

# THE AQUARIST AS A NATURALIST

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In the early days of the aquarium trade (early 1900s) native fishes were the only species most of us could get. Even if we had known about tropical fishes, species such as angelfish or discus would have been both unaffordable and unobtainable. Our knowledge of their needs was pretty limited. There were no filters, power equipment, prepared foods, or any of the other luxuries we take for granted today. Yet in spite of these limitations the hobby prospered and grew. For a decade or two, our local fishes sufficiently supplied the hobby and were enough to keep us happy.

Then came the lure of the exotics and the profits of importing them. Suddenly by the late 1930s, native fishes were a non issue usurped by the guppy and all that came after them. With their demise in the aquarium trade, the aquarist who was a naturalist became a dinosaur. An interesting but useless relic of days gone by. So too went the memories of many colorful species and their unique local names like the Jersey discus (blackbanded sunfish) and the Kansas cichlid (central longear sunfish) went to the wayside along with the men and women who pioneered the movement.

Now some seventy years later as things tend to do, we have come full circle in the aquarium trade. Much to the surprise of tropical fish importers, many aquarists are becoming dissatisfied with the current cycle of importation and exploitation. We have chosen to look towards our roots, the way aquarists got started almost a century ago. More and more of us are spending our free time studying local bodies of water in search of suitable aquarium species.

As a consequence, aquarists are surprised to find themselves becoming naturalists. We did not intend it (at least I didn't), but you can't spend hours in the field searching and studying our natural resources without being affected. In much the same manner as Aldo Leopold started out over seventy years ago, we went to take something out of our wild places and instead we found those wild places took something out of us (apathy and ignorance in my case). We went to take something away and instead were taken in!

In the 1955 book by H. Axelrod, *Atlas of Aquarium Fish*, almost 100 pages is spent on collecting tips, ichthyology, and identification tips. Approximately 45 of the 600 species mentioned are North American native species. It is clear from the book that in those days there was a dash of naturalist in most serious aquarists. Since that time, the hobby has changed a great deal and so has the aquarist's awareness. We have become less like naturalists and more like tourists. Ask an aquarist to name just one local nongame species. You'd be surprised at the number who cannot. When was the last time you saw anything about

collecting in a mainstream publication? I bet it's been a long time! Has the hobby been reduced to a passive, sterile source of entertainment - a genre of live television? I hope not. I believe within the hobby a movement has begun to stir, a new generation of aquarist is beginning to say I know we can do more, we can do better. This generation is rediscovering our roots, and in the process, rewriting some of the roles traditionally held only by professional biologists. This new generation has become a proactive force in endangered species preservation. This generation has become naturalists!

We are in a unique position in this country. We can stock our aquariums with beautiful durable fish that are the envy of much of the world. In most states, it costs us nothing more than fishing license to take a leisurely stroll down to the local pond or creek. We have largely ignored that opportunity. Aquarists seldom venture beyond the pet store or their fish rooms. I have yet to hear of aquarists getting into the environmental fray on a local level. I say without question, **we should!** Imagine how your city would be different if one hundred aquarists and naturalists showed up at a zoning meeting. Think of the impact if aquarium clubs adopted just one stream through the Department of Natural Resources Stream Team Program. It would literally be life changing for our waterways and their inhabitants.

Let me share a personal example of the impact a single aquarist can have. A little over two years ago, I was collecting for orangethroat darters in one of my favorite murky, slow Kansas prairie streams. This particular stream had an unusually colorful and durable darter strain that made them excellent aquarium specimens. As I was working the riffles, I began to notice a few longear sunfish moving lethargically across the surface. Wow, I thought what a lucky break - longears free for the taking! I scooped them up with my dipnet, put them in the bucket and kept working. I came back to my bucket about five minutes later to drop off some more fish and everything in it was dead. Suddenly the light went on! There was something in the water moving downstream killing everything in its path. I took a deep breath, grabbed my equipment, dashed to my car and drove as fast as I could downstream. I hoped I could beat this thing downstream and save a few fish and their unique genetic makeup from certain death. I drove a half a mile or so and went to work as fast as I could. I worked for almost an hour before the wall of death made its way to me. I collected samples of every type of fish until my buckets were overflowing! As I returned back upstream, the creek was littered with hundreds of carcasses and the smell of death was heavy in the air. I reported the kill to the DNR and in two weeks returned each and every one of the survivors back to their creek. If an aquarist had not happened to be

there, those fish and the unique strain of orangethroat darters might have been lost forever.

The federal government realizes the potential role amateur aquarists can play in species preservation. They have watched helplessly as easy to reproduce species like the Goodenough gambusia, Maryland darter, and blue pike disappeared because the agencies did not have the resources or skills to effectively respond when the species hit the critical list. Serious aquarists have those skills. They observe fish from a micro perspective, constantly observing the smallest detail to learn the intricacies of spawning and rearing a given species. Biologists observe from a macro level, while a very important skill in resource management, it leaves them lacking many times in domestic rearing of a species. Together biologists and serious aquarists give a species an excellent opportunity to be successfully and domestically reared! Think of the impact if every aquarium club took it upon themselves to successfully rear and breed just one species of local fish. If they took the time to document their findings and provide the information to local biologists and university professors. This could have a tremendous and positive impact on a species chances for survival. If the unforeseen occurs, there would be a ready source of specimens to repopulate the local waters!

In these days of shrinking habitats and dwindling natural resources, aquarists must take a more active stand. Many of us now realize there is a better way. Aquarists spend literally billions of dollars a year on their hobby. It's time we diverted some of that capital to our home waters. Try something really different instead of buying a couple more cichlids. All you need is a fishing license and a dipnet. You'll love being out of doors and you'll be pleasantly surprised by what you'll find. You might just fall in love with the local waters and what's hiding below the surface. I did and it has forever changed my perception and role in the aquarium hobby.

Think of the tremendous fundamental change that would occur in the environmental movement if a small percentage of aquarists, say three percent, got involved in keeping, collecting, and rearing native fishes. They would rival sport fisherman in numbers and impact. State and federal natural resources would take notice. What if these aquarists joined organizations like NANFA, Aquatic Conservation Network, or the Desert Fishes Council? The influx of members, resources, energy, and capital would be tremendous! These organizations could help set public policy, do species propagation, restoration, and community education. The much larger memberships would be better prepared to assist on projects like the U.S. Department of the Interior's endangered madtom breeding site in Georgia. The aquarists' contribution in expertise, effort, and dedication would be valued assets which would assure these projects have successful results. Sadly, at this point only a few dozen aquarists in all of North America are making a difference through endangered species

propagation. I must ask why? The problem is not the lack of skill - it's the lack of involvement. The federal agencies have asked for our input and help. Are we able to give any? Will you take the road less traveled and make a difference? The choice is yours. It is time to get busy, so get out of that easy chair, grab a dipnet, and see what's out there. The fish are waiting and the water is fine!

Here is a non comprehensive list of places to get started:

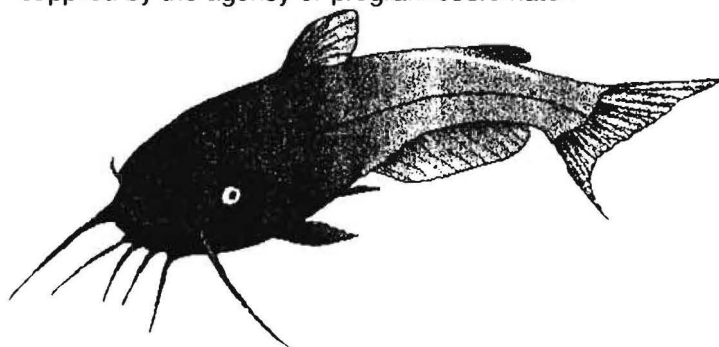
**Desert Fishes Council** - Dedicated to the management, protection, and study of North American desert ecosystems. Contact: Phil Pister, P.O. Box 337 Bishop, CA 93514 Phone: (619)872-8751

**Southeastern Fishes Council** - Dedicated to the management, protection, and study of southeastern fishes and their habitats. Contact: Mary Freeman, USGS/BRD, Warnell School of Forest Resources, University of Georgia, Athens, GA 30602 Phone: (706) 542-6032

**Aquatic Conservation Network** - Dedicated to the domestic propagation of endangered species. Contact: Rob Huntley, 540 Roosevelt Ave., Ottawa Ontario Canada 62A 1V8 Phone: (613)729-4670

**Interior Warm Springs Regional Fisheries Center** - Seeking information on the successful spawning of madtoms (*Noturus sp.*) Contact: Greg Looney, Route 1, Box 515, Warm Springs GA 31830-9712

**Stream Team/Adopt A Stream Programs** - Check with your state's natural resources agency about this worthwhile program. On a regular basis, you or your team will monitor a stream, sample its contents, and also participate in cleanups. Supplies and support are usually supplied by the agency or program coordinator.



**AQUARIUM SETUP CHECKLIST:** aerator, airline, algae pad (aquarium glass), aquarium, crayfish (small), darters, fiddler crab, filter, food, gamefish (small), ghost shrimp, gravel, hood (foils jumpers), killifish, light, madtoms, minnows, neutralizer (chlorine), newt, plants (live or plastic), powerhead (current creator), rocks, salt (non-iodized), snails, stand, tadpole, timer, and last but not least, water.