

Cosmarium punctulatum Bréb.

This species was almost as common as *C. Botrytis* and was found in nearly every collection. It occurred frequently at Teller, both in brackish and fresh water, at Collinson point, Demarcation point, the big lake at Bernard harbour, plankton and bottom samples, and in the pond in the second bay east of Bernard harbour.

C. punctulatum Bréb. var. **subpunctulatum** (Nordst.) Borg.

(Plate IV, fig. 3)

The variety was nearly as frequent as the species in the lagoon lake and in a pond between the lake and sea at Teller. The variety has not been recorded previously from North America.

Cosmarium pygmaeum Arch.

This species is almost entirely confined to *Sphagnum* bogs and peaty pools. It was not uncommon in the collection from the *Hippuris* swamp, which contained some *Sphagnum*, at Herschel island.

Cosmarium quadratum Ralfs

This desmid was fairly abundant in the big lake at Bernard harbour, where it appeared in the plankton and with other algae from the lake bottom. It was also found in smaller quantity in the pond in the second bay east of Bernard harbour.

Cosmarium radiosum Wille

This is one of the rare algae of the expedition. Only three individuals were seen altogether, one in the brackish pond and the others in the lake at Teller. August 3, 1913. Its occurrence here is of interest, as it has hitherto been recorded only from the United States and Ireland.

Cosmarium rectangulare Grun.

This is not uncommon in arctic regions and was found by the expedition in two localities but not in abundance, in the tundra pond, Demarcation point, and in the big lake at Bernard harbour.

Cosmarium reniforme (Ralfs) Arch.

This is another typical bog desmid of northern regions. It was found, however, only in the *Hippuris* swamp at Herschel island. Not common.

Cosmarium speciosum Lund. var. **biforme** Nordst.

This is also a bog form from alpine or arctic regions. It was secured in two localities, near Bernard harbour amongst stones and other algae of the river bed, and in the pond in the second bay eastward. It was fairly common.

Cosmarium Stefanssonii sp. nov.

(Text fig. 3)

C. minutum, oblongum, sinu angusto, versus apicem haud dilatato; semi-cellulae fere rectangulares, angulis inferioribus rotundatis; membrana subtiliter granulata, areolata; areolae sat numerosae, ovales, paulo elevatae, serobiculatae. Long. 32-36 μ ; lat. 25-27 μ ; crass. 20-22 μ .

Cells small, 1-1½ times longer than broad, moderately constricted; sinus narrow, not dilated at the apex; semicells sub-rectangular, basal angles rectangular and rounded. The surface made up of canal-like depressions separating more or less oval, slightly elevated areas. On each semi-cell these