First Japanese Record of the Black Margined-scale Sergeant *Abudefduf nigrimargo* (Perciformes: Pomacentridae) from the Tokara Islands

Takuya Uejo¹, Kunto Wibowo², and Hiroyuki Motomura³,⁴

¹ Graduate School of Fisheries, Kagoshima University, 4-50-20 Shimoarata, Kagoshima 890-0056, Japan
² Research Center for Oceanography, LIPI, Jl. Pasir Putih I, Ancol Timur, Jakarta 14430, Indonesia
³ The Kagoshima University Museum, 1-21-30 Korimoto, Kagoshima 890-0065, Japan
E-mail: motomura@kaum.kagoshima-u.ac.jp
⁴ Corresponding author

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A single male specimen (137.1 mm standard length) of the damselfish *Abudefduf nigrimargo* Wibowo *et al.*, 2018, previously recorded only from Taiwan, was collected from Suwanose Island, Tokara Islands, southern Japan. The specimen represents the northernmost record for the species and first record from Japanese waters. The new Japanese name “Amime-oyabitcha” is proposed.

**Key Words:** Damselfish, Suwanose Island, Kagoshima Prefecture, Taiwan, distribution, morphology.

**Introduction**

The pomacentrid genus *Abudefduf* Forsskål, 1775 currently includes 21 valid species distributed in the Indian, Pacific and Atlantic oceans (Hensley and Allen 1977; Allen 1991; Lessios *et al.* 1995; Randall and Earle 1999; Wibowo *et al.* 2017, 2018), the most recently described species being *A. nigrimargo* Wibowo *et al.*, 2018, described from six specimens (91.8–119.5 mm standard length) from southern Taiwan (Wibowo *et al.* 2018).

During an ichthyofaunal survey of the Tokara Islands, southern Japan, a single male specimen of *Abudefduf* was collected in a depth of 3–5 m on a rocky breakwater at Kirishi Port, Suwanose Island on 20 April 2018. The specimen, subsequently identified as *A. nigrimargo*, represents the first record of the species from Japan and is described below.

**Materials and Methods**

Counts and measurements followed Wibowo *et al.* (2017). Standard length is abbreviated as SL. Curatorial procedures for the collected specimen followed Motomura and Ishikawa (2013). The Suwanose Island specimen, deposited at the Kagoshima University Museum, Kagoshima (KAUM–I. 115057, male, 137.1 mm SL), was collected by hook and line from a breakwater at Kirishi Port, Suwanose Island, Tokara Islands (29°36′49″N, 129°42′51″E) at a depth of 3–5 m on 20 April 2018 (coll. T. Uejo).

**Results and Discussion**

The specimen from Suwanose Island (KAUM–I. 115057, 137.1 mm SL; Fig. 1) was recognized as a member of *Abudefduf*, having vertical dark bars on the lateral surface of the body, smooth preopercular and suborbital margins, no notch between the preorbital and suborbital bones, 13 dorsal-fin spines, 19 pectoral-fin rays, 21 gill rakers on the first gill arch, snout scales extending slightly beyond the nostrils, body depth 1.7 in standard length, and jaw teeth uniserial with bicuspid, compressed tips, which are diagnostic characters of the genus (Allen 1975, 1991; Hensley and Allen 1977; Hensley and Randall 1983; Wibowo *et al.* 2017).

The Suwanose Island specimen agreed well with the diagnosis of *A. nigrimargo* in Wibowo *et al.* (2018): 12 dorsal-fin soft rays; 21 tubed lateral-line scales; 7 + 14 gill rakers; 4 scale rows above lateral line; 3½ scale rows between middle of spinous dorsal-fin base and lateral line; 5 scale rows on cheek; scales on suborbital region, continuous over basal area of lacrimal; many scales on anterointerior region of head (Fig. 2); scale covering over preopercle and interopercle continuous; scales on dorsal and lateral surfaces of body with blackish margin; body depth 59.2% of SL; lengths of eleventh and thirteenth dorsal-fin spines, and pectoral fin 16.5%, 18.5%, and 36.7% of SL, respectively; five blackish bands on lateral surface of body; 3 tubular lateral-line scales on fourth band; anteriormost band descending to behind pectoral-fin base; second and third black bands not extending dorsally onto membranes of spinous dorsal fin; interspaces between body bands yellowish-green dorsally, becoming whitish ventrally; and caudal-fin base without black spots.
The specimen differed slightly from the type specimens of *A. nigrimargo* in color pattern (regarded here as intraspecific variation), the anterior upper margin of the fourth band of the former being level with the second dorsal-fin soft ray base (*vs.* sixth ray in type specimens) and extending onto small scales at the dorsal-fin base (as in smaller type specimens; Wibowo *et al.* 2018: fig. 3a *vs.* not extending in larger type specimens; Wibowo *et al.* 2018: fig. 2a–c), respectively.

Additional meristics and morphometrics (all measurements as % SL) of the Suwanose Island specimen are as follows: II, 12 anal-fin rays; I, 5 pelvic-fin rays; 8+7 principal caudal-fin rays; 28 scales rows in longitudinal series; 11 scale rows below lateral line; 18 circumpeduncular scales; head length 29.7% SL; snout length 8.9; body width 19.8; orbit diameter 8.2; interorbital width 12.2; caudal-peduncle depth 18.7; caudal-peduncle length 18.7; upper-jaw length 9.0; pre-dorsal-fin length 61.8; spinous dorsal-fin base length 44.3; soft-rayed dorsal-fin base length 18.0; first dorsal-fin spine length 8.2; second dorsal-fin spine length 11.7; third dorsal-fin spine length 14.6; fifth dorsal-fin spine length 16.2; seventh dorsal-fin spine length 17.4; ninth dorsal-fin spine length 17.1; first dorsal-fin soft ray length 21.2; longest dorsal-fin soft ray (fourth) length 32.3; last dorsal-fin soft ray length 9.6; pre-anal-fin length 74.4;
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anal-fin base length 23.7; first anal-fin spine length 6.9; second anal-fin spine length 15.1; first anal-fin soft ray length 20.5; longest anal-fin soft ray (fifth) length 26.7; last anal-fin soft ray length 9.1; caudal-fin length 41.4; caudal concavity 13.1; pre-pelvic-fin length 42.4; pelvic-fin length 31.7; pelvic-fin spine length 15.7; last pelvic-fin soft ray length 12.1; basal width of pelvic-fin axillary scale 3.2; basal width of scale between pelvic-fin base 4.3; length of portion of lateral line with tubed scales 60.7. These meristic and morphometric values of the Suwanose Island specimen agreed well with those of the type specimens of *A. nigrimargo* given by Wibowo et al. (2018: table 1). Detailed comparisons of *A. nigrimargo* with its congeners were given in Wibowo et al. (2018).

Since *A. nigrimargo* has been recorded only from southern Taiwan (Wibowo et al. 2018), the Suwanose Island specimen represents the first record of the species from Japan. The new standard Japanese name “Amime-oyabitcha” is herein proposed for *A. nigrimargo*, “amime” meaning ‘reticulation’ in reference to the black-margined body scales of the species, and “oyabitcha” being the Japanese name for the closely related species *Abudefduf vaigiensis* (Quoy and Gaimard 1825).

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