A NOTE ON THE OCCURRENCE OF THE BLUE GREEN ALGA *APHANOCAPSA LITTORALIS* HANSG. VAR. *MACROCOCCA* HANSG. CAUSING COLOURATION OF THE SAND AND ITS RELATION WITH THE TIDES

Though there are many reports, from various parts of the world, about organisms inhabiting intertidal sands causing colouration and the tidal rhythm of the causative organisms, little attention seems to have been paid to these in India. Dixit (1936) reported the occurrence of *Aphanocapsa littoralis* var. *macrococca* on the Chowpathy sea-shore in Bombay but no information has been given about its relation with the tide. Recently, Ganapati, Rao and Rao (1959) reported the tidal rhythms of some diatoms and dinoflagellates inhabiting the intertidal sands of the Visakhapatnam Beach. The present note is based on the occurrence of a blue-green alga causing a green colouration of the sand at Karwar Beach in the North Kanara Coast.

At low tide, during February-April and sometimes also in August and October, the intertidal zone of the sandy beach is often found to exhibit widespread dull green colour which develops under the brilliance of the sun. Examination of this coloured sand revealed the presence of dense populations of *Aphanocapsa littoralis* Hansg. var. *macrococca* Hansg. adhering to the sand grains with the help of their mucilaginous envelope.

Individual cells varied from 3.5-6.0 μ in diameter and isolated individual cells kept in watch glasses showed active wriggling movement when agitated. Kept undisturbed, the cells clustered around the water margin in groups and adhered to the glass and the grains of sand.

During day time at low tide these organisms appear in thick, evenly spread, green patches in the sandy beach. At the time of high tide these green patches disappear and therefore, the occurrence of the colour seems to synchronize with the tidal periodicity.

It is observed, that no such colour develops in the beach when the low tide is exclusively confined to the night. However, the green patches that develop during day time at low tide continue to exist in the beach at night as long as that low tide remains. It shows that the development of the colour has some relation to light also and a more detailed study on this will throw light on the probable causes of this behaviour of the alga.

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