

Three Marine Aquarium Tankbusters

There are three marine aquarium tankbuster families that contain larger species that do well in captivity: the snappers, fusiliers and the grunts.

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While many of us don't have room in our aquariums for what have been dubbed as "tankbusters," there are more aquarists these days that are setting up voluminous tanks that are suitable for larger, more active fish species. There are three families that contain larger species that do well in captivity: the snappers, fusiliers and the grunts. [Click image to enlarge](#)

The bluelined snapper (*Lutjanus kasmira*) is a durable aquarium inhabitant, but it is highly predatory and can also be aggressive once established in the aquarium.

One of the most attractive of the snappers, the threadfin snapper (*Symphoricthys spilurus*), is an elegant fish that makes a great addition to a larger tank.

Snappers (Lutjanidae)

The snappers are important food fish in tropical areas all over the world. They exhibit two principal feeding modes: the first (and largest) group feeds on benthic invertebrates and fish, while members of the second group are plankton-feeders. Those from the first group (this includes all three species covered in the accounts to follow) feed on invertebrates, such as cephalopods, worms, shrimp, crabs, snails, clams and heart urchins. Adult members of the second group prey on larger zooplankton. The zooplankton-feeding snappers include members of the genera *Macolor*, which are occasionally offered to aquarists. At least some species exhibit ontogenetic changes in their diet, where they feed heavily on zooplankton as young fish and switch to larger, benthic prey as they get larger.

Most of the species available to aquarists do well if ample space is provided. A tank for snappers should not only be large (180 gallons or more) but also should not be cluttered with decor. That said, provide an overhang or cave that can serve as a shelter site. Most snappers will quickly adjust to a captive lifestyle, with smaller individuals acclimating to confinement more readily than larger conspecifics.

Be aware that well-fed smaller snappers grow quickly. In a year, it is not unusual for a juvenile snapper to increase its length by five to six times. While snappers may be shy when first added to the tank, they will become bolder and begin begging their caretaker for food once they learn to recognize the aquarist as a food source and not a threat.

Snappers (as well as fusiliers and grunts) are easy to feed. They will eat about any meaty food you add to the tank. They are especially fond of chopped seafood (including clam, squid, shrimp and fish flesh), frozen mysid shrimp and frozen preparations for carnivorous fish; small individuals will even eat flake food. Snappers will need to be fed one or two times a day (they are more likely to go astray and eat smaller tankmates if underfed).

A good protein skimmer will help maintain good water quality in a tank that contains one or more snappers. Be aware that snappers can live for quite some time, with longevity in the wild ranging from four to 21 years. Parasites, such as flukes, *Cryptocaryon* and *Amyloodinium*, may result in the premature death of snappers (as well as fusiliers and grunts); however, these fish respond positively to hyposalinity and copper treatments. They can also suffer from head and lateral line erosion.

Be careful when selecting lutjanid tankmates. They are aggressive feeders that will knock their tankmates out of the way when dashing for a morsel. The snapper's boisterous personality can intimidate more timid fish, and they may occasionally pester and chase tankmates. Therefore, keep them with fish with similar dispositions. Groupers, larger angelfishes and triggers often make good snapper "neighbors." Although it is possible to keep some lutjanids in pairs or small groups, most home aquariums do not have room for more than one. Some species might also attack conspecifics, especially when crowded.

Best Aquarium Snappers

One of the largest and most attractive members of the family is the emperor or sebae snapper (*Lutjanus sebae*). Juveniles are sometimes found among the spines of the venomous sea urchin *Asthenosoma varium*. They exhibit striking maroon and white body markings, and they make attractive aquarium inhabitants. A potential problem with *L. sebae* is that it does not remain small — this fish can reach more than 20 inches in length (some sources suggest they can max out at almost 40 inches). An adult *L. sebae* should be housed in an aquarium of 240 gallons — preferably larger. They are voracious

carnivores that will suck up all kinds of motile invertebrates (e.g., crabs, reef lobsters, shrimp) and also small fish. When adults feed, they often disturb the substrate and may regularly cause the water to be cloudy due to their sand- and gravel-excavating activities.

Another species that is regularly available that is better adapted to captive life is the bluelined snapper (*L. kasmira*). This is a smaller species (it reaches 14 inches) that can be kept in tanks as small as a 135-gallon aquarium. It is an attractive fish, sporting yellow with blue stripes, though it has a propensity to fade in color. It is also a pugnacious fish that will bully the timid or demure. In addition, it will consume any fish or crustacean that it can swallow whole. I have kept them with smaller fish that they grew up with, but they almost always prey on smaller fish added to a tank they call home. If you want to keep more than one in a tank, the aquarium will need to be big (300 gallons or larger), and five or more fish should be added simultaneously. They are likely to fight if too few fish are housed together in most home aquariums (in larger public aquariums, they can avoid conspecific bullies).

The most striking of the lutjanids is the threadfin snapper (*Symphoricichthys spilurus*). It is an ornate species that is yellow with blue lines on the body, and dorsal and anal fins adorned with trailing elongated fin rays. Juveniles (which are more common in the trade) are not as attractive, having a thick black line running down the center of the body. This species is a solitary "reef-roamer," tending to spend its time in the swift currents of reef channels and the reef face. It hunts crustaceans, mollusks and fish during the day, and will engage in hydraulic-jetting when it feeds; that is, it will blow water out of its mouth into the sand adjacent to the reef to expose buried prey. The problem with keeping *S. spilurus* is its maximum length (around 24 inches long from nose to tail tip) and its active lifestyle (it is more active than most other snappers). It can also be aggressive in captive confines, ramming and biting at fish introduced after it has become established. I have had it harrying new fish (that were equal in size) to death. It can also be somewhat shy when first added to the tank, and I have had startled specimens jump from an open tank, or ram the sides of the tank and sustain injuries.

Fusiliers (Caesionidae)

The fusiliers were once included in the snapper family, but now the 20-odd species are placed in the family Caesionidae. These fish differ from their lutjanid kin in that they specialize in feeding on zooplankton. Like many in this feeding guild, they are more streamlined, have a forked tail and tend to occur in schools (which makes them less prone to being eaten by roving piscivores). They are also more active than the snappers (note: this means a larger tank relative to their body length). At night, most species change color, with some adopting an overall copperish-red coloration.

While once hard to find on marine wholesaler price lists, fusiliers are becoming more common in aquarium stores. Many are brightly colored, and most will actually do well in very large home aquaria. Because of their active lifestyle, they do need a lot of swimming room and must be fed often if they are going to thrive (all zooplankton-feeders tend to feed often throughout the day). Feed them a minimum of three or four times a day.

A group of fusiliers can make an attractive display, and they may even acclimate more readily if kept in schools — but a large tank (300 gallons or more) with a lot of unobstructed swimming room will be a necessity to keep more than one of these fish healthy. Be aware that these fish are prone to leaping out of open aquariums, or colliding with decor or the aquarium sides when frightened (e.g., by an aquarist's hand, an overly aggressive fish, or when the lights are suddenly turned off or on). Fusiliers are not as aggressive as their snapper relatives and can be kept with a wide range of fish tankmates. It is best to avoid housing them with species that are bite-sized, as they may occasionally swallow smaller neighbors.

Best Aquarium Fusiliers

One of the most common species seen in the aquarium trade is the bluestreak fusilier (*Pterocaesio tile*). This species attains a length of about 10 inches, and adults will do best in a tank that is at least 240 gallons. While fusiliers can be kept in the same setup with sessile invertebrates, they may eat ornamental shrimp on rare occasions, and will snap up fish tankmates small enough to swallow.

The yellow and blueback fusilier (*Caesio teres*) is an even more spectacular species. It is deeper-bodied and has a blue body with a yellow tail. It is a large species, reaching a maximum of 16 inches, which will require an even bigger tank (an 8-foot-long tank is minimal for adults). Of course, if you want to keep a school of these fish, you will need an even larger aquarium. The yellow and blueback fusilier often poses for cleaner wrasses (*Labroides* spp.) in the wild and will also do so in aquaria. They will remain motionless while the wrasse picks inside their mouths, gills and on the surface of the body.

Grunts (Haemulidae)

A number of Atlantic grunts have made their way into the aquarium trade. Many adult grunts sport attractive color patterns. The juveniles are often similar in color pattern and difficult to distinguish from one another. Most of the grunts feed on

benthic invertebrates, such as annelids, mollusks, crustaceans and serpent stars. A couple of species are known to feed on planktonic invertebrates, while juvenile porkfish are known to clean other fish of parasites.

The feeding requirements of grunts are similar to that of the snappers. Be aware that they will also eat desirable invertebrates, such as worms and ornamental crustaceans, as well as any fish they can swallow whole. Many of these species can be kept with congeners and even members of their own kind. However, aggression levels can be a problem if groups are not large enough. This is a phenomenon we see in other reef fish (and freshwater fish, such as African cichlids), as well. If there are too few individuals comprising a group, then subordinate individuals may be picked on incessantly. If groups are large enough, aggression is spread around the group, and no one individual is pestered so much that it is deleteriously affected.

There are some suggestions that if groups are housed in a tank that is too small, they may also be more likely to quarrel. Fortunately for aquarists, most of the grunts are not as hyperactive as the fusiliers or certain snappers (e.g., threadfin snapper). As a result, they can tolerate smaller confines relative to their body size.

Best Aquarium Grunts

The porkfish (*Anisotremus virginicus*) is one of the most desirable of the grunts for the larger home aquarium (adults will need to be kept in a tank of at least 180 gallons). It reaches a maximum length of about 16 inches (most do not get this big). It has a highly varied diet that includes serpent stars, crabs, shrimp, hermit crabs, mantis shrimp, snails, chitons, bivalves and polychaete worms (including fire worms). It does most of its feeding after dark; therefore, you may want to feed finicky individuals after lights-out. Juvenile porkfish are facultative cleaners, and they regularly pick parasites off of other fish. On rare occasions, adults have been observed to clean.

Juveniles and adults are sometimes available from Atlantic fish collectors and are popular with public aquariums. They can be kept singly or in groups, though some individuals may exhibit aggression toward their own kind. The likelihood of life-threatening aggression may be reduced if you keep larger groups (say six or more). Juvenile porkfish may be intimidated by more aggressive species, so keep young fish with nonbelligerent tankmates and add adults to more aggressive community tanks first.

Provide these fish with lots of swimming room, and a cave or ledge for a refuge. Porkfish will snatch food out of the water column but prefer to grub on the aquarium bottom for food. Feed juveniles twice a day and feed adults at least once a day. Although it can be kept with invertebrates, *A. virginicus* does eat many of the motile ornamental species we keep. They tend to feed on smaller prey relative to their body size (a small adult may only eat prey up to 5 millimeters in length). It will eat some noxious worms, such as smaller fire worms.

The French grunt (*Haemulon flavolineatum*) is another species that is collected by Atlantic fish collectors. It is a smaller species, with a maximum length of 12 inches. The diet of the French grunt is dominated by polychaete worms, though they regularly consume crabs. This species feeds on peanut worms, chitons, sea cucumbers, isopods, shrimp, octopuses, bivalves, serpent stars, sea urchins, hermit crabs, mantis shrimp, amphipods and gastropods to a lesser degree.

The French grunt has been referred to as the perfect aquarium fish for extra-large home aquariums or public exhibits. It is colorful, durable and will accept most aquarium foods. It is also nonaggressive and can be kept in groups if your tank is large enough to house them. In fact, the French grunt often does best if housed in small groups. A group of *H. flavolineatum* makes a dramatic display and will give you a chance to observe haemulid social interactions.

This grunt engages in an interesting display. Two individuals will face off, open their jaws wide and then push against each other with their open mouths. The inside of the mouth is brightly colored. These two rival French grunts (or possibly potential mates) will then push one another with their open mouths. Like many in the genus, *Haemulon flavolineatum* is a voracious carnivore that will eat many of the invertebrates we keep in our reef aquariums. However, these fish are reef-safe and will not eat corals.

Fusilier Footnotes

In my past writings I have discouraged aquarists from keeping the fusiliers (family *Caesionidae*). They are larger fishes (most attain at least 10 inches in total length), and they are very active. In the wild, you see fusiliers in open, current-exposed reefs where large schools of these fish cruise along the reef slope, picking off zooplankton as they swim. The expansive open-water habitat is hard to replicate in even the largest home aquarium. Because of this, I have long given the thumbs down to keeping fusiliers in domestic quarters.

However, in recent months, I have had more opportunities to work with fusiliers, and I have concluded that these fishes will adapt to aquarium confines more readily than I thought.

Here are some things you should keep in mind if you are tempted to add a fusilier to your home aquarium. First of all, because they are so active, it is imperative that fusiliers be kept in a large aquarium with plenty of open swimming space. I would say a tank of at least 180 gallons for some of the smaller forms (e.g., wideband fusilier, *Pterocaesio lativittata*; bluestreak fusilier, *P. tile*) and 240-gallons or larger for the more sizeable species (scissortail fusilier, *Caesio caerulea*; blue and yellow fusilier, *C. teres*). They are built like a torpedo and can fly through the water with ease. If they are startled, they may dash upwards and hurl themselves out of an open aquarium. Therefore, a top is always required on the fusilier aquarium.

Another thing to be aware of is that fusiliers are eating machines and will need to be fed a lot. They are very active and will lose weight if you don't feed them at least three times a day. If you feed them once a day, even if you give them a larger portion, they will gradually lose weight. The fusiliers are very gregarious and seem to "appreciate" being kept in groups (that is not to say that they cannot be kept singly or in pairs). The only fish that I have seen pick on them are the closely related snappers (e.g., blue-lined snapper, *Lutjanus kasmira*). I would suggest they also may be picked on by larger, more aggressive angelfishes, surgeonfishes and triggers. Larger fusiliers are a threat to ornamental shrimp, especially if they catch these crustaceans swimming up in the water column.

The fusiliers are showing up more and more in the ornamental fish trade, and while they are not for everyone, if you have the right tank and are willing to feed them a lot, they can make stunning additions to the large home aquarium.

That ends our look at some beautiful snappers, fusiliers and grunts that are suitable for large home aquariums. While they are not for everyone or every aquarium setup, they do have a place in certain home or office venues. Their hardiness and attractive color schemes can make them real showstoppers in larger tanks. Happy fish-watching!