



Great Lakes Aquatic Nonindigenous Species Information System



Providing information about the 181+ non-native species established in the Great Lakes

<http://www.glerl.noaa.gov/res/Programs/ncaais/glansis.html>



Sea Lamprey
Petromyzon marinus



Round Goby
Apollonia melanostomus



Goldfish
Carassius auratus



Brown Trout
Salmo trutta



Common Carp
Cyprinus carpio



Rainbow Trout
Oncorhynchus mykiss



Ruffe
Gymnocephalus cernuus



Alewife
Alosa pseudoharengus



Blue-spotted sunfish
Enneacanthus gloriosus



Zebra mussel
Dreissena polymorpha



Quagga mussel
Dreissena bugensis



Asian Clam
Corbicula fluminea



New Zealand Mudsnail
Potamopyrgus antipodarum



Bloody-Red Shrimp
Hemimysis anomala



Gammarid
Gammarus tigrinus



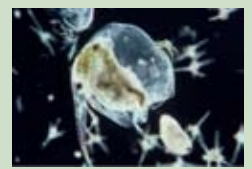
Cyclopoid Copepod
Cyclops strenuus



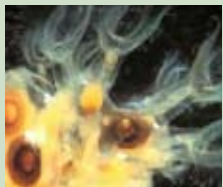
Parasitic copepod
Argulus japonicus



Fishhook waterflea
Cercopagis pengoi



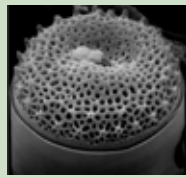
Waterflea
Eubosmina coregoni



Bryozoan
Lophopodella



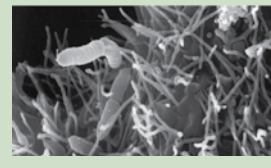
Snout Moth
Acentropus niveus



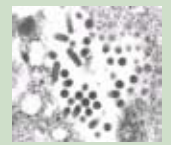
Diatom
Thalassiosira lacustris



Green Algae
Nitellopsis obtusa



Furunculosis
Aeromonas salmonicida



VHS
Novirhabdovirus



Eurasian watermilfoil
Myriophyllum spicatum



European frogbit
Hydrocharis morsus-ranae



Purple loosestrife
Lythrum salicaria



Yellow Floating Heart
Nymphoides peltata



Narrow-leaf Cattail
Typha angustifolia

Background

The Great Lakes have a long history of Aquatic Nonindigenous Species (ANS) introductions - both intentional and unintentional. As of 2009, over 180 ANS have been reported to have reproducing populations in the Great Lakes basin. The two most recent ANS reported and verified established in the Great Lakes basin were viral hemorrhagic septicemia (VHS), and *Hemimysis anomala*. The number of Great Lakes aquatic nonindigenous species documented in GLANSIS must be interpreted as a minimum. Identification depends on our ability to find, recognize, verify, and document new species, which is, in turn, dependent on our ability to adequately sample the Great Lakes ecosystem.

About the Database

GLANSIS functions as a Great Lakes node of the national USGS Nonindigenous Aquatic Species (NAS) database. GLANSIS provides targeted access to the information - references, fact sheets, and collection records - for established Great Lakes ANS. GLANSIS contains profiles for all Great Lakes ANS that meet our criteria for listing. Additional information on ANS related to the Great Lakes region that are not included in GLANSIS e.g., species that have been reported but not established, cryptogenic species, range expansions, and species native to the Great Lakes that have invaded other regions of the U.S., may be available through the USGS NAS at:

<http://nas.er.usgs.gov>

To contribute species reports or other information to GLANSIS, please contact:

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Image credits:

N. Burkhead, M. Faisal, S. Good, Great Lakes Fishery Commission, GLERL, I. Grigorovich, M. Gongloff, K. Havens, W. Hoagman, R.L. Johnson, D. Jude, L. Lovshin, R. Lowe, R. McDowell, H. MacIsaac, G. Miller, MN DNR, NOAA, T. Ricciardi, M. Tu, USBR, USFWS, USGS, USNPS, Windsor Acquire, and S. Zienert.

Types of Information Available

GLANSIS is searchable geographically (by watershed and lake) as well as by scientific and common name. Limited searching by informational categories such as taxonomic group, major pathway (e.g., shipping), status (e.g., failed), salinity tolerance (e.g., freshwater vs. marine), and native range (e.g., native transplant within the U.S. vs. exotic) is also possible.

The GLANSIS search results in a table including the following additional information: thumbnail photo, taxonomy, continent of origin, and year first collected in the Great Lakes basin.

Each record in the table is linked to a fact sheet that is dynamically generated from the latest information in the USGS national database. Fact sheet information includes photographs, identification information, size range, a point map depicting locations where species has been reported, a summary of nonindigenous occurrences, status, means of introduction, ecological information, potential and realized impacts, and a bibliography.

For those requiring more detailed information, a link is provided from the fact sheet to the full set of specimen collection records for the Great Lakes basin, sorted by state and then by year.

For those needing less technical information, links are provided to a variety of additional available web resources.