

ADDITIONS TO THE PENNSYLVANIA ICHTHYOFAUNA OF THE SUSQUEHANNA RIVER DRAINAGE

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ABSTRACT.—Populations of *Apeltes quadracus* (Mitchill), fourspine stickleback; *Culea inconstans* (Kirtland), brook stickleback; and *Enneacanthus gloriosus* (Holbrook), bluespotted sunfish are indicated by recent collections in the Susquehanna River drainage. These species represent additions to the known ichthyofauna of the Susquehanna River in Pennsylvania. Specimens are on deposition in several museums.

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INTRODUCTION

We have been involved in extensive studies of the fishes of Pennsylvania since 1966 (Denoncourt and

Hocutt, 1971; Denoncourt et al., 1971; Denoncourt and Stambaugh, 1975; Hocutt and Drawas, 1975; Hocutt and Stauffer, 1975; Stambaugh and Denoncourt, 1975).

Recent collections of several species that we thought new to the Susquehanna River prompted inquiry into knowledge of fish distribution in that drainage. A review of the literature (Denoncourt and Cooper, 1975) and specimens brought to our attention by others, revealed three species that are additions to the ichthyofauna of the Susquehanna drainage in Pennsylvania: *Apeltes quadracus* (Mitchill), fourspine stickleback; *Culea inconstans* (Kirtland), brook stickleback; and *Enneacanthus gloriosus* (Holbrook), bluespotted sunfish.

The origin of these populations is unknown. They may be natural populations or accidental introductions. The bluespotted sunfish is sometimes maintained as an aquarium species by hobbyists and could have been released.

The purpose of this paper is to publish numbers and locations of collections (Figure 1) and to record where specimens are deposited. Most specimens, or a subsample, will be deposited at the University of Maryland, Appalachian Environmental Laboratory, LaVale, Maryland.

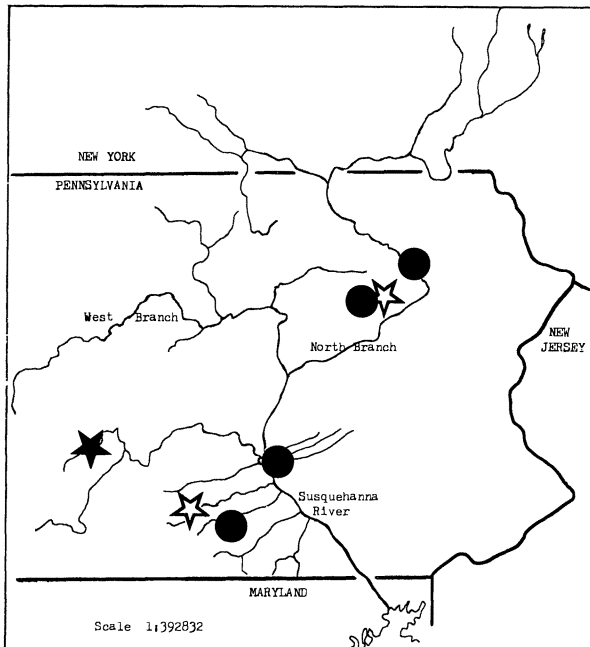


FIGURE 1.—Locations for *Apeltes quadracus* (open stars), *Culea inconstans* (solid star) and *Enneacanthus gloriosus* (solid circles) in the Susquehanna River drainage in Pennsylvania.

Apeltes quadracus (Mitchill), Fourspine stickleback

Distribution of the fourspine stickleback is given as coastal, brackish waters from Labrador to Maryland and sometimes into coastal streams (Eddy, 1969; Blair et al., 1968; Mugford, 1969). Fowler (1940) lists this species from the Delaware River in Bucks, Delaware, Lehigh, Northampton and Philadelphia Counties. The following records for the Susquehanna drainage are reported.

1 — Two specimens (26 and 34 mm fork length) were taken in the inlet stream of Harvey's Lake, Luzerne County in the fall of 1973. They will be deposited at LaVale, Maryland.

2 — A total of 78 specimens (29 to 49 mm fork length) were collected on 23 July 1965 by Cooper, Bellis and Scherer at the old mill just downstream from Newville in Big Spring Creek, tributary of Conodoquinet Creek, Cumberland County. A subsample of ten will be deposited at LaVale, Maryland and the remainder at the Pennsylvania State University Museum, State College.

Culea inconstans (Kirtland), Brook stickleback

The brook stickleback is found in fresh waters

across Canada and into the upper tributaries of the Mississippi and Missouri River system (McPhail and Lindsey, 1970; Nelson, 1969). It is known from the Ohio system of northwestern Pennsylvania (Blair et al., 1968; Fowler, 1940). Greeley (1936) lists it as rare in the Unadilla River near West Winfield in New York State. The latter is in the extreme upper Susquehanna drainage. It is now recorded for the first time from the Susquehanna drainage in Pennsylvania.

A total of 46 specimens (38 to 55 mm FL) were collected recently by personnel of Pennsylvania State University in Sandy Run, Blair County. A subsample of 5 will be deposited at LaVale, Maryland and the remainder in the Pennsylvania State University Museum.

Enneacanthus gloriosus (Holbrook),
Bluespotted sunfish

The bluespotted sunfish is listed for lowland fresh waters from New York to Florida. Fowler (1919) gave a location in York County, Pennsylvania. However, he never mentioned the species in subsequent papers (Fowler, 1938 and 1940) in which he essentially duplicates most of his (1919) data. We were unable to locate any specimen from the Susquehanna drainage at the Academy of Natural Sciences in Philadelphia. We assumed he corrected a mistake in later papers.

The following are records and deposition of specimens for the Susquehanna drainage in Pennsylvania.

1 — Three specimens (62.8, 62.7 and 55.4 mm FL) were collected in October 1974 by Denoncourt, Brezina et al. in Mountain Creek, a tributary of Yellow Breeches, just south of Mt. Holly Springs at route 94 bridge, Cumberland County. Specimens will be deposited at LaVale, Maryland.

2 — One specimen (30.7 mm FL) was taken on 25 August 1948 in Stony Creek above the dam in Dauphin, Dauphin County by Robins and Mehring. It is catalogued number 16429 in the Cornell University fish collection, Ithaca, New York.

3 — A total of 44 specimens (40 to 71 mm FL) were taken on 22 July 1954 by the Pennsylvania Fish Commission in Lake Winola about 5 airmiles ESE of Tunkhannock, Wyoming County. A subsample of five specimens will be deposited at LaVale, Maryland and the remainder in the Pennsylvania State University Museum.

4 — One specimen (52 mm FL) was collected in November 1974 from Harvey's Lake, Luzerne County. It will be deposited at LaVale, Maryland.

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