Records of Rare Snapper, Lipocheilus carnolabrum (Chan), from the Ryukyu Islands

Records of a Rare Snapper, *Lipocheilus carnolabrum* (Chan), from the Ryukyu Islands.

Tetsuo YOSHINO* and Tadao SATA**

Abstract

In 1978, two specimens of *Lipocheilus carnolabrum* (Chan) were collected from the Ryukyu Islands. This species is recorded here for the first time from Japanese waters. According to the informations of fishermen, *L. carnolabrum* is a rare fish in the Ryukyu Islands and hooked from island shelf at depths of 120—220 m (mostly 150 m).

In the course of a study of the fishery biology of lutjanid fishes, we found an unfamiliar snapper at the Naha Wholesale Fish Market in Okinawa Island. This fish is called "Inakū" together with *Lutjanus fulvus* (Bloch et Schneider) by the local fishermen and fish-dealers. Unfortunately we could not obtain any specimens until 1978 because of its large size and high price.

During the survey of the research vessel "Kagoshima maru" in Southern Ryukyus late in autumn, 1978, we could collect an adult specimen of the same species with vertical long line. Subsequently another young specimen was collected at Naha Wholesale Fish Market in December, 1978.

Upon examination of these specimens, this snapper was identified as *Lipocheilus carnolabrum* (Chan) previously known from South China Sea, Philippines, Andaman and Arabian seas. This species is recorded here for the first time from Japanese waters. Counts and measurements were made according to standard practice as outlined by Hubbs and Lagler (1947). The specimens studied here have been preserved at Department of Marine Sciences, University of the Ryukyus.

Lipocheilus Anderson, Talwar and Johnson
(Japanese name; Kibirefuedai-zoku)

Tangia Chan, 1970: 19 (type species, *Tangia carnolabrum* Chan, by original designation). Preoccupied by *Tangia* Stål, 1859, in Hemiptera.

Lipocheilus Anderson, Talwar and Johnson, 1977: 510 (replacement name for *Tangia* Chan, 1970, preoccupied).

Lipocheilus carnolabrum (Chan)
(Japanese name; Kibirefuedai)
Figure 1

Tangia carnolabrum Chan, 1970: 20 (type locality, South China Sea); Senta and Tan, 1975: 21 (Andaman Sea); Kyushin, Amaoka, Nakaya and Ida, 1977: 98 (East

Received: October 31, 1980

* Dept. of Mar. Sci., Coll. Sci., Univ. of the Ryukyus.
** Fac. of Fish., Kagoshima Univ.

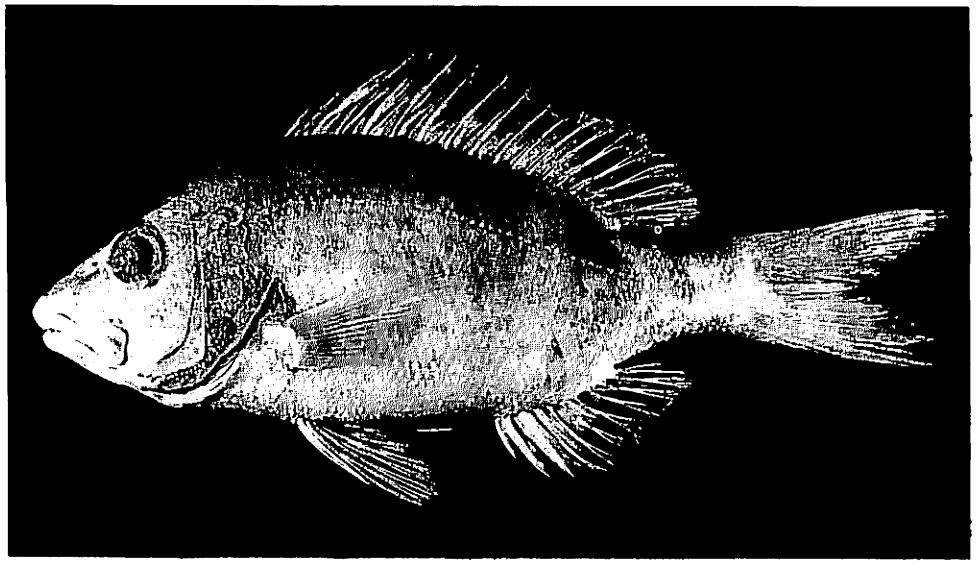

Fig. 1. *Lipocheilus carnolabrum* (Chan) from the Ryukyu Islands, 278.0 mm in standard length.

Burma Sea, Andaman and Laccdive).

Lipocheilus carnolabrum Anderson, Talwar et Johnson, 1977: 510 (Arabian Sea, Philippine Islands and South China Sea).

Material examined. One specimen, 500.0 mm in standard length, sex unknown, November 8, 1978, taken from a island shelf called Hōzan-sone (25°–19.4'N, 126°–13.3'E, at depth of 215 m) northeast of Miyako I., skeletonized. One specimen, 278.0 mm in standard length, December 1978, collected at Naha Wholesale Fish Market. (In all probability caught off Miyako I.)

Description

The following counts are recorded first for the larger then for the smaller specimen respectively: Dorsal fin rays X, 10 and X, 10; anal fin rays III, 8 and III, 8; pectoral fin rays 16 and 16; pored scales in lateral line 54 and 54; scales above lateral line 9 and 9; scales below lateral line 20 and 18; cheek scale rows 8 and 8; gill rakers (including rudiments) 6 + 12 = 18 and 6 + 12 = 18; pyloric caeca 5 (in larger specimen).

The following data are expressed in thousandths of the standard length, first for larger then for smaller specimen respectively: Head length 396 and 403; snout length 163 and 145; eye diameter 76 and 85; postorbital length of head 157 and 168; interorbital width 106 and 95; suborbital width 64 and 51; maxillary length 175 and 181; body depth 396 and 373; body width 200 and 165; depth of caudal peduncle 125 and 126; length of caudal peduncle 214 and 228; length of pectoral fin 349 and 350; length of ventral fin 208 and 230; length of ventral fin spine 143 and 150;

length of the longest dorsal spine 157 (5th) and 165 (4th); length of the shortest dorsal spine 49+ (1st) and 71 (1st); length of the longest dorsal ray 161 (4th), (in smaller specimen); length of the 1st anal spine 60 and 66; length of the 2nd anal spine 102 and 108; length of the 3rd anal spine 114 and 122; length of the longest anal ray 114 (3rd) and 140 (2nd).

Body elliptical, compressed; profile straight from tip of snout to origin of dorsal. Mouth large, slightly oblique and protractile; upper jaw slightly projecting beyond lower when mouth closed. Maxillary scaleless and without ridges, reaching to a vertical through a little behind anterior margin of pupil. Fleshy protrusion at anterior end of upper lip well developed. Nostrils two, close to each other and eye; anterior nostril smaller, with fleshy flap. Teeth on jaws, villiform in bands, outer series enlarged and conical. Vomer and palatine with villiform teeth, those on vomer in chevron-shaped patch with apex directed anteriorly. Tongue smooth. Preopercular edge serrated along its margin, preopercular notch not developed. Opercle with two flattened weak spines posteriorly. Subopercle and interopercle not serrated along their margins. Branchiostegals 7. Gill opening extending to a vertical through a little beyond anterior margin of eye.

Dorsal fin continuous without notch; dorsal spines strong, 4th or 5th one longest. Anal spines similar to dorsal ones, 3rd spine longest. Ultimate dorsal and anal soft rays shorter than the penultimate. Pectoral fin long, falcate and extending beyond spinous anal. Caudal fin forked; lobes not produced into filaments.

Scales ctenoid. Head scaled except for snout, jaws and interorbital region. Dorsal and anal fins without scales. Proximal parts of caudal and pectoral scaled. Lateral line curved, following the dorsal profile of body. Scale rows above and below lateral line parallel to it.

Coloration of fresh specimens. Body brownish yellow above, paler below. Fins yellowish. Five dusky vertical bands observed in the smaller specimen (278.0 mm in standard length).

Remarks

Our specimens agree with the descriptions given by several authors. The systematic position of *Lipocheilus* in Lutjanidae is not still clear. Chan (1970) considered it as eteline lutjanid. However, Anderson et al. (1977) considered *Lipocheilus, Apsilus* and *Paracaesio* forming a natural group intermediate to the Etelinae and Lutjaninae. According to Anderson et al. (1977), *Lipocheilus* possesses a lutjanine type of neurocranium (without posterior frontal thickening forming a complete transverse ridge of demarcation anterior to the occipital region). However, osteological examination of our specimen has shown the demarcation line anterior to the occipital region is clearly present and *Lipocheilus* has a eteline type of neurocranium. The predorsal-bone configuration of *Lipocheilus* is the only character seemed to be related to Lutjaninae and unique in Etelinae except for *Paracaesio.*

In Ryukyu Islands, *L carnolabrum* is a rare fish and hooked from island shelf with vertical long line and hand line. According to informations of fishermen in Okinawa Island, the depths from which this species is taken range from 120 to 220 m (mostly 150 m). Common size ranging from 400 to 500 mm in standard length (2.5 to 4.5 kg) and the maximum size obserbed 583 mm in standard length (5.5 kg).

Acknowledgments

We are deeply gratefull to Professor Tadao Takahashi of Kagoshima University, head scientist of the cruise, for giving us a chance to join the Kagoshima maru cruise in 1978. Heartfelt thanks are due to the officers and crew of the R/V Kagoshima maru, Kagoshima University, for help in collection of samples. Thank are also due to Mr. Sunao Sata, a experienced fisherman and the junior author's father, for many valuable informations about snappers.

References

Anderson, W.D., P.K. Talwar and G.D. Johnson. 1977. A replacement name for *Tangia* Chan (Pisces: Perciforms: Lutjanidae) with description of the genus and type-species. Proc. Biol. Soc. Washington, 89 (44); 509-518.

Chan, W.L. 1970. A new genus and two new species of commercial snappers from Hong Kong. Hong Kong Fish. Bull., (1): 19-38.

Heemstra, P.C. 1974. On the identity of certain eastern Pacific and Caribbean post-larval fishes (Peciformes) described by Henly Fowler. Proc. Acad. Nat. Sci., Phila., 126 (3): 21-26.

Kyushin, K., K. Amaoka, K. Nakaya and H. Ida. 1977. Fishes of the Indian Ocean. Japan Marine Fishery Resource Research Center, Tokyo, 392 pp. (in Japanese and English)

Senta, T. and S.M. Tan. 1975. Catalogue of the fishes from South China Sea and Andaman Sea. Mar. Fish. Res. Dept., Southeast Asian Fish. Develop. Center, 32 pp.

Shinohara, S. 1966. Studies on the Lutjanid fishes of the Ryukyu Islands, anatomy, taxonomy and distribution. Bull. Arts & Sci. Div. Univ. of the Ryukyus (Math. & Nat. Sci.), (9): 179-301. (in Japanese)