Short Note



Five New Records of Coastal Fishes from Western Taiwan¹

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Pai-Lei Lin, Kwang-Tsao Shao and Jeng-Ping Chen (1994) Five new records of coastal fishes from western Taiwan. Zoological Studies 33(2): 174-176. This paper records five new fish species collected from western Taiwan coastal waters. They are: Chromis albomaculatus Kamohara, 1960, Laiphognathus multimaculatus Smith, 1955, Plectranthias randalli Fourmanoir and Rivaton, 1980, Scartelaos gigas Chu and Wu, 1963, and Tridentiger barbatus (Gunther, 1861). Among them, Laiphognathus is the first genus recorded in Taiwan. Diagnostic characters, distribution, remarks and color photos of each species are given in this paper.

Key words: Fish fauna, Fish taxonomy.

We intensively collected and examined fish specimens from western Taiwan from August 1990 to July 1991, and revaluated specimens deposited previously in our laboratory. We verified the following five new Taiwan records of species. Belonging to four different families they are: Chromis albomaculatus (Pomacentridae), Laiphognathus multimaculatus (Blenniidae), Plectranthias randalli (Serranidae), Scartelas gigas and Tridentiger barbatus (Gobiidae). Among them, Laiphognatus is an additional genus to the fish fauna of Taiwan.

Materials and Methods—The following two species were obtained from local fish markets: Chromis albomaculatus was collected from the reef area near Tunkang and Plectranthias randalli was collected by hand lining from the deep sea reef near Chungchou. The species of Scartelaos gigas was caught by rod net on the muddy coast line at Fangyuan, near central Taiwan. Two other species were collected using SCUBA diving. They include two specimens of Laiphognathus multimaculatus from the southern Yungan harbor, and one additional specimen from northern Yehliu. The Tridentiger barbatus specimen was also collected from the Yungan site.

Specimens were photographed when fresh and preserved in 10% formalin thereafter for further observations. All morphometric measurement and meristic count methods follow Masuda et. al. (1984: xii-xiii) with the exception of gill rakers which were counted on the exterior of the first gill arch; all rudiments were included. All species are now deposited in the Institute of Zoology Museum, Academia Sinica (ASIZP) or the National Marine Science Museum (NMSMP).

Chromis albomaculatus Kamohara, 1960 (Fig. 1) Chromis albomaculatus Kamohara, 1960: 3, Fig. 1 (Kasiwajima, Kochi-Ken, Japan). Randall et al., 1981: 214-215.

Material: One specimen, ASIZP 056679, 127.9mm SL, July 7, 1990, Tung-kang.

Diagnosis: D.XIV, 13; A.II, 12; P. 18; LLS, 17. 3 transverse scale rows between dorsal origin and lateral line; 9 between lateral line and anal origin; GR 6+19=25. Body depth 1.85, head length 3.35 in SL; orbit diameter 2.94, interorbital width 2.56, snout length 4.32, least depth of caudal peduncle 1.98, length of caudal peduncle 3.02, 4th dorsal spine 2.51, 2nd anal spine 1.87 all in head length.

Color blackish brown, the scale centers paler than edges; fins dark, the posterior edges of the dorsal, anal and caudal fins paler; a small black spot on upper pectoral base.

Distribution: From Miyake-jima, Izu, and Okinawa Islands of Japan (Kamohara 1960) to southwestern Taiwan.

Laiphognathus multimaculatus Smith, 1955 (Fig. 2)

Laiphognathus multimaculatus Smith, 1955, Fig. 29 (Bazarutto Is.) (not seen); 1959: 231, pl. 17, fig.2; Springer, 1972: 9, fig.12.

Material: One specimen, NMSMP 1009, 24.1mm SL, June 1, 1992, Yehliu; two specimens, ASIZP 056680, 30.8mm and 34.4mm SL, August 27, 1991, Yungan.

Diagnosis: D.XI, 21; A. II, 20; P.13; V. I, 2. Body depth 7.15-7.46, head length 4.95-5.12 in SL; orbit diameter 3.13-3.64, interorbital width 5.2-6.2 in head length. Lower canines little longer than upper. Ciliate labial flap on the corner of the mouth. Gill opening entirely above pectoral base. No crest, bifid cirri at each nostril.

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Fig. 1. Chromis albomaculatus Kamohara, ASIZP 056679, 127.9mm SL.



Fig. 2. Laiphognathus multimaculatus Smith, ASIZP 056680, 30.8mm SL.

Color in alcohol: numerous small dark spots on pale body; fins pale, the margin of dorsal and anal fins are dark.

Distribution: East Africa to New Guinea and Solomon Is.; north to Taiwan and south to Inhaca (Smith and Heemstra 1986).

Plectranthias randalli Fourmanoir and Rivaton, 1980 (Fig. 3)

Plectranthias randalli Fourmanoir and Rivaton, 1980: 27-28 (Chesterfield Is.)

Material: One specimen, NMSMP 1010, 103.7mm SL; Nov. 6, 1985, Chungchou; two specimens, ASIZP 056681, 110.7mm and 96.8mm SL; April 16, 1986, Chungchou.

Diagnosis: D.X, 16; A. III, 7; P.13-14; GR. 7+15 (or 14); LLS. 37-39; 5 1/2 scale rows above lateral line to dorsal origin; body depth 2.20-2.36, body width 5.76-6.36, head length 2.27-2.40 in SL; snout length 3.01-3.56, orbit diameter 3.09-3.51, least depth of caudal peduncle 3.46-3.90 in head length.

Mouth large, moderately oblique; the maxilla extending to or beyond a vertical at the medial part of pupil. Third dorsal spine the longest, 1.88-2.11 in head length; second anal spine longest, 2.40-2.51 in HL.

Color when fresh: a red-orange bar on head beyond pupil and crossing the check; two yellow-orange to red-orange bars on the body, the anterior interrupted at the pectoral fin, the



Fig. 3. Plectranthias randalli Fourmanoir and Rivaton, NMSMP 1010, 103.7mm SL.

posterior extending onto the anal fin; a dark red spot is on the medial of caudal peduncle.

Distribution: Only reported previously from the type locality of Chesterfield island, Coral Sea.

Scartelaos gigas Chu and Wu, 1963 (Fig. 4)

Scartelaos gigas Chu and Wu, 1963: 437, fig. 333 (Ta-chen, Chekiang Province, China).

Material: Two specimens, ASIZP 056682, 120.5-132.9mm SL, December 10, 1991, Fangyuan.

Diagnosis: D.V-I, 25; A.I+22-23; P.19; V, I+5. Body depth 6.89-7.33, head length 3.51-3.53 in SL; snout length 2.89-3.47, orbit diameter 5.72-6.85 in head length. Small canines at jaw front, those on upper jaw larger than lower.

Color in alcohol: body dark grey with numerous small dark spots, pectoral pale gray; on the first dorsal, the membrane between the first and second as well as third to fourth spine are dark; the base of both jaws are black; two white bands before the gill opening; a white band at the front of pectoral fin.

Distribution: Only reported in south-eastern China.

Tridentiger barbatus (Günther, 1861) (Fig. 5)

Triaenophorichthys barbatus Günther, 1861: 90 (Probably from China)

Triaenopogon barbatus Bleeker, 1874: 312; Chu et al., 1963: 415-416.

Tridentiger barbatus Masuda et al., 1984: 271.

Material: One specimen, ASIZP 056683, 51.9mm SL, August 27, 1991, Yungan.

Diagnosis: D.VI-I, 10; A.I, 10; P.20; 12 transverse scales between the origins of the second dorsal and the anal fins. Body depth 6.69, head length 3.43, head width 4.53 in SL; snout length 4.87, orbit diameter 6.14, interorbital width 3.98 in HL. The snout margin has a series of small barbels extending to the cheek; lower jaw has two series of small barbels, one along the opercular margin and another along the pre-opercular margin.

Color in alcohol: body pale brown, with five unclear wide dark bands on both sides: first, on tip of head; second, at the front of first dorsal fin; third, beyond the first dorsal fin; fourth,

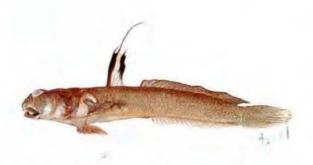


Fig. 4. Scartelaos gigas Chu and Wu, ASIZP 056682, 132.9mm

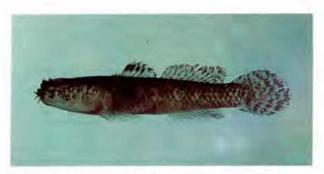


Fig. 5. Tridentiger barbatus (Günther), ASIZP 056683, 51.9mm SL.

beyond the second dorsal fin, and fifth, on the caudal peduncle. Anal, pectoral, and caudal fins are dark; pelvic fin pale.

Distribution: From Mie Prefecture and Tsushima to Kyushu in Japan, the Korean Peninsula to China and Taiwan (Masuda et al. 1984).

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References

Bleeker P: 1874. Esquisse d'un système naturel des Gobioides. Arch. Neerl. Sci. Nat., Haarlem. 9: 312.

Chu YT, HL Wu. 1963. In Fishes of the East China Sea, eds. Chu YT, C Chan, C Chen. Peking: Science Press, pp. 436-438 (in Chinese).

Fourmanoir P, J Rivation. 1980. Un Nouveau Serranide' (Anthiine') du sud-ouest Pacifique. Rev. fr. Aquariol. 7(1980): 27-28.

Günther. 1861. Catalogue of the acanthopterygian fishes in the collection of the British Museum. 3: xxv+586+x pp.

Kamohara T. 1960. On the fishes of the genus Chromis (Family Amphiprionidae, Chromids, Pisces), found in the waters of Japan. Rept. Usa. Mar. Biol. Sta. 7(1): 1-7, figs. 2.

Masuda H, K Amaoka, C Araga, T Uyeno, T Yoshino. 1984.
The fishes of the Japanese Archipelago (Text). Tokyo:
Tokai University Press, 271 pp. fig. 158.

Randall JE. 1980. Revision of the fish genus *Plectranthias* (Serranidae: Anthiinae) with descriptions of 13 new species. Micronesica 16(1): 101-187.

Randall JE, H Ida, JT Moyer. 1981. A review of the damselfishes of the genus *Chromis* from Japan and Taiwan, with description of a new species. Jap. J. Ichthyol. 28(3): 214-215.

Shen SC, C Lam. 1978. Study on the Chromid fishes (Chrominae) from the waters of Taiwan. Bull. Inst. Zool., Acad. Sinica 17(1): 25-41.

Shen SC. 1984. Coastal fishes of Taiwan. Taiwan Mus. Publ. 190 pp.

Shen SC, TH Yang, JJ Lin. 1986. A review of the blenniid fishes in the waters around Taiwan and its adjacent Islands. Spec. Pub. 5. Taiwan Mus. 58 pp., 53 figs.

Smith JLB. 1955. New species & new records of fishes from Mozambique. part. I. Mem. Mus. Dr. Alvaro de Castro (3): 3-27, pls. 1-3.

Smith JLB. 1959b. Fishes of the families Blenniidae and Salariidae of the western Indian Ocean. Ichthyol. Bull. Rhodes Univ. (14): 229-252, pls. 14-19.

Smith MM, PC Heemstra. 1986. Smith's sea fishes. Johannesbug: Macmillan South Africa Ltd. Press, 1047 pp., 144 pls.

Springer VC. 1972. Synopsis of the tribe Omobranchini with descriptions of three new genera and two new species (Pisces: Blenniidae). Smith. Contr. Zool. 130: 31 pp.

臺灣西部沿海產五種新記錄魚

林沛立 邵廣昭 陳正平

本文記述於本省西部沿海所採集到的五種新記錄種。它們分別為白斑光鰓雀鯛Chromis albomaculatus Kamohara, 1960;多斑鳚Laiphognathus multimacultus Smith, 1955;蘭道氏花鱸Plectranthias randalli Fourmanoir and Rivaton, 1980;大青彈塗魚Scartelaos gigas Chu and Wu, 1963;鬚縞鰕虎Tridentiger baratus Günther, 1861。其中Laiphognathus屬是臺灣之新記錄屬。文中除描述各種之形態特徵、地理分佈或附記外,並附以各魚種之彩色照片。

關鍵詞:魚類相、魚類分類。