

NOTES AND BRIEF ARTICLES

(With Plate 41 and 3 Text-figures)

AN OLPIDIOID FUNGUS IN THE MARINE
DIATOM *CHAETOCEROS*

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The second edition of *Aquatic Phycomycetes* (Sparrow, 1960) makes no reference to any fungi parasitizing species of *Chaetoceros*, a most abundant genus of marine diatoms with many common species. It seemed therefore of interest to put on record an observation made in the sea of Loch Carron at Strome Ferry in West Scotland in August 1956. Plankton, strained from the sea with a bolting-silk net, was examined directly. It contained eight species of *Chaetoceros* and one of these, *C. constrictus* Gran, but only one, was fairly heavily infected by an olpidioid fungus (Fig. 1, see page 476).

The thallus in an infected cell was holocarpic. It was naked at first but later acquired a cell wall. Finally it developed into a zoosporangium furnished with a single, rather long exit-tube. Numerous zoospores were formed, but, although their escape was observed, their flagellation was not determined. Hence the taxonomic position of the fungus remains in doubt. Although each zoospore contained a single oil-drop, the appearance of the protoplasm suggests that the organism is not a chytrid. A striking feature was that infected host-cells became much elongated. In the material examined the single diatom frustule never exceeded 15 μm , but infected cells were up to 60 μm long. The diameter of the host was not, however, affected.

REFERENCE

SPARROW, F. K. (1960). *Aquatic Phycomycetes*, 2nd ed. Ann Arbor: University of Michigan Press.

PERITHECIUM FORMATION BY *NECTRIA LUGDUNENSIS*
ON NATURAL MATERIAL

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Observations on *Nectria lugdunensis* (Webster, 1959) at Smooth Beck, near Hawkshead, Lancashire, and elsewhere (Webster & Iqbal, 1971) suggest that although pustules of the macroconidial state (*Heliscus*) occur frequently on twigs, more exacting environmental conditions are necessary