

In Pennsylvania, the only Longear Sunfish surviving today occurs in the southwest corner of the state.



ENDANGERED

Male Redfin Shiner

The Longear Sunfish, or Two

by Rob Criswell

photos by the author

The Longear Sunfish, *Lepomis megalotis*, is one of our more handsome fishes and one of the most rare. But, is it really one fish, or two? This species was reported long ago in Pennsylvania by two venerable ichthyologists. But, before those details, it is necessary to explain that the Longear Sunfish included two subspecies—the Central Longear Sunfish and the Northern Longear Sunfish. Recently, however, many scientists have recognized them as separate species. The Central Longear Sunfish was collected by Edward Drinker Cope, who was probably better known for his fossil-collecting exploits, from the Kiskiminetas River in 1898. The Northern Longear Sunfish was collected by Edward Raney, of Cornell University, in Erie and Mercer counties during the 1930s. But, he also collected the Central Longear Sunfish in the same area of Mercer County and believed he caught intergrades between the two species.

Both species are quite colorful, and the characteristics that separate them are somewhat subjective. And, there is overlap among these characteristics. The Central Longear Sunfish may grow to a much larger size (as long as 9½ inches), and if it was more common in Pennsylvania, it could be a popular panfish. Its earflap has a white margin that is sometimes tinged with a pink or orange blush and may have small red spots scattered along it. The adult Northern Longear Sunfish

only very rarely reaches 5 inches and has a larger reddish spot on the rear edge of its earflap. It also has distinct small spots on its dorsal fin that are usually absent in the Central Longear Sunfish. And, a recent genetic study did not find a lot of difference between the two “species.”

Unfortunately, the debate over separate species status is moot for conservation purposes in Pennsylvania, since no Longear Sunfish has been seen in those northwestern counties in more than 70 years, and so the Northern Longear Sunfish is apparently gone from Pennsylvania.

The male Longear Sunfish has a brick red back and sides, and the color intensifies into bright orange on the head, breast and belly. Neon blue stripes radiate from the mouth, eye and below the dorsal fin. The back and sides are festooned with scrawls and spots of the same electric color. Dazzling red, orange and blue also extend onto the dorsal and anal fins and tail. The female is a bit more demure but still colorful.

It inhabits a fairly wide variety of waterways, from small creeks to medium rivers, and is usually found in or around cover such as rock complexes, boulders, downed trees and submerged vegetation. It prefers sluggish current and is sometimes found in lakes, ponds and canals.

Longear Sunfish feed on a wide variety of aquatic invertebrates and regularly will pounce on unfortunate terrestrial victims that fall into their drink. They have also been known to follow suckers around, picking out the orts that are stirred up with the dust as the larger fish root through the bottom.

Spawning occurs during late spring and early summer, and breeding grounds may look like dwellings where Longear Sunfish numbers are high, with excavated nests crowded closely together in colonial fashion. Each nest is guarded by a territorial male and in tight quarters relations can get testy. During courtship, the male circles his mate, which he keeps in the center of the nest, and sometimes emits unromantic grunting sounds. After spawning, the male Longear Sunfish fans the nest using rapid tail movements, presumably to embed the eggs in the gravel bottom, and subsequently guards them against predators.

The reason for the Longear Sunfish's disappearance in Erie and Mercer counties is unknown but is probably the result of pollution. It was collected in Edinboro Lake, which has experienced a decline in water quality as a result of development around its shores and the discharge of sewage and nutrients that came with it. The Mercer County locality, the Shenango River, is a bit of an enigma. Raney collected quite a few species at that location that could be considered rare today. Some are still there, some are gone. Pollution from manufacturing activities between 1940s and the 1970s probably caused the demise of several of these fish, but water quality is good today.

The only Longear Sunfish surviving today are in the southwest corner of Pennsylvania. A population was recently confirmed in the Wheeling Creek system that winds its way through Greene and Washington counties. Single individuals are rarely taken in the Ohio River. The source populations for these singles are unknown. They could be from undetected populations in nearby creeks, or there may be very small groups existing solely in the big river. Longear Sunfish have very small home ranges, so they probably didn't travel far.

Those fish that are hanging on in the Wheeling Creek system have a cloudy future. They are in the heart of the region's gas and coal fields, and extraction efforts are booming at these locations. Their greatest threats include increased turbidity and the siltation resulting from surface activities, reduction in water flows and the specter of a calamitous spill or other pollution.

Based on this known status, the Pennsylvania Fish & Boat Commission has listed the Longear Sunfish as an endangered species. Biologists continue to refine our knowledge of the status of this species, but it is difficult. Looking for Longear Sunfish in the Ohio River is like looking for a needle in a haystack. But, hopefully more will be found there or in streams nearby, and those in Greene and Washington counties will persevere.

It will take dedicated adherence to environmental standards and enforcement of existing regulations to ensure this aquatic beauty's long-term survival in Pennsylvania. ☐



The Pennsylvania Fish & Boat Commission has listed the Longear Sunfish as an endangered species.