## **GRINDLE AND REDWORM CULTURE**

By Chase Klinesteker SWAM, Jan-feb 1998



Grindal worms on surface of Redworm culture

Worms are a very high protein live food that is eaten eagerly by almost all species of tropical fish. Although they can be overfed because of their high fat content, usually the problem is to get enough of them to feed your fish. Blackworms have been made available to club members at SWMAS meetings and that has been a great help. However, smaller fish and fry cannot eat blackworms and it takes a lot of newly hatched brine shrimp to get them to the size where they can. With the high price of brine shrimp eggs, a good substitute would be in order. Grindal worms seem to be ideal to fill this gap. They are very thin and only about ¼ inch long. I have seen fry eat worms longer than themselves! Usually after only about 2-3 weeks on newly hatched brine shrimp, most fry can handle grindal worms. Yet they are large enough for most larger fish to see and eat. Fish up to 2 ½ to 3 inches relish them. Still, something was needed for larger fish.

## **GRINDAL WORMS**

I bought a red worm culture a few years ago to feed my larger fish. One day a white "fuzz" was noticed on the soil surface after feeding oatmeal. I thought it might be fungus, baby red worms, or egg cases, but on close examination they were grindal worms. The two species seemed to thrive together and when I tried to establish a culture of grindal worms only, they did not do well at all. Possibly the earthworms areate and mix the soil for the grindal worms. They both can be very prolific.

Although grindal worms are quite small, they can be collected in great quantities by feeding with 5-minute oatmeal on the soil surface. In 12 to 24 hours, the soil will be coated with grindal worms and they can be scraped off with a spoon and separated by rinsing in cold water 2-3 times, letting them settle and pouring off the mud each time. Use a clear plastic cup so you can see when the worms settle to the bottom. They can be fed to your fish with an eyedropper or small baster. The soil that I use is ½ of fine-particle topsoil and ½ ground cellulose worm bedding, which can be purchased at most stores that carry fishing supplies or bait. Both species seem to do well when the soil is kept very moist. Plastic sweater containers or shoe boxes with good fitting lids serve as adequate containers. Keeping the containers on the basement floor next to an outside wall can help, although both of these worms will reproduce well throughout the summer months, a plus when compared to white worms.

## REDWORMS

The red worms that are in the culture appear to be similar to night crawlers in form but they never get any longer than 2 to 2 <sup>1</sup>/<sub>2</sub> inches and are a perfect size to feed to large cichlids. They can be picked from the soil by hand or with tweezers. For smaller fish (2 to 3 inches) I will cut them up with scissors in a cup(containing a slight amount of water) into small pieces and rinse them off before feeding.

For feeding and best production, I sprinkle 1-minute oatmeal evenly over the surface every 2-3 days. The amount of food is dependent on the density of the worms. If the oatmeal lasts more than 1 ½ days, you are feeding too much. On a good culture with 2-3 square foot area, a handfull of oatmeal will be gone in 24 hours. Many other foods could be used. I have neglected this culture for up to 2 months and the worms still survive as long as some moisture is maintained!

The grindal-red worm culture feeds almost all sizes of fish, is very productive, and is easy to care for. What more could we ask for?