

Goldfish

Carassius auratus



Photo courtesy of Jon Sullivan, biolib.cz, Encyclopedia of Life.

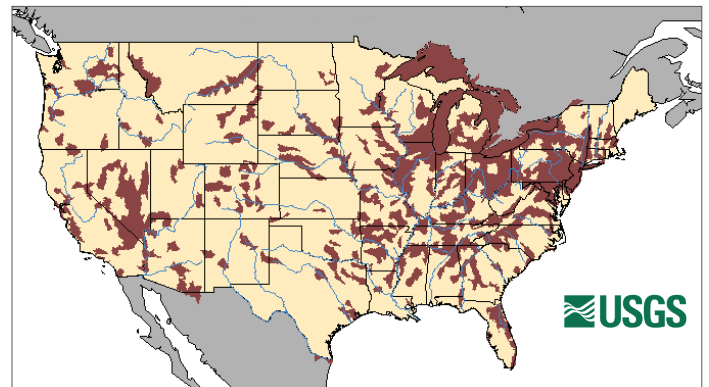
The Goldfish is a member of the carp and minnow family. It was one of the first aquatic invasive species to reach North America, arriving in the 1600s as an ornamental fish for aquariums and water gardens. It is now one of the world's most widespread invasive species.

Species Description

The Goldfish has an elongated, stout body which is typically 10-20 cm (4-8 in) in length and weighs 100-300 g (3.5-10.5 oz), although it can reach a maximum length of 59 cm (23 in) and a maximum weight of 6.6 lbs. It has a long dorsal fin with 15-24 rays and a hard serrate spine at the origin of both the dorsal and anal fins. It typically has 26-32 scales on the lateral line. The mouth is small, lacks barbels, and is situated in the middle of the head with both jaws the same length. While the Goldfish was mostly golden in color one thousand years ago, it now comes in a variety of colors, including orange, yellow, white, black, silver, olive-green, or greenish-brown and combinations of these colors. When found in nature, the Goldfish is most often a shade of green, brown or gray.

Native & Introduced Ranges

Native to eastern Asia, the Goldfish has been reported invasive in the United States by every state except for Alaska. It is established in all the Great Lakes. In Pennsylvania, the Goldfish has been collected in drainages across the state; however, it is unknown whether these reports represent established populations or isolated occurrences.



Biology & Spread

The Goldfish has been intentionally introduced for ornamental purposes to ponds, fountains, and small lakes from which it may disperse through connecting waters. Many introductions of the Goldfish were also due to its use as live bait. In addition, it is often released into the wild by pet owners not realizing the environmental repercussions of setting the fish free.

Habitat

While the Goldfish prefers a habitat with a muddy bottom and thick vegetation, it can tolerate pollution, temperature fluctuations, and high levels of turbidity. It naturally lives in freshwater ponds and slow-moving or still waters in depths of up to 19 m (65 ft) and prefers temperatures of 4-41°C (40-106°F), although it cannot live for long at high temperatures.

Impacts

Threat to biodiversity

The Goldfish is believed to be responsible for population declines in many native fish, invertebrate, and plant species. It feeds on snails, small insects, fish eggs, and young fish, making the Goldfish a competitor with and a predator of native fish. It also stirs up mud and other matter when it feeds, increasing the cloudiness of the water, and uprooting native plants. It is also very prolific and can produce very large populations.

Health risks

The Goldfish can carry diseases such as koi herpesvirus that can harm local fish populations.

Prevention & Control

Preventing the introduction and spread into water bodies is the best and most cost-effective way to control Goldfish. Never release unwanted aquarium pets and plants into the wild. Instead look for alternatives, such as contacting a retailer for proper handling advice or for possible returns.

Photo courtesy of Miroslav Fiala, Biolib.cz.



Miroslav Fiala



Photo courtesy of Biopix, Encyclopedia of Life.

Other options are to give or trade with another aquarist, pond owner, or water gardener, or donate to a local aquarium society, school, or aquatic business, or to seek out an aquarium pet adoption organization or a local aquarium pet surrender event.

Disposal of live organisms should be considered a last resort; however, if this is an option be sure to contact a veterinarian or pet retailer for guidance about humane disposal of animals.

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