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## Damselfishes of the Genus *Dischistodus* found in the Ryukyu Islands

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## Damselfishes of the Genus *Dischistodus* found in the Ryukyu Islands.

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**Abstract.** Two species of the damselfishes of the genus *Dischistodus* are recognized and described from the Ryukyu Islands. *D. notophthalmus* is recorded for the first time from the Japanese waters. *D. prosopotaenia* has been often misidentified as *Pomacentrus pristiger* or *P. notophthalmus* by Japanese Ichthyologists.

The damselfish genus *Dischistodus* established by Gill (1863) had been long treated as a subgenus or a synonym of *Pomacentrus* by many Ichthyologists. In his revisional study on damselfishes of the South Seas, Allen (1975) pointed out *Dischistodus* as a valid genus with 6 species.

During the course of studies on damselfishes from the Ryukyu Islands, two species, *Dischistodus prosopotaenia* and *D. notophthalmus*, were collected from the Yaeyama Islands, southern Ryukyus. A careful examination of the specimens of the former species revealed that both *Pomacentrus pristiger* and *P. notophthalmus* reported by Aoyagi (1941) and other Japanese authors were identical with this species. Therefore true *D. notophthalmus* has not been recorded from the Japanese waters up to this time. In this report, I describe and illustrate these two species of this genus to clarify the confusion.

All the specimens studied here are preserved at Department of Marine Sciences, University of the Ryukyus. The method of counts and measurements were based on Allen (1972 and 1975). All the data of measurements were expressed in thousandths of the standard length. Before going further I wish to thank to Kazushi Okamoto and Teruo Fukuda of then Yaeyama Marine Park Research Station for kindly giving the specimen of *D. notophthalmus*.

### *Dischistodus* Gill

(New Japanese name; Dandara-suzumedai-zoku)

*Dischistodus* Gill, 1863; 214 (type species, *Pomacentrus fasciatus* Cuvier)

Key to the species of *Dischistodus* from the Ryukyu Islands.

- 1a. Number of gill-rakers on first arch 21 to 23; dorsal part of body above an oblique line from snout to the end of spinous dorsal dark brown; anal region covered with large dark brown patch.....*D. notophthalmus*

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- 1b. Number of gill-rakers on first arch 28 to 33; two, brown, vertical bands on side of body; anus black. .... *D. prosopotaenia*

*Dischistodus notophthalmus* (Bleeker)

(New Japanese name; Seguro-suzumedai)

(Fig. 1)

*Pomacentrus notophthalmus* Bleeker, 1853; 137. Günther, 1862; 20.

Montalban, 1927; 62. Fowler et Bean, 1928; 107. Beaufort, 1940; 377. Munro, 1967; 389.

*Pomacentrus melanotus* Bleeker, 1858; 13.

*Dischistodus notophthalmus* Bleeker, 1877; 82. Bleeker, 1878; pl. 401, fig. 8. Allen, 1975; 131, with figs. (not numbered).

*Pomacentrus suluensis* Seale, 1909; 519.

**Material examined.** 1 specimen, 95.8 mm in standard length, Dec. 1976, Urabishi, Kuroshima Island.

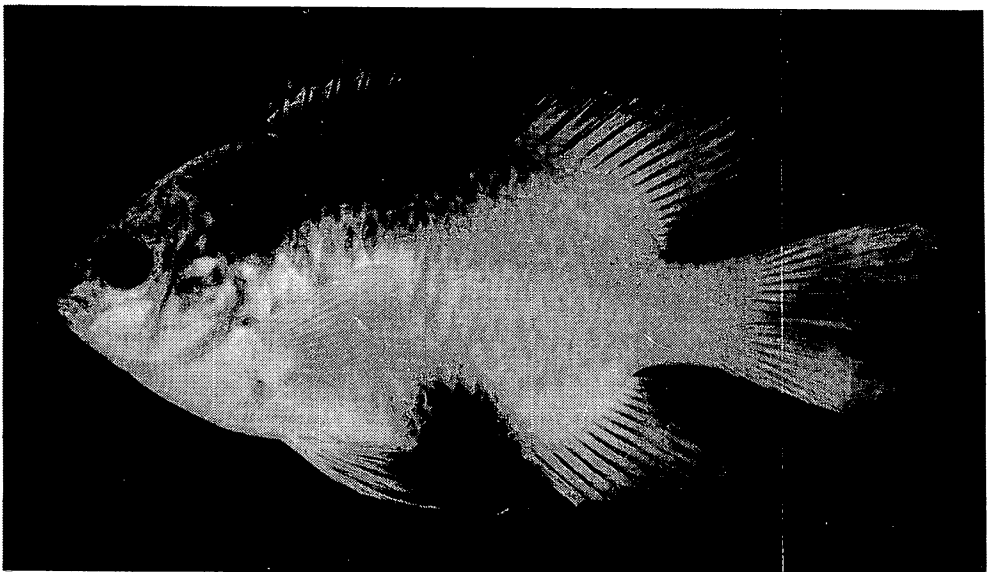


Fig. 1 *Dischistodus notophthalmus* (Bleeker), 95.8 mm in standard length. (preserved specimen).

**Description.** Dorsal fin rays XIII, 13; anal fin rays II, 13; pectoral fin rays 17; tubed lateral line scales 17; vertical scale rows 26; gill-rakers on first arch (including rudiments)  $8 + 15 = 23$ . Body depth 476; head length 280; snout length 80; eye diameter 80; interorbital width 100; least depth of caudal peduncle 165; length of caudal

peduncle 98; length of pectoral fin 267; length of ventral fin 322; length of ventral fin spine 164; length of 1st dorsal spine 71; length of the last dorsal spine 191; length of the longest dorsal ray 257; length of 2nd anal spine 176; length of the longest anal ray 236.

Body ovoid, laterally compressed. Head profile round from tip of snout to origin of dorsal. Interorbital convex. Mouth small, oblique, terminally located, maxillary reaching a little before anterior margin of eye. Teeth biserial, those of the outer row closely set. Single nasal opening on each side of snout. Margin of infraorbital and preopercle with many denticulations. Notch between lacrimal and infraorbital absent. Dorsal spines increasing in size posteriorly. Outer margins of soft dorsal and anal slightly rounded. Caudal fin emarginate, with lobes rounded. Lacrimal, infraorbital, tip of snout, lips, chin and isthmus naked; remainder of head and body scaled. Small sheath scales covering basal part of dorsal, anal, and caudal fins. Lateral line gently arched beneath dorsal fin, interrupted below the base of 1st dorsal ray, reappearing as a row of pores on middle of posterior part of body.

**Coloration when alive.** Body white, with upper part of head and anterior part of back including spinous dorsal dark brown. Lower part of head and breast yellow. Large bluish-white spots on head and opercle; two lines of same color on snout. Anal region covered with large dark brown patch. A small black blotch at origin of lateral line.

**Remarks.** This specimen agrees well with the descriptions and figures given by many authors. For reason given in the section of *D. prosopotaenia*, all previous records of this species from Japan were actually those of *D. prosopotaenia*. This is the first record of this species from Japan. Hitherto known distributed in the tropical West Pacific, north to the Philippines.

*Dischistodus prosopotaenia* (Bleeker)

(Japanese name; Dandara-suzumedai or Kiseboshi-suzumedai)

(Fig. 2)

*Pomacentrus prosopotaenia* Bleeker, 1852; 67. Günther, 1862; 23.

Montalban, 1927; 63. Fowler et Bean, 1928; 104. Beaufort, 1940; 372. Munro, 1967; 390.

*Dischistodus prosopotaenia* Bleeker, 1877; 80. Bleeker, 1878; pl. 407, fig. 8. Allen, 1975; 134, with figs. (not numbered). Masuda et al., 1980; 288, pl. 97 H and I.

*Pomacentrus pristiger* (not of Cuvier) Aoyagi, 1941; 203.

*Pomacentrus notophthalmus* (not of Bleeker) Aoyagi, 1941; 207, fig. 23.

Masuda et al., 1975; 288, pl. 97 H and I.

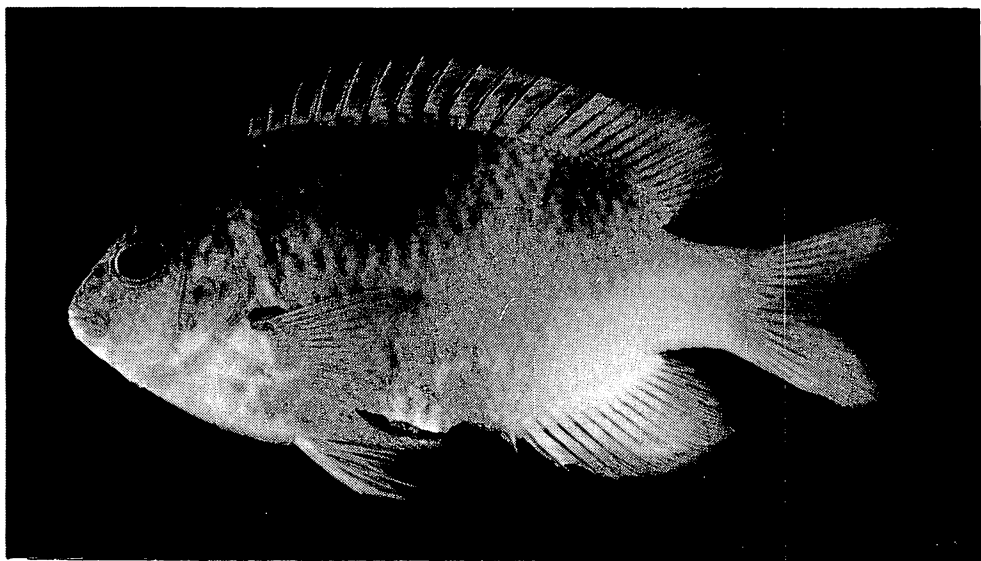


Fig. 2 *Dischistodus prosopotaenia* (Bleeker), 104.9 mm in standard length. (preserved specimen).

**Material examined.** 7 specimens, 43.7 to 104.9 mm in standard length, July 22, 1976, Kabira Bay, Ishigaki Island. 2 specimens, 33.4 and 35.4 mm in standard length, July 24, 1974, Iriomote Island. 1 specimen, 47.4 mm in standard length, Aug. 9, 1974, Kabira Bay, Ishigaki Island. 1 specimen, 31.1 mm in standard length, Aug. 7, 1977, Ishigaki Island. 2 specimens, 31.0 and 32.9 mm in standard length, Aug. 3, 1976, Iriomote Island.

**Description.** Dorsal fin rays XIII, 14 to 15; anal fin rays II, 13 to 14; pectoral fin rays 16 to 18; tubed lateral line scales 16 to 17; vertical scale rows 27 to 28; gill-rakers on first arch (including rudiments) 9 to 10 + 19 to 23 = 29 to 32. Body depth 458 to 490; head length 286 to 310, snout length 78 to 97; eye diameter 80 to 93; interorbital width 95 to 115; least depth of caudal peduncle 152 to 168; length of caudal peduncle 104 to 121; length of pectoral fin 259 to 305; length of ventral fin 275 to 314; length of ventral fin spine 163 to 183; length of 1st dorsal spine 61 to 79; length of last dorsal spine 156 to 172; length of the longest dorsal ray 227 to 237; length of 2nd anal spine 130 to 141; length of the longest anal ray 223 to 236.

Body ovoid, laterally compressed. Head profile round from tip of snout to origin of dorsal. Interorbital convex. Mouth small, oblique, terminally located, maxillary reaching a little before anterior margin of eye. Teeth biserial, those of the outer row closely set. Single nasal opening on each side of snout. Margin of infraorbital and preopercle with many denticulations (obscure in the specimens less than 56 mm in

standard length). Notch between lacrimal and infraorbital absent. Dorsal spines increasing in size posteriorly. Outer margins of soft dorsal and anal slightly rounded. Caudal fin emarginate, with robes rounded. Lacrimal, infraorbital, tip of snout, lips, chin and isthmus naked; remainder of head and body scaled. Small sheath scales covering basal part of dorsal, anal, and caudal fins. Lateral line gently arched beneath dorsal fin, interrupted below the base of 1st to 3rd dorsal ray, reappearing as a row of pores on middle of posterior part of body.

**Coloration when alive.** Body white. Two wide, brownish, vertical bands on side of body; the anterior before a line from anterior dorsal to pectoral base. the second on middle of body (these bands situated more posteriorly in large specimens). Scales on head and body with small blue spots or narrow vertical lines. Narrow blue lines across snout to eye and across chin. Anus and axil of pectoral fin black. A small black blotch at origin of lateral line. Juveniles with a yellow-fringed black ocellus on the last three dorsal spines.

**Remarks.** Aoyagi (1941) counted 32 and 28 gill-rakers in his description of *P. pristiger* and *P. notophthalmus*. According to Allen (1975), there are only two species (*D. prosopotaenia* and *D. perspicillatus*) with more than 28 gill-rakers among 6 species of this genus. *D. perspicillatus* is easily distinguished from *D. prosopotaenia* in having different coloration. Judging from the descriptions of coloration, those specimens described as *P. pristiger* or *P. notophthalmus* by Aoyagi (1941) and other Japanese authors agreed well with my specimens of this species.

This species is known widely distributed in the tropical East Indian Ocean and West Pacific, north to Okinawa Island.

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