

## BLUE-SPOTTED SUNFISH (PART II)

by

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In the first issue of the American Currents, I described the Blue-Spotted sunfish and my experiences in collecting them from the wild. I also described my first attempt and success in breeding them. I would like to tell you about my further experiences with seven more tank bred generations of these beautiful dwarf sunfish.

There were some important truths and I have since learned that there were some bad aquarium tips in my first article. For example, it is important, as I did write, to start with very small young sunfish rather than the wild adults. But it was an error to bring up newly hatched fry in a tank "polluted" with tubifex. Newly hatched brine shrimp is an ideal first food and an open box filter filled with gravel should be used at all times with the very young fry. At about three weeks old, these fish can be switched to the smaller tubifex worms that you can separate out of the clump you buy at the store. I also learned an important lesson in breeding aquarium fish from this species and I now adhere to it with all fish, whether native or tropical. When I had my first spawn and subsequent hatch, I had over two hundred fry. The fry became cannibalistic and soon I had sixteen fish left. After that I limited my sunfish hatches to twenty or thirty, and no cannibalism has been observed since. Obviously, it was a mechanism to eliminate overcrowding. It is impractical, in my opinion, for the average aquarist to raise more than thirty fish of any species.

I also know that dwarf sunfish have few of the habits that the larger species do. In the wild, for example, I have observed that the Enneacanthus species school and generally spawn in a community type action. When spawning time comes, nest sites in very weed packed areas are picked by the males. Spawning occurs in one massive effort, then the females are driven from the nests until the males are through guarding the fry. At that time the school regroups and swims away together. As far as I can tell or know, this kind of group action seems to eliminate hybridization between the Enneacanthus species.

To date, I have bred my successive generations in a one to one basis, and mostly in 2½ gallon tanks, heavily weeded (plastic), covered, and kept in a dim area. Last January, however, I knew I was going away on vacation for five days. Prior to this I had put twenty one fifth generation sunfish in a twenty gallon long aquarium and started stocking up a supply of baby guppies in another. On leaving I fed the Blue-Spotted sunfish heavily with tubifex, and then threw in several hundred baby guppies. When I returned and looked into the tank, the sight was unreal. Hundreds and hundreds of free-swimming fry were everywhere--including in the power filter. I had missed the community spawn, but I did see the end results. The adults must have eaten many too, as they did the baby guppies.

I have inbred all my generations so far, using the strongest and most aggressive of the males in an attempt to rid my fish of the one trait that would keep them from being included in a general community aquarium. This one trait is their intense fear of the aquarium light. By nature, these fish are a twilight species which venture out only in the early morning and early evening hours. I have observed that this fear is not prevalent in the fry and only begins to show itself as the fish approach sexual maturity. The adult generation that I have now seems to have overcome this fear, but I must see whether or not it shows itself with the next few generations. Inbreeding, of course, has its drawbacks. My fish now have a slight congenital mouth defect and the degree of fertilization of the eggs has fallen sharply. They are a prolific species, however, so low percentage egg hatches hasn't bothered me yet. For example, last winter I had a male who spawned every ten days.

I have attempted, without success, to hybridize the Enneacanthus species. The latest attempts with the "Banded" sunfish were typical. The two species wouldn't pay any attention to each other.

In conclusion, this dwarf sunfish has been easy to maintain and has given me hours of pleasure. In addition, I have studied and learned about a pretty little fish that few people have ever kept.