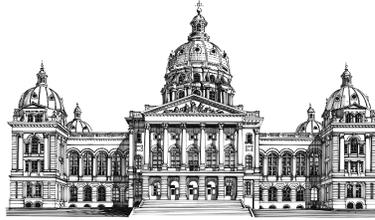


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# Iowa Legislative Services Agency Fiscal Services

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## Aquatic Invasive Species

### ISSUE

This *Issue Review* provides an overview of aquatic invasive species in Iowa's waterbodies.

### AFFECTED AGENCIES

Department of Natural Resources

### CODE AUTHORITY

Section 456A.37, Code of Iowa

### BACKGROUND

Aquatic invasive species include plants and fish that have been introduced into Iowa waterbodies for specific purposes or by accidental releases. These are non-native species that dominate ecosystems and have harmful impacts on the natural resources, economy, and human use of these resources. These populations usually increase dramatically since they tolerate a wide range of environmental conditions, they reproduce early in large numbers and in multiple ways, they grow rapidly, and have few natural enemies. For a list of Iowa Aquatic Invasive Species, refer to **Attachment A**.

Governor Vilsack declared the month of June as "Invasive Species Awareness Month," to provide information about the prevention of invasive species on private and public lands. The Department of Natural Resources (DNR), in coordination with other State and local agencies, sponsored two workshops in June, entitled, "Managing Invasives in the Natural Landscape." Seminar topics identified various invasive species and the destruction that can be caused to a native ecosystem.

### CURRENT SITUATION

The DNR is required to designate infested waterbodies, and reports this information in the annual Iowa Fishing Regulations publication. The 2005 publication included Eurasian watermilfoil, brittle naiad, bighead carp, silver carp, and zebra mussels. The following provides

a brief description of the species. For more detailed information, see **Attachment B**, which provides a map of Iowa counties that have aquatic invasive species infestations and **Attachment C** that is a detailed listing on the status of the species in each county.

- **Eurasian watermilfoil** – A plant that spreads into inland lakes and streams. Boats are the main carrier of this plant that was first established in 1993 at Crystal Lake in Hancock County. The plant reproduces quickly through stem fragmentation. A single segment of stem and leaves can take root and form a new colony, crowding out native plants. Eurasian watermilfoil can also form dense mats that restrict boating, fishing, swimming, and other forms of water recreation; decrease the value of lakefront property; and reduce the economies of water-dependent communities. The fragments cling to boats and trailers and spread from one waterbody to another.
- **Brittle naiad** – Annual aquatic plant that spreads rapidly from seeds or from plant fragments and is similar to Eurasian watermilfoil. The plant spreads rapidly, which can eliminate the native aquatic plants. Brittle naiad can also restrict recreational activities on waterbodies.
- **Bighead carp and silver carp** – Fish that grow quickly and can weigh over 50 pounds. These fish are in direct competition with native fish for food. Both species can be startled by the sound of a boat motor and have been known to jump 10 feet out of the water. This has caused a number of injuries to boaters, anglers, and persons that water ski, although no accidents have been reported in Iowa.
- **Zebra mussels** – Small clams that have alternating light and dark bands on their shells and are usually less than one inch in length. The first report of them was in the Mississippi River in 1992. Boats are the primary method for spreading zebra mussels as they attach to hard underwater surfaces. Young zebra mussels are microscopic and can be transported unintentionally in water in bait buckets, live wells, and the bilge of a boat. A large infestation can interfere with the aquatic food chain, as the zebra mussel will compete for food with native mussels and larval fish. They kill native mussels by colonizing on their shells and also cause economic impacts by clogging water intakes. Zebra mussels were recently found in Clear Lake, which was the first siting of a zebra mussel in an inland waterbody. The biologists at Clear Lake will continue to monitor and divers will search underwater surfaces, docks, and hoists.

The Department has used funds for prevention and elimination of aquatic invasive species from the Fish and Wildlife Trust Fund to match federal grants since Federal Fiscal Year (FFY) 2000. Through FFY 2004, the DNR has received approximately \$409,000. Each year, the Department submits an Aquatic Nuisance Species (ANS) Management Plan Annual Report to the federal government that details the accomplishments and strategies for eliminating or preventing the spread of aquatic invasive species. The FFY 2004 report details the areas that the DNR has focused on, listed below:

#### **Educational Programs and Publicity**

- Posting of ANS prevention signs at public boat ramps.
- Implementing a Statewide ANS marketing campaign that included:
  - Printing and distribution of new informational brochures.
  - Maintaining billboards.
  - Issuing news releases, public service announcements, and public presentations.
  - Posting signs at public boat ramps near waterbodies infested with aquatic invasive species.
- Supporting legislation regarding the elimination of aquatic invasive species.
- Sponsoring and participating in the Iowa Exotic and Invasive Species Workshops.

- Supporting nine partnerships or cooperative projects.
- Providing information to other State employees that work on or near Iowa waterbodies. This includes Iowa fisheries personnel, State Park employees, and Conservation Officers.
- Providing information to over 1,600 people during boat inspections.

#### **Inspection and Data Collection**

- Inspected over 600 watercraft.
- Surveyed 75 waterbodies for aquatic invasive species.
- Sampled the Mississippi, Wapsipicon, Cedar, and Iowa Rivers for zebra mussels.
- Compiled data on silver and bighead carp in Iowa.

#### **Response and Eradication**

- Responded to reports of infestations that included four Eurasian watermilfoil, eight brittle naiad, two white perch, and one parrot feather.
- Treated six waterbodies for Eurasian watermilfoil, and nine waterbodies for brittle naiad.

#### **Detection and Prevention**

- Implemented a priority ranking system for Iowa lakes that evaluates the susceptibility of a Eurasian watermilfoil infestation.
- Participation on the Prevention and Control Committee of the Mississippi River Basin Panel to identify pathways where aquatic invasive species are introduced and steps that can be taken to prevent their introduction.

#### **BUDGET IMPACT**

House File 828 (Boat Registration Act) was enacted by the General Assembly during the 2005 Legislative Session. The Act increased boat registration fees and specified the increase in funds would be used equally for boating enforcement and for the prevention of aquatic invasive species. The estimated increase of funds will not be available until FY 2007, when an estimated \$480,000 will be available for aquatic invasive species prevention.

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Aquatic Invasive Species

<http://www.staffweb.legis.state.ia.us/lfb/ireview/irvew.htm>

LSA/FSD: IRDFK000.Doc/10/25/05/11:40 am

**Listing of Aquatic Invasive Species**  
**Section 571, Chapter 90, Iowa Administrative Code**

**Aquatic invasive plants:**

Brittle naiad – *Najas minor*  
Curlyleaf pondweed – *Potamogeton crispus*  
Eurasian watermilfoil – *Myriophyllum spicatum*  
Flowering rush – *Butomus umbellatus*  
Purple loosestrife – *Lythrum salicaria*, *Lythrum virgatum*  
Salt cedar – *Tamarix* spp.

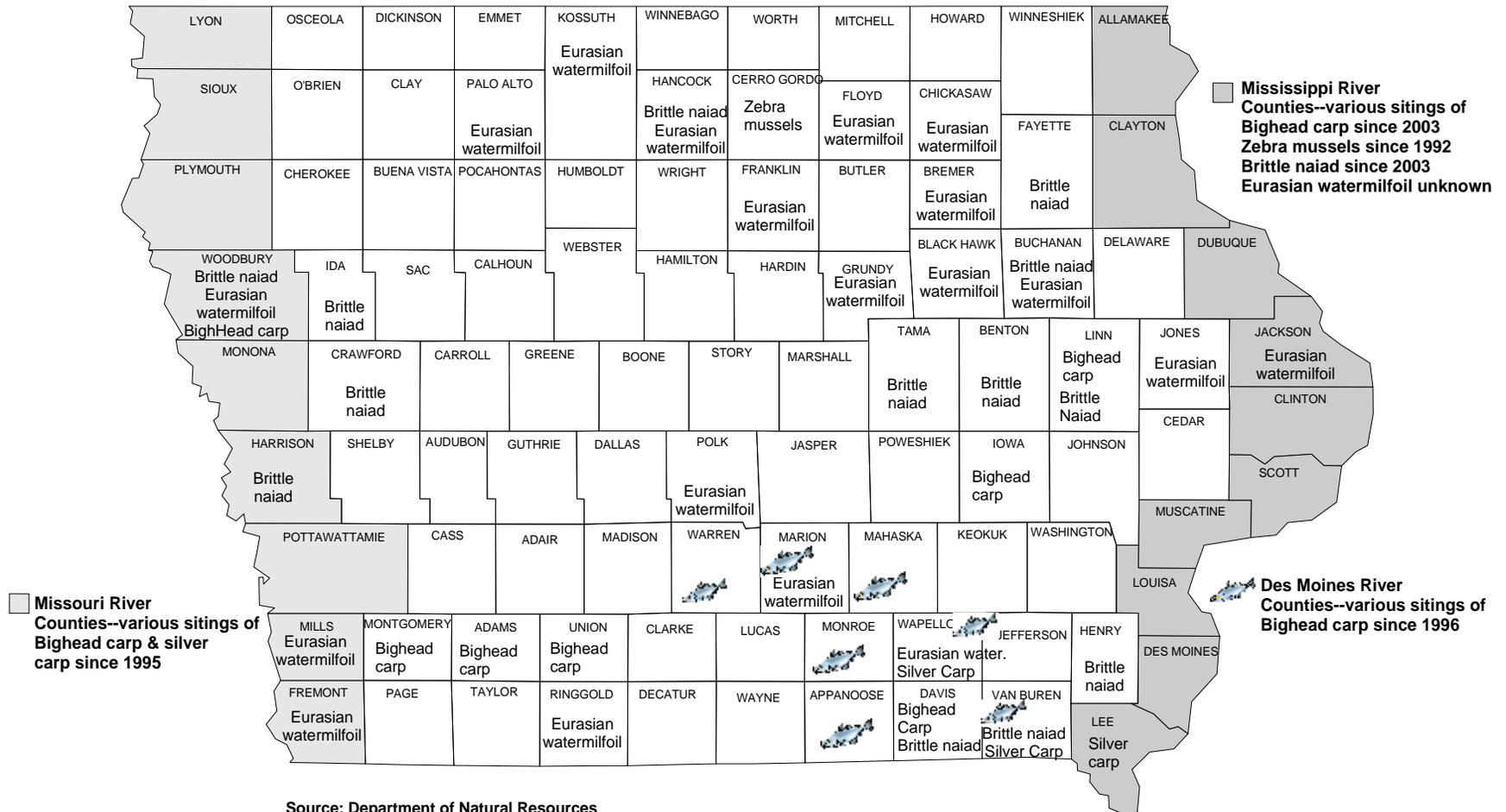
**Aquatic invasive fish:**

Bighead carp – *Hypophthalmichthys nobilis*  
Black carp – *Mylopharyngodon piceus*  
Round goby – *Neogobius melanostomus*  
Rudd – *Scardinius erythrophthalmus*  
Ruffe – *Gymnocephalus cernuus*  
Silver carp – *Hypophthalmichthys molitrix*  
White perch – *Morone americana*

**Aquatic invasive invertebrates:**

Fishhook waterflea – *Cercopagis pengoi*  
New Zealand mudsnail – *Potamopyrgus antipodarum*  
Quagga mussel – *Dreissena bugensis*  
Rusty crayfish – *Orconectes rusticus*  
Spiny waterflea – *Bythotrephes cederstroemi*  
Zebra mussel – *Dreissena polymorpha*

### Aquatic Invasive Species Locations



Source: Department of Natural Resources

## Status of Iowa Waterbodies Infested with Aquatic Invasive Species

Waterbody	Species	County	Year Discovered	Status
<b>Rivers:</b>				
Big Sioux River	bighead carp	Woodbury	1997	present - no control
Cedar River	bighead carp	Linn		present - no control
Chariton River	bighead carp	Appanoose	1995	present - no control
Des Moines River	bighead carp	multiple	1996	present - no control
	silver carp	Van Buren	2003	present - no control
	silver carp	Wapello	2003	present - no control
	silver carp	Warren	2003	present - no control
East Nodaway River tributary	bighead carp	Adams	2004	present - no control
Iowa River	bighead carp	Johnson	2003	present - no control
Mississippi River	bighead carp	multiple	2003	present - no control
	silver carp	Lee	2003	present - no control
	zebra mussel	multiple	1992	present - no control
	Eurasian watermilfoil	multiple	unknown	present - no control
	brittle naiad	multiple	2003	present - no control
Missouri River	bighead carp	multiple	1995	present - no control
	silver carp	multiple	unknown	present - no control
Ottumwa Lagoon	bighead carp	Wapello	2002	present - no control
Pee Dee Creek/Soap Creek trib.	bighead carp	Davis	2004	present - no control
West Platte River	bighead carp	Union	2004	present - no control
<b>Lakes or Ponds:</b>				
Airport Lake	Eurasian watermilfoil	Chickasaw	2002	treated in 2003 and 2004, continue monitoring
Beeds Lake	Eurasian watermilfoil	Franklin	2000	eradicated
Camp Sunnyside Pond	Eurasian watermilfoil	Polk	2001	treated in 2002 and 2005, continue monitoring
Clear Lake	zebra mussel	Cerro Gordo	2005	unknown - will monitor this fall and spring
Casey Lake	brittle naiad	Tama	2003	treated in 2004, continue monitoring
Crawford Creek Lake	brittle naiad	Ida	2003	treated in 2004, treatment scheduled for 2006
Crystal Lake	Eurasian watermilfoil	Hancock	1993	eradicated
Eldred Sherwood Lake	brittle naiad	Hancock	2005	treatment scheduled for 2006
Grundy County Lake	Eurasian watermilfoil	Grundy	2003	treated in 2004, continue monitoring
Hannen Lake	brittle naiad	Benton	2004	treatment scheduled for 2006
Horseshoe Pond	Eurasian watermilfoil	Jackson	2000	eradicated
Keg Creek Lake	Eurasian watermilfoil	Mills	1999	eradicated
Koutny Pond	Eurasian watermilfoil	Buchanan	1995	treated in 1996, 1998, 2003, continue monitoring
	brittle naiad	Buchanan	2003	treated in 2004, continue monitoring
Lacey-Keosauqua Lake	brittle naiad	Van Buren	2004	treated in 2005, continue monitoring
Lake Geode	brittle naiad	Henry	2004	continue monitoring
Lake Sugema	brittle naiad	Van Buren	2004	continue monitoring
Lake Wapello	brittle naiad	Davis	1998	continue monitoring
Little Sioux Park Pond	brittle naiad	Woodbury	2003	treated in 2004, continue monitoring
Mile Hill Lake	Eurasian watermilfoil	Mills	1999	treated in 2000, treatment scheduled for 2006
Mitchell Avenue Pit	Eurasian watermilfoil	Black Hawk	1998	eradicated
Moorehead Park Pond	brittle naiad	Ida	2003	treated in 2004, continue monitoring
Morris Park Pond	brittle naiad	Van Buren	2004	treated in 2005, continue monitoring
Nelson Park Pond	brittle naiad	Crawford	2003	treated in 2004 and 2005, continue monitoring
Ottumwa Pond	Eurasian watermilfoil	Wapello	2002	treated in 2003, continue monitoring
Pleasant Creek Lake	brittle naiad	Linn	2003	continue monitoring
Red Rock Pond	Eurasian watermilfoil	Marion	2003	treated in 2004, continue monitoring
Rudd Lake	Eurasian watermilfoil	Floyd	2003	treated in 2004, continue monitoring
Scott "A" Lake	Eurasian watermilfoil	Fremont	1999	eradicated
Scott "B" Lake	Eurasian watermilfoil	Fremont	2003	treated in 2004, treatment scheduled for 2006
Siems Park Ponds	Eurasian watermilfoil	Kossuth	2003	treated in 2004, treatment scheduled for 2006
Snyder Bend	Eurasian watermilfoil	Woodbury	1996	eradicated
South Prairie Lake	Eurasian watermilfoil	Black Hawk	1998	eradicated
Southwood Ponds	brittle naiad	Woodbury	2005	treated in 2005, continue monitoring
Sportsman's Lake	Eurasian watermilfoil	Palo Alto	1998	treated in 1999, treatment scheduled for 2006
St. Benedicts Pond	Eurasian watermilfoil	Kossuth	1994	treated in 1995, 1998, 2003, 2004; continue spot treatments
Sweet Marsh	Eurasian watermilfoil	Bremer	1997	treated in 1997, 2001, 2004; treatment scheduled for 2006
Volga Lake	brittle naiad	Fayette	2004	continue monitoring
Walnut Acres Campground Pond	Eurasian watermilfoil	Jones	2002	treated in 2003, treatment scheduled for 2006
Walnut Creek Marsh	Eurasian watermilfoil	Ringgold	1994	eradicated
Willow Lake	brittle naiad	Harrison	2004	treated in 2004 and 2005, continue monitoring
Wilson Grove Pond	Eurasian watermilfoil	Bremer	1996	treated in 1997, treatment scheduled for 2006
Yellow Smoke Lake	brittle naiad	Crawford	2003	treated in 2004, continue monitoring

Source: Department of Natural Resources  
October 1, 2005