

Audubon Shot Birds, I Keep Fish: Exploring the Naturalist-Aquarist Connection

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You are so lucky. You've got the best job in the world." People tell me that all the time when they learn that I'm a naturalist. I heard it several times at last year's NANFA Convention in Ohio. I get paid to spend all of my time hiking, birdwatching, and generally doing fun stuff (or so they think). Unfortunately, the average person's image of a naturalist is glamorized and a bit naïve.

So, what *is* a naturalist? While putting together a program with that exact title, I did a bit of research into the roots of the naturalist profession. While reading accounts of famous, and not-so-famous, naturalists, it dawned on me that the naturalist profession is one of the few occupations that has gotten more difficult as technology, science and society have advanced. Every perceived step forward actually takes us farther away from the natural world that we are supposed to know so intimately. What a depressing thought!

Audubon, Muir, Darwin, and company, had it easy. Nature, *wild* nature, was available right outside their doors. They didn't have to travel to find it in quantity or quality although many of them traveled extensively. Lacking modern high-powered optics and fine-quality cameras, they were forced to immerse themselves in nature in order to get a good look at their subjects. Sketching takes time and allows the naturalist-artist an opportunity to connect with his subject, and to take time to analyze behaviors and anatomical features. Our modern point-and-shoot cameras, quick and easy, may record a perfect snapshot of a moment in time, but they do not encourage putting that moment and the subject into context with the rest of the world.

The great naturalists were also collectors. Their homes often resembled natural history museums as they brought the

nature that they loved inside. Collections of pressed plants, stuffed birds and mammals, eggs and nests, and rocks and fossils lined shelves and filled cabinets. Many even maintained collections of live animals, raising orphans in order to more closely study their habits. In reality, most of these were probably orphans because the naturalist had killed the parents for the sake of study or food. These collections were made without the need for licenses or permits or regard for protected status. Collections were made anywhere. Most private land was not posted and public land was unregulated.

Modern naturalists, myself included, continue to be collectors, but it is much more difficult. State permits, federal licenses, protected species, and more, make many things difficult if not impossible to possess. Even common and legal items can be difficult to obtain for study because collecting is usually prohibited on public lands and permission is often denied on private lands. Live animals are even more difficult to keep as local ordinances prohibiting the keeping of wild animals of any kind have become more common.

While conducting the aforementioned research into the beginnings of the naturalist profession, I typed the word "naturalist" into my preferred search engine and was rewarded with an extensive list of sites. (Author's warning: If you conduct a similar search, be forewarned that many of the listed sites are maintained by persons or groups that are proponents of public nudity. And no, naturalists do not run around naked all the time!) Close inspection of the list led me to a Robert Rice article titled "The Aquarist as Naturalist," which encouraged aquarists to venture out of their fish rooms and get to know their local aquatic habitats. Rice's message was a good one and included a strong plea for conservation of these habitats through increased awareness and appreciation.



Fig. 1. The naturalist hard at work. Photo by the author.

Since I'm a naturalist and, therefore, one with an existing strong conservation ethic gained through awareness and appreciation of nature's marvels, Rice's article made me realize that while I didn't need to be encouraged to get out into the natural world, I did need to be encouraged to take a closer look at my aquariums. I came to realize that my aquariums are my link to my naturalist predecessors.

Maintaining native fish aquariums caters to all of my naturalist needs and is relatively easy to do even considering modern rules and regulations. A simple fishing license grants me the privilege to collect virtually any species (with notable endangered and threatened species exceptions, of course), and the act of collecting itself truly immerses me in nature. Capturing elusive species forces me to examine them in the context of the world that surrounds them, the effects of current climatic conditions, water levels, flow rates, human activities, and more. It even brings me into contact with the non-fish inhabitants of the system as I observe the birds, mammals, and occasional alligator that frequent my favorite waters. The hike to my favorite site winds through wildflowers and native grasses and allows me to commune with the cottonwoods, sycamores, and buttonbushes along the water's edge.

After collecting, like my naturalist predecessors, I take my found treasures home. Once in the aquarium, they are subjects of intense study. Intraspecific competition, interspecific interactions, food preferences, growth rates, diel behavior, and more, are all mine to observe and study at my leisure. I can embark on an epic journey into the trials and tribulations of recreating as natural of a system as I can. The only limits to what I can learn are my time and my finances.

My aquariums also allow me to follow in my predecessors' footsteps by passing on what I observe to inform and educate others. Some things I pass on to other native fish enthusiasts and naturalists, but most of the time I am responding to a nature center visitor's typical lackluster comment of "Oh, perch" upon glancing at our 100-gallon community tank. After I explain that what they are seeing are not perch but sunfish, I go on to identify the various species in the tank and to interpret their behaviors, their habitat, and their intrinsic value to the ecosystem while weaving in anecdotes of my personal observations.

So, looking back at how this essay began, everybody's right. I *am* lucky and I probably do have the best job in the world. I have everything that Audubon, Muir and Darwin had and more. There's nature right outside my door and I can bring it into my home through my aquariums. I can observe and analyze my subjects and commune with nature with every bit of the intensity that they did. Plus, I have all of the modern conveniences to make things easier.

The thing that everyone needs to remember, though, is that many of the famous naturalists were amateurs. The study of natural history was their passion, not their profession. That means that every native fish enthusiast can have the same types of experiences while educating themselves and others. Whether you know it or not, we are all naturalists, but only a relative few of us have the good fortune to include our aquarist and naturalist activities in the routine of report writing, budget development and staff training.

With that said, I had better get back to work. I've got some darters to watch. Take this job and . . . love it! 🐟