

## ANIMAL

GOLD FISH

## INTRODUCTION

One of the most common fish in the aquarium hobby, goldfish belong to the Family Cyprinidae and are native to eastern Asia. They are related to – but not the same as – carp, and were first domesticated from food fish in China over 1,000 years ago. Goldfish can be distinguished from koi and common carp by the absence of barbels or “whiskers” in the corners of their mouth. Through selective breeding, many “fancy” goldfish strains sporting different body shapes, colors and fin types are available today. They include comets, shubunkins, fantails, orandas, ryukins, moors, telescope eyes, celestial eyes, bubble eyes, butterfly tails, pearlscales, wakins, lionheads, ranchus and many more. Orandas, lionheads and ranchus develop a crown of fatty tissue, called hood growth, over their heads that in mature fish may completely cover their eyes! Fancy goldfish can become stunningly beautiful and command extremely high prices. All varieties of goldfish are the same species – *Carrassius auratus*. When properly cared for, goldfish can live over 20 years in captivity.

Goldfish are ubiquitous in nature and can be found in rivers, streams, lakes, ponds, reservoirs and virtually every freshwater habitat on the planet from temperate to tropical environments. They have been introduced to many parts of the world to control mosquito populations.

## WATER

Considered cold water fish, goldfish can also be kept in heated aquariums. The optimum temperature for fancy goldfish is 68° to 74° F, while comets and shubunkins can be kept as low as 60° F. pH is not critical, but ideally should be between 7.0 and 8.4. Rapid changes in temperature or water chemistry can be harmful, if not fatal to goldfish. A tablespoon of aquarium or sea salt per 5 gallons can also be used to help keep goldfish in good health. Maintain good filtration and do a 25% water exchange every 2 to 4 weeks using a Water Changer or Siphon Vacuum Gravel Cleaner. Don't forget to treat tap water with Water Conditioner before refilling your aquarium!

## FEEDING

Goldfish are omnivores, feeding largely on crustaceans, insects and plant matter in the wild. A combination of Goldfish Flakes, Goldfish Granules and Goldfish Color Granules will provide a high quality diet. Frozen and live foods, including hornwort plant, can also be given as treats. Goldfish are naturally bottom feeders and may gulp air when feeding at the surface, causing them to lose equilibrium and float upside down. To avoid this, soak flake foods briefly before feeding and avoid the use of floating pellets. For best results, rotate your fishes' food daily and feed only what they can consume in 2 to 3 minutes, once or twice a day.

## HOUSING

Goldfish should never be kept in bowls, small aquariums or any unfiltered container! In addition to having relatively high oxygen demands, they grow to be quite large and fish waste which can

be harmful if allowed to accumulate. Common goldfish, comets and shubunkins make excellent outdoor pond fish and are known to survive relatively cold winters. Fancy goldfish, such as orandas, ryukins, moors and others, can also be kept in outdoor ponds, but are more vulnerable to predators and must be brought in during winter in harsh climates. In aquariums, adult common goldfish, comets and shubunkins should have at least 20 gallons of water per fish, while adult fancy goldfish should have at least 10 gallons per adult fish. The filter should be slightly over-sized to accommodate high waste production and additional aeration is recommended at warmer temperatures. Larger goldfish will eat most live plants with the possible exception of Cryptocorynes, Java fern and Anubias, although they may uproot even these. Avoid decorations with sharp edges and abrasive rocks such as lava and tufa, which may tear delicate fins as well as eye sacs on bubble eyes, celestial eyes, moors and telescopes. Goldfish like to forage in the substrate, so avoid jagged or crushed glass gravel. Provide adequate water flow, but avoid strong currents.

## **BEHAVIOR**

Goldfish get along well with most peaceful, similarly sized fish. Fin nippers and boisterous fish should be avoided. If housed without a heater, they should be kept with other fish that are tolerant of cooler water temperatures. They are gregarious, meaning they like to hang around together. They are intelligent, have long memories and can become very tame. They can be taught to hand-feed and interact with their owners. They can also distinguish their owners from other humans. Goldfish of different sizes can be kept together, however, commons, comets and shubunkins may become too boisterous for smaller fancy goldfish as they grow, and may need to be separated. Always consult an aquarium expert before adding any new fish to your aquarium.