The Anthiine Fish, *Mirolabrichthys dispar*, from Ishigaki Island, Japan

Masao Katayama

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Recently samples of a small anthiine fish, *Mirolabrichthys dispar* Herre, which was described from the Solomon Islands, were captured at Nagura Bay, Ishigaki Island. This record is the first from Japan. In this report a full description with sexual dimorphism is made of these materials.

Mirolabrichthys dispar Herre
(New Japanese name: Akane-hanagoi)
(Fig. 1)

Mirolabrichthys dispar Herre, 1955: 223 (Solomon Islands); Heemstra, 1973: 208.

Materials. Katayama's Cat. No. 5741, 52 mm in standard length, female; three specimens, ZUMT (Department of Zoology, University Museum, University of Tokyo) 54177, 54178 and 54179, 59 mm, 60 mm and 53 mm, male, collected at depth from 3 m to 10 m, December 10, 1977, Nagura Bay of Ishigaki Island, by Katsumi Suzuki; K5742, 67 mm and K5743, 64 mm, male, collected at the same locality, April 11, 1978.

Description. D. X, 17; A. III, 7; P. 20 or 21; pored scales in lateral line 59 to 63; gill rakers on first arch 9+23 or 24 = 32 or 33. Head length 2.98 to 3.33 in standard length; greatest body depth 2.84 to 3.21; caudal fin length 2.16 to 2.31; pelvic fin length 1.61 to 1.85 in male, 2.89 in female. Snout 3.00 to 3.69 in head length in male, 3.78 in female; upper jaw length 1.80 to 2.11; eye diameter 4.05 to 4.79; interorbital space 3.00 to 3.40; postorbital length of head 1.95 to 2.19; length of caudal peduncle 1.36 to 1.58; depth of the same 2.00 to 2.36; pectoral fin length 1.06

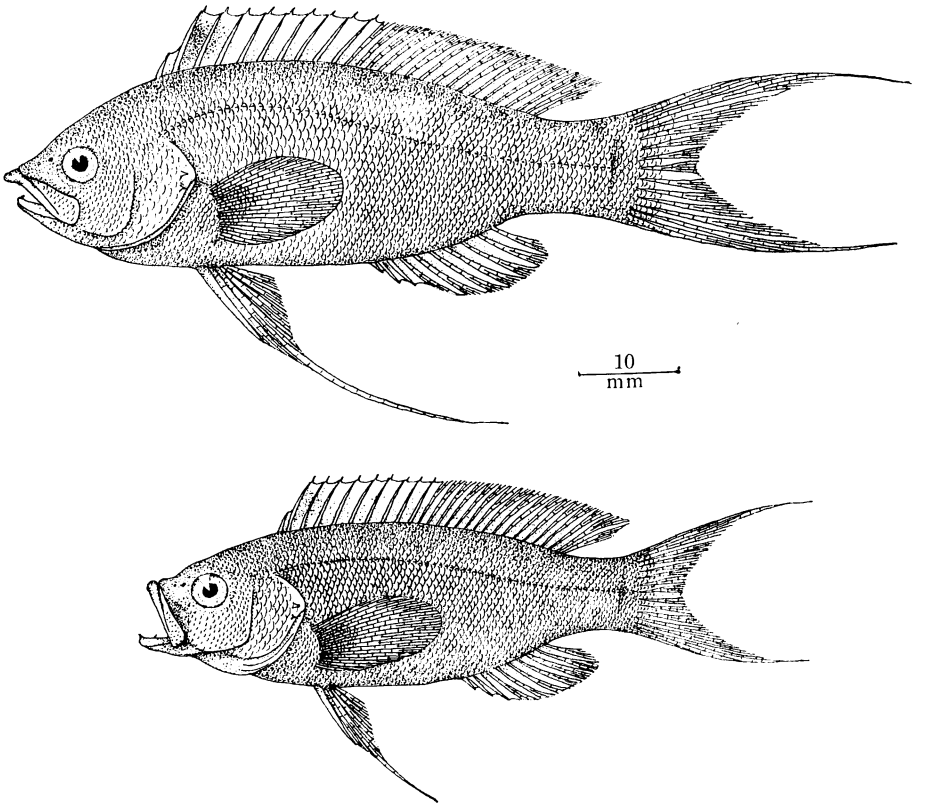

Fig. 1. *Mirolabrichthys dispar* from Ishigaki Island. Top: K 5742, 67 mm in standard length, male. Bottom: K 5741, 52 mm, female.

to 1.34; length of pelvic spine 2.15 to 2.71; length of longest spine (second one) 2.33 to 2.50 in male, 2.16 in female; longest soft dorsal (16th one) 1.86 to 2.15 in male, 2.27 in female; length of first anal spine 2.93 to 4.18 in eye diameter; length of second anal spine 1.42 to 1.85; length of third anal spine 3.91 to 4.75 in head length; length of fourth anal ray 1.90 to 2.13.

Body elongate, strongly compressed; dorsal and ventral outlines gently and evenly curved. Head rather small and pointed. In male upper lip hypertrophied at symphysis, forming a protuberant papilla at tip of snout. Mouth oblique, maxillary expanded distally, extending beneath the middle of eye. Interorbital space broader than eye diameter and strongly convex. Nostrils two, directly in front of eye; anterior nostril with a posterior flap, posterior one oblong in shape. Teeth on upper jaw in two series, outer teeth canine-like, inner ones minute, in a narrow band; a pair of canines on each side of the tip of upper jaw; lower jaw with small teeth; a pair of canines on tip of lower jaw and posteriorly one or two canines on each side; small teeth on vomer and palatines in a narrow band; tongue smooth. Preopercle serrated; opercle with two spines, upper one longer; subopercle and interopercle smooth. Gill rakers close-set and very long, the longest one much longer than gill filament. Dorsal unnotched, inserted above upper end of gill opening, second spine longest and the spines rather slender; posterior margin of anal fin round or subangular; pectoral subsymmetrical, shorter than head length, reaching vertical through vent, the rays mostly branched; pelvic fin inserted below lower base of pectoral, second ray very filamentous; caudal deeply emarginated, the lobes filamentous; branched caudal rays 13. Scales moderately large, ciliated, 9 in a series from origin of dorsal to lateral line, 7 from middle spinous dorsal to lateral line and 26 or 27 from origin of anal to lateral line; head densely scaled except lips and throat; dorsal and anal fins naked. Lateral line normally curved, nearly concurrent with back and extending along middle of caudal peduncle to base of caudal fin.

Color when fresh: This species is sexually dichromatic. In male, body scarlet, becoming paler ventrally; a red oblique line from top of snout passing through eye and extending to base of pectoral; dorsal fin red, anterior part of spinous dorsal between the first and third spines with a dark red blotch; anal fin pale pink; pectoral fin pale red; pelvic fin yellow, rarely pink. In female, body orange red; a red oblique line from top of snout extends to base of pectoral; a paler red blotch on the anterior part of spinous dorsal; anal fin pale red; pectoral fin pale yellow; pelvic fin colorless or pale yellow.

Sexual dimorphism: One specimen is female and five are male. These show the following differences with sex: 1. The body size of the male is larger than in females; 2. the upper lip of male hypertrophied, forming a protuberant papilla at the tip of snout; 3. in male the second ray of pelvic fin more produced into a filament; 4. color as discussed above.

Notes. The size-sex distribution implies a possible protogynous mode of reproduction like in *Sacura margaritacea* and *Franzia squamipinnis*. Mr. K. Suzuki and his colleague are studying the ecology of this fish. In the near future they will present the results of their study on sex reversal.

This species closely resembles *M. tuka pascalus* Jordan et Tanaka, but differs from it in having a greater number of pored scales in the lateral line (48～51 in the latter), more numerous pectoral rays (17～19 in the latter), a higher anterior part of the spinous dorsal (a higher posterior part of soft dorsal in the latter), a round or subangular posterior margin of the anal fin (a lunate posterior margin in the latter), a long filamentous ray on the pelvic fin (a short filamentous ray in males in the latter) and a dark red blotch on the anterior part of spinous dorsal in males (a dark red blotch on the posterior part of soft dorsal in male in the latter). This species (70 mm SL) seems to be smaller than the latter (120 mm).

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(2-11-22 Tatara, Hofu 747, Japan)

石垣島から得られたアカネハナゴイ（新称）*Mirolabrichthys dispar*

片山正夫

ソロモン諸島から記載されたアカネハナゴイ(新称) *Mirolabrichthys dispar* Herre が石垣島名蔵湾に生息することがわかった．本種はハナゴイ *M. tuka pascalus* Jordan et Tanaka に似ているが，側線鱗数および胸鰭軟条数が多いこと，腹鰭第2軟条が長く糸状に延びていること，背鰭前方が高く，雄では前方部に暗赤色斑があることなどで区別される．本種は雌雄差が顕著で，サクラダイやキンギョハナダイのように雌性先熟型の性転換を行う魚のようである．

(747 山口県防府市多々良 2-11-22)