

areas form two groups—a polar group of 12-14 areas and a band next to the sinus of 18-22 areas, 7-11 seen on one side. Each elevated area, from sinus to pole, bears 4-5 pairs of scrobiculations and often an unpaired terminal one.

This is a peculiar type of desmid without any close relation to other species. In possessing canal-like depression with scrobiculate elevated areas it is distinct from other species of this genus. Only a few plants were seen in the material collected from the creek at Bernard harbour, August 16, 1915.

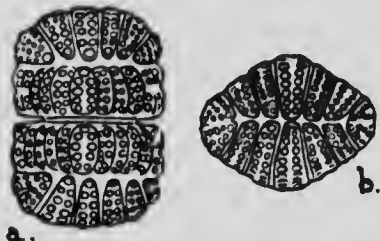


Fig. 3. *Cosmarium Stefanssonii* nov. sp. $\times 840$; a, face view, b, end view.

***Cosmarium subcostatum* Nordst.**

This is a small desmid. It occurred in the plankton of the lake at Bernard harbour, and in the swamp at Herschel island. It closely resembles *C. subcrenatum* which is also found at Bernard harbour. The crenulations were almost wanting at the apex and they were generally bi-granulate in other places. Central granules 14-16.

***Cosmarium subcrenatum* Hantzsch**

This is a species of world-wide distribution. It was found in small quantities in two localities, from the bottom of a tundra pond at Collinson point, and with other desmids in the river bed at Bernard harbour.

***Cosmarium Subcucumis* Schmidle**

(Plate IV, fig. 2)

This species is interesting on account of its limited distribution, for hitherto it has been recorded only from Great Britain, Germany, and Austrian Galicia. It was found in the collection from the *Hippuris* swamp at Herschel island.

***Cosmarium subexcavatum* W. and G. S. West**

This desmid has been recorded from Nova Zembla and Greenland, so it is not surprising that it should turn up in the Canadian arctic. In the pond in a swamp in the second bay east of Bernard harbour. It was not very plentiful.

***C. subexcavatum* var. *ordinatum* W. and G. S. West** (Plate III, fig. 10)

Amongst the individuals of the last-mentioned species was one which was less granulate and longer than the typical form and identical with West's figure of the var. *ordinatum*, so that I have no hesitation in recording this variety, although it has only been recorded previously from Switzerland and England.

***Cosmarium subtumidum* Nordst. var. *Klebsii* (Gut.) W. and G. S. West.** (Plate IV, fig. 5)

There is little difference between the species and its variety, but the specimens from the north were identical with some specimens I collected in Lake Winnipeg, Manitoba, and which the late Professor G. S. West immediately identified as the variety *Klebsii*. It was fairly common at Bernard harbour in plankton and bottom deposits and in a drying tundra pond at Demarcation point.