

THE HUDSON RIVER LARVAL FISH PROJECT

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In the January 1984 issue of AC, there is mention of a proposal solicitation sent to NANFA by the Hudson River Foundation. The note also mentions that I have a project funded from that source. With that introduction (and a little prodding from our editor), I thought I should explain the project to all our members.

Larval fishes have become an important aspect of environmental research in recent years, especially in evaluating the impact of nuclear and fossil-fuel power plants, hydro-electric facilities, pump-storage facilities, and other such operations. All of these technologies kill fish larvae when they draw water from the environment, and it is impossible to exclude the small larvae from the water intakes. Much effort has been expended on estimating the numbers of larvae a proposed or operating plant will affect, and on designing mitigating technology and operating schedules to minimize the impact on fish populations.

Recently, the American Museum of Natural History in New York received a large (I estimate 25,000 lots) collection of fish larvae from the Hudson River. These larvae had been collected from 1975 to 1980 as part of impact assessment of the Indian Point nuclear plant and other fossil-fuel plants on the estuary. We felt that these specimens were very valuable, both as documentation of the research that has already been done and as a resource for further research into the biology and ecology of this important stage in the fish's life. Dr. C. L. Smith (AMNH) and I successfully applied to the Hudson River Foundation for funding to curate the collection. Curation entails identification, cataloguing, permanent storage, and preservation of the specimens.

Cataloguing is being done with a Wang data-management system. The procedure we are following is conceptually similar to the one described by Konrad Schmidt (AC Jan. 1984), though the Wang system is considerably more powerful than Konrad's home computer (and several orders of magnitude more expensive). We are using the computer to produce labels, catalogues, and lists of specific information for researchers.

The most difficult part of the project is identification. Larval fish are difficult because there are few keys, and the larvae of many species have not been described. They are also very small. So far, we have identified 35 species from the Hudson estuary.

There is a real need for descriptions and preserved specimens of many of the lesser known freshwater and marine fishes, and this is an area where NANFA members can help. Those of you who breed fish--how would you feel about preserving some of your larvae? Just the ones who aren't going to make it! A series of specimens from egg to juvenile from known parents for poorly known species would make our job a lot easier. Contact me if you are interested (Rt. 3, Box 168, Branchville, NJ 07826).