

Two-sided form: semi-cell $60 \times 28\mu$; short width 30μ ; length of whole cell 66μ . Four-sided form: semi-cell $60 \times 54\mu$; short width 30μ ; length of whole cell 66μ .

The specimens examined by Wille were found on the gelatinous envelope of a Protozoan colony, *Ophrydium versatile*. The majority of individuals I found were also attached to the gelatinous wall of an *Ophrydium* colony, probably the same species. They were fairly numerous, and it is possible that there is a commensal relation between the two organisms. The *Ophrydium* mass was obtained in the big lake at Bernard harbour, and in the same lake a few individuals of this desmid appeared free in the plankton (July 3, 1916). It also occurred in collections from Demarcation point and Chantry island. Distribution: Norway, Austria, Nova Zembla, Arctic America.

Staurostrum lunatum Ralfs

(Plate IV, fig. 11)

A form of this species approaching *S. tunguscanum* Boldt was common in the plankton collections from Teller.

Staurostrum lunatum Ralfs var. **planctonicum** W. & G. S. West

This variety was found in small numbers in the plankton of the big lake at Bernard harbour. It is fairly common in the European Arctic plankton, but not in that of the American Arctic.

Staurostrum megacanthum Lund.

This species occurred only in the *Hippuris* swamp at Herschel island, where it was fairly abundant. It is not unknown from arctic regions but has not been recorded from those of America.

Staurostrum muricatum Ralfs

This desmid was found in the plankton of the lagoon lake at Teller and was not infrequent. It has about the same distribution as the last species.

Staurostrum muticum Bréb.

This species was far more common and occurred in three localities. It was found in the lagoon lake at Teller, in the *Hippuris* swamp at Herschel island, and in the big lake and amongst other algae from the river bed at Bernard harbour.

Staurostrum orbiculare Ralfs

This species was fairly common in the lake at Teller. It is frequent throughout the United States but not in the arctic parts of America, although common in Spitzbergen and Nova Zembla.

Staurostrum pachyrhynchum Nordst.

(Plate IV, fig. 14)

This is a species common in northern regions and has been found frequently in arctic waters. However, it was not common in these collections, appearing in small quantity only from Herschel island.

Staurostrum paradoxum Meyen

This species is one of the most frequent in some Canadian lakes but was exceedingly rare in the arctic material. Two specimens were seen from Demarcation point, and a poorly developed one from Herschel island.