

Filefish in Marine Aquariums

Jay Hemdal C. 2022

Filefish, (often called leatherjackets in Australia) have enjoyed a moderate level of popularity for many years as marine aquarium fish. As a group however, there is some variation as to their relative appropriateness for particular aquariums. This article outlines these differences in their care requirements, allowing home aquarists to make a more informed choice of the fish they decide to add to their tanks.

Filefish belong to the family Monacanthidae, in the order Tetraodontiformes (which includes the puffers, triggerfish and boxfish). Most closely related to the triggerfish, filefish differ mainly in having generally thinner bodies, and only having one or two dorsal spines rather than the three spines possessed by triggerfish (Randall 2005). Their common name is derived from the rough skin that all species possess. In terms of captive husbandry, filefish differ from triggers by tending to be less aggressive, reaching a smaller adult size (except the scrawled filefish) and having a wider range of dietary requirements (Some of which are difficult to meet in home aquariums).

Filefish are generally suitable only for fish-only aquariums. Their eclectic dietary preferences includes many algae and sessile invertebrates, so they are generally not considered “reef safe”. Of course, this is a relative issue; a tiny filefish in a large reef aquarium would not be able to consume the invertebrate life in the tank at a rate that would cause much of a problem. In terms of compatibility with other fish, filefish are not as pugnacious as most triggerfish, but they still may nip the fins or body of slower moving fish such as eels or stingrays. Due to the rough thick skin and sharp dorsal spines that filefish possess, few other fish will bother them.

For the most part, filefish are fairly resistant to typical fish diseases. They can develop *Cryptocaryon* protozoan infections like many fish, but they rarely become infected with trematodes (flukes), or *Amyloodinium*. As mentioned, the natural diet of filefish varies greatly among the various species, but for those that adapt well to captivity, they will feed readily on typical aquarium fare; chopped seafood items, gelatin diet, nori, and even flake and pellet foods. Remember that these thin-bodied, browsing feeders have relatively small stomachs and need to be fed small amounts of food frequently throughout the day in order to maintain proper body mass.

SPECIES ACCOUNTS

Fantail filefish, *Pervagor spilosoma*

This moderate sized (18 cm) filefish was once a staple in the aquarium industry and was commonly offered for sale by collectors in Hawaii. Since they are not safe for reef aquariums, their popularity has waned in recent years. Still, as far as hardiness is concerned, they are probably the best choice for aquarists wanting to add a filefish to their fish-only aquarium. They adapt readily to captivity, and their diet in the wild includes small invertebrates, algae and various corals. Other species of this genus are collected from different regions of the tropical west Pacific and are equally as hardy. Filefish of the genus *Amanses* are similar in their care requirements.

Horseshoe leatherjacket, *Meuschenia hippocrepis*

This species of filefish is heavier bodied, almost triggerfish-like. They are found in the temperate waters of Western and Southern Australia. For this reason, they are not suitable additions for warm-tropical marine aquariums. In addition, they can reach a length of 50 cm, and so may be capable of outgrowing many home aquariums. Still, they are uniquely colored and not too aggressive (at least as juveniles). They feed well on a variety of meaty seafood items.



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Mimic filefish, *Paraluteres prionurus*

Sometimes called the Blacksaddle filefish, this Indo-Pacific species reaches a length of around 11 cm, but most aquarium animals are much smaller. They are called mimic filefish because they are active mimics of one of the toby pufferfish, *Canthigaster valentini*. Attractive and relatively hardy, this is one of the most popular filefish species for home aquariums. One interesting hypothesis is that the model for this species, the toby pufferfish, may in fact be mimicking the filefish to some degree as well: Every animal is preyed upon by something, and all species have some form of protection against predation. In the case of the puffer, their viscera are toxic. In the case of the filefish, they have sharp dorsal and belly spines and rough skin. The filefish obviously mimics the puffer in coloration and in having a thicker than normal body compared to other filefish, while the puffer is thinner than most other tobies, and has a flap of skin on its belly that seems to mimic the filefish's spine. It may very well be that these two fish are actually active mimics of one another!

Orange-spot filefish, *Oxymonacanthus longirostris*

Also called the Harlequin filefish, (or beaked leatherjacket in Australia) this species is decidedly the most colorful of all filefish. Peaceful and inexpensive, this species ought to be highly sought after by aquarists, except for one thing; their primary diet is living *Acropora* coral polyps. This is a "deal killer" for most aquarists – without sufficient live corals to browse on, these filefish will die, and supplying enough corals, of the correct species is a difficult proposition. Most of these fish, entering the normal supply chain and added causally to a marine aquarium, will die within 50 days of being collected. Occasionally, someone will mention being successful in keeping one of these fish. Very often, this information is just wishful thinking or it

comes from a “FOAF”, (“friend of a friend”) and the veracity of the report is difficult to ascertain. The problem with this sort of misinformation is that it gives people false hope that they will be the next person to succeed in keeping this species alive – only too soon they discover that they failed as well. In recent years, some aquarists have found that by acquiring short supply chain specimens, and starting them on live coral, that this species does better and even reproduces in captivity.



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Planehead filefish, *Stephanolepis hispidus*

This pale green filefish can reach an adult size of 20 cm and is a common resident of shallow waters from the Gulf of Mexico, north to Newfoundland. A temperate species, they thrive in water temperatures ranging from 50 to 85 degrees Fahrenheit. Although reported to feed on plants and algae in the wild, (FishBase 2006) they thrive on most any standard aquarium fare including pellets, flake food and diced seafoods. The slender filefish, *M. tuckeri* is similar, but reaches only half the size and is (as its name implies) slenderer in build. Both species are often found hovering head down in seagrass beds, mimicking leaves of those plants.

Seagrass/Bristletail filefish, *Acreichthys tomentosus*

Perhaps the most commonly seen aquarium filefish, this species is popular due to its ability to feed on *Aiptasia* anemones, a pest species in many reef aquariums. They are often available as captive raised specimens. The only drawback are a few reports that they may nibble on Zooanthids and other anemones.



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Tasseled filefish, (Prickly leatherjacket) *Chaetodermis penicilligerus*

This unusual filefish is obviously an active mimic of floating clumps of seaweed. Infrequently collected in the tropical Western Pacific region, they tend to be fairly expensive, as far as filefish usually go. Although their maximum size is reported to be 12", most aquarium specimens are less than 4" long. In captivity, tasseled filefish feed well on a variety of meaty seafoods such as diced shrimp, gelatin diet, small krill and frozen mysids. For all their initial hardiness, they do have a tendency to perish for no obvious reason a few months to a year after being acquired. Fatty liver disease seems to be one issue with these fish, as are chronic *Mycobacterium* bacterial infections. Smaller specimens seem to adapt better to captivity (and are usually less expensive anyway).



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Pygmy leatherjacket, *Brachaluteres jacksonianus*

Definitely the ‘cutest’ of all filefish, this diminutive species is found in the waters around Southern Australia and Tasmania, so is unfortunately not frequently available to North American aquarists. Although found in temperate waters, they are able to handle water temperatures of up to 78 degrees F., so a chiller is not required to keep them. They feed on a wide variety of aquarium fare from prepared pellets or flake foods to brine shrimp and frozen mysids. As with some other small filefish, this species has the odd habit of biting onto plants or other items in an aquarium to help it hold its position at night. They will also attempt to “stay put” by biting onto a plastic bag or a fishnet while they are being transported.

Scrawled filefish, *Aluterus scriptus* or *Alutera scripta*

Reportedly capable of reaching almost four feet in length, (FishBase 2006) the Scrawled filefish is usually found much smaller than that. This species is found throughout the tropical oceans of the world where it feeds on a variety of seagrass, algae and gorgonians. In captivity they adapt to krill and mysids shrimp as well as gelatin diets. Sometimes, these filefish have difficulty getting enough food to keep from becoming emaciated. This may be a situation where the fish is being out competed by tankmates for the food, is suffering from internal parasites, or it may be that the artificial captive diet does not meet the animal’s needs as it should.



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Whitespotted filefish, *Cantherhines macroceros*

Sometimes referred to as the “Atlantic Clown triggerfish” by dealers, this filefish is occasionally collected in the tropical Western Atlantic. The bold white spots on the fish’s body can be turned on and off at will, depending on the fish’s mood. Growing to a length of around 18”, In the wild its diet is primarily sponges, algae and fire coral, but like most filefish, this species usually adapts well to standard aquarium diets. The captive care of other *Cantherhines sp.* filefish is similar to that of this species, although most other members of the genus are smaller.

Aquarists with an interest for the unusual will find filefish to be a welcome addition to their fish-only marine aquariums. Because these fish are usually purchased one at a time, little is known about their compatibility with each other, so to be safe, one filefish per aquarium is a good idea. Remember to always feed them frequently, with a wide variety of foods in order to overcome their inherent dietary problems.