

rectangularibus, pellucidis, superioribus subincrassatis, depresso-rotundatis, nervo excurrente (0.4-0.5 mm.), crasso, viridi, fragilissimo, superne saepe latiore.

Barbulae acutae (Brid.) Brid. proxima.

Pl. 1, fig. 1-NH. Sterile, only flowers containing 3-5 archegonia with few or no paraphyses found; the archegonial leaves lanceolate with mostly a long-excurrent costa enlarging toward the apex, the inner leaf often very small and consisting largely of the costa; stems 3-4 mm. high, with rhizoids at the base, about 125 μ in diameter, with rather indistinct central strand and walls of 1 or 2 layers of cells with but slightly thickened cell-walls; stem-leaves erect, rather closely appressed-imbricate when dry, ovate-lanceolate, the blade up to 1.5 mm. long and .40 mm. wide, with an excurrent costa up to 130 μ long above the blade, often enlarging and somewhat flattened toward the apex and mostly broken off in the older leaves, in cross-section showing 2-4 guide cells without stereid cells in the upper part but in lower costa with rather small, thick-walled cells above and below the guide-cells, extending to the surface; leaf-margin entire, more or less recurved along the middle; cells of leaf smooth, in the upper half of blade mostly transversely oval with thickened walls, the median cells 8-10 μ by 5-8 μ gradually changing below the middle of leaf to the more or less oblong or rectangular and paler cells of the basal part.

Type locality, Murray point, Victoria island, latitude 68-40'N., on dolomite cliffs, March 25, 1916, Frits Johansen.

This species comes nearest to *B. acuta* (Brid.) Brid., but the elongate basal cells extend farther up the leaf and the stereids of the lower part of the costa are not so well defined.

***Barbula vinealis* Brid.**

Atkoon creek, Clifton point, Northwest Territories, May 6, 1916, D. Jenness. Valley back of Bernard harbour, Northwest Territories, May 9, 1916, F. Johansen.

Genus *Pottia* Ehrh.

***Pottia Heimii* var. *obtusifolia* Hagen**

Tundra at Cape Bathurst, Northwest Territories, latitude 70-35'N., July 26, 1916, fruiting.

Genus *Tortula* Hedw.

***Tortula ruralis* (L.) Ehrh.**

On boulder at Konganevik, Camden bay, Alaska, June 29, 1914. Valley back of Bernard harbour, Northwest Territories, May 9th, 1916. Island near Cockburn point, Dolphin and Union strait, Northwest Territories, July 15, 1916.

Family ENCALYPTACEAE.

Genus *Encalypta* Schreb.

***Encalypta procera* Bruch.**

On cliffs on "Ptarmigan creek," Sadlerochit river, Alaska, Nov. 13, 1913.

***Encalypta brevicolla*, Bruch.**

Tundra on Barter island, arctic coast of Alaska, summer 1918, J. Hadley.