Notropis Spilopterus (Cope)

Ted Pobud

In the process of wing a dip net for collecting bait fish off of the end of my dock in early June, I saw a significantly different more wary minnow in what looked like spawning behavior. Upon closer observation I determined it was a spawning group of about 10 specimans with an approximate size range of 3.5 to 4.6 inches. They were in a shallow bay area of the southeast shore of Bogie Lake, east of Milford, Michigan, in about 18 inches of water. A slight current is present in this area being close to the only outlet of the springfed lake, a small concrete dam.

I had caught glimpses of this minnow only occasionally since it is not abundant in this lake, in fact according to Pflieger in The Fishes of Missouri, it occurs more frequently in rivers. Their range extends from southern Canada, west to North Dakota, south to Oklahoma, and east to the Atlantic.

I caught six specimens and eventually identified it as the spotfin *shiner, Notropis spilopterus.* I found using the key in The Fishes of Missouri by William L. Pfileger very usable, it has a descriptive illustration at every step in the key and proves to be helpful to those not proficient with all of the icthyological terms, but of course the range of the fish you are working with would have to extend into Missouri as is the *case with N. spilopterus.* F'reehwater Fishes of Canada by W. B. Scott and E. J. Crossman was used as a check since it covers a much wider range.

The term spotfin refers to the elongated blotches in the second and third posterior rays of the dorsal fin. The dominant color is silvery with an irridescent steel blue tint on the upper portion between the dorsal fin and lateral line shading to white below. Substantial sexual dimorphiom is exhibited through more coloration of the male's yellowish pectoral, pelvic and anal fine with the dorsal and caudal fins tipped with light blue borders. The males are also larger, maximum size approximately 4.5 inches, females about 3.5 inches. Breeding tubercles on the male extend from the head tapering off at the dorsal fin with the appearance of fine sandpaper.

They were placed in a 40 gallon community tank containing African cichlids *Pseudotropheus zebra, P. tropheops, P. ekgans,* and *Iodotropheus sprengerae, all* larger than 3.5 inches total length. There was never any confrontation between the cichlids and *N. spilopterus all* of them were fast enough to stay out of each others way. In fact N. *spilopterus* functioned well as either fish, keeping the cichlids calm and out where you could see them. *N. spilopterus* eat primarily insects in the wild and readily accepted adult frozen brine shrimp and then flake foods and homemade fish mash food. They are eager eaters and would lead all the other fish especially when floating foods were offered.

Their tank was kept at a well aerated 76°F. If a pump of power failure occurs, *N. spilopterus* will die off quickly, a high oxygen level is an absolute necessity as with most cold water minnows. Spawning occurred almost constantly in this community tank set up always in surface floating plants. Plastic *vallisneria* were constantly being uprooted by the cichlids, and *N. spilopterus* would expell their adhesive eggs into the tightly packed base of the floating plants leaves where it would be difficult to be reached by other fish. Even so, eggs in plain view were never bothered by the cichlids and rarely so by the spotfins. Perhaps they were too small for thecichlids or they simply were not accustomed to eating off of plants.

Whenever I wished to hatch some of the eggs I simply took the whole plant and placed it into a 2 gallon tank with some methylene blue added and of course plenty of aeration. Eggs were always present from different spawnings and no controlled set was taken to determine actual hatching time, but of those taken for incubation an average of 5 days occurred. The fry are small but long, approximately .25 inches and do not eat for a few days while absorbing their relatively small yolk sac. Newly hatched brine shrimp were too large to start time off as were all but the smallest of the micro-worms. Finely powdered dried food started them off and they soon became ravenous feeders. They grow rapidly and exceed one inch in three months. A similar species the steelcolor shiner, *N. whipplei,* reportedly takes 3 years to mature. I plan to see if *N. spilopterus* also takes 3 years to mature if raised under aquarium conditions.

Adult spotfins are a welcome attraction to community tanks of large fish as long as the occupants are not minnow like. I have found them to be plainly hostile with other minnows. The dominant males also have a habit of biting the lower part of the caudal fin of subordinate males and thus must have suitable hiding places or one must restrict the number of adult males.

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Literature cited:

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