

SPAWNING THE LOGPERCH--A NATIVE CANADIAN DARTER

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The Logperch (Percina caprodes) is a darter found widely in Canada, from northern Saskatchewan to eastern Quebec. In the U.S., the species inhabits a broad north-south band. Its western U.S. limit is a north-south line from the eastern Dakotas to central Oklahoma; its eastern limit is generally the western slope of the Appalachians, but it spills east of them in a few places, notably the northern tributaries of the Chesapeake and through New York State.

Although rather large for darters, measuring from 4½-5½" at maturity, these fish are seldom seen. The speed and erratic direction of the Logperch's movements combined with its beautifully protective coloration make this darter very hard to find in its habitat of rocks and muddy weeded areas. Most often, Logperch are caught as part of a mixed assortment of small natives, rather than as the sole catch.

In general appearance, the Logperch much resembles the Algae-Eaters so well known to tropical-fish enthusiasts. The head of this species is long and bluntly rounded at the snout. The eyes are set well to the sides. The mouth is located under the snout, showing this fish to be primarily--though not exclusively--a bottom-feeder. The body is long and cylindrical, tapering to a short caudal peduncle. As with all darters, the Logperch has two dorsal fins--a spiny dorsal followed by a soft dorsal. The Logperch's fins are surprising. The dorsals resemble high-rigged sails; the caudal, a flaring fan. Most amazing, the pectorals are enormous and are usually held stiffly out to the sides. The ventral fins can be cupped so that this inhabitant of flowing water can keep a grip on smooth surfaces such as the rocks of its home stream or the glass walls of an aquarium.

The Logperch's coloration allows it to blend in with its surroundings, so that the fish is virtually invisible until it moves--at which point it becomes impossible to catch it. When it's gone, it's gone! The Logperch's ground color is a darkish dirty tan along the back fading to an off-white shade of pale gray on the belly. The head is dark tan set off by chocolate-brown stripes which fade away under the chin. The lateral line's position is clearly marked by a horizontal beige-brown stripe bearing brown, evenly spaced dots. Like tiger stripes, heavy, chocolate-brown, wavy stripes beginning just below the backbone bisect the lateral line at the spots and end neatly near the belly. On the top of the head and in areas above, along the lateral line, patches of scales appear

where each scale is edged heavily in blackish brown. The fins bear a light checkerboard pattern in beige. Healthy fish, in the proper light, will show a sheen of either mossy green or light, rusty reddish brown along their sides as they move. The eye color is either dark brown or blackish brown, depending on the origin of the darter.

With a little practise--providing the fish are fairly mature--it is not really difficult to differentiate between the male and the female. It must be remembered that these fish can only be acquired by collecting them yourself from their wild habitat and acclimatizing them to life in an aquarium and in-home conditions. Late in April is the best time of year to collect. It is at this time that the adults are preparing to spawn, facilitating in the process of sexing the fish. When first introduced to their glass home, the fish will be an almost uniformly grayish color. Nevertheless, if the water, space, and tank furnishings are to their liking, they will color up in less than a half-hour! The Logperch has a marked preference for a light color of bottom cover, a few rocks, a piece of driftwood or two, and plants in clumps. Especially appreciated are seven- to eight-inch-long sections of black PVC pipe. In setting up a spawning tank, it is best to have a number of fish of both sexes. If the fish are readying to spawn, the females will be easily recognized by their bloated midsections. They look like they have swallowed golf balls! The males will be darker in overall color, and there is an unmistakable meaning to their actions at this time. When courting a female, the male will pose, poised high on his large ventral fins. His color will positively glow, and he will keep his dorsal fins highly erect. (It is easy to see the pronounced spine at the front end of his hard dorsal; the females have a rounded dorsal profile.) When spawning time approaches, the male will choose a small territory in the center of which is the spawning site(s). These fish spawn over fine sand, since they bury their eggs; in rough sand or fine gravel, many eggs would be killed. My breeders were provided with silica sand of a light tan color.

The male will spend some time posing on the "sandbanks," but very little time actually defending his area. The females will enter the chosen area when they are ready. Up to now, the fish mainly watch each other, with only the occasional short chase. Their spawning sequence is fast and furious. When a pair have met at the site, a stray male or female will be chased away. Eventually, the male will sidle--sideways--up to the female. They will arch their bodies together and then--too quickly for the eye to follow fully--they will thrash wildly until half their bodies are in the gravel. The eggs are sprayed in all directions, and, being adhesive, will attach themselves to the plants and rocks. The surprisingly large eggs are whitish in color, mixing in well with the sand. A single large female can lay upwards of one hundred fifty eggs in spurts of a dozen or so at a time. The pair will rest between spawnings.

Logperch are amazing to watch at this time of their lives. As they don't fight, a number of males and females can be kept in the same tank.

Since the Logperch is found in comparatively cool, flowing waters, for the most part, careful acclimation is required before they completely adjust to the aquarium. First, their water must be kept cool for the first couple of weeks or so. Gradually the temperature can be allowed to reach regular room temperature. A water change of 70-percent daily refilling of the tank with cold tap water is really essential, as these fish cannot adjust as fast as warm-water aquarium fishes can. The next most aspect of acclimating these fish is proper feeding. Logperch have eaten nothing but live food all their lives. Certainly they will not initially take flake food, or even-- in some cases--foods such as frozen brine shrimp. What must be provided for in advance is an all-live-food diet. A goodish supply of whiteworms, blackworms, and other hobby-oriented sinking live food will do. Gradually you will be able to wean your Logperches to a diet of prepared fare. Be patient and persevere. The process takes time.

It takes about a week to ten days (depending on temperature) for eggs to hatch. The parents should be removed to their own tank before it is seen that the spawn are developing. Like many tropicals, the adults are not averse to eating their offspring given the slightest chance. In natural surroundings, this is kept to a minimum by the amount of room available to all, as well as the current washing many eggs to all parts of the habitat.

It is not too easy to raise the young. For one thing, they do not seem to realize that brine shrimp nauplii are edible! Obviously, in their wild state, there is no fry food that resembles brine shrimp in appearance or color in the Logperch's natural diet. The logical solution to the feeding problem (of any fish) is to duplicate their natural diet as closely as possible. Microworms are a good start--a small, whitish worm such as the fry might expect to find in their natural habitat among the gravels, rocks, and plants of the substratum. A good supplement to this is an occasional meal of crushed ramshorn snails. In a few weeks, their diet can be changed to include chopped whiteworms, blackworms, small fruit flies, and small amounts of freeze-dried worms. Gradually add ever-increasing amounts of homemade or commercially prepared fish foods so that after about seven or eight weeks, the live foods are the supplements to the diet these fish will be eating for the rest of their lives. A diet of live foods is recommended for those fish only that will be returning to the wilds where they will have to hunt their moving prey. Fishes that will spend the rest of their lives in an aquarium should be adapted to an artificial, manufactured diet such as our tropicals receive if they are to survive. A diet of live foods could be difficult to provide through a long winter. Remember to prepare your fish with their future in mind!

SEE ADDENDUM NEXT PAGE

--adapted from newsletter of the Greenbelt Killifish Association, Ottawa, ON, July, 1983

LOGPERCH, cont'd.

ADDENDUM

The tank housing my breeders was a twenty-gallon (high). These fish are very active, and their movements are more often vertical than horizontal. The fry, of which there were 27 (a great many of the eggs either fungused or just did not hatch) were raised in a 30-gallon (long) tank. They seem to need plenty of room. The adults had a strong power filter which kept the water circulating with a good current, which these fish need. The fry had three medium-sized sponge filters going strong. It seems that the method of spawning which these fish have evolved results in many infertile eggs. There were originally some 40 fry but only 27 survived to reach three months of age. When the fry were about 2" long (at 3 months), I released them and the parent fish in the same stream from which I had obtained my breeders about 15 months prior to their spawning.
