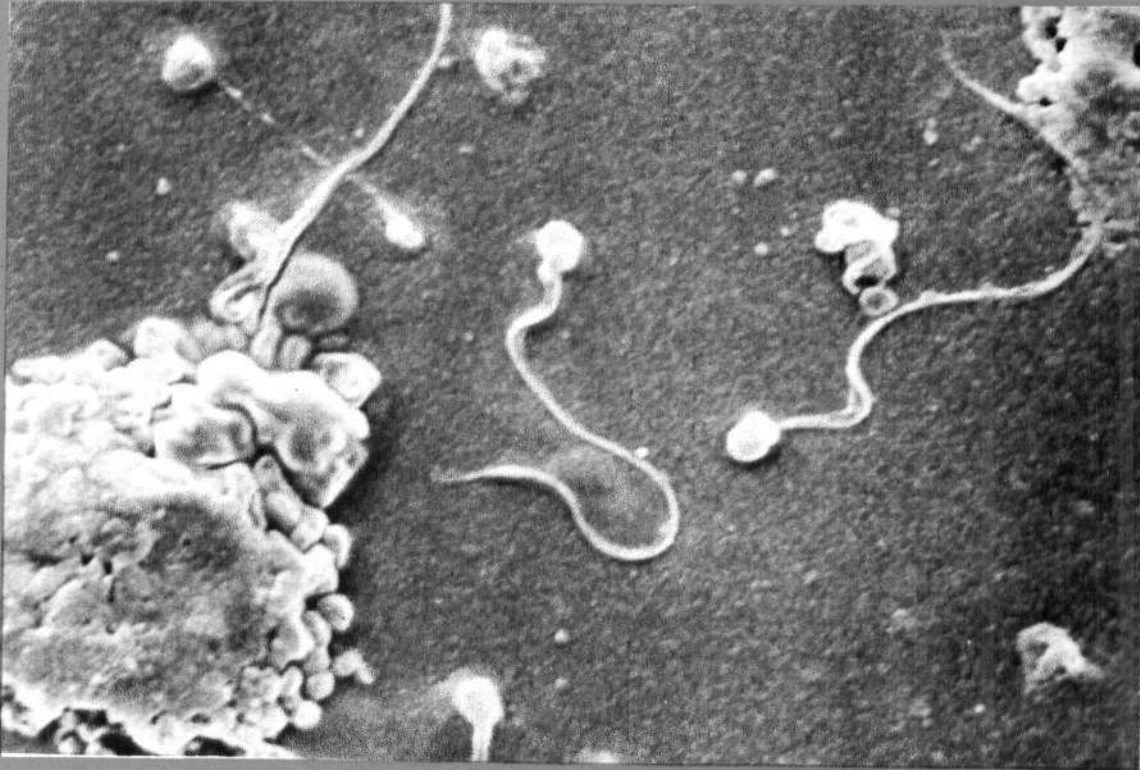




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INDIAN COUNCIL OF AGRICULTURAL RESEARCH

## REVIVAL OF RIBBONFISH FISHERY IN MANDAPAM REGION\*

During the 60s, ribbonfish formed a fishery of considerable strength in the Mandapam region and occasionally large quantities were landed in shore seines and drift gill nets. In 1962, enormous quantities of *Trichiurus lepturus* Linnaeus were landed during September-October at Rameswaram island (James, 1967, Memoir-I, *Marine Biological Association of India* : 226 pp.). However, in recent times ribbonfish landings have declined markedly in the region. During 1980-'91 period though there was no ribbon fish landings in several years, a total of 112 of ribbonfish were landed at Rameswaram which formed only 0.05% in total landings (Table 1).

TABLE 1. Ribbonfish landings at Rameswaram Verkottil landing centre during 1980-'91 (Source : Fishery Resource Assessment Division, CMFRI, Cochin)

Year	Total fish landings (t)	Ribbonfish catch (t)	Percentage in total landings
1980	20,578	0	0
1981	20,586	0	0
1982	22,814	4	0.018
1983	22,579	3	0.013
1984	27,093	0	0
1985	21,495	0	0
1986	20,039	0	0
1987	—	—	—
1988	17,965	1	0.006
1989	15,793	0	0
1990	16,448	104	0.63
1991	16,483	0	0
Total	2,21,873	112	0.050

In March, 1992, the paired mechanised boats with high opening trawl (Pillai and Sathiadhas, *Mar. Fish. Infor. Serv., T & E Ser., No. 39* : 1982) operating about 15 km N.E off Rameswaram (9°10'-9°20'N & 79°20'-79°35' E) at about 12 m depth, had landed an estimated 45.18 t of ribbonfish at a CPUE of 21.8 kg forming 1.2% in total catch. The resource started appearing in the pair trawl catches from 4.3.'92 onwards, on which date 320 kg were caught. On 10.3.'92, 14.4 t were landed at a CPUE of 172

kg. In a single unit alone 4 t were caught. The fishery disappeared by about 24.3.'92, presumably because the shoal would have moved away from the fishing area.

The catch consisted of a single species, *Trichiurus lepturus* in the size range of 540-850 mm TL, with a dominant size group of 640-659 mm (Fig. 1). Analysis of stomach contents showed food items such as *Sardinella* spp., *Thryssa* sp., *Stolephorus* sp., *Acetes* sp. and penaeid prawns in their stomachs. All the individuals were in spent and spent recovery stages. Female to male ratio was 7:2.

The ribbonfish catches were sold at a rate of Rs. 4/- to 6/- per kg. About 80% of landings were iced and taken to Kerala markets by fish traders arrived from there; the rest being taken to the interior markets of Tamil Nadu, such as Madurai, Coimbatore and Pollachi.

### Remarks

Though it is generally observed that large schools of *T. lepturus* which contribute to the commercial fishery during certain months at dif-

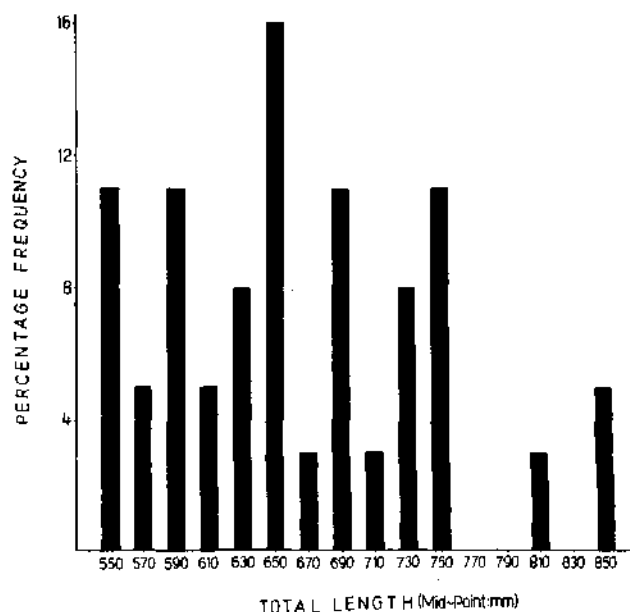


Fig. 1. Length frequency distribution of *T. lepturus* in the pair trawl catches at Rameswaram landing centre in March, 1992.

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ferent landing centres mostly comprise of spent fish measuring above 50 cm length, neither the schooling behaviour nor the migratory pattern are understood to any appreciable extent. Our knowledge about sex ratio in the schools of ribbonfish, too is meagre. Rao *et al.* (*Seafood Export Journal*, 9 (11) : 9-25 : 1977) suggested a general trend in the southward shift of ribbonfish concentrations beginning from April to July-August in the western shelf region. James

(Memoir I, *Marine biological Association of India* : 226 pp : 1967) indicated that *T. lepturus* moves in large shoals during August to October from east to west around Cape. The presently reported shoaling is apparently associated with spawning. This aspect apart from the present observation is noteworthy that a virtually extinct ribbonfish fishery in the Mandapam region has shown a brief but significant revival.