

Common Problems in Goldfish

Questions regarding common problems in goldfish.

By Stephen M. Meyer

I have received a lot of letters from readers concerning four common goldfish "problems":

- 1) color changes in goldfish
- 2) flotation (buoyancy) problems in goldfish
- 3) mixing goldfish and tropicals in the same tank
- 4) using algae eaters in ponds to clear planktonic algae

Goldfish Color Changes. A very large number of first-time goldfish hobbyists are worried about color changes observed in their new goldfish. Some have seen their fantail goldfish turn entirely black, others watched their black moor goldfish lose all their fine velvety black, and some have fantail goldfish and lionhead goldfish that are not attaining the degree of color hoped for.

Almost all readers writing to me about goldfish color change assume they are watching some dreadful disease in progress. Most have begun treatment of their goldfish with antibiotics.

Goldfish Fact #1. Goldfish tend to change color. Most change during the first year of life, but others change throughout their lifetimes (which should be at least 10 years). Inexpensive goldfish change in unpredictable ways because their parentage is uncertain and their color genes represent a random mix.

Expensive "purebred" goldfish should exhibit significantly more predictable changes, achieving similar coloration of their parents as they mature. But be warned: If you purchase young (under a year or so), high-quality goldfish you cannot be certain that the colors you see are the colors you'll end up with a year later.

Most importantly, color change in goldfish is not a disease. Treating healthy goldfish with antibiotics is a sure-fire way to kill the animals (and guarantee one final color change).

Goldfish Fact #2. The single most important determinant of goldfish coloring is genes. What they inherit from mom and dad makes all the difference.

Color-enhancing foods can accentuate colors that are present, but otherwise subdued, but only to a limited degree. Sometimes dull orange goldfish can be "reddened up" with algae supplements or parboiled vegetables, such as peas. However, a side effect of color enhancing foods is color shifting on multicolored goldfish. White areas on ranchus or sarassas, for example, can turn orange.

The most effective way to enhance existing colors in goldfish — whether it is red in ranchus or black in moors — is to place them in a sunny outdoor pond. The combination of stable water quality, several hours of sunlight, and natural foods — algae, worms, insects, etc. — will bring out colors in your fish like nothing you can imagine.

Flotation (Buoyancy) Problems in Goldfish. If your goldfish tend to bob at the surface like corks (either right side up, or upside down), or bounce around the bottom like blobs of jelly, think "eating disorder." Commercial goldfish are not "natural" fish. They are bred to look the way they do. Unfortunately, playing around with genes often produces unwanted side effects (mutations can occur in nature, as well, often to the disadvantage of the animal or plant).

Playing around with body mass and shape, in particular, causes problems with flotation. The ability of a fish to stay neutrally buoyant (that is, not have a tendency to float upward or drop downward) involves a careful balance among the internal quantities and locations of body fat and meat, fluids, air and ingested material. Slight deviations from balance mean trouble.

Now, in the real world, fish with buoyancy problems are quickly eaten by predators (or starve to death) and so they have no chance to reproduce and pass on the genetic mistake that created the problem. In the commercial world, such "defective" animals are continually produced — and aquarists buy them. Often, the problem does not appear until the fish has matured and has become a favored pet. It is usually most noticeable, as Jeff and Annette Warren mention in their letter, after feeding.

Goldfish Fact #3. Ninety-nine percent of goldfish flotation problems are caused by a combination of physiological manipulation and feeding. They are not the result of bacterial or parasite problems and so treatment with fish drugs will not solve the problem.

You cannot repair the physiological quirks, so your only option is food. Feeding a variety of foods, including parboiled peas, duckweed and algae can often correct balance problems caused by dry commercial foods jamming up the fish's digestive tract. All pelleted or flaked foods should be presoaked before feeding. This prevents the dry foods from absorbing water internally, swelling up and blocking the fish's digestive tract.

You should change your feeding regimen from one or two large feedings to three or more small feedings. Goldfish do not need to eat large amounts of food. In fact, controlled studies show that underfeeding fish produces the healthiest and most long-lived animals. I am unaware of any goldfish that ever starved to death.

Be prepared for the fact that all too often this is a permanent and irreparable condition. You have to decide if the animal is suffering and would not be better off joining the 10 zillion goldfish that prematurely meet their maker each year.

Mixing Goldfish and Tropicals in the Same Tank. This is a really, really, really bad idea. It is so bad that I fear mentioning it because it might spark someone to try it. As I have mentioned on many occasions, goldfish should be held in a separate species tank because they 1) have different water quality demands (lower temperatures and more oxygen) than tropicals, 2) grow much larger than most tropicals, requiring greater feedings, causing them to produce more wastes and thus place larger demands on filtration systems, 3) need larger tanks than most tropicals, and 4) are often victimized by more aggressive tropicals.

Todd Oliverius (of Minnesota) writes to describe his goldfish with mysterious lumps on its back. Occasionally they break open and bleed. Parasites are suspected. Quite separately, Todd also mentioned that the goldfish shared a tank with a pleco that had a propensity to eat the slime coat off the goldfish. Hmmm.

The slime coat of a goldfish — like all fish — is the first line of defense against bacterial and parasitic invaders. Eating off sections of the slime coat, like removing large areas of your skin, leaves the body vulnerable to infectious disease. Of course, the physical attack on the goldfish itself is enough to cause injury. No fish medicine can fix this problem.

Randy Learn (Kansas) writes to describe how his goldfish used to be quite sedentary until some tropicals, including a 3-inch pleco, was placed in its tank. Now Buddy is much more active. You bet! You'd keep moving too if someone kept trying to peel your skin off.

Goldfish Fact #4. Life is always more pleasant for goldfish when they have a tank or pond setup just to meet their requirements, and they are not subjected to the indignities of slime-sucking plecos and the like. You get the idea by now, I hope.

Before moving on to the last "problem" I want to make a general point about the issues already covered. None had anything to do with bacterial or parasitic diseases, but almost all the letter writers were already treating with some medication. Before you begin fighting some mysterious fish plague, examine what is going on and ask yourself if you know enough about your pets to rule out simple fishkeeping mistakes. More often than not the only "disease" threatening your fish is the lack of knowledge on the part of the fishkeeper. External Fish Parasites>>

Using Algae Eaters in Ponds to Clear Planktonic Algae. I must say I was surprised by the number of readers who wrote to ask if I thought this would work. The short answer is no — no way. Algae eaters do not eat the algae that turns ponds green. And even if they did, they could never, ever come close to eating enough to make any difference in the water transparency.

If your pond water is routinely green and you want it to be more transparent, you have three options. First is heavy planting of aquatic vegetation (or a vegetative filter), second is installing a biological filter, and third is installing a UV sterilizer.

Vegetation or a biological filter will remove ammonia, and to a lesser extent phosphorus, that the algae need to live, from the water. Using vegetation, you will notice near overnight clearing when the plants are growing most rapidly in the spring and during flowering. Some greening returns as plant growth slows in the summer. You can maintain the clearing effect by cutting back plants and forcing them to regrow shoots (but this is not always the most attractive thing to do).

Nitrification filters can also clear the water, but they are not always successful. They seem to be most effective with a moderate fish load in the pond. Combining nitrification and vegetative filtering improves the chances for clearing the algae. A UV sterilizer is always effective — it just zaps the algae.