

***Chaetostoma*, the Mountain Plecos**

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The genus *Chaetostoma* is fairly large consisting of 42 currently recognized species. They are found on both sides of the Andes from Panama to Bolivia, but are particularly concentrated in Colombia and Venezuela. *Chaetostoma* are typically found in mountainous streams and rivers and have been recorded from altitudes as high as 3,500 meters. In the aquarium trade they are sold as rubber plecos, mountain plecos, or most commonly, bulldog plecos. Throughout Venezuela they are known as corronchos, a term applied to almost all robust-bodied loricariids.

Chaetostoma have three particular uses to mankind. Perhaps in their most important capacity, they serve as a source of food. In Venezuela, young boys wade mountain streams to collect *Chaetostoma* for the dinner table. Their method is simple; they walk along the creek placing their hands under stones and feel around for the loricariid. When one is felt, the fish is quickly grabbed and then placed in a jug or a pocket. The little meat that the fish offer is eaten in a soup. Secondly, *Chaetostoma* are used to keep water cisterns free of algae and insect larvae. Many families in the mountains collect rainwater for drinking and washing in a cistern. The cisterns can be made out of anything imaginable from old barrels to sheets of plastic lining a hole. *Chaetostoma*, and often other loricariids, are then added in an effort to keep the cistern clean. Of course, in their final capacity they are kept as interesting aquarium specimens.

Chaetostoma are among my favorite loricariids to collect. This is mainly because of the environment where they are found. *Chaetostoma* make their homes in fast flowing creeks and smaller rivers in the mountains and foothills. These areas are much cooler and less humid than the lowland jungles and plains where many other loricariids are found. This more hospitable climate makes for a much more enjoyable day in the field. Ambient temperatures in these areas range from the mid 70s to the low 80s while the water temperature may range from the low to high 70s depending on how long it has been since the run off from the last rains came through. These environments can change very rapidly as they are the drainage channels for tropical rains in the higher cloud-cloaked mountains.

The Rio Zuata, near the town of San Casimiro, Venezuela provides a good example of typical *Chaetostoma* habitat. From this section of the river I have collected *Chaetostoma milesi* and an apparently undescribed *Chaetostoma* species as well as *Hypostomus* and a dwarf *Panaque* species. When there have been rains in the past day or two, the river is about 50 feet wide and knee deep. The water cools to about 70 degrees and becomes brown-colored with suspended sediment. A few days later, the river narrows to 20-30 feet wide and the water is nearly clear with a temperature in the mid 70s. After five to six days without rain, the river narrows to 10-15 feet and, with the exception of a few pools, is not much more than ankle deep. At low water the temperature will reach the high 70s, pH remains about 7.5 and general hardness measures 70 ppm. The water is undoubtedly softer when swollen with fresh rain. The substrate is entirely composed of fist and larger sized stones. The sun shines brightly through the shallow clear water and the stones grow a healthy coating of algae, which in turn houses insects and their larvae, a combination that seems to provide just the right foods for *Chaetostoma*.

Low water is the ideal time to collect *Chaetostoma* because it is easier to move about the river and they are concentrated in the remaining riffle sections. Ideal collecting locations are where the river splits to form one large and one small channel. The current is always faster in the smaller channel and *Chaetostoma* collect in these areas in an attempt to find the most highly oxygenated waters. A three-person team best accomplishes collecting. A 4' by 4' or 4' by 6' seine with ¼ inch mesh is ideal. With a longer seine it is impossible to keep the bottom of the net against the substrate and the loricariids will just swim under the net.

Starting at the bottom of the riffle, both poles (known as brails) are set about three to five feet apart depending on the size of the seine. Then, with their free hands, both seine holders reach into the net and firmly hold the bottom against the substrate. The third person, known as the “kicker”, then enters the water from the bank (so as not to scare off the fish) about six feet above the net. Quickly moving downstream, the kicker uses hands and feet to disturb the rubble on the substrate as much as possible. As soon as the kicker reaches the front edge of the net, it is rapidly pulled up from the water. It is key that the kicker not start too far from the net nor move towards it too slowly as the loricariids will quickly figure things out and swim up current and out of the net.

German expatriate Norbert Flauger recently introduced me to another very useful collecting technique. Norbert’s technique relies on the natural reactions of loricariids. When the piece of wood or rock that a loricariid is attached to is moved a little, the fish normally “freezes” and only leaves its cover when it is clear that swimming away is the better defense. Making good use of this reaction, Norbert’s technique is very productive. One collector takes a position up stream of a good flat rock while the other positions a 2’ by 2’ square or hoop net downstream from the target rock. The first person slowly lifts the rock about two inches off of the substrate while the net is pushed under the rock. Once the net is set up, the rock is lifted completely out of the water. The loricariids then make their run for it into the waiting net below. Using this method in the Rio Chirgua Carabobo State, Venezuela, Norbert and I caught ten *Chaetostoma milesi* and fifteen *Ancistrus* in less than an hour. The only drawback to this method is that it is backbreaking work, literally!

One look at the environment described above and it is easy to see why *Chaetostoma* are not ideal inhabitants for the typical community tank. In the wild, other rapids-dwelling loricariids are found in the same habitat as well as pimelodid catfish of the genus *Rhamdia*, pike cichlids, fast water tetras, and (believe it or not) guppies. However, all of these fishes seek out areas in the river with more moderate currents. The ideal *Chaetostoma* aquarium would be a species tank that replicates their natural environment. The hobbyist could maintain a group of the same species (and possibly attain a spawning) or build a beautiful collection of many different *Chaetostoma* and other current loving loricariids such as *Pseudancistrus*, *Leptoancistrus*, *Cordylancistrus*, *Dolichancistrus*, and *Lithoxus*.

Besides needing a special captive environment, *Chaetostoma* present other challenges to the aquarist. It can be very difficult to get new specimens to eat. Frozen and live foods should provide the bulk of their diet. Nearly all species ignore any type of dry food, but this should not stop the aquarist from experimenting. They will occasionally take fresh vegetables such as cucumber and zucchini and these foods should be readily available to them. Algae is the best food and should be provided, at least as a supplement, if at all possible. One way to do so is to keep the aquarium brightly illuminated so that it grows as much algae as possible. A second method is to produce what I call artificial algae, another invention of Norbert’s. To create artificial algae, simply grind up several algae tablets. Mix the ground algae with egg white and paint the concoction onto a flat rock. The egg white will dry and stick the ground algae tablets to the rock. Once dry, simply place the rock into the aquarium where the algae wafers will mimic natural algae and the egg white will provide protein. Always try to start with the healthiest fish possible, as even healthy *Chaetostoma* can be difficult for the first few weeks.

Breeding has been accomplished in the aquarium on a few rare occasions. Most of these that I am aware of were “accidental” spawnings and the fry proved difficult to raise. In Venezuela, observations have been made of *Chaetostoma stannii* spawning in the wild. Males defend nests under flat rocks and the eggs are typically laid in a single layer on the roof of the nest. Spawning *Chaetostoma* would certainly be a worthy goal for the advanced aquarist looking for a challenge.

Although hardly a fish for the average community tank, the genus *Chaetostoma* offers a number of attractive and interesting species for the specialist.