

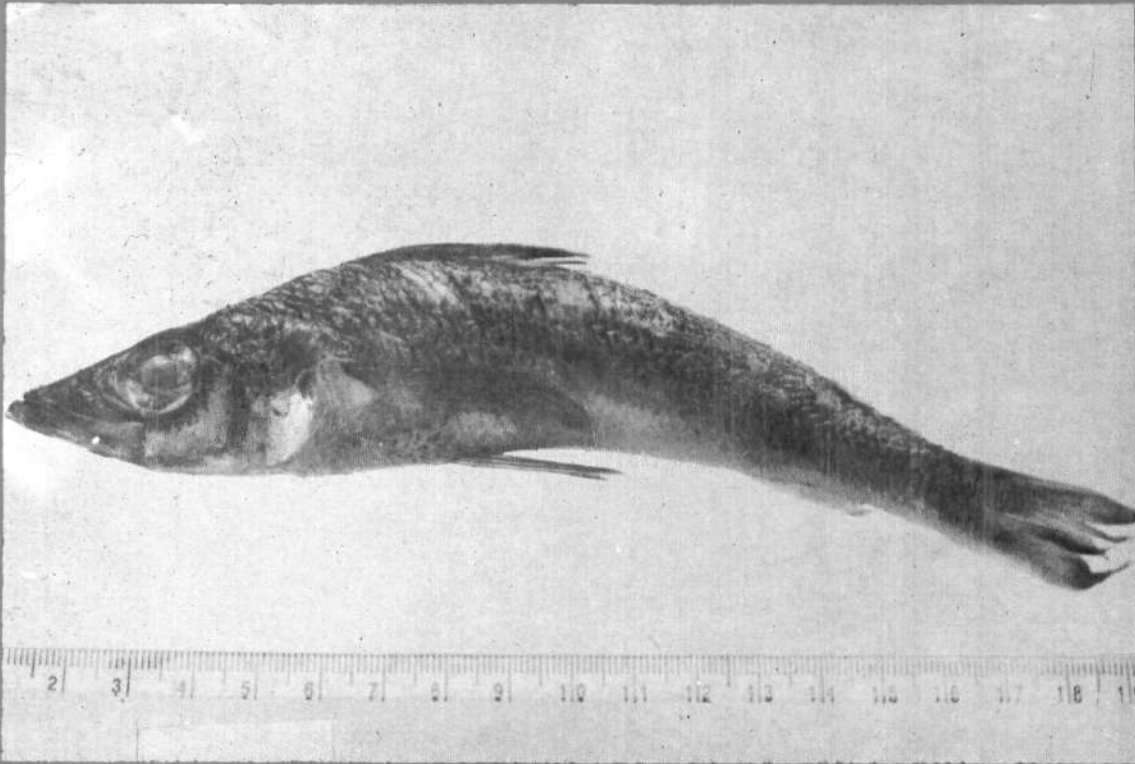


# समुद्री मात्स्यकी सूचना सेवा

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कोचिन, भारत CENTRAL MARINE FISHERIES  
RESEARCH INSTITUTE  
COCHIN, INDIA

भारतीय कृषि अनुसंधान परिषद  
INDIAN COUNCIL OF AGRICULTURAL RESEARCH

## Landing of the mesopelagic fish *Chlorophthalmus agassizi* at Cochin Fisheries Harbour\*

Mesopelagic fishes distributed in the upper aphotic zone beyond 200 m depth range are seldom encountered in commercial landings. Exploratory surveys have shown that they are available in plenty in the 200 to 600 m depth range in the Indian EEZ (Sivaprakasam, 1986, *Occasional papers No. 4, p. 13, FSI, Bombay*). In spite of the fact that they have a nutritive value at par with the quality fishes, these fishes are not popular as food because of their non-accessibility to commercial fishery. Nevertheless, on 28-8-1995, a large quantity of the mesopelagic fish, *Chlorophthalmus agassizi* Bonaparte was landed by the commercial trawlers at Cochin Fisheries Harbour.

A total of 550 kg of *C. agassizi* commonly called as "Shortnose green eye" (Local name; "Vellakkathiran") was caught from Baypore from a depth of 140 m, about 80 km west of Calicut, and was landed at Cochin Fisheries Harbour.

A total of 68 specimens of *C. agassizi* measured showed a size range of 150 to 205 mm and weight range of 46 to 82 g and their dominant mode at 186-190 mm size (Fig. 1). Their stomachs contained mainly caridean shrimps and foraminifers.

In *Chlorophthalmus* spp. both male and female gonads mature at the same time in the same individual. In the present case, of all the specimens examined, 3

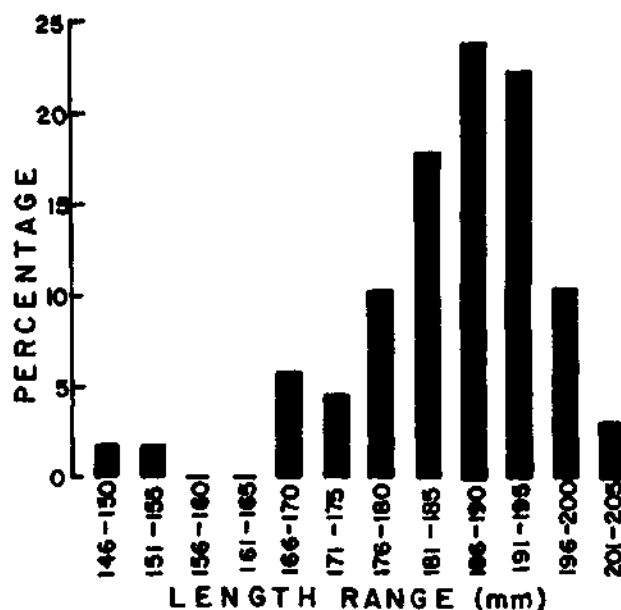


Fig. 1. Length-frequency distribution of *C. agassizi*.

had both testes and ovaries in partially spent stage (Fig. 2), thus indicating that they were caught during the post spawning season.

Mesopelagic fishes distributed in the Deep Scattering Layer (DSL) in the depth range of 200 to 700 m are known to migrate vertically towards the surface at night, following the zooplankton in order to feed upon them (Nybakken, J.W., 1982, *Marine Biology* : pp. 153). In the present case, these fish caught in trawl catches of multiple day fishing from a depth of 140 m might have been caught during their vertical sojourn to the surface at night.

Despite the fact that the flesh of *C. agassizi* with a protein content of 18.2% can be used for preparing value added products like texturised meat, wafers and soup powder, (Lakshmi Nair *et al.*, 1989, *I Workshop, FORV Sagar Sampada*, pp. 453-457), there is no demand for the fish in the local market because of its unfamiliarity to the users. Attempts may therefore be made to exploit mesopelagic fishes like *C. agassizi* from deeper waters which in the long run can, enable enhancing fish production in the country.

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**\*Prepared by S. Sivakami and P.K. Seetha, CMFRI, Cochin - 682 014.**

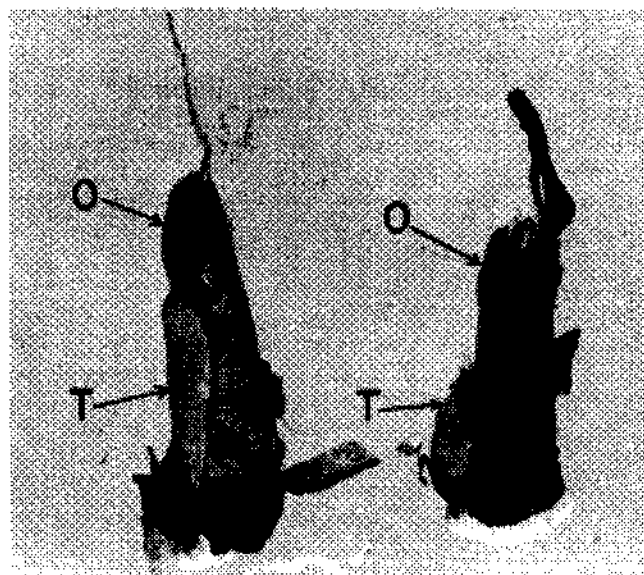


Fig. 2. Gonad of *C. agassizi* showing ovary and testis together (O = Ovary; T = Testis).