

OCCURRENCE OF GREEN ALGA *ERNODESMIS VERTICILLATA* (KUETZING) BOERGENSEN AT MALVAN (MAHARASHTRA COAST)

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ABSTRACT

The occurrence of *Ernodesmis verticillata* belonging to Chlorophyta has been recorded for the first time from Malvan, along the Maharashtra coast. The general distribution, habit and habitat of this species are given

During the recent survey of marine algal resources of the Maharashtra coast, a green marine algal species was collected and identified as *Ernodesmis verticillata* (Kuetzing) Boergesen (Plate 1). From the literature it was observed that *E. verticillata* has not so far been reported from the Indian coast

Description: *Ernodesmis verticillata* (Kuetzing) Boergesen.

Valonia verticillata Kuetzing (1849, 1856).

Ernodesmis verticillata (Kuetzing) Boergesen (1912).

Erect plants, loosely entangled to form a dark green ball or mat-like structure. Plants 3-5 cm in height, branching typically whorled type at the top of each older branch 3-5 branchlets are arranged in whorls upto 5th order. Cells coenocytic, 15-20 mm long and 1-1.2 mm in breadth, with ovoid chloroplasts arranged near the cell surface, leaving central vacuole.

Distribution: Brazil, Canary Islands, Mauritius, Kenya, Caribbean, Mexico, Gulf of California, West Africa, Ceylon and west coast of India.

Habitat: *E. verticillata* was found growing in irregular patches in the midlittoral areas of Malvan along the Maharashtra coast (Fig. 1). The other associated species observed along with *E. verticillata* were *Caulerpa racemosa*, *Padina tetrastomatica*, *Sargassum* spp., *Hypnea musciformis*. The substratum was of granite boulders of various sizes. Sometimes because of strong wave action, lumps of *E. verticillata* got detached and washed ashore. The alga was collected from October to March. However, the reproductive structures could not be observed.

Fritsch (1935) has described the annular constrictions on the irregularly branched

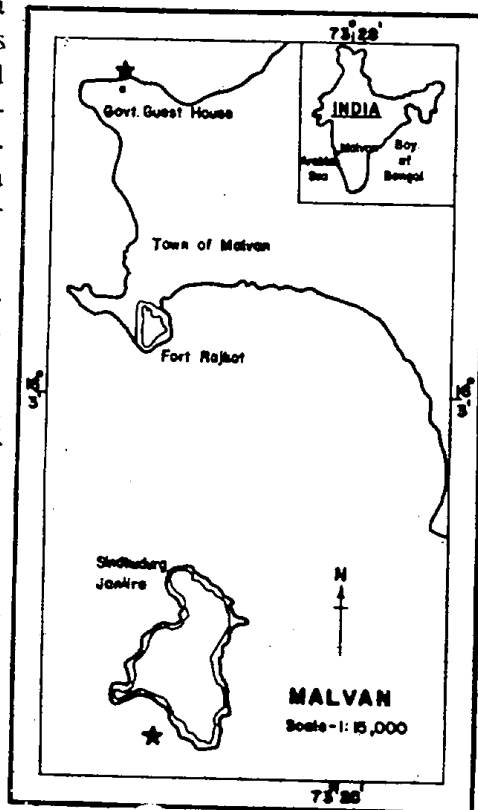


Fig. 1. Map of Malvan coast, showing sites (★) of collection of *Ernodesmis verticillata*.



Plate 1. *E. verticillata*: entire plant.



Plate 2. *E. verticillata* rhizoid, annularly constricted, $\times 96$.



Plate 3. *E. verticillata*: branch-tip, $\times 96$.



Plate 4. *E. verticillata*: hair like structure.

rhizoid, which is true in the present alga under investigation (Plate 2). Boergesen (1912, 1913) has also studied in detail the nature of branching in the hapetroid rhizoid and also the branching pattern of the thallus, by the formation of a concave cell, which further develops and gives rise to primary branches (Plate 3). Sometimes, the primary branch, instead of developing secondary branches, grows into a curved unicellular hair-like structure (Plate 4). Also the primary branches instead of developing 5-6 branches, occasionally grow into only 2 branches of dichotomous nature.

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