

The peninsula known as DELMARVA is shared by three states, DElaware, MARyland, and VArginia. It is bounded and set apart by the Atlantic Ocean and Delaware Bay to the east, Chesapeake Bay to the west, and a shipping canal between the two bays, to the north. To the residents of the populous Baltimore, Washington, Richmond area, it is simply referred to as "the eastern shore". Isolated by the Chesapeake Bay for three hundred years, it remained, until the last two decades, undisturbed by the spreading suburbia and industrial growth surrounding it. In 1952 the Chesapeake Bay Bridge tied together Maryland's eastern and western shores, and in 1964 a seventeen and one half mile ocean bridge-tunnel established a link between the eastern shore of Virginia and the mainland at the Norfolk, Hampton Roads area.

Known to the outer world mainly through its Atlantic Ocean beach resorts of Ocean City, Maryland, and Rehoboth Beach, Delaware, Delmarva's flat, swampy, lowland terrain also provides excellent inland fishing for freshwater game and pan fish species, plus a varied abundance of smaller, aquarium size species appealing to native fish collecting "nuts" like myself, willing to make the one hundred mile journey from the population centers west of the Chesapeake Bay.

A representative "bag" from a day of wading, probing, and groping with a dip net among the lily pads and tuckahoe (a seine would not be practical in this thick, shallow water vegetation) of a typical Delmarva lowland pond, swamp, or slow moving stream environment might include

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any of the following fishes:

Lake Chubsucker (Erimyzon sucetta), Least Killifish or Mosquitofish (Heterandria formosa), Eastern Mudminnow (Umbra pygmaea), Pirate Perch (Aphredoderus sayanus), Brown Bullhead (Ictalurus nebulosus), Tadpole Madtom (Noturus gyrinus), Grass Pickerel (Esox americanus), Chain Pickerel (Esox niger), Largemouth Bass (Micropterus salmoides), Bluegill (Lepomis macrochirus), Pumpkinseed or Common Sunfish (Lepomis gibbosus), Warmouth (Chaenobryttus gulosus), Mud Sunfish (Acantharchus pomotis), Blackbanded Sunfish (Enneacanthus chaetodon), Banded or Little Sunfish (Enneacanthus obesus), and Bluespotted or Diamond Sunfish (Enneacanthus gloriosus),

plus such "extra added attractions" as salamanders, ghost shrimp, painted turtles, and crayfish.

The most eagerly anticipated and prized specimens out of the above listed group are, in my opinion, the three Enneacanthus species, namely the Blackbanded, Banded, and Bluespotted sunfishes, and the relatively unknown Mud Sunfish (Mud Perch and Mud Bass are sometimes used in referring to this species). The Enneacanthus species, because of their small size, gentle disposition, and quiet beauty, make ideal inhabitants for the home aquarium. The Mud Sunfish, although a bit larger in size and definitely predacious, is never the less quite peaceable if not tempted by the presence of smaller, meal size fish, and is one of my particular favorites.

The Blackbanded Sunfish, formerly classified as Mesogonistius chaetodon, is one of the most beautiful of native fish species and is without a doubt the "class" of the smaller sunfishes. More delicate in temperament and also in resistance to changes in water conditions than most of the other members of the sunfish family, its pearly white body is richly striped in black. The most prominent black stripe extends upward into the first few spikes of the dorsal fin and also downward covering the ventral fins, which have a leading edge of orange. A dozen or so of these beauties, sedate and graceful, swimming placidly with their fins erect, make an elegant array in a large aquarium decorated with floating vegetation to simulate their natural habitat.

Most abundant in weeds along the borders of creeks and bogs in the soft, strongly acid "blackwater" of the New Jersey pine barrens region, they are also found in similar environments extending southward to North Carolina, although there are relatively few instances of them being collected south of Maryland. In the wild their nests are usually found in beds of algae or in sandy spots among lily pads in a water depth of one foot or less. These dainty little creatures (maximum length is usually not more than three inches) will eat only

moving food - live tubifex worms and frozen and live brine shrimp are my offerings to them. Insect larvae and small crustacea probably compose the bulk of their natural diet.

I understand that the Blackbanded Sunfish is held in high regard as an "exotic" species in Europe, particularly Germany, and has been commercially bred there for a number of years. It is interesting to note that in the early days of the aquarium hobby in this country, E. chaetodon were subject to considerable pressure from commercial collectors and were marketed as "poor man's Scalare," due to their resemblance to immature Angelfish, which at that time were rare and very expensive. Today, this situation has been completely reversed, with Angelfish having been commercially bred in such great quantities as to make them quite inexpensive, while E. chaetodon demand a much higher selling price due to their limited availability as imported specimens from Europe.

Enneacanthus obesus, the Banded Sunfish, and E. gloriosus, the Blue-spotted Sunfish, are very colorful fishes which at one time were considered to be one and the same species. Considerable confusion still exists today as to the differentiation between the two, due principally to the fact that E. gloriosus, when frightened, exhibits a "fear pattern" of vertical bars, much like many of the cichlids, making it appear almost identical to E. obesus. I have kept both species for some time and have found that several discernible differences are present in the two species. E. obesus has a rounder profile and is heavier in the under-belly region than E. gloriosus, thus the specific name "obesus," meaning fat. E. obesus is a brownish fawn color, with indistinct transverse bars and yellow or gold iridescent spots covering the body and extending into the dorsal and anal fins. The flap of the gill cover has a black blotch the same size as the eye, and a dark stripe under the eye is the most prominent of the vertical bars or stripes. E. gloriosus has a more pointed profile around the head, is slimmer in the under-belly region, and is more greenish than E. obesus. It has a lesser black blotch on the gill flap, appreciably smaller than its eye, has blue or green iridescent spots on the body and vertical fins, and has no vertical bars, except when excited. Its only black stripe is an indistinct one under the eye.

The males of these two species make very attractive aquarium residents, especially when viewed in reflected sunlight, with their fins and bodies covered with glistening, iridescent spots. Females are considerably more drab, with fewer spots, and this makes differentiation of the two species even more difficult than with the males. I have collected both these little fishes in company with Enneacanthus chaetodon and Acantharchus pomotis, but have found E. gloriosus to be more tolerant of less acid waters in the range ph 6.4 to 6.8, and under such conditions they seem to thrive and become more abundant than in the more acid waters below ph 6.4, where E. chaetodon, E. obesus, and A. pomotis also reside.

Acantharchus pomotis, the Mud Sunfish, is an often overlooked member of the sunfish clan residing in sluggish, lowland fresh water along the Atlantic coast from New Jersey to South Carolina. This species is much more secretive than other members of its family, probably nocturnal in its feeding habits, and is found close to shore in heavily vegetated, muddy waters, in locations where one would expect to discover Mudminnows and Pirate Perch. It is a dark brown fish with five lengthwise black bands on its side and back, a large, bass-type mouth, several dark horizontal bands on its cheeks, and a black spot on the upper part of its gill flap. Maximum length in the wild is about five inches.

The Mud Sunfish can be maintained in a community tank with other native species; however, care must be exercised in selecting the type and size of its companions - two of my Elassoma zonatum (Pygmy Sunfish) learned this lesson the hard way! Passive and relatively immobile, this fish possesses a dark, subdued beauty which is especially appealing to me, and because it is so seldom collected and kept in aquaria, A. pomotis is a species holding fruitful possibilities for additional study and research into its characteristics, habits, and spawning behavior.

In concentrating on the smaller members of the sunfish family in this article, it has not been my intention to slight any of the other interesting fishes of the Delmarva region of the Middle Atlantic coastal plain. Much has been reported on and remains to be discovered and written about the Mudminnows, Killifishes, Pirate Perch, Madtoms, etc. I hope that I have been able to inform the reader about the natural attributes and abundance of this area of the East Coast, and perhaps provide the stimulus for the undertaking of a rewarding collecting adventure, which can be described in the following words:- DELMARVA, DELIGHTFUL DIP-NETTING !

Raymond Coombs

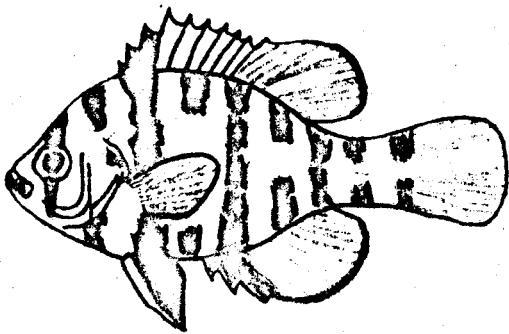
Greenbelt, Maryland  
July, 1973

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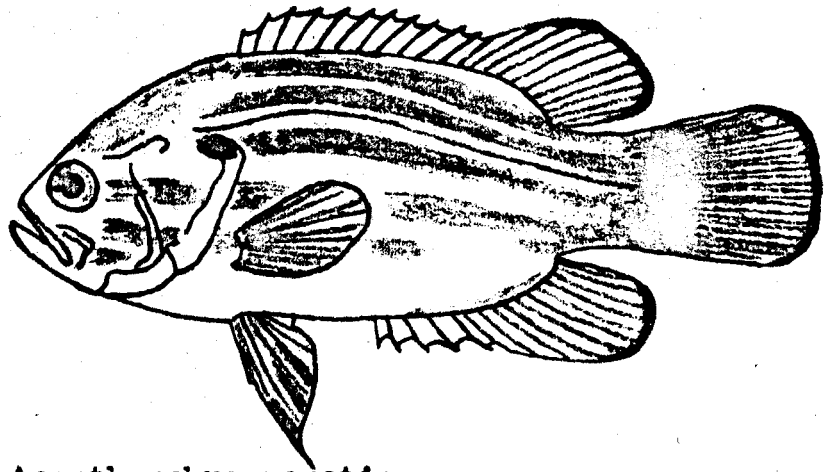
References:

1. Breder and Rosen, "Modes of Reproduction in Fishes," 1966.
2. Eddy, "How to Know the Freshwater Fishes," 1957.
3. Smith, "The Fishes of North Carolina," 1907.
4. Sterba, "Freshwater Fishes of the World," 1967.

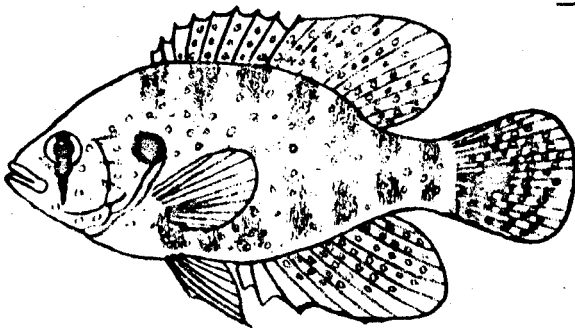
Described Species: drawings from references (2) and (3).



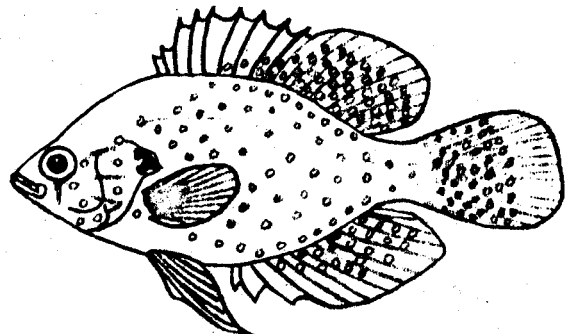
Enneacanthus chaetodon



Acantharchus pomotis



Enneacanthus obesus



Enneacanthus gloriosus