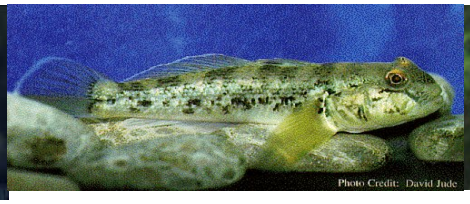
Great Lakes Aquatic Nonindigenous Species Information System

http://www.glerl.noaa.gov/res/Programs/ncrais/glansis.html

Providing information about the 185+ Non-Native Species Established in the Great Lakes

Sea Lamprey
Petromyzon marinus



Round Goby
Apollonia melanostomus

Goldfish
Carassius auratus

Brown Trout
Salmo trutta

Rainbow Trout
Oncorhynchus mykiss

Common Carp
Cyprinus carpio

Ruffe
Gymnocephalus cernuus

Alewife
Alosa pseudoharengus

Blue-spotted sunfish
Enneacanthus gloriosus

Zebra Mussel
Dreissena polymorpha

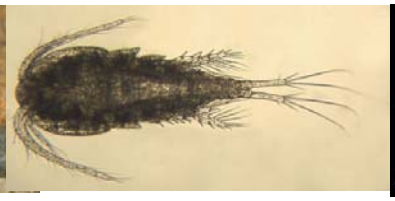
Quagga Mussel
Dreissena bugensis

Asian Clam
Corbicula fluminea

New Zealand Mudsnail
Potamopyrgus antipodarum

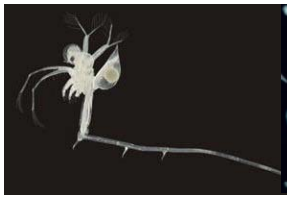
Bloody-Red Shrimp
Hemimysis anomala

Gammarid
Gammarus tigrinus

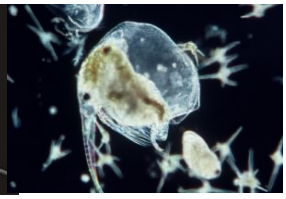


Cyclopoid Copepod
Cyclops strenuus

Parasitic Copepod
Argulus japonicus



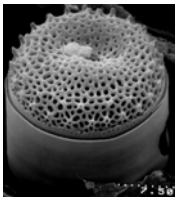
Fishhook waterflea
Cercopgis pengoi



Waterflea
Eubosmina coregoni

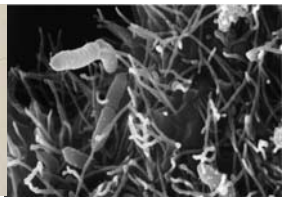
Bryozoan
Lophopodella

Snout Moth
Acentropus niveus

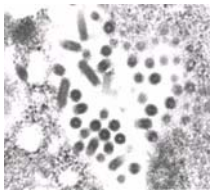


Diatom
Thalassiosira lacustris

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

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

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Background

The Great Lakes have a long history of aquatic nonindigenous species (ANS) introductions – both intentional and unintentional. As of 2007, 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. Our goal is to eventually complete 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 which have been reported but not established, cryptogenic species, range expansions, and species native to the Great Lakes which have invaded other regions of the U.S., may be available through USGS NAS at http://nas.er.usgs.gov

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 which is dynamically generated from the latest information in the USGS national database. Fact sheet information includes photographs, identification information, size range, a map of watersheds within the Great Lakes basin for which the 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.

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