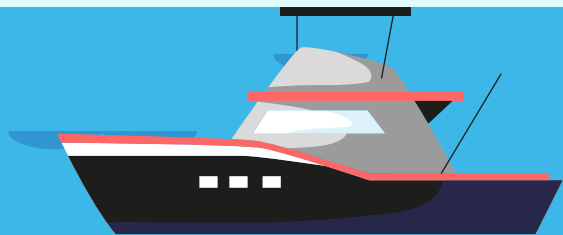


The Round Goby Threat: The Champlain Canal and Aquatic Invasive Species Spread Prevention

Erik Reardon
Lake Champlain Basin Program



Pathways for AIS Introduction & Expansion

Initial Introductions from Cargo Ship Ballast Water

Many non-native species
first introduced to Great
Lakes



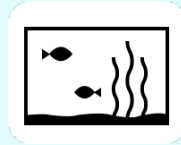
Canals and other Connected Waterways



Recreational Watercraft



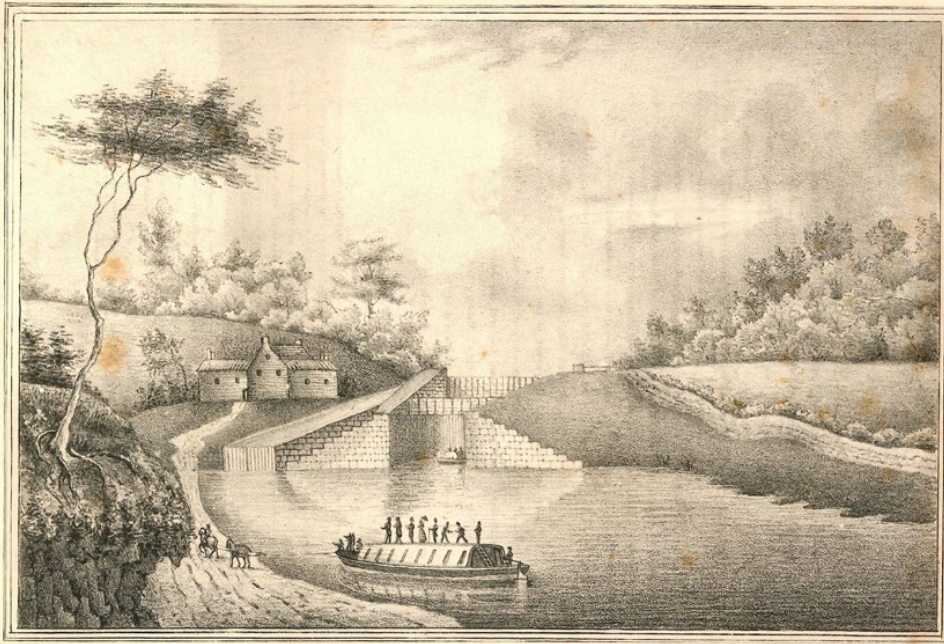
Fishing Gear/Bait Buckets



Aquarium Dumping



THE CHAMPLAIN CANAL: 200TH ANNIVERSARY



VIEW OF THE JUNCTION OF THE NORTHERN AND WESTERN CANALS

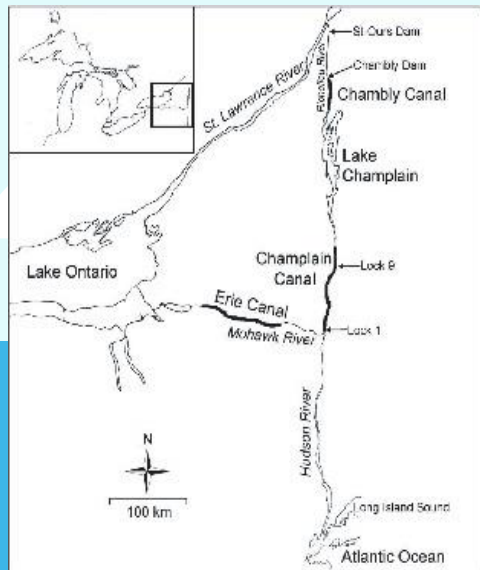
“View of the Junction of the Northern and Western Canals,” 1825.
<https://waterfordmuseum.com/always-know-your-pal-erie-canal-bicentennial-exhibit-2017/view-of-the-junction-of-the-northern-and-western-canal/>



Round Goby on the Move: North & South

→ Champlain Canal, NY

→ Chambly Canal, QC



overlap of species.
environmental
2017, and GLANSIS 2020.

Ellen Marsden

PROTECT YOUR WATERS

Baitfish may be small, but they can be big trouble!

Help keep fishing great in New York State by preventing the spread of invasive species and diseases.

- Don't dump fish or water from one waterbody into another.
- Follow the NYS baitfish regulations and use baitfish only where permitted, <https://on.ny.gov/baitfishregs>.
- Purchase certified disease-free baitfish.
- Dispose of unused baitfish in the trash or at a disposal station.
- Report illegal stocking to NYSDEC, 1-844-DEC-ECOS (1-844-332-3267).



Learn about more ways to protect your waters, <https://on.ny.gov/preventaquaticinvasives>.

Two harmful invasives spread by improper bait disposal



Round goby



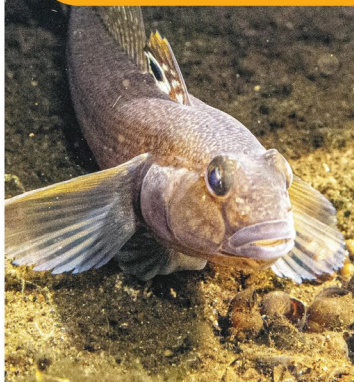
Rudd



Department of
Environmental
Conservation

PROTECT YOUR WATERS FROM INVASIVE SPECIES

Watch out for this fishy invader!



The invasive round goby has been steadily spreading to inland rivers and lakes in New York State since it was accidentally introduced into the Great Lakes in the 1990s. Help us keep round goby out of our lakes and rivers by learning how to identify and report them and prevent their spread.



What are the negative impacts of round goby?

- They outcompete native fish and mollusks for food, shelter, and spawning areas.
- They are voracious feeders that prey on a variety of aquatic life, including bass and trout eggs, reducing the populations of these important sport fish and threatening the fishing and tourism industries.
- They are directly connected to an increase in the accumulation of mercury in larger sport fish and the increased spread of diseases like botulism and viral hemorrhagic septicemia (VHS) to wildlife.



▲ Round goby is a vector for VHS, a fish disease that causes fish kills like this one.



What can you do to help?

To prevent the spread of round goby and other aquatic invasive species, follow these simple steps:

- Clean, drain, and dry your watercraft and equipment thoroughly before visiting other waterbodies.
 - Inspect and remove debris and mud from boats, trailers, and equipment before and after each use. Dispose of all debris and unwanted bait in trash cans or at disposal stations.
 - Drain all water-holding compartments, including live wells, bait wells, and bilge areas. If possible, visit a decontamination station and disinfect these areas using hot water (140°F) for at least 30 seconds.
 - Dry boats, trailers, and all equipment before use in another waterbody. Let equipment dry outside for a minimum of 5-7 days.
- Don't dump aquarium pets, plants, or waste in any waterbodies, drainage ditches, or sewers.
- Purchase bait from a dealer that sells only certified bait. Visit <https://www.dec.ny.gov/outdoor/124974.html> for more information on baitfish regulations.

Monitoring, Mitigation, and Prevention



Rapid Response Plan (NY DEC & Canal Corporation)

Series of “Trigger Actions” based on potential expansion of Goby up the canal system

Scheduled Lockages

“Double Flushing”

Further restricting lockages, escalating to closing locks 8 & 9 to commercial/recreational traffic



USACE Phase I Study for AIS Barrier

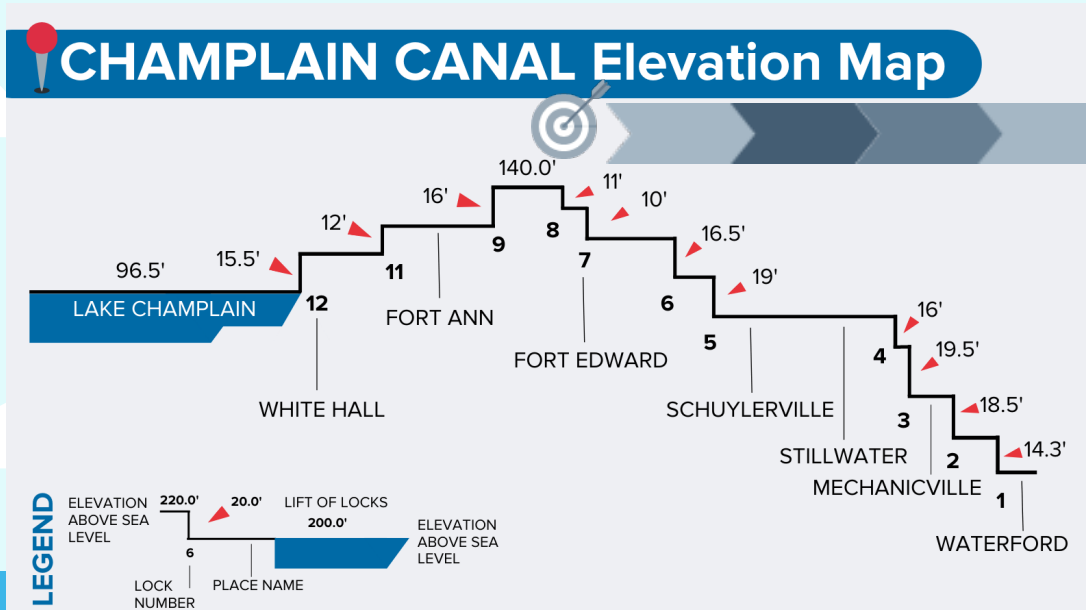
Three “alternatives” considered in Phase I Study

USACE recommends physical barrier/hydrological separation

Boat lift to carry watercraft over barrier

Permanent solution to canal AIS pathway into Lake Champlain

USACE Proposal for AIS All Taxa Barrier on the Champlain Canal



INTERIM RAPID RESPONSE PLAN FOR THE CHAMPLAIN CANAL SYSTEM IN NEW YORK STATE, page 18.



Figure 11. Champlain Canal Aquatic Invasive Species Barrier Study Phase I Report.



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**CLEAN
DRAIN
DRY**

Prevent the Spread of Aquatic
Invasive Species



**STOP AQUATIC
HITCHHIKERS!**

Be A Good Steward. Clean. Drain. Dry.

*We may be small...
but we can be
BIG trouble!*

