

THE GOODEIDS

SOMETHING NEW, RARE, AND DIFFERENT



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Beginning in the late 1990s, the wild forms of a new family of particularly beautiful fishes (Goodeidae, the Splitfins) from Mexico began to appear at specialty shows, and have since become very popular, though they are not well known. The majority of the roughly 40 species within the family can be obtained, but their rarity in the wild and declining numbers make it essential that they be kept and bred by aquarists.

The goodeids (family Goodeidae) are members of genera partly defined by an entirely different means of reproduction from any other family of fishes. The majority are

beautiful, easy to reproduce, but many may become extinct in the wild within our lifetime. Their needs, though fairly straightforward, are distinctly different from those of many aquarium fishes we are accustomed to, making them the perfect choice for the aquarist seeking a modest challenge. Many species are exceptionally attractive, with markings, coloration, finnage, and the scientific interest to satisfy even the most demanding hobbyist.

Most do not surpass 2.5 inches, though a few, such as the Goldbreast Splitfin (*Ilyodon furcoides*), Blackfin Goodea (*Goodea atripinnis*), and Bulldog Goodea (*Allophorus robustus*) (Figures 1–3), can reach four inches or more. As one of the relatively few fish families with truly viviparous members, most goodeids are livebearers with internal fertilization. However, the males do not possess a gonopodium—the male inseminating organ seen in guppies, platies, swords, and mollies—nor do the females store sperm as some other livebearers do, which allows these other livebearers to produce multiple broods from a single fertilization. Instead, male goodeids have what is called an andropodium, a small notch in the anal fin that can be difficult to see, but the coloration and basic body shape of the males often make them easy to identify. Some



Male and Female Butterfly Splitfin (*Ameca splendens*). (Photo by Konrad Schmidt)

Greg Sage MEd., has been keeping fishrooms of various sizes for 45 years, always with an emphasis on livebearers. As an IFGA Guppy breeder for a number of years, those clean and organized practices were well suited to the wild swordtails and goodeids that have come into the hobby over the past 25 years. Select Aquatics was begun in 2009 to study, maintain, and breed many of these rare species, help others to keep them, and distribute them out into the hobby.

Mexico is now restricting export, and many of these species are disappearing, both in the wild and in the hobby. Greg writes customers daily with fishkeeping issues, and has documented and posted much of what has been learned at the selectaquatics.com website. He resides in Colorado with his patient wife, Laura, and Ripley, the Cavalier King Charles spaniel. If you would like to contact Greg for any reason, simply email selectaquatics@gmail.com, and he will get right back to you.



Figure 1. Male Goldbreast Splitfin (Select Aquatics' "Trout Goodeid" stock). (Photo by Konrad Schmidt)

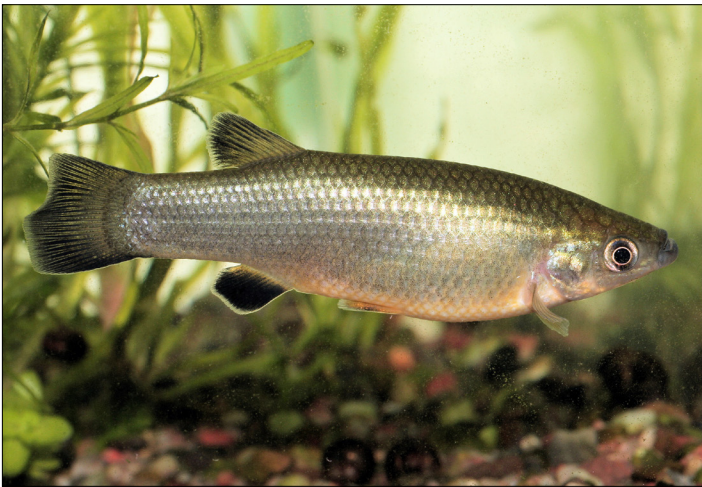


Figure 2. Blackfin Goodea. (Photo by Roman Slaboch)

females, such as those of the Butterfly Splitfin (*Ameca splendens*) are beautiful in their own right, but they generally lack the color and deeper body profile of the males.

Following a fertilization that will produce a single brood, gestation is generally about 60 days, and the young are nourished by the mother with a very rough equivalent of a placenta—called a trophotaenia—such that the young are much larger and easier to raise from birth than most other livebearers (Figure 4). Because of this, spawns will rarely exceed 20 young, with most species producing fewer than a dozen large, hardy fry.

Not at all difficult to keep with a few accommodations, most reproduce easily and can be excellent community aquarium fishes. However, due to their rarity, they are best kept in



Figure 3. Bulldog Goodea. (Photo by Roman Slaboch)

species-only tanks, where few young are preyed upon and the population can be built up quickly. The majority of species available are not aggressive and do well with other types of fishes, but a few species can be fin nippers and you may need to consider which fishes those species can best be kept with.

They require cooler temperatures, though many can live long lives at tropical aquarium temperatures. Most do best and reproduce most readily at 68–74°F. Some must be maintained at those temperatures or they will slowly die away, and some hobbyists have claimed that extended exposure to temperatures above 80°F can cause sterility in some species. A well-aerated aquarium with generous amounts of fine-leaved plants, moderate light, good filtration and water movement, and fairly clean conditions assures the greatest success.

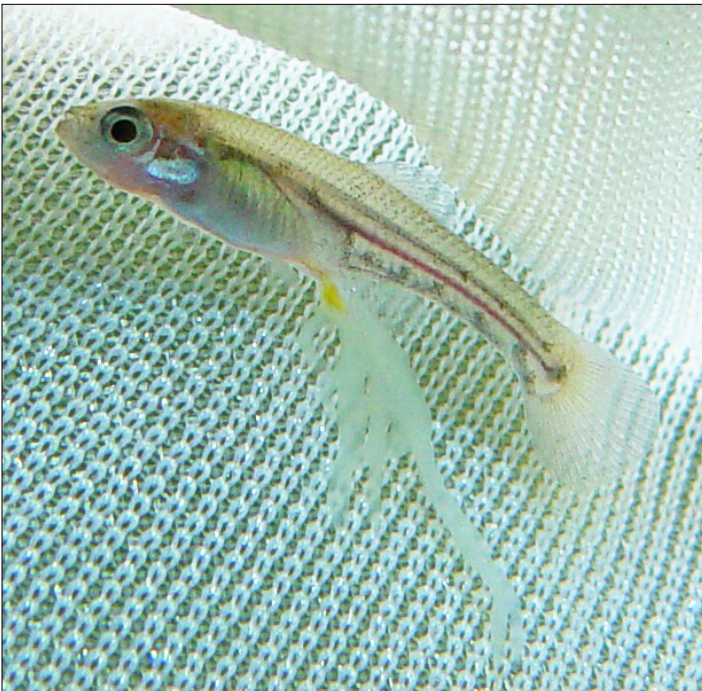


Figure 4. Newborn Butterfly Splitfin with attached trophotaenia. (Photo by Konrad Schmidt)

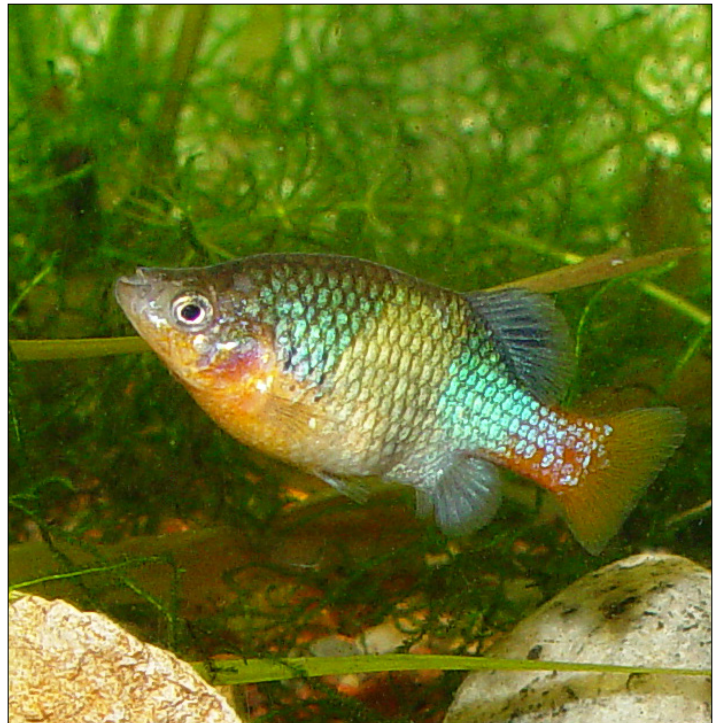


Figure 5. Male Redtail Splitfin. (Photo by Konrad Schmidt)



Figure 6. Bold Characodon. (Photo by Sumer Tiwari)

For those fishrooms where maintaining temperatures in that range is not possible year around, a few species can thrive in warmer water and even reproduce at temperatures in the high 70s. The Redtail Splitfin (*Xenotoca eiseni*) (Figure 5) is possibly the most temperature tolerant, and can be kept at up to 80°F. The Butterfly Splitfin also does well at warmer temperatures, but, like all goodeids, both prefer temperatures in the low 70s F.

An international organization dedicated to the care, preservation and maintenance of goodeids, The Goodeid Working Group (goodeidworkinggroup.com), assists in the distribution of these fishes to hobbyists and maintains reserves of most of the species in the family at facilities in Mexico and Austria, while also tracking dozens of hobbyists who maintain reserve populations in both Europe and the US. They are willing to assist hobbyists who want to maintain rare goodeids for long-term conservation purposes.

A diet with a variety of protein and vegetable-based dry foods suits goodeids well, and young are easily raised on baby brine shrimp and most flake and small pellet dry foods. Dietary needs vary. Some species, such as the Butterfly Splitfin, require a vegetable-heavy diet, while others, such as the



Figure 7. Rainbow Characodon. (Photo by Greg Sage)

Bold and Rainbow Characodons (*Characodon audax* and *C. lateralis*) (Figures 6–7), prefer a more carnivorous diet.

Like most livebearers, many species reproduce best when gravid females are moved to heavily planted 10-gallon tanks to drop their fry, where the young can then be raised separately. Gravid females of some goodeids do not fare well when confined to a net breeder, and when stressed this way may abort their fry or even die.

Most will reach sexual maturity within 4–6 months. Interestingly, though they will live for 3–4 years, a few species produce the majority of their fry within the first year of sexual maturity. Some, such as the Tequila Splitfin (*Zoogoneticus tequila*) (Figure 8), often stop reproducing at about two years old, though they may survive for another two years. Though females six months to two years old are smaller, this is often their most fertile period and any fry produced should be harvested and raised.

Essentially considered extinct in the wild since the 1970s, the Tequila Splitfin is a very peaceful fish. Males can become almost entirely charcoal black when in breeding coloration—which is most of the time—with a bright, broad orange stripe along the edge of the entire length of the tail. The



Figure 8. Sparring male Tequila Splitfins. (Photo by Konrad Schmidt)



Figure 9. Splotched Skiffia. (Photo by Michael Koeck)

wild coloration of the Rainbow Characodon is beautiful to begin with, but it is one of only a few that has been selectively bred to produce males that are almost entirely a solid, fire-engine red. The Bold Characodon is a bright silver/white fish with deep, rich, velvety black fins. Possibly the most striking goodeids are some populations of the Splotched Skiffia (*Skiffia multipunctata*) a bright yellow fish with broad jet black patches that increase in size as the fish grows (Figure 9). Speculation exists that the dominant male in a tank may develop the most black coloration.

In the 1970s the Golden Skiffia (*Skiffia francescae*), another goodeid that is essentially extinct in the wild, was crossed with *S. multipunctata* to produce a hybrid with males that become almost entirely a deep, velvet black. Called the “Black Beauty,” they are kept by a few hobbyists but, weakened in many cases by poor breeding, have otherwise disappeared. They are being bred out at Select Aquatics with the hope to offer them soon.

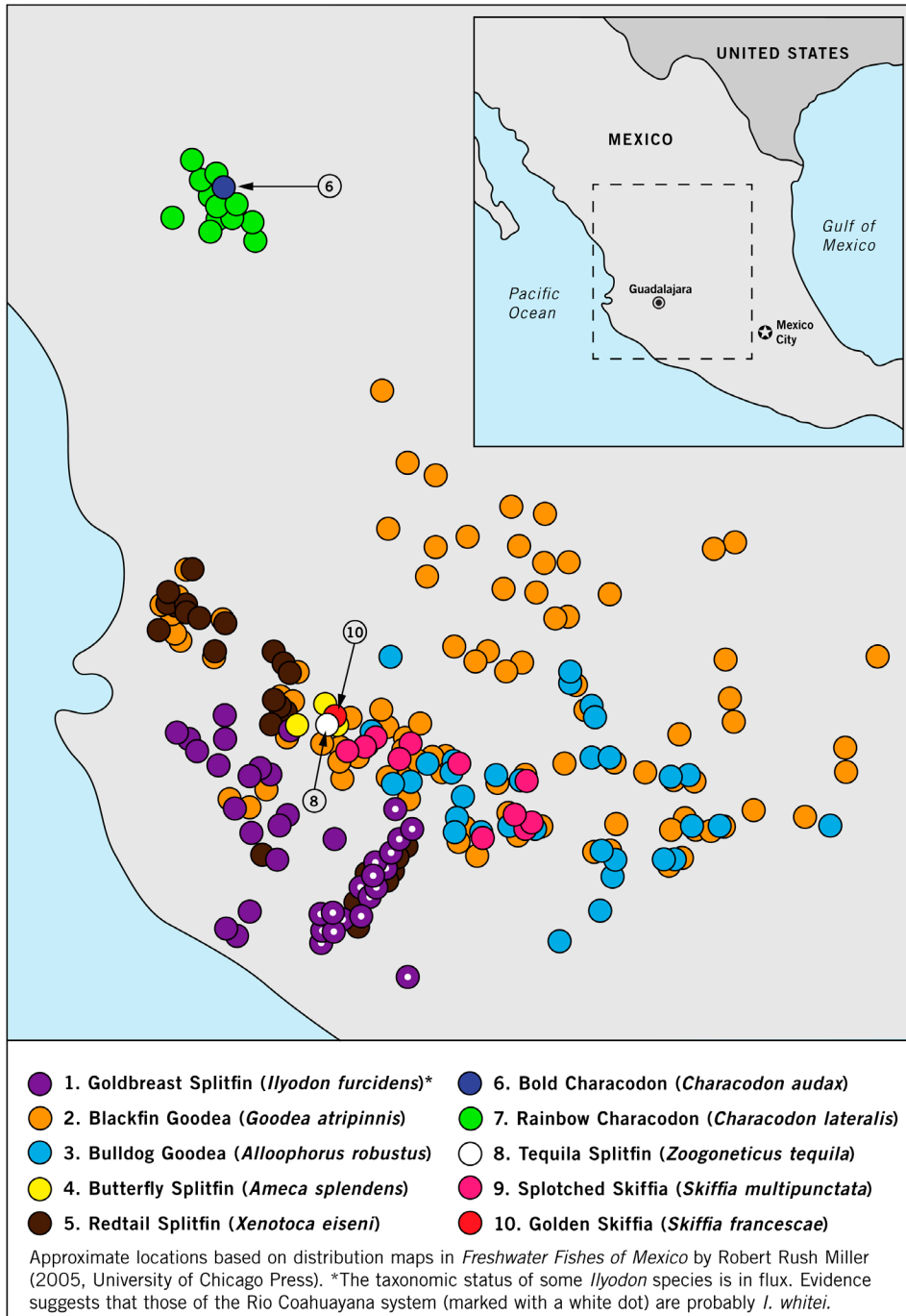
In addition to the species mentioned so far, there are many goodeids that are not as striking or richly colored, and

many possess a more wild-type appearance with black spotting or striping against a silver or gray background.

Recent changes in collection requirements and the process of obtaining permits has made it almost impossible to keep an ongoing supply of fishes from the wild, yet a few newly discovered populations are being bred here in the US.

Obtaining one of the goodeids is not difficult. They will almost never be found in a pet shop or even at most aquarium club meetings, but are available from a number of hobbyists. The American Livebearer Association has prioritized the keeping of goodeids for many years, and their North American Goodeid Working Group Committee Chair (NANFA member John Lyons) should be able to put you in contact with someone who may be willing to sell this fish. As well, Select Aquatics (selectaquatics.com) maintains for sale about 20 of the most attractive and popular goodeid species, including two selectively bred species: the all-red Rainbow Characodon, and the “Trout Goodeid” (Goldbreast Splitfin), selected for trout-like markings and exceptional color. Select Aquatics will also work with you to determine the best species for you, based on your tank conditions, the species that live in your tanks, and so forth.

If you are an aquarist interested in finding a fish that is not often seen, is a focus of conservation efforts, and is attractive and easy to reproduce, one of the goodeids may be just the fish you have been looking for!



Approximate distributions of goodeid species mentioned in this article. (Map by Olaf Nelson, with thanks to John Lyons for information regarding the taxonomy of some species in *Ilyodon*.)