

GLASSWORMS: A NATIVE FOOD FOR NATIVE FISH

by Konrad Schmidt, St. Paul, Minnesota

Glassworms, or phantom midge larvae (Chaoborus americanus), are the immature stage of a non-biting insect that resembles a mosquito. Here in the midwest, the half-inch glassworm can be found in many small lakes and ponds from September through April. I probably would never have learned the existence or value of glassworms if I had not worked at a tropical-fish store several years ago. The store's owner fed his fish and sold both glassworms and brine shrimp, but preferred the worms. Not only could they take the stress of overcrowding, but also, more importantly, even the most finicky fishes gorged themselves on these tasty morsels. At first, I was quite content, as were the customers, to pay someone else to collect our glassworms; then one year, the supplier called it quits and our sole source dried up. The customers' demand lingered, however, so I decided to try my luck at "wormin'" with Don Richmond, another NANFA member, who was also interested in this little business endeavor.

The collecting methods and materials we eventually developed provided a commercial supply of worms, but they can easily be modified to meet one individual's needs. Unfortunately, the most time-consuming part of collecting is finding ponds that contain glassworms. This includes choosing general areas to check; driving time; contacting landowners; and checking ponds. Most of the ponds we used are within a twenty-mile radius of the Twin Cities. Some of our best ponds were found along roads, but others would have been missed without the use of maps. We preferred the 7.5-minute topographical maps, and purchased the areas we wanted to check; however, I have recently found them available at some public libraries. We generally searched the maps for ponds that drained agricultural fields (corn) or livestock yards. These ponds seemed to have the greatest glassworm densities due to the increased nutrient load. We did a great deal of driving, mainly to build up a large reserve to avert a shortage, but an individual could possibly get by with one or two ponds. We contacted landowners for two reasons: to gain permission to enter their property and also to ask them if the pond contained fish. We have found that if fish are present, glassworms are absent--or so few that they are not worth the effort. Also, fishless ponds are less likely to contain diseases that can be transmitted to aquarium fish.

The only equipment needed to check a pond is a pair of waders and a fine-meshed dip net. A couple of scoops with the net will produce glassworms if they are present.

The simplest method we found to collect glassworms is by dip net. A net eight to ten inches on a side works well in a dense pond. One such pond that we still occasionally use for our own fish will produce about a two-week supply in

about fifteen minutes of dipping. In the not-so-dense ponds, we have used hoop nets and seines. The hoop nets were three to four feet in diameter with very long sleeves. We have even used old landing nets by replacing the coarse mesh with a fine one. The seines were about twenty feet in length and very similar to minnow seines except in mesh size. When each seine haul was ready to be lifted from the water, the entire seine would be gently rocked in unison on the surface, making sure that neither the top nor the bottom edges dipped below the surface. As the seine was slowly pulled upwards, the worms would concentrate in a line down the center of the seine. Then, starting at one end, the seine would be raised and the worms would be "snowballed" to the other end. Sometimes this method would produce a pint of worms per seine haul.

Collecting glassworms through the ice in winter is a little more difficult, but not impossible. We continued checking ponds in the winter, using a hand-powered ice auger that can be found in many models at most area sporting goods stores. If the blade was sharp, we could cut through two or three feet of ice in a few minutes. We lengthened the handle of our dip net with about five feet of PVC pipe. That allowed us to sample below the ice. The hole greatly restricts maneuvering the net, but in a thick pond, with a little patience, a person could collect what he needs. The method we used required removing a block of ice at least large enough to work a hoop net. We began cutting ice with an antique cross-cut saw that had about a four-foot blade. We would punch the corners of the block out with the ice auger and "simply" connected the holes with the saw. Yes, the tool did the job, but it took some time and effort. We eventually brought a chain saw that made life a great deal easier. Special ice chains are available for most chain saws, but we found that filing down the cleaning rakers between the teeth worked just as well. Once the block had been cut loose, we found it much easier to push it under the ice rather than lift it out. The hoop net was worked by walking in a circle around the hole and occasionally reversing direction.

Glassworms are very easy to store, provided the water is kept cold and aerated. We preferred to keep our own worms in a refrigerator, but an unheated basement or garage will suffice if the temperature remains above freezing. Glassworms have proven surprisingly hardy even under seemingly less-than-ideal conditions. We have had them fully recover from being frozen for short periods, and have found them not to be bothered in the least by the chlorine present in tap water. The greatest benefit to keeping glassworms is of course feeding your fish. Though not impossible, it is difficult to overfeed with glassworms. In a fishless aquarium, we have had small quantities last for about three weeks before they change into adult phantom midge flies. In comparison, brine shrimp will die in fresh water within a few hours. I have also been told by a person who now collects glassworms that they also offer a nutritional advantage over brine shrimp. He had the dry weights of both

analyzed by a lab and glassworms came out on top. I admit this is hardly an unbiased account, but I have seen the positive effects on fish when feeding glassworms. One of the most remarkable changes I have witnessed occurred late this summer with some Gilt Darters Don and I had collected a year ago. By summer's end, they were a sorry sight, having been fed only frozen brine shrimp. Their bellies were flat and all traces of gold had vanished. After one month of eating glassworms, they had all filled out, and the rich colors had returned.

I am sure there are many NANFA members who would prefer to spend their spare time collecting fish, not food, but would still be interested in trying glassworms. I suggest checking pet stores in the area. The current supplier has greatly expanded his business in recent years and now ships worms to many major cities on both coasts and the Gulf states.

###