

MEMORIES OF BRUCE BAUER

Casper Cox

Chattanooga, Tennessee

I shared many great times with Bruce Bauer, two of which I will share here. I first got to know Bruce by attending various fishy gatherings such as the annual meetings of the Southeastern Fishes Council and various University of Tennessee/Conservation Fisheries Inc. events. We talked of our various sunfish observations, the UT Fish Lab, Dr. Etnier's contributions, and generally anything fishy.

In 2018, I invited all Tennessee NANFans to aid in the Tennessee River Rescue event held here in Chattanooga on the first Saturday of October each year. Being an active TN NANFA member, he wanted to help, but since he could not make it that Saturday, he came down a week early and helped gather trash in North Chickamauga Creek, a tributary to the Tennessee. It often flows clear during the summer, as it is spring-fed, but it is cold at about 60° F. I had been gathering trash while snorkeling in the creek for several years. Though it was a sunny day, Bruce was soon shivering and relegated himself to above the surface, wading and carrying tires, bags of glass, and trash to the creekside. Though his teeth were chattering, he was in good spirits throughout the day as we jostled, laughed, and heave-hoed. I recall my daughter Cyan, along with her friend Julie, pulling the tethered trash and tires up the steep banks. Afterwards I treated us to a Cajun meal just down the road, funded in part by a gallon jar of found coinage. Late that afternoon we visited my home at Blue Fish Ridge and took a refreshing dip in the cement pond before Bruce returned northward to Knoxville.

Another extended interaction I had with Bruce was as an editor of my *Snorkeling the Hidden Rivers of Southern Appalachia*. He was always keen to offer suggestions. Bruce asked me to remove my spiritual leanings from the guide—I suspect because of his academic viewpoint—but I remained committed to my beliefs. His input, along with that of Konrad Schmidt and Fritz Rohde, made for a better read.

Thank you, Bruce. I enjoyed your productive assistance with my unusual efforts.



A very chilly Bruce ready to hoist one of many soggy creek tires.

**Chris T. McAllister and
Henry W. “Rob” Robison**

Reno, Texas and Sherwood, Arkansas

It was on an eventful trip on May 25, 2021, to various spring-fed watersheds in the Ouachita Mountains near Mena, Arkansas, where we met Bruce and his longtime friend, Richard T. “Dick” Bryant. Bruce had driven all the way from Knoxville, Tennessee, and Dick from New Mexico. Bruce had asked us to accompany him and Dick in the field as he was in need of professional photographs of some Longear Sunfish *Lepomis megalotis* that he believed to represent a new species. Rob and I enjoyed every minute of this field trip as we shared many Bruce “fish” stories, big and small. His wide knowledge of fish diversity and taxonomy, as well as his background in documenting the occurrence of species of aquatic insects, was impressive. Bruce was also a very good listener and our conversations on this trip and pulling a seine with him all proved to be unforgettable. After a long, hot day of collecting, and after much-needed showers, the group moved to a local restaurant in Mena, the Branding Iron BBQ and Steakhouse. As we recall, Bruce enjoyed a big steak and baked potato with all the fixings. Regrettably, the outing came to an end after dinner. Before leaving we stood for a group photograph, shook hands and hugged, then went our separate ways. This single day with Bruce was memorable in many ways, and we will miss his presence. He was a fine ichthyologist and aquatic ecologist. RIP, Bruce.

His obituary asks that individuals please consider a contribution to the David Etnier Ichthyological Collection, Department of Ecology & Evolutionary Biology, University of Tennessee, 569 Dabney Hall, Knoxville, TN 37996.



From left: Dr. Chris T. McAllister, Richard T. (Dick) Bryant, Dr. Henry W. Robison, and Bruce Bauer in Mena, Arkansas, May 2021.

THE PASSING OF DR. DAVID ALLEN ETNIER

J.R. Shute

Knoxville, Tennessee

On May 17, 2023, we lost a giant among naturalists. Dr. Etnier, “Ets” to most of us that knew him, was 84 at the time of his passing. He was born and educated in Minnesota. He received his PhD from the University of Minnesota while studying under Dr. Samuel Eddy. He used to say that his dissertation involved mostly fishing for Bluegill, and the finished product was less than 20 pages long...the shortest dissertation from the University. I must take his word on this as I haven’t looked it up!

He began his teaching career at the University of Tennessee in 1965, going on to teach Ichthyology (students were almost always asked to spell this on the final...a large portion missed it!), Aquatic Insects, Ecology and perhaps his most loved class, Regional Faunas!

Over his career, he authored and co-authored over 70 publications, including *The Fishes of Tennessee*; he formally described and named 22 newly discovered animal species, including the Snail Darter, and had nine newly discovered species named in his honor by colleagues.

But this is all old news to many of his colleagues and students. I want to talk about my major professor, mentor, and most of all, friend. Ets was easy to be around. He had a dry, Minnesota humor about him. If you enjoyed going out in the field to look for fish, aquatic insects, mussels or even birds, you’d probably get along just fine. Personally, I learned so much more than fish from Ets. He was literally one of the last great naturalists. So many universities today don’t really teach you about the animals you are studying, at least not from the perspective of a field biologist. And the ones that do are often under the direction of one of his students or students of *those* students. I like to call them Ets’ F-1 and F-2 generations! I know there will be generations to follow! Ets would often say “You don’t know an animal ‘till you’ve eaten it!” I was never quite sure if he

meant this literally or figuratively. I’d kind of like to think he meant that you can’t really know the creatures you’re working with until you get out there and study them. Countless times, when he would be collecting with a group, some novice student would bring some dirt common fish up to him to ask what it was. He almost always acted as if it was a really good find and “here’s what’s special about this fish (or bug, or crayfish, etc.).

Traveling with Ets was *always* an adventure! I can remember more than once not leaving UT until 9:00 PM or later to drive to the western part of Tennessee or beyond. We’d drive all night, maybe even doing a night collection along the way. As morning came, we’d start looking for some hole-in-the-wall place for good biscuits and gravy. If he *knew* of a good place, we might drive 100 miles out of the way to eat there! After breakfast, we’d look for an inviting field or bridge where we could throw down sleeping bags and catch a couple hours sleep. One time we were sleeping under a bridge over the Hatchie River. There was a huge sign under the bridge that said, “NO CAMPING.” We ignored it. Sometime in the middle of the night, a TWRA officer drove up asking who was in charge. Ets rolled out of his old VW bus and said he was. The officer went on to point out that camping wasn’t allowed. Ets came back with “Officer, sir, we’re not camping! You don’t see any tents, do you? We’re just sleeping here.” The officer looked at him for a minute, then said, “Dr. Etnier?” Turns out he was a former student! He came back in the morning and collected fishes with us. We always called this “The Luck of the Etnier.” And this was certainly not the only time this happened. There were cases of arrests being made. I can think of one or two where someone ended up in jail (fortunately, not me).

When driving, Ets would usually navigate by the seat of his pants. There were times we had no idea exactly where we were. Ets



Ets with a group of his past students at the USFWS award ceremony.

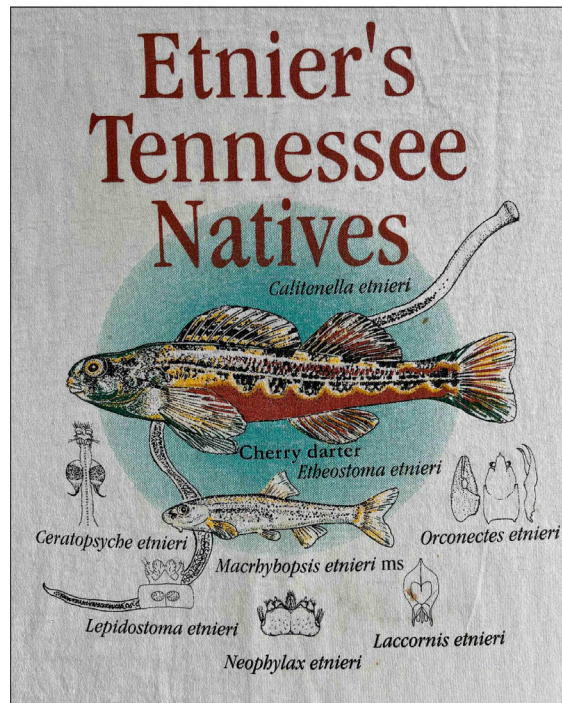


Ets receiving the Lifetime Achievement Award from USFWS director Martha Williams.

would just say, “Well, we’re heading in the right direction and we’re making good time.” We usually got there, eventually.

Ets had a number of quotes he would throw out from time to time: “The sleeping dog fears not the chicken” (yeah, I don’t know either). But the one I remember most was something he said he wanted on his gravestone: “He was good with meat.”

The last time I saw Ets was at a ceremony for the delisting of the Snail Darter. He got up to say a few words, which turned into more than a few and strayed off pretty quickly because of his dementia. In spite of his illness, his intelligence and humor still shone through. It was a difficult but beautiful moment. He was awarded the Lifetime Achievement Award from the US Fish and Wildlife Service, which was presented by the National Director, Martha Williams.



A t-shirt showing species named after David Etnier.

It was such an honor to know this guy. Our work at Conservation Fisheries, Inc. likely never would have begun if it had not been for him. I was asked recently if his legacy was the discovery of the Snail Darter. I said I didn’t believe so. His legacy is his students and their students and the ones that will come after that! The F-1s, F-2s and beyond. And the impact all of them will have on the world.

Rest easy Ets. Thank you for what you did for me and so many others. Yours was a life well lived. I know I will miss you.

Editor’s Note: David’s family has asked that individuals please consider a contribution to the David Etnier Ichthyological Collection, Department of Ecology & Evolutionary Biology, University of Tennessee, 569 Dabney Hall, Knoxville, TN 37996 or Conservation Fisheries, Inc., 3424 Division St., Knoxville, TN 37919.

FOND MEMORIES OF BRUCE BAUER AND DAVID ETNIER

Gerry Dinkins

Knoxville, Tennessee

On September 21, 1978, I was a third-year undergraduate at the University of Tennessee majoring in Wildlife and Fisheries Science, and I had enrolled in Zoology 4200—Ichthyology. It was the first day of the fall quarter, and about 25 of us were sitting in a large classroom on the first floor of the Humanities Complex, eagerly awaiting the arrival of our instructor, Dr. David Etnier. At the time, controversy over the Tennessee Valley Authority’s Tellico Dam project was at its zenith. The project was being held up by the presence of the Snail Darter *Percina tanasi*, which was only known to occur in the lower reach of the Little Tennessee River—a section of river that was to be impounded by Tellico Dam—and had recently been placed on the Endangered Species List by the Department of the Interior. Completion of the dam posed a significant threat to the continued existence of the Snail Darter, and we knew the instructor had discovered and described the species a few years earlier. We were also aware that Dr. Etnier was a notoriously demanding teacher, and Zoology 4200 would be challenging, but a Bachelor of Science degree in Wildlife and Fisheries Science required passing it. Against this backdrop, into the classroom strolled Dr. Etnier and his teaching assistants, Bruce Bauer and John Harris. Bruce was investigating the Longear Sunfish *Lepomis megalotis* and trying to resolve the relationships between the various forms and subspecies within this wide-ranging species. John was examining the systematics, biology, and distribution of

fishes in the genus *Hybopsis*, subgenus *Erimystax*. Both were second year PhD candidates in Dr. Etnier’s laboratory. Together, they guided our class in learning to identify marine and freshwater fishes. For several of us, Bauer, Harris, and Etnier would become parts of our personal and professional lives from that first day forward.

A year later I graduated with my B.S., was accepted into the Ecology graduate program, and joined the Etnier lab on Terrace Avenue. I was part of an incoming cohort consisting of Peggy and J.R. Shute, Rick LeDuc, Steve Layman, Wendell Pennington, Patti Hovater, and Jim Norton, filling spots recently vacated by Noel Burkhead, Jim Beets, and Dick Bryant, and joining the existing Etnier graduate student pool of Jerry Louton, Christine Eason, Andy Haines, Bill Dickinson, John Wojtowicz, Mike Ryon, and, of course, Bruce Bauer and John Harris. Fieldwork and cataloging specimens were the major activities at the lab during the day, and sports were big after hours. Bruce was a central figure in both. He was the organizer, team captain, head of recruiting, and pitcher on our softball team. Harris was our first baseman and our go-to-guy on the basketball team, having played college ball in Arkansas. Etnier excelled at all sports and as fearless in the sports arena as in the field of ichthyology. Life at the lab was never dull, and practical jokes were common. A year or so after Harris left UT to take a job in Arkansas, he mailed Etnier a draft of his dissertation. For a couple weeks, Etnier carried

all 352 pages of the dissertation around with him, and it was in his van when an engine fire destroyed the vehicle. The dissertation survived, although it was completely soaked by the fire hoses. Etnier spread the 352 pages around the lab to dry for a few days, causing them to wrinkle and swell, then completed his review, put the dissertation in a box, and mailed it back to Harris without explaining why it was charred, smelled of smoke, and had doubled in thickness.

Twice a year, Etnier took most of his grad students on an extended field trip, known as "Regional Faunas," to the remote streams and rivers of the central and eastern US, where we spent the days collecting specimens, and the nights eating and standing by a nice campfire before retiring to a sleeping bag under a bridge or in someone's pasture or woods. Our interactions with local authorities were limited and generally went well, but there were a few instances where a "misunderstanding" required us to accompany the local sheriff to town so the issue that had brought us together with the constable could be sorted out. One such "misunderstanding" occurred in the parking lot of a Piggly Wiggly in Holly Springs, Mississippi. After we were interviewed at the police station, the Sheriff instructed our group in general and Bruce in particular that it would be in our collective best interest to soon be on the other side of the "Welcome to Holly Springs" sign. And by soon, he meant in a few minutes.

Bruce grew up on a small farm outside of Cincinnati, Ohio, and graduated in 1973 from Eastern Kentucky University with a B.S. in Fisheries Biology. At ECU he met Branley Branson and was introduced to freshwater fishes, even publishing a paper with Branson on the ecology of the Greenside Darter *Etheostoma blennioides*. From ECU, he proceeded to Tennessee Technology University for his M.S. in Fisheries Biology/Management. Then he came to UT, enrolled in the PhD program, and studied under Etnier. Although Bruce left

before completing his PhD, while at UT he published nine peer-reviewed papers on freshwater fishes and was a founding member and an early president of the Southeastern Fishes Council, a nonprofit scientific organization dedicated to the study and conservation of freshwater and coastal fishes of the southeastern US. After leaving UT, he published a paper with Etnier and Noel Burkhead describing the Cherokee Darter *Etheostoma scotti*, a species endemic to the Etowah River system in north Georgia. Eventually, Bruce resumed his research on the Longear Sunfish complex and near the end of his life began collaborating with Tom Near and Daemin Kim of Yale University. Together, they published a paper on the complex and revealed several undescribed species. Bruce's research will continue.

When Bruce left UT, he began his professional career in the environmental consulting field in Atlanta, and from there he went to Orlando, Florida, where he spent many years working as a consultant and providing services to a number of large clients in central Florida. In the late 1990s, I worked at an environmental consulting company in Knoxville that was looking to add another senior biologist to its staff. Bruce interviewed for the position, was hired, and moved to Knoxville. Over the next 25 years, Bruce and I traveled widely and worked together on a number of projects. When he retired, Bruce began volunteering as an assistant curator in UT's fish and aquatic insect collection, now named after our major professor, David Etnier. Several years ago, Bruce took on the monumental task of digitizing Etnier's field notes and Trichopteran collection, which he had almost completed at the time of his unexpected death.

This year, David Etnier and Bruce Bauer passed away within a few months of each other, but their legacy in the field of freshwater ichthyology and mentoring aspiring aquatic biologists lives on.

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AN UPDATED ANNOTATED LIST OF WISCONSIN'S FISHES

John Lyons and Konrad Schmidt

Members received their copies of this special issue of *American Currents* in December, but a limited number are available. Nearly double the usual length, it covers 164 species, with a complete checklist, species profiles, the latest science, current distribution data, name changes, an extensive bibliography, and more.

\$25 (free shipping)

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REMEMBERING EDWIN PHILIP “PHIL” PISTER, 1929–2023

Konrad Schmidt

Saint Paul, Minnesota

Wisconsin had Aldo Leopold, who fundamentally changed long-accepted but flawed concepts about wildlife management. California had Phil Pister, who continued and advanced Leopold's philosophy in the desert environments. In 1969, several years before the Endangered Species Act, he single-handedly saved the Owens Pupfish *Cyprinodon radiosus*. Actually, it took both his hands to carry the two buckets containing the last of the species from the rapidly drying pond at Fish Slough, where they would likely have gone extinct.

The first time I met Phil was at a Desert Fishes Council (DFC) meeting in the 1980s. He noticed the new face and made me feel right at home, introducing me to other DFC members who humorously questioned why any fish biologists would work in Minnesota where the field season only lasts for two months. Phil kept checking on me during the entire meeting to make sure I would not miss anything important. We kept in touch and, in the 1990s, he came to Minnesota as a guest speaker for a Department of Natural Resources event internally known as “Fisheries School.” In the evenings he offered optional presentations, which were always packed. The man could tell a story that the audience never wanted to end! His presentations were always filled with Aldo Leopold quotes, and I wondered what the connection was. In researching this remembrance, I found that Phil started college as a pre-med major but was not satisfied with his choice. He enrolled in a wildlife course at U.C. Berkley taught by A. Starker Leopold (son of Aldo), and that course changed his entire career trajectory. Phil took pride in sharing the same birthday as Martin Luther King Jr. and would say, “Perhaps that was a good day for rebels.” He also had a favorite Aldo Leopold quote: “Nonconformity is the highest evolutionary attainment of social animals.”

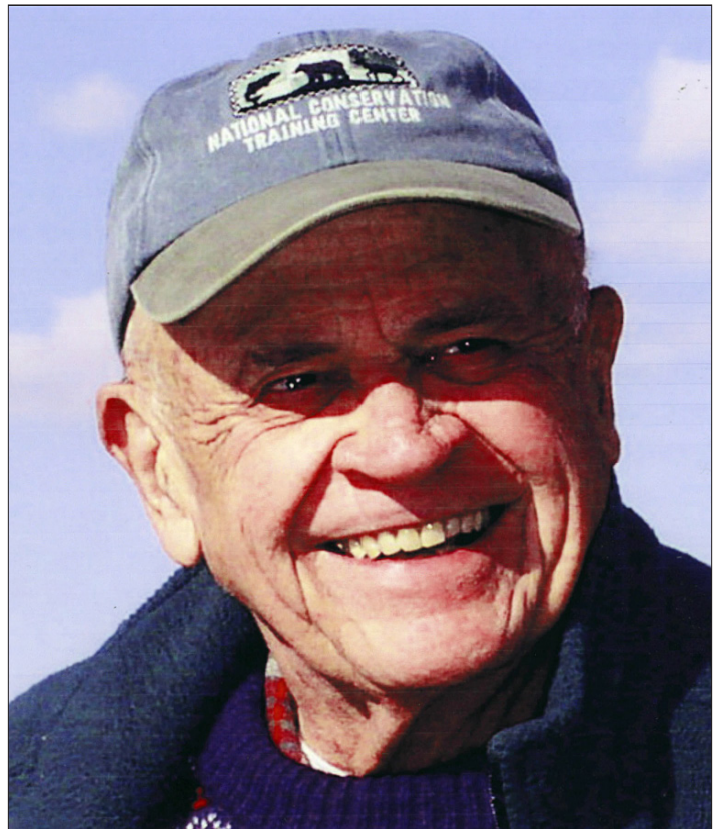
Phil was one of the founding members of the Desert Fishes Council and was involved in many successful efforts protecting and conserving desert fishes. He was active in conservation for 70 years and received countless accolades and awards.

As the co-editor of *American Currents*, I am honored to have reprinted three of his wonderful articles highlighting his impressive accomplishments: “Species in a Bucket” (recounting that night in 1969), “Pure Colorado Trout Saved by California,” and “How I got to where I am today.” All can be accessed in the *American Currents* archives: <http://www.nanfa.org/ac2.shtml>

The impact Phil's lifetime of work toward saving imperiled fishes has had on the field is too vast to cover here. I will simply mention that two species of desert fishes have been named in his honor. In the description of the Palomos Pupfish *Cyprinodon pisteri* Miller & Minckley 2002, found in Chihuahua, Mexico, the authors explain the name thus: “For almost four decades, Phil Pister has unerringly and effectively performed the daunting task of preserving the integrity of natural aquatic habitats and biotas

in North American deserts, along the way teaching others to do the same. His infectious and tireless persistence, enthusiasm, optimistic outlook, and unique capability to redirect conflicting views toward common goals have led to significant and enviable successes in equating science and a strong environmental ethic with political reality.” The second species named for him is a double tribute, recognizing Phil in both its common and scientific names. The Conservationist Killifish *Fundulus philpisteri* García-Ramírez, Contreras-Balderas & Lozano-Vilano 2007 is found in Nuevo León, Mexico. The specific epithet was chosen to highlight Phil's dedication to the field of ichthyology, to teaching, and to promoting and conserving desert fishes and ecosystems.

Phil was a genuine conservation hero, and the internet is full of articles, tributes, videos, and photos. The Aldo Leopold Society posted a remembrance at <https://www.aldoleopold.org/post/remembering-phil-pister/> and a story on National Public Radio features archival audio of Phil: <https://www.npr.org/2023/01/26/1151803330/biologist-phil-pister-who-single-handedly-saved-species-from-extinction-dead-at-9>.



Phil Pister at Fish Slough.