Documentation of the Blenniid Fish Parablennius thysanius from the Hawaiian Islands

VICTOR G. SPRINGER

ABSTRACT: Although Parablennius has been known to occur in the Hawaiian Islands (Oahu) since about 1971–1972, it was not possible until recently to identify the species. The presence of adults on the fouling of buoys and pilings at Oahu, and larvae in the plankton, are the only records of P. thysanius east of the Philippines.

DURING FEBRUARY 1974, I was shown some live blenniid fishes collected in Kaneohe Bay, Oahu, that were being maintained in an aquarium at the Hawaii Institute of Marine Biology (HIMBL). Using the currently prevailing taxonomy, I was able to identify the fishes only as belonging in the genus Blennius (Tribe Blenniini), which was then unreported from Hawaii. According to J. M. Leis (in litt., 5 July 1990), Watson and Leis (1974: 58 [reference not seen by me]) mentioned a larval blenniid they called type 5, which is the larva of the species I saw in 1974, and which, according to Watson and Leis, was the second most abundant blenniid larva in Kaneohe Bay during 1971–1972. Also, according to Leis (in litt.), Watson (1974 [reference not seen by me]) reported on the vertical distribution of these larvae, which Watson identified as Blennius sp., possibly based on my identification. Watson stated, “The genus Blennius has not been reported from Hawaiian water; this species may be a recent import.”

In 1978, William Watson, formerly at HIMBL, but then working elsewhere, sent me for identification some preserved specimens of the species I had seen at HIMBL. These had been collected in Kaneohe Bay in November 1973 and March 1974 and were in his personal possession (Watson, in litt., 26 June 1978). I tentatively identified the specimens as a species of Pictiblennius, based on Bath’s (1977) generic revision of the Blenniini, noting that the correct specific name would have to await a revision of Pictiblennius (Springer, in litt., 18 July 1978). I returned the specimens to Watson. Soon after, Miller et al. (1979: 177) listed, without comment, the presence of Blennius in Hawaii, possibly based on my initial identification.

Bath (1981) synonymized Pictiblennius under Parablennius, and Springer (1982: 18), unaware of the work of Watson (1974) and Miller et al. (1979), reported, for what he thought was the first time, that an unidentified species of Parablennius occurred in Hawaii. Springer noted that this occurrence represented the only record of a species of Blenniini from the Pacific lithospheric plate (an example of a Hawaiian exception-type distribution pattern [Springer 1982]).


Bock and Zander (1986) formally split the Tribe Blenniini into the Blenniini and Parablenniini (Smith-Vaniz [1976] earlier termed these two entities Blenniini and “Blenniini,” respectively). The distribution of the Parablenniini is essentially identical to that of the original Blenniini (tropical to temperate coasts on continental lithospheric plates and the Hawaiian Islands). The present Blenniini are known only from the Mediterranean–eastern Atlantic.

In March 1990, George S. Losey, Jr., col-
lected numerous specimens of *Parablennius* from the fouling on buoys floating in about 10 m of water and about 300 m from shore in South Bay, Kaneohe Bay, Oahu. Seventeen of these specimens, 13 males and four females, 27.4–51.1 mm standard length [SL], are cataloged as USNM 308501. Another 15 specimens [not seen by me], 30–46 mm SL, from the same collection, are cataloged at the Bishop Museum [BPBM 33935]. He informed me that the species is extremely common on the buoys. He has also seen it less commonly on the fouling of wharf pilings and has heard reports that it also occurs in Pearl Harbor (noted also by Watson [in litt., 26 June 1978]).

I have identified the specimens as *Parablennius thysanius* (Jordan & Seale) (Figure 1), based on comparison with the holotype of *Blennius thysaniu s* and on Bath’s (1989) revision of the Indo-Pacific species of *Parablennius*.

Bath (1989:330, fig. 47) reported that *Parablennius thysanius* was known from only a relatively few specimens from Pakistan, Sri Lanka, Oman, Thailand, and the Philippines. A distance of ca. 8500 km separates the Oahu population from the nearest (Philippines) population of the species. Based on minor differences in color pattern, body proportions, and meristics, Bath reported that his material seemed to comprise three populations, but that the material was insufficient for recognizing the populations taxonomically. I agree with his observations. The Hawaiian specimens also exhibit minor differences in meristics from specimens from other localities. All 17 of the Hawaiian specimens I examined, for example, have 23 caudal vertebrae, whereas specimens from the Philippines and Pakistan have from 22 (rarely) to 24 (commonly) caudal vertebrae (Table 1). In general, I have found that broadly distributed blenniid species exhibit considerable interpopulation variation, but that overlap in characters is so extensive that nomenclatural recognition is rarely warranted.

The distribution of *Parablennius thysanius* is marked by large gaps between known localities of occurrence. Whether these circumstances are indicative of the species’ distribution or are collecting artifacts is undecided. The habitat of *P. thysanius* in the Hawaiian Islands (fouling on buoys and pilings) causes me, like Watson (1974), to wonder if the species was, perhaps, introduced to Hawaii, perhaps from some area to the west by having been transported along with the fouling on a ship’s hull.

It is relevant to note here that Bennett (1828:34–35) described *Blennius sordidus*.
(= *Hypsooblennius sordidus*) from the Hawaiian Islands, and Günther (1861: 226) described *Bleniini brevipinnis* (= *Hypsooblennius brevipinnis*) from the Hawaiian Islands and the west coast of Central America. Both species are in the Parablenniini and otherwise restricted to the eastern Pacific, and neither has been collected subsequently from the Hawaiian Islands. Strasburg (1956: 243) did not believe either species occurred in the Hawaiian Islands, and Springer (1967) gave reasons for believing that the type locality of *H. sordidus* was either erroneous or based on a specimen that had been introduced.

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LITERATURE CITED


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