

Non-native species threats to the Great Lakes and Lake Champlain basins from connected waterways

Great Lakes and Lake Champlain Invasive Species Program (GLISP)

Great Lakes Panel Meeting
May, 2026

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NOTE: All the waterways contain some overlap of species.
DATA SOURCES: UVM, LCBP, Lake Champlain Sea Grant, Great Lakes Environmental Research Laboratory, GLANSIS, Lafontaine and Costan 2002, Strayer 2012, and Egan 2017. Lake Champlain data current as of September 2018.

The numbers show the total non-native and invasive species known to be present in each waterway as of December 2019.

GREAT LAKES: 188

ST. LAWRENCE RIVER: 87

LAKE CHAMPLAIN: 51

HUDSON RIVER: 22

TO ATLANTIC OCEAN

Richelieu River

Chambly Canal

LAKE CHAMPLAIN

Champlain Canal

Mohawk River

TO ATLANTIC OCEAN

Hudson River

Finger Lakes

Welland Canal

LAKE ONTARIO

Erie Canal

LAKE ERIE

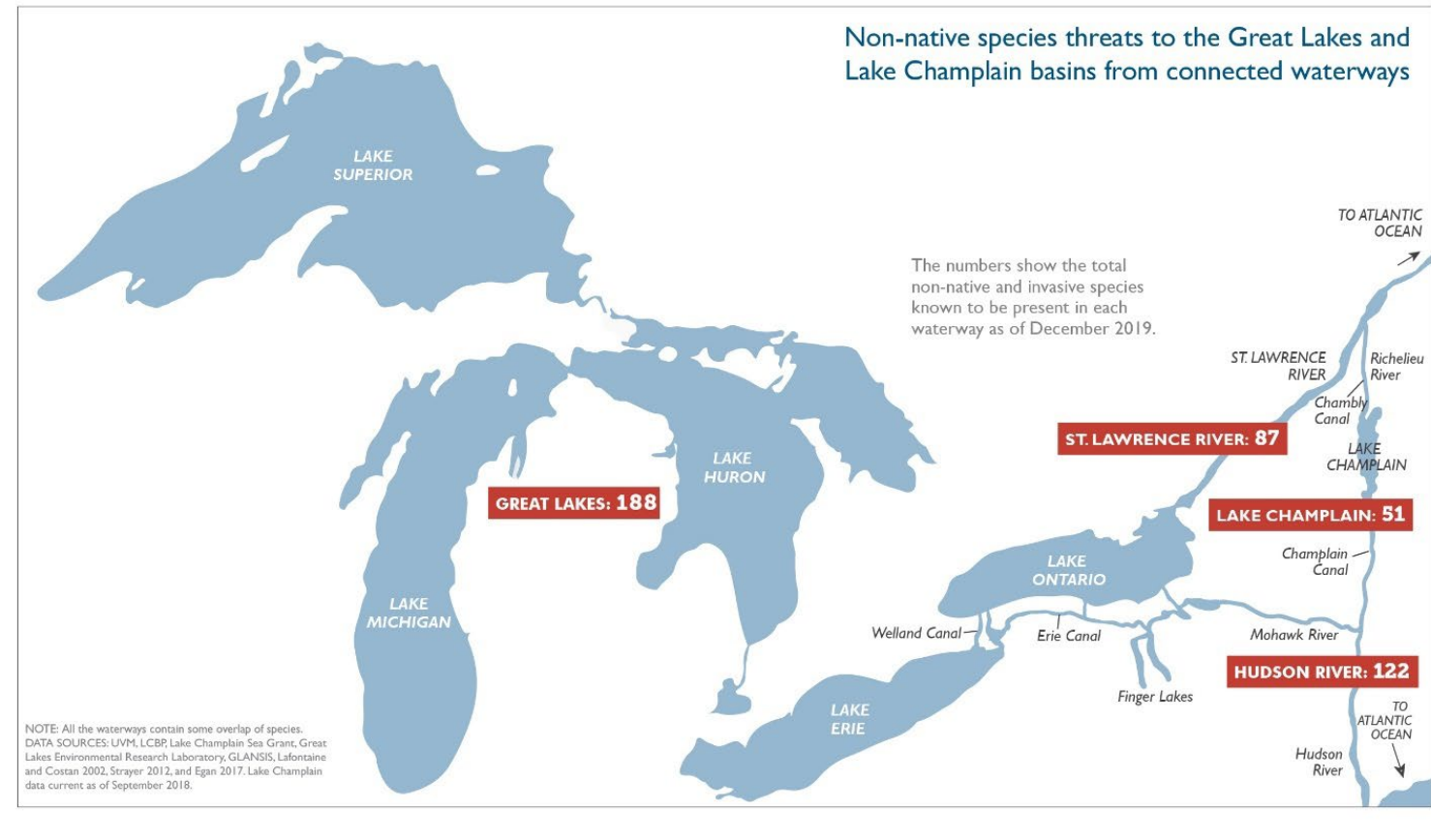
LAKE HURON

LAKE MICHIGAN

LAKE SUPERIOR

VIDA 2018 GLLCISP Authorization Required Report to Congress

- Description of activities
- Multidisciplinary efforts
- Recommendations to more fully achieve GLLCISP Purposes
- Recommendations to achieve efficiency



GLLCISP Report to Congress Recommendations

- Establish a more robust Lake Champlain AIS Program
- Enhance ballast water research and development of technologies
- Increase state and tribal AIS program support
- Increase research to support surveillance and early detection approaches

THE GREAT LAKES AND LAKE CHAMPLAIN INVASIVE SPECIES PROGRAM

2019 Report to Congress



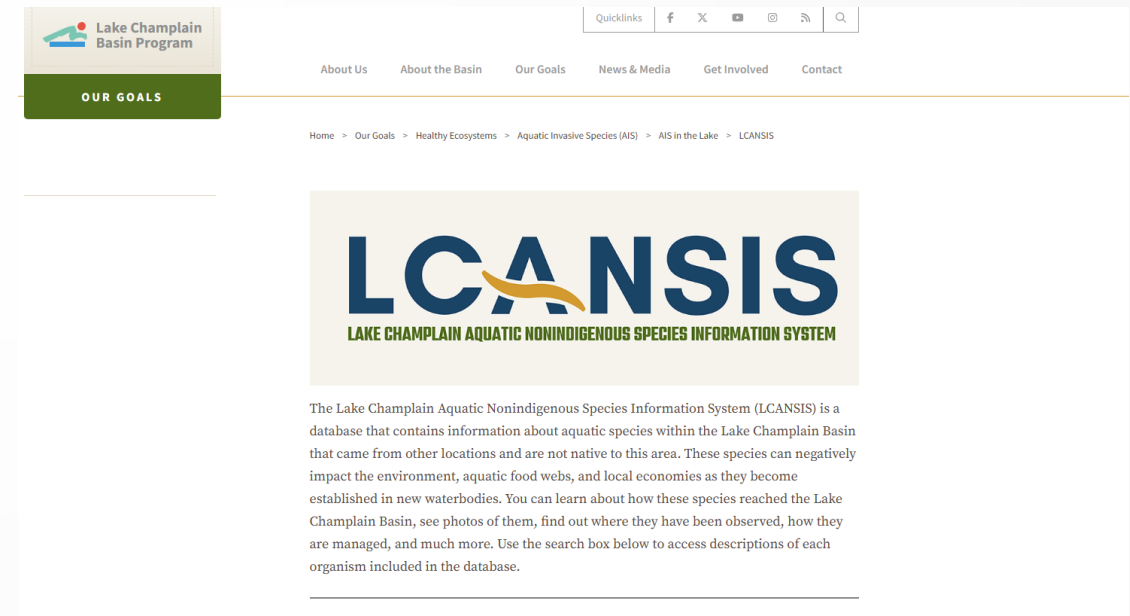
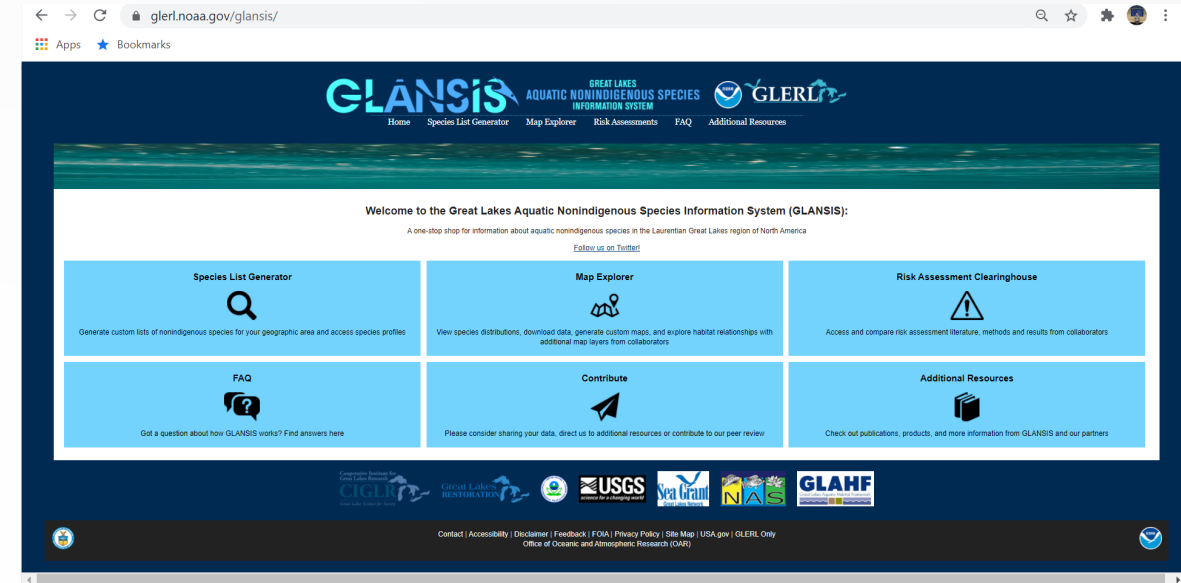
A summary of existing federal, state, and tribal invasive species activities aligned with the listed purposes of Great Lakes and Lake Champlain Invasive Species Program as set forth under the Vessel Incidental Discharge Act of 2018 and currently supported through the Great Lakes Restoration Initiative, the Lake Champlain Basin Program, state, and other appropriations.



U.S. Environmental Protection Agency
Great Lakes National Program Office

Possible Next Steps for Great Lakes and Lake Champlain

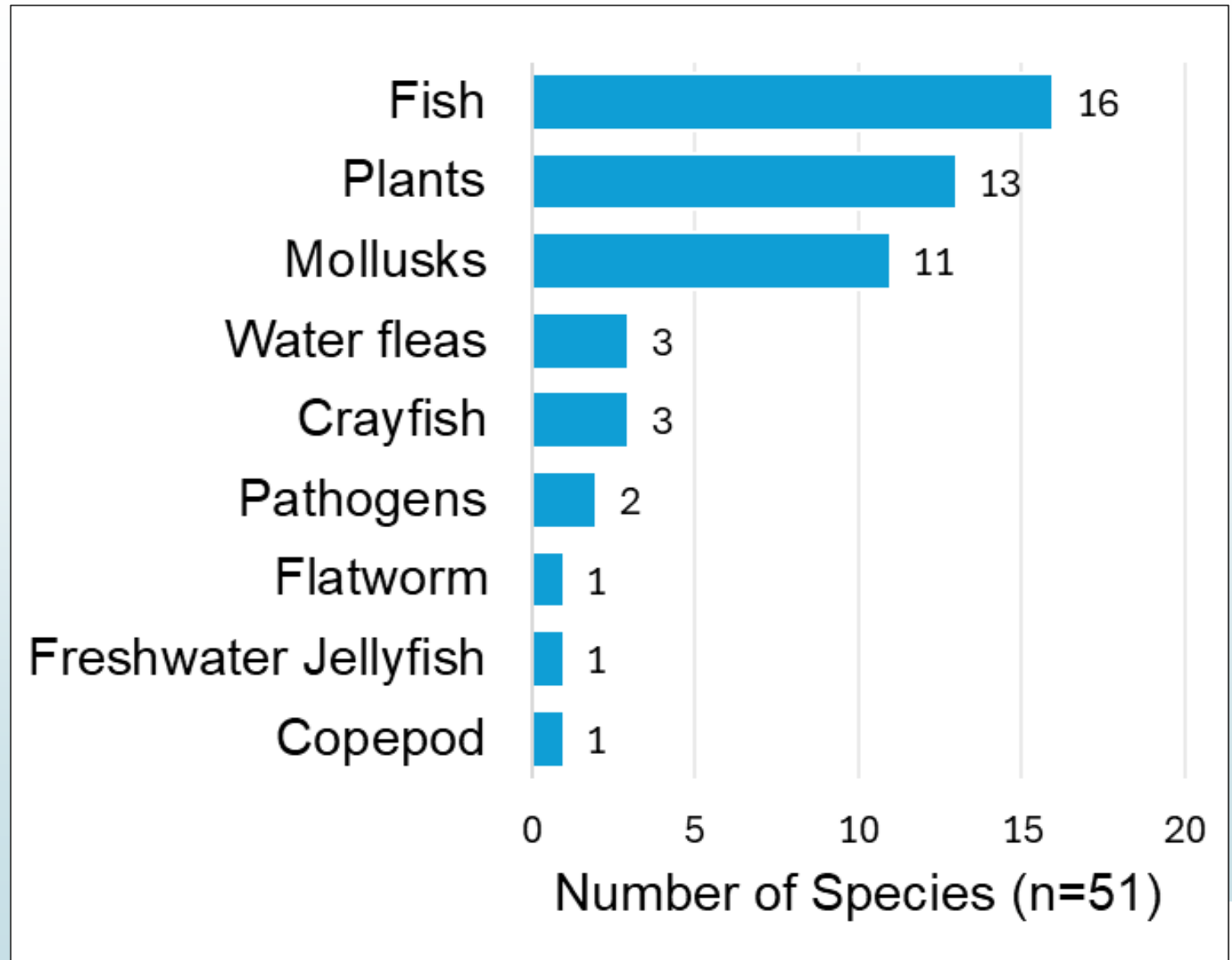
- Sharing lessons learned, technology transfer, and making more connections
 - Development of AIS data delivery system for Lake Champlain
 - Lake Champlain Basin Program and Lake Champlain Sea Grant co-fund project to develop species profiles and populate LCANSIS with USGS and Great Lakes Research Laboratory guidance



- 51 ANS in the Lake Champlain Basin of New York, Vermont, and Quebec



ANS in the Lake Champlain Basin



LCANSIS Project Overview

- Centralized online database to track and manage information on the aquatic nonindigenous species within the Lake Champlain Basin
- Currently 51 species included
- LCANSIS mirrors the purpose and structure of:
 - USGS Nonindigenous Aquatic Species (NAS)
 - NOAA's Great Lakes Aquatic Nonindigenous Species Information System (GLANSIS)

<https://www.lcbp.org/our-goals/healthy-ecosystems/aquatic-invasive-species/ais-in-the-lake/LCANSIS/>

LCANSIS

LAKE CHAMPLAIN AQUATIC NONINDIGENOUS SPECIES INFORMATION SYSTEM

The Lake Champlain Aquatic Nonindigenous Species Information System (LCANSIS) is a database that contains information about aquatic species within the Lake Champlain Basin that came from other locations and are not native to this area. These species can negatively impact the environment, aquatic food webs, and local economies as they become established in new waterbodies. You can learn about how these species reached the Lake Champlain Basin, see photos of them, find out where they have been observed, how they are managed, and much more. Use the search box below to access descriptions of each organism included in the database.

Species Category:

All

Group:

All

Lake (HUC):

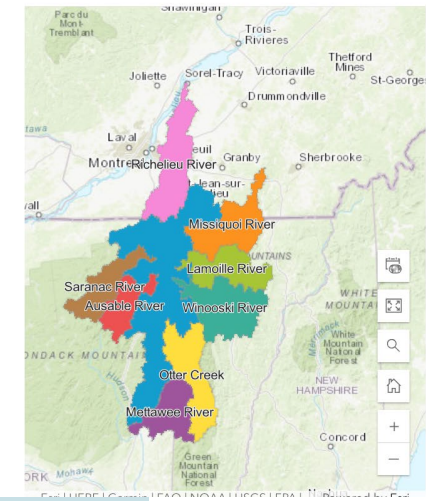
All Lake Champlain Drainages

8-digit HUC-8:

8 digits only please

Valid HUC options:

- 04300104 — Ausable River
- 04300108 — Lake Champlain direct



LCANSIS Search Results

LCANSIS

LAKE CHAMPLAIN AQUATIC NONINDIGENOUS SPECIES INFORMATION SYSTEM

Total of 1 records

Photo	Taxonomic Group	Family	Scientific Name (click for species profile)	Common Name	Continent of Origin	Year First Collected	Category
	Fishes	Cyprinidae	<i>Cyprinus carpio</i>	Common Carp	Eurasia	1980	Nonindigenous

Citation for this information:

USGS. 2026. Nonindigenous Aquatic Species Database, Gainesville, FL. <https://nas.er.usgs.gov>

This information provided by the U.S. Geological Survey's Nonindigenous Aquatic Species Program located at the Wetland and Aquatic Research Center.

LCA NSIS

LAKE CHAMPLAIN AQUATIC NONINDIGENOUS SPECIES INFORMATION SYSTEM

Cyprinus carpio Linnaeus, 1758

Common Name: Common Carp

Synonyms and Other Names:

European carp, German carp, mirror carp, leather carp

← Image 1 of 3 →



Kaitlin Kovacs, U.S. Geological Survey

Identification: Adults are light gold to dark brown in color, with reddish fins. Scales cover the entire body and barbels accent the mouth (one per side). Head is triangular with a blunt snout and thick nose plate. Does not possess a true spine. Wheeler (1978); Becker (1983); Page and Burr (1991); Etnier and Starnes (1993); Jenkins and Burkhead (1994); Balon (1995). In Eurasia there are two poorly defined subspecies *C. c. carpio* and *C. c. haematopterus*; unfortunately, feral Common Carp, descendants of earlier escapees or introductions, have greatly confused the picture (Balon 1995). Several genetic strains—some bred in aquaculture or used as ornamentals (e.g., leather carp, mirror carp, Israeli carp, koi)—are recognized by some as separate varieties (Robison and Buchanan 1988; Balon 1995).



Profile structures

CORE

- Scientific/Common Name
- Identification
- Size
- Native Range
- Photos
- Additional web resources
- Remarks/Notes
- References

NAS

- National Occurrences
- National Status
- National Means of Introduction
- National Management
- National Impacts

GLANSIS

- GL Occurrences
- GL Status
- GL Means of Introduction
- GL Management
- GL Impacts

LCANSIS

- LC Occurrences
- LC Status
- LC Means of Introduction
- LC Management
- LC Impacts

LCANSIS Project Timeline

- Species profile writing and peer review – COMPLETED
- LCANSIS landing page and search form - - COMPLETED
- Specimen data aggregation and integration – ONGOING
- USGS profile review – ONGOING (target June 2026)

Acknowledgements

- Wesley M. Daniel, U.S. Geological Survey
- Rochelle Sturtevant, Great Lakes Environmental Research Laboratory
- UVM students who helped develop profiles
 - Noelle Hasan, Emma Janson, Cayden Morrow, Henry Motes
- 61 reviewers who contributed important feedback on species profiles

This project was partially funded by an agreement awarded by NEIWPCC in partnership with the Lake Champlain Basin Program (LCBP). In addition, this research was supported in part using Federal funds under NA18OAR4170099, NA22OAR4170120, and NA24OARX417C0145 from the National Oceanic and Atmospheric Administration National Sea Grant College Program, U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of Sea Grant, NOAA, U.S. Department of Commerce, U.S. Geological Survey, NEIWPCC, or LCBP.

