

RECENT COLLECTIONS OF SOME LESS COMMON FISHES IN SOUTHERN ILLINOIS

GERALD E. GUNNING AND WILLIAM M. LEWIS
Southern Illinois University, Carbondale

INTRODUCTION

The fishes discussed in this paper occurred in collections made within the past 5 years in 38 localities in the 16 southernmost counties of Illinois. The localities that yielded fishes of interest here are shown in Figure 1; these localities include streams, lakes, springs, strip-mine ponds, and swamps. A wide range of habitats is thus represented. The scope of this paper is limited to the following characteristics of a given species: geographical range; numerical abundance in southern Illinois; and distribution within Illinois as a whole.

Collecting devices included an electro-fishing apparatus, a 1/4-inch-knot seine, a common sense minnow seine, wire basket traps, and hand dipnets. In addition one sample was taken by poisoning with emulsified rotenone.

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DISCUSSION OF INDIVIDUAL SPECIES

Spring cave-fish, *Chologaster palliferus* Forbes.—The spring cave-fish was collected from the Pine Hills

Swamp and along the adjacent bluffs. In southern Illinois as a whole the species is rare, but in the Pine Hills area it is relatively abundant. It is difficult to collect the spring cave-fish during the day since the majority of the population retires to subterranean waters at this time. However, the species is active in the springs at night, at which time it is easily collected.

Brown bullhead, *Ameiurus nebulosus marmoratus* (Holbrook).—The speckled variety of the brown bullhead ranges from southern Illinois and eastern Arkansas to the Carolinas and Florida (Hubbs and Lagler, 1949: 72). In the present study the brown bullhead was found in only two localities, Wolf Lake and Pine Hills Swamp.

Brook silverside, *Labidesthes sicculus sicculus* (Cope).—The brook silverside ranges from Minnesota eastward through southern Ontario and southward to the Gulf of Mexico (Eddy and Surber, 1947: 245). The species was collected from Wolf Lake, Clear Creek, Fulton Creek, and Horseshoe Lake during our study. All of these collections constitute new records which are felt to be significant in that Forbes and Richardson (1920) and O'Donnell (1935) did not collect the species in this area.

Lake chubsucker, *Erimyzon sucetta kennerlyi* (Girard).—The lake

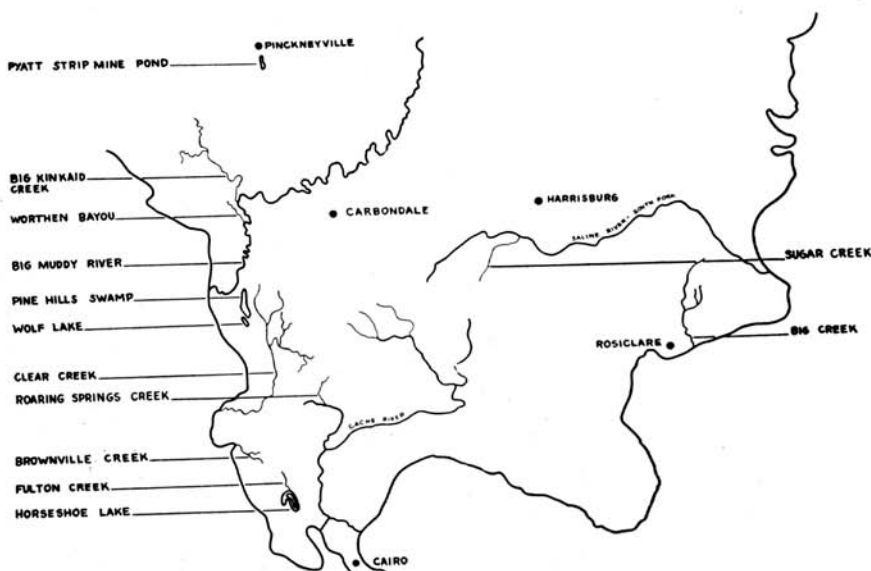


FIG. 1.—Localities where collections were made.

chubsucker is absent from all of the larger natural and artificial lakes of southern Illinois. The species has been collected from only one locality, a strip-mine pond on the Pyatt area south of Pinckneyville.

Rock bass, *Ambloplites rupestris rupestris* (Rafinesque).—The rock bass is rare in southern Illinois but rather abundant in northern Illinois. An established population of rock bass is present in Big Creek near Rosiclare.

Round sunfish (flier), *Centrarchus macropterus* Lacépède.—The round sunfish ranges from Virginia south to Florida, west to Louisiana and east Texas, and north in the Mississippi Valley to southern Illinois (Knapp, 1953: 116). Barnickol and Starrett (1951) reported the round sunfish for the Mississippi River. Our collections came from Pine Hills Swamp and Brownville Creek near Thebes. The species was

formerly abundant in Horseshoe Lake (Thompson and Bennett, 1938) but has since disappeared (Gunning, 1953).

Smallmouth bass, *Micropterus dolomieu dolomieu* Lacépède.—The smallmouth bass is common in northern Illinois but rare in southern Illinois. Big Creek near Rosiclare is the only locality in southern Illinois known to have smallmouth bass.

Small sunfish, *Lepomis symmetricus* (Forbes).—In Illinois the small sunfish is found chiefly in the southern portion of the state, especially in the Wabash Valley (Richardson, 1904). We collected this species from Wolf Lake and Pine Hills Swamp.

Pigmy sunfish, *Elassoma zonatum* Jordan.—The occurrence of the pigmy sunfish in southern Illinois was noted by Jordan and Evermann (1896: 982). Jordan and Evermann (1896: 981) listed the pigmy

sunfish under the family Elasmobranchidae; Berg (1947: 309) placed the pigmy sunfish in the family Centrarchidae. Our collections of the pigmy sunfish came from Pine Hills Swamp and one of its spring-fed tributaries.

Silverjaw minnow, *Ericymba buccata* Cope.—This species was found to be one of our rarer minnows in southern Illinois. It is known at present only from Big Kinkaid Creek near Ava.

Suckermouth minnow, *Phenacobius mirabilis* (Girard).—The suckermouth minnow was collected in Big Muddy River and one of its major tributaries, Big Kinkaid Creek.

Burbot, *Lota lota maculosa* (Lesueur).—The burbot is rare in southern Illinois and is represented in the present study by a single specimen from Big Muddy River which constitutes a new record for that locality.

Sauger, *Stizostedion canadense canadense* (Smith).—The sauger has been reported previously from the Mississippi, Illinois, Rock, Wabash, Kaskaskia, and Ohio rivers (O'Donnell, 1935: 490). Two saugers were collected by us from Big Muddy River.

Walleye, *Stizostedion vitreum vitreum* (Mitchill).—Our collection of yellow pikeperch in Big Muddy River is a new record for this locality.

Bluntnose darter, *Boleosoma chlorosomum* (Hay).—The bluntnose darter was collected in two localities in southern Illinois, Big Muddy River and one of its tributaries, Worthen Bayou. O'Donnell (1935) reported the bluntnose darter as being very abundant in the

southern part of the state, but recent collections do not indicate such abundance.

Spot-tailed darter, *Etheostoma squamiceps* (Jordan).—The spot-tailed darter is a southern species which ranges into southern Illinois. In the present study the spot-tailed darter was taken from Roaring Springs Creek near Anna and from the Big Creek drainage.

Stripe-tailed darter, *Etheostoma kennicotti* (Putnam).—The stripe-tailed darter, a southern species, was collected only from the Big Creek drainage. Identifications of the spot-tailed and stripe-tailed darters were made by Dr. Reeve M. Bailey, Museum of Zoology, University of Michigan.

Swamp darter, *Etheostoma gracile* (Girard).—The swamp darter was collected from Pine Hills Swamp, Sugar Creek, and Worthen Bayou. It is not abundant in any of these localities. The species was treated by Forbes and Richardson (1920: 315-316) as *Boleichthys fusiformis* (Girard) and as *Etheostoma iowae* Jordan and Meek (Forbes and Richardson, 1920: 306-307). This complex was worked out in detail by Hubbs and Cannon (1935).

DISCUSSION

Allee and Schmidt (1951: 147) defined "range" as the area inhabited by a species. They stated further that "the range of an animal is delimited by the lines connecting the outermost localities at which it is found. A species need not occupy the whole extent of its range; for the most part it will be found only in special habitats that fulfill specific conditions." In this paper

is recorded the status of 18 fishes uncommon in the southern Illinois area, with comments as to their abundance within this area.

Southernmost Illinois is well within the ranges of ten of the species considered. These species are: brown bullhead, brook silverside, lake chubsucker, rock bass, small-mouth bass, silverjaw minnow, suckermouth minnow, bluntnose darter, sauger, and walleye. Nevertheless, none of these species are at all abundant in this immediate area. Among the remaining eight species, southern Illinois is the approximate northern limit of the range of six. These southern species are the round sunfish, small sunfish, pigmy sunfish, spot-tailed darter, stripe-tailed darter, and swamp darter. None of these species is abundant. The area is the approximate southern limit of the range of the burbot, a northern species; the burbot is very rare.

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