



The Erie Canal and Introduced Species

Introduction

The Erie Canal was a marvel of its time and still is today. It offered a new means to transport goods and people, playing an important role in the social and economic history of New York State. Today, the canal plays a very different role, mostly recreational; however it continues to affect social and economic change.

Construction of the Erie Canal changed the landscape of New York State in more ways than just its social and economic stature. The ecological significance of joining previously distinct watersheds was clearly not recognized. However, centuries later, our landscape continues to be affected and changed by this historic marvel.

Ecological Significance

The construction of any canal system eliminates historic natural geographic barriers, providing an effective pathway for the transfer of aquatic plants and animals. Introduced species (any individual, group, subspecies, or population that enters an ecosystem outside of its historical native range) have altered the ecosystems of the canal and the waters it influences, affecting numerous native species.

Within the Canal and the waters it connects, introduced plant and animal species have caused problems for anglers and boaters by tangling fishing line, wrapping in props, and shifting the abundance and distribution of native sportfish species. Economic revenues generated by boating and fishing, as well as other recreational activities, tourism, property values, and industrial facilities have also been affected.



What can you do to prevent new introductions?

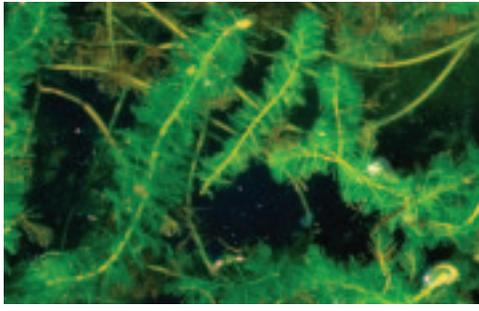
Eradicating an introduced species, once established, is costly and often not possible. The most effective weapon against the spread of introduced species is prevention. Although some species have moved through the Canal naturally, many species were introduced or transported through human-assisted pathways. We need your help and commitment to conserving our natural resources.

- Never empty bait buckets into a waterbody; drain on land and properly dispose unused bait.
- Remove any plant material, mud, and animals from your boat, trailer, and gear before leaving the launch location.
- Dry your boat and equipment in the sun for three or more days or rinse with hot water above 105° F.
- Dispose of cuttings and unwanted plants by freezing and then placing in household trash.
- Never release unwanted plants, plant materials, or animals into a waterbody.
- Build watergardens well away from natural waterways to prevent accidental introductions and use native plant and animal species.



The Erie Canal connects the waters of the Hudson River, Lake Erie, Lake Ontario, Lake Champlain, and the Finger Lakes of New York.

Invasive Species of the Erie Canal

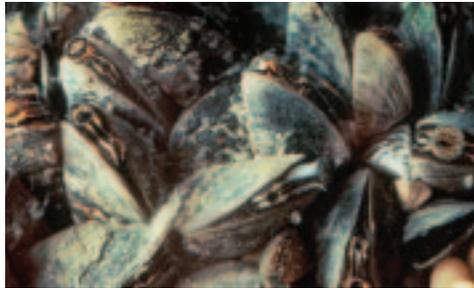


Eurasian watermilfoil

- Fast growing aquatic plant that forms thick mats, choking out native plants and fouling boat motors. This plant can easily spread since broken fragments of the plant can take root and quickly grow into a mature plant.

Zebra mussel

- Zebra mussels grow in clusters and attach to any submerged surface. They have altered food web dynamics, contributed to the demise of native mussels, and have cost industries billions of dollars to control.



Asian clam

- First reported in the canal in 1998 near Lockport, NY, Asian clams can now be found as far east as the Cayuga-Seneca Canal.

Round goby

- Round gobies are aggressive bottom-dwelling fish. Their pelvic fins are fused, forming a suction cup-like fin used to hold them along the bottom.



Sea lamprey on lake trout

- Sea lampreys are parasitic fish. Using teeth in their mouth (oral disc) to rasp into a host fish, they attach to and feed off larger predatory fish. This contributed to the demise of native lake trout populations in the Great Lakes.

Water chestnut

- Water chestnut is an aquatic plant that attaches to the bottom using runners. These runners entangle and easily wrap around boat propellers. This species forms dense mats, blocking sunlight penetration.



STOP AQUATIC HITCHHIKERS!

Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectYourWaters.net

When you leave a body of water:

- Remove any visible mud, plants, fish or animals before transporting equipment.
- Eliminate water from equipment before transporting.
- Clean and dry anything that comes into contact with water (boats, trailers, equipment, clothing, dogs, etc.).
- Never release plants, fish or animals into a body of water unless they came out of that body of water.

Contact:

U.S. Fish and Wildlife Service
Lower Great Lakes Fishery
Resources Office
405 North French Road, Suite 120A
Amherst, NY 14228
Phone: (716) 691-5456
Fax: (716) 691-6154

For more information:

U.S. Geological Survey
Non-Indigenous Aquatic Species Site
<http://nas.er.usgs.gov/>

Sea Grant Nonindigenous Species Site
<http://www.sgnis.org>

Invasive Species Council
<http://www.invasivespecies.gov/>

Aquatic Nuisance Species Task Force
<http://www.anstaskforce.gov>

Great Lakes Panel on Aquatic Nuisance Species
<http://www.glc.org/ans>

Invasive Species Information Node
<http://invasivespecies.nbio.gov>

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