RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

FACT SHEET

Office of Water Resources **September 2017**

Freshwater Aquatic Invasive Species in Rhode Island
Asian Carp

Bighead Carp **

Common Carp †

Grass Carp - the lipped mouth is typical of many Asian Carp ††

Species Description and General Information

Asian carp can describe any fish in the family *Cyprinidae:* Grass Carp, Common Carp, Silver Carp, Large scale Silver Carp, Bighead Carp, Black Carp, Crucian Carp and the Common Goldfish. They are commonly around 18-30 inches and 10-15 lbs but, depending on the species, can grow up to 4 feet long and weigh up to 90 lbs. Barbels (whiskers) are present on either side of a lipped mouth. They consume a variety of different foods, feeding on plant material, algae, fish eggs, insects, insect larvae, and mollusks. Although they are very hardy and tolerant of most conditions, carp prefer large bodies of slow or standing water and soft bottom sediments. They have a sharp sense of smell, hearing and taste, and tend to gather in small schools. Spawning occurs in spring when water temperatures warm. Fish move upstream in rivers or congregate in shallow, weedy areas where females may deposit up to two million eggs at a time. Males fertilize the eggs which hatch a few days later. Juveniles may grow up to fifteen inches in their first year of life and usually reach sexual maturity in three to four years.

Why are Asian Carp Considered an Invasive Species?

Carp are considered a nuisance species due to their large size, ravenous appetites, and rapid rate of reproduction. They pose a significant threat to native biodiversity, including native fish species as well as waterfowl. Carp are hardy fish that can tolerate extremely low levels of dissolved oxygen (by gulping air at the surface) and large temperature changes that would be lethal to other fish species. To find food, carp suck up muck from the bottom into their mouths, expelling the inedible mud and swallowing the remaining organisms. This feeding behavior uproots plants and disturbs bottom sediments, causing severe habitat damage and lowering the water quality. Stirred-up sediment may clog the gills and filter-feeding apparatus of aquatic organisms such as fish, mussels and snails. All of these impacts render the habitat unsuitable and are detrimental to the survival of native aquatic species. Additionally, since carp may eat the eggs of other fish they minimize the population of native species, which then allows the carp to monopolize waterbodies.

† *http://nematode.unl.edu/common_carp.jpg*

** *http://conservationreport.files.wordpress.com/2009/12/asian-carp.jpg*

†† *http://www.tnfish.org/PhotoGalleryFish_TWRA/FishPhotoGallery_TWRA/images/GrassCarpHeadMeltonHillNegus_jpg*

How Did Asian Carp Become Established in Rhode Island?

Carp are native to Eurasia and were purposely introduced in the late 1880's by the U.S. Fish Commission as a food fish. The Carp proved to be detrimental to native fish populations and unfortunately never became popular as a food or sport fish in North America, as they have in Europe. Common goldfish and ornamental variants of the common carp (known by their Japanese name "koi") can escape from private ponds and water gardens, and be introduced if an aquarium is dumped into a natural water body. Populations of Asian carp have now been established in nearly every state in the United States either through intentional introduction or natural movement of the fish through watersheds. Once established, their population is hard to control as they are prolific breeders with few natural predators aside from humans. Juvenile carp are eaten by larger carnivorous species such as pickerel or pike. However, after a few years of age they will outgrow predators.

What Methods Can Be Used to Control Asian Carp?

Prevention is the best way to reduce the risk of carp establishing populations in your pond or lake. Do not release non-native fish into waterbodies. The most basic method of physical control once a population is established is to harvest the fish, either by angling or seine netting; carp will take a variety of bait including corn and worms, and put up a good fight for sport fishermen. Control through water level manipulation, traps and electrofishing have also been attempted, but generally proved to be ineffective or labor-intensive. The most common method of preventing carp infestation is the use of barriers, such as metal grates, electrical barriers or culverts. However, the initial cost of installing these barriers is high and the structures may obstruct boat traffic and the spawning runs of other fish. The effectiveness of metal grates can be limited, as they may not exclude juvenile fish.

Please Help Prevent the Spread of Carp in Rhode Island!

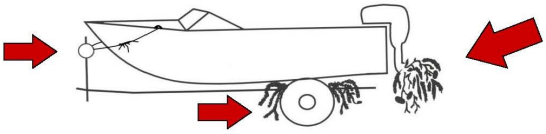
Learn to identify invasive species and be on the lookout for new fish in your lake.
It is much easier and cost-efficient to manage a small population than an entire lake, so early detection is key! Identification resources are available on the RIDEM website at http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/pdfs/aqinvspe.pdf.

Do not dump aquarium contents or aquatic pets (such as koi and goldfish) into any local water bodies. Discard unused bait and other packing materials in the trash, not in the water. Do not release carp into local waters. Because water contains microscopic organisms, all water should be drained from boats upon exiting the water. The flushing of engines and bilge water should be done out of, and away from, the water, and then given a chance to dry for at least 24 hours before putting into a new water body to prevent the transport, release, and spread of invasives.

For more information also see:

- Protect Your Waters
  http://www.protectyourwaters.net/
- 100th Meridian Initiative
  http://www.100thmeridian.org/
- The URI Watershed Watch Program
  www.uri.edu/ce/wq/ww
- The Rhode Island Natural History Survey
  http://www.rinhs.org/
- Aquatic Invasive Species in Rhode Island
  http://www.dem.ri.gov/programs/water/quality/surface-water/aquatic-invasive-species.php

BOATERS: INSPECT VESSEL CAREFULLY BEFORE and AFTER USE!



- **CHECK** watercraft, trailer and gear before and after each use
- **CLEAN** all weeds and plant fragments from boats, boots & gear
- **DRAIN** boat, bait buckets, live wells and motors far from water
- **DRY** boats out of the water at least 24 hours before next put-in
- Never release bait, shellfish, pet fish, or plants into a waterbody