

AKINETES IN A SPECIES OF *OEDOGONIUM*.

BY

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During October 1927 the writer collected algae in Taunggyi (4675 ft. above sea-level) and other places in the Southern Shan States of Burma. An account of the algae from the above-mentioned stations will be published later. Here reference will only be made to an unusual occurrence—the presence of akinetes or resting spores in a species of *Oedogonium*. The occurrence of such resting spores in this genus, so far as the writer is aware, has only been recorded by Wille in a paper¹ unfortunately not accessible in Rangoon.

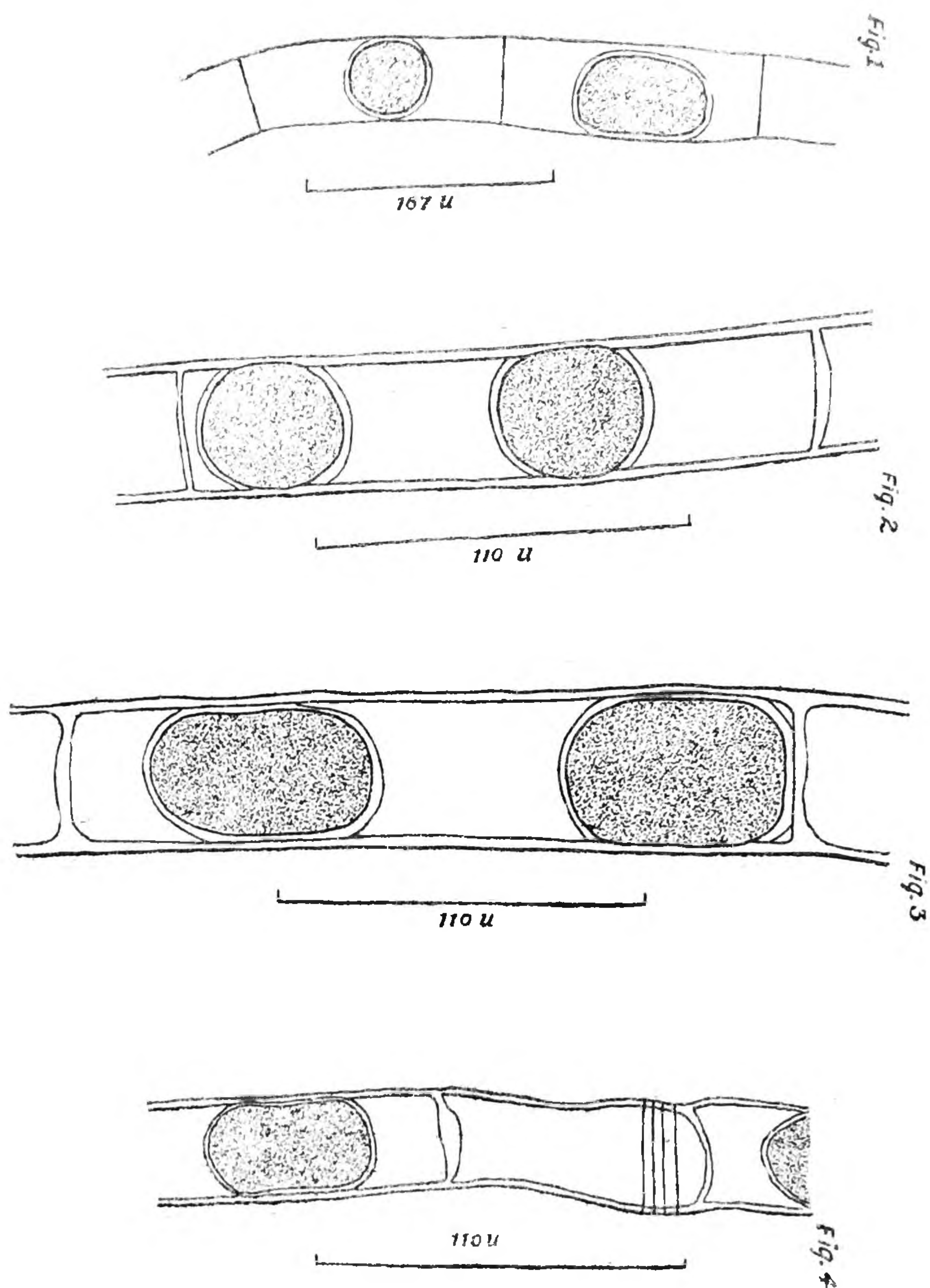
The filaments under examination, though devoid of sexual organs, can be referred to the genus *Oedogonium* by virtue of the possession of the characteristic "cap-cells." The plants were growing intermingled with other algal associates in a shallow body of water replenished occasionally by the drainage from adjacent higher land. The number of akinetes present in a cell varied from one to two (Figs. 1—3). In shape, they were either roundish (Fig. 2) or broadly ellipsoidal (Fig. 3), and possessed a double coat.¹

The vegetative cells were 35–41 μ thick, 77–200 μ long; akinetes 27–41 μ thick, 41–66 μ long but, when roundish, 39–41 μ in diameter.

In the present state of our knowledge, the factors governing the formation of resting spores in the genus *Oedogonium* cannot be stated with any exactitude. From the nature of the case under consideration, it is probable that a high altitude with its accompanying low temperature may influence their production. Further observations are needed on this and other factors.

In conclusion I offer my thanks to Dr. S. L. Ghose for his help and suggestions. I have also much pleasure in acknowledging my indebtedness to the University of Rangoon for financial assistance.

¹ Bot. Centralbl. XV1, 1883, p. 217: quoted by West and Fritsch (1927): A Treatise on the British Freshwater Algae. Cambridge.



Explanation of Figures 1-4.

- Fig. 1. Portion of thallus of *Oedogonium* sp. showing akinetes occurring singly.
 Fig. 2. Two rounded akinetes in a cell.
 Fig. 3. Two broadly-elliptical akinetes in a cell.
 Fig. 4. Showing both akinetes and cap-cells.

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