

Convicts and Firemouths

Compatibility is about water chemistry and temperament

By Lee Newman

Q. I have a 20-gallon aquarium with three small convicts and four medium firemouth cichlid fish. The largest convict cichlid seems very aggressive, even toward the larger firemouth. Is there no way to keep these two species together or do I have a rogue convict?

Jake Bentham

A. I'd first like to congratulate you for choosing species that share the same ranges of water chemistry parameters. However, as you have already observed, water chemistry is only one consideration in determining the compatibility of two different species of Central American cichlid fish. In any fishkeeping endeavor that involves the housing of cichlid fish, one has to be mindful of their territorial behavior, which can vary greatly among species.

For starters, I don't think you have a rogue convict cichlid fish but rather a relatively simple aggression dynamic in which the largest individual of the more assertive species has established itself at the top of the hierarchy.

In aquariums, the ability of a cichlid fish to ascend the hierarchy is largely influenced by three factors: how large the individual is, how aggressive that species is and how challenging the competition is. Convict cichlid fish (*Archocentrus nigrofasciatus*) are decidedly more aggressive - despite their generally smaller size — than firemouth cichlid fish (*Thorichthys meeki*).

During aggressive interactions, convict cichlids often pursue the encounter to the point of physical contact. In these cases, the adversary is actually bitten, resulting in physical damage, such as torn or ripped fins, dislodged scales or worse. Unfortunately, in the confines of an aquarium, the loser of such encounters does not usually have the option of swimming out of the territory of the dominant fish.

Firemouth cichlid fish, on the other hand, are largely bluffers. Their aggressive interactions with other species rarely escalate to the point of physical contact. In fact, on the outer lower edges of the gill covers are large, conspicuous dark spots. These large spots are supposed to look like eyes to a rival in head-on displays. The idea is that the rival will observe these greatly exaggerated eye-spots in determining the size of the opponent and thus conclude it is out-matched. The confrontation ends with the bluff, so no physical interaction is necessary.

Thus, despite the fact that both species are Central American cichlid fish and are used to similar water chemistry values, they are unlikely co-habitants in an aquarium, unless given a very large amount of space. Unfortunately, a 20-gallon aquarium does not afford enough room for these two very different cichlid fish to live together. I'd suggest one of the following solutions. Choose which species you would like to keep, buy a second aquarium, or get a much larger one with a minimum length of least 48 inches.