

NANFA's Hottest Convention Ever: Three Fish-Filled Days in Jackson, Mississippi

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The icy chill of the water numbed my feet and legs while the alpine air, fresh from a nearby glacier, hit my neck and scurried down the back of my t-shirt. I kicked myself mentally. *Why hadn't I brought waders? Why wasn't I wearing a coat? And my hat, where the heck was my hat with the Elmer Fudd ear flaps?* My hands, holding one end of the seine, were three degrees away from frostbite and near-certain amputation.

I shook it off. Die-hard native fish enthusiasts always shake it off. Especially when there's a neat fish to be had. And I had one right now.

Flopping in the seine was a beautiful Arctic charr, its blue and green scales and yellow belly intense with the glow of life.

The bite of an unseen insect—a big one, judging from the pain—broke me from my reverie. Suddenly I realized I was not standing in the boreal waters of a Newfoundland stream. No, that was just a delusion, an escapist bit of fantasy I had concocted to divert my mind from the sweltering heat, the ruffles of sweat flowing into my eyes, and humidity so thick I could have seined the air and caught a fish swimming in it.

I looked down at my ankle. Whatever it was that bit me did so under the sock, leaving three red welts each the size of a nickel. Then I looked into the net. Dozens of channel cats and one brighteye darter. A female, I think. The first one I have ever seen.

I was in Mississippi, alright. In the middle of August. In the middle of a heat wave that saw temperatures reach 105°F. And I was loving every minute of it.

After all, it was the NANFA convention. That annual celebration of fish, food, fun, fellowship, and more fish.

For those who missed it, here's what you missed.

Systematics and Surrogacy: A Proactive Approach to Fish Conservation

Day One actually begins the day before, on Thursday, as we begin arriving at the Cabot Lodge and checking in. Here's when we catch up with old friends from previous conventions, make new friends, and put faces to names we know only from *American Currents* or e-mail.

Friday is traditionally talk day. And it delights me that NANFA's annual shindigs always attract A-list ichthyologists to come talk. This year is no exception. First up is Dr. Richard L. Mayden of the University of Alabama, speaking on species concepts, systematics, and their application and importance in the field of conservation biology.

Simply defined, systematics is the study of past and current biodiversity with special emphasis on the evolutionary history and relationships among organisms. By using systematics, biologists can make good predictions about what's necessary for the conservation of a rare or endangered organism without having to disturb the organism itself.

"You have an imperiled species, x ," Rick explained. "What do we do with it? We gate it off, don't touch the species, try to protect the habitat, and watch it just go extinct. . . . And this, I think, is a very passive approach."

Instead, Rick argues for a proactive approach that uses systematics to determine an imperiled species' closest relative, and to infer conservation actions and decisions based on what's known or what can be learned about the surrogate. The example Rick gave involved the boulder darter, *Etheostoma wapiti*, a federally endangered species from the Lower Elk River system in Tennessee and Alabama.

Using systematics, biologists determined which darter species was the boulder darter's closest relative, or surrogate.

That turned out to be the wounded darter, *E. vulneratum*, a much more common species. Since the wounded darter clumps its eggs on the undersides of rocks, it was inferred that the boulder darter spawns the same way without having to actually see the fish spawn in the wild (difficult considering its rarity), or trying to get them to spawn in aquaria (which involves the sticky problem of having to remove a protected fish from the wild, and may result in failure, death of the specimens, or both). Based on this inference, conservationists now had something to do to improve the boulder darter's chances for survival, which was to dump rocks back into the boulder darter's habitat and thereby give it back some of the spawning media it had lost. (By the way, egg clumping was later confirmed in aquarium studies.)

"I really think that we're going to have better success at recovering species if we really have an idea what to do," Rick concluded, "to take an active approach rather than a passive approach [to conservation]."

Even a Blind Person Can Tell the Difference

Next up is Rick Mayden's colleague at the University of Alabama, Bernie Kuhajda, whose talk covered a number of endangered and recently discovered Alabama fishes.

Bernie summarized the controversy over the federal endangered species listing of the Alabama sturgeon, *Scaphirhynchus suttkusi*, and debunked anti-listing advocates' claims that the Alabama and shovelnose (*S. platorhynchus*) sturgeons are one and the same. Among several morphological differences between the two species is the absence of nose spines on the former and their presence on the latter.

"So here even a blind person can tell the difference between an Alabama sturgeon and a shovelnose sturgeon," Bernie said with a laugh. "I don't know what the problem is!"

A most fascinating section of Bernie's talk was his description (and accompanying slides) of expeditions to Key Cave in Lauderdale Co., Alabama. Key Cave is the only known location of the Alabama cavefish, *Speoplatyrhinus poulsoni* (which "looks like a duck-billed platypus," Bernie said, and he's right). This is probably the most inaccessible fish habitat in the country. To reach one underground pool you must negotiate a 30-foot slide of bat guano! Bernie and his team of spelunkers discovered a new species of shrimp, and found for the first time in Key Cave a specimen of the southern cavefish, *Typhlichthys subterraneus*.

"We have no idea whether these two cavefishes have lived together in Key Cave for thousands of years, whether the

southern cavefish somehow recently got into Key Cave, or whether someone thought it would really be funny to put one in there!"

Louisiana's Fishes: A Quarter Century of Change

Dr. Neil H. Douglas spoke on changes in Louisiana's fish fauna since the publication of his 1974 book, *Freshwater Fishes of Louisiana*. Over the past 25 years, 10 new species have been described from Louisiana, all but one of them representing subspecies later elevated to full species status. In that same time period, 33 fishes have undergone nomenclatural changes, and three exotics have been established.

Five additional species are now known from Louisiana because they use the Mississippi River as a sort of "super-highway." These fishes, which are sometimes displaced far south of their normal range, are considered transients, or waifs. They are unlikely to reproduce successfully in Louisiana, or to establish permanent populations.

Neil expects more changes in the future. "Undoubtedly, new species will continue to be described," he said, "but at a slower rate. Most of these, I feel, will be very similar to existing species that have been missed by earlier researchers. Also, taxa considered to be subspecies will be elevated to full species based on new findings. Nomenclatural changes have occurred, are occurring, and will continue to occur in future years. Additional taxa will be split or lumped, depending on current trends. Continued disagreements will exist among investigators. And taxonomic stability will be sought but not achieved."

A Quick Trip to New Mexico

Since we were running behind schedule and lunch was around the corner, meeting host Martin Moore juggled the program a bit and gave the podium over to Kenneth L. McKeighen, Jr. Famous for his fish watercolors (which have been a NANFA raffle prize for the past few years, including this one), Ken is also an accomplished killie keeper and master pond builder. He showed us slides of his large (~2000 gal.) backyard killie ponds, with step-by-step instructions of how they were constructed, what plants he planted, and how they are maintained in the middle of the New Mexico desert, where he lives. Since Ken promised to write an article or two on his ponds for *American Currents*, I'll defer further details until then. Suffice it to say that Ken's ponds are healthy, lush, and allow killifish to spawn more productively than they would in the aquarium.

Kissing the Buffalo, and Other Ways the U.S. Army Corps of Engineers Shows its Love for Native Fishes

With our bellies full from the Chinese lunch buffet, we nestled in our seats to enjoy the rest of the day's talks, which Martin referred to as "the Mississippi part of the program." Next up was Dr. Jan Jeffrey Hoover, a fish ecologist with the U.S. Army Corps of Engineers' Waterways Experiment Station in Vicksburg, as well as a NANFA Board member and frequent contributor to *American Currents*.

Since the Army Corps of Engineers is most famous for its dam-building and channel-dredging prowess, Jan began his talk with a pointed rhetorical question:

"Do you believe in your heart that the U.S. Army Corps of Engineers cares about native fishes?"

Jan then answered his question with a fast-paced and humorously illustrated run-down of the various research and restoration projects that he and his Corps teammates have been involved with over the past few years. They include:

- Constructing gravel bars to create fish and mussel habitat in dam tailwaters;
- Protecting oxbow lakes from desiccation on the Mississippi River;
- Conducting swimming behavior and performance studies on several fishes, including shovelnose sturgeon and Topeka shiner (*Notropis topeka*), in order to evaluate the effects of hydraulic disturbances on fish displacements;
- Surveying the fauna of White Sands Missile Range (NM), and describing the food and microhabitats used by the White Sands pupfish (*Cyprinodon tularosa*), in order to evaluate the feasibility of establishing the pupfish elsewhere.

At the end of his talk Jan returned to the rhetorical question that began it: "Do you think the Corps cares about native fishes? I would respond, Yes, the Corps cares and—"

Jan clicked to a slide of team member Steven George planting a big, sloppy kiss on the thick lips of a black buffalo (*Ictiobus niger*).

"—the Corps *loves* their native fishes!"

Mussel Man

Speaking of Steven George, he had the podium next. Jan Hoover told me that Steven is one of the most gifted naturalists he knows. And Steven's exuberant talk on the mussels of Mississippi shows why: This guy is downright ga-ga when it comes to critters. Think Crocodile Hunter with a southern accent. Steven's talk wasn't a lecture; it was show and tell. He

brought with him buckets of mussel shells and mussel fossils, and invited us to get out of our seats to feel and handle and learn how to identify these poorly known creatures up close. Steven couldn't help but chuckle at the descriptive, colorful names some of these mussels have been given. Three-horned wartyback. Monkey face. Rabbit's foot. Inflated healsplitter. Purple pimpleback.

"The early taxonomists must have been drinking when they named them!" Steven joked.

Where Have All the Gar Gone?

Charles Knight from the Mississippi Museum of Natural Science spoke next on the distribution and disappearance of the alligator gar (*Atractosteus spatula*). Since little scientific data exists on the historic distribution of this fish, Charles compiled data by combing through fishing and hunting magazines and state fish-and-game publications from the 1930s and 1940s. His slides of old photos reproduced from these magazines illustrated how the alligator gar was the subject of intense eradication efforts based on the mistaken belief that gar were significant predators on more commercially valuable game-fishes. This state-managed period of gar genocide, combined with habitat degradation, have all but eliminated the alligator gar from the Mississippi Delta. (They remain abundant and stable along the Gulf Coast.)

Efforts are underway to stock hatchery raised alligator gar into its historical habitat, but Charles wants to proceed cautiously. First, more taxonomic work is needed so that hatchery workers do not mix distinct races and subspecies. And second, there is still much prevailing bigotry against the gar throughout the Southeast. Some anglers are confused, if not angry, that wildlife officials are endeavoring to stock a fish they were trying to wipe out just 65 years ago.

"What Can We Do?"

The final talk of the afternoon was given by Dr. Steven T. Ross, author of the upcoming *Inland Fishes of Mississippi* (due out April 2001, last I heard). Much of Steve's talk was an elaboration of the article on Mississippi's imperiled fishes that he and Todd Slack prepared for the Summer 2000 *American Currents*. After reviewing the data which showed that 35 percent of Mississippi's fish fauna are imperiled to some degree, Steve asked a simple question: "What can we do?"

"We can be informed about what's going on," Steve answered. "We can be informed about the value of natural

systems and natural biodiversity, and about values other than monetary or developmental ones. And we can become involved in these issues. We can speak out. When I started out, my goal was to study fishes quietly and publish papers in journals that hardly anybody read. But now many of us, especially professional biologists, have literally been forced out of our ivory towers and into the streets [to address conservation issues]. You *have* to speak out. You can't be a taxonomist studying a particular group of fishes and watch that group of fishes become extinct."

Steve also said that we do not have to choose between development and biodiversity. We can have both. "In many cases, you can have *safe* development," he said. "It just takes a little planning and thought."

Eat Now, Ask Questions Later

I imagine many years from now, when the next generation of NANFA old-timers gather and reminisce of conventions past, that the dinner we enjoyed in a mess hall on the shores of Lake Pelahatchie will have achieved legendary status. This was the infamous "Mystery Meat Banquet." And while a few of the items were, indeed, of mysterious origin, there was no mystery that we loved every bite of it. And that we couldn't eat enough of it. And that just as soon as we thought we were finished, our chefs—Bessie and B.G. Granier and Kay Moore—served up yet another course.

Shrimp, boiled and fried. Creole crawfish casserole. Fried crab chops (crab patties). Boudin (Cajun sausage). Fried catfish. Red beans, andouille (smoked pork sausage), and ham with rice. Baked beans. Potato salad. Garlic bread. And my personal favorite, Bessie Granier's I've-died-and-gone-to-heaven seafood gumbo.

The "mystery" portion of the banquet consisted of three unknown, specially prepared dishes. We had no idea what they were, and that was the point. It was eat up or shut up. And so the gastronomically brave among us sampled the dishes and proffered guesses as to what they were. Bowfin? Paddlefish? Mississippi black snake? As it turned out, the three dishes had a decidedly alligator theme: alligator snapping turtle, alligator gar, and just plain alligator. All yummy.

After dinner, we waddled into our cars and drove to a nearby Wal-Mart to purchase three-day fishing licenses for the next two days' excursions. The poor kid working the mid-night shift at the Wal-Mart sporting goods counter suddenly had a line of customers stretching all the way to bed and bath. We used up every three-day fishing license he had.

In the Field and Behind the Scenes

Saturday's collecting trip to two sites on Short Creek in the Yazoo River drainage was somewhat of a disappointment. Sure, we had a blast. But Jackson and environs was in the later stages of a two-year drought, so the fish diversity and productivity was nowhere near what it could have been. Still, we filled our nets with longnose shiner (or a closely related species), cherryfin shiner, stoneroller, rainbow darter, bright-eye darter, channel cats, and longear sunfish.

Getting wet and muddy in Short Creek was just the start of a very long day. Saturday night featured an after-hours visit to the Mississippi Museum of Natural Science, which had recently reopened with a brand new aquarium component. After opening remarks from Museum biologists Charles Knight and Roy Weitzell, we were given free reign of the place, including access to the back-up areas behind the exhibits. Although the Museum is smaller than most public aquaria, its tanks are no less spectacular. Devoted entirely to Mississippi fishes, herps, and aquatic invertebrates, exhibits ranged from killies and shiners, to big river tanks featuring paddlefish, pallid sturgeon, and blue catfish. If only I could get my display tanks to look half as good as these!

As tired as we were when we got back to the hotel, the day was far from over. Next up was the raffle drawing and the always fabulous—and this year, *gargantuan*—NANFA auction. We were up until the wee hours of the morning bidding on books, apparel, artwork, and an entire pet shop of aquarium supplies donated by Rob Carillio. So exhausted were auctioneers Martin Moore and Dave Hall that they finally said, "Five dollars gets you anything left over you can carry back to your table in one trip." (I'll spare you the gory details of the feeding frenzy that ensued.)

Jan Hoover's young friend and frequent co-conspirator Christopher Dempsey drew the names of the raffle winners from a big fish tank. Rick Mayden won the handpainted tiles from Kay Moore (Martin's wife). Chris Vasold (CA) won a copy of *Fishes of Arkansas*. J. Malcom Pierson (AL) won the McKeighen prints. Maurite Scanlan (AL) won a Quicksand fluidized bed filter. Gerald Binczik (FL) won a stuffed gar (caught by NANFA member William Lancaster and stuffed and mounted by Steven George). And the grand prize of a stunning Loucas Raptis proof print of a smallmouth bass went to Ken Wintin (AZ)—*the same guy who won the grand prize last year!*

Ken gave his prize to his good buddy Jim Graham of Hastings, Michigan.

Thoughts and Thanks from 2000 Convention Host, D. Martin Moore

Well, the annual meeting in Jackson is behind us and the Ohio convention is fast approaching. My heart and thanks go out to Rob Carillio for volunteering to host next year's get together. NANFA 2000 was a great success, garnering over \$1300 to help fund two important new programs: the Gerald C. Corcoran Education Grant, and the NANFA Conservation Grant. I believe this is the first time in NANFA history that we have been able to give back to the scientific and hobbyist communities a small part of that which we have reaped for these past 28 years. May the tradition continue! Rob and those who follow him will ensure that this happens. But none of this could have come about without the generosity of those who contributed their time, money, and merchandise to sustain our efforts. I give thanks to the individuals and corporations listed below (in no particular order) for their support of the Jackson convention.

Loucas Raptis for the smallmouth bass proof and other prints and posters • Steven George for the wonderful gar mount • Joseph Tomelleri for the many prints • Ken McKeighen, Jr. for his unique, original artwork and help throughout the whole ordeal • Henry Robison for a signed copy of *Fishes of Arkansas* • Kay Moore for her handpainted tiles and invaluable help with the banquet • Larry Page for the signed copies of his *Field Guide* • Malcolm Pierson and AGS for the signed copy of *Fishes of Alabama* • Jim Graham for the cool "NANFA 2000" baseball caps • Mike Thennet for his annual contribution of fishy merchandise • Jay DeLong for printing t-shirts and donating the last remaining shirt and cap from 1999 • Rob Carillio for the incredible boatload of donation • Carolyn Nixon and INHS for the book on waterfowl of

Illinois • Jan Hoover for contributions too numerous to mention—*lots* of books and help with the speakers • B.G. Granier for all the hard work procuring and cooking the mystery meats, plus the excellent videos and live fishes • Bessie Granier for her superb culinary skills • Chris Scharpf for outsourcing several *surprise* donations • John Lyons for the signed copies of *Wisconsin Fishes 2000* • Leo Long for his miraculous carvings • Neil Douglas for the many copies of his book on Louisiana fishes • Dave Neely for his incredible logos • Elmer Guerri and Casper Cox for invaluable advice and setting the standard for years to come

The following corporations and organizations also generously donated merchandise:

Aquarium Systems, Inc. • Florida Tropical Fish Farmers Association • Marine Enterprises International • Missouri Department of Conservation • Tetra Pond USA • The Tennessee Aquarium • The University of North Carolina Press • Geological Survey of Alabama • Lee's Aquarium and Pet Products • Texas State Aquarium • HBH Enterprises • University Press of Kansas • The Mississippi Museum of Natural Science

I'm quite sure there are a few I have missed. Many donations came in at the last minute or materialized at the hotel more or less anonymously. To those whom I failed to recognize here, my profound thanks and apologies. Finally, I wish to thank all the attendees who made this convention such a success by purchasing registrations, raffle tickets, and auction items. I hope to meet you later this year in Ohio!

Sunday, Thanks, and See You Next Year

On Sunday, the remaining attendees split into two groups. I went with the smaller group to the Strong River, southeast of Jackson. With clear water and a white, sandy bottom, this stream was perfect sand darter habitat. We didn't see any, but we did collect dusky darter, shadow bass, longnose shiner, and blackstripe topminnow. Stephanie Brough snorkeled and brought up five or six species of mussels, all of which she carefully returned to their beds.

The larger group followed B.G. and Bessie Granier to Louisiana, in search of bluenose and flagfin shiners. One of the collecting sites was at Ard's Creek, located on property owned by one Ronald Mitchell. From all accounts this was a spectacular location. Casper Cox told me he was blown away by the clarity of the water and the colors of the shiners in full

breeding dress. NANFA wishes to thank Mr. Mitchell for allowing our entourage to sample on his property.

I didn't get a chance to say good-bye to everybody since I departed for home directly from the Strong River. But I did get a chance to pump Martin Moore's hand and thank him for a job well done. It's a ton of work planning one of these conventions. And while Martin will say most of the thanks belong to the many volunteers and contributors who helped out (see his thank you note, above), I know that it was Martin who pulled everything together and made sure all of us had a fun, fish-filled weekend we will never forget.

"See you next year" was the oft-repeated phrase as everyone packed their bags and coolers and headed home. As I write this I am glad to say that next year is now *this* year. And that NANFA 2001, in the beautiful Hocking Hills of Ohio, is just six months away. 