



The Husbandry of the black Sailfin Goodeid *Girardinichthys viviparous*.

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For nearly twenty five years I've dedicated much of my tank space and hobby energies to maintaining colonies of goodeids. Many of which were threatened with extinction in the wild and have become increasingly so in the passing years. There is within the hobby a sort of pseudo-sophistry that implies if a fish bears live young and you can buy a gravid female, then the subsequent birth takes place in "your" tank makes "you" an accomplished aquarist and the fish an "easy species to breed.. No matter of course that few aquarists show any ability to husband these "easy" species through several generations while simultaneously raising quality specimens in terms of size colour and vigour. Remember your school days and being sophomore? Derived from greek and meaning wis foll. Sophomore is an intermediate stage of becoming accomplished. Show me an aquarist who considers livebearing fishes in general as being easy, and Ill show you a sophomoric aquarist who cant raise them successfully! "Too easy to keep", and you can bet the aquarist can't

In any case goodeids include among their ranks some of the most difficult freshwater fish to husband in captivity, Goodeids more so than most. Families of fish vary remarkably in their needs. Consequently some species of fish can be easy in one area and nearly impossible to husband in another area of the country. Sometimes these differences can be difficult to pinpoint..

The black sailfin goodeid is one of those problem species. It is small colourful, and has nice finnage. All qualities which make it a desirable aquarium fish . Yet internationally it has proved very difficult to keep in captivity. Its status in the wild is precarious at best since its habitat is the central valley where Mexico city's urban spread has all but eliminated natural waters and those that remain are highly polluted.



*Male G.viviparous – Copyright
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After several attempts to husband this species unsuccessfully from stocks acquired from several sources. I received stock from Derek Lambert (England) in august 1990 that were F1 from his own collection. I might have failed with these fish again if Derek had not challenged me to keep them beyond a generation or two, saying this species is inherently weak through inbreeding in the wild and succumbs quickly in captivity. I Love challenges, especially when the gauntlet is dropped by Pat Lamberts prodigal son! (Actually now that I Think Ive solved the 'secret' to keeping the black sailfins. I'm suspicious that those devious Brits tricked me into doing their homework for them!)

The black sailfin comes from the cool high plateau of central Mexico and in no way should be considered a fish of high temperatures. Goodeids by and large are all placed at risk by aquarists that try and husband them at temperatures above 75 degrees F True they can survive higher temperatures, but their metabolism seems compromised and their susceptibility to the toxic nitrogenous excretory waste products of their community is pushed to dangerous limits. No goodeid needs to be kept warmer than 75 degrees F!

A cool aquarium and regular water changes of 50% several times a week provide the minimal conditions for this species. Perhaps because of the cool natural habitat coupled with a relatively short summer season, black sailfins mature faster than any other goodeid I have ever worked with. My shortest generational interval was 44 days between 4th and 5th generation.

Diet is the most critical component in the management of this species based upon my experiences. Nearly everyone who has kept this species has reported deaths of fishes characterized by massive abdominal distension. The problem hits all sizes and ages and never seems to be an epidemic but rather to appear randomly and sporadically. Eventually the colony dies out. Medicated foods containing Tetracycline (for bacteria) and/or Metronidazole (for protozoans) gave no relief. And suggested to me this problem was not pathogenic, My next best guess was that the quality and quantity of foods might be inappropriate and that this fish with its short stubby body might be susceptible to fatal bouts of constipation.

Although the F1's Derek brought me were very small and didn't appear gravid, seventeen days later they had young. Over the next several months I accumulated a large number of F2 offspring, I set up four different colonies to study diets. I also relocated many fish to new homes (all of which but one proved unsuccessful in establishing colonies). The dreaded bloat was showing up every where but reproduction was keeping ahead of mortality in my tanks.

Nonetheless I realised that traditional diets that worked with other goodeids were not successful here. Usually I have tried to feed a variety of foods – dry commercial foods for their vitamin and mineral supplements, home blended meat pastes, and live food. As I sorted and manipulated diet combinations, I became convinced that live worms and flake foods seemed to cause constipation in these fishes and discontinued their use. .

The results were dramatic but not completely successful; there were still occasional deaths. Thinking they might be exclusively vegetarian in their natural diets, I tried a number of commercial child food pastes that were only fruit/vegetable combinations. Tanks that were fed exclusively or partially on these herbivorous supplements did no better and in the former case, I felt fared worse.

In frustration, I asked Derek to describe their natural habitat. He said he found them swimming in a foul broth of crustaceans and algae. This raised the interesting concept for me that these fish might need a continuous source of high roughage food. So that the guts more or less processed food continuously, without interruption and without pockets or spaces of intestinal gasses that might interfere with the faecal column.

In addition to colonies fed the herbivore paste, I next restricted two colonies to diets consisting of only 1) *Daphnia* and green water fed so generously that the foods were present 24 hours a day, and 2) Live baby brine shrimp morning and evening fed essentially to the fishes satiation but without polluting the tank with uneaten shrimp (usually I find that brine shrimp will live for about 12 hours in freshwater) Unquestionably the last two diets have proven the best. As I move now into the F5 generation, the colonies fed essentially only one crustacean, either baby brine shrimp or *Daphnia* are thriving and I have seen no mortality in these colonies for several months. I've now discontinued all colonies fed on other food.

Although I'll probably continue with independent colonies fed exclusively on these two different diets of crustaceans, my best subjective evaluation is that the colony fed on *Daphnia* and green water diet seems more colourful. In most other respects I would say these two diets offer comparably healthy colonies of the black sailfins. The black sailfin is one of those fishes that may not reach the 21st century as a wild species. It needs your help to survive. I hope my experiences and observations will assist in making this species a commonly kept aquarium fish.

Update 2014

23 years on from the publication of this article, this species (also known as the amarillo) is still not a common species of Goodeid, although not the rarest, very occasionally it is seen on commercial lists and does seem to just about cling on in the UK hobby, although occasional crashes in the population seem to occur. When success occurs, this species can be very prolific, but when passed on this species can be difficult to establish. Most success is had with a similar diet to that described above – usually brine shrimp is used. Temperature is also important and this species appears to do best at cooler temps around 20 degrees C and lower.

John Lyons listed this species as endangered, with only remenant populations existing in the Valle de México.

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