

Staurastrum hexacerum (Ehrenb.) Witttr.

This species, of which the observed specimens were smaller than usual, was found in small quantities in the lake at Teller, and an imperfect form appeared at Herschel island.

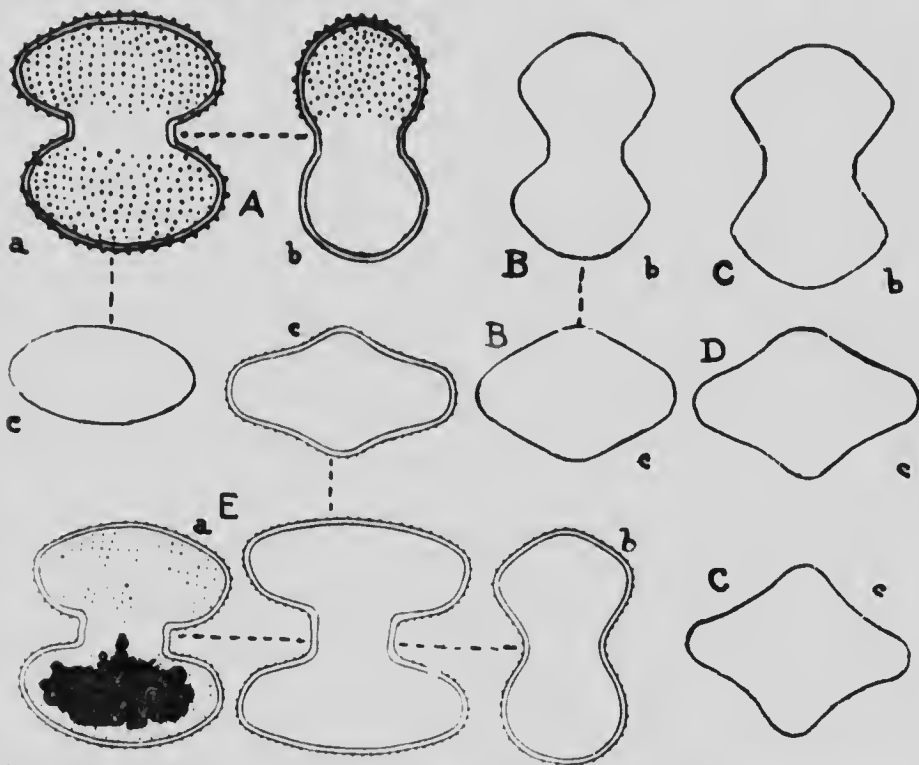


Fig. 5. *Staurastrum Holmii* nov. comb. (*Cosmarium Holmii* Wille). A, B, C and D drawings of specimens found by the C. A. E. showing variations in shape from a two-sided form to a four-sided form. E reproduction of Wille's figures; all $\times 500$; a, face view, b, side view, c, end view.

Staurastrum Holmii (Wille) nov. comb. *Cosmarium Holmii* Wille.

(Text fig. 5)

This desmid was first described by Wille in the report of the Dijnphna-Expedition of 1882¹. In his description he states: "This species occupies a rather separate position in the genus *Cosmarium* by its very broad sinus, so that it resembles certain species of *Staurastrum*. However, were it a *Staurastrum*, one would expect a tendency to three-cornered shape, but all the specimens I have examined proved to be regular when seen from above, with an equally large swollen place on each side of the semi-cells²."

The specimens described by Wille have a form intermediate between (1) a form which has no swellings on the sides of the semi-cells and is elliptical in end view like all *Cosmaria*, and (2) a form in which the swellings have become so large that a typical four-sided *Staurastrum* is the result (Fig. 5, C). In consideration of this variation from two-sided to four-sided forms, and also in view of the fact that it has a broad sinus, I have come to the conclusion that it is really a *Staurastrum* and not a *Cosmarium*. The granulations were well marked in all specimens and differed but slightly in the different forms.

¹Wille, *Alger fra Novaia Zemblija og Kar Havet, samlede paa Dijnphna Expeditionen, 1882*, Copenhagen, 1887.
²I am indebted to Mr. F. Johansen for translation from the Danish original.