

Tropical Freshwater Fish

How to care for Hillstream & weather loaches

Hillstream and weather loaches are popular residents in unheated aquariums. Hillstream loaches are from the *Balitoridae* family, whilst weather loaches are from *Cobitidae*. Both naturally occur in Asia. One of the attractions for both hillstream and weather loaches is that they can be kept in unheated aquaria, although they have their own specific set of needs.

Thanks to Maidenhead Aquatics for use of this picture



Water requirements

The suggested parameters for hillstream and weather loaches are shown below.

Temperature:	18-24°C
pH:	6.5-8.0
Ammonia:	Zero mg per litre
Nitrite:	Zero mg per litre
Nitrate:	Not to exceed 20 mg per litre above normal tap water levels
General hardness:	Soft-medium (4-12°dH)
Carbonate hardness:	Soft-medium (3-10°dkH)

Biology

Hillstream loaches are made up of various slightly different but similar looking species, all of which grow to approximately 6cm. Weather loaches are *Misgurnus anguillicaudatus* and can grow up to 25cm. They are from fast flowing, well oxygenated, cool rivers, whereas weather loaches are more common in ponds or areas of low flow. Although small, hillstream loaches can live several years in a well matured set up with good water quality. Weather loaches can live much longer, with reports of up to 10 years.

Hillstream and weather loaches are best kept in small groups of at least 3-4. Both are social and will likely become stressed if kept in smaller groups. It is difficult to sex both fish unless they are breeding. If they are in spawning condition, the female will be fuller bodied.

Weather loaches acquired their name as they behave restlessly during periods of low air pressure.



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Aquarium requirements

As a general rule you should, within reason, buy an aquarium as large as possible. Ideally, it should be able to accommodate at least 3-4 hillstream or weather loaches. It is recommended that an aquarium of at least 80 litres for a small group of hillstream loaches and at least 120 litre aquarium for the weather loaches. The larger the aquarium, the more stable the environmental conditions such as temperature and water quality will be. Whatever the size, **a filter is always essential.**

Weather loaches will require some cover in the form of, ideally live, plants. If live plants are not used, then the addition of plastic plants and suitable ornaments is recommended, such as plant pots or model caves, which supplies the fish with shelter. Ornamental or artificial plants with rough or sharp edges should be avoided. Similarly, the aquarium should have sand or smooth gravel to protect their skin.

Hillstream loaches require a very specialist set up. They require fast flowing, clear, highly oxygenated water. It is recommended that the tank contains high flow coming from one direction, usually achieved by a powerhead, and large, flat, smooth-edged stones for them to stick onto. A well matured aquarium, with some plant life is also recommended so they can graze on algae and other biofilms. It is recommended to only clean the front glass to allow some algae to build up.

Both fish will require lids on the aquarium to prevent them jumping out.

A heater is not required to maintain a suitable temperature, as long as the house is centrally heated and does not drop below the temperatures outlined. It is especially important to minimise fluctuations in water temperature. To do this, 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 correct day-night cycle.

Water testing kits are essential so 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 number of hillstream or weather loaches 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



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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 20 minutes. Once complete, carefully release the fish into the aquarium whilst introducing as little bag water into the aquarium as possible. After this, dispose of the bag and any excess water 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.

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). The water should be tested regularly (at least once per week) to ensure that ammonia and nitrites don't build up. Ensure that the replacement water is treated with tap water conditioner to remove any harmful chlorine or chloramine present before adding to the aquarium.

Filters should be checked for 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.

Good husbandry is essential as hillstream and weather loaches 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 water hardness every week, especially during initial set-up and after adding extra fish.



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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 factors 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

Hillstream loaches may take some time to get used to prepared foods (unless they are already acclimated, ask your OATA retailer) but will graze on algae and other microorganisms in the aquarium. They will require additional feeding with a variety of items such as sinking catfish pellets, algae wafers, fresh vegetables and live or frozen daphnia, bloodworm or brine shrimp.

Weather loaches are omnivorous and will take most food types. In the home aquarium, they should be fed with a good quality sinking catfish pellet. They will also benefit from being fed small items of live or frozen food such as daphnia, bloodworm or tubifex.

Weather loaches should only be fed what they can eat within a few minutes once a day. However, it may take longer for hillstream loaches to graze vegetable matter or algae-based feeds, so remove any uneaten material after an hour. 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

Although hillstream loaches are frequently sold as tankmates with goldfish, they are completely unsuitable as they will not thrive in the high flow environment hillstream loaches require. They are best suited to a specialist set-up with selected tank mates such as white cloud mountain minnows and other similar subtropical species.

Weather loaches are a friendly, easy to keep species and will do well with most fish in unheated aquariums.



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Breeding

Breeding of both hillstream and weather loaches is highly unlikely in home aquariums. Weather loaches require several months of cooler temperatures to stimulate spawning. Hillstream loaches are more complex with few records of success.

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 (required for live plants)*
- ▶ Gravel or sand
- ▶ Tap water conditioner/dechlorinator
- ▶ Water testing kits (ideally ammonia, nitrite, nitrate, pH and water hardness)
- ▶ Gravel cleaner/siphon cleaning device (recommended)
- ▶ Aquarium decorations and/or live plants
- ▶ Bucket for water changes

*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

Establish a routine...

for testing the water in your aquarium. Record your results to enable you to



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aquarium is not causing welfare problems for your loaches.

Maintain...

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

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

highlight 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.

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) 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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