Validation of *Spongiosarcinopsis terrestris gen. et sp. nov.* (*Protosiphonaceae*, Chlorophyta)

Anna Temraleeva, *Institute of Physicochemical and Biological Problems in Soil Science of the Russian Academy of Sciences, Institutskaya Str. 2, Pushchino 142290, Russian Federation*

The genus designation "*Spongiosarcinopsis*" and the binary designation "*Spongiosarcinopsis terrestris*" were introduced invalidly by Temraleeva *et al.* (2018: 296) as the words "typus" or "holotypus", or its abbreviation, or its equivalent in a modern language, as required by ICN Art. 40.6 (Turland *et al*. 2018) in designating a type; instead, a culture was indicated as the "authentic strain". ICN Art. 8.4 specifies that "Type specimens of names of taxa must be preserved permanently and may not be living organisms or cultures." However, ICN Art. 8.4 also specifies that "… cultures of algae and fungi, if preserved in a metabolically inactive state (e.g. by lyophilization or deep-freezing to remain alive in that inactive state), are acceptable as types." These names are validated as follows by the designation of a cryopreserved culture as type. A *descriptio generico-specifica* is provided as permitted by ICN Art. 38.5.

Spongiosarcinopsis terrestris A.Temraleeva, S.Moskalenko, E.Mincheva, Y.Bukin & M.Sinetova, *gen. et sp. nov.*
Descriptio generico-specifica: Single cells are ellipsoidal to spherical when young, 5–10 μm in diameter, covered with thin smooth envelope. Each young cell has a single relatively large nucleus, a single parietal chloroplast with a single pyrenoid covered with starch envelope and one vacuole. Single cells are derived from zoospores or aplanospores. Mature cells in 3-month-old cultures are ellipsoidal, ovoid to irregular in shape, up to 22 μm in diameter, mutually combined into diads, tetrads, or packets resulting from desmoschisis. The smooth and homogeneous cell wall in actively growing culture is 0.5 μm thick, increasing to 5 μm in 6-month-old cultures. Mature cells remain uninucleate, with a single spongy chloroplast possessing one to five pyrenoids in its median thickened part. Each pyrenoid is covered by a prominent segmented starch envelope and penetrated by curved thylakoids. In cross-sections of mature cells, thylakoids are organized in bundles of different thickness occupying most of the chloroplast area. The colour of the algal mass in older cultures matures to orange or red. Akinetes are oblong with a smooth layered cover are observed. Asexual reproduction may occur by desmoschisis, or by zoospores and aplanospores. Aplanosporangia contain 8- 32 spherical aplanospores, each 4.5–6 μm in diameter, covered with a thin smooth cell wall. Aplanospores differ from mature cells by naked pyrenoids without a starch envelope. Zoospores are naked with two flagella of equal length, ellipsoidal with rounded ends, 7.8–8.1 x 3.6–4.1 μm. After a short motile period, zoospores rapidly become spherical, 5.0–5.2 μm in diameter. The chloroplast is shallow cup-shaped or saucer-shaped. The pyrenoid is difficult to observe. The stigma is small and located in the anterior end of the chloroplast. Sexual reproduction was not observed.
Typus: metabolically inactive cryopreserved culture ACSSI 023 in IPPAS (subculture IPPAS C-2041).
Locus typicus: Grey forest soil, near Pushchino, Moscow region, Russia (54° 50′ 03″ N, 37° 34′ 24″ E), collected on 12 May 2011.
Etymology: The generic name is derived from the spongy type of chloroplast and the ability of cells to form packets by desmoschisis, and the specific epithet refers to the terrestrial habitats.
Authentic strain: ACSSI 023.
Illustrations of type: Figs 1 A-F, 2 A-G in Temraleeva *et al.* (2018).
Distribution: currently known only from the original collection.

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Temraleeva, A., Moskalenko, S., Mincheva, E., Bukin, Y. & Sinetova, M. (2018).

Spongiosarcinopsis terrestris gen. et sp. nov. (Chlorophyta, Chorophyceae): a new genus of green algae from gray forest soil, Russia. *Phytotaxa* 376(6): 291-300, 4 fig. 2 tables.

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