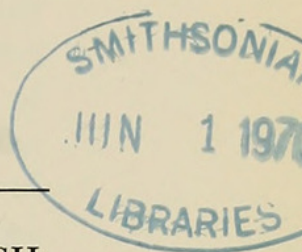


PROCEEDINGS
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BLENNIUS ANTHOLOPS, NEW DEEP-WATER FISH,
FROM THE GULF OF GUINEA, WITH COMMENTS
ON THE BATHYMETRIC DISTRIBUTION OF
THE FAMILY BLENNIDAE

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A single specimen of an undescribed blennioid fish was obtained during the R/V Pillsbury Deep-Sea Biological Expedition to the Gulf of Guinea, 1964-1965 (Voss, 1966). The specimen was obtained at a depth of 101-128 meters and is noteworthy as few species of blennioids are known to occur at depths greater than 25 meters.

There are only two other blennioids besides the new species that are known to occur at depths of 100 meters or more. These are the Mediterranean *Blennius ocellaris* Linnaeus and its close relative, *B. normani* Poll, from the west African coast. Field data for specimens in the collections of the Division of Fishes, U.S. National Museum of Natural History, indicate depths of capture as great as 400 meters and commonly over 100 meters for *B. ocellaris*, and depths of capture to 200 meters for *B. normani*. All three of the deep-dwelling species are members of the least specialized tribe of the Blenniidae, the Blenniini (subfamily Blenniinae). Of the other two tribes in the Blenniinae, no species of the Omobranchini are known from depths greater than a very few meters (probably all less than 5 meters), and the deepest occurring species of the Salariini known is an undescribed species of *Ecsenius* McCulloch observed by Springer at a depth of 36.6 meters in the Gulf of

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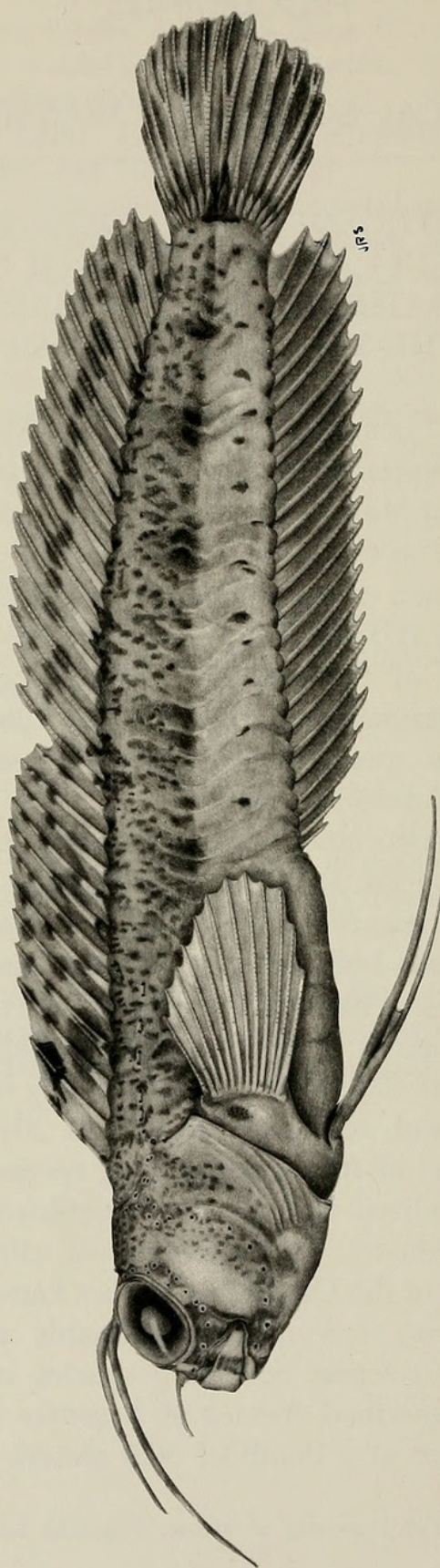


FIG. 1. *Blennius antholops*. USNM 204644, holotype, 53.6 mm SL, drawn by W. R. Schroeder.

Aqaba. Kuthalingam and Menon (1965) reported obtaining two specimens of *Xiphasia setifer* (Swainson) from a trawl haul made at a depth of 50–54 meters off the west coast of India. This depth is the deepest known for a species of the other blenniid subfamily, Nemophidinae. Most records of *Xiphasia* are based on specimens either washed up on shore or caught under a night light. No specimens are known to have been collected from shallow reefs, and it may be that *Xiphasia* commonly frequents fairly deep water. Springer observed an individual of the nemophidine *Meiacanthus nigrolineatus* Smith-Vaniz at a depth of 36.6 meters in the Gulf of Aqaba.

Blennius antholops new species

Figures 1 and 2

Holotype (only known specimen): USNM 204644, male, 53.6 mm SL, Gulf of Guinea from 40' otter trawl haul extending from 5°19'N and from 4°45' to 4°48'E, depth from 128 to 101 m, 12 May 1965, R/V Pillsbury station P-236, originally cataloged as UMML 21381.

Description (osteological terminology is that of Springer, 1968): Dorsal fin rays XII,20; fin notched between spines and segmented rays, attached by membrane to caudal peduncle. Anal fin rays II,22; spines not enveloped in fleshy swellings; fin attached to caudal peduncle by membrane. Pectoral fin rays 12–12. Pelvic fin rays I,3–I,3; middle segmented ray longest, free for about two thirds its length from outermost segmented ray, which is about 73 percent length longest ray; innermost segmented ray, which is about 27 percent length longest ray, much reduced in diameter, closely bound for its entire length to middle segmented ray, and difficult to see. Upper lobe of caudal fin with 4 unsegmented procurrent rays, followed by 2 weakly segmented, unbranched rays that do not articulate with fused dorsal hypural plate, 1 obviously segmented, unbranched ray and 6 segmented, branched rays that articulate with fused dorsal hypural plate; lower caudal lobe with 4 segmented, branched rays, 2 segmented, unbranched rays and 5 unsegmented procurrent rays. Caudal fin with two epurals, autogenous hypural 5 and autogenous ventral hypural plate. Vertebrae 11 + 27. Pleural ribs on vertebrae 3–11; epipleural ribs on vertebrae 1–15. Gill-rakers left side 9, right side 10. Pseudobranchial filaments left side 7, right side 6. Gill opening not restricted to side, extending from one side to other with deep, free fold across ventral side of head.

Premaxillary teeth (Roman numerals indicate canines) I-23-I (+I, replacement canine); dentary teeth I-20-I. Teeth not present on vomer. Dentaries joined at symphysis by even, non-interdigitating joint. Dorsal ends of premaxillary ascending processes abut ventral surface of protruding median ethmoid; kinethmoid not present.

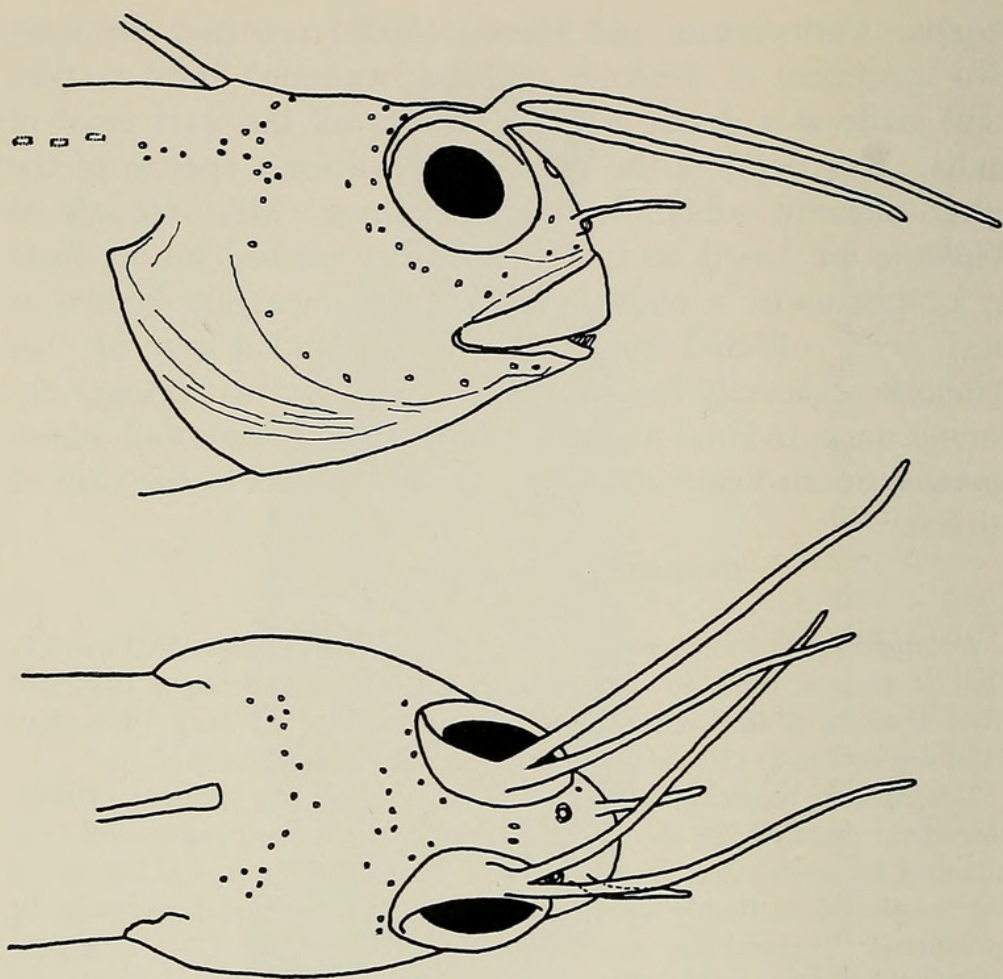


FIG. 2. *Blennius antholops*. USNM 204644, holotype, lateral and dorsal views of head illustrating sensory pore patterns.

Basisphenoid with belophram. Circumorbital bones 5, dorsalmost reduced, overlapped by adjacent ventral circumorbital and not visible in lateral view. Subocular shelf absent. Postcleithra 2, dorsal articulating with ventral and cleithrum. Post-temporal forked. Lateral extrascapular not fused with cranium.

Single, simple cirrus on anterior nostril, about 64 percent horizontal orbital diameter. Two long, rodlike cirri on each eye, longest lateral, about 3.2 times horizontal orbital diameter. No cirri on posterior nostril, nape or other portions of head. No fleshy occipital crest.

Sensory pores—Circumorbital series consisting of simple and horizontally paired pores; preoperculomandibular series of simple pores; supratemporal series with cluster of pores ventrally and longitudinal pair of pores mid-dorsally. Lateralis of 6 short, disconnected, longitudinally bipored tubes, posteriormost below level of 6th dorsal spine. Bone surrounding pores of posterior, supraorbital series raised, appearing externally as ornamentation.

Proportional measurements as percent SL: Head, 22.4; horizontal orbital diameter, 8.2; snout tip to posterior end of maxillary, 8.8; longest orbital cirrus, 26.5; nasal cirrus, 5.2; first dorsal spine (DS 1), 8.4; DS 2, 10.4; DS 3, 11.2; DS 5, 11.0; DS 11, 9.7; DS 12, 7.1; first segmented dorsal ray (DR 1), 10.1; DR 2, 11.4; DR 3, 11.2; DR 10, 12.7; DR 19, 8.6; DR 20, 6.0; first anal spine (AS 1), 3.7; AS 2, 4.8; first segmented anal ray (AR 1), 7.5; AR 5, 8.2; AR 10, 8.2; AR 21, 8.4; AR 22, 6.2; longest pectoral ray, 18.5; outermost segmented plevic ray, 23.2; middle pelvic ray, 31.7; innermost pelvic ray, 8.6; longest caudal ray, 16.8; insertion of DR 20 to caudal mid-base, 7.2.

Color pattern is complex and best discerned from figure 1.

Etymology: The Greek word *antholops* refers to a horned animal, probably the antelope, and is used here as a noun in apposition.

Relationships: We have examined a large number of blenniid species from throughout the world and find none that we consider to be particularly closely related to *B. antholops*. There is no other species in the tribe Blenniini that has orbital cirri proportionately as long, or disposed in quite the same way, as *B. antholops*. In addition we know of no species of Blenniini with pelvic fins proportionately as long as those of *B. antholops* or with ornamentation of the top of the head as is found in *B. antholops*. Our assignment of *antholops* to the genus *Blennius* is, therefore, provisional. It is our opinion that *Blennius*, as currently recognized, comprises a number of forms that will require generic recognition. The type-species of *Blennius*, *B. ocellaris*, and its only close relative, *B. normani*, have restricted gill openings, which is usually considered characteristic of genera other than *Blennius*. The same two species are the only ones in the tribe Blenniini that have the dentaries joined by an interdigitating joint. There are other generic names for species presently included in *Blennius*, but until the Blenniini have been treated comprehensively it is not possible to determine their applicability to *B. antholops*.

We are impressed with the similarity in color pattern between *B. antholops* and *B. tentacularis* Brünnich, which is a Mediterranean-Atlantic species. *B. tentacularis* also has a long supraorbital cirrus, but the cirrus is broad and bears fringes along its edges. While the cirrus may be as long as that of *B. antholops* relative to eye diameter, it is much shorter relative to head length: shorter than head in *B. tentacularis*; longer than head in *B. antholops*. In addition, *B. tentacularis* has 13–15 pectoral rays (rarely 13) as compared with *B. antholops* with 12 pectoral rays. There are numerous other differences between these two species, but as they are obviously not closely related there is little to be gained by a lengthy comparison.

Remarks: The large eye, long cirri and pelvic fins of *B. antholops* may be adaptations to a deep-water existence, where there is little light and much advantage in having well-developed sensory structures.

Blennius ocellaris and *B. normani* have very large eyes; however, their cirri and pelvic fins are not so well developed as those of *B. antholops*.

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