# OCCURRENCE OF EGGS OF MYCTOPHIDAE IN THE SHELF REGION OFF MADRAS COAST

## K. G. GIRIJAVALLABHAN

### Central Marine Fisheries Research Institute Centre, Madras,

#### ABSTRACT

A descriptive account of the egg hitherto not reported from Bay of Bengal belonging to the family Myctophidae is given.

The eggs and larvae of commercially important marine fishes of Madras coast have been studied by various workers John 1951; Nair 1951, 1952 and 1959; Chacko 1950; Vijayaraghavan 1957; Kuthalingam 1959; Subramanyam 1964, 1966; Rao and Girijavallabhan 1973; and Girijavallabhan and Gnanamuttu, 1974). Even though the exploitation potential of myctophids has now been recognised (Suda 1973; Silas 1975), information on their eggs and larvae is scarce. However, Silas (1972) has drawn attention to the large concentration of myctophids along west coast especially near the Angria Banks and off the Bombay shelf waters. Nellan (1973 studied, during the Cruise I of the R. V. Meteor, the distribution and abundance of the larvae of Myctophids in the southern part of Red Sea and Gulf of Aden.

The eggs described here were obtained from surface hauls with a nylon net of mesh width 0.33 mm collected on board the Government of India fishing trawlers during their routine cruises in December 1975, from 36 m depth area off Madras. As such eggs do not appear to have been recorded from the east coast of India, a description of the egg is given here.

The egg (Fig. 1) is spherical and has a diameter of 1.08 mm. The yolk is transparent and unsegmented. Oil globules absent, Embryo developed and numerous black chromatophores are present on the surface of the yolk. The egg membrane has a number of prominent appendages whose length varied from 0.05 to 0.07 mm. Each appendage is composed of three planes intersecting each other and with a blunt edge, thereby giving the appearance of a cone.

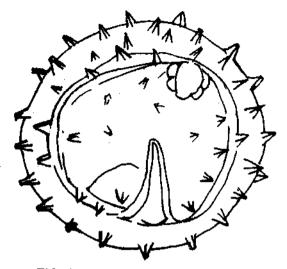


FIG. 1. The myctophidae eggs collected off Madras.

Delsman (1929) described some eggs belonging to Myctophoidea which have egg membranes bearing on its surface a great number of short appendages giving it a prickly appearance. The diameter of these eggs varied from 0.8 mm to 0.9 mm, and each had a single oil globule. The egg described by the present author has many points of resemblance to the egg reported by Delsman (1939)—in shape, diameter, presence of short appendages on the surface of the egg, of transparent and unsegmented yolk with black chromatophores. But the oil globule is absent in ,the present case. Because of these overwhelming similarities, it is held that the present eggs belong Mycotophoidea.

#### References

CHACKO, P. I. 1950. Proc. Indian Acad. Sci., 31(3)8: 162-174.

DELSMAN, H. C. 1931. Treubia 16, 415-420.

GIRIJAVALLABHAN K. G. AND J. C. GNANAMUTTU. 1974. Indian J. Fish., 21(1); 293-294.

JOHN, M. A. 1951, J. Zool. Soc. India, 3(1): 41-69.

KUTHALINGAM, M. D. K. 1959, J. Madras Univ. 398 (2): 79-96.

NAIR, R. V. 1951. Proc. Indio. Pacific Fish. Coun., Sec. II. 103-118,

NAIR, IR. V. 1952. Proc. Indian Acad. Sci., 358 (5): 181-208.

NAIR, R. V. 1959. Indian J. Fish., 6(2): 342-359.

NELLEN, 1973. The Biology of the Indian Ocean. Soringer-Verlag. Berlin, pp. 415-430.

RAO, K. S. AND K. G. GIRIJAVALLABHAN. 1973. Indian J. Fish., 20(2): 551-561,

SILAS, E. G., DHARMARAJA S. K. AND K. RENGARAJAN. 1975. CMFRI Bulletin, 27.

SUBRAMANYAM, C. B. 1964. J. mar, biol. Ass. India, 8(1): 188-192.

SUDA, A. 1973. Technical Conference on Fishery Management and Development, Vancouver, Canada, F1, FMD/73/R-5. 1-55.

VIJAYARAGHAVAN. P. 1957. Studies on fish eggs and larvae of Madras coast. University of Madras.