

HYDRODICTYACEAE.

Pediastrum Meyen.*Pediastrum Boryanum* (Turp.) Menegh.

This was about the most frequent alga of the collections. It was secured in all possible habitats—tundra ponds, brackish ponds, mud and bottom deposits, and plankton—and was common at the following localities: Teller, Collinson point, Demareation point, Bernard harbour, and Herschel island.

Pediastrum Boryanum (Turp.) Menegh. var. *granulatum* (Kütz.) Braun

This variety is not uncommon to North America although it was only found at Herschel island. It has not been previously recorded for the arctic regions of America.

Pediastrum glandulliferum Benth.

(Plate III, fig. 1)

This species is one of the less frequent of the genus. The glandular processes on all were quite typical. I cannot find any previous record for this species in North America or arctic regions, although I have recently found it near Winnipeg. It occurred in small quantities in collections from the lagoon lake at Teller, in the plankton of the big lake at Bernard harbour, and at Chantry island.

Pediastrum Integrum Näg.

(Plate III, fig. 2)

A few individuals of this species, with its very angular walls and the short processes, were found in the water of the big lake at Bernard harbour, and one in the brackish pond in the same locality.

Pediastrum tetras (Ehrenb.) Ralfs

This species was second in abundance to *P. Boryanum*. The 4-celled form was common at Teller, and at Bernard harbour. At Herschel island both 4- and 8-celled forms were frequent.

VAUCHERiaceAE.

Vaucheria DC.*Vaucheria terrestris* (Vauch.) DC.

Fragments of *Vaucheria* occurred in a small number of the collections, but the only place where any quantity was secured was at Cape Bathurst, July 26, 1916. Reproductive organs were not numerous and mostly in the earlier stages; a few ripening oospores were present.

CLADOPHORACEAE.

Cladophora Kütz.*Cladophora fracta* (Dillw.) Kütz.

Small masses and numerous fragments of this alga were common at Teller, and at Bernard harbour, especially in the collections from tundra ponds.

Cladophora sp.?

A few fragments were found in a fish stomach (*Coregonus* sp.), Port Epworth, October 4, 1915. Identification of the species was not possible.

Rhizoclonium Kütz.*Rhizoclonium hieroglyphicum* (Ag.) Kütz. var. *tortuosum* (Kütz.) Stockm.

Amongst the *Cladophora* from a tundra pond at Collinson point was a quantity of this *Rhizoclonium*. As it did not seem quite typical I submitted some to Professor G. S. West and he identified it as the var. *tortuosum* which I believe is new to this continent.