by Dennis Coskren, Chuck & Shirley Hawks, and Fred & Betsy Robinson

(This article is adapted from an article that appeared in <u>Bits & Pisces</u>, published by the Mid South Aquarium Society, Memphis, TN. It describes a collecting trip along the southern border of Tennessee in the Buffalo and nearby drainages.)

As before, our base of operations would be the beautiful Buffalo Springs Resort and Bill Evans' Country Kitchen. We decided not to limit ourselves only to the Buffalo because of a little fish called the Lollipop Darter (Etheostoma neopterus). The sole reference we had to this fish was one black-and-white picture in the <u>Atlas of North American Freshwater Fish</u>. Speculation was running wild as we debated the reason for that particular common name. (<u>Handbook of Darters has a couple of color photos</u>, and reveals the answer: "in the breeding male, large yellow knobs on the tips of the rays of the second dorsal fin."--Ed.) This fish, though not found in the Buffalo drainage, had been found both in the Tennessee River drainage just above the Tennessee-Alabama line and in a drainage to the northwest of our location. We figured we had a sure-fire strategy for finding our quarry.

Dennis and the Hawks started early Saturday morning in Cane Creek, the site of our triumph of the last trip (SITE #1). Though a variety of darters were found, most were returned due to a lack of both color and size. These were obviously this year's crop. The trio then moved to another, smaller creek. This creek also had undersized fish, though at this site (SITE #2), the selection was limited to Orange-throats (E. <u>spectabile</u>). Dennis assured the rest of us that this was the way with this species; if you find a stream with Orange-throats in it, that will probably be the only darter species you'll find.

The Robinsons arrived about noon and were filled in on the day's catch to that moment. Though there wasn't much exciting news, Dennis was pleased to report that there was at least one unknown variety that he wanted to take home to study. Saturday afternoon started at the shoals area. From there we worked our way upstream until about dark , checking out any likely spots along the way. Even though we weren't renting canoes this trip, Bill still made it a point to take us to the proper location, while warning us that we would be risking our car in driving there. The shoals area (SITE #3) had a diversity of habitat, including everything from shallow riffles to weeds to deep basins that proved to; deep to seine (or walk!). As with site #1, the darters were plentiful and varied. Again, however, the specimens we were pulling in were not very interesting in color or size.

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SITE #4 was a little creek that feeds the Buffalo at a cance-rental location somewhere near Waynesboro, Tennessee. Here we were finally beginning to see success; we were finding a few of the larger specimens we had come looking for.

Our next stop (SITE #5) was a cance-rental establishment near Waynesboro, where for the first time in the trip we actually found someone who knew what a darter was (sort of). He called them "crawly bottoms" and remarked that there were several around that location. Indeed, there were several in the Buffalo itself; however, we were unsuccessful with the feeder creek with its icy water and mud bottom.

As the sun sank slowly in the west, we returned to our rooms with our bounty--just barely remembering to stop "studying" our catch long enough to go over and have some dinner before Bill closed up shop for the night.

At 7:30 Sunday morning, Fred and Betsy joined Dennis out by the trout pond before breakfast to discuss the day's itinerary while Dennis logged a few sightings of his <u>real</u> passion, birds. Soon, Chuck and Shirley got up and a big breakfast was downed before starting back toward the headwaters of the Buffalo.

The first spot chosen that day (SITE #6) is marked on a map in the Robinson's car for future reference, for there we had the best luck of the entire trip. Near Natural Bridge Park out of Hohenwald, Tennessee, is a little road off State Route 48 where a new bridge is being built. We had to walk down to a level just below the old bridge to go under the bridge, and wander upstream several hundred yards, and climb down one "natural stair" (a dry waterfall) to find the proper place to seine. The catch there was really remarkable! The prize turned out to be a little fish called the Copper Cheek Darter (E. aquali), a beautiful variety found only in that particular drainage. Even though Betsy had waited at the top of the stair while the others seined, even she was aware of the moment of the find, as Dennis was heard to call out quite clearly, "It's mine!" Fortunately, a sufficient number of the fish were caught to allow everyone involved to take home at least one pair, to everybody's delight! From that moment on, the trip was classified as a success. The large specimens of Rainbow (E. <u>caeruleum</u>), Redline (E. <u>rufilineatum</u>), Banded (<u>E.zonale</u>), and Blenny (<u>E. blennius</u>)Darters were icing on the cake, but all were present in sufficient numbers to more than satisfy the members of the expedition.

At this point, it was decided that the rewards of the Buffalo were sufficent, and so we could now spend some time checking out the habitat of the Lollipops. After all, by now we had more than twelve varieties of the only seventeen or so described and known to inhabit the Buffalo drainage. We could have seined the nearby Duck drainage and probably have found an additional thirteen or so more varieties, but the lure of the Lollipop was too great to ignore. So we headed south in quest of the elusive Lollipop Darter.

On our way south on State Route 13, we ran across a little stream (SITE #7) somewhere between Waynesboro and Linden. Though there were darters there, none were taken, as again they weren't the more desirable larger specimens.

Unfortunately, we didn't bring the Atlas. That book tells where the fish was first found (also called the type locality), and this fish was first found in a creek called Cypress Creek, which, to the best of our recollection was located 0.8 miles north of the Tennessee-Alabama line on State Route 13 . Well, we looked for that creek, but unfortunately no one could remember its name. As we found out, in that area, there are three small, likely-looking streams. We decided to try the two to the west of our location, as they were easier to locate (SITES #8 & #9). In the first stream, we found no darters. In the second, we found small Redlines, etc., but nothing worth keeping. We decided not to try the one to the east of our location, as it was on posted property. As it turned out, when we later checked the book, we found out that the creek to the east had been the one we were seeking. Oh well, it was getting late, and we suddenly realized that we were hungry, so we decided to drop in on the nearest town -- Florence, Alabama -- and break for lunch.

On our way back to base, we took a different route and sampled a couple of streams that were part of the Shoal Creek drainage (SITES #10 & #11). As expected, the change in drainage presented us with a change in the predominant darters. From finding mostly Rainbows and Redlines, we were now finding Blackside Snubnoses (E. <u>duryi</u>) with the Redlines. By now, everyone in the party was familiar with the "Coskren Stomp," the preferred method of seining darters. /Perhaps Point #3 below explains this.--Ed./ Using this method, we were usually spending from thirty minutes to an hour at most in an area, and taking between ten and fifteen fish of assorted varieties. Wistfully we returned to "home base" about sundown, still intent on finding the elusive Lollipop.

Time was running out on Monday as we decided to head toward the west side of the Tennessee River to make one more attempt at finding the Lollipop before we were forced to head back to our respective homes. According to the Atlas, we had a much better chance of finding it there than we did on the east side. So, early Monday morning, we set out for State Route 22 and a small, unnamed road running north and south, roughly parallel to the Big Sandy River, the drainage we

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hoped would have our darters. Fred was put in charge of finding the correct road. Unfortunately, he missed the proper turn and we ended up lost. But, with a little skill and a lot of luck, we managed to finally find our way to where we wanted to be and find a creek to work (SITE #12). At first sight, that creek was not what we would have called "prime" darter habitat. The bottom looked like it was covered with sand or mud. On close examination, however, it proved to have the proper slab-rock formations we were looking for. Again we sampled the area and found a few darters, though the only ones to create a stir were an unknown that Dennis wanted and a Log Perch --one of the biggest of the darters-which has found its way into Shirley's tank. By this time we had used up most of the morning, so we decided to get some lunch, divide up the spoils, and head our separate ways.

After Dennis had headed north, the Hawks and the Robinsons decided to test their new skills at identifying darters. A small creek just off the expressway at the Birdsong Road exit contained some darters. There was some debate as to their proper identification, but due to the fact that they were very similar in appearance to Rainbows (which, according to the book, weren't on the west side of the Tennessee) and the fact that there was only one species of darter in that creek, we are fairly sure that they were Orange-throats. Dennis agreed with our logic in our conversations by phone, giving us added confidence in our identification.

Ours was a most educational weekend for all concerned. Dennis found several darters he had never seen before to take to an ichthyologist for identification. And the rest of us learned:

1. Darters shouldn't be caught in warm weather /unless there is some means of cooling, such as ice--Ed./, as they are often very sensitive to heat

2. When looking for darter habitat, you are far more likely to find darters in swift-moving streams with rock-covered bottoms.

3. When seining for darters, leave the net stationary and use your feet to move stones and herd the darters into the net. Our best results were often accompanied by lots of mud.

4. Don't take very many of any one species, as the variety (at least in the area visited) is sufficient to fill every available container as it is.

5. Use insulated boxes rather than buckets in which to bring back the fish. This improves their chances two ways--one, they will have more surface area and thus a better supply of air; and two, the insulation will protect them from temperature shock longer.

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6. If you're smart enough to have a book that tells you where to look, be sure to have it with you when you go looking.

7. Not all blue and orange darters are Rainbows.

8. Even in the summer, you may find some darters in cold water.

9. Eat a good breakfast, as lunch may be late that afternoon (if at all).

10. Take a recording device of some kind and be sure you write down exactly what came from where (our notes were a little skimpy).

11. Invite Dennis down to Tennessee more often.

Is there going to be another trip? Well, there was some discussion about that. It seems, however, that we were unable to decide on a site. You see, it was pretty well agreed that the best time to go out would be just before the workshop next February, but we couldn't decide whether to help Dennis collect in Lexington or try again here.

While we are making that decision, the Robinsons and the Hawks thought that they might check out the Hatchie drainage, as there are about ten different species in that drainage. Maybe if that pans out, it would be a good trip for those hardy souls who want to collect during Winter Weekend Workshop /WWW '84 will be hosted by Mid South Aquarium Society of Memphis Mar. 2-4, 1984.--Ed.7 At least it has more variety than the local water does. Dennis, it seems, already has plans for trying again for Lollipops up closer to the Kentucky-Tennessee border. According to the ichthyologist at the University of Kentucky, they are brightly colored!

Now for a word about the reference books we were using. The three books we were consulting all during the trip were:

> Atlas of North American Freshwater Fishes by Lee, Gilbert, Hocutt, Jenkins, McAllister, and Stauffer, published by the North Carolina Museum of Natural History. Available for \$25. Write to PO Box 27647, Raleigh, NC 27611, and mention #0-917134-03-6 when ordering.

The Fishes of Missouri by William L. Pflieger, published by the Missouri Department of Conservation. \$7.50 for soft cover or \$10.00 for hard cover. Write to PO Box 180, Jefferson City, MO 65102.

The Fishes of Kentucky by William M. Clay, published by the Kentucky Department of Fish & Wildlife Resources. \$3.00 /We recall hearing \$3.50 more recently; it might be advisable to check all prices here.--Ed./ Write (According to the Memphis Public Library, there may be a good chance those last two are out of print.)

Why didn't we have a book specifically on the fishes of Tennessee? Because it hasn't been published yet. Dennis says that it is expected in a year or two, though, as is a book exclusively on darters.

Since this article was written, two books exclusively on darters have appeared. One, as cited within in an editorial note, was <u>Handbook of Darters</u> by Lawrence M. Page, Neptune <u>City, NJ: TFH Publications, Inc., \$29.95.</u> Additionally, there is a new one we have not seen yet available at a special <u>discount to NANFA members</u>. It is <u>The American Darters</u> by Robert A. Kuehne & Roger W. Barbour, Lexington, Ky.: The University Press of Kentucky. It lists for \$45, but NANFA members can obtain it for \$30. See the ad in the October issue of AMERICAN CURRENTS (and possibly in this issue, though that has not been negotiated as of this typing).

Name	Locations Found
Copper Cheek (Etheostoma aquali)	6
Greenside (<u>E. blennioides</u>)	1,3,4,5,6,10,11
Blenny (<u>E</u> . <u>blennius</u>)	6
Rainbow (E. <u>caeruleum</u>)	1,3,4,6
Blackside Snubnose (<u>E. duryi</u>)	10,11
Fantail (<u>E</u> . <u>flabellare</u>)	1,4,5,9,12
Johnny (?) (<u>E. nigrum</u>)	12
Redline (<u>E. rufilineatum</u>)	1,3,4,6,9,10,11
Tennessee Snubnose (<u>E. simoterum</u>)	1,3,4,6
Orange-throat (<u>E. spectabile</u>)	2,13
Red Band Snubnose (E.($ulocentra$) sp. Zundescribed/)	12
Log Perch (Percina caprodes)	12
Yellow (?)(P. ouachita)	5
Dusky (<u>P. sciera</u>)	4,6

DARTERS CAUGHT

FISH OTHER THAN DARTERS THAT WERE IDENTIFIED

Name	Locations
Rock Bass (<u>Ambloplites</u> rupestris)	10,11
Banded Sculpin (<u>Cottus carolinae</u>)	1, 3, 4, 5, 6, 9, 10, 11, 12
Stone Roller (<u>Campostoma</u> <u>anomalum</u>)	12
Northern Studfish (Fundulus catenatus)	1
Blotched Chub (<u>Hybopsis</u> <u>insignis</u>)	1
Northern Hog Sucker (Hypentelium nigricans) 1	
Green Sunfish (<u>Lepomis cyanellus)</u>	3
Bluegill (L. <u>macrochirus</u>)	10,11
Largemouth Bass (Micropterus salmoides)10,11
Golden Redhorse (<u>Moxostoma</u> erythurum)	10,11
Elegant Madtom (?) (<u>Noturus elegans</u>)	1
Stone Cat (<u>Noturus flavus</u>)	10, 11

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