Help Protect Our Waters

Chinese Mystery Snail

Chinese Mystery Snail *Cipangopaludina chinensis*: **Native** to Asia; **Invaded** in 1965 through releases from aquarium hobbyists; **Currently found in** NC, mostly in eastern river basins; **Competes** with native snails and may carry human parasites and diseases.

Red Claw Crayfish

Red Claw Crayfish *Cherax quadricarinatus*: **Native** to Australia in the tropical areas of Queensland and the Northern Territory; **Invaded** the open waters of PR in 1998 through escapes from hurricane-flooded aquaculture operations; **Not found** in the open waters of NC, but has been promoted as a potential aquaculture species in the State and elsewhere in the southern US; **May cause ecological damage** by competing with native crayfish and consuming native aquatic vegetation.

Black Carp

Black Carp *Mylopharyngodon piceus*: **Native** to Asia; **Invaded** in 1994 through an escape from a flooded MO aquaculture facility; **Not found** in open waters of NC, but sterile fish are kept for snail control in several aquaculture facilities in eastern NC; **Eats** native mussels and snails.

Northern Snakehead

Northern Snakehead *Channa argus*: **Native** to Asia; **Invaded** in 1977 through releases from the Asian food market or aquarium trade; **Not found** in NC, but could easily establish populations if introduced, as it did recently in MD; **Eats** native species of fish, crayfish, frogs, and reptiles.

Zebra Mussel

Zebra Mussel *Dreissena polymorpha*: **Native** to Europe; **Invaded** in 1985 in ballast water released from ocean-going vessels in the Great Lakes; **Not yet found** in NC, but has reached TN and VA. **Kills** native mussels, degrades fish habitat, interferes with fish reproduction, and clogs public water supply and industrial piping systems.

Flathead Catfish

Flathead Catfish *Pylodictus olivaris*: **Native** to the Mississippi, Ohio, Rio Grande and western Gulf drainages; **Invaded** eastern NC in 1966 through intentional stocking and has spread to other waters through angler releases; **Currently found** in the Cape Fear, Catawba, Neuse, Pee Dee, and Tar-Pamlico River Basins; **Eats** native species of fish, especially catfish, bullheads, sunfish, suckers, redhorse, and anadromous shad.

STOP
THE INVADERS!

Hydrilla

Hydrilla *Hydrilla verticillata*: **Native** to India and Asia; **Invaded** in early 1950s through imports for use in aquaria; spread to NC in 1980; **Currently found throughout most** NC river basins; most abundant in lakes. **Reduces** sport fish weight and size, creates low dissolved oxygen concentrations that kill fish, displaces native vegetation, alters water quality, and obstructs boating, swimming, fishing, and water withdrawal for public water supply, power generation, and agriculture; may cause drowning if swimmers become entangled.

Invaders can come from Foreign Countries, Other States, or Other Parts of Your State

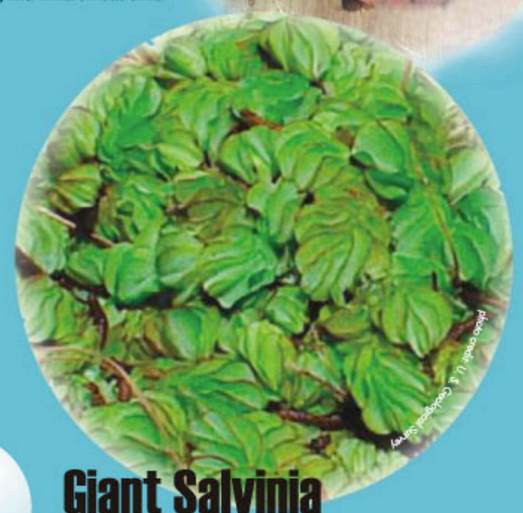
Invasive species, aquatic nuisance species, and exotic species are all terms that describe non-native plants, animals, or other organisms that can cause harm to the environment, economy, or human health. Over 6,500 exotic species are now established in the US, with the number increasing each year. The species pictured here are only examples of a larger problem. To find out more about these and other invasive species, visit **http://nas.er.usgs.gov**

You Can Help Protect Our Waters by:

- Inspecting and removing all aquatic plants, animals, and mud from your watercraft, equipment, and personal gear before leaving any body of water
- Draining water from all equipment like boat motors, jet drives, trailers, live wells, bait buckets, scuba equipment, boots, and waders before leaving any body of water
- Cleaning and drying all equipment and personal gear before use in a new body of water
- Disposing of unwanted aquarium plants, and live bait like minnows, worms, crayfish, or clams in a trash can
- Finding a new owner for unwanted aquarium pets or destroying them in a humane manner like placing them in ice water or by freezing
- Identifying and controlling the ways in which exotic species can enter or exit aquaculture operations
- Learning more and telling others about the problem of invasive species
- Reporting any new or unusual species to authorities and most of all...

Don't transport or release into Other Waters any live plants or animals from your aquarium, garden or farm pond, or fishing and boating equipment.

Giant Salvinia



Giant Salvinia *Salvinia molesta*: **Native** to Brazil; **Invaded** in 1995 through the garden pond and aquarium trades;first reported in NC in 2000; **Currently found** in the lower Cape Fear and White Oak River Basins; **Degrades** water quality, creates low dissolved oxygen concentrations that kill fish, displaces native vegetation by shading and overcrowding, and obstructs boating, swimming, fishing, and water withdrawal for public water supply, power generation, and agriculture.

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NORTH CAROLINA CHAPTER

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