

## Cichlid Breeding

**Whether in a community tank or a species tank, some cichlids will breed readily for you.**

*By Mary Bailey*

In my opinion, most cichlid fish are easy to breed, provided you have a male and a female, offer them suitable conditions and can manage their territorial behaviors. After all, given that cichlid fish look after their young, they do most of the work for you. The reason some appear to be difficult to breed is because they have more or less specialized environmental requirements that not everyone can meet, or because serious problems develop between male and female unless you are an expert at behavioral management.

For this reason, the novice cichlid breeder — or perhaps I should say cichlid keeper (because keeping them successfully usually results in breeding, planned or not) — will do well to stick to species that have been in captivity for some time and are hardy. Such fish will do well in the water conditions you are able to provide and do not have any other specialized environmental conditions. Plus, they are reasonably well behaved.

### Substrate-Spawning Cichlid Fish for Communities

Many would-be cichlid fish breeders have a typical community of fish and want to try their hand at adding cichlids to this environment. As it turns out, there are a number of small substrate-spawning cichlid fish that will fit well into such a setup, and they will not destroy a pleasant underwater scene by digging excessively and/or eating plants.

However, it is important to remember that these cichlid fish look after their eggs and fry, and thus will inevitably occupy an area of territory — a "nursery." These cichlid fish should be kept only if the aquarium is large enough to accommodate this territory need and still leave plenty of living space for the other occupants to go about their business without constant harassment.

I would not advise trying to keep even these small cichlid fish in any community aquarium with a length less than 36 inches, and then keep only one pair of a single species. When breeding, a pair will occupy about half the aquarium, leaving the other half for the other fish. In a community smaller than noted, even peaceful dwarf cichlid fish are best kept by themselves in a species aquarium (more on this later).

Suitable small cichlid fish for breeding in the general community (whatever its water chemistry) include a number of South American and West African dwarfs. From South America there are the "dwarf acaras" *Laetacara* (formerly part of *Aequidens*) and *Nannacara*. There is also the keyhole cichlid (*Cleithracara maronii*) and the Bolivian ram (*Mikrogeophagus altispinosa*). From West Africa are the krib (*Pelvicachromis pulcher*) and the blockhead (*Steatocranus casuarius*). The latter nominally comes from a specialized biotope (rapids) and is rather larger than the rest, but is peaceful and will do very well in a typical aquarium.

All of these cichlid fish will do very well and breed in a well-planted aquarium with a few flowerpot caves. They thrive in virtually any water chemistry.

If the water is soft and slightly acid, the list can be expanded to include other *Pelvicachromis*, *Anomalochromis thomasi* and *Thysochromis ansorgii* from West Africa and aquarium-strain (not wild) common angels (*Pterophyllum scalare*) from South America, though the latter are difficult to sex and prone to egg eating. Some of the other species listed are also tricky to sex, but because they are small, it is feasible to buy five or six and let them pair naturally, removing the others when a pair forms. Don't keep more than one pair in an average-size community.

Note that the list does not include *Apistogramma* species (which have very specialized habitat requirements to guarantee breeding) and the ram (*Mikrogeophagus ramirezi*), which requires much more acidic water if wild and tends to be difficult to keep alive if farm-raised, because quality is generally poor. If water with a pH of around 6.0 is possible, and wild or good local-bred stock is available, then you could try them, but they are still tricky.

A diet that contains plenty of live or frozen food and an environment with minimal disturbance should be all that is needed to encourage spawning. Some species will even breed on a diet of flake foods. Avoid fiddling with the aquarium in the hope of persuading the fish to spawn — it is more likely to have the opposite effect. Patience is perhaps the most important quality that can be applied to breeding these and many other cichlid fish.

### Substrate-Spawning Cichlid Fish for Species Aquariums

There are a number of substrate-spawning cichlid fish that are also easy to keep and breed, but are not suitable for a community for a number of reasons. They are too large and may eat small community fish, or at least have the latter living in constant fear of being dinner. They are too territorial and aggressive, and also prone to eating plants or being enthusiastic diggers when preparing to raise a family. They dig to create nursery pits in the open to contain their larvae and fry.

These cichlid fish are best kept in a species aquarium of their own, with just one pair of the chosen species. They are likely to fight constantly with other cichlid fish, whether their own kind or different species. This behavior is tied to their need to occupy a safe, private territory for raising a family. Fish intruding into their territory are seen as a threat to the brood (usually with justification), and other cichlid fish in particular are seen as competitors for resources (breeding sites and food supply).

Although many medium and large cichlid fish are best kept in species aquariums, not all are suitable for beginners. In some species, there can be serious aggression problems between the male and female even after they have paired and spawned, and these require specialized management to prevent one partner, usually the female, from being badly injured or even killed. Some require very large aquariums that a beginner is unlikely to want to devote to just two cichlid fish. Some must have very specific water chemistry (very soft and acid, or in the case of a species like the green chromide, *Etroplus suratensis*, a brackish aquarium) or a diet of live fish, which may be difficult or distasteful for the novice to provide. Some cichlid fish simply appear reluctant to breed in the limited amount of space we can offer.

Some species (e.g., oscars, *Astronotus ocellatus*) are very difficult or impossible to sex, and pairs are normally obtained by raising a group, which requires plenty of space and may lead to difficulties in finding homes for the nonpaired fish. Finally, some (such as Madagascan cichlid fish) are endangered and in short supply, and are best kept by experienced aquarists most likely to succeed in breeding them.

However, this still leaves plenty of choices. To some extent, the choice will depend on what size aquarium is available. A number can be kept in a 24-inch-long aquarium, but others require an aquarium of at least 48 by 18 by 18 inches — not a reasonable size for a novice.

Some of the easiest cichlid fish to keep and breed in such a setup are the small Central American species, notably the convict (*Cryptoheros nigrofasciatus*) and other members of the same genus. They grow to about 4 inches and are reasonably easy to sex. For example, *C. nigrofasciatus* females (normal forms, not albinos) usually have some orange on the belly, which is extremely rare in males. They can be kept in a 24-inch aquarium in a pinch, though a 30- to 36-inch-long aquarium is better. They will do well in any but very acidic conditions, are satisfied with a few caves as décor and will generally breed, even if their diet is no more adventurous than dried food.

Firemouths (*Thorichthys meeki*) and other genus members are also quite easy to breed, but more difficult to sex. About the same size, and requiring a similar aquarium, is the orange chromide (*Etroplus maculatus*) from the Indian subcontinent, and a number of small *Tilapia* species from Africa.

Moving up a size bracket and to a 36-inch aquarium minimum, we have the Jack Dempsey (*Cichlasoma octofasciatum*), the rainbow cichlid (*Herotilapia multispinosa*) and *Hypsophrys nicaraguensis*, all from Central America. Then there's the blue acara (*Aequidens pulcher*) and the port acara (*Cichlasoma portalegrense*) from South America. All of these will do well in any but acidic conditions.

For those who want to try something big and have a minimum of a 48-inch aquarium, the jaguar cichlid (*Parachromis managuensis*) from Central America and *Tilapia mariae* (West Africa) are possibilities; in the case of the jaguar cichlid, start with young adults, not full-grown fish.

If you have soft, slightly acidic water and a 48-inch aquarium, there are the severum (*Heros efasciatus*) and the festum (*Mesonauta* sp.), both from the Amazon and requiring soft, slightly acidic water to breed, although they will live nicely in any water.

The same general principles apply as for the small dwarf species mentioned earlier. The food needs to be more robust for the larger species, however, and there are some dietary specialists in the list. For instance, severums and *T. mariae* are partially herbivorous, and jaguars are largely piscivorous (but they don't need live fish).

### Mouthbrooders

Maybe you'd like to try a mouthbrooding species as your first cichlid fish. If so, the Egyptian mouthbrooder

(*Pseudocrenilabrus multicolor*) is suitable for any community aquarium of 30 inches or more, and you can also try the slightly larger *P. philander* from southern Africa in larger communities. It is best to have two or more females per male. These species are not fussy about water conditions and diet.

You can also try a species aquarium (at least 36 inches) with a male and two or more females of *Astatotilapia burtoni* from central Africa, or a pair or harem of redhumps (*Geophagus steindachneri*) from northwest South America. Again, both are not picky about water and diet, but *A. burtoni* will dig enthusiastically, and the redhumps will sift. Plants are desirable as cover, so plant them in pots or between rocks to prevent uprooting.

For those who want a larger mouthbrooder, there are various *Sarotherodon* and *Oreochromis*, mouthbrooding tilapiines from Africa, the best known being the Mozambique mouthbrooder or mozzie (*O. mossambicus*). These cichlid fish seem nearly indestructible, are great characters, eat anything (including plants) and are very easy to breed, but they will re-arrange gravel with gusto.

You may be tempted to try some of the more exotic mouthbrooders from the East African rift lakes (such as *Melanochromis*, *Pseudotropheus* and *Tropheus*), but these require specialized techniques to minimize their territoriality, and it is better to practice on other cichlid fish first. However, *Labidochromis caeruleus*, one of the rock-dwelling mbuna from Lake Malawi, has proven an exception, and you can try a small group in a 30-inch aquarium or larger. They require hard, alkaline water and masses of rocks, and do well on frozen or live fish foods. They are easy to breed, and there is a ready market for the young.

#### Best Chances of Success

Kribs offer the best chance of picking out a pair and breeding them; they're very easy to sex, easy to breed and are excellent parents with fascinating broodcare. The convict is fairly easy to sex and difficult to stop breeding! If you like mouthbrooders, try the Egyptian mouthbrooder, the mozzie or *A. burtoni*, depending on your aquarium size. Mozzies and *A. burtoni* are easy to breed, but there is only a limited market for the young because they are so prolific.

This article is intended only as a basic guide to what the novice should consider, and I would advise that you make a preliminary choice of species and then read up on it before actually buying any fish. You'll want some of the finer details before making a commitment. Remember that the trick is to set up the aquarium to suit the cichlid fish, feed them a suitable diet and be patient. Avoid tinkering with the setup. As long as you have provided the right conditions, it should be simply a matter of time before your cichlid fish are breeding.