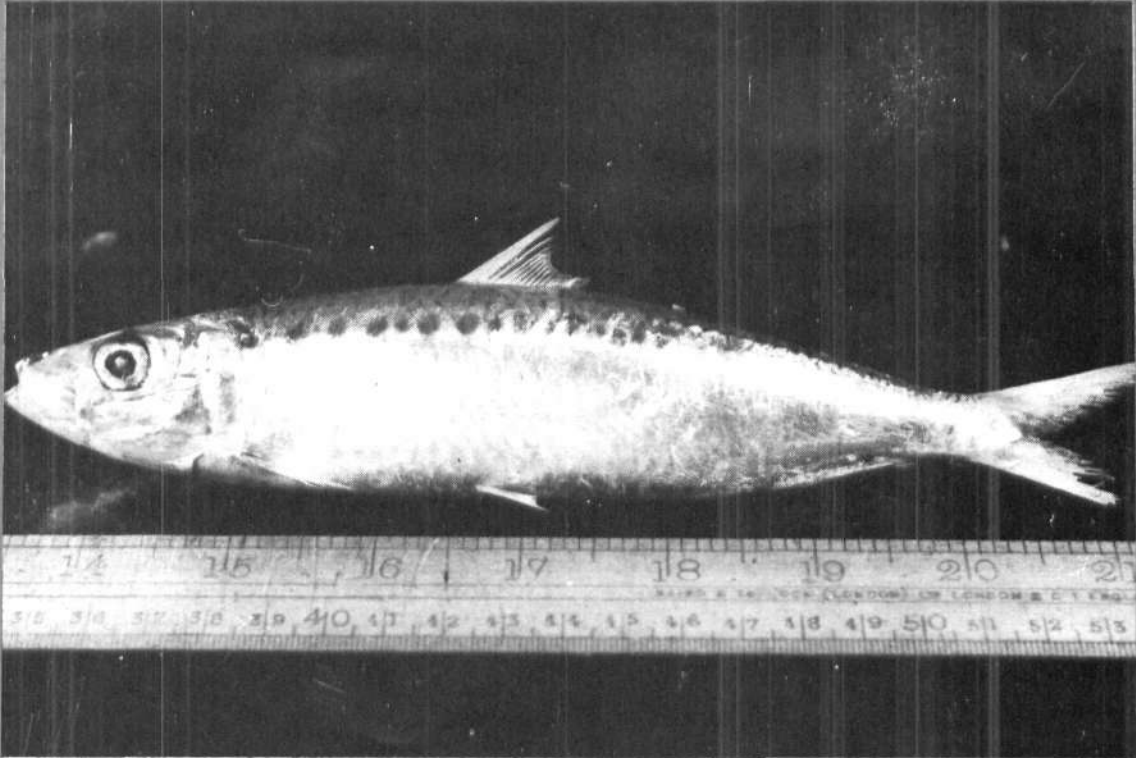




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भारतीय कृषि अनुसंधान परिषद
INDIAN COUNCIL OF AGRICULTURAL RESEARCH

OCCURRENCE OF SPOTTED SARDINELLA ALONG NORTH ANDHRA PRADESH COAST*

Gill nets operated off Lawsons Bay, Visakhapatnam landed an estimated 530 kg of spotted sardinella *Amblygaster sirm* (Walbaum) during November - December 1992. This species was not observed earlier in the sardine catches from this area. Subsequent to this observation the species was reported in the trawl catches of Kakinada during December. While the catches were very poor during January and February, March recorded an estimated 581 kg and 2331 kg of *A. sirm* in shrimp trawl and gill nets respectively, at Visakhapatnam. By April this species disappeared from the fishery. The meristic and morphometric details are given in Table 1.

TABLE 1. Meristic and morphometric characters of *Amblygaster sirm* (34 specimens) collected at Visakhapatnam

Characters	Minimum	Maximum	Average (Mode)
MERISTIC			
Dorsal fin rays	16	18	17
Anal fin rays	15+2	18+2	16+2
Pelvic fin rays	17	17	17
Pectoral fin rays	16	18	17
Caudal fin rays	23	26	24
Lower gill rakers	38	42	39
MORPHOMETRIC			
Total length (mm) (TL)	174	223	200.53
Weight (g)	45	112.3	95
Proportion in TL:			
Standard length	1.09	1.23	1.18
Head length (HL)	4.65	5.40	5.01
Depth	4.83	5.66	5.34
Proportion in HL:			
Snout	2.5	3.27	2.82
Eye diameter	3.28	4.15	3.76
Inter-orbital length	2.86	4.63	3.77

Most of the specimens examined were spent and a few were partially spent. The stomachs of all the partially spent as well as some of the fully spent fishes were empty, indicating a non-feeding phase associated with spawning. A few fully spent specimens had full stomachs. Apart from phytoplankton, copepods, amphipods, megalopa larva, alima larva and other crustacean and molluscan juveniles, fish larvae, juvenile stomatopods, mysids and leptocephali formed the food.

A flabelliferan isopod parasite (Fig. 1) identified as *Lironeca vulgaris* (Stimpson) was found attached to the middle of the gill arch of nearly fifty per cent of the specimens examined. Except for a specimen with two isopods, one on each gill, all others had a single isopod attached to the gill at one side only (Fig. 2). The infected specimens had a lesion at the point of attachment of the parasite and a cavity accommodating the parasite at the upper hind portion of the gill chamber. While the operculum did not show any visible bulge, the gill arch of the opposite side showed a remarkable bend outwards.

A close watch was kept on the sardine catches of different gears of this region upto December 1994. *A. sirm* did not reappear in any of the gears after March 1993. *A. sirm* was

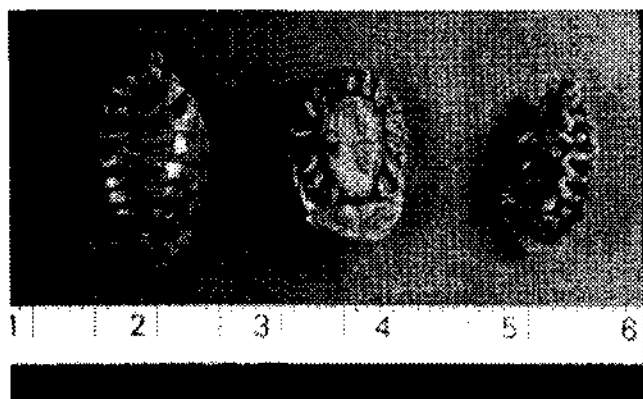


Fig. 1. Dorsal, ventral and dorsolateral views of isopod parasite *Lironeca vulgaris* (Stimpson) collected from the gills of *A. sirm*.

reported to form a fishery of smaller magnitude at Madras, Pondicherry and Tuticorin along southeast coast and Vizhinjam along southwest coast (Bennet, P.S. et al., *CMFRI Spl. Publ.* No. 28, 1986). It could be presumed that *A. sirm* was brought along north Andhra coast by the influence of the currents in the Bay of Bengal as reported for *Scomberomorus* spp. by K. Srinivasa Rao, (In: R.C. Sarma (Ed), *The Oceans - Realities and Prospects*, Rajendra Publication New Delhi, 1985); *A. solandri* by K. Vijayakumar, and S. Chandrasekhar (*Mar. Fish. Infor. Serv., T & E Ser.*, No. 115, 1992) and *Sardinella* spp. by G. Luther, (*ibid.*, No. 133, 1994). This aspect, however, requires further investigations.

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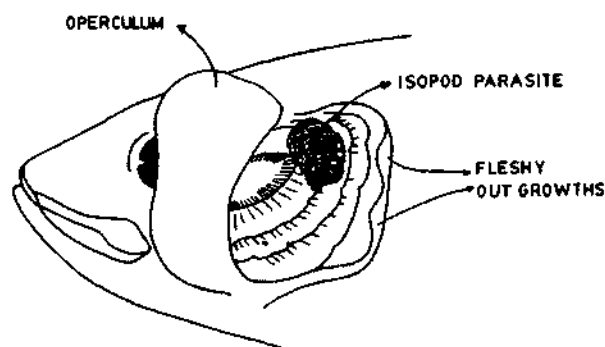


Fig. 2. Diagram showing the point of attachment of isopod parasite in *A. sirm*.

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