The Capture of the Atlantic Lantern-fish, *Lampadena nitida* (TAANING) in Japan

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On March 15, 1952, Mr. Tamotsu IWAI came across a fine specimen of the lantern-fish at Miya Fish Market, Aichi Prefecture, which had been taken by the motor trawler in the deep-water off Owase, Mie Prefecture. The fish is in an excellent condition except for the fact that the scales are mostly torn off. My careful examination has revealed that this is the first record of the Atlantic species, *Lampadena nitida* (TAANING), that has been found in Japan. This species of fish has never been found among those obtained even from the Pacific Ocean.

The type of this fish was taken from the North Atlantic, and was described by TAANING as a subspecies of the Pacific species, *Lampadena luminosa* (GARMAN) (TAANING, 1928: 62). The subspecies, however, has ever since been raised to the rank of a species (NORMAN, 1932: 336, fig. 33; FOWLER, 1936: 1233; MAUL, 1946: 41, fig. 15; FRASER-BRUNNER, 1949: 1080, fig.), and quite recently a new subgenus *Lychnophora* has been established for the accommodation of these two species (FRASER-BRUNNER, 1949: 1080).

The present specimen is 150.0 mm. in standard length (186.0 mm. in total length), having the following counts and measurements:

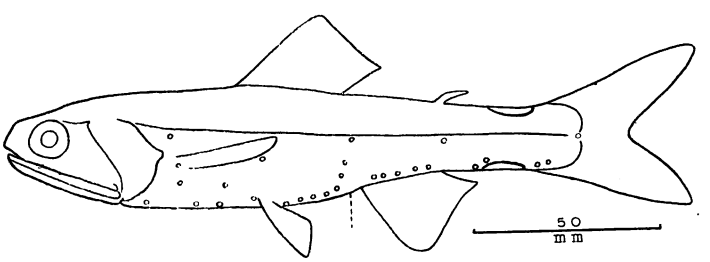

Fig. 1. *Lampadena nitida* (TAANING) in lateral view, 150.0mm. in standard length (MATSUBARA's Fish Coll. No. 17745). Drawing by author.

D. 15; A. 15; P. 15; V. 9 (the anteriormost one is minute). Scales in lateral line 39. Gill-rakers 4+1+9 on first arch with 5 rudimentary ones at anterior end of lower limb and 2 similar ones on distal part of the upper limb. Head 3.50 in body length measured from tip of snout to end of lateral line; greatest depth (at the origin of dorsal fin) 4.76; distance from tip of snout: to origin of pectoral 3.23, to origin of ventral 2.13, to origin of dorsal 2.35, to origin of anal 1.56. Snout 6.32 in head; eye 4.09; interorbital space 3.21; upper jaw 1.28; lower jaw 1.30; length of caudal peduncle measured to end of lateral line 1.37; depth of the same 2.65; pectoral 1.60; ventral 2.15; longest dorsal ray (sixth one) 1.70; longest anal ray (fourth one) 1.89; caudal 0.93.

Our specimen somewhat differs from most of the specimens of this species obtained from the Atlantic Ocean in the following several points: Body is slightly higher than one-fifth the length of body measured from the tip of snout to the end of lateral line, the depth at the origin of dorsal is as great as either the length of upper jaw or the length of caudal peduncle. Head is smaller, equal to two-sevenths the length of body. Snout is slightly longer than half the diameter of eye, which is about as long as one-fourth the length of head. Interorbital space is broad, about equal to 1.30 times the diameter of eye. Lower jaw is included under the closed mouth. Third PO, which is displaced dorsally out of the series, is situated upward and backward of fourth PO as seen in the holotype of *Lampadena luminosa* (PARR, 1934: 52, fig. 5). Three SAO and ultimate VO are placed in a straight, steeply inclined series. VLO (which corresponds to second VO demonstrated by RAY, 1950: 144, fig. 6) is nearer lateral line than the base of pelvic fin. First VO is slightly displaced ventrally and fifth VO is more or less elevated.

With the exception of the number of Prc (2+1 in our specimen) and the position of second SAO (placed in a straight line which connects ultimate VO with third SAO in our specimen), the present specimen displayed features almost perfectly identical with *Lampadena luminosa* (GARMAN), which has hitherto been known among those taken from the Pacific and the Indian Ocean (GARMAN, 1899: 263, pl. 55, fig. 2; BRAUER, 1906: 209, fig 128; WEBER and BEAUFORT, 1913: 172, fig. 66; PARR, 1928: 155; PARR, 1934: 51, fig. 5; FRASER-BRUNNER, 1949: 1080, fig.).

REFERENCES

BRAUER, A., 1906: Die Tiefsee-Fische. I. Systematischer Teil. Wiss. Ergebnisse deutsch. Tiefsee-Exped. Valdivia, 1898-99, xv, 1-432, pls. 1-18, figs. 1-176.

FOWLER, H. W., 1936: The marine fishes of West Africa, based on the collection of the American Museum Congo Expedition, 1909-1915. Bull. Amer. Mus Nat. Hist., lxx (2), 607-1493, figs. 276-567.

FRASER-BRUNNER, A., 1949: A classification of the fishes of the family Myctophidae. Proc. Zool. Soc. London, cxviii (4): 1019-1106, 1 pl., figs. 1-14.

GARMAN, S., 1899: Report on an exploration of the coasts of Mexico, Central and South America, and off the Galapagos Islands, etc, xxvi. The fishes. Mem. Mus. Comp. Zool. Harvard, xxiv, 1-432, pls. 1-85

MAUL, G. E., 1946: Monografia dos peixes do Museum Municipal do Funchal. Order Iniomi. Bol. Mus. Mun. Funchal, ii (2), 5-61, figs. 1-22.

NORMAN, J. R., 1930: Oceanic fishes and flatfishes collected in 1925-1927. Discovery Rep., ii, 261-370, pl. 2, figs. 1-47.

PARR, A. E., 1928: Deepsea fishes of the Order Iniomi from the waters around the Bahama and Bermuda Islands. Bull. Bingham Oceanogr. Coll., iii (3), 1-193, figs. 1-43.

——, 1934: Studies of *Myctophinae* in the Museum of Comparative Zoölogy. I. Revision of type specimens. Bull. Mus. Comp. Zoöl. Harvard, lxxvii (2), 41-53, figs. 1-5.

RAY, D. L., 1950: The peripheral nervous system of *Lampanyctus leucopsarus*. Jour. Morph., lxxxvii (1), 61-178, pls. 1-17, figs. 1-6.

TAANING, A. V., 1928: Synopsis of the Scopelids in the North Atlantic. Vidensk. Medd. Dansk. Naturh. Foren., lxxxvi, 49-69, figs, 1-2.

WEBER, M. and BEAUFORT, L. F. DE 1913: The fishes of the Indo-Australian Archipelago, II. Malacopterygii, Myctophoidea, Ostariophysi: I. Siluroidea, i-xx, 1-404, figs. 1-151. Leiden.