

The Fishes of Spartanburg South Carolina by Bob Goldstein

On 9 October 1979 I conducted a short-term fish survey of Peters Creek, near Spartanburg, S.C., using a backpack electric shocker. All fishes were preserved to facilitate identification. Knowing what is in the creek, future collections can be identified alive, for the most part.

DESCRIPTION OF THE SITE

Peters Creek is a moderately turbid small upper piedmont stream, with dimensions in the sampling vicinity of 0-1.5 meters in depth and an average width of 5-8 meters. The bottom consists of rock and silt, with small patches of gravel scattered at irregular intervals. Clarity is low, approximately 10 cm on the day of sampling, and the water is unstained. Silt collects in pockets between rocks, and the higher and larger rocks carry a thick coating of algae. Water movement varies with stream depth and width, but pockets of quiet backwater are few. Most backwaters contain water in motion. The stream consists of a series of riffles and pools, but not well defined along the 400 meters sampled. There is little submerged vegetation, such growth largely restricted to root masses along the sharply cut banks and the previously mentioned algae. Aquatic grasses were not seen, nor were marsh plants.

Peters Creek joins the Pacolet River west of Cowpens, arising and entering the river all within Spartanburg County. The Pacolet is a tributary of the Broad River.

Sampling was conducted upstream and downstream of the sewage treatment outfall located at the southeastern corner of the Idlewood community, located between state roads 31 and 57, north of U.S. highway 29. This automatic treatment plant and its outfall are operated by the Spartanburg Municipal Water Works and Sewage Treatment Department.

RESULTS

Collections conducted upstream and downstream of the sewage treatment facility contained about the same weight of fishes, indicating that the outfall is not doing any damage. The number of species above and below the outfall was also about the same (Tables 1 and 2). Differences in numbers of individuals is probably due to the shallower and wider nature of the stream bed downstream, where there were more and smaller fish, while the biomass of fishes remained constant. The data were then combined for an overview of the stream collections (Table 3). Percentage composition is provided in Table 4.

DISCUSSION

Several beautiful fishes were collected in Peters Creek. Outstanding among them were the redbreast sunfish, *Lepomis auritus*. Typical individuals from this creek were almost white bodied, with brilliant orange tails and side and belly markings. Even small fish had this brilliant coloration, and it may be related to the specific water conditions here (rather soft) or indicative of a race of the fish in this region.

The only darter collected was the seagreen darter, and there were few of them found. This is an attractive and large *Etheostoma* species, but there would be more and prettier darters only thirty minutes away in the mountains.

The dusky shiner looks much like *Notropis signipinnis* or *N. hypselopterus* in its beautiful broad, dark band. Many males, even in October, had breeding tubercles on the head and the body was suffused richly with red dots. These were striking fish and fairly common.

Samples of all these fish were saved and will be available to any person who requests them for verification of the identifications. If there are any *Notropis* experts out there, I encourage this!

Bob Goldstein
4319 N. Hills Dr.
Raleigh, N.C. 27612

TABLE 1

UPSTREAM COLLECTION		1875 SECONDS SHOCKING	200 METERS	
Species		Number	Size (mm SL)	Weight (gm)
Percidae				
<i>Etheostoma thalassinum</i>	seagreen darter	1	45	2
Centrarchidae				
<i>Lepomis auritus</i>	redbreast sunfish	4	33-130	145
<i>Lepomis microlophus</i>	redeer sunfish	1	98	37
<i>Lepomis macrochirus</i>	bluegill	5	52-78	46
Ictaluridae				
<i>Ictalurus nebulosus</i>	brown bullhead	1	152	82
<i>Ictalurus natalis</i>	yellow bullhead	4	103-125	123
Catostomidae				
<i>Hypentelium nigricans</i>	northern hogsucker	1	83	10
Cyprinidae				
<i>Hybopsis leptocephala</i>	bluehead chub	39	30-100	120
<i>Notropis cummingsae</i>	dusky shiner	2	33-43	4
<i>Notropis chloristius</i>	greenfin shiner	2	34-35	3
<i>Notropis bifrenatus</i>	bridle shiner	1	53	4
<i>Notropis scepticus</i>	sandbar shiner	1	62	6
TOTALS		Families	5	
		Species	12	
		Number	62	Weight
				582
	Number/Shocking minute	1.98	Weight/Shocking minute	18.62
	Number/Stream meter	0.31		

TABLE 2

DOWNSTREAM COLLECTION		2765 SECONDS SHOCKING	200 METERS	
Species		Number	Size (mm SL)	Weight (gm)
Poeciliidae				
<i>Gambusia affinis</i>	mosquitofish	1	34	2
Percidae				
<i>Etheostoma thalassinum</i>	seagreen darter	3	32-58	9
Ictaluridae				
<i>Ictalurus natalis</i>	yellow bullhead	3	40-110	47
Centrarchidae				
<i>Lepomis auritus</i>	redbreast sunfish	9	68-120	227
<i>Lepomis microlophus</i>	redeer sunfish	2	35-60	10
<i>Lepomis macrochirus</i>	bluegill	12	30-65	49
Catostomidae				
<i>Hypentelium nigricans</i>	northern hogsucker	1	44	2
<i>Catostomus commersoni</i>	white sucker	1	125	37
Cyprinidae				
<i>Hybopsis leptocephala</i>	bluehead chub	77	35-105	346
<i>Notemigonus crysoleucas</i>	golden shiner	2	34-56	5
<i>Notropis cummingsae</i>	dusky shiner	21	27-55	25
<i>Notropis chloristius</i>	greenfin shiner	21	30-37	18
TOTALS		Families	6	
		Species	12	
		Number	153	Weight
				767
	Number/Shocking minute	3.32	Weight/Shocking minute	16.64
	Number/Stream meter	0.77		

TABLE 3

COMBINED COLLECTIONS		4640 SECONDS SHOCKING	400 METERS	
Species		Number	Size (mm SL)	Weight (gm)
Poeciliidae				
<i>Gambusia affinis</i>	mosquitofish	1	34	2
Percidae				
<i>Etheostoma thalassinum</i>	seagreen darter	4	32-58	11
Ictaluridae				
<i>Ictalurus nebulosus</i>	brown bullhead	1	152	82
<i>Ictalurus natalis</i>	yellow bullhead	7	40-125	170
Catostomidae				
<i>Hypentelium nigricans</i>	northern hogsucker	2	44-83	12
<i>Catostomus commersoni</i>	white sucker	1	125	37
Centrarchidae				
<i>Lepomis auritus</i>	redbreast sunfish	13	33-130	372
<i>Lepomis microlophus</i>	redear sunfish	3	35-98	47
<i>Lepomis macrochirus</i>	bluegill	17	30-78	95
Cyprinidae				
<i>Hybopsis leptocephala</i>	bluehead chub	116	30-105	466
<i>Notemigonus crysoleucas</i>	golden shiner	2	34-56	5
<i>Notropis cummingsae</i>	dusky shiner	23	27-55	29
<i>Notropis chloristius</i>	greenfin shiner	23	30-37	21
<i>Notropis bifrenatus</i>	bridle shiner	1	53	4
<i>Notropis szepticus</i>	sandbar shiner	1	62	6
TOTALS		Families	6	
		Species	15	
		Number	215	
		Weight	1359	
			Weight	1349
Number/Shocking minute		2.78	Weight/Shocking minute	17.57

TABLE 4

PERCENTAGE COMPOSITION

Species		Percent of Total	Cumulative percent
<i>Hybopsis leptocephala</i>	bluehead chub	53.9	53.9
<i>Notropis cummingsae</i>	dusky shiner	10.7	64.6
<i>Notropis chloristius</i>	greenfin shiner	10.7	75.3
<i>Lepomis macrochirus</i>	bluegill	7.9	83.2
<i>Lepomis auritus</i>	redbreast sunfish	6.1	89.3
<i>Ictalurus natalis</i>	yellow bullhead	3.3	92.6
<i>Etheostoma thalassinum</i>	seagreen darter	1.9	94.5
<i>Lepomis microlophus</i>	redear sunfish	1.4	95.9
<i>Hypentelium nigricans</i>	northern hogsucker	0.9	96.8
<i>Notemigonus crysoleucas</i>	golden shiner	0.9	97.7
<i>Gambusia affinis</i>	mosquitofish	0.5	98.2
<i>Ictalurus nebulosus</i>	brown bullhead	0.5	98.7
<i>Catostomus commersoni</i>	white sucker	0.5	99.2
<i>Notropis bifrenatus</i>	bridle shiner	0.5	99.7
<i>Notropis szepticus</i>	sandbar shiner	0.5	100.2