

invasive ALERT

PROTECT NEW JERSEY'S WATERS

Shawn Crouse, Principal Fisheries Biologist

Baldwin Lake, Mercer County

In last year's *Freshwater Fishing Digest*, New Jersey Division of Fish and Wildlife published an "invasive alert" to inform anglers about several aquatic invasive species. Featured was information on invasive plants and animals that could plague waterbodies—or are already. In that alert we highlighted interesting characteristics, field identification and what anglers can do to help control the spread of these invasive species.

Since then, scores of anglers eagerly responded to notify Fish and Wildlife of their observations made while on the water. And although we know of many locations for numerous invasive species, new sightings are being made across our state on a weekly basis as anglers see, first-hand, an invasive species' ability to spread rapidly. For years, we have known New Jersey anglers to be "our best eyes and ears" for what's happening in our waters, and once again you prove that to be true. We are grateful.

Recent Invasive Fish Reports

- Green sunfish are becoming more widespread. These fish can wreak havoc on the waterbody's ecological balance once they establish and multiply.
- Snakeheads are now confirmed in the Delaware River and its tributaries spanning a 20-mile distance from Mantua Creek, Gloucester County, upriver to Dredge Harbor, Burlington County.
- Flathead catfish have been caught by anglers in the Delaware River from Lambertville, Hunterdon County, upriver into New York.

Recent Invasive Plant Reports

- Didymo (rock snot) has not been confirmed in New Jersey.
- Plants like hydrilla and Eurasian water milfoil are found in many of our lakes statewide.
- Since the fall of 2010, known locations of the invasive water chestnut

have increased from two waterbodies to at least 13 waterbodies, spanning nine counties.

Water Chestnut Sightings

WATERBODY	COUNTY
Amwell Lake	Hunterdon
Pascale Farm Pond	Hunterdon
Baldwin Lake	Mercer
Gold Run	Mercer
Katzenbach School Lake	Mercer
Grovers Mill Pond	Mercer
Oradell Reservoir	Bergen
Perth Amboy Waterfront	Middlesex

WATERBODY	COUNTY
Lake Assunpink	Monmouth
Lake Musconetcong	Morris
Lake Hopatcong	Morris
Lake Wawayanda	Passaic
Clark Reservoir	Union
Robinson's Branch	Union
Shadow Lake	Monmouth
Willever Lake	Warren

Fish and Wildlife Invasive Containment Activities

- Electrofishing efforts to reduce the Asian swamp eel population in Silver Lake, Camden County continue.
- Agency biologists assisted the New Jersey Conservation Foundation to eradicate bighead carp and grass carp (diploid), non-sterile, in a series of former aquaculture ponds located on the Wicklicheoke Creek Preserve.
- Herbicide treatment of water chestnut in Baldwin, Amwell and Assunpink Lakes were completed by our Bureau of Land Management.
- Field sampling to document distribution of snakeheads in the Delaware River and its tributaries from Gloucester to Camden counties.

Water Chestnut



Fan-shaped, strongly toothed leaves. Nut-like fruit with four sharp spines.



Portions of Lake Musconetcong (Morris County) are choked with the invasive water chestnut.



Invasive Fish

Fish identification can be easy for species that you catch often, however this may not be the case for species new to New Jersey waters. An untrained eye can easily mistake species that look similar.

Bowfin are native species, actually dating back 250 million years and should be released unharmed. However, **snakeheads** are invasive and should be destroyed and submitted to the Division of Fish and Wildlife for verification. Snakeheads have recently been found in the lower Delaware River and some of its tributaries.

BOWFIN—NATIVE



Short anal fin.

▶ SNAKEHEAD—INVASIVE



Long anal fin.

Painting: Susan Trammell
www.SusanTrammell.com

American eels are a diadromous native species, using both fresh and marine waters during their lifecycle. These eels are found in nearly every waterbody in New Jersey. **American brook lamprey** are a harmless native species that serves as an indicator of clean substrate. The **Asian swamp eel** is an invasive species with documented presence in Silver Lake, a 10-acre waterbody located in Gibbsboro.

AMERICAN EEL—NATIVE



Pectoral fins present; no gill slits.

AMERICAN BROOK LAMPREY—NATIVE



No pectoral fins; gill slits present.

▶ ASIAN SWAMP EEL—INVASIVE



No pectoral fins; no gill slits.

Although not a native species, **channel catfish** are stocked by Fish and Wildlife in select locations as it is a desirable recreational and food species. They do not reproduce in most waters, and in the few where they do, populations do not reach problematic proportions. The **flathead catfish** is considered an invasive species capable of causing ecological damage by out-competing other recreationally important species for food and habitat. Flatheads have been confirmed in the middle section of the Delaware River. >

CHANNEL CATFISH—STOCKED



Upper jaw protrudes past lower jaw; tail deeply forked.

▶ FLATHEAD CATFISH—INVASIVE



Lower jaw protrudes past upper jaw; tail not deeply forked.

ACCESSIBILITY

Accessible Fishing Sites



For people with disabilities, visit:
NJFishandWildlife.com/sites.htm

An Accessible Fishing Sites list is available to assist anglers whose mobility is impaired.

All sites are wheelchair-accessible except for the Musconetcong River in Morris County, where vehicle access is to the shoreline.

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Invasive Mussels—Zebra Mussels

How to Identify Zebra Mussels

- Look like small clams with a yellowish or brownish “D”-shaped shell, usually with alternating dark and light colored stripes.
- Up to two inches long, but most are under an inch.
- Usually grow in clusters
- Zebra mussels are the **ONLY** freshwater mollusk that can firmly attach itself to solid objects—rocks, dock pilings, boat hulls, water intake pipes, etc.

What to Do If You Find a Zebra Mussel

- Note the date and precise location where the mussel or its shell was found.
- Take the mussel (several if possible) with you and store in rubbing alcohol. **Do not throw it back in the water.**
- **Immediately** call Dr. Peter Rowe, New Jersey Sea Grant Headquarters, (732) 872-1300 extension 31, or write prowe@njmsc.org.



Keep on Reporting

The most effective way to succeed in containing aquatic invasive species is to continue to report each encounter. As a reminder, New Jersey’s *Potentially Dangerous Fish Species* regulation adopted in 2010 prohibits the possession or release of live fishes including: flathead catfish, snakehead, Asian swamp eel, brook stickleback, oriental weatherfish, green sunfish and warmouth, bighead carp, silver carp and grass carp (diploid). Anglers **must** destroy these species if encountered while fishing and are directed to submit specimen(s) to the Bureau of Freshwater Fisheries personnel for verification. Fish and Wildlife’s fisheries biologists can be reached at (908) 236-2118 for north Jersey and at (856) 629-4950 for south Jersey.



ALERT:
VHS (viral hemorrhagic septicemia) discovery puts pressure on anglers to contain its spread
 — Duluth News Tribune —

**Keep fish healthy.
 There’s a lot on the line.**

- Thoroughly clean and dry fishing equipment, bait buckets, boats, and trailers before using again
- Empty all water from equipment before transporting
- Remove all mud, plants, and aquatic life from equipment
- Do not move fish or plants from one body of water to another



www.focusonfishhealth.org

