

Great Lakes Aquatic Invasive Species Information System

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NOAA

Great Lakes Environmental Research Lab
National Center for Research on Aquatic Invasive Species

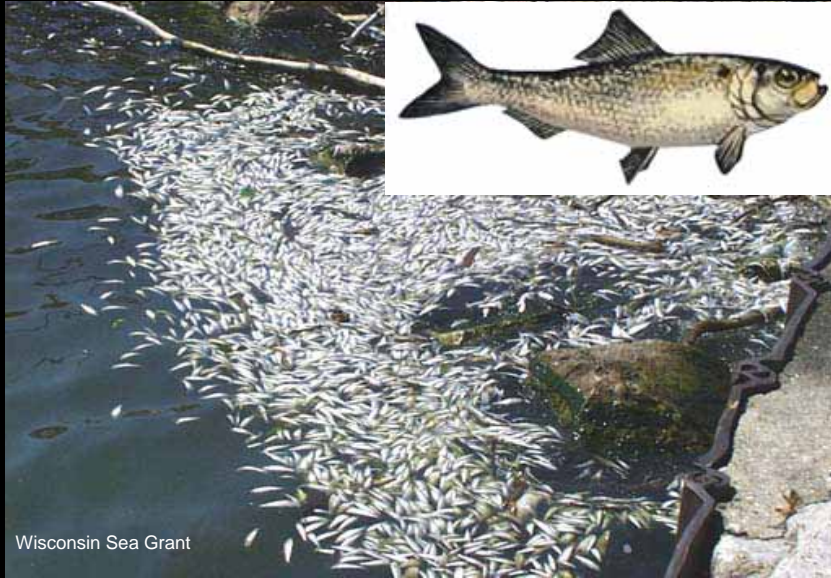
Biological invasions

The introduction, establishment, and spread of organisms to new habitats usually by anthropogenic means.

Upon negatively affecting ecology and/or the economy, the species is labeled "invasive".



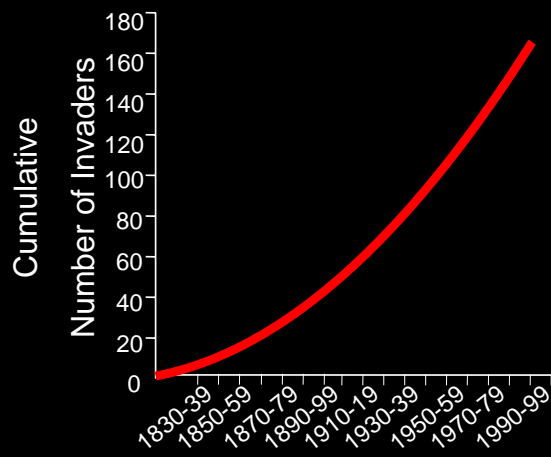
Great Lakes Fisheries Commission



Wisconsin Sea Grant



Great Lakes Invaders



Ricciardi 2001




Chicago Tribune
ONLINE EDITION

Snakehead found in Lake Michigan

Tribune staff reports
Published October 14, 2004, 4:10 PM CDT

State and federal wildlife officials today confirmed that a local fisherman caught a dreaded snakehead in Burnham Harbor.



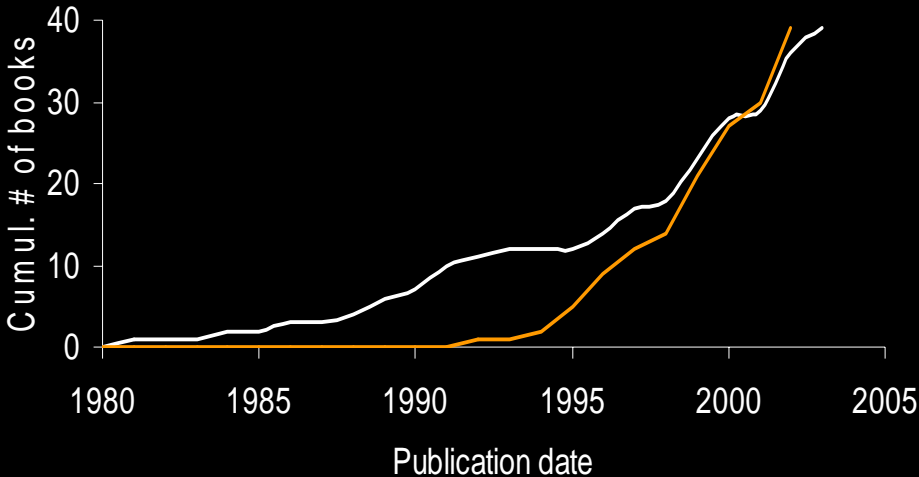
Anti-carp fence advances

Work may start in next 2 weeks

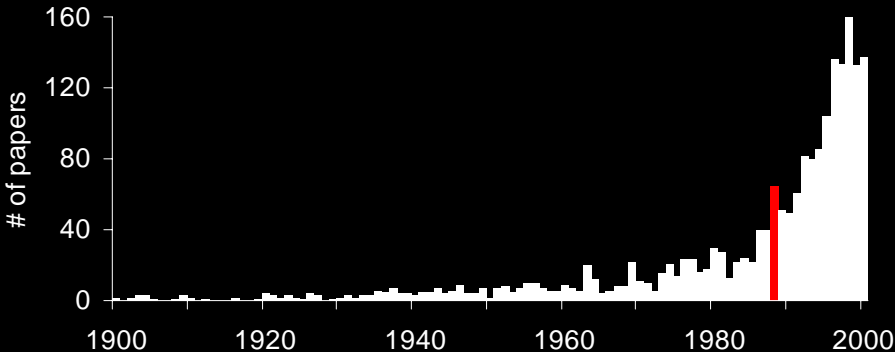
By Michael Hawthorne
Published October 14, 2004

After more than a year of false starts and financial woes, construction is expected to begin within

Books about biological invasion and
Books including biological invasion
available on Amazon.com



Scientific papers with
"biological Invasion, non-indigenous, exotic, or alien"



Great Lakes Aquatic Invasive Species Information System

Goal:

Create a source for information on Great Lakes invasive species

which is

Comprehensive, including all Great Lake aquatic invasive species

Relevant, including ecological data of interest to a range of users

Easy to use, producing a “one-stop” public resource

Nonindigenous species databases already exist

- NAS: Nonindigenous Aquatic Species Database – USGS
- NEMESIS: National Exotic Marine and Estuarine Species Information System – SERC
- SGNIS: Sea Grant Nonindigenous Species

Species and information relevant to the Great Lakes included

But...

Not comprehensive

No Great Lakes search function

NISbase, a distributed database system



What is a distributed database?

“A database that consists of two or more data files located at different sites on a computer network”

An International Nonindigenous Species Database Network

Search NISbase About NISbase

Generate a Species List from the NISbase Distributed Database System.

Select your criteria below. A list of species that matches your criteria will be generated. Links to species factsheets and collection records will be included.

Group: State:

Genus: Species:

Common Name:

Records per source*:

Select the participating database(s) you wish to include in the search.

- NAS Database (Nonindigenous Aquatic Species Database);
- Chesapeake Bay Exotic Marine and Estuarine Species Information System;
- Nonindigenous Species in the Gulf of Mexico Ecosystem;
- NIMPIS (National Introduced Marine Pest Information System);
- Introduced Marine Species of Hawaii Guidebook;

Search tips:
You may use this form to search for any part of a word.
Example: Common Name = "turtle" will return all species with the word "turtle" in the common name.

*The maximum number of records returned per source. It is best to try and be as specific as possible with your search criteria.

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Contact us! stevesb@si.edu

NISbase is a distributed database providing information concerning nonindigenous species. Through this site, users can access information on taxonomy, life history, native and introduced ranges, photos, maps, and impacts of aquatic species introduced around the world.

An International Nonindigenous Species Database Network:

Search NISbase [About NISbase](#)

Data Source: USGS-NAS SERC-ChesDB

Records Returned: 11 2

[F](#) [C](#) [Google](#) [ITIS](#)

Species Fact Sheet Link Collection Records Link Google Images Link ITIS Taxonomy Link

Group	Scientific Name	Common Name(s)	USGS-NAS	SERC-ChesDB
Fishes				
Google ITIS	<i>Carassius auratus</i> x <i>C. carassius</i>	goldfish x Crucian carp	C	
Google ITIS	<i>Carassius carassius</i>	crucian carp	F C	
Google ITIS	<i>Carpiodes carpio</i>	river carpsucker	F C	
Google ITIS	<i>Carpiodes velifer</i>	highfin carpsucker	F C	
Google ITIS	<i>Ctenopharyngodon idella</i>	grass carp	F C	F
Google ITIS	<i>Ctenopharyngodon</i> x <i>Hypophthalmichthys idella</i> x <i>nobilis</i>	grass carp x bighead carp	F C	
Google ITIS	<i>Cyprinus carpio</i>	common carp	F C	F
Google ITIS	<i>Hypophthalmichthys molitrix</i>	silver carp	F C	
Google ITIS	<i>Hypophthalmichthys molitrix</i> x <i>nobilis</i>	hybrid bighead/silver carp	F C	
Google ITIS	<i>Hypophthalmichthys nobilis</i>	bighead carp	F C	
Google ITIS	<i>Mykopharyngodon piceus</i>	black carp	F C	

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USGS

Nonindigenous Aquatic Species Database

[Home](#) [Animals Database](#) [Plants Database](#)

***Hypophthalmichthys nobilis* (Richardson 1845)**

Common Name: hybrid carp

Identification: Distinguishing characteristics were given by Berg (1940) and Struag (1955). Distinguishing characteristics, along with keys that include the species and photographs or illustrations also, were included in a list of the more recently published state fish books (e.g., Johnson and Buchanan 1995; Borer and Shuter 1993; Steger 1997). A commonly used name is *Aristichthys nobilis* (Mansueti 1967; 40 kg and 71.1 cm).

Size: 40 kg and 71.1 cm

Native Range: Southern and central China (Li and Fang 1995; Borer et al. 1993).



Nonindigenous Occurrences:

The species has been recorded from the Black Warrior and Tallapoosa river drainage of the Mobile Basin, including Tates River, in Alabama (Meyer et al. 1996; Hensley and Perron, personal communication). The species has been recorded from James Gilkey, personal communication). In Arkansas, it has been taken from the Arkansas River just upstream of Fort Smith, the lower Arkansas River between Dam #2 and the Mississippi River (Philip, pers. comm.), and stocked in several managed storage impoundments in the state (Buchanan 1981; Courtney et al. 1991). In California, 21 specimens were taken from one of three ponds in a small drainage adjacent to Browns Creek, Colusa County, in the Sacramento River basin, in 1992 (Dill and Carlson 1997). It also has been stocked in water treatment ponds on the East Slope of Colusa (Horal, personal communication). The species has been recorded from Florida (Shadoff 1995) including Lake Okechobee (D. Fox, personal communication). A single specimen was taken in August 1994 from St. Andrew Bay at the Green Pond Lake system, Bay County, Florida (McIntosh 1994). Collected from several water bodies in, or bordering, Illinois, including the Mississippi and Ohio rivers and several of their tributaries, the Cedar, Big Muddy, and Kaskaskia river drainage, and Horwath Lake in Madison County (Fox 1991; Fox et al. 1996; Tucker et al. 1996), the Shawnee River (Cromley, personal communication), and Chain Lake, Schuyler County, Shawnee County, Iowa (Struag 1955); the Ohio River at mile marker 919 on the Indiana-Kentucky border (Foster and Henderson 1962; Struag 1955); the Chautauque River below Buffalo Lake, and the Des Moines River, in Iowa (J. Borer, personal communication); the Kansas, Delaware, and Wakarusa rivers in Kansas (Cross and Collins 1995); several water bodies in Louisiana, including the Atchafalaya River and Turkey Creek (Carp Talk Force 1997) and the Red-Ouachita River (Douglas et al. 1996); from Lake Pepin (Mississippi River) in Minnesota waters in October 2003 (J. Collins, personal communication); from several water bodies in, or bordering, Missouri, including the Mississippi River mainstem, the Missouri Ozage, and Fall rivers, among others (Brazner 1988; Johnson 1995; Tucker et al. 1996; Steger 1997); various water bodies in Mississippi, including the Yazoo and Pascagoula river drainages in Mississippi (Douglas et al. 1996) and along the main channel of the Mississippi River of the state below a wing dam (J. O. Rice, personal communication); Lake Erie, Ohio (off Cedar Point (T. Cromley, personal communication); several sites in the Grand River drainage of Oklahoma, including the Merle River in Ottawa County, Grand River in Mayes County, upper Grand Lake, and Lake Hudson (Pigg et al. 1993, 1997); the Missouri River area of Nebraska (Hendricka, Chase and Eddy 2002); the Missouri River up to Green Pasture in South Dakota (W. Shadoff, pers. comm.); the Mississippi River mainstem, the Blanche River, and the Tennessee River near Lake Barkley, Tennessee (Shuter and Shuter 1993; Anonymous 1995a); Vicksburg Reservoir, Texas (Hendrick 1992a); and the Ohio River at Monticello, West Virginia (D. Borer, personal communication).

Means of Introduction: Hybrid carp were first reported into the United States in 1972 by a private fish farmer in Arkansas who wanted to use them in combination with other phytoplankton to improve water quality and increase fish production in culture ponds. In 1974 the Arkansas Game and Fish Commission and Auburn University, Alabama, obtained stock to assess their potential benefits and impacts (Struag 1955). The species first began to appear in open waters, the Ohio and Mississippi rivers, in the early 1980s, likely as a result of escapes from aquaculture facilities (Struag 1955). In April 1978, several thousand hybrid carp, along with two black carp (*Mykopharyngodon piceus*), escaped into the Ouagata River, Missouri, when high water flooded hatchery ponds at an aquaculture facility near Lake of the Ozarks (Anonymous 1994b). Fish that escaped into the Missouri River have increased and spread, since 1990, into the lower Kansas River of Kansas, and elsewhere (Cross and Collins 1995). The species may have appeared into Oklahoma waters from fish dealers brought into southeast Kansas by a commercial fish farmer in 1988 (Pigg et al. 1993). According to Pigg et al. (1997), collection in the Grand River of Oklahoma near 1991 indicate a gradual downstream invasion. The species was illegally stocked along with grass carp in one or a few ponds in California; there were brought into the state by a commercial aquaculturist. The live fish were reportedly transported in a concealed compartment under a load of black bass in the fall of 1989 from a fish grower in Oklahoma or Arkansas (Dill and Carlson 1997).

