



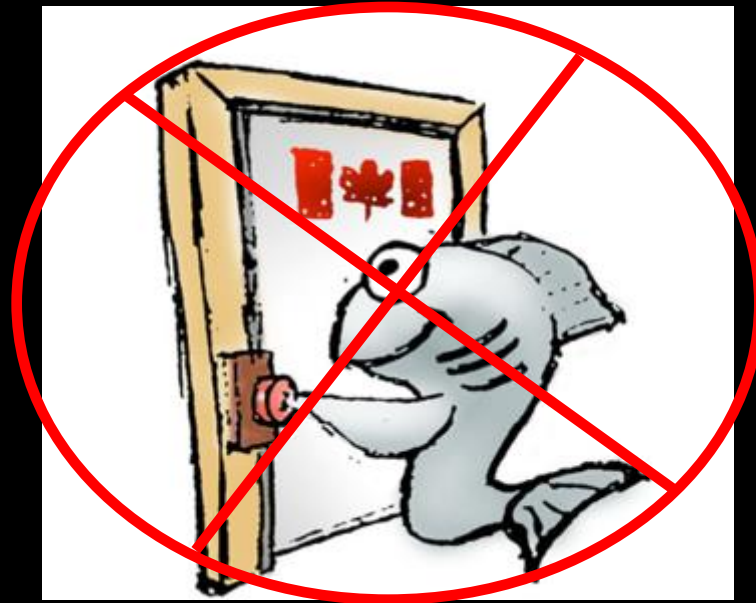
The Threat of ASIAN CARP in Toronto Waters 2016



Fisheries and Oceans
Canada



Toronto and Region
Conservation
for The Living City

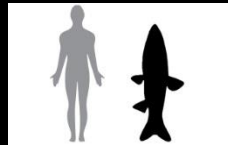
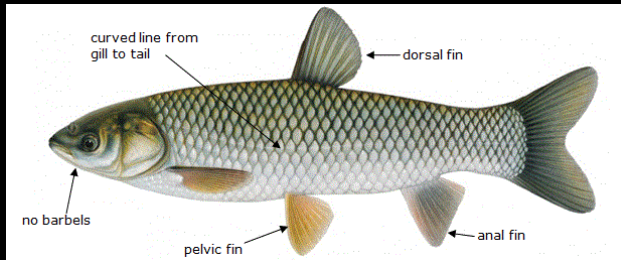


[Grass Carp Video](#)
[CTV NEWS COVERAGE –2016](#)

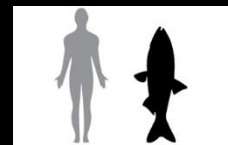
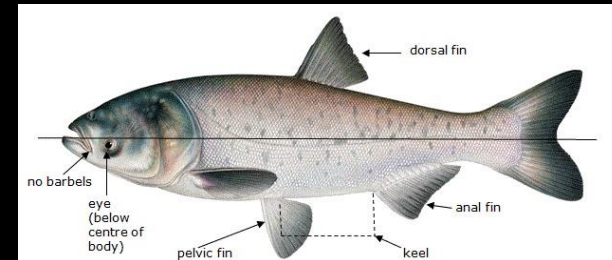


What is an ASIAN CARP ?

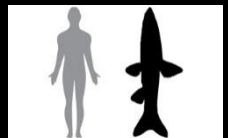
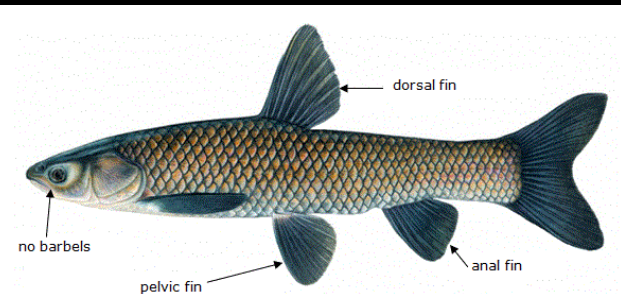
Grass Carp
(*Ctenopharyngodon idella*)



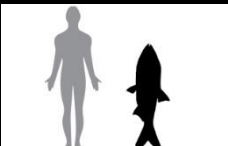
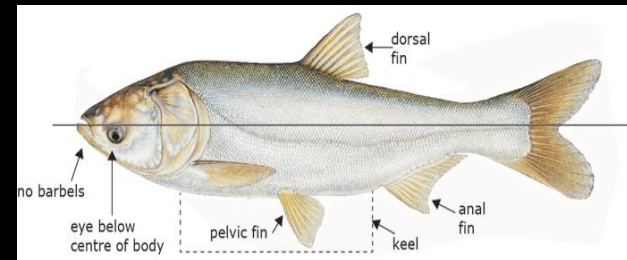
Bighead Carp
(*Hypophthalmichthys nobilis*)



Black Carp
(*Mylopharyngodon piceus*)



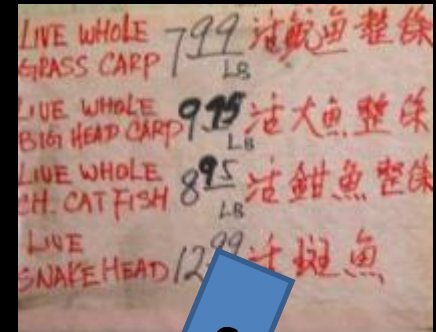
Silver Carp
(*Hypophthalmichthys molitrix*)



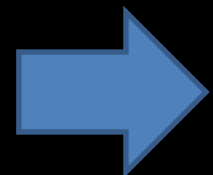
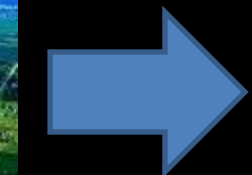


Where did ASIAN CARP Come From?

How Did They Get Here?



Natural Environment





ASIAN CARP are Good Invaders.

- ✓ Produce many offspring
- ✓ Grow quickly
- ✓ Few predators
- ✓ Adaptable
- ✓ Survivors



Grass Carp





Grass Carp Captures (2013-2014)

Grand River, Dunnville ON

- 3 captured Grass Carp: 1 angled, 2 captured in trammel nets during DFO's early detection surveillance program
- DFO worked with MNRF and responded quickly
- All 3 Grass Carp were triploid





Grass Carp Captures (2015)



- 9 Grass Carp captured:
 - 2 Tommy Thompson Park pond (July, diploid)
 - 1 Jordan Harbour, Lake Ontario (August, diploid)
 - 3 Toronto Islands, Lake Ontario (September, diploid)
 - 1 Bay of Quinte, Lake Ontario (September, triploid)
 - 1 Point Pelee, Lake Erie (September, triploid)
 - 1 lower Niagara River (dead on shore, September, unknown ploidy)
- DFO worked with other agencies to respond quickly using Incident Command System
- All fish captured were hatchery-born
- It will take several more months before all the pieces are in to see the big pictures
- No evidence of establishment



Grass Carp in Toronto - 2015



2 Caught in July

3 Caught in September

Tommy Thompson Park & Humber Bay Park West





Toronto Response

- Operation lead by DFO,
- TRCA, OMNRF partnered and offered equipment and staff
- In total, more than 550 person hours were spent on this incident,





Grass Carp Captures (2015)

Date Captured	Captured by	Capture Method	Latitude	Longitude	Location description	Weight (kg)	Total length (m)	Ploidy	Sex	Age	Origin
27-Jul-15	TRCA	boat electrofisher	43.62818	-79.32574	Tommy Thompson Park (Lake Ontario)	14.7	1.02	Diploid	Male	13	Aquaculture
28-Jul-15	DFO	boat electrofisher	43.62924	-79.32407	Tommy Thompson Park (Lake Ontario)	10.2	0.97	Diploid	Male	14	Aquaculture
26-Aug-15	DFO	trammel net	43.17949	-79.37855	Jordan Harbour (Lake Ontario)	16.68	1.048	Diploid	Male	16	Aquaculture
01-Sep-15	TRCA	boat electrofisher	43.62164	-79.38131	Toronto Islands (Lake Ontario)	10.64	0.91	Diploid	Male	11	Aquaculture
01-Sep-15	TRCA	boat electrofisher	43.62211	-79.38143	Toronto Islands (Lake Ontario)	16.556	1.018	Diploid	Female	9	Aquaculture
02-Sep-15	DFO	boat electrofisher	43.62211	-79.38143	Toronto Islands (Lake Ontario)	9.096	0.893	Diploid	Male	13	Aquaculture
14-Sep-15	Commercial fisher	trap net	44.08328	-77.29002	Bay of Quinte, Muscote Bay (Lake Ontario)	12.7	1.037	Triploid	Female	13	Aquaculture
16-Sep-15	Commercial fisher	trap net	41.95288	-82.537922	Point Pelee (Lake Erie)	10.614	0.976	Triploid	Female	8	Aquaculture
19-Sep-15	Angler	dead on shore	43.12165	-79.068328	Lower Niagara River	8.1	0.95	Unknown	Unknown	10	Aquaculture



TRCA's 2016 RESPONSE

TRCA's ASIAN CARP MONITORING PROGRAM

- The program is designed to monitor Invasive species in TRCA's jurisdiction.
- TRCA's efforts allow DFO to concentrate their effort elsewhere.

FUNDING – With matching funds from TRCA

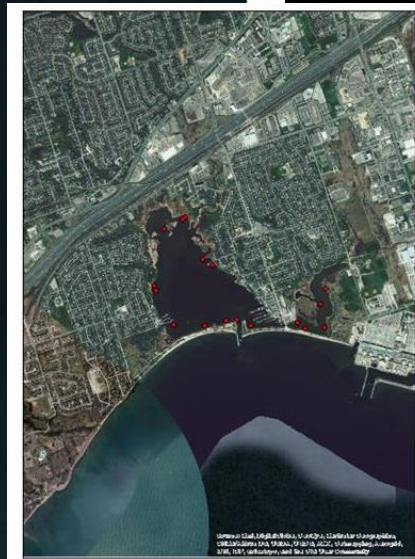
- DFO in kind contributions included staff time for training as well as sampling gear.
- RBC contribution of was critical to program implementation





TRCA's 2016 RESPONSE

2016 Asian Carp Monitoring Locations



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TRCA's Asian carp Monitoring Program has targeted and sampled 102 sites using hoop, trap, fyke and trammel nets combined with electrofishing.

- Ashbridges Bay - 8 stations
- Carruthers Creek - 6 Stations
- Duffins Creek - 16 Stations
- Frenchmans Bay - 13 stations
- Hearn /Unwin Channel - 6 stations
- Humber River Estuary - 1 station
- Humber Bay - 7 stations
- Hydro Marsh - 5 stations
- Ontario Place - 3 stations
- Rouge River Marsh - 23 stations
- Toronto Islands - 8 stations
- Tommy Thompson Park - 6 stations

TOTAL

102 stations



TRCA's ASIAN CARP MONITORING PROGRAM

- 484 Sites sampled as part of our regular monitoring.
- Plus special projects (NSCIN, Trawling, Subcontracts)
- We haven't finished data entry yet so I can't give you numbers of fish processed. (~25000 so far but the Asian Carp and special project data isn't included).
- **No Asian Carp have been found in Toronto in 2016.**
- **They have been caught out side of our jurisdiction.**





Summary

- Asian carps – all four species - are good invaders
- Pose a real threat to the Great Lakes
- Important to get the message out and to prevent establishment
- DFO's Asian Carp Program working with Great Lakes agencies, academics, and non-governmental organizations on a prevention-based program



Summary

Good News! No Asian Carp found during targeted surveillance efforts in 2016.

To prevent the establishment of Asian Carp in Greater Toronto Area waters, Toronto and Region Conservation's Environmental Monitoring team conducted a surveillance program along the Toronto shoreline and harbour in 2016. Our team set special nets and electrofished 102 waterfront areas identified as suitable habitat for Asian Carp species, including coastal wetlands, embayments and river mouths. This program, generously funded by the Royal Bank of Canada Blue Water Project, provides support to Fisheries and Oceans Canada so that they can focus their invasive species surveillance efforts elsewhere in the Great Lakes.



How can I help?



If you've seen an Asian carp or other invasive species in the wild please contact the toll free Invading Species Hotline at

1-800-563-7711

or report it online at eddmaps.org/Ontario.



Fisheries and Oceans
Canada

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