Tropical Marine Fish
How to care for wrasse

Wrasse are a hugely diverse group of fish from the family *Labridae* and occur on coral reefs all over the world. Wrasse vary in size and temperament and so can be introduced into most marine aquariums. Always consult your OATA retailer before purchasing any wrasse to ensure they will mix with current tank mates.

Water requirements

Wrasse are usually undemanding of water chemistry and their suggested parameters are shown below. These parameters are a general guide for this group of fish, so it is important to check with your OATA retailer for any species-specific requirements before purchasing. Please also note that if keeping these fish in a reef aquarium, some parameters will need to be altered to accommodate more sensitive species.

Salinity:	Between 1.020-1.025
Temperature:	Between 24-26°C
pH:	7.9-8.3
Ammonia:	Zero mg per litre
Nitrite:	Zero mg per litre
Nitrate:	Not to exceed 50 mg per litre
Carbonate hardness:	Hard (8-12°dkH)
Calcium:	Between 380-450 ppm
Magnesium:	Between 1250-1350 ppm

Biology

Wrasse vary in size. Species such as the six-line wrasse (*Pseudocheilinus hexataenia*) grow to approximately 8cm, whereas the clown coris (*Coris aygula*) will grow to around a metre. Regardless of size, wrasse can live for many years in a well-matured set-up with good water quality. Some species will change colour as they mature, so always ask your retailer if the species you buy will look the same as it grows. Wrasse are usually very active swimmers and will be seen constantly swimming around the aquarium. Some wrasse will bury themselves under the sand bed to protect themselves when they sleep or feel threatened.

In wild environments, cleaner wrasse (*Labroides dimidiatus*) are often seen eating parasites off larger fish, a behaviour which earns them their name. In aquariums, wrasse are sometimes added to help consume pests, such as bristleworms or flatworms. As there is huge variety within the wrasse family, it can be challenging to know which

species can be mixed. Male and female pairs, or social species can be housed together successfully. Ask to your OATA retailer for advice before purchasing wrasse species.

Sexing wrasse depends on the species involved: some species will have no differences between the sexes, whereas others, such as flasher wrasse (*Paracheilinus* species), will have obvious differences in finnage or colour. Wrasse can sometimes be more sensitive to treatments used in marine aquariums and you should consult with your OATA retailer before using a treatment with wrasse.

Aquarium requirements

As a general rule, you should within reason, buy an aquarium as large as possible. It is recommended that an aquarium of at least 150 litres is used for an individual of the smaller species. However, the larger species (over 15cm) will need a larger aquarium. Speak to your OATA retailer if you are planning on purchasing a wrasse that will grow very large. Aquariums will need to be even larger if you wish to keep wrasse with other species. A larger aquarium will also provide more stability to environmental conditions such as temperature and water quality. Whatever the size, **a filter is essential**. For marine set-ups this can be in the form of live rock with sufficient water flow, an internal or external filter, or a sump-based filter. A protein skimmer can also be beneficial for maintaining water quality as it will help to remove dissolved organic waste before it can break down into more harmful substances.

Wrasse will vary on their décor requirements depending on their species. Some are very active and will appreciate lots of open swimming space. Others appreciate a tank with more cover in the form of live or artificial rockwork, and they will swim close to the shelter as they move around looking for food. Some wrasse may move the sand around and this can undermine rock structures, so it is important to ensure that rock touches the bottom glass to prevent any falling down and causing damage. Many species will require a sand bed thick enough in which to bury themselves at night or if they feel threatened. The thickness will vary on the size of the individual but 6cm should provide a fair amount of cover. Finer sand will help individuals bury themselves easier. There should be a moderate water flow to provide good surface movement and to ensure detritus doesn't accumulate. A lid or cover is essential as these fish can jump, especially if startled.

A heater is required to maintain a suitable temperature all year round. To minimise fluctuations in water temperature, the aquarium should not be situated near any draughts or heat sources. It should also be out of direct sunlight and away from loud noises, vibrations and sudden movements. Overhead tank lighting is recommended to maintain a correct day-night cycle. This will not need to be particularly bright for wrasse alone but may need to be brighter if keeping with coral species - see our coral care sheets for more information.

Water testing kits are essential so that water quality can be checked on a regular basis (once a week) to ensure it does not slip below the water requirements stated earlier.

Introducing your fish

Before adding any fish, seek advice from your OATA retailer to make sure that your aquarium is an appropriate size for the wrasse you would like to keep. Check that the water quality in your aquarium is suitable i.e. levels of ammonia and nitrite are zero. Only increase the number of fish you have in your aquarium slowly as the population of beneficial bacteria established when maturing your aquarium filter need to increase every time more fish are added and feeding increases. Overstocking or stocking your aquarium too quickly can result in 'new tank syndrome'. This occurs when there are not enough nitrifying bacteria to cope with the increased waste from the fish, leading to unhealthy levels of ammonia and nitrite, which may cause fish to become ill or die.

Healthy fish have clear bright eyes, undamaged fins, intact scales, no ulcerations or bumps, appropriate swimming behaviour and steady breathing. Do not purchase a seemingly healthy fish if sickly fish are present in the tank with it. Signs of disease can include clamped fins, flicking against gravel or décor and shimmying (shaking). Diseases can be easily carried by fish that do not show any clinical signs. If in doubt, ask your OATA retailer for advice as they will have in-depth knowledge and experience.

Your OATA retailer will usually sell your fish to you in a plastic bag, try not to keep them in this for too long. Once purchased, take your new fish home as quickly as possible because fish are easily stressed by bright lights, extreme temperatures, noise and movement.

Once home, your fish will need to acclimatise to their new environment and a common method of doing this is known as the 'floating bag' method. Switch off the aquarium lights and take the bag containing your new fish out of its outer wrappings carefully, avoiding exposure to bright light. Float the bag in the water of your tank to ensure the temperature in the bag is the same as the aquarium water. After 10 minutes, slowly introduce small amounts of aquarium water into the bag containing the fish for up to 30 minutes. Once complete, carefully release the fish into the aquarium whilst introducing as little bag water into the aquarium as possible. This is especially important if keeping fish with any invertebrate species as some retailers run copper in their systems, which is toxic to invertebrates. After this, dispose of the bag and any excess water appropriately.

For sensitive species or to ensure retailer water does not enter your aquarium, a better method might be the use of drip acclimation. This could be achieved by keeping the fish in the container in which it is sold and a small airline siphon started to drip water into the container, slowly changing the water parameters to that of the aquarium. Ensure that the temperature does not fall too low during this procedure. Once conditions match, carefully net the fish from the container into the aquarium. Dispose of the water in the transport

container appropriately. Monitor your new fish carefully for the first week, paying particular attention to water quality. If in doubt, contact your OATA retailer for advice.

If possible, quarantining new livestock in a separate aquarium for at least a week before they enter the main tank can help reduce any risk of disease spread from new inhabitants. Ask your OATA retailer for advice on this topic.

Maintenance

At least once every week, a partial water change of 25% is strongly recommended (a siphon device is useful to remove solid waste from the gravel). Filters should be well maintained, with regular checking and cleaning to prevent blockages. If the filter needs cleaning, do not run it under the tap because any chlorine or chloramine present may kill the beneficial bacterial population that has established in the media. Instead, it should be rinsed lightly in the tank water which is removed during a partial water change as this reduces the amount of bacteria which are lost. Protein skimmers should be regularly cleaned to maintain their performance.

Good husbandry is essential as wrasses can be stressed by even the smallest amounts of ammonia and nitrite which may then cause them to develop various diseases. Test the water to monitor the ammonia, nitrite and nitrate levels, together with pH and carbonate hardness every week, especially during initial set-up and after adding extra fish. It is also important to regularly monitor salinity and use reverse osmosis water to replace any water lost through evaporation.

What to watch out for

All fish will have slight variations in their behaviour or appearance, but keeping an eye on any changes in the following will help to identify any potential problems before they become a real health issue:

- swimming behaviour – hanging at the surface, sitting on the bottom or erratic swimming
- colour – turning a darker or paler colour than normal
- temperament – changes in level of aggression or hiding more than normal
- breathing – gill covers moving at a slower or faster rate than normal
- appearance – development of white spots or fluffy growths, loss of fins or scales
- condition – increase or decrease in body weight and condition
- feeding – reduced intake or lack of interest in food

If you are concerned about the health of any of your livestock, then test your water quality and contact your OATA retailer for further guidance.

Feeding

Most wrasse will require frozen meaty foods which should be sized according to the species being fed. Larger species will appreciate krill, mysis shrimp or enriched brine shrimp. Smaller species will require frozen copepods or finely chopped krill or mysis. In addition, many species will eat prepared diets, but it is important that granules or flakes are size-appropriate.

Some species such as peacock wrasse (*Macropharyngodon bipartitus*) will also graze on live food species that naturally live in the aquarium. Therefore, these fish should only be added to a mature aquarium and the population of prey items, such as copepods, should be topped up regularly. Alternatively, frozen copepods can be provided if your wrasse will accept them. Ask your OATA retailer for more advice on how to feed more challenging wrasse species.

Wrasse should only be fed what they can eat within a few minutes, at least twice a day. They will also spend the day grazing and searching for food. Take care not to overfeed as this can lead to a build-up of uneaten food which breaks down releasing toxic waste into the water. If in doubt, ask your OATA retailer for advice on appropriate feeding levels.

Compatibility

Mixing wrasse with other fish will depend on the species of wrasse. Some wrasses such as the yellow wrasse (*Halichoeres chrysus*) remain small and are relatively docile, so can be mixed with more timid species such as cardinalfish or dartfish. Other species such as dragon wrasse (*Novaculichthys taeniourus*) will grow large and can be aggressive to other species, so should be mixed with boisterous species such as pufferfish or triggerfish. Another factor to consider is their diet. Some wrasse will eat invertebrates such as shrimp, crabs, fan worms or nibble at corals. Therefore, it is important to ask your OATA retailer if the wrasse species you are interested in is “reef safe” if you have any of these invertebrates in your aquarium.

Breeding

Breeding wrasse in the home aquarium is unlikely. The pair produce sperm and eggs which mix in the water column as the fish swim upwards together. The fertilised eggs remain in the plankton until they develop into larvae, when they require microscopic food to grow. In a home aquarium, the eggs are likely to be sucked into filters and pumps or be eaten by aquarium inhabitants. If any eggs develop into larvae, it is unlikely the required food would be present in the aquarium.

Checklist

Before purchase make sure:

1. You have the appropriate equipment and position for the aquarium.

2. You have researched all the species in which you are interested and your final choices are all compatible.
3. You are familiar with how to transport and release your fish.
4. You are aware of the daily, weekly and monthly maintenance your aquarium will require.
5. You are prepared to look after your fish properly for the duration of their life.

Shopping List

- Glass or acrylic aquarium
- Filter*
- Heater*
- Lighting*
- Gravel or sand
- Aquarium salt and a hydrometer or refractometer
- Access to reverse osmosis water or a reverse osmosis unit
- Water testing kits (ideally ammonia, nitrite, nitrate, pH and water hardness)
- Gravel cleaner/siphon cleaning device (recommended)
- Aquarium decorations
- Bucket for water changes
- Live or artificial rock
- Protein skimmer* (optional but recommended)
- Ultraviolet steriliser (optional but recommended)

*may be included in branded aquarium sets but can be purchased separately.

Before purchase make sure:

- The aquarium is of a suitable size that ideally can accommodate the fish once they are fully grown
- Water parameters are as advised in this leaflet.
- Aquarium is cycled and ready to receive your fish.

Always buy...
test kits and regularly check the water for ammonia, nitrite, nitrate and pH. This will allow you to make sure the water in your aquarium is not causing welfare problems for your wrasse.

Maintain...
the water in the aquarium within the accepted parameters highlighted above. You may need to do regular water changes to achieve this.

Establish a routine...
for testing the water in your aquarium. Record your results to enable you to identify fluctuations quickly. Also check the temperature of the water.

Always wash your hands...
making sure to rinse off all soap residues, before putting them into your aquarium, or use long sleeved rubber gloves. Wash your

hands again afterwards and certainly before eating, drinking or smoking.

Never siphon by mouth...

A fish tank can harbour bacteria which can be harmful if swallowed. Buy a specially designed aquarium gravel cleaner which can be started or primed without the need to place the siphon in your mouth

Five Welfare Needs Checklist:

The Animal Welfare Act 2006 states that all pet owners have a legal duty of care to their pets. Anyone who is cruel to an animal or is found not to be providing the five animal welfare needs, as listed below, can be prosecuted.

- A **suitable environment** e.g. appropriately sized tank (with water heater if tropical set up) within a suitable location in your home.
- A **suitable diet** which meets the needs of your chosen fish.
- **Behaviour** - Fish are able to exhibit their normal behaviour e.g. hiding places for timid fish, enough room for fish to swim freely.
- **Companionship** - Ensure you know whether your chosen fish need to be kept with, or apart from, other fish.
- **Health** - Protected from pain, injury, suffering & disease e.g. you are aware of the daily, weekly and monthly maintenance that your aquarium will need.

- **Water quality test kits are a necessity not an optional extra**
- **You must be prepared to look after your fish properly for the duration of their life and provide an aquarium which can accommodate your fish when fully grown**

*Never release your aquarium animals or plants into the wild It is illegal and for most fish species this will lead to an untimely and possibly lingering death. Any animals or plants that do survive might be harmful to our native countryside. Take care to properly dispose of any soiled substrate (e.g. sand or gravel) water or decorations so that non-native organisms do not enter natural watercourses.

Visit ornamentalfish.org to find a full range of how to guides and species-specific care sheets to help you look after your fish successfully.

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