

## **Goldfish Varieties – Bubble-eyes and Celestials**

**By Peter J. Ponzio**

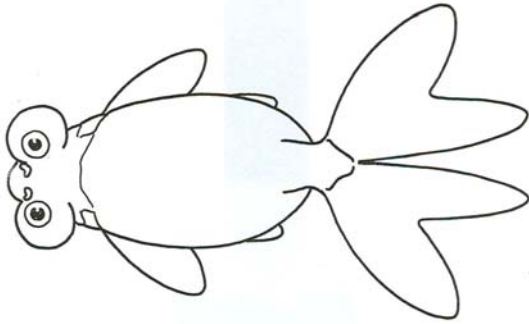
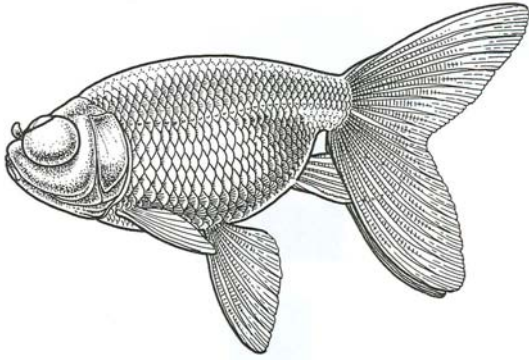
In the original article for this series, we defined a number of characteristics common to all goldfish, and introduced the concept of goldfish varieties, or different types of goldfish. Each subsequent article would provide detailed guidelines to appreciate and understand the characteristics of each variety recognized by the Goldfish Society of America (GFSA). Line Art for the GFSA standards has been provided courtesy of Merlin Cunliffe.

Both the varieties described in the opening title have been in existence for several hundred years, but are seen infrequently in the U.S. When shown, these fish are usually grouped together under the category of “eye” fish. The fish are similar in many ways: both are dorsal-less, and both have unusual eye growth characteristics, although the differences between the fish are substantial. Both fish are considered “fanciers” fish, and take some time getting used-to.

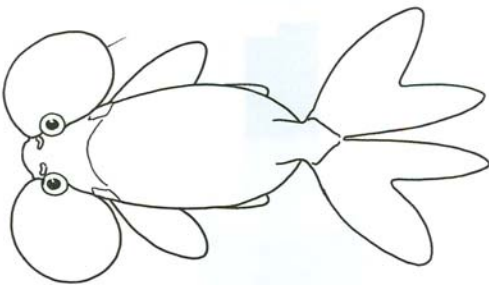
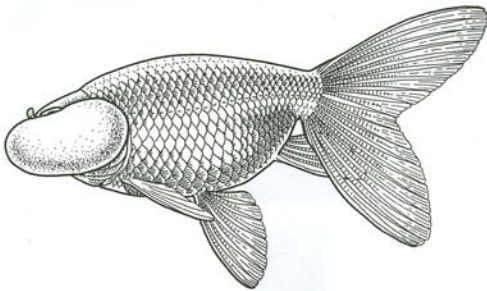
It is thought that both varieties were bred in China several hundred years ago, and that both types occurred as a natural mutation. Both fish were likely bred from some form of Egg-fish (Phoenix) stock, and then crossed-back to obtain the unique eye growth. In the case of the celestial, the Egg-fish stock was crossed with a telescope, and then through continued breeding, the eyes gradually turned-up. It is interesting to note that in China, there is a form of celestial which retains a dorsal fin.

The bubble eye was also developed from Egg-fish stock, although the eye growth was probably the result of mutation. The original bubble eye probably resembled a toad head (which has small fluid-filled sacks just underneath the eyes), which gradually enlarged to form the bubbles that are familiar to hobbyists today.

The GFSA breed guidelines, prepared by Merlin Cunliffe, for the celestial and bubble eye are presented below.



Celestial



Bubble eye

As you can see from the line art drawing, the celestial actually has a more robust body shape than the bubble eye, along with longer, more flowing fins. The shape of the celestial closely resembles that of an Egg-fish, with an oval shaped body, and slightly curving back profile. The bubble eye has a slimmer body, which gives the fish a more streamlined appearance than a celestial. Long bodied bubble eyes were common in the seventies and eighties, but have been replaced in the last twenty years with a stouter-bodied fish.

When showing fish, you should look for a slightly rounded back profile, and the back should be free from dorsal appendages or protuberances. The fins should be long and flowing, and all fins should be double. In the case of the celestial, the eyes should be pointed upward, and many fish appear to be slightly cross-eyed. The eye sockets should be matched in size and type. The celestial can have the same types of eye sockets as the telescope goldfish, but the oval types are seen in the vast majority of cases. In the case of the bubble eye, the fluid filled sacks should be the same size, and not too large.

Both celestials and bubble eyes come in all three scale types: metallic, nacreous and matte, although the metallic scalation is most frequently seen. These fish are also available in all colors common to goldfish, although once again, orange to orange-red is most common. Calico varieties of these fish are rare, and when seen, are striking, especially in the case of the bubble eye.

Since these fish have unique eyes and lack of a dorsal fin, swimming can be problematic. These fish should be kept with other fish of their variety, or can be kept together. Mixing these fish with other types of goldfish is not a good idea, especially in the case of the single-tail varieties, which are much faster swimmers than either of these fish.

It is also not advisable to keep these fish outdoors, since they can easily damage themselves in a pond environment. Most breeding is done by the hand-stripping method. Both fish can get quite large, with celestials being larger than bubble eyes. I have had celestials in excess of ten inches in length, and they grow quite large in terms of girth. Bubble eyes that reach eight to ten inches in length are considered large.

One of the frequent questions that get asked about these fish is whether or not they can see properly. Unlike telescopes, which see quite well, celestials and bubble eyes have difficulty seeing properly, and is one more reason to isolate these fish from other varieties.



Pom-pom celestial owned by Jim Castillo



Black and red bubble eye from *Chinese Goldfish*



Orange celestial from *Goldfish in Hong Kong* by Hanson Man



Red and white celestials from *Goldfish in Hong Kong*, by Hanson Man



Calico bubble eye by Fred Rosenzweig