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MASTOGLOIA DANSEI THWAITES—A NEW ADDITION TO THE INDIAN FLORA

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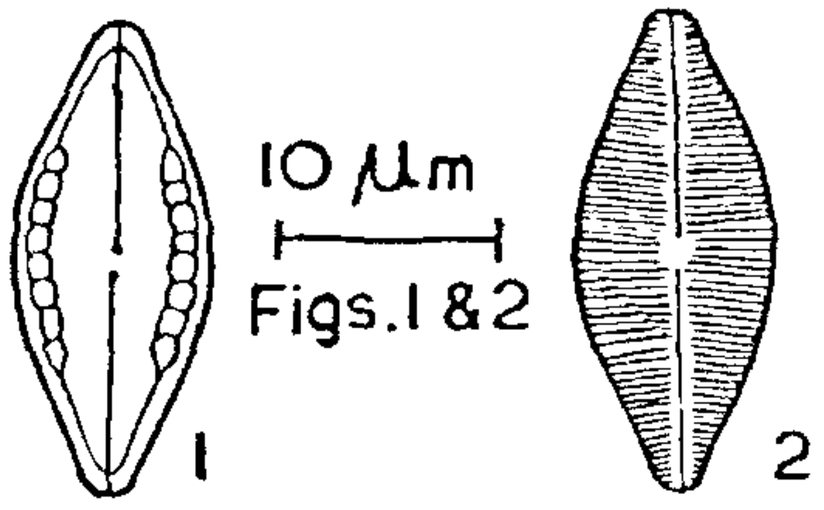
THERE are only a few records[1-3] of the freshwater diatom-flora of Andaman and Nicobar Islands. During investigations on freshwater bacillariophycean algae of Andaman & Nicobar Islands, plants of *Mastogloia dansei* Thwaites[4], a species which has not yet been documented in the Indian diatom-flora, were collected. It is, therefore, intended to record this taxon in the present communication.

Mastogloia dansei Thwaites (figures 1 and 2).

Valve linear, naviculoid, rounded in the middle with rostrate and rounded apices; valve with loculi; loculi eight, arranged in a straight row, interposed between the connecting membrane and the valve on which they appear adherent. Valve without loculi; axial area narrow, considerably hyaline in the middle region. Striae fine, lineate very slightly radiate throughout the valve; raphe straight, thin.

Length, 22 μm; breadth, 8.5 μm; striae, 26–27 in 10 μm.



Figures 1, 2. *Mastogloia dansei* Thwaites. **1.** Frustule with loculi. **2.** Frustule without loculi.

Habitat: Planktonic with other algae in a freshwater pond.
Loc.: Astinabad (Port Blair).
Coll. No.: AN 251.
Date: 28-11-1978.

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A NEW EAR AND KERNEL ROT OF MAIZE CAUSED BY *TRICHODERMA VIRIDE* PERS. EX FRIES

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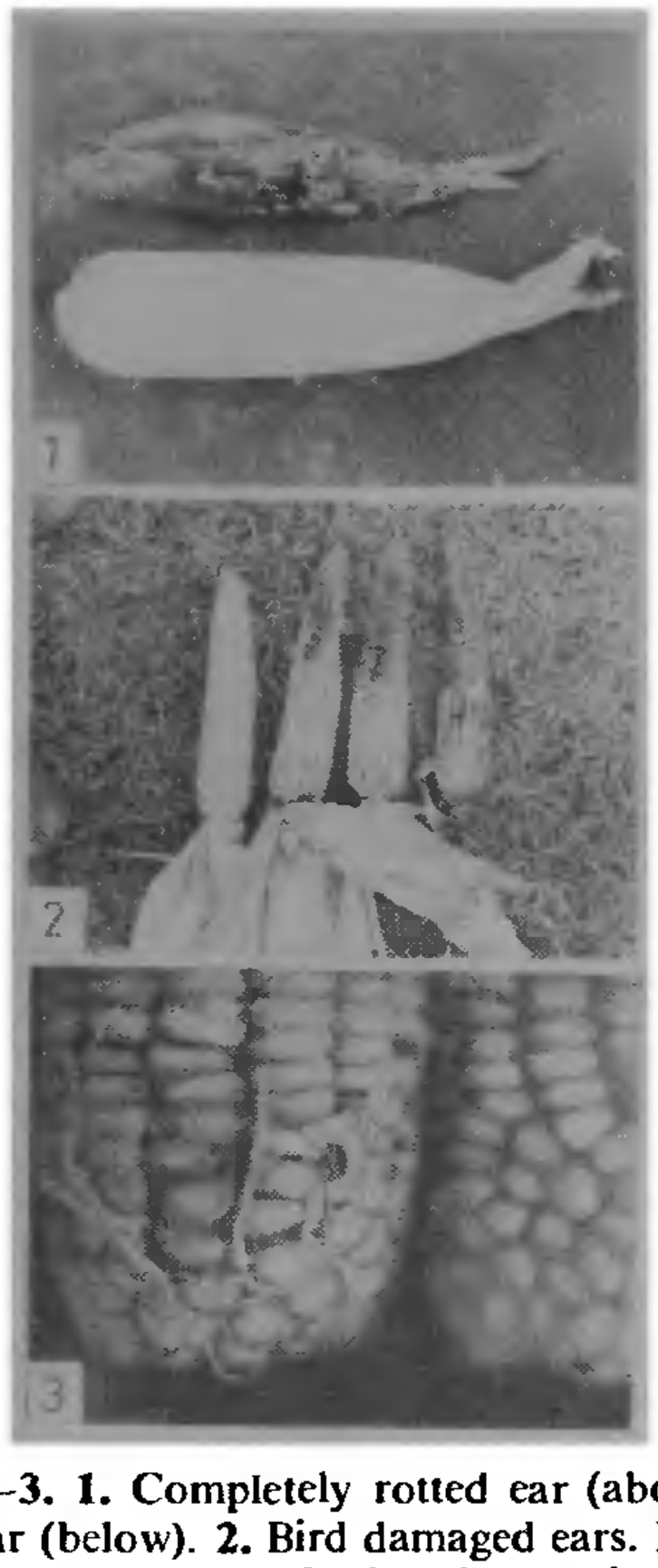
THE authors observed a new ear and kernel rot of Dent corn (*Zea mays* L.) during the field survey of maize crop in Periyapatna and Hunsur Taluks of Karnataka in the 1981 kharif season. The cultivars in which the rot was observed were Ganga-5 and Deccan-101 with 20 and 25% ear infection respectively. The observation showed that the rot of whole ear (figure 1) was common in the middle of the field especially where plant population was more and the ears of border plants showed only kernel rot owing to bird damage (figure



Figures 1–3. 1. Completely rotted ear (above) and healthy ear (below). **2.** Bird damaged ears. Note the increasing severity of infection from left to right. Healthy ear is on the extreme left. **3.** Infected Kernels showing germination on the ear (vivipary). Healthy ear is on right.

2.) It was observed that most of the ears of border plants were damaged by birds leading to percolation and storage of rain water inside the ears followed by fungal invasion.

The dry examination of the damaged ears showed green colonies particularly on the seeds at the tip and the base of the ear whereas the seeds in the middle remained free from infection. In addition, the infected seeds at the base of the ear showed germination on the ear itself (figure 3).

These infected ears were incubated for the isolation of the fungus and the fungus was identified as *Trichoderma viride*[1,2].

Although *Trichoderma* spp. are used as antagonists against some seed-borne fungi, it reduces the germinability[3] and is found to be pathogenic to maize seeds when the seeds were coated with *T. viride* as antagonist[4]. In addition, *T. viride* has been recorded in samples collected from different parts of Karnataka. The infected samples included 6 different cultivars. Our studies also showed that heavily infected seeds failed to germinate. *T. viride* which was isolated from the infected ear and kernels of maize was reinoculated to the healthy ears and kernels and similar symptoms were obtained.

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ANNOUNCEMENT

FOURTH INDIAN GEOLOGICAL CONGRESS

The Fourth Indian Geological Congress is scheduled to be held during 9–12 November, 1982 in the Department of Geology, Banaras Hindu University, Varanasi.

Organisers have invited contributions on the different disciplines of geology.

For further informations please contact the convenor Prof. A. K. Bhattacharya, Head of the Department of Geology, Banaras Hindu University, Varanasi 221 005.