

COLOURLESS ALGAE OF THE FLAGELLATE GENUS MONOSIGA FROM VICTORIA, AUSTRALIA

by

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SUMMARY

Three new species of the genus *Monosiga* S. Kent (Family *Craspedomonadaceae*, order *Protomastigineae*) are described and figured. These algae were present in two samples of mosses collected by Mr. V. Jernakov at South Cascade Creek, eastern Baw Baws, Victoria (Australia) and sent alive to the authors. Specimens of all three species are preserved in the Botanical Institute, Sao Paulo, Brazil. Here, also, an English description of the genus is given.

DESCRIPTION OF GENUS MONOSIGA S. KENT

Cells colourless, not metabolic, without a lorica, sessile and forming small colonies on the surfaces of water plants and filamentous algae in fresh water, affixed at the posterior pole by means of gelatins, not forming special discs, almost orbicular to flask-shaped with a distinct and narrow or a widely flaring mouth above the constricted neck. Periplast hyaline and almost colourless. Flagellum single, long, inserted inside the flaring hyaline mouth, connected to the nucleus and to one or several contractile vacuoles. Nutrition holozoic, the flagellum catching bacteria and other small flagellates. Oil drops present in the cells. Reproduction by longitudinal division, taking place while the cells are affixed. Resting stages unknown.

Three species of *Monosiga* are given in Pasher and Lemmermann's paper of 1914. The type species should be *Monosiga ovata* S. Kent. Cells of *Monosiga* are found single or in colonies in swamps, bogs, streams and in the littoral parts of lakes. Distribution of this genus would doubtless be cosmopolitan. The authors of the present paper had, in 1969, described 21 species of *Monosiga* from Hong Kong, Brazil and Australia.

KEY TO SPECIES, WITH SHORT LATIN DIAGNOSES

1. Cell short, ovoid ; collar tubiform.

1. *Monosiga australica* sp. nov. [Fig. 49a].

Cellula brevis, ovoidea, cum collari 8-9 micr. longa ; collare tubiforme, cellula fere aequilongum ; flagellum quam cellula sesquilongius.

Habitatio : In muscos—South Cascade Ck, Victoria, Australia, V. Jernakov, 29.4.1967.

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2. Cell short, fusiform; collar very short.

2. *Monosiga jernakovii* sp. nov. [Fig. 49b].

Cellula brevis, fusiformis, sessilis, cum collari 15 micr. longa; collare breve, quam cellula $\frac{1}{2}$ longius; flagellum quam cellula duplo longius.

Habitatio: In muscos—South Cascade Ck, Victoria, Australia, V. Jernakov, 29.4.1967.

[Dedicavimus hanc speciem in honorem Dom. V. Jernakov, rerum naturalium indagator.]

3. Cell long, clavate, with long broad collar.

3. *Monosiga victoriae* sp. nov. [Fig. 49c].

Cellula clavata, longa, sessilis, cum collari 12–14 micr. longa; collare quam cellula latius atque fere dimidia longius; flagellum quam cellula multo longius.

Habitatio: In muscos—South Cascade Ck, Victoria, Australia, V. Jernakov, 29.4.1967.

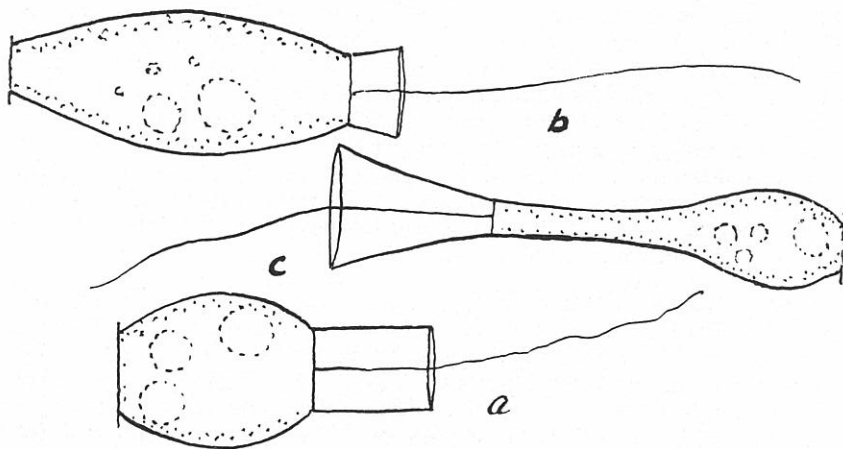


Fig. 49.

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