*Zoological Studies* **36**(2): 127-135 (1997)

Zoological Studies

# Twelve New Records and Two Rare Species of Marine Gobioids from Taiwan

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*(Accepted January 23, 1997)*

**I-Shiung Chen, Jeng-Ping Chen and Kwang-Tsao Shao (1997)** Twelve new records and two rare species of marine gobioids from Taiwan. *Zoological Studies* **36**(2): 127-135. We report 12 new records of marine gobioid fishes from Taiwan, including 11 species of Gobiidae: *Amblygobius nocturnus* (Herre, 1945); *Asterropteryx spinosus* (Goren, 1981); *Eviota sebreei* Jordan and Seale, 1906; *Fusigobius duospilus* Hoese and Reader, 1985; *Gobiodon fulvus* Herre, 1927; *Gobiodon unicolor* (Castenlnau, 1873); *Mahidolia mystacina* (Valenciennes, 1837); *Trimma grammistes* (Tomiyama, 1936); *Trimma okinawae* (Aoyagi, 1949); *Valenciennea muralis* (Valenciennes, 1837), and *Valenciennea puellaris* (Tomiyama, 1956); and 1 species of Microdesmidae: *Parioglossus formosus* (Smith, 1931). Among these, *Mahidolia* Smith, 1932 is a new record of this genus from Taiwan. Additionally, we confirm the presence of 2 other gobiids in Taiwan: *Barbuligobius boehlkei* Lachner and Mckinney, 1974 and *Eviota saipanensis* Fowler, 1945. Diagnostic characters, distribution, remarks, and color photos of each species are given.

**Key words:** Fish fauna, Fish taxonomy, Gobiidae, Microdesmidae.

The most numerous list of gobioid fishes of Taiwan was made by Yu (1988) and it included 134 species. However, the list contained some invalid records (some of them without available specimens) and untreated synonyms, so only 103 species may be valid). Within the last 10 years (1987-1996), taxonomic studies of gobioids have reported 11 new species including 1 *Trimmatom*, 3 *Priolepis*, 1 *Schismatogobius*, and 5 *Rhinogobius* species (Winterbottom 1989, Winterbottom and Burridge 1992, Winterbottom and Burridge 1993a, Chen et al. 1995, Aunoma and Chen 1996, Chen and Shao 1996, Lee and Chang 1996), and at least 34 newly recorded gobioid species within 10 additional recorded gobioid genera including *Ctenogobiops, Lotilia, Trimmatom, Pleurosicya, Paragobioidon, Pseudogobius, Sicyopus, Bryaninops, Schismatogobius, and Creisson* (Shao et al. 1987, Winterbottom 1989, Larson 1990, Shao and Chen 1993, Shen et al. 1993, Winterbottom and Burridge 1993a,b, Hoese and Larson 1994, Chen et al. 1995a,b, Chen et al. 1996). Thus, at least 162 species of gobioids have been found in Taiwanese waters if the 12 new records in the present paper are included. Among these, 134 species inhabit marine and coastal waters. Nevertheless, in the future more collection methods should be used to survey more sampling localities, especially those in brackish mangrove areas, and deeper marine habitats (at depths of more than 30 m). After re-examing the specimens we collected from different areas in Taiwan, we obtained the following 12 new records of gobioids (Gobiidae and Microdesmidae) from coral reef waters around Taiwan and nearby islands. They are *Amblygobius nocturnus* (Herre, 1945); *Asterropteryx spinosus* (Goren, 1981); *Eviota sebreei* Jordan and Seale, 1906; *Fusigobius duospilus* Hoese and Reader, 1985; *Gobiodon fulvus* Herre, 1927; *Gobiodon unicolor* (Castenlnau, 1873); *Mahidolia mystacina* (Valenciennes, 1837);

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*Parioglossus formosus* (Smith, 1931); *Trimma grammistes* (Tomiyama, 1936); *Trimma okinawae* (Aoyagi, 1949); *Valenciennea muralis* (Valenciennes, 1837); and *Valenciennea puellaris* (Tomiyama, 1956). Among these, *Mahidolia* Smith, 1932 is a new record of this genus from Taiwanese waters. Additionally, we can also confirm the presence of the following 2 rare gobiids which were previously recorded from Taiwan: *Barbuligobius boehlkei* Lachner and Mckinney, 1974 and *Eviota saipanensis* Fowler, 1945.

## MATERIALS AND METHODS

Specimens were collected from the northeastern and southern coasts (Kenting National Park) of Taiwan, Penghu Islands, and Orchid Island (Lanyu) by scuba diving during surveys of the marine fish fauna of Taiwan. All counts of meristic characters follow Akihito in Masuda et al. (1984), and measurements of morphometric characters follow Hubbs and Lagler (1958). Abbreviations used for those characters include: D: dorsal fin; A: anal fin; $P_1$: pectoral fin; $P_2$: pelvic fin; LR: longitudinal scale rows; TR: transverse scale rows; Pred S: predorsal scales; SL: standard length; HL: head length; BD: body length; Pred L: predorsal length; SD2L: Length of snout to 2nd dorsal origin; SAL: length of snout to anal origin; CPD: caudal peduncle depth; ED: eye diameter; SnL: snout length; HW: head width; and Int: interorbital width. Descriptions of body coloration are based on fresh specimens. All specimens are deposited in the Institute of Zoology, Academia Sinica (ASIZP).

### Family Gobiidae

### *Amblygobius nocturnus* (Herre, 1945)

(Fig. 1)

*Yabotichthys nocturnus* Herre 1945: 3 (Busuanga Is., Philippines).

*Amblygobius nocturnus*: Akihito in Masuda et al. 1984: 256; Myers 1989: 229.

*Material*: 1 specimen, ASIZP-057634, 22.1 mm SL, Jan. 8, 1986, Tantshwan, Pingtung County, 16 m depth.

*Diagnosis*: VI-I,14, A I, 14; $P_1$ 17; $P_2$ I, 5; LR 66; TR 22; Pred S 0. HL 3.3 BD 6.4; HW 7.3; Pred L 2.6; SD2L 1.8; SAL 1.5; CPD 8.0 all in SL. ED 4.5; Int 7.2; SnL 4.7 all in HL.

Jaw extending to the vertical of posterior margin of pupil. Snout not overhanging upper lip. Head rounded, body compressed. Spines of 1st dorsal about equal. Second dorsal, anal as high as 1st dorsal. Pelvic united. Body pale gray, with 2 broad longitudinal pinkish-red stripes; one from snout crossing eye to upper margin of caudal, the other extending from end of mouth to midline of caudal fin. Row of dark red spots near base of soft dorsal. Basal part of 2nd dorsal and anal fins with broad pink lines. Pectoral and pelvic fins colorless.

*Distribution*: West Pacific: from Japan, Taiwan to the Philippines and the Great Barrier Reef.

*Remark*: This species is very similar to *A. decussatus* (Bleeker), but the former differs by the lack of scattered red spots on the body, and the presence of broader longitudinal red bands.

### *Asterropteryx spinosus* (Goren, 1981)

(Fig. 2)

*Oplopomus spinosus* Goren 1981: 96 (Ile Maitre, New Caledonia)

*Asterropteryx* sp. Hayashi in Masuda et al. 1984: 242; Akihito et al. in Nakabo 1993: 1070.

*Asterropteryx spinosus*: Randall and Goren 1993: 5.

*Material*: 1 specimen, ASIZP-057635, 45.7 mm SL, Apr. 15, 1991, Hobihu, Pingtung County, 10 m depth.

*Diagnosis*: D VI-I, 10; A I, 9; P1 19; P2 I, 5; LR 23; TR 9; Pred S 4. HL 2.5; BD 3.4; HW 6.4; Pred L 2.8; SD2L 1.8; SAL 1.7; CPD 7.1 all in SL. ED 4.2; Int 13.6; SnL 3.4 all in HL.

Maxillary reaching midline of orbit. Body compressed. Trunk and head at chin, operculum, and nape with large ctenoid scales. A large horizontal spine and about 3 minute spines in lower corner of preoperculum. Fourth spinous ray of 1st dorsal longest. Caudal rounded. Pelvic fins above but deeply separated from connecting basal membrane. Body color white, with some dark blotches. Head with some dusky orange spots. Vertical, black bar from eye to posterior end of maxilla. Caudal fin base with narrower, vertical black stripe. Black spot on 1st dorsal fin between 1st and 2nd spines. Pelvic fins darkish; other fins pale.

*Distribution*: Indo-Pacific: New Caledonia, Ryukyus of Japan, Taiwan, the Philippines, Caroline Islands, Marshall Island, and Maldives.

### *Eviota sebreei* Jordan and Seale, 1906

(Fig. 3)

*Eviota sebreei* Jordan and Seale 1906: 390 (Apia, Samoa Islands)

*Eviota sebreei*: Lachner and Karnella 1980: 101; Winterbottom and Emery 1986: 28; Myers 1989: 237; Randall and Goren 1993: 10; Akihito et al. in Nakabo 1993: 1027.

*Material*: 1 specimen, ASIZP-057636, 18.8 mm SL, Oct. 14, 1992, Shiasheichuei, Pingtung County, 10 m depth.

*Diagnosis*: D VI-I, 9; A I, 8; $P_1$ 17; $P_2$ I, 5; LR 25; TR 7; Pred S 0. HL 3.8; BD 5.9; HW 6.3; Pred L 2.7; SD2L 1.8; SAL 1.6; CPD 8.6 all in SL. ED 4.0; Int 13.2; SnL 3.9 all in HL.

Jaws reaching vertical midline of eye. Body slender and compressed. Snout sharper than in most congeneric species. Pelvic, separated and reaching anal fin origin. Horizontal row of shiny green internal spots within midline of body when fresh. Broad longitudinal red stripe from snout and eye to caudal base along lower part of body, extending to lower part of caudal membrane. Caudal fin base with black spot.

*Distribution*: Indo-West Pacific: Red Sea, Samoa, Chagos, Ryukyus of Japan, and Taiwan.

### *Fusigobius duospilus* Hoese and Reader, 1985
(Fig. 4)

*Fusigobius duospilus* Hoese and Reader 1985: 2 (Escape Reef, Great Barrier Reef).
*Fusigobius duospilus*: Hoese in Smith and Heemstra 1986: 789; Randall and Goren 1993: 12; Akihito et al. in Nakabo 1993: 1077.

*Material*: 2 specimens, one in ASIZP-057637, 36.1 mm SL, Feb. 17, 1987, Nanwan, Pingtung county, 20 m depth; one in ASIZP-057638, 35.4 mm SL, Apr. 21, 1987, Wanlitung, Pingtung County, 15 m depth.

*Diagnosis*: D VI-I, 9; A I, 8; $P_1$ 18-19; $P_2$ I,5; LR 23-24; TR 7-8; Pred S 0. HL 3.1.-3.4; BD 5.2-5.5; HW 4.4-4.9; Pred L 2.7; SD2L 1.8-1.9; SAL 1.6-1.8; CPD 8.4-9.4 all in SL. ED 3.7; Int 9.6-11.8; SnL 3.7-4.2 all in HL.

Mouth not passing vertical midline of eye. Body compressed posteriorly. Head triangular. Snout tip pointed. Trunk with large ctenoid scales; head and nape naked. First dorsal fin somewhat triangular. Body white and translucent when alive, with scattered minute orange-brown spots. Pelvic fins united by basal membrane. First dorsal fin with 2 black spots. Second dorsal fin with some rows of minute orange spots. Upper pectoral base with dark blotch.

*Distribution*: Indo-West Pacific: Australia, South Africa, Maldives, southern Japan, and Taiwan.

### *Gobiodon fulvus* Herre, 1927
(Fig. 5)

*Gobiodon fulvus* Herre 1927: 292 (Calapan, Mindoro).
*Gobiodon aibolineatus*: Smith 1959: 219.
*Gobiodon oculolineatus*: Yoshino and Yamamoto in Masuda et al. (not Wu 1979) 1984: 266.
*Gobiodon fulvus*: Winterbottom and Emery 1986: 37.

*Material*: 1 specimen, ASIZP-057639, 12.2 mm SL, Jul. 6, 1993, Wukungtung, Orchid Is. (Lanyu), Taitung County, 3 m depth.

*Diagnosis*: D VI-I, 10; I, 9; $P_1$ 18; $P_2$ I, 5; whole body naked. HL 3.0; BD 3.0; HW 4.8; Pred L 2.5; SD2L 1.7; SAL 1.5; CPD 6.4 all in SL. ED 3.6; Int 6.6; SnL 2.8 all in HL.

Mouth small, not passing midline of orbit. Body oval, naked, and strongly compressed. Head rounded. Lower gill-opening restricted, shorter than length of pectoral fin base. Dorsals connected by membrane. Body brown. Two vertical stripes below eye: 1st to mouth edge; 2nd crossing cheek. All fins brown except basal region of dorsal fins and anal fin with broad white longitudinal line.

*Distribution*: Indo-West Pacific: including South Africa, the Philippines, Chagos, Japan, and Taiwan.

### *Gobiodon unicolor* (Calstelnau, 1873)
(Fig. 6)

*Elleya unicolor* Castelnau 1873: 95 (Edipse Island, Cape Sidmouth, Queensland).
*Gobiodon unicolor*: Winterbottom and Emery 1986: 42; Akihito et al. in Nakabo 1993: 1032.

*Material*: 1 specimen, ASIZP-057640, 12.4 mm SL, Jul. 6, 1993, Wukontung, Orchid Is., Taitung County, 3 m depth.

*Diagnosis*: D VI-I, 10; I, 8; $P_1$ 18; $P_2$ I, 5; whole body naked. HL 2.9; BD 2.9; HW 6.2; Pred L 2.4; SD2L 1.7; SAL 1.4; CPD 6.3 all in SL. ED 5.2; Int 10.3; SnL 3.1 all in HL.

Jaws not reaching midline of eye. Body oval, naked, and strongly compressed. Head rounded. Lower gill-opening about same length as pectoral fin base. Dorsals connected by membrane. Body uniform brown with dark melanophores; body and fins unstriped.

*Distribution*: Indo-West Pacific: including Australia, Chagos, Japan, and Taiwan.

## Genus *Mahidolia* Smith, 1932

Type species: *Mahidolia normani* Smith and Koumans in Smith 1932: 256.

D VI, I, 10; A I, 9; LR 33-50. Mouth oblique, maxillary enlongated to posterior margin of preopercle in adult male. Head naked; midline of nape naked or with few small scales. Interorbital narrow. Papillae of cheek mainly in 3 transverse and 2 longitudinal rows. Snout obtuse and short.

**Fig. 1.** *Amblygobius nocturnus*, ASIZP 057634, 22.1 mm in SL.

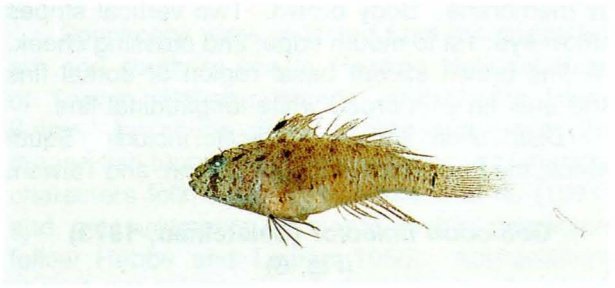

**Fig. 2.** *Asterropteryx spinosus*, ASIZP 057635, 45.7 mm in SL.

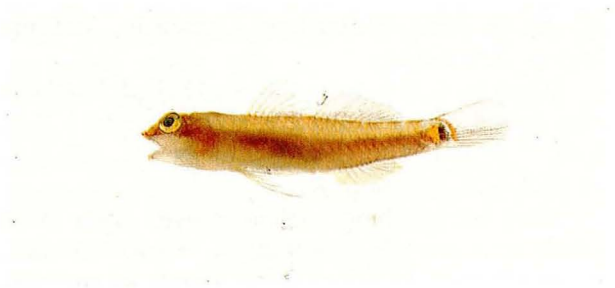

**Fig. 3.** *Eviota sebreei*, ASIZP 057636, 18.8 mm in SL.

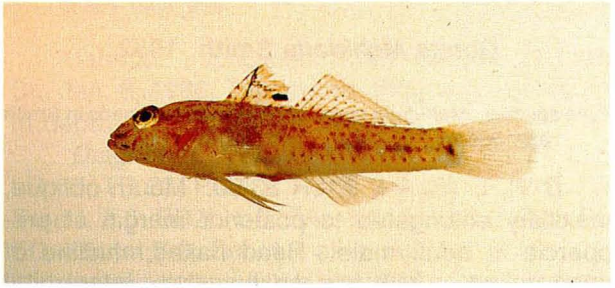

**Fig. 4.** *Fusigobius duospilus*, ASIZP 057637, 36.1 mm in SL.

**Fig. 5.** *Gobiodon fulvus*, ASIZP 057639, 12.2 mm in SL.

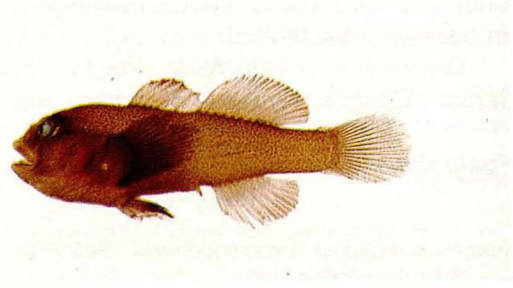

**Fig. 6.** *Gobiodon unicolor*, ASIZP 057640, 12.4 mm in SL.

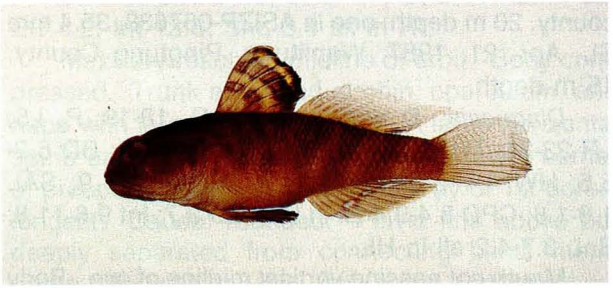

**Fig. 7.** *Mahidolia mystacina*, ASIZP 057641, 48.0 mm in SL.

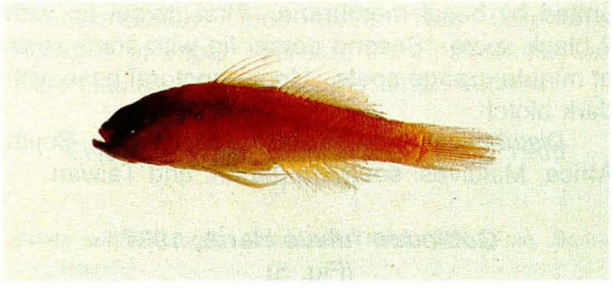

**Fig. 8.** *Trimma grammistes*, ASIZP 057642, 18.0 mm in SL.

**Fig. 9.** *Trimma okinawae*, ASIZP 057643, 27.7 mm in SL.

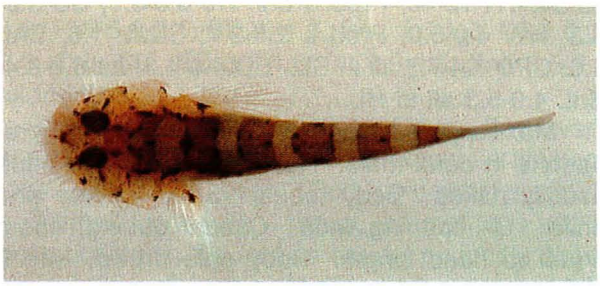

**Fig. 12.** *Barbuligobius boehlkei*, ASIZP 057646, 19.7 mm in SL.

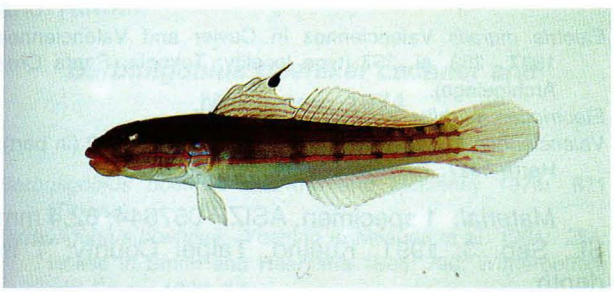

**Fig. 10.** *Valenciennea muralis*, ASIZP 057644, 62.4 mm in SL.

**Fig. 13.** *Eviota saipanensis*, ASIZP 057647, 15.3 mm in SL.

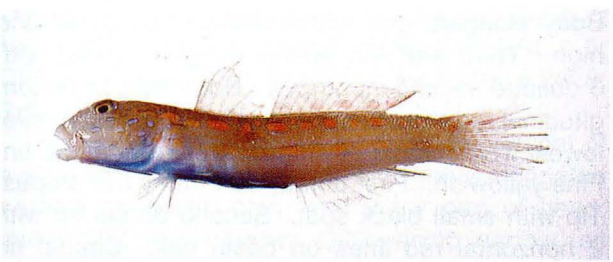

**Fig. 11.** *Valenciennea puellaris*, ASIZP 057645, 85.6 mm in SL.

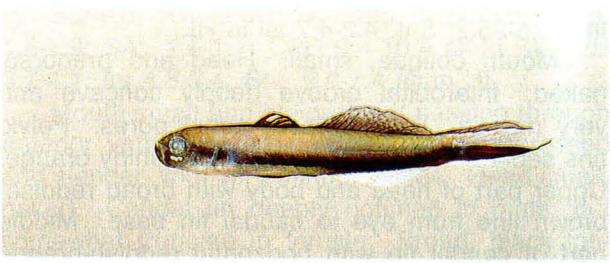

**Fig. 14.** *Parioglossus formosus*, ASIZP 057648, 26.7 mm in SL.

Head stumpy; body compressed. Gill-opening wide, extending to margins of preopercle. First dorsal high in male. Pelvic united. Caudal fin oblong, about equal to head.

### *Mahidolia mystacina* (Valenciennes, 1873)
(Fig. 7)

*Gobius mystacina* Valenciennes in Cuvier and Valenceinnes 1837: 94 (Java, Indonesia).

*Waitea mystacina*: Tomiyama 1936: 77; Koumans 1953: 107.
*Mahidolia duque*: Smith 1946: 812.
*Mahidolia mystacina*: Yanagisawa 1978: 310; Hayashi in Masuda et al. 1984: 262; Hoese in Smith and Heemstra 1986: 794; Myers 1989: 228; Akihito et al. in Nakabo 1993: 1068.

*Material*: 2 specimens, ASIZP-057641, 32.1-48.0 mm SL, Sep. 19, 1992; Wukan, Penghu County, 15 m depth.

*Diagnosis*: D VI-I,10; A I, 9; $P_1$ 17; $P_2$ I, 5; LR

33-34; TR 12-13; Pred S 0-3. HL 3.0-3.1; BD 3.5-3.8; HW 4.0-5.0; Pred L 2.5-2.7; SD2L 1.6; SAL 1.6; CPD 7.4-7.7 all in SL. ED 4.0-4.3; Int 6.8-8.4; SnL 4.9-5.3 all in HL.

Maxillary reaching posterior margin of preopercle in adult male. Head and midline of nape usually naked. Body robust. Snout obtuse and short. Gill-opening wide. Caudal oblong, about equal to head length. Body pale brown, with 5 downward and forward dark brown cross-bands. First dorsal fin with some dark blotches. Second dorsal with some small brown spots. Anal fin with white stripe.

*Distribution*: Indo-West Pacific: including South Africa, Japan, Indonesia, Micronesia, and Taiwan.

### *Trimma grammistes* (Tomiyama, 1936)
(Fig. 8)

*Eviota grammistes* Tomiyama, 1936: 47 (Hayama, Japan).
*Trimma grammistes*: Yoshino and Shimada in Masuda et al. 1984: 244; Akihito et al. in Nakabo 1993: 1023.

*Material*: 3 specimens, ASIZP-057642, 11.1-18.0 mm SL, Jul. 29, 1993, Lungtung, Taipei County, 15 m depth.

*Diagnosis*: D VI-I, 10; A I, 10; $P_1$ 18-19; $P_2$ I, 5; LR 27-28; TR 9; Pred S 0. HL 3.0-4.0; BD 4.1-5.4; HW 5.5-7.7; Pred L 2.5-3.0; SD2L 1.8-2.0; SAL 1.8-2.0; CPD 8.5-10.2 all in SL. ED 2.6-2.8; Int 20.5-25.2; SnL 4.2-4.7 all in HL.

Mouth oblique, small. Head and predorsal naked. Interobital groove deeply concave and very narrow. Head without canal pores. Pelvic fins separate. Body orange. Snout shiny orange. Upper part of head and body with broad reddish-brown line from eye to caudal fin base. Middle part of caudal fin with horizontal reddish-orange stripe. Fins somewhat orange, translucent.

*Distribution*: Probably endemic to southern Japan and Taiwan.

### *Trimma okinawae* (Aoyagi, 1949)
(Fig. 9)

*Eviota caesiura okinawae* Aoyagi 1949: 174 (Itoman, Okinawa, Japan).
*Trimma okinawae*: Yoshino and Shimada in Masuda et al. 1984: 245; Akihito et al. in Nakabo 1993: 1024.

*Material*: 3 specimens, ASIZP-057643, 23.0-27.7 mm SL, Jul. 29, 1993, Luntung, Taipei County, 15 m depth.

*Diagnosis*: D VI-I, 9-10; A I, 8-9; $P_1$ 17-18; $P_2$ I, 5; LR 26-27; TR 7-8; Pred S 2-5. HL 3.1-3.7; BD 3.8-4.3; HW 5.8-6.0; Pred L 2.5-2.7; SD2L 1.8; SAL 1.6; CPD 7.2-8.1 all in SL. ED 2.8-3.5; Int 10.3-14.2; SnL 4.2-4.7 all in HL.

Mouth oblique, small, not passing the vertical of anterior margin of pupil. Head naked. Interorbital groove concave and narrow. Head without canal pores. Pelvic fins separate. Body orange, with many shiny reddish-orange rounded spots. Cheek and operculum with 3 vertical reddish-orange lines. Dorsal, anal, and caudal fin translucent, with many orange spots.

*Distribution*: West Pacific: including Ryukyus of Japan, Taiwan, South China Sea, and Australia.

### *Valenciennea muralis* (Valenciennes, 1837)
(Fig. 10)

*Eleotris muralis* Valenciennes in Cuvier and Valenciennes 1837: 253, pl. 357 (type locality: Tukopia, Santa Cruz Archipelago).
*Eleotriodes muralis*: Koumans 1953: 397.
*Valenciennea muralis*: Jordan and Snyder 1901: 42 (in part); Herre 1927: 79; Myers 1989: 230.

*Material*: 1 specimen, ASIZP-057644, 62.4 mm SL, Sep. 3, 1991, Kueiho, Taipei County, 1 m depth.

*Diagnosis*: D VI-I, 12; A I, 12; $P_1$ 20; $P_2$ I, 5; LR 93; TR 30; Pred S 0. HL 3.1; BD 5.0; HW 5.7; Pred L 2.7; SD2L 1.7; SAL 1.6; CPD 8.7 all in SL. ED 5.4; Int 5.9; SnL 2.7 all in HL.

Jaw extending to below anterior half of eye. Body elongate and compressed. Eye small and high. Third and 4th spines longest. Head with 3 oblique ascendent stripes. Body with three longitudinal red stripes, uppermost near dorsal profile, lowest from middle of anterior trunk to caudal fin. Fins yellowish. First dorsal with many red stripes. Tip with small black spot. Second dorsal fin with 2 horizontal red lines on basal half. Caudal fin with red spots. Anal fin with basal red stripes.

*Distribution*: West Pacific: Australia, Indonesia, the Philippines, Singapore, South China Sea, and Taiwan.

### *Valenciennea puellaris* (Tomiyama, 1956)
(Fig. 11)

*Eleotrioides puellaris* Tomiyama in Tomiyama and Abe 1956: 1136 (Japan).
*Valenciennea puellaris*: Yoshino in Masuda et al. 1984: 243; Winterbottom and Emery 1986: 63; Akihito et al. in Nakabo 1993: 1016.

*Material*: 1 specimen, ASIZP-057645, 85.6 mm SL, Feb. 2, 1986, Tantshwan, Pingtung County, 16 m depth.

*Diagnosis*: D VI-I, 12; A I, 12; $P_1$ 20; $P_2$ I, 5; LR 85; TR 25; Pred S 0. HL 3.2; BD 5.8; HW 6.4;

Pred L 2.8; SD2L 1.8; SAL 1.7; CPD 8.7 all in SL. ED 5.8; Int 6.1; SnL 3.2 all in HL.

Mouth reaching anterior margin of orbit. Body elongate and compressed. Eye small and high. Third and 4th spines longest. Head with 3 oblique ascendent stripes. Body with 3 longitudinal red stripes, uppermost near dorsal profile, lowest from middle of anterior trunk to caudal fin. Fins yellowish. First dorsal with many red stripes. Tip with small black spot. Second dorsal fin with 2 horizontal red lines on basal half. Caudal fin with red spots. Anal fin with basal red stripes.

*Distribution*: West Pacific: Australia, Indonesia, the Philippines, Singapore, South China Sea, and Taiwan.

### ***Barbuligobius boehlkei*** **Lachner and McKinney, 1974**

(Fig. 12)

*Barbuligobius boehlkei* Lachner and Mckinney 1974: 871 (Taiwan).

*Barbuligobius boehlkei*: Yoshino in Masuda et al. 1984: 264; Hoese in Smith and Heemstra 1986: 790; Winterbottom and Emery 1986: 14.

*Material*: 2 specimens, ASIZP-057646, 13.9-19.7 mm SL, Jan. 4, 1986, Tantshwan, Pingtung County, 12 m depth.

*Diagnosis*: D VI-I, 9; A I, 9; $P_1$ 19-20; $P_2$ I, 5; LR 23-24; TR 9; Pred S 0. HL 3.1-3.3; BD 5.7; HW 3.9-4.4; Pred L 2.6-2.7; SD2L 1.7; SAL 1.5; CPD 10.7-10.8 all in SL; ED 4.4-4.6; Int 6.2-7.8; SnL 4.0-4.7 all in HL.

Jaws not extending beyond middle vertical of eye. Head very depressed, with many elongated barbels on snout, chin, and lower part of head. Interorbital very narrow. Gill-opening narrow, as long as pectoral fin base. Pelvic fins very large, extending behind anus. Body pale white and somewhat creamy yellow, with 5 cross-bands and some irregular spots on dorsal side. Fins whitish and translucent.

*Distribution*: Indo-West Pacific: including South Africa, Chagos, Ryukyus of Japan, and Taiwan.

### ***Eviota saipanensis*** **Fowler, 1945**

(Fig. 13)

*Eviota saipanensis* Fowler 1945: 66 (Saipan Island, Marianas Islands); Lachner and Karnella 1980: 68; Akihito et al. in Nakabo 1993: 1029.

*Material*: 2 specimens, ASIZP-057647, 15.3-22.1 mm SL, Jul. 8, 1993, Lantao, Lanyu, Taitung County; 4 m depth.

*Diagnosis*: D VI-I, 9; A I, 8; $P_1$ 16-18; $P_2$ I, 4; LR 24; TR 7-8; Pred S 0. HL 3.6-3.7; BD 4.5-4.8; HW 5.0-5.1; SD2L 1.9; SAL 1.5-1.6; CPD 6.0-6.3 all in SL. ED 3.6-4.5; Int 6.9-9.6; SnL 5.5-5.9 all in HL.

Maxillary passing midline of eye. Body very compressed. First spine of 1st dorsal fin filamentous. Fifth pelvic absent. Body somewhat greenish and translucent, with 4 broad, internal bars within posterior trunk; the last on caudal peduncle about equal to eye diameter. Minute dark spot in middle of caudal fin base. Caudal fin with many dark spots. Anal fin mostly darkish.

*Distribution*: Indo-West Pacific: Japan, Saipan, Palau, Guam, and Taiwan.

## Family Microdesmidae

### ***Parioglossus formosus*** **(Smith, 1931)**

(Fig. 14)

*Herrea formosa* Smith 1931a: 47 (Kite Is., mouth of Chatabun R., Gulf of Thailand).

*Herrolus formosus*: Smith 1931b: 190.

*Parioglossus formosus*: Yoshino and Senou in Masuda et al. 1984: 247; Akihito et al. in Nakabo 1993: 1017.

*Material*: 2 specimens, ASIZP-057648, 23.0-26.7 mm SL, Mar. 14, 1990, Howan, Pingtung County, 15 m depth.

*Diagnosis*: D V-VII-I, 13-14; A I, 13-14; $P_1$ 15-16; $P_2$ I, 5; LR 72-76; Pred S 0. HL 4.5-6.8; BD 5.2-6.8; HW 9.0-10.9; Pred L 3.0-3.2; SD2L 1.8-1.9; SAL 1.6-1.7; CPD 9.4-10.9 all in SL. ED 3.7-4.1; Int 4.8-5.4; SnL 6.0-7.4 all in HL.

Mouth small and oblique, not passing through anterior vertical of orbit. Body very compressed and slender, with very minute scales. Head small, naked. Caudal fin deeply notched in male, but somewhat truncate in female. Broad, black longitudinal stripe from eye, through operculum, and slightly downward from pectoral fin base to lower part of body reaching to lower half of caudal fin. Upper part of caudal fin with grayish stripe. First dorsal fin darkish. Second dorsal fin with many minute black spots. Other fins whitish.

*Distribution*: West Pacific: including Thailand, Australia, the Philippines, Ryukyus of Japan, and Taiwan.

**Acknowledgements:** The authors thank Dr. Peter J. Miller, School of Biological Sciences, University of Bristol, UK, for providing some references and correcting the manuscript. We also extend thanks to Mr. JP Lin, LT Ho, and PH Kao for their kind assistance in field work. This study was partly supported by a grant from NSC-83-6019-B-031 to KT Shao.

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# 記臺灣海域產十二種新記錄及兩種稀有種鰕虎魚類

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本文記述最近於臺灣海域產之十二種新記錄鰕虎，包括十一種鰕虎科 (Gobiidae) 魚類：短唇鈍鰕虎 (*Amblygobius nocturnus*)、棘星塘鱧 (*Asterropteryx spinosus*)、西布里磯塘鱧 (*Eviota sebreei*)、斑鰭植鰕虎魚 (裸項防鏽鰕虎魚) (*Fusigobius duospilus*)、黃褐短鰕虎魚 (*Gobiodon fulvus*)、灰短鰕虎魚 (灰葉鰕虎魚) (*G. unicolor*)、大口巨頷鰕虎魚 (*Mahidolia mystacina*)、縱帶磯塘鱧 (縱帶磨塘鱧) (*Trimma grammistes*)、沖繩磯塘鱧 (黃點磨塘鱧) (*T. okinawae*)、石壁范氏塘鱧 (石壁凡塘鱧) (*Valenciennea muralis*)、點帶范氏塘鱧 (大鱗凡塘鱧) (*V. puellaris*)，及一種帶鰕虎科 (Microdesmidae) 魚類：臺灣舌塘鱧 (*Parioglossus formosus*)。其中巨頷鰕虎魚屬 (*Mahidolia*) 爲本省之新記錄屬。此外文中亦兼記兩種重新確定產於臺灣的稀有種鰕虎，包括鬍毛鰕虎魚 (*Barbuligobius boehlkei*)、塞班鰕虎魚 (*Eviota saipanensis*)。文中除敍述其分類特徵、分佈及附註外，並附每種彩色標本照以利查考。

關鍵詞：魚類相，魚類分類，鰕虎魚，帶鰕虎科。

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