Breeding Wild-Caught and F1 Pirate Perch
(*Aphredoderus sayanus*)

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The Pirate Perch is an odd, rather unattractive fish that nevertheless has captured the curiosity of many native fish enthusiasts. I am sure this is due to its being the only member of its family and to its unique anus, which moves from just behind the anal fin in juveniles to the throat region just below the head in adults.

Pirate Perch occur in my home state of Michigan but seem to be rare and have a scattered distribution. I had never seen one until the 2004 NANFA Convention in Columbia, South Carolina, where it was one of the most common fishes we encountered. (We caught hundreds in our pursuit of more colorful fishes.) Six very small (15mm long) specimens made it back to my fish room at home. The following are my experiences breeding them and their F1 progeny.

I fed my Pirate Perch live blackworms since frozen brine shrimp and bloodworms usually went uneaten. I did not try to breed them in 2005, waiting instead for the spring of 2006. By December 2005 I was wintering three fish, 50-63 mm long, in my “cold room,” a room in my home where the temperature in winter can be maintained below 10°C. On 1 Jan. 2006, when the water was around 4°C and the light was on nine hours per day, I removed the Pirate Perch from the cold room along with 10 gallons of water. I placed the fish and the water into a 10-gallon tank in which the bottom and sides had been painted black and the front covered with black plastic. Within a day the temperature rose to 16°C. I added two hours of light once a week for three weeks, at which point the front cover was removed.

Having read a report in *American Currents* (Riffles, Spring 2004) of Pirate Perch spawning in the wild by pushing their heads into massed roots, I provided breeding structure to mimic a root mass. I placed several sinking yarn spawning mops into the tank, one of which had a rubber band around the loose end of the yarn strands to further simulate a tight mass of roots. The tank also included a 4” x 6” ceramic tile propped up on a halved flower pot to create caves, and a piece of driftwood with java fern attached.

On 16 Feb. 2006, I found several fungused eggs loose in one of the mops. After inspecting all of the mops and finding no more eggs, I began to search the tank. I found a few loose eggs on the tank bottom, and a cluster of eggs under the ceramic tile where it made contact with the tank bottom. The cluster contained 28 fertile and 10 infertile eggs. Water temperature was 18°C. On 27 Feb. 2006, I found 12 fertile and 16 infertile eggs loose on the tank bottom under the driftwood. I placed the eggs into glass bowls with several drops of MarOxy® as a fungicide and covered the bowls with plastic wrap. Here is a timeline of egg development:

2-27 Cluster of cells on yolk
2-28 Tube body wrapped around yolk
2-29 Heads forming
3-1 Eyes on heads
3-2 Tail moving in eggs
3-3 A net of blood vessels covering yolks on most eggs; eyes with slight grey pigment; over half the eggs have fungused
3-6 One egg hatched
3-7 All eggs hatched

Fry at hatching are 4.5 mm long with very large yolk-sacs and a small amount of pigment in the eyes. Basic color is a cream- to light-yellow. Their shape is reminiscent of a tadpole. The fry remain still on the tank bottom but spin and...
scatter across it if disturbed. Fry at nine days old have little of their yolk-sacs left and are darkening in pigment. I fed them brine shrimp nauplli and microworms. Mortality rate was high with only six fish alive at 60 days. At this point they became easy to raise. Five of the six F1s survived to adulthood.

F1s were wintered the same way as their parents and the breeding tank set up as before, except this time I removed the spawning mops. On 19 Feb. 2007, I found 41 fertile and 36 infertile eggs in a cluster under the ceramic tile. Again, I placed these eggs in glass bowls covered with plastic wrap. This time, however, I was out of MarOxy® and it took several weeks to find more since my local store no longer carried the product. All of my Pirate Perch eggs fungused, as did the eggs of other fishes I was working with at the time. I had hoped for a second clutch as the year before, but this didn't happen. I no longer have these Pirate Perch or else I would be breeding them again. I hope this information will help others working with this unusual fish be more successful breeding and raising them than I.

### Bibliography of Pirate Perch

**Literature from American Currents**


### Attention:

**Anyone Interested in Southeastern Fishes**

*The Southeastern Fishes Council* is undergoing revitalization to better fulfill our goals of developing and transmitting information on the biology and conservation of southeastern freshwater fishes. Our plan includes expanding the role of the SFC in the conservation of southeastern fishes and their habitats, increasing our interaction with state and federal natural resource agencies and non-government organizations, and attracting new members. In an effort to become more effective we have moved our annual meeting to the month of November and to a location central to the southeastern region of the U.S.

**Our next meeting**

**Where:** Chattanooga, Tennessee

**When:** Thursday and Friday, the 8th and 9th of November 2007, with possible field trips on Saturday, the 10th.

**Meeting Program:** The program will consist of two days of contributed oral and poster presentations. A call for presentations will be posted on our website (sefishescouncil.org) and distributed to colleges and universities, state and federal agencies, and NGOs. A limited number of travel subsidies will be available for students who contribute presentations. A portion of the program will be devoted to presentations on the subject of Captive Propagation for Reintroduction and Translocation of Imperiled Southeastern Freshwater Fishes. Information from these presentations will provide the basis for a publication on guidelines for reintroduction and translocation of nongame imperiled southeastern fishes.

The Tennessee Aquarium will open the Aquarium after hours on Thursday evening for an SFC social.

**Meeting Mailing List:** If you wish to receive the call for papers and registration information please send your name and e-mail address to meeting organizers: Jim Williams (fishwilliams@gmail.com) or Anna George (alg@tnaqua.org). Also, if you are interested in presenting a paper, please contact us with a tentative title.

**Meeting Host:** The Tennessee Aquarium

**Meeting Sponsor:** The World Wildlife Fund, Southeast Rivers and Streams Program

**Join SFC!**

Regular membership is $20.00 per year. Student membership is only $10.00 per year. If you are interested in joining SFC, please contact Kyle Piller (kpiller@selu.edu).