

**Modal chromosome number**—In all 14 species analysed, cytologically 13 possess a diploid number of 20 and haploid number of 10 chromosomes and 10 (1n) is the modal number of this genus.

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**Further Observations on Gaveshani Bank**

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During the 31st cruise, *R V Gaveshani* made 4 runs over the bank in different directions. From the echograms obtained it became possible to draw an outline of the bank. Physical and chemical features over the bank were similar to those of the upper layers of the Laccadive Sea. Sediments taken from the bank consisted of calcareous sand with fragments of live corals, calcareous algae and a large number of animals typical of coral reef environment.

A bank with living corals, named as Gaveshani Bank<sup>1</sup>, has been reported from the west coast of India. During the 31st cruise of *R V Gaveshani* (March-April 1978) the ship once again visited the Gaveshani Bank on 5th April 1978. Since the exact position of the bank was noted earlier by a satellite fix, the bank was located with ease.

The ship made 4 runs over the bank, from one extremity to the other, at a speed of about 2-3 knots to determine the size and shape of the bank. The 1st run was from SE to NE direction, the 2nd from N to W, the 3rd from W to S and the 4th from W to E. During the run echograms were taken using echosounders and sonar. From the several echograms thus obtained a generalized sketch of the bank was obtained (Fig. 1).

The bank has NW-SE orientation. It is about 770 m long and 330 m broad. The depth over the bank ranges from 32 to 40 m and the shallowest point is at the apex<sup>1</sup>. Table 1 gives some of the physical and chemical features over the bank. The average Secchi disc reading over the bank was 16 m, which from the equation  $k = \frac{1.7}{D}$  gave the value of attenuation coefficient of light (k) as 0.106 and the compensation depth of the euphotic

zone (1% of the surface illumination) at about 48 m. This means that the entire bank is within the photosynthetic (euphotic) zone. Other features over the bank (Table 1) were typical of the upper 0-30 m of the Laccadive Sea.

Measurements of primary production, chlorophyll a, phaeophytin and particulate organic carbon over the bank are given in Table 2. <sup>14</sup>C uptake and chlorophyll a values were low and the particulate organic carbon was relatively high. These features were also similar to those of the Laccadive Sea. The general composition of

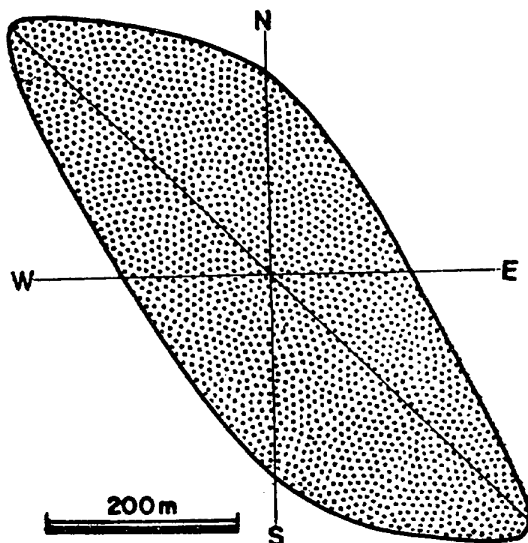


Fig. 1—Outline of Gaveshani Bank drawn from the echograms obtained during the 31st cruise

Table 1—Physical and Chemical Features over the Gaveshani Bank on 5th April 1978

Depth* m	Temp. °C	Salinity ‰	Oxygen ml/l	pH	PO <sub>4</sub> -P µg-at/l
0	29.11	35.36	4.8	8.21	0.3
10	29.99	35.35	4.61	8.22	0.24
20	28.97	35.36	4.54	8.22	0.24
30	28.93	35.35	4.52	8.22	0.24

\*NO<sub>3</sub>-N not detected at any depth

Table 2—Primary Production and Other Related Aspects in the Water Column over the Bank

	Surface	Water column 0-30 m
<sup>14</sup> C uptake	0.26 mgC/m <sup>3</sup> /hr	9.7 mgC/m <sup>2</sup> /hr
Chlorophyll a	0.14 mg/m <sup>3</sup>	2.49 mg/m <sup>2</sup>
Phaeophytin	0.02 mg/m <sup>3</sup>	0.48 mg/m <sup>2</sup>
Particulate organic carbon	12 mg/m <sup>3</sup>	0.41 g/m <sup>2</sup>

phytoplankton at the surface and 30 m depth is given in Table 3.

The abundance of *Trichodesmium* is a seasonal phenomenon and occurs from February to May in coastal waters<sup>2</sup>. Zooplankton haul made by the IOSN at about 1100 hrs, from 36 m depth to the surface, gave the following results:

Biomass of zooplankton was 0.066 ml/m<sup>3</sup> with copepods 5250, decapod larvae 26, chaetognaths 560, fish larvae 5 per haul of IOSN from 36 m to the surface. This indicates that in the water column (0-36 m) above the bank, zooplankton organisms are sparse.

A few grab samples from the bottom showed that the sediment was typical of coral bank with coarse calcareous sand and many species of calcareous algae and fragments of live and dead corals. The samples contained a large number of animals. Some of these were identified as *Favia* sp., *Cypraea* sp., *Umboonium* sp., *Arca* sp., *Harmothoe* sp. and *Metagrapsus* sp. The samples also included many nudibranchs and other animals which could not be identified.

It appears that this bank is very similar to some of the submerged banks of the Laccadive Archipelago with the only difference that like the Angria Bank off

Table 3—Phytoplankton Component in the Water Column above Gaveshani Bank

Component	At surface		At 30 m depth	
	Cells or filaments/litre	Component	Cells/litre	Component
<i>Trichodesmium</i> sp.	750	<i>Amphora</i> sp.	500	
<i>Coscinodiscus</i> sp.	300	<i>Navicula</i> sp.	800	
<i>Navicula</i>	1050	<i>Coscinodiscus</i> sp.	100	
<i>Nitzschia</i>	300	<i>Peridinium</i> sp.	400	
<i>Peridinium</i>	900	<i>Prorocentrum</i> sp.	200	
Flagellates	300	Flagellates	600	

Ratnagiri, it is located closer to the mainland. The occurrence of this bank raises the possibility of the existence of many more coral banks, probably with living corals, hitherto unreported from the west coast of India.

#### References

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