

THREE TRIBUTARIES OF THE NORTHWESTERN CHESAPEAKE

by Bruce Gebhardt, Philadelphia, Pa.

The northwest shore of the Chesapeake--southwest of the mouth of the Susquehanna--lies at the foot of gently hilly land. Many of the creeks and rivers that flow to the bay run down slopes that are fairly steep.

Many of you have driven or ridden up or down Interstate 95 north of Baltimore. The traveller crosses a series of creeks and rivers, many marked with signs, way below the road. Every red-blooded NANFA member leans and strains to see, but seeing's impossible without pulling off the road. Long-simmering curiosity drew former AC editor John Eccleston and me southward from Philadelphia in September, 1984, armed with a collecting permit that had cost \$25 + \$15 in phone calls. John was pretty well established at a new job in England, but was attending to remaining stateside business at the time.

We went south on I-95, resisting the temptation to pull off after each creek until we had passed the Big Gunpowder River. We turned east from the interstate, then backtracked north on Md. Rt. 7. That road parallels I-95; both parallel U.S. 40, which is further east yet; and all three highways parallel the northwest shore of the bay.

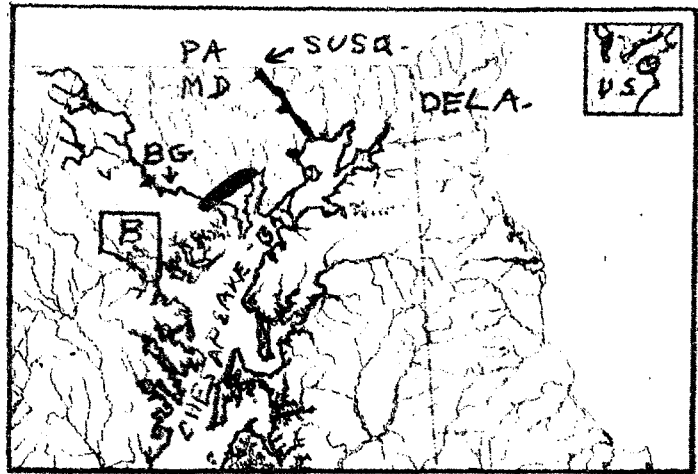
On crossing the Big Gunpowder, we parked on the northwest corner of the bridge--possibly a no-parking zone; there is some official space at the southeast corner, I believe. As soon as we saw the water, we were impressed. The river was 75-100' across. Under the bridge was a quiet, relatively deep area in which we could see sunnies, possibly Bluegills (Lepomis macrochirus) or Redbreasts (L. auritus). Above and below the sub-bridge pool the river was strewn with boulders from watermelon-sized to Volkswagen-sized. For the most part, the river was broken by the boulders into many small streams, pools, and rapids, seldom very deep. Most of the water was swift, except for a few smaller pools along the shores. It looked quite workable with our one-man 4x4 seines.

The main difficulties were seeing into the sometimes raging water and snagging on the rocks. Many of the rocks under water and at the surface were covered with mops of clean, bright green algae. Where the substrate was not rocky, it consisted of clean gravel in the faster parts, muddier sand in the pools. Other than the algae, there were few plants in the water, except for some nice little Potamogeton bushes in quieter sections.

As hoped, the broken-up river held a good variety of species for us, and there are probably many more than we found. For much of this river's length, it runs between parklands, so there are probably many fine collecting sites.

In quieter pools near the shores, we scooped up large groups of small shiners. One of the most common was the Swallowtail (Notropis proceus, a simply colored (tan back, black stripe, white belly) species which possesses elegance because of

BLACK CAPSULE shows approx. collecting area. BG is Big Gunpowder, B is Baltimore, Susq. is Susquehanna. Adapted from Atlas range map for Md. Darter (note dots above and below Susq. mouth.)



the fine outlining of the scales. This fish can sometimes be recognized aswim by a number of short black dashes along the top of its back.

Almost as common, if not more so, was the Common Shiner (N. cornutus). No big ones--over 2 $\frac{1}{4}$ "--were seen here. This species can also be recognized from above; there is a gold or iridescent line along the top of the back, then one alongside the body at "shoulder height," so that one can sometimes see two or three glowing lines at once.

In a pool on the south side, I netted two Comely Shiners (N. amoenus). They're similar to Emerald Shiners (N. atherinoides) ubiquitous in Appalachia, the midwest, and the mid-south. They're sometimes hard to identify; helpful signs are a lack of curvature in the dorsal and ventral profiles and extreme shininess when the fish are lying in the net. Sometimes this iridescence flashes blue and green. It would be great if this showed well in the aquarium, but, absent frontal sunshine, it usually doesn't. Often there is an attractive green iridescent line above mid-body, though. The fish does well in aquaria, but needs aeration or cooling when being transported, and very careful acclimation.

In the same netful, an Eel turned up (Anguilla rostrata), but, as so often happens, it slipped right through the mesh before I could bag it.

Also common were Spotfin Shiners (N. spilopterus), whose existence had dawned on me not too long before. They're described as nearly identical to the Satinfin Shiner (see photo, Sept. '84 AC) (N. analostanus). These fish were different from the Satin-fins I knew, so I made the identification as Spotfins. Frankly, I am unable to define the difference, but, as in Justice Stewart's definition of pornography, I know it when I see it. My guess is that the Spotfin's slenderer and greener. The "spot" is not helpful, since both species have it; it only amounts to little black marks between posterior pairs of dorsal rays.

Subsequent collecting has established that while the Satinfish is more common in the Delaware drainage, the Spotfin is more common in the Susquehanna drainage (of which the Chesapeake and its tributaries, essentially, are parts). Both species are supposed to occur in both drainages, though generally the Satinfish is more eastern, the Spotfin is more midwestern. Oddly, the Atlas seems to allow the Spotfin only several miles above our collecting site, but that's what we had.

It seemed as though there was a good hiding space under each rock in the river. A standard technique, therefore, was to poke the seine poles under rocks, hoping that something would be driven into the net. This worked less frequently than might have been expected, but did produce some successes. One was a 5" Redbreast Sunfish with a bright yellow-orange belly--common, but useful to color up the slide record of the trip. Unfortunately, I put the bag among some rocks in such a way that it tipped over, spilling the quarry back into the river. The other significant catch "poked out" was a 5" River Chub (Nocomis micropogon). This minnow has an efficient, thickly muscular body, a sucker-like head, and a subterminal mouth. This was a male, with a good deal of blue-green iridescence in the body, and light orange fins.

What makes trips memorable is not the lists of fish collected, but some of the weird things that always seem to happen. For example, nobody remembers what was collected in the trip described in "Along the New Jersey Coast--Fresh, Soft, Acid, Hard, Alkaline, & Brackish" (AC, Oct '83); but members have frequently mentioned the encounter with the ossifer of the law that enlivens that piece.

And now, just when our Big Gunpowder expedition was coursing through its routine, the Ablutionist arrived. This gentleman appeared across the pool (under the bridge) where we were photographing our catch. He proceeded through a full toilette, shaving, soaping all over, and bathing in the warm (high 60s) water. He seemed extraordinarily interested in what John and I were doing. We cast covert glances to monitor his progress and he was usually looking back. Thus, we were inhibited from including a photograph in our film record. John may have been more agitated than I, since he'd interpreted the shaving-while-holding-the-mirror as applying face make-up, but it was just shaving. Weird, the whole scene; but, viewing objectively, I would not like to stand before a jury of citizens empaneled to decide who was acting more weirdly, the Ablutionist or we.

His presence admittedly hastened our departure, and we retreated to the Big Falls Inn at the southwest corner of the bridge. The place serves large quantities of cheap, good, deep-fried food. Not recommended for ladies or children, however, because of the rather raunchy signs constituting the interior decor. As we emerged into the parking lot, there was the Ablutionist finishing up his grooming under the baleful watch of the restaurant staff.

Site Two: Little Gunpowder River

Site Two, the Little Gunpowder River, was the next big creek north on Rt. 7. The Big Gunpowder had impressed us with its rocks and boulders and clear, warm water. The Little Gunpowder's water was about the same, but the setting was very different. There were comparatively few big boulders. Above the bridge, the river was just a wide, slow-flowing stream, but below, it broke into an incredible variety of habitats--slow pools, medium-fast pools, deep pools lined by cliffs, shallow channels of fast water with clean stone substrate, large channel with some rocks. In the middle was a large, treed island between main branches of the river. It was composed of smooth stones, golfball- to softball-sized. These were relatively clean, and for photography, we could sprawl out slowly over the stones and set up our photo tanks; stones would form the background. What a beautiful site!

Unlike the Big Gunpowder, the Little Gunpowder held no clumps of algae on the rocks. Like the Big Gunpowder, it had few plants, save for some Elodea in the pools at the side. Instead of as many massive boulders, there were sawn tree-trunk sections hung up on whatever rocks and shallows they'd encountered.

We did find some interesting things. Especially noticeable at the site was the prevalence of River Chubs. I had never encountered so many of them. Further, these were more colorful than the one we had caught at the Big Gunpowder--darker horizontal stripe, redder fins, though none with as much blue-green to the body. A successful technique to catch them was sitting on one tree-trunk section and seining under another in moderately quick water.

Shiners, again, were the dominant species--Commons (including big ones, 3½"-5"); Swallowtails; and Spotfins. No Comelies.

At Site One, John had noted that we'd caught no darters, an unusual occurrence. We did here, Tesselateds (Etheostoma olmstedii), including some big, handsome males. Of course, they were not in their best color at this time of the year. (Breeding color consists only of black--intensified body marks and blackish fins, especially the margins, on the males; at other times, even males are just brown on yellow-brownish gray.

Besides the darters, our only new species of the day was a Longnosed Dace (Rhinichthys cataractae), a 3½"-4" male, who, when caught, was dark brown on the back with bright orange-brown pectorals. In the photo tank, he faded to olive-brown, the fins giving up much of their orange. In one respect he brightened up: the fading revealed some large, bright red spots--evidently a disease, which we found on one or two other fish, but it actually made this specimen look more attractive!

Site Three

We would have contributed more to the significance of our trip as biological survey had we hit successive creeks on our

way north, but for various reasons--deep water, closeness to private property, exposure to public view--we skipped several. We finally stopped at a much smaller stream than either of the Gunpowders. I have not identified the creek, but for the information of me and any other members interested, there follows an excruciatingly detailed description. READERS SHOULD SKIP TO THE NEXT REGULAR PARAGRAPH.

DESCRIPTION: The upstream section of creekbed was dominated by a large gravel bar extending 2/3 of the way from the north bank. This squeezed the channel against the south bank; but just above the bridge, it expanded into a pool extending most of the width of the creekbed and bridge. We could see sunfish from the bridge. The downstream side was more workable. Just below the bridge, the pool continued, then it broke into a main channel against the north bank,; sandbars; and then a wide gravel bar against the south bank 100' below the bridge. Below that, the channel was tightly squeezed to the north bank, at which point the depth reached 3 or 4'. Between the pool and the gravel bar, the main channel was 1-3' deep; around the downstream fringes of the pool and in the sandbars, the depth was a couple of inches to 1'. This creek crossed the road a couple miles south of Cresswell Rd. and a mental institution. It was probably the Bynum Run or James Run. Slides available.

In the lower shallows of the pool extending from the downstream side of the bridge, we seined large numbers of shiners. We also caught the first Blacknosed Dace of the trip--unusual to find only one of them. At first, it showed dusky sides, as the species seems more likely to do on the west side of the Appalachians; thus, it earned a brief ride in the collecting bag. The darkness soon faded, however, so the fish was released.

We rounded up the usual suspects among the shiners-- Swallowtail, Spotfin, Common.... Wait a minute; some "Commons" were showing a little red-orange metallic spot up near the top of the gill slit. Only one type of cyprinid I know of has such a decoration: the two members of the genus Clinostomus, the Rosyside Dace (C. funduloides) and the Redside Dace (C. elongatus). Elongatus is only known from the upper Susquehanna, never the lower, and the similarity of these fish in profile to the Common Shiner sewed them up as Rosysides. We caught only inchers, but grown and in breeding color, these are magnificent fishes, males' sides marked with a horizontal metallic-green stripe above a gold stripe above a black stripe above rosy to red-orange sides. A knockout. Even had the rest of the trip been a bust, this find would have put it into the black. And the rest of the trip had been pretty interesting.

We began to whip the water into a froth in my frantic lust for Rosysides, but after the first three, we found no more. Still, this creek was not yet exhausted. We then encountered the

Mystery Striper! As I continued to seine the lower pool area, John, tiring of my infantile obsession, tiptoed down to the main channel, whence came the following: "I just saw a darter with black vertical bars." He was not absolutely certain about the darter part, but he said what he'd seen had definitely been barred. We seined the little pool, but all we caught was a crayfish. I had the feeling that the vertical-bar motif was just a premonition of the view from the padded cell that surely awaited him--perhaps at the conveniently placed institution just up the road. I returned to my shiner-seining, sadly glancing at John as though he were the Ablutionist reincarnated. For a long time he squatted beside the pool that had shown him his apparition. When he finally wandered away on other business, I'd just about finished mine, and I wandered over to where he'd been squatting. Then I saw it. I didn't get more than a glimpse, but my impression was something like this:



The impression of definite black bars against a light background was strong. We seined like fury, digging into the autumn leaves carpeting the pool. Finally we caught a fish: a White Sucker (Catostomus commersoni), 3" long. Its sides were silvery and there were black blotches on the fish, but they hardly looked like the well-defined stripes I had seen. We caught no other fish. So here are some possibilities:

(1) the White Sucker. The pattern didn't match that in my mind, but the fish are changeable and the water might have altered appearance. They move quite fast, further, explaining the brevity of the glimpses we had.

(2) This creek is a few miles south of one of the streams that has harbored the allegedly very rare, federally listed, Endangered Maryland Darter (Etheostoma sellare). It has a vaguely blotched pattern, but there is usually an impression of reddish-brown, which had been no part of our vision. Still, incident late-afternoon sunlight could have played tricks.

(3) the Yellow Perch (Perca flavescens), which has dark bars on a lighter background; however, the usual appearance is dark green on yellow-green.

Any others?

###