



Invasive Species Fact Sheet

Bighead carp, *Hypophthalmichthys nobilis*

General Description

Bighead carp are large, freshwater fish belonging to the minnow family. They are deep bodied and laterally compressed, with a large head that is nearly a 1/3 of the size of their body. Their eyes sit low on their head and they have a large, upturned mouth. Bighead carp are gray to silver on their back and sides with numerous grayish-black blotches, and cream colored on their bellies. Bighead carp have long, thin, unfused gills that they use to filter feed zooplankton (animal plankton) and large phytoplankton (plant plankton) from the water. Bighead carp can grow over 4 feet in length and weigh up to 88 pounds. Bighead carp closely resemble silver carp, but can be distinguished by their blotchy coloration and unfused gills.



Bighead carp

Photo by South Dakota Department of Game, Fish, and Parks

Current Distribution

Bighead carp are not currently found in California, but were previously introduced in 1989 when 3 ponds in Tehama County were illegally stocked with both bighead and grass carp. The California Department of Fish and Game eradicated all carp from the ponds in 1992. Bighead carp were first introduced to the United States in the 1970s. They have been reported within or along the borders of at least 18 central and southern states, and are established and reproducing in various waterbodies throughout those states, including the lower Mississippi and Missouri Rivers. Bighead carp are native to low gradient Pacific Ocean drainages in eastern Asia, from southern China through the northern edge of North Korea and into far eastern Russia. They have been introduced all over the world, including Mexico, Central America, South America, Africa, Greater Antilles, Pacific Islands, Europe, and throughout Asia outside of their natural range.

Habitat Preference

Bighead carp occupy the upper depths of rivers, canals, ponds, lakes, and reservoirs. However, in order to successfully reproduce, they require a riverine environment with long reaches, high water volume, turbulent flow, and warm water temperatures (66 to 84 °F). Bighead carp can tolerate a wide variety of temperatures (33 to 101 °F), low oxygen levels, and slightly brackish water.

Pathways

Bighead carp were introduced into the United States in 1972 by a private fish farmer in Arkansas for the purpose of controlling excessive plankton populations in fish farm ponds. Subsequently, bighead carp were widely stocked in ponds throughout the state and by the 1980s they were found in open waters in the Ohio and Mississippi Rivers, most likely due to escapement from the ponds during flood events. Current pathways for the introduction and expansion of bighead carp in the United States include natural dispersal from occupied open waters, accidental inclusion in shipments of live bait or grass carp, transport for the live food fish industry, and intentional release during religious ceremonies. Bighead carp are on California's list of restricted animals and cannot be imported, transported, or possessed without a permit.

Impacts

Bighead carp consume large quantities of plankton, which can lead to an increase in algal blooms, a reduction in water quality, and competition with native species that rely on plankton for food, such as all larval fishes, some adult fishes, and mussels. Additionally, bighead carp are carriers of many diseases, such as Asian tapeworm, which can be transmitted to native species.

Actions Taken if Found

If this species is found in California, **do not release it**. Preserve (freeze) the specimen and immediately contact the CDFW Invasive Species Program at (866) 440-9530 or Invasives@wildlife.ca.gov.

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References

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Schofield, P.J., J.D. Williams, L.G. Nico, P. Fuller, and M.R. Thomas. 2005. *Foreign Nonindigenous Carps and Minnows (Cyprinidae) in the United States – A Guide to their Identification, Distribution, and Biology*. U.S. Geological Survey Scientific Investigations Report 2005-5041.