

# Marine Fish

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## Various Species

**Species:** varies  
**Genus:** varies  
**Family:** varies  
**Order:** Perciformes  
**Class:** Actinopterygii  
**Phylum:** Chordata  
**Kingdom:** Animalia



### Conditions for Customer Ownership

We are a USDA compliant facility and hold all necessary permits to transport our organisms. Each state is assisted by the USDA to determine which organisms can be transported across state lines. Some organisms may require end-user permits. Please contact your local regulatory authorities with questions or concerns. To access permit conditions, [click here](#).

**Never purchase living specimens without having a disposition strategy in place.** Live specimens should not be released into the wild! Please dispose of any unwanted organisms using the guidelines below.

### Primary Hazard Considerations

Some of these fish have sharp spines which can pierce your skin. Do not handle or pet them.

### Availability

These fish are available year round; however, to be sure that you get them when you need them, please order your fish at least one week in advance. They will arrive in a bag of water. Since fish need oxygen, we recommend getting them into a more oxygen-rich, aerated environment as soon as possible upon receipt. When the fish arrive, let the unopened bag sit in your tank for about 20 minutes. This allows them to slowly become acclimated to your tank's water temperature. After 20 minutes, take about 1 cup of water from your tank and add it to your fish's bag. Repeat this two more times (waiting 20 minutes between each time). Finally, pour out the bag into an empty bucket, catching the fish with a net and placing the netted fish into the aquarium. Do not put water from the bag in your aquarium. If any of your fish become lethargic or do not swim properly, they may be sick. If this happens, first make sure that your habitat complies with our specifications below. If it does, you may need to add copper to your system (read our marine invertebrate care sheet before adding copper).

### Captive Care

#### Habitat:

- As a basic rule, allow at least one gallon of water per 1" of fish. If overcrowded, the more aggressive fish will attack the smaller fish. A complete guide to aquarium habitat and maintenance is available, Marine Aquarium Laboratory Manual.
- You will need to keep the water in your tank clean and properly aerated (470308-592). One acceptable method is to cycle your water from your tank through an open filtration system (470149-660) and then back into your tank. You can also install an air pump (470308-592) in your tank.
- The specific gravity of the salt water needs to be kept between 1.020 and 1.022. This can be measured with a hydrometer (470005-562). To decrease the salinity, drain some of the water and add clean water of a lower specific gravity. To increase the salinity, add clean water of a higher specific gravity. In order to get accurate readings with your hydrometer, make sure to gently mix the salt into the water and give it time to diffuse. Never add salt directly to your tank.
- Keep the water temperature between 72–78°F. Use a submersible water heater (470021-438) to adjust water temperature. A general rule when purchasing a heater is 5 watts of heater per gallon of tank. Monitor water temperature with an aquarium thermometer (470005-168).

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- The optimum pH range is between 8.0 and 8.4. To measure the pH you may use a chemical pH test kit. To adjust the pH, you may purchase chemical pH Up (470033-820) or pH Down, and add clean water of a higher or lower pH, as needed. Do not add a pH altering chemical directly to your tank.
  - Acceptable nitrite levels are less than 0.1 ppm. You can buy a nitrate test kit to test the levels in your kit. If the nitrates in your system are too high, the nitrifying bacteria in your filter are not adequate for the system. You should do a water change in your system, but you may also want to add denitrifying rocks or bacteria **21 W 2301** to your filtration apparatus to prevent future nitrite build-up.
  - Check these water quality variables on a weekly basis because they may change due to evaporation, changes in room temperature, etc. Adjust them to optimal levels to keep your fish healthy.

### **Tank Maintenance:**

- Remove dead organisms immediately.
- Siphon out debris from the bottom of the tank and conduct a 10–30% water change at least once per month. A simple aquarium vacuum (470102-112) makes this easy to do.
- To keep algae build-up down, and consequently see your fish better, you will need to scrub it off the walls with a clean sponge. It is best to do this immediately before a water change so that you can get rid of the post-scrubbing algae. An alternative to scrubbing would be to purchase appropriate marine inverts, such as Marine Turbo Snails (470194-704). Marine turbo snails eat many types of algae and will help to keep algae build-up to a minimum.
- Keep your tank out of direct sunlight (this will help prevent algae build-up).

### **Feeding:**

- Fish Flakes and live or frozen Brine Shrimp are good feed options.
- Feed once daily.
- Feed the fish little by little until they become disinterested. Keep this amount in mind for consequent feedings. DO NOT OVERFEED.
- Tangs need some vegetation in their diet. A leaf of lettuce every week is fine. Make sure to weigh down one end of the leaf so that it stays submerged.

### **Information**

- **Method of Reproduction:** Sexual reproduction dependent upon the species. In general, under the proper conditions, the male and female usually eject sperm and eggs into the water after a short courtship ritual. The eggs usually hatch a day or two after. The fry should be kept separate from the adults, or else they may be eaten. For more detailed instructions on fish reproduction, you should search out information specific for your species of interest. Reproduction in standard tank conditions is rare.
- **Determining Sex:** Some species of marine fish are easily sexed while others aren't. For example, a pair of clown fish may both be males when young, but over time the more aggressive one will become a female. For more information on sexing your fish, search out species specific information.

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## Life Cycle

If properly taken care of, tangs may live up to 10 years. The smaller fish may live for about five years.

## Wild Habitat

- Damsels and Gobies enjoy exploring rocky environments and hiding within them.
- Clown fish will often adopt Giant Sea Anemones (470176-378), which are collected from the Atlantic Ocean, and form a symbiotic relationship with them.
- In the wild, these fish will eat small shrimp. Tangs and Blennies also feast on algae.

## Disposition

We do not recommend releasing any laboratory animal into the wild. As a laboratory animal, it has not encountered or learned wild survival skills and is therefore likely to come to an inhumane end.

- Adoption is the preferred disposition of a vertebrate.
- If the animal cannot be adopted as a pet by a capable owner, it may be surrendered to your local humane society.
- If the animal is to be euthanized, we recommend consulting the AVMA guidelines on euthanasia (American Veterinary Medical Association, [Guidelines-on-Euthanasia-2020.pdf](#)).
- According to these guidelines, acceptable methods of euthanasia for a fish includes treatment with tricaine methane sulfonate (also known as TMS, MS-222 and Biocalm (470302-958). TMS is an anesthetizing agent that will cause fish and amphibian death due to central nervous system depression and hypoxia with overexposure. Wear personal protective equipment (gloves, safety glasses, labcoat) when handling TMS. The fish or amphibian is placed in a solution of 5 g of TMS per 5-gallons of water for 30 minutes or until all motion has ceased. To make sure the animal is dead, check for reflexive movement when the eye is touched. If movement occurs, place the animal in the TMS solution for another 30 minutes
- A deceased specimen should be disposed of as soon as possible. Consult your school's recommendations for disposal. In general, a small dead vertebrate should be handled with gloves, wrapped in something absorbent (like newspaper) then wrapped again in an opaque plastic bag that is sealed (tied tightly) and placed in a general garbage container away from students. Do not flush a fish down the toilet as this may introduce pathogens into the environment.