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Notes on Icelandic desmids

(Chlorophyta, Desmidiaceae)

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The first records of desmids in Iceland date back to BELLOC 1894, who lists some 35 species. 47 species were added by BÖRGESEN 1899, but only about 10 species have been added since then. These records bring the total number of desmid species known from Iceland in 1970 to about 90. Almost the half of this number (41) belongs to the genus *Cosmarium*, 17 species to *Closterium* and 18 species to *Staurastrum*.

Since 1970 I have collected plankton in a number of lakes and ponds in the northern and eastern parts of Iceland. The study of these collections revealed some interesting species of desmids new to Iceland. Some of these new finds are listed below:

Arthrodesmus subulatus Kütz. — N.-Þing.: Vesturdalur, in a pond.

Desmidium swartzii Ag. — A.-Hún.: Laxárvatn. S.-Þing.: Near Mývatn, in a pond (fig. 3).

Euastrum didelta Ralfs. — V.-Barð.: Vatnsfjarðarvatn (fig. 9).

Euastrum verrucosum Ehrbg. — Forms approaching this species have been found in several lakes and ponds in North Iceland(fig. 4).

Hyalotheca dissiliens (Smith) Bréb. — Appears to be common in neutral or slightly acid lakes in Northwest, North and East Iceland. Its filaments are generally about 25 µ broad (fig. 1) A considerable part of the plankton may consist of this species.

Hyalotheca mucosa (Mert.) Ehrbg. — N.-Múl.: Fljótsdalshérað, Urriðvatn. Fljótsdalshérað, Þórisvatn. It was found together with *H. dissiliens*.

Micrasterias sol (Ehrbg.)Kütz. — No species of this genus have been recorded from Iceland before, and it is presumably rather rare in the country. Nevertheless, I have recognized more than one species of the genus in the samples. Specimens belonging to the *M. sol* group appear to be the most common ones, and have been found in Másvatn (S.-Þing.) and in Þórisvatn (N.-Múl.).

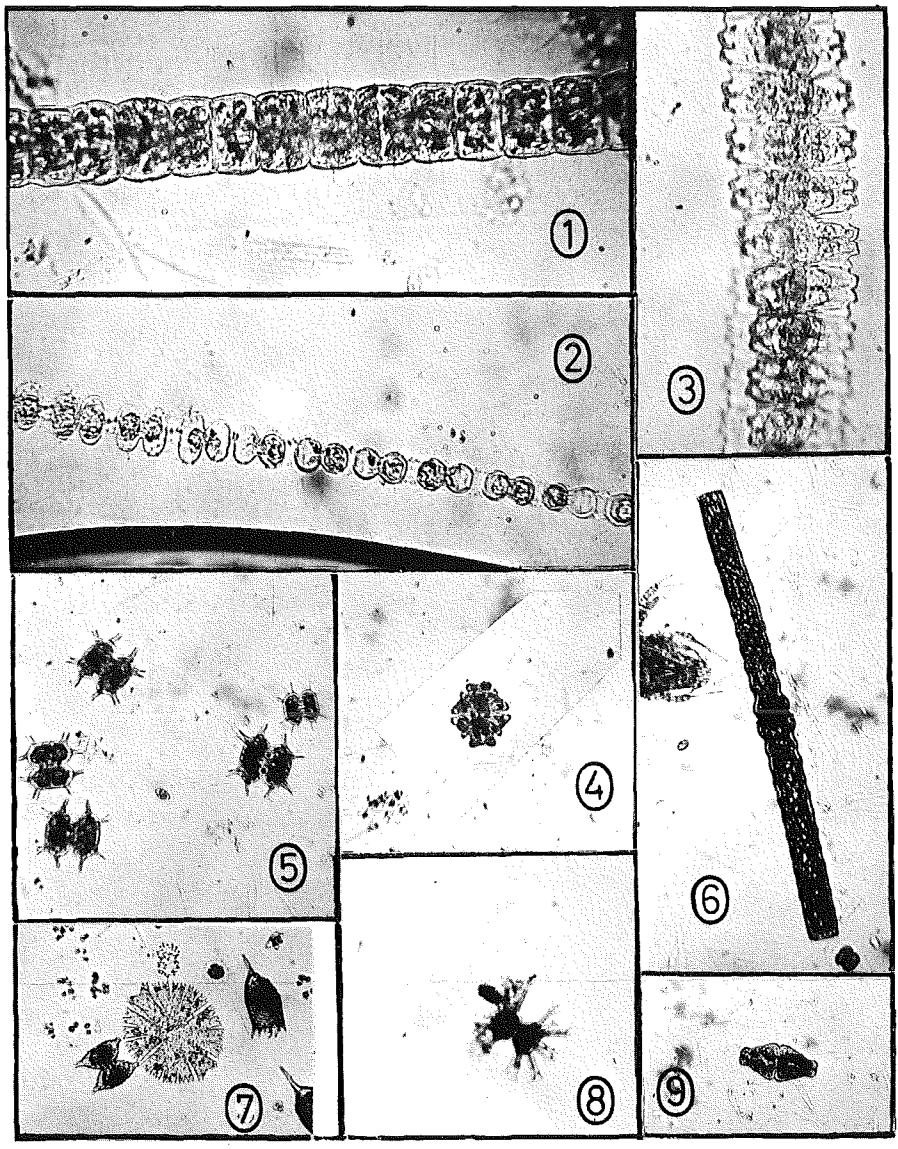

Fig. 1-9. 1. *Hyalotheca dissiliens*. 2. *Sphaerozosoma filiformis*. 3. *Desmidium swartzii*. 4. *Euastrum verrucosum*. 5. *Xanthidium antilopeum*. 6. *Pleurotaenium ehrenbergii*. 7. *Micrasterias papillifera*. 8. *Staurastrum arctiscon*. 9. *Euastrum didelta*. — 1-2 are in a sample from Vatnsfjarðarvatn, V.-Barð. (1971); 3-6 and 9 are from a pond at Syðri-Neslönd by Mývatn, S.-Þing. (1968); 7 is from Másvatn, S.-Þing. (1971), and 8 is from a pond in Vesturdalur in Kelduhverfi, N.-Þing.

The cell length of the specimens measured 130-165 μ.

Micrasterias papillifera Bréb. — This species is probably also present, even in the same lakes as *M. sol* (fig. 7).

Pleurotaenium ehrenbergii (Bréb.) de Bary. — Specimens of *Pleurotaenium* with denticulate ends, which most likely represent this species, have been encountered in many lakes and ponds. The length of the cells may be up to 500 μ (fig. 6). Previous records were already known for *P. trabecula*, which is also of common occurrence.

Sphaerozosoma filiformis (Ehrbg.) Bourr. (Syn.: *Onychonema filiforme*). — V.-Barð.:Vatnsfjarðarvatn (fig. 2). A specimen from Laxárvatn, A.-Hún. may represent this species or *S. excavatum* Ralfs.

Spondylosium sp. — Specimens belonging to this genus have been found in Svínavatn (A.-Hún.) and in Urriðavatn (N.-Múl.).

Staurastrum arctiscon (Ehrbg.) Lund. — This well known species seems to be fairly common in small lakes and ponds in the whole area investigated (fig. 8).

Xanthidium antilopeum (Bréb.) Kütz. — This species is very common in the area. It is found in most of the lakes and ponds, usually constituting a great part of the plankton. *Xanthidium octocorne* Ehrbg., recorded by BÖRGESEN 1899, may well be based on this species (fig. 5).

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