

TABLE I
Composition of the plankton

	Numbers per c.c. of standardised volume of 250 c.c.			
	13-3-1964		21-3-1964	
	12 metres	25 metres	12 metres	25 metres
Algae				
<i>T. erythraeum</i>	Nil	1,03,000	2,600	Nil
<i>T. hildebrandtii</i>	..	2,080	Nil	75,000
<i>T. thiebautii</i>	..	Nil	..	5,000
Diatoms	.. 9,300	130	2,700	110
Dinoflagellates	.. Nil	7	100	65
Copepods	.. 1,570	12	325	115
Prawn eggs	.. 600	Nil	10	Nil
Cladocerans	.. 250	3	205	1
Other zooplankters	.. 40	15	140	54

ON AN UNUSUAL SWARMING OF THE
PLANKTONIC BLUE-GREEN ALGAE
TRICHODESMIUM SPP., OFF
MANGALORE

INSTANCES of 'discoloured' water phenomenon in the Indian waters have been reported earlier.¹⁻⁸ This is caused by a variety of organisms such as blue-green algae, cystoflagellates and dinoflagellates, and is sometimes associated with adverse effects on the marine fauna including fish.

In the course of experimental fishing operations in the 12 and 25 metre regions off Ullal (Mangalore) on the Mysore coast, extensive greenish-yellow patches were noticed on 13th and 21st March 1964. Analysis of the surface plankton collections from 12 and 25 metre areas revealed the presence of blooms of *Trichodesmium erythraeum* Ehrenberg ex Gomont on 13th March, and *T. hildebrandtii* Gomont on 21st March, only in the latter region. On these days they were found almost to the exclusion of the other planktons as observed from a comparative study of the plankton of the two areas (Table I).

Observations on the hydrological conditions of the surface waters at the two stations revealed no significant differences, yet the algal blooms were found to be restricted to the 25 metre region only.

In order to find out the effect of the algal bloom on the inshore fishery at Ullal, the trend of the fishery during the month was followed based on the records of fish landings maintained

at this research unit. It was observed that oil sardine and mackerel were landed in good quantities during the first week of March 1964 preceding the algal bloom. Subsequently, there were no catches of either oil sardine or mackerel, which coincided with the onset of the algal bloom. However, towards the end of the month the revival of the fisheries was observed following the disappearance of the algal blooms.

It may be pointed out here that the normal fishing activity with the indigenous gears operated within the 5-8-metre area was also adversely affected even though this region was free from *Trichodesmium* patches. The occurrence of *Trichodesmium* spp. in extensive patches in the regions farther away from the shore would thus seem to have an adverse influence on the coastal fisheries.

It was also interesting to note that the stomach contents of stray catches of *Thrissocles mystax*, *Sardinella longiceps*, *S. fimbriata*, *Caranx kalla* and *Opisthopterus tardoore* made by the departmental gill net *Chalabale* at the 25-metre region did not reveal the presence of *Trichodesmium* spp. at all.

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1. Bhimachar, B. S. and George, P. C., *Proc. Indian Acad. Sci.*, 1950, **31**, 339.
2. Chacko, P. I., *Curr. Sci.*, 1942, **11**, 404.
3. Chidambaram, K., *Ibid.*, 1942, **11**, 406.
4. — and Mukundan Unny, M., *Ibid.*, 1944, **13**, 263.
5. Hornell, J. and Nayudu, M. R., *Madras Fish. Bull.*, 1923, **17**, 129.
6. John, C. C. and Menon, M. A. S., *Curr. Sci.*, 1942, **11**, 243.
7. Prakash, A. and Sarma, A. H. V., *Ibid.*, 1964, **33**, 168.
8. Subrahmanyam, R., *Proc. Indian Acad. Sci.*, 1959, **50**, 113.