

FISHES OF THE LOWER SUSQUEHANNA (and Tributaries of the Northern Chesapeake), Part II

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[This series began in the Oct '86 issue. It includes fishes in York, Lancaster, and western Chester Counties, Pa.; Baltimore, Cecil, and Harford Counties, Md.; and western Delaware. Other guidelines for this series are noted with the Oct '86 article. Generally, the phylogenetic order of the Atlas of North American Freshwater Fishes (1980) is followed.]

PIKE FAMILY (Esocidae)

Chain Pickerel (Esox niger)--Not Found by Authors in This Drainage (hereinafter abbreviated as NFA).

Northern Pike (E. lucius)--NFA

Muskellunge (E. masquinongy)--NFA

MINNOW & CARP FAMILY (Cyprinidae)

STONEROLLER (Campostoma anomalum)

Stonerollers are nondescript, variable minnows. On casual glance, they resemble other minnows, or even suckers. A frequent color combination is a gray-brown back, brownish and maybe a little brass on the sides, and white belly. Sometimes they are pale with dull stains or oddly colored scales. Some young ones show relatively uniform, regular vestments--dark back and lower sides, but white belly, and a light stripe above a dusker area on the sides. During breeding, some males develop a distinctive, somewhat attractive appearance. They grow tubercles around their heads, and reportedly on most of at least the foreparts of their bodies. The dorsal assumes a strong black band; vestiges of it hang on into the summer and may help identify it. Other fins may also have black bands, but these aren't usually as strong. The males may have orange eyes and orange on the fins. One of the authors (BG) has seen signs of this coloration in the upper Susquehanna in July, but large fish encountered in early spring in Tennessee and in June in western Virginia showed no such radically altered appearance.

Stonerollers are usually oppressively common wherever found, but in the Lower Susquehanna region the authors are conscious of finding it only in one locale--large, fast Muddy Creek, York County, Pa., just about a mile from the Susquehanna (in them old cotton fields back home).

Stonerollers prefer fast waters, in riffle and pool areas both; but sometimes they are found in unexpected areas.



Stoneroller range map, Atlas.

Since they often come from lotic waters, they may not transport well. Keep them cool and uncrowded in transit. Acclimate them carefully to initially well-aerated waters. If one takes precautions in transporting and acclimating, these fish will adjust and be able to put up with a lot.

No one has ever recorded any difficulty inducing Stonerollers to eat. It appears, however, that they are a genuine algae-eater; their lower lip is actually formed into a scraping edge. They probably rely on this device as much for scraping animal protein as well as vegetables off rocks.

In the aquarium, most Stonerollers have the reputation of being peaceful; however, one author (BG) has occasionally found obnoxious specimens, especially when they were the only Stonerollers present.

Breeding Stonerollers in an aquarium would be the ultimate challenge. In nature, males have earned their species name by laboriously constructing nests from literally thousands of pebbles, carried and pushed--rolled--into place. They often defend their territories vigorously. Other species make use of the Stonerollers' nests for their own spawning activities.

There are several reasons to consider keeping Stonerollers: (1) probably few people have, so that there is

an opportunity to make important observations; (2) testing their algae-eating capacity; (3) admiring the ephemerally attractive males, which might keep their color longer in aquaria than in nature, as some other fish do; on the other hand, they might lose it faster; (4) maintaining a representative community of species including them.

--BG

GOLDFISH (*Carassius auratus*)

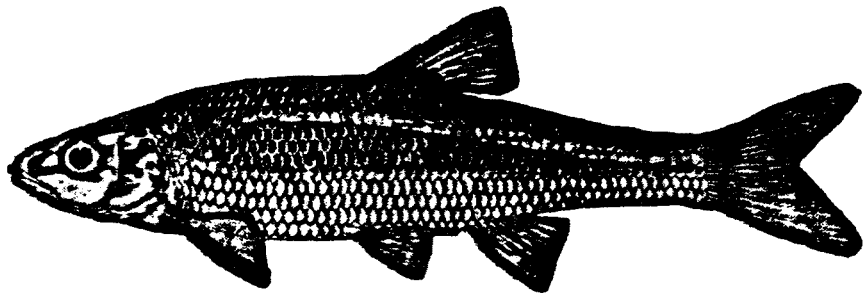
Not a native, of course, but a naturalized citizen. The Goldfish is widely distributed throughout the lower Susquehanna drainage, especially in its slower-moving tributaries that contain at least some aquatic vegetation. It seldom turns up in seines, however, and we have collected it so far only in Pequea Creek, Bird-in-hand, Lancaster County, Pa. The fish was approximately 8" snout to caudal and had the deep orange-red coloration that is typical of wild fish that I (WME) have caught. In August, 1986, I observed another feeding on the bottom in the shallows of the canal that runs just a few feet inland along the river in Susquehanna State Park, Harford County, Md. This defunct, mostly dry canal has some stretches of standing water year-round.

Keeping the Goldfish in a native tank, especially with cyprinids and centrarchids, seems to present no special problems. The Goldfish seems to be able to hold its own and compete successfully with these more active and aggressive fish.

--WME

ROSYSIDE DACE (*Clinostomus funduloides*)

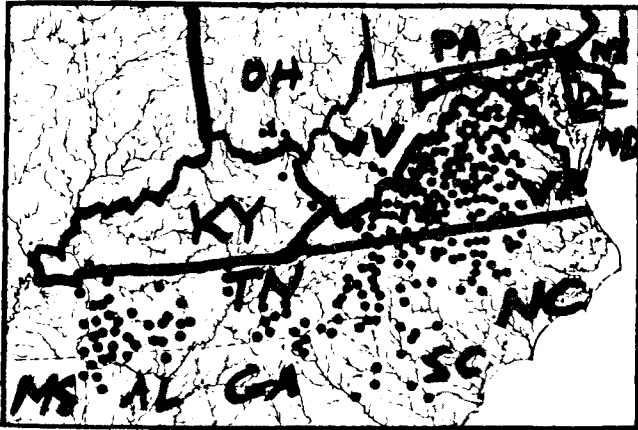
Without doubt the premier aquarium fish of the area and one of the best anywhere. The species is at the very top



Rosyside Dace from Atlas. Brown back over gold-green iridescent stripe over black stripe, most of anterior side vermilion (especially behind gill opening), white belly.

of its range in Chester County, Pa., where it spills over into some Delaware tributaries. The species extends to the top of the Gulf states. There are many color variations and a couple of official subspecies over its range. The Rosyside is found mostly in very small to medium-large streams throughout the lower Susquehanna region. One of the authors (BG) found a 4-3/4" world-record-holder in 5'-wide Black Run, Chester County, where no other Rosysides were more than half that. In other creeks, 3 1/2-4" is standard adult size.

There is no generally available decent color photo of the species. The only published one we are aware of appears in the Audubon guide. The photographer is in grave danger of a class-action suit by the species, since the shot depicts a washed-out, probably pickled specimen. Terrible. In reality, Rosysides have brownish backs, below which is a stripe of iridescence--green and solid up front, gold and cable-knit behind. That rests on a broad black stripe of varying intensity. Below that is a zone of magenta-to-vermilion. It begins at the pectoral base or gill-slit area, where it is most brilliant. It trails along most of the lower side. There is also a spot of vermilion iridescence atop the gill slit that identifies young or uncolored individuals as Clinostomus. C. elongatus, the Redside Dace, also has this spot. Redsides are found in the Susquehanna, but 75-100 miles north of the range of Rosysides (see "Meshoppen Trip," by Bruce Gebhardt, AC, Jan '85, 17 ff.).



Rosyside Dace range map, modified from Atlas.

Books speak of the male Rosysides in color as though females were uncolored; unless the species is 80-percent male, that is hard to credit. Attempts to assure females by bringing home specimens that aren't in color often fail, as the hoped-for "females" color up in the collecting bucket or the aquarium. The only certain way to sex them--or to pick males--is to examine the snout and head carefully for very fine nuptial tubercles. Assuming that most sexes indeed color, a guess here would be that males have slightly more distinct black stripes and an ever-so-slightly brighter red.

For some aquarists, Rosysides do not color up at all. The reasons aren't certain, but inappropriate lighting, lack of background planting, poor water quality (especially acidity), and poor food may dull them. Sometimes a water change or live blood worms will brighten them quickly.

In nature, Rosysides in this area are in good color from spring to fall. This is one species, though, that may become more colorful in the aquarium than in nature. Some specimens keep their color nearly year-round, though there are less luminous periods.

A peculiarity of the species in captivity is the loss or darkening of many scales. The degree of darkening varies specimen to specimen. Some groups of fish in certain tanks resemble the Checkered Barbs of the aquarium trade after this process has taken hold.

Rosysides are hearty eaters of just about anything (mine are unenthusiastic about freeze-dried krill). They should have frequent live-food feedings, though. The species is also very hardy, quickly cured of anything they do come down with except for one thing. Rosysides panic easily--when lights come on, for instance. They start ramming things--gravel, rocks, glass. Like pickerel, they end up with a fungused snout. From this, apparently, the problem can spread. Some aquarists theorize that they get columnaris, or "cottonmouth disease." Maybe so. Whether it's that or just fungus, however, if unchecked, it can rot parts of the mouth or snout so that they fall off. The disease can be kept in check with "Clout" or other products. It does recur, however, so it may not be curable; or maybe the fish keep ramming into things and starting it up again.

No one to our knowledge has bred Rosysides in the aquarium, though area aquarists have tried since the early 19th century. I've (BG) kept them for several years and been disappointed to note that tank-wintered males haven't

developed tubercles as fully as have wild ones. A cold wintering could be the answer here.

It is fortunate that one of the most beautiful species in this area is one of the most common. One may find them holed up in a tiny stream. One should try not to "pig out" in such settings, since it is possible to wipe out whole small-stream populations. Not that the dace are always defenseless. They are fast swimmers, and once they have left the premises, they may not return that day.

Another reason for moderation is that overcrowding could be fatal. One should also be careful on acclimation, since they're not used to chemically treated or stale water. Once introduced and acclimated, Rosysides are extremely durable.