# Seldom-Seen Sunnies

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Photos by the author.

One of the most important groups of Pennsylvania fishes is the family Centrarchidae, the sunfishes. Many new anglers have cut their teeth on bluegills, pumkinseeds, redbreasts, and rockies. Panfishers are legion and loyal, forsaking the first day of trout season for a crack at some big 'gills, and steadfastly defending their quarry's table qualities as second to none. This family also boasts two of our most popular sportfishes, the largemouth and smallmouth bass, as well as both species of crappies.

But Centrarchidae also counts among its members six rare or obscure sunnies that are seldom, if ever, seen by Keystone State anglers. These fishes are shy. They prefer weedy and woody backwaters, ponds, and pools. Four are native to the Delaware River drainage (one of these fishes also occupies the Susquehanna system), and the other two enter the state from the west.

Three of these species, the banded, blackbanded, and bluespotted sunfishes, belong to the genus *Enneacanthus*. Although small, never reaching four inches in length, they are among the showiest of the group. Adult males, especially during the breeding season, can dazzle the eye with bands, spots, and flecks. The blackbanded sunfish (*E. chaetodon*, Fig. 1) displays vertical black stripes that provide a striking contrast to its silvery background. It superficially resembles an angelfish.

The banded sunfish (*E. obesus*, Fig. 2) sports iridescent flecks and crescents of yellow, green, and blue over an olive background. These marks often extend all the way to the tip of each fin ray, resembling droplets of dew on a spider web.

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These three sunfishes prefer low-gradient, clear, quiet waters with a bottom of mud, muck, decaying vegetation, sand, or gravel. Ideal habitat presents a dense growth of aquatic plants, such as pondweeds and spatterdock. Dr. C. C. Abbott, a physician who investigated the streams and marshes of the lower Delaware Valley during the late 1800s, made some interesting observations concerning *Enneacanthus* habitat. He stated that, "In such localities, where often the weeds grow so luxuriantly that a scoop-net cannot be drawn, I have found that hundreds of these fishes were passing what I think must have been a most monotonous existence. In some places locomotion must be rather a scramble among the water weeds, than a comfortable swim."

These sunnies seldom stray from their watery jungles, and are content to pluck small invertebrates from vegetation, the bottom, and the surface. Foremost on the menu are midge larvae, daphnia, scuds, and aquatic beetles. Abbott observed three banded sunfish kill a crayfish that had just cast its shell, and noted that, "One by one the limbs of the crustacean were torn off, and portions of them devoured by the fish in full view of the tortured victim."

These colorful lightweights contrast markedly with a larger weed-dweller that often occupies the same lowland habitat, the mud sunfish (*Acantharchus pomotis*, Fig. 3). Although shy, sedentary, and nocturnal, its name is truly "mud" among its prey victims. Any animal half its size or less is a potential meal for this voracious predator. One aquarist observed a 2-1/2-inch mud sunfish eat a 1-1/2-inch darter whole, and a four-inch specimen devoured a 1-1/2-inch fish and a 2-1/2-inch salamander within 20 minutes of each other. In the wild its fare consists primarily of small crustaceans, particularly amphipods, and insects, along with an occasional fish.

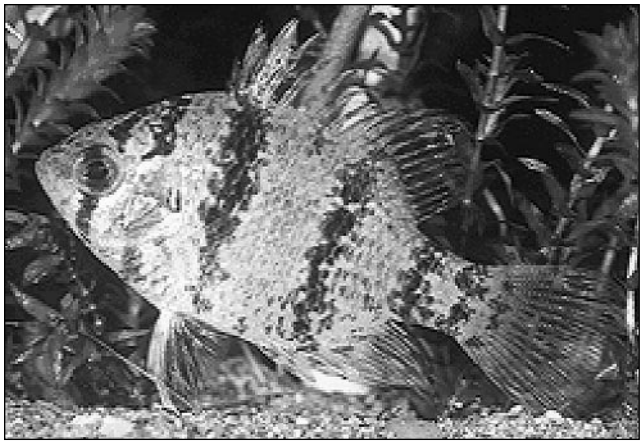

*Fig. 1.*
Blackbanded sunfish, *Enneacanthus chaetodon*.

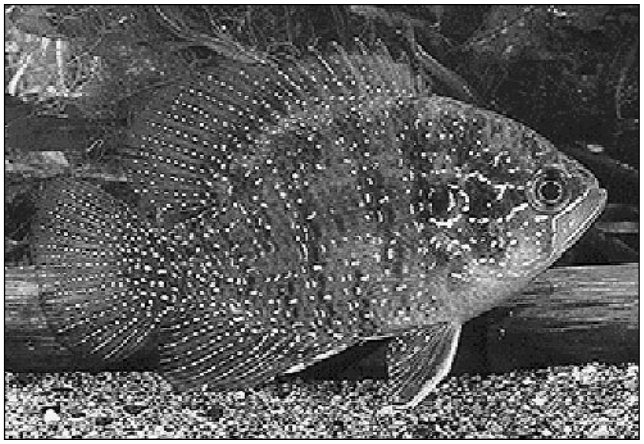

*Fig. 2.*
Banded sunfish, *Enneacanthus obesus*.

This species is somewhat bass-like in shape and reaches eight inches in length. Its background color is a muted green or brown, and is accented with several dark horizontal stripes that run the length of the body. This scheme provides excellent camouflage in a muddy, murky world littered with decaying soft vegetation, sticks, branches, and stumps.

The two western Pennsylvania species, the warmouth (*Lepomis gulosus*, Fig. 4) and longear sunfish (*L. megalotis*, back cover top), still survive in the Ohio River drainage portion of the state. The warmouth's olive ground color is overlain with dark-brown mottlings or chain-like bars on the sides and back, and a purplish sheen overall is sometimes present. Because of its relatively large size, up to a foot in length, the adult warmouth has little difficulty catching smaller fish and crayfish, the mainstays of its diet.

In states where it is common, the warmouth is sometimes taken by anglers. It strikes a wide variety of lures, flies, and natural baits.

The longear is also somewhat of a popular target of fishermen in some other states, where it is sought with ultra-light tackle in smaller waterways. It attains lengths of nine inches on rare occasions, but generally does not exceed seven.

The longear is superficially similar in appearance to the more familiar pumpkinseed and redbreast sunfish. Its orange flecks and vermiculations bear some resemblance to those of the "seed," and its long ear flap is a character it shares with the redbreast. A combination of these markings, along with others of electric blue, and a fiery orange belly, make the male a brilliant fish during spawning season.

The longear is a midwestern species, with the eastern edge of its range just entering New York, Pennsylvania, West Virginia, Virginia, North Carolina, and Georgia. It has been introduced into waterways outside this native range. In Pennsylvania, it has been taken from Edinboro Lake, the Kiskiminetas, Ohio, and Shenango rivers, and possibly a few other waters, but most records are old. The redbreast, with which it could be confused, does not occur in the Ohio drainage.

The warmouth is broadly distributed in the eastern United States from Pennsylvania to Wisconsin, and south to Texas and Florida, but appears to be native in the Keystone State only in the western portion of the Ohio River drainage. It has been captured in weedy glacial lakes in Erie County, and in sluggish portions of streams in Greene and Mercer counties, but only in small numbers.

The banded, blackbanded, and mud sunfishes populate the Atlantic Coastal Plain, and seldom stray above the Fall Line. In Pennsylvania, only two records for the mud sunfish exist, one each in Bucks and Chester counties, and both predate 1900. The blackbanded was first captured near Bristol, Bucks County, in 1860, and was last seen in the state in 1920. The banded was evidently the most common of these Coastal Plain confines, and was taken in Delaware County as recently as 1977. If it exists in Pennsylvania today, it is exceedingly scarce.

The bluespotted sunfish (*Enneacanthus gloriosus*, back cover bottom) has been much more successful than its counterparts. It still occurs in fair numbers in some lower Delaware Valley streams, but has also survived in the Poconos and the Piedmont, and it is scattered into the Susquehanna drainage as far west as Centre County.

The Coastal Plain in Pennsylvania is confined to a narrow strip along the Delaware from the state line up to Scudder's Falls, near Trenton, New Jersey, and a short distance up several tributaries. The entire area is tidewater, with a tidal change of nearly six feet. Before European settlement, the shores of the

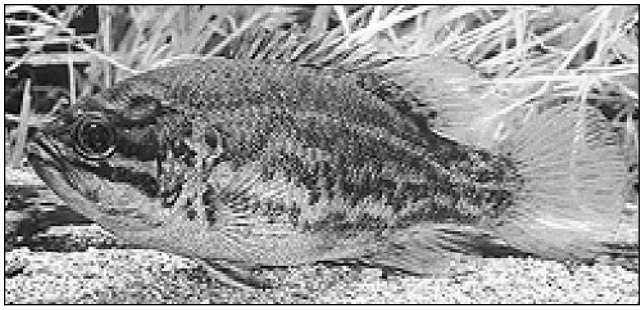

*Fig. 3.*
Mud sunfish, *Acantharchus pomotis*.

then-meandering river channel supported extensive intertidal marshes.

Today the marshes are smothered with fill, and the shoreline of the dredged and channelized river bristles with cranes, stacks, tanks, docks, and ships. Sewage treatment plants, industrial and urban discharges and runoff, and siltation, combine to limit water quality improvement in the region. Where before the tidal creeks were clear and dominated by submerged vegetation, they are now turbid nearly all the time. Marshy emergent vegetation along the shorelines still exists, but these plants are completely above the waterline at lower tide levels, exposing fish inhabiting this zone to a coverless, silty bottom each time the water goes out.

On the western front, a number of the glacial lakes have been degraded by the effects of human habitation around their shoreline. Increased nutrient and pollutant runoff from lawn care, agriculture, and light industry, older leaking and leaching septic systems, dredging for docks, and on some, increases in water levels by dams, have all changed the original complexion of these Ice Age remnants.

The Kiski was so severely affected by pollution from coal mining that, in 1909, Dr. Arnold Ortmann, an aquatic scientist at the Carnegie Museum, wrote "the Kiskiminetas River, at its point of union with the Allegheny, is in a fearful condition." He continued, "In fact, we may say, that in almost all of the drainage basin of the Kiskiminetas freshwater life is extinct."

The record for the longear sunfish from the Kiski was obtained by Cope in the late 1800s. There were few fish surveys conducted in western Pennsylvania during the 19th and early 20th centuries, and this record belies a much wider distribution. This is true for other species as well, where a few isolated records counties apart may reveal a former large and continuously occupied area.

The decreases in populations and distributions of these sunnies are symptomatic of a serious problem in the state. We are losing much of our fish fauna. According to Andrew

*Fig. 4.*
Warmouth, *Lepomis gulosus*.

Shiels, Fish and Boat Commission Nongame and Endangered Species Unit Leader, some 40 percent of our native fishes are in trouble, and others have already been extirpated from our waters. As a result of a project conducted by Penn State University that examined nearly all known records for Pennsylvania's fishes and ranked each species' status, the Commission proposed the listing of at least 54 fishes as endangered, threatened, or candidate species. This project was funded by the Wild Resource Conservation Fund through the Fish & Boat Commission.

Three sunfishes, the longear, banded, and warmouth, appear on the list, and all are proposed for endangered status. The blackbanded and mud sunfishes, unfortunately, are already extirpated from the state. The bluespotted still appears to be present in great enough numbers to preclude listing at present, although it, too, has suffered considerable losses.

Shiels is hopeful that this listing effort will have a positive educational effect on state residents. Many people don't realize that Pennsylvania harbors a diverse assemblage of nongame fishes, or that many are in serious decline. Drawing attention to the problem may increase the public's commitment to conserve these species, protect watersheds, and maintain important nongame programs.

Whether we ever see these most reclusive sunfishes or not, its gratifying to know that those that remain are an important part of our natural heritage.

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