

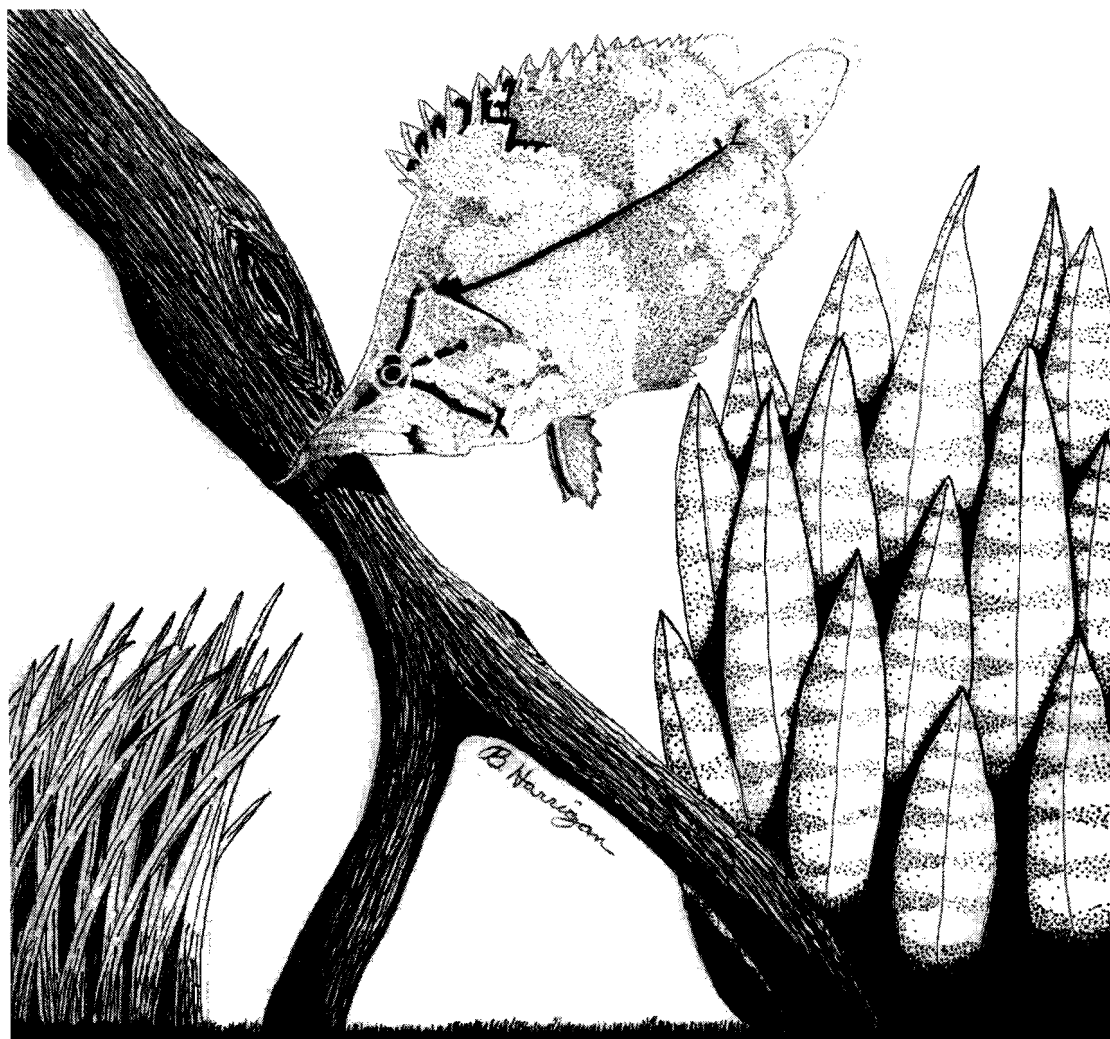
# A Most EXtreme Leaf

by ALEXANDER A. PRIEST

There are several freshwater, and at least one saltwater, fish that are commonly called (or have, as part of their common name) “leaf fish.” Schomburgk’s Leaf Fish (*Polycentrus schomburgki*) is a freshwater fish found in Trinidad and Venezuela. The Banded Leaf Fish (*Pristolepis fasciata*) and the Malayan Leaf Fish (*Nandus nebulosus*), are freshwater fish native to Asia. The African Leaf Fish (*Polycentropsis abbreviata*) is a freshwater fish from Africa. The Sailfin Leaf Fish, or Leaf Scorpionfish (*Taenianotus triacanthus*) is a saltwater fish with a widespread distribution throughout the Indo-Pacific region, including Australia. One thing this diverse group shares is that they all resemble, to some degree, a leaf, or bunch of leaves, floating in the water.

While there are probably others I could dig up, you get the idea. But, as the Animal Planet’s show “The Most Extreme” might say, “There can be only one most extreme imitator of a leaf,” and the Number One spot for this has got to go to the Amazon (or South American) Leaf Fish, *Monocirrhus polyacanthus*.

*Monocirrhus polyacanthus* means “one hair and many spines.” The Amazon Leaf Fish has a pointed extension below its mouth that resembles a goatee (thus, a “single hair”). This fish almost always moves in a head-downward position, resulting in that “single hair” looking just like the broken stem of a leaf. This up to four inch long fish is somewhat oval-shaped, and laterally compressed. The anal and dorsal fins are



Drawing by Bernard Harrigan

populated with spines (thus, “many spines”). Its body color changes in a chameleonesque manner, depending on its surroundings, anywhere from mottled brown to pale yellow. The markings on its sides, and its flat oval shape, give this fish the appearance of a dead leaf floating in the water. While the markings are more or less distinct, depending on the surroundings and individual fish, generally there is a line running from its eye back down to the underside, a line from its eye to the base of the caudal fin, and a line from the eye to the first rays of the dorsal fin. These lines closely mimic the veins of a leaf.

The Amazon Leaf Fish is native to the Amazon River. I got mine courtesy of GCAS member Claudia Dickinson (whose adventures collecting in Peru were described in the December 2005 issue of Modern Aquarium). Generally speaking, a “laterally compressed,” or “flat” shaped fish (such as a discus or an angelfish) are native to slow moving water with heavy plant growth, and *Monocirrhus polyacanthus* is no exception. It lives in quiet waters, drifting about in a generally head-down position.

It is nearly impossible to detect any fin movement at all as the fish propels itself forward using its nearly transparent caudal and pectoral fins. When feeding, it waits for a fish to swim by, or moves towards it very slowly. So perfect is its camouflage that I have never witnessed any evidence that an intended victim knew, or even suspected, that the “leaf” floating towards it, or standing still in the water, was a predator. In most cases, the prey unwittingly approaches the leaf fish, rather than the leaf fish chasing its prey. Once its intended prey is close enough, the Amazon Leaf Fish rapidly opens its surprisingly large, extendable mouth. This action creates a vacuum, and “sucks” in the unsuspecting prey. The action has been well-described in The Fascination of Breeding Aquarium Fish as follows: “Suddenly their amazingly large mouth unfolds into a grand trumpet creating a partial vacuum which sucks in

the unfortunate victim. They are capable of swallowing a fish one half their own size.” This happens so suddenly that other nearby fish seem totally unaware that there is now one less among their number.

This is an extremely interesting fish to observe, but I would not recommend it for a beginner. For one thing, they require very soft acid water, and high water quality. To provide adequate filtration with minimal water movement, I have mine in a four foot long tank with three double sponge filters, and perform a twice weekly 15% water change. I also add the water conditioner “Instant Amazon™.” (I happened to have it on hand when I got the fish because many of the Southeast Asian anabantoids that I keep require nearly the same type of soft acid water as do the Amazon Leaf Fish.) Since my tap water is

naturally soft and neutral, the Instant Amazon and the tannins from numerous pieces of driftwood serve to acidify it without requiring any other chemical treatment.

They are piscivorous (fish eaters). I tried a variety of dry and frozen foods, live adult brine shrimp, live blackworms, even live Pinhead Crickets, but my Amazon Leaf Fish would not touch any of them. After two weeks I still hadn’t found anything that they would eat. How much longer could they survive? I was

getting desperate! I was forced to use “feeder fish,” something I did not want to do. I started out using Rosey Red Minnows, but found that some of the minnows were so large that only the biggest of my Leaf Fish could eat them. On the other hand, those minnows were large enough to snack on newly hatched Leaf Fish fry. So, I switched to feeder guppies, which the Leaf Fish readily accepted. The guppies quite often produce fry of their own within the tank.

I have discovered that the quality of the feeder fish in most pet stores leaves much to be desired. On more than one occasion, I bought “feeders” at a store in Manhattan, and about 90

**Scientific Name:** *Monocirrhus polyacanthus*  
**Common Name:** Amazon Leaf Fish  
**Native Habitat:** South America (Amazon River)  
**Feeding:** Ambush predator - live food only  
 (is a piscivore - that is, it eats other fish)  
**Sexual Dimorphism:** Virtually none (but females are larger and somewhat wider)  
**Size:** Up to 4 inches Total Length  
**Temperament:** Extremely peaceful and slow moving (but will eat smaller fish!)  
**Reproduction:** Egglayer (generally under broad leaves)  
**Tank:** Low-light, heavily planted  
**Filtration:** High quality water required, but with slow water movement  
**Water Parameters:**  
**Temperature:** 72°-79°F (22° - 26°C)  
**Hardness:** Very soft (5° dH - 8° dH)  
**Acidity:** acidic (pH between 6.0 and 6.5)  
**Degree of difficulty to keep:** Fairly high  
**Difficulty to induce spawning:** Low  
**Difficulty in raising fry:** Very high

minutes later, when I arrived at my home in the Bronx, every single fish in the bag was dead. Now I have located some stores that are 15 minutes or less from my house, and I get my feeders from them. Even so, I put the feeders in a bucket of aged water and feed them with flake food. About an hour or so later, I pull out the inevitable dead ones, pour the remainder into a net, and feed them to my tank (crossing my fingers each time that I have not just thereby introduced a fatal disease).

These fish are nearly impossible to sex. (After all, how do you determine the sex of a leaf?) Generally speaking, among fish of approximately the same age, females are larger and wider bodied. One website ([http://aquaworld.net/firms.com/Other/Monocirrhous\\_polyacanthus.htm](http://aquaworld.net/firms.com/Other/Monocirrhous_polyacanthus.htm)) states that "females display an ovipositor" (the pore through which the fish excretes eggs), but I have not been able to see any "egg spot" or tube among my specimens.

During courtship, the female and the male leaf fish seem to "bump" against each other. Egg-laying is a fascinating procedure, reminiscent of both freshwater angelfish and bubble-nesting anabantoids (which might be one reason why *Monocirrhous polyacanthus* is included in the Aqualog book All Labyrinths even though they do not possess, to my knowledge, a labyrinth organ and I have never witnessed any of them taking a gulp of atmospheric air from the water's surface). First, the female inverts herself and deposits up to 300 eggs on the underside of a leaf. Next, the male inverts himself and fertilizes the eggs (thus, the similarity to angelfish, except that angelfish perform these actions in an upright position on the top of a leaf). I have witnessed several spawnings, and very often two males and a female are involved, not just one pair. Finally, the male forms a mucous bubble over the eggs, and stands guard over them.

Frequently, and especially in the first day or so after the spawning, the male will lay on his side, unmoving and so close to the leaf that, from a distance, it is nearly impossible to see anything but what looks to be a thick leaf. Although I have read that the fry hatch in two to four days, my experience has been that they hatch in five to seven days. The fry also require live food. I have used brine shrimp nauplii, microworms, and daphnia with success. Larger fry should be separated out, as they may turn cannibalistic toward their smaller siblings.

A not-too-brightly-lit tank that is heavily planted, preferably with broadleaf plants (such as *Anubias barteri*, *Echinodorus bleheri* or Amazon Swordplants), and water between 72° to 79°F (22° to 26°C) that is very soft (5°dH - 8°dH) and fairly acidic (pH between 6.0 and 6.5) is required for their continued maintenance. The Amazon Leaf Fish is a predator, but not aggressive. They can be kept with other peaceful fish that are not too active, and that are large enough not to be considered food. But, they are really best kept by themselves. (The only other fish in my Amazon Leaf Fish tank are any as-yet uneaten guppies.)

When I first got this fish, I found a website that stated the Amazon Leaf Fish did not like changes to its tank setup (but gave no further explanation and did not describe the nature of the problems such changes would cause). Naturally, when I sat down to write this article, I couldn't find this website again. The Baensch Aquarium Atlas states, "Needs a heavily-planted tank with roots to hide behind. Once acclimated do not add new elements to a tank. The fish will become nervous." I mention this only because it is something someone else wrote that I have not experienced in my own tank. While I don't constantly fiddle with the aquascaping of their tank, I do move things around when doing routine water changes, and I have not noticed any adverse consequences as a result.

The Amazon Leaf Fish is a very distinctive looking fish whose behavior is fascinating to watch. As I wrote earlier, this fish is not one I would recommend to a beginner. On the other hand, if you have the tank space and are willing to commit to the extra work involved, they can be one of the most "extremely" interesting and enjoyable fish to maintain.



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