2015

- 2 fertile Grass Carp
- **8 crews – 3 agencies:**  
DFO, MNRF & TRCA
- 8 boats – 20 staff onsite/day
- **> 550 man hours onsite +**  
182 hours offsite by DFO



## Lake Gibson – June 2016

10 Grass Carp, 10 days, 3 crews  
(DFO&MNRF)

10,999 BEF seconds & 501 TRM minutes



## Jordan Harbour – July 2020

1 Grass Carp, 6 days, 3 crews (DFO)  
27,858 BEF seconds & 2,051 TRM minutes





# Response exercises

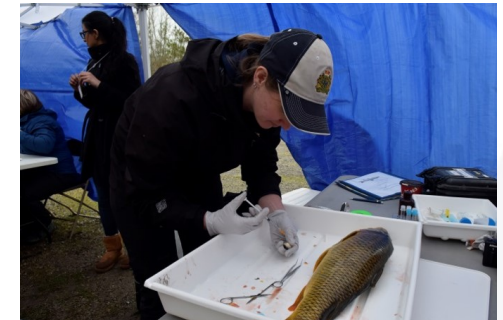
## Training with Provincial Partners

- Grand River Training Exercise – April 2017
- DFO-MFFP Quebec Exercise – May 2018

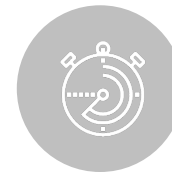


## Bi-national Coordination

- Annual Ohio DNR Planned Actions & Training Exercises (2017-2019)



# Prevention & Early warning

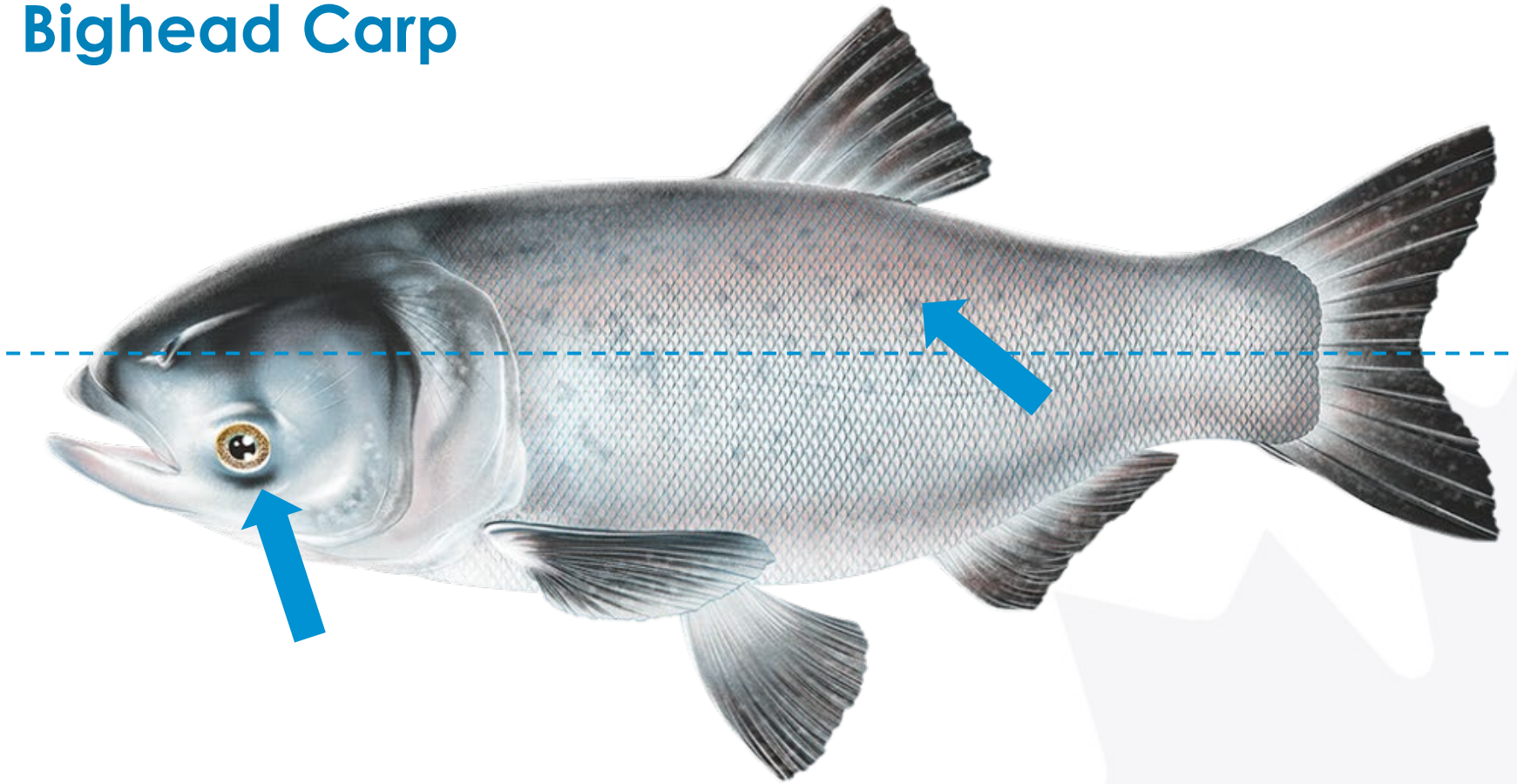


**You Can Help!**



# Identification

## Bighead Carp

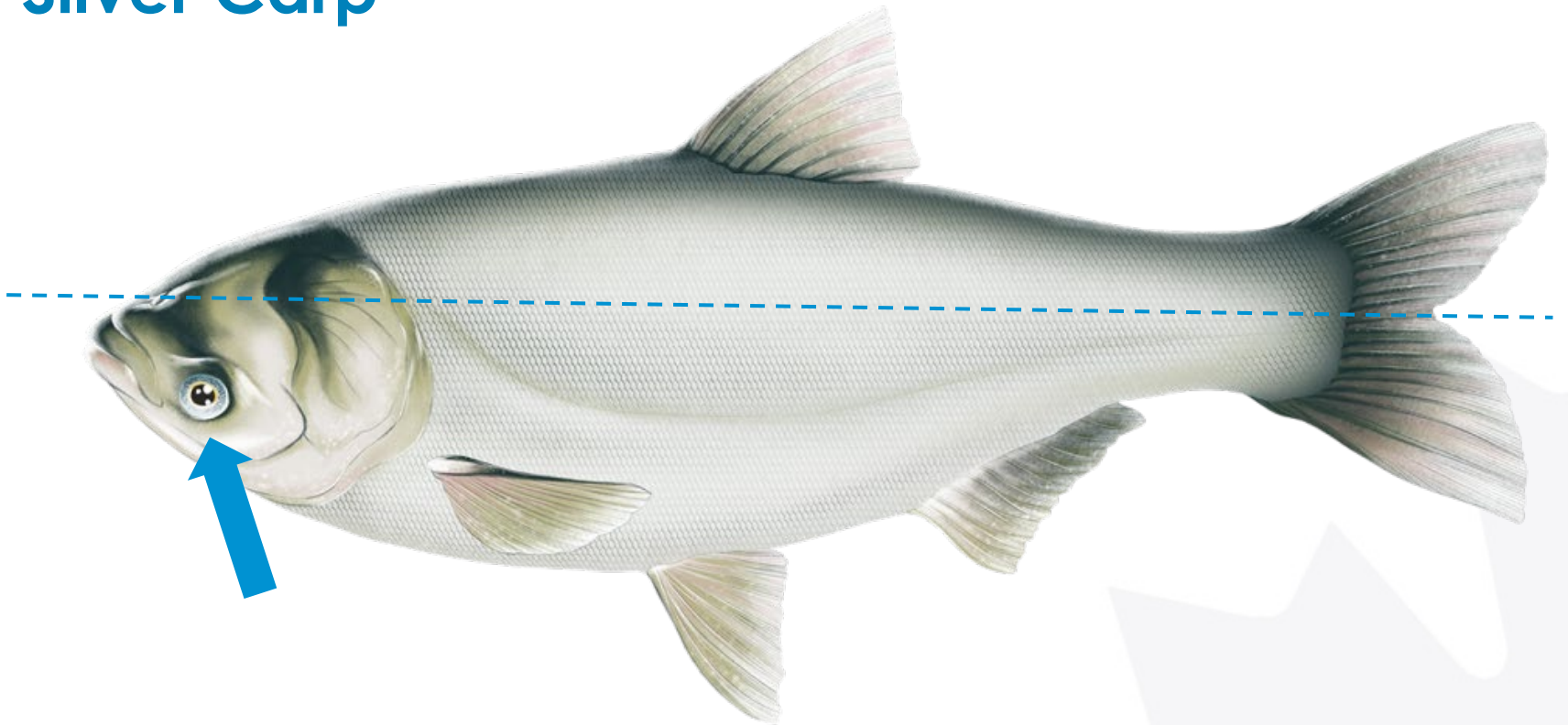


Source: [www.asiancarp.ca](http://www.asiancarp.ca)



# Identification

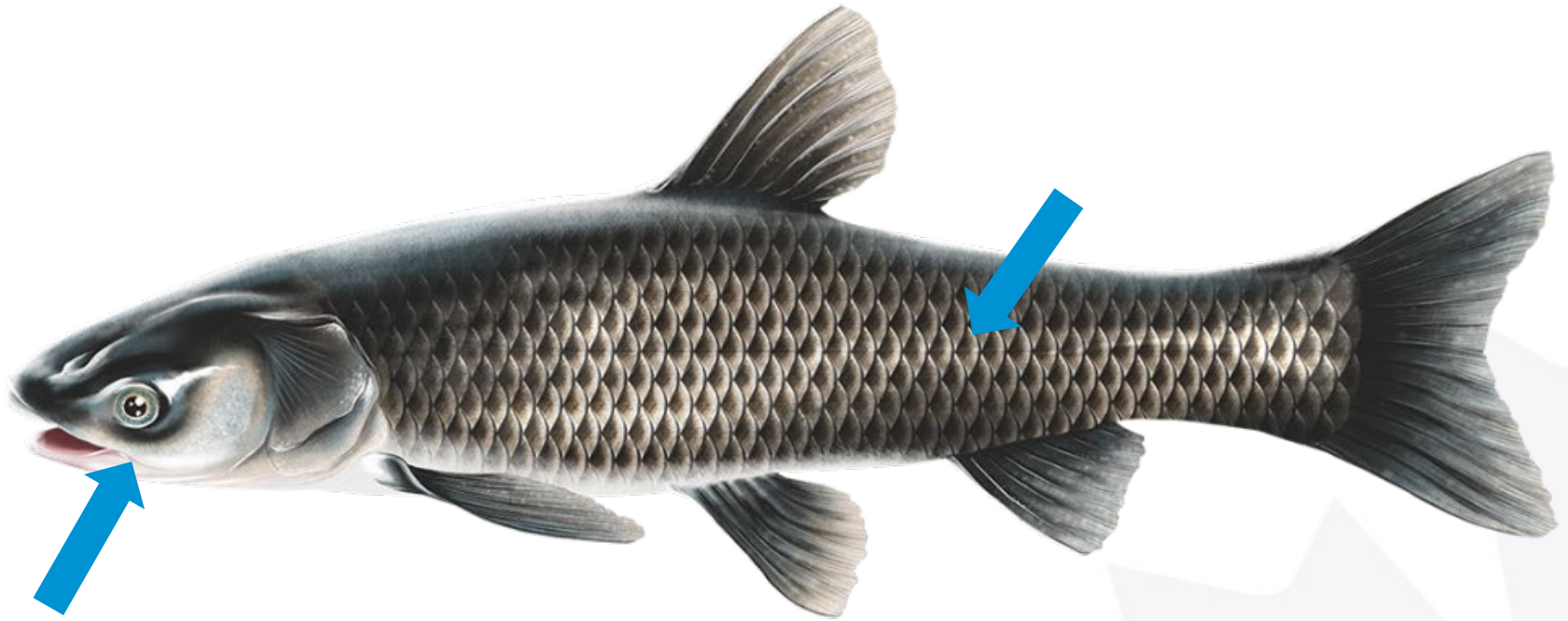
## Silver Carp



Source: [www.asiancarp.ca](http://www.asiancarp.ca)

# Identification

## Black Carp



Source: [www.asiancarp.ca](http://www.asiancarp.ca)

# Identification

## Grass Carp



Source: [www.asiancarp.ca](http://www.asiancarp.ca)

Source: [www.asiancarp.ca](http://www.asiancarp.ca)





# Identifying Grass Carp



# Grass Carp vs. other fishes

Asian Carps Regional Coordinating Committee



**INVASIVE Grass Carp** with  
**SHORT** dorsal fin and  
**LARGE SCALES**

Jay Guarneri, Wikimedia Commons



**Fallfish** with **SHORT** dorsal fin  
and **MODERATE SCALES**. Eyes  
sit relatively high on head

# Grass Carp vs. other fishes

Asian Carps Regional Coordinating Committee



**INVASIVE Grass Carp** with  
**JAWED** mouth and **NO**  
**BARBELS** (whiskers). Eyes are  
low and sit in line with mouth

NatureNorth, com



Sucker species (e.g. White  
Sucker, pictured) with  
**SUCKER** mouth and **NO**  
**BARBELS** (whiskers). Eyes sit  
high on the head



# Grass Carp vs. other fishes

Asian Carps Regional Coordinating Committee



**INVASIVE Grass Carp** with  
**SLENDER** head and body

Ohio DNR



**Smallmouth Buffalo**  
with **DEEP** body

# We need your help



# For more information visit...

DFO's Asian Carps Webpage:

[www.dfo-mpo.gc.ca/species-especes/profiles-profils/asiancarp-carpeasiatique-eng.html](http://www.dfo-mpo.gc.ca/species-especes/profiles-profils/asiancarp-carpeasiatique-eng.html)

[www.asiancarp.ca](http://www.asiancarp.ca)

**Requests for more information can be directed to:**

**Jennifer Wright Kavanagh**

Senior Biologist, Asian Carp Program

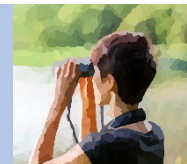
[Jennifer.Wright@dfo-mpo.gc.ca](mailto:Jennifer.Wright@dfo-mpo.gc.ca)



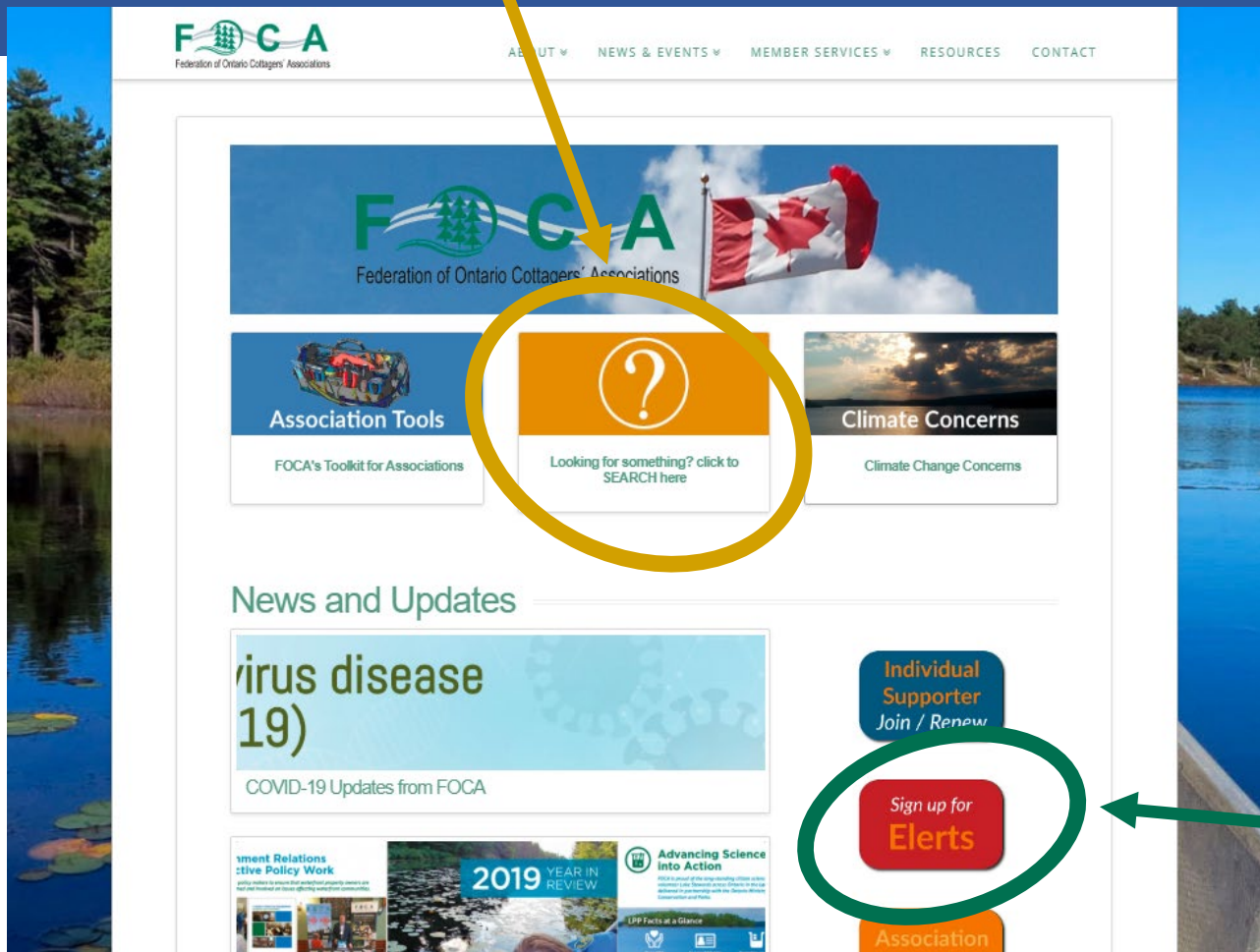


## Q&A...

Please type your question in Zoom “Chat”



# Got a question? Search: **foca.on.ca**



While you're there, join over 12,000 FOCA Evert subscribers!

[info@foca.on.ca](mailto:info@foca.on.ca)



<https://foca.on.ca>

# FOCA is working year-round on behalf of Ontario waterfronts

**Connect with us!**

**<https://foca.on.ca/your-role>**

