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Ecsenius niue, new species of blenniid fish, and new distribution records for other species in the Opsifrontalis species group

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Abstract

Ecsenius niue is described from Niue Island, SW Pacific. It is a member of the Opsifrontalis species group and is most similar to the Fijian endemic *E. fijiensis*, from which it differs in having six, as opposed to seven, vertical pairs of dark spots on the body posterior to a vertical from the base of the first segmented dorsal-fin ray, and in having the posteriormost pair of dark spots posteriorly elongate and attenuating onto the base of the caudal fin, as opposed to the spots being roughly circular and discrete. It differs from the superficially similar *E. tigris* (islands of the Queensland Plateau) in lacking the three or four dark spots on the body ventral to those on the dorsal body contour below the spinous dorsal fin. New distribution records are given for *E. axelrodi*, *E. bathi*, and *E. opsifrontalis*.

Key words: Blenniidae; *Ecsenius niue*, new species; *Ecsenius bathi*; *Ecsenius fijiensis*; *Ecsenius opsifrontalis*; Niue

Introduction

This study is the eighth in a series published by the author that treats the systematics and/or biogeography of the Indo-Pacific blenniid fish genus *Ecsenius* McCulloch (Springer, 1971, 1972, 1988, 1991; Springer and Randall, 1999; Springer and Allen, 2001; McKinney and Springer, 1976). The purpose of the present paper is to describe a new species in the Opsifrontalis species group (Springer, 1988:76-81) and to mention new distribution records for three other species in the group, *E. axelrodi* Springer, *E. bathi* Springer, and *E. opsifrontalis* Chapman and Schultz.

The synapomorphy that defines the Opsifrontalis species group is the presence on the body (of living or freshly dead specimens) of pinkish to reddish to brownish-orange stripes and/or bands in at least one color-pattern form of each species. These colors may be

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obscured by blackish stripes, bands, or spots in some species, but a faint “halo” of the color usually surrounds the dark markings.

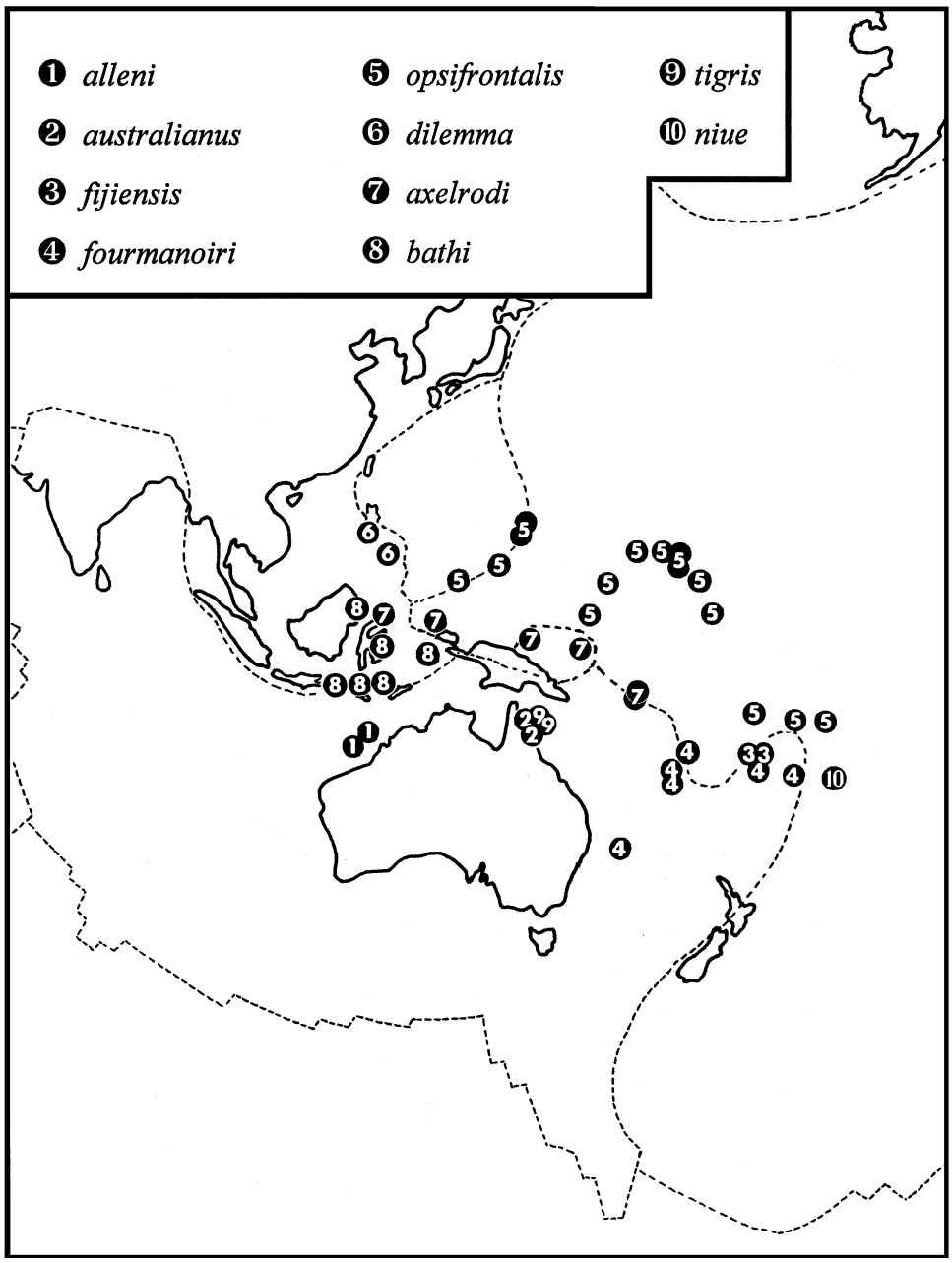

FIGURE 1. Distribution of the species in the Opsifrontalis species group of *Ecsenius.*

All the species appear to be residents of coral reefs and usually are restricted to depths of under 20 m, usually under 10 m. None of the species belonging to the Opsifrontalis group is known to occur sympatrically (Figure 1). Although reefless voids separating populations of some species (e.g., *E. fourmanoiri* Springer) may be as great as 1,500 km, distances separating the same populations from that of another species in the same group (e.g., *E. fijiensis* Springer) may be as little as 85 km (Springer 1988:76-77).

Methods

Methods and abbreviations are those given by Springer (1988), except that tooth counts were made on all specimens regardless of size.

Ecsenius niue, new species

(Figure 2a)

Holotype: NMNZ P.35765, male, 30.9 mm SL, Beveridge Reef, SW lagoon, Niue Island (20°01.13' S, 167°46.36' W), 7-13 m, collected by Clive Roberts and Terry Coe, 4 Oct 1998.

Paratypes. NMNZ P.35793, 6 specimens: male, 28 mm SL; female 24.7 mm SL, and four sex indeterminate 18.2-22.7 mm SL. 500 m N of Alophi Wharf, Opaahi, Niue Island, 5-11 m, collected by Clive Roberts and Terry Coe, 6 Oct 1998.

Description (characters of holotype, if warranted, given in parentheses). Dorsal fin XII,13 or 14 (14). Anal fin II,15 or 16 (16). Pectoral-fin 13-13 (13-14). Precaudal vertebrae 10, caudal vertebrae 22 or 23 (22). Caudal fin elements 8-13-7. Dentary incisor teeth 43-52 (50), lowest counts 43-46 are from smallest specimens, 18.2-21.9 mm; largest specimens, 22.7-30.9 mm, have counts of 49-52. Lateral line extending posteriorly to point between verticals from dorsal-fin spines 10 and 11.

All specimens have a preserved color pattern similar to that illustrated in Figure 2a. The main differences are in the intensity with which the dark markings are represented and, in the smaller specimens, the dorsal members of the pairs of spots tend to fuse into a stripe-like marking. The pattern on the anal fin, which is not clear in the Figure 2a, consists of a dusky sub-distal stripe, which is darkest distally, and very similar to that exhibited by *E. fijiensis* (Figure 2c).

Comparisons. *Ecsenius niue* will key to couplet 41 in Springer (1988:26), which differentiates *E. tigris* Springer (islands on the Queensland Plateau) from *E. fijiensis* (main Fijian and northern Lau islands) based on color pattern. *E. tigris* (Figure 2d) was stated to have four to six conspicuous dark spots on the dorsal body contour at the base of the spinous dorsal fin, as opposed to zero to two in *E. fijiensis*, and *E. tigris* was stated to have two vertical pairs of dark spots on the caudal peduncle, as opposed to three vertical pairs in

E. fijiensis. In *E. niue*, there are zero to three very diffuse, dusky spots on the dorsal body contour at the base of the spinous dorsal fin and two vertical pairs of dark spots on the caudal peduncle (the dorsal members of the two pairs may fuse). *Ecsenius niue*, thus does not clearly key to one or the other of the two species in the key couplet.

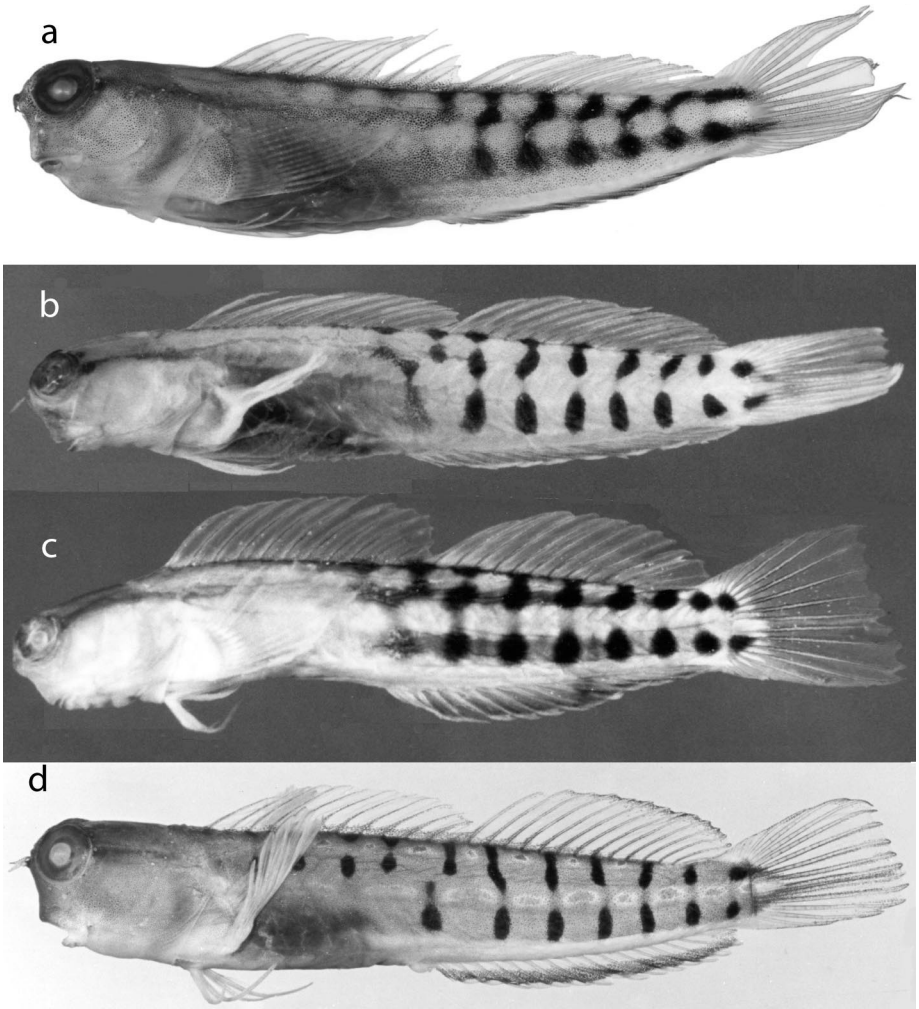

FIGURE 2. a, *Ecsenius niue*, NMNZ P.35793, female paratype, 24.7 mm SL (photo, T.B. Griswold): b,c, *Ecsenius fijiensis* (to illustrate variation); b, ANSP 128013, male 38 mm SL, Viti Levu, Fiji; c, USNM 211285, holotype, male, 35.0 mm SL, Great Astrolabe Reef, Kandavu (photos, J.F. McKinney); d, *Ecsenius tigris*, BPBM 31034, holotype, female, 28.9 mm SL, Osprey Reef, Coral Sea (photo, T.B. Griswold).

The diffuse extension of the posteriormost pair of spots onto the caudal fin of *E. niue* is similar to the extensions in *E. tigris* (Figure2d); however, in *E. tigris* there are three or

four conspicuous dark spots on the body ventral to those on the dorsal body contour below the spinous dorsal fin. These spots are absent in both *E. niue* and *E. fijiensis*. I believe that the color pattern of *E. niue* is most similar to that of *E. fijiensis.*

Distribution. Known only from Niue Island.

Etymology. Named *niue* in reference to the presumed endemicity of the species to Niue Island. The specific epithet is here used as a noun in apposition – thus, the Niue *Ecsenius*.

New records for Opsifrontalis group species

Ecsenius axelrodi

Stewart Islands, Solomon Islands, 162° 52' 30" E, 08° 23' S, USNM 357575 (16), 357589 (3).

Ecsenius bathi Springer

Banggai Islands, Indonesia, ca. 123° E, 02° 15' S (photograph in nature, G.R. Allen; specimens at WAM); Mabul Island, Sabah, Malaysia, 118° 38' E, 04° 14' N (photograph, Gosho, 1999:7); Pasir Sari, near Maumere, Flores, Indonesia, ca. 122° 30' E, ca. 08° 38' S (photograph, J.E. Randall).

Ecsenius opsifrontalis Chapman and Schultz

Wallis Island, 176° 14' 15" W, 13° 23' 05" S, USNM 364018-020 (6).

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