

# Year of the Catfish

A monthly column about Catfish

## *Plecos (or more properly, Loricariidae)*

by Derek P.S. Tustin

When you mention catfish to an aquarist, they don't usually think specifically of plecos because the first image that pops to mind is invariably the red-tail catfish, or maybe one of the talking catfish. In fact most aquarists, while knowing that plecos are in fact catfish, think of plecos as belonging to their own group. However, plecos are most definitely catfish, and are probably the most popular group with aquarists.



*Hypostomus plecostomus*

But what is a pleco? First off, a pleco, that is *Hypostomus plecostomus*, is properly a pleco, but all other species of *Loricariidae*, while called plecos, properly aren't. Confused? Okay, a bit of history... the first *Loricariidae* catfish to be imported and become popular in the aquarium hobby was the aforementioned *Hypostomus plecostomus*. The hobby being what it is, *H. Plecostomus* quickly became known as a "pleco". But as more species of *Loricariidae* catfish were discovered and started to be imported, exporters knew that importers and aquarium stores would recognize the name "pleco" and accordingly attached it to the newly exported species even though they weren't *H. plecostomus*.

So, accepting that we erroneously call most *Loricariidae* fish "plecos", we'll use the term for convenience. All plecos belong to the family *Loricariidae*, but most people don't realize just how sexy that name is... What, you don't believe me? In Latin "lorica", the root of the family name, means "corselet". The modern meaning of corselet is a type of undergarment sharing elements of both a girdle and a bra (not to be confused with a corset, which is a corselet with a firm back and usually fastened with laces). See? Sexy! Okay, maybe not, as originally a corselet was actually a piece of armour that covered the torso of the wearer. In the case of the plecos, the family name *Loricariidae* refers to the armoured nature of the fish through the presence of scutes.

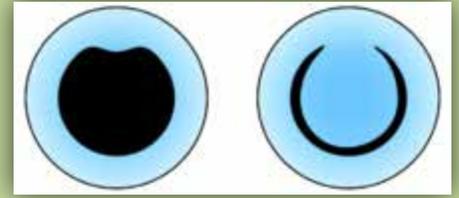


*Baryancistrus xanthellus*

Anyway, the *Loricariidae* family is the largest catfish family, containing in excess of 680 species in approximately 92 genera. (I actually feel somewhat uncomfortable using such inexact terms, but the reality is that new species are constantly being described, and revisions are also constantly being done.) They originate from freshwater habitats Central and South America, with those habitats ranging from the lowlands to the mountains and all areas in between. The specific locations can range from mountain rivers, brackish estuaries, acidic (or black) water and every other conceivable locale found in the geographic region.

But what are the criteria for a catfish to be part of the *Loricariidae* family? Well, as mentioned, *Loricariidae* are armoured with the presence of scutes. (Catfish don't have traditional scales, but they do have scutes, which are basically boney external plates.)

Additionally, most members of the *Loricariidae* family are nocturnal, and are very skittish, hiding when they sense sudden motion or see a flash of light. In fact, their sense of sight is another facet of *Loricariidae* that is very fascinating. Every genera in the *Loricariidae* family but one (the *Rhineleporini* group) have what is called an “omega iris”. Just like in humans, when a greater amount of light enters the eye, the size of the pupil becomes smaller. However, whereas the human pupil contracts or expands, in most *Loricariidae* species the top part of iris is able to form a loop (the iris operculum) that can contract and expand, effectively covering and reducing the amount of light entering the pupil. As can be seen in the attached diagram, when the loop is fully expanded (covering the majority of the pupil), the pupil left revealed resembles an inverted Greek letter omega ( $\Omega$ ).



Plecos are often sold as algae eaters, and while some species do eat algae, all plecos are actually omnivorous. Depending on the species, they will eat algae, plant matter, small invertebrates, detritus and even wood. (The *Panaque* species are especially well known for being able to digest wood, which is known as xylophagy. However, there is some contention regarding the actual dietary benefit of those species eating wood.) As always, when getting any fish I strongly advocate some research to determine the exact dietary requirements of the fish you will be keeping. Keep in mind that different species of fish from the same location will have different dietary requirements.



*Panaque cf. armbrusteri* “xingu”

The mouth of *Loricariidae* is also another defining characteristic. They will have a ventral (bottom of the head) mouth that is a “sucker”. This mouth is used to rasp food from surfaces, and can also be used to anchor the fish to a surface, be it a rock, driftwood or in the case of captivity, glass...

There are also several other features that can be used to determine if a fish is a member of the *Loricariidae* family, but for the most part they are specialized anatomical features (formation of the lower and upper jaws, type of intestines, etc.) that are mostly the preserve of experts. For our purposes the presence of the omega iris can be a strong indicator, but what makes a definitive identification possible is the presence of both scutes and a lateral suckermouth. While other species of fish will have scutes and others will have a lateral suckermouth, if they both feature on the same fish, the fish in question is definitely a member of the *Loricariidae* family.

In general, plecos are considered community friendly fish that, depending on the species, can either be kept singly or in groups (again, different species have different requirements). They range in size from 2 cm (3/4”) (*Nannoplecostomus eleonora*) to over 100 cm (39”) for some species in the *Panaque*, *Acanthicus* and *Pterygoplichthys* groups. Most easily adapt to captive keeping, although there are several species (especially in the *Panaque* group) that have difficulty adapting from wild environments to captivity due in large part to internal parasites being present in wild caught specimens.

Many *Loricariidae* species (but not all) have been bred in captivity, and once again the conditioning, requirements, gestation and results vary from species to species.

But even with all of this, we must recognize that such criteria encompass at least 92 genera, and it is therefore impossible to quickly summarize and describe all the different species that we are all familiar with. The website [planetcatfish.com](http://planetcatfish.com) (probably the best catfish related website currently available), provides a list of all the different known *Loricariidae* species. Some of the genera that are immediately recognizable are;

- *Acanthicus* (featuring the beautiful Adonis Pleco)
- *Ancistrus* (the Bristlenose Plecos we see bred so often by DRAS members),
- *Baryancistrus* (the Gold Nugget Pleco belongs to this group)
- *Chaetostoma*\* (the Rubber Plecos and my wife's favorite catfish),
- *Farlowella* (the Twig Cats),
- *Hypancistrus*† (where the beautiful Zebra Pleco can be found),
- *Otocinclus* (what, you didn't know that Oto Cats are actually a pleco?),
- *Panaque*, (the Royal Plecos)
- *Peckolita*, (the Clown Plecos)

In fact, taking into account undescribed species, [planetcatfish.com](http://planetcatfish.com) currently has 1,185 species listed under *Loricariidae*...

Speaking of undescribed species, it should be noted that the discovery and exportation of new species of plecos has proceeded at such a pace that the description of the new species has lagged far behind their availability of the new species to aquarists across the world. While several Central and South American countries have placed restrictions on the exportation of plecos, others have not, and new species often appear. In order to temporarily identify the different species, two semi-scientific classification systems, known as "L-Numbers" and "LDA-Numbers" has been established. (*Editor's Note - For a better understanding of L-Numbers and LDA-Numbers, see the article "WTFish?: L-Numbers and LDA-Numbers Explained" in this month's edition of Tank Talk.*)



*Hypancistrus inspector L201*



*Hypancistrus sp L333*

With the sheer number of species and genera involved, it isn't possible to examine many of them in depth. My intention with this article is solely to give you a basic introduction to this massive yet interesting sub-category of catfish. However, there are numerous sources available, both online, in print format and even knowledge within our own club that can provide detailed knowledge on many of the available species.

So next time you see an interesting pleco come up at one of our auctions, or are in one of the local aquarium stores and see some different plecos, consider keeping them, knowing that there is likely a species that will be right for you.

\* See "Eyeballs on Oddballs: Hoover, Hoover, Hoover!!!" by Derek P.S. Tustin in the December 2007 edition of *Tank Talk*.

† See "The Amazing Zebra Pleco" by Doug White & Derek P.S. Tustin in the April 2011 edition of *Tank Talk*.