A DARTER FESTIVAL? Casper Cox

Chattanooga, Tennessee

A Darter Festival? Who would have thought of a festival so named, but that and a BioBlitz motivated several NANFA members to converge in the Birmingham, Alabama, area in mid-April of 2016. On Friday the 15th, Bryce Gibson, Michael Wolfe, Doug Dame, Bruce Stallsmith, Martin Moore, and myself, along with Kara Million, a former student of Bruce and her husband Chris, arrived at the Turkey Creek Nature Preserve (TCNP) to participate in a 24-hour noonto-noon species survey on the 466-acre site just north of Birmingham, Alabama. Of course our interest was primarily in the various fishes found in the creek flowing through the property, but others were there for the plants, birds, insects, and whatever other life forms were present. Over the 24hour period folks and families of all ages and desires visited the preserve with cameras, notebooks, iPhones, binoculars, and assorted gear aligned to their particular interests.

After a quick hello we were soon in the creek teaching folks the darter shuffle and seining up all kinds of fishes including the oddity catches of mudbugs, salamanders, dragonfly larva, and assorted creepy crawlies. Our seine team volunteers reacted with wide-eyed smiles and inquisitive wonder with every lift and sorting of the seine. Critters were looked at and dropped into the ever-present photo tank for a pass-around viewing by all gathered about. The Vermillion Darter (*Etheostoma chermocki*) males were in premium color and provided the most oohs and aahs with their bright red-orange bellies, green noses, and blue fins along their underside. Trying different habitats, we collected other fishy species, finding sharp-patterned Blackbanded Darters (*Percina nigrofasciata*) under the overhanging brush and in deeper water alongside submerged logs. Working the gravel runs we came up with Alabama Hog Sucker (*Hypentelium etowanum*) and a solitary Banded Sculpin (*Cottus carolinae*). In the slow eddy pools were three species of sunfish, and in the shallowest shallows were Eastern Mosquitofish (*Gambusia holbrooki*). By the end of the session we had nine species collected by three seine teams. The water was fairly clear but the substrate was soft, silty gravel due to historic erosion activities upstream, so perhaps that had an impact on the seemingly minimal diversity. We would find more.

As the volunteers began to disperse, several of us continued trying different techniques and spots, but no other species were collected in these efforts. Combining the seining of the three teams we added:

Stonerollers (*Campostoma* sp.), Green Sunfish (*Lepomis cyanellus*), Bluegill (*Lepomis macrochirus*), a few juveniles thought to be Alabama Bass (*Micropterus henshalli*), and a few mysteries.

Our gracious host, Charles Yeager, the manager of the TCNP, allowed overnight camping and most of us NAN-FAns took the opportunity to do so and had set up our tents after the seine sessions. Late in the afternoon we took a short



The NANFA Darter Festival Gang: Michael Wolfe, Bryce Gibson, Martin Moore, and Casper Cox. (Photo by Charles Yeager)



The seine gang checking their fresh catch. (Photo by Bryce Gibson)

Summer 2016



Michael in his element. (Photo by Bryce Gibson)



BioBlitz Seine Team 2016, a partial assemblage. NANFA members Wolfe, Yankeetown Doug, Photog Bryce and assorted stream shufflers. (Photo by Casper Cox)

walk down the preserve's road to watch a hawk release and to check out a different section of the creek, an area with more rugged terrain and small rapid runs feeding into a deep-flowing pool. Upon arriving Charles noticed an Eastern Kingsnake (Lampropeltis getulus) trailside and caught it by the tail, sharing it with all those who gathered around. It was relatively calm and only bit one of the fellas handling it as the children gathered close with wide eyes. A lady ornithologist arrived with a young hawk that had been rescued from starvation as a young fledging. With proper feedings it had been returned to health and after a short talk we watched as the hawk was released and flew free. She spoke of several owls being released at the preserve, and perhaps that helped explain our close encounter with a Barred Owl (Strix varia) as it had landed just above our seining activity earlier in the day. "Who cooks for you?" it called.

Upon returning to the campsite we realized we were not the only ones who would be camping overnight as the small field was scattered full with all manner of tents and vehicles. I was a bit worried as most of them were young high



Buckeye flowering and the stone arched swinging bridge crossing to the far side of Turkey Creek. (Photo by Casper Cox)



Turkey Creek tumbling down, snorkelers beware. (Photo by Bryce Gibson)

schoolers and I thought we would be in for a long night of loud raucous behaviors, but they were quite well mannered throughout the evening.

Across the creek, tables were set on the porch of the historic cabin overlooking the swinging bridge and flowing water below. On the tables an evening meal of chili and stew were complemented with pans of cornbread along with drinks and desserts of all kinds, wonderfully provided by the Friends of Turkey Creek Nature Preserve. After filling our plates, we gathered at the far end of the porch beyond the rocking chairs and caught up with the day's activities amongst ourselves along with other fellow BioBlitzers sitting nearby. Everyone was happily content and enjoyed themselves on such a fine late afternoon as the day's last light faded into the evening.

A bit fatigued from the day's activities, I laid down in my van and quickly fell asleep while the others took a walk into the night with flashlights and hoot owl callings. A sheet stretched white, tight, and illuminated bright, attracted night flying insects and all manner of moths, including a

DAY TWO

Luna (*Actias luna*). I would have enjoyed that surely but sleep had taken hold of me. I awoke about midnight as a group of fellas chattered from hammocks strung nearby, so I took a walk looking for the fish blitzers and found the campfire burning low with only one fella, sitting quietly and shining his light on the whispering tents. He was the youth minister for the well-mannered camping youngsters. We talked a bit and so ended the evening.



Our cautious host Charles Yeager considering the newly caught Kingsnake. (Photo by Casper Cox)

After a night's rest, an early morning breakfast was provided to all attendees and campers. Again the tables were laid out with options of a variety of egg dishes and grits along with juice and coffee. After the complimentary breakfast, the NANFA members broke into two groups of three: Bruce leading Doug and Martin on a seining quest to verify the possibility of a Burrhead Shiner (Notropis asperifrons) sighting from the day before, which they did find and photograph, while Bryce, Michael, and myself drove a few miles upstream to a headwater spring at which all three species of darters were said to be found or just a bit downstream. Turkey Creek was a good bit clearer here today and being the first snorkeler in the water I was soon face to face with fully colored pearlescent Striped Shiners (Luxilus chrysocephalus), their faces patterned with tubercules and territorially active over the clean gravel run. I soon sighted several Blackbanded Darters, their markings darkening as they were flushed out from beneath logs and brush. Stonerollers were common too, and I caught sight of a Blacktail Shiner



A tuberculate male Stoneroller excavating a spawning pit in the cistern's clean gravel. (Photo by Casper Cox)



Striped Shiners spawning over the freshly dug pits. (Photo by Casper Cox)



A fine pair of courting Vermillion Darters, soon spawning a future generation for Turkey Creek's flowing waters. (Photo by Michael Wolfe)



Lush vegetation marks the habitat of the Watercress Darter. (Photo by Bruce Stallsmith)

(*Cyprinella venusta*) speeding beyond the stonies. Proudly posing Vermillion Darters were common, but teased my photographic attempts by fleeing from every advance of the camera. A sculpin poked out from the cobble and made for an easy portrait holding himself steady to the substrate with wide pectoral fins planted firmly by the current flowing over them. Bryce and Michael arrived and walked upstream, sending silt plumes downstream disturbing the clarity of my fishy encounters and photography attempts. I relented the spot and headed further downstream, hoping to avoid most of their activity and intending to explore the waters beyond, but I was soon meet with rough going.

My camera began to leak, so in frustration I returned to the van to blot out the moisture and check and clean the seals. Instead of returning to the creek proper I decided to look for the spring run's source and after a short walk through the long-abandoned trailer park I found it in a manmade open cistern used to pool the water for the various water lines. The open pool had long since deteriorated, the stone walls collapsing in several places, jutting pipes broken off here and there, but the structure still retained about waist-deep water and it was crystal clear. I felt the wonderful sense of floating



A healthy, wealthy Vermillionaire Male. (Photo by Bryce Gibson)



Bryce and Michael downstream, chilling in the green, blue hole. (Photo by Casper Cox)

in air. Vibrant green plants, tall trees, and flowering bushes had taken over the perimeter like a lush wall while logs and jangled broken limbs had washed in creating structure and habitat. Several Vermillion Darter males proudly paraded along the top of a submerged wall, stopping and displaying for the females gathered to the sides. But again these colorful darters would only allow an approach of about two feet; any closer and they would flee only to reappear a few minutes later at their same chosen spot. My camera began to leak again so I perched it in a snag just above the surface while I explored the pool's perimeter and towards the gently flowing waters from upstream, hopefully leading me on to the spring's source. However, just beyond the pool's stone structure the substrate was silty and virtually any movement would send clouds billowing wide to the crystal-clear waters behind me. I stopped my advance but not before seeing what appeared to be water welling up in the distance, perhaps the spring's origin. Turning around, a massive school of stonerollers cruised past me and into the shadows of the vegetated wall. But why would they gather in this quiet flow? Swimming to the open pool's far side I found the epicenter of life, a flurry of spawning activity over clean gravel banked



One of the ever-changing-patterned Blackbanded Darters, how mighty they be. (Photo by Michael Wolfe)

high against the corner wall. Highly tuberculate stonerollers were vigorously digging pits at several locations, spitting out mouthfuls of little stones. Over other cleared pits pearlescent Striped Shiners were nipping at each other, spinning in rapid whirls. Long, sleek Creek Chubs (*Semotilus atromaculatus*), their heads tuberculate and sporting their diagnostic dorsal mark, patrolled through the activity while hundreds of fish seemed to wait in the shadowed distance. I retrieved my camera and took photos and videos pushing the camera ever closer to their activity, and for the most part the fish were only mildly concerned by my presence. Studying the site, I realized the wall here was capped with woody debris and through it was one of the main outflows for the open cistern, the water dropping several inches to a swampy area beyond.

With the camera's viewer clouding increasingly from the leakage, I considered it better to return to the van before it shorted out and check on my snorkel buddies. I found Bryce getting out of his now wet dry suit also complaining about his leakage issues. I pleaded my case to beg, borrow, or steal his backup point-and-shoot Olympus so I could return to the pool and get a few more photos. Michael was somewhere downstream following the main creek's flow while Bryce had pushed upstream earlier exploring the beaver pond, which I suspect was a hundred yards below the open cistern



pool I had been in. His saturated dry suit had urged him out of the water as it was becoming burdensome and awkward. After comparing notes and observations I promised to return within the hour.

Using Bryce's camera for a few more photographs of the spawning activity, I was satisfied and while walking back I encountered Bruce, Michael, and Martin headed to a highly vegetated shallow area on the edge of the concrete pads. They commenced to setting the seine at the vegetation's edge and I gently moved through the plants, flushing the fish towards the seine. In three easy set and lifts we collected several fishes and critters and put them into a viewing tank to identify. In addition to the aquatic insects, Gambusia, young stonerollers and chubs we had a few darters and sure enough one of them was a fully colored male Watercress Darter (Etheostoma nuchale). Beautiful indeed! I had hoped to observe a Watercress Darter while snorkeling but this water was only inches deep, very silty, and seemingly not possible to snorkel in. My limited-experience guess is they like very shallow vegetated water, but with a bit of thought, scouting, and patience, one might find an ideal site to photograph them from in the future. However, Bryce did manage to photograph an image of a Watercress Darter downstream in the creek proper.

Gathered back at the vehicles, we decided to return to the preserve and snorkel downstream at a so-named Blue Hole but today it was much more of the green-hole variety with the visibility limited to about 3 or 4 feet. Nonetheless on the inside curve of the following creek the sun shined bright upon the banked gravel cobble and Striped Shiners were highly motivated here. Alabama Shiners (*Cyprinella callistia*) began to appear alongside them, a few more Blacktail Shiners, and in the distance a first dorsal ray lined with black, a redhorse. I spotted a couple of ever wary Vermillion Darters and Michael and I worked together making for closer photographic opportunities.

I decided to explore downstream, but as I stood and took a few steps I released a torrent of silt clouds, so instead I choose to return up the bouldered far side bank and see the sunfish that had gathered near Bruce. He was sitting above on the sunlit rock watching the three of us snorkel while chatting with all the curious folks stopping by. Bruce and I attempted to feed the sunnies a bit of campfire Kettle Korn but I was getting cold after several hours immersed and with the sun getting low I had my fill of the chill.

Michael and Bryce relented as well and we soon had on dry warm clothes and with Bruce bidding his farewell, and Doug having left earlier, the remaining four of us headed to the Pinson crossroads for a Mexi meal and conversations. It had been quite a while since I had spent time with Martin and afterwards the four of us enjoyed the evening around the campfire well into the night. The campsite was left to us four alone, quietly peaceful, in contrast to the high population and the ongoing activities from the night before.

DAY THREE

We awoke early and broke camp enjoying Martin's tailgatebrewed coffee, and then caravanned to the mural site using Bryce's navigational skills. It is not often you get to see a Watercress Darter painted huge on a wall but here were three painted by Roger Peet and his assistants. We had a bit of fun posing for photos and admiring the fine artistic skill but I was keen on getting to the Darter Festival pronto not wanting to miss the bike parade and prize-winning darter costumes. As soon as we arrived at the Good People Brewery Co., the site of the Darter Festival, Bryce found my original contact, Roald Hazelhoff, who had introduced me to our host Charles. He hurriedly filled us in on the supposed agenda pointing out the site across the street where the bikes and costumes were to gather in an hour or so. Since the brewery would not open for another hour, we wandered over to



Bryce, Martin, Michael, and the giant Watercress Darter, en route to the fishy festivities. (Photo by Casper Cox)

Railroad Park, which is long and straight as a railroad but pleasantly features a stream flowing through the center with landscaped sidewalks running alongside and crossed with bridges. Of course we were soon standing on the banks looking down and not too surprisingly greeted with bright orange Goldfish (Carassius auratus) but there were other fishes too and lots of them: shiners. Blacktail perhaps with their black spot? Lots. Oddly no Gambusia. No topminnows, no darters. Studying them ever closely we felt like possibly Alabama Shiners too, and maybe something else, perhaps even Rainbow Shiners (Notropis chrosomus) but certainly all shiners of some sort. The water park is a closed-circulating system; I do not think any outside waters are connected. Martin went further upstream and reported a bog garden wetland but the signage inferred that it is a closed system. We speculated on the presence of the shiners and wondered about other species possibly being introduced into this manmade system. Perhaps particularly stonerollers are needed to clean the algae from the slimy stones placed in the long runs as well as the gravel between them. Topminnows or studfish would likely do well and perhaps some species of local darters would sur-



Friends of Turkey Creek Nature Preserve President Karen Hutchinson holding a hefty Vermillion Darter. (Near lifesized it be!) (Photo by Casper Cox)



Luring in the fishes with tasty dog biscuits. (Photo by Bryce Gibson)

vive in the small riffle areas. That would be something to ask those in charge of the park's aquatic citizens. To stand on the bank and watch stonerollers spawn would be a mysterious and interesting sight for most park visitors.

We wandered back to the brewery as food trucks arrived and more tents and tables were set up. Every once in a while Martin would call out "There's a bike!" and I would turn to see a rolling colored blur in the far distance. When and where was this fishy bike parade exactly? Back inside the brewery, the Friends of Turkey Creek Nature Preserve had set up a display that also featured three very hefty, well-crafted wooden carvings of all three darters celebrated by the festival: Vermillion, Watercress, and Rush (E. phytophilum). We took a few photos of the goings on as more folks arrived and shared a couple of the Good People's Beer including the Darter Ale and aptly named Snake Handler featuring 10% alcohol. The food trucks opened for business and Bryce traded currency for a box of imported Fish & Chips while Michael went with a pair of fish tacos from the "Off The Hook" truck. I was successful in pleading a few chips from Bryce along with a small piece of tasty foreign catfish and then the same from Martin's purchase. I went to the bar for a Coffee Oatmeal Brew to share with the others and grabbed a couple





The author on site with the Vermillion Darter. (Photo by Bryce Gibson)

of dog biscuits from the bar top's jar. Where were the typical peanuts and just who is eating these dog biscuits?

Out on the loading dock the Steel City Jug Slammers were playing their wacky sounds as folks enjoyed their beer or played a teetering, towering version of 2x4 Jenga. Down on the gravel lot folks were tossing bean bags at corn holes, and that ain't the way I remember it. With a donation you could tour the inner workings of the brewery and indeed some had made the contribution and were also treated to a spread of bratwurst, sauerkraut, and all the fixings. Back outside Martin pointed out more bicycles, but they had no fish on them. In the dock's corner, children were having their faces painted or were coloring stretched canvases cartooned with friendly fish, turtles, and sallymanders. It was a festival for all.

Walking around I saw a fella wearing a fish shirt and introduced myself. He turned out to be Ben Wall and the shirt he was wearing featured a nice illustration of the Slackwater Darter. Ben, along with Jim Williams, described the darter and named it after the late Herbert Boschung, hence the Latin name *Etheostoma boschungi*. I urged him over to our table so the others could meet him and we all had a bit of fun sharing fishy adventure tales. Turns out the shirt was from the recent 2015 Southeastern Fishes Council meeting in Gainesville, Florida. Be sure and wear your NANFA shirt when traveling; you never know who you will meet.

A group of bike riders walked in all wearing yellow stretch shirts along with the typical bike riding apparel. I noted the most attractive young lady and inquired of her about the parade and surprisingly she was one of eight who were to act as the escorts for the parade. She told me no one showed up for the bike parade! My heart was struck.

With that disappointing news, we were pretty well satisfied with the activities at the Darter Festival, but still had one more wonderment to clear up: the shiner mystery at Railroad Park. Returning to our vehicles and gathering a worn out dip net from Martin's truck and Michael's photo tank we returned streamside to just above the last pool. Martin planted the net and I crumbled the dog biscuit, sprinkling bits into the outflow of the small stream. Soon the water was splashing with golden Goldfish and silvery shiners hungry for the dog treats. A few gentle lifts and Martin had deposited several into the photo tank: all Blacktail Shiners. Perhaps there were other species too but that would require us and a seine and another day.

Our curiosity satisfied, and having successfully collected a native species from downtown Birmingham, we felt our day was complete. With somewhat long drives to return each of us to our homes, we wished each other good travels till we meet again. A wonderful fishy adventure was complete, with the exception of our witnessing...Fish Riding Bicycles.

MEETING BEN WALL

by Michael Wolfe (Stratham, Georgia)

We met Ben Wall at the 2016 Darterfest based on the fish t-shirt he was wearing. But there was much more to this fish story than just a t-shirt. In fact, Ben's fish story goes back at least to Tuscaloosa and the 1960s. Ben completed his Master's Thesis at the University of Alabama in 1968. "Studies on Fishes of the Bear Creek drainage of the Tennessee River drainage" is referenced in several state fish books. Looking in other books, I found that he also wrote accounts with C.R. Gilbert about *Erimyzon* (a.k.a. Chubsuckers) for the 1980 "*Atlas of North American Freshwater Fishes.*" But what had caught our attention was the beautiful Slackwater Darter on Ben's t-shirt. *Etheostoma boschungi* was obviously named for Herbert T. Boschung, who himself had described the Vermillion Darter we had been snorkeling with and attempting to photograph for the past couple of days. Never shy, Casper introduced himself and then the rest of us, and soon we were able to talk at some length with Ben. He told us that Dr. Boschung was a demanding but fair teacher. Furthermore, he had a reputation for not taking credit for or even needing to have his name on his student's work. In fact, Dr. Boschung had told his students not to use patronymics when naming new species and certainly to not name anything after him. Instead he encouraged the use of descriptive names.

In 1974 Ben got the opportunity to name a species. Working with J.D. Williams as lab instructors and checking undergraduate collections, they found a new darter. Sometimes when you look into a seine full of fishes, you don't really know what you have in there. Sometimes they all look similar to each other or to things you have seen before. But as soon as he saw the first Slackwater Darter, Ben said he was sure that he was looking at something new and recognized it right away as something different. After seeing that single specimen, they went back to the same location and were able to collect a few more for further study. When it came time to describe and name the new darter, Wall and Williams decided to name the Slackwater Darter, *Etheostoma boschungi*.

Ben told us they spent a lot of time traveling and collecting just for the pleasure of seeing new fishes, and of course for increasing the holdings of the University of Alabama's Ichthyological Collection for then curator Dr. Boschung. And although Dr. Boschung recommended his students not use a patronymic, when it came time for him to name the Vermillion Darter, Dr. Boschung chose to honor Ralph Chermock, the American naturalist and founder of the University of Alabama's Ichthyological Collection. And now we have *Etheostoma chermocki* to snorkel with in Turkey Creek.



Ben Wall, who described the Slackwater Darter and named it *Etheostoma boschungi* after his professor, Dr. Herbert T. Boschung. (Photo by Casper Cox)



The white sheet stretched tight and bright lured in all manner of flying critters and night walkers. (Photo by Bryce Gibson)