

SPAWNING OF THE GREEN SUNFISH, LEPOMIS CYANELLA

by Matthew D. Sorensen, Kent, Washington

Although I did not witness the actual spawning, I saw everything before and after. Therefore, this partial account may be of interest.

Several months ago, I found several Green Sunfish (Lepomis cyanella) amusingly mislabeled as Pumpkinseeds (Lepomis gibbosa) at a local pet store. The price was right, so I purchased some. At ½" to 1" long, they easily adapted to a 45-gallon-long tank divided in half with the filter on the other side of the divider. Since Lepomis can be aggressive, I situated several plants and pieces of wood to provide hiding places and generally make the fish feel at home. They received 10-12 hours a day of regular fluorescent lighting, until a few weeks before spawning, at which time the lights were replaced with what I was told were sunlamps. More about this later. There was no direct sunlight on the tank. The temperature was 65-75°.

Feeding was no problem. These robust Lepomis probably would have eaten just about anything, including dog food had I tried it; however, their diet consisted of mainly frozen foods supplemented with occasional live foods. Maintenance and water changes were done weekly; this may not have been necessary, but the Greens' side of the tank did not have a filter. Even though the water was being filtered on the neighbors' side, circulation on the Greens' side was restricted. Consequently, algae had grown thickly on plants and glass. PH was neutral and hardness unknown.

The water was replaced with conditioned tap water. The fish remained healthy and grew rapidly.

In September, when the fish were 3"-4", I happened upon the aforementioned sunlamps. I was curious and decided to try them out. They were much brighter than typical fluorescent lights; maybe a saltwater hobbyist would know more about them. Anyway, within a couple of weeks, things started happening. The dominant male began to molest everyone who came near his later-to-be nest. I hadn't noticed much color change at all; however, the females became swollen. (Their neighbors, two pairs of Orangespotted Sunfish, had already dramatically colored up and even made a nest. They later spawned, but may have eaten the eggs.)

Next, the dominant male Green began clearing a nest in typical Lepomis fashion. The male became vertical and vigorously swept the substrate with his caudal fin. After each sweeping, he inspected the site carefully. Later, as the nest became deeper, the male began to prod the females. This increased for a day and a half. After coming home from work one night, I happened to look directly over the nest, which

was situated at the base of a piece of store-bought driftwood on the slate bottom. This made a perfect background for the tiny amber eggs. They were scattered over the slate bottom and even on the driftwood. The male stood by, loyally and constantly guarding and fanning the eggs. He also kept trespassers away--even me as I changed the water the next day. He constantly harassed me and even bit me a few times.

After three days, the parents were removed. Although the male did an outstanding job of cleaning and fanning the eggs--as far as I could tell, not even one fungused--I still did not trust him. Twelve hours later, the eggs hatched. The sunlamps were left on 24 hours a day. No food was given because the tank had taken on quite a bit of algae and also infusoria.

The next day, the fry could be seen kind of hopping around. Some were hanging on to the algae on the glass with their egg sacs still attached. They covered the whole substrate.

Three to four days after hatching, the eyes were visible, but not much else. Although each day they are slightly larger, at the time of writing they are 1/4" long and free-swimming. Baby brine shrimp have been added to the diet, but still the majority of them prefer infusoria.

Whether the "sunlamps" had anything to do with this spawning is questionable; however, as I said before, the Greens' neighbors, the Orangespotted Sunfish, also spawned a few weeks after the sunlamps were installed.

Isn't late fall an odd time of year for Lepomis to spawn?

It's just a matter of time before the younger fish too will spawn. The question now is what to do with them.