

Differs also from *G. alpestris* in the longer leaves and the curved pedicel of capsule, etc.; from *G. subsulcata* in the longer, not striate leaves.

British Columbia 1908. A. Brinkman.

42. GRIMMIA STIRTONI, SCHIMPER; BRAITHWAITE.

Capsule oval, smooth; pedicel straight, slightly exserted above the (with very long and rough hair-point furnished) perichetial leaves. Hitherto found only in sterile state.

Vancouver Island, Mount Benson, 1893.

43. GRIMMIA SERRATA.

Differs from the resembling *G. robustifolia*. Capsule oblong; distinctly costate. Leaves serrate above; upper cells not sinuous. Tufts green.

British Columbia, Rossland, 15th Aug., 1902. J. M. Macoun.

44. RACOMITRIUM DEPRESSUM, LESQ., VAR. NIGRICANS

Tufts blackish when dry; leaves sometimes furnished with a hairpoint.

The sterile specimens agree with the description in Manual of Mosses of North America by Lesquereux and James; the true *R. depressum* is found in Yosemite Valley, but I have not seen authentic specimens. Perhaps the capsule is different.

Collected on Southampton Island, near Faller's, northwest of Hudson Bay, by Commander A. P. Low in 1904, also at Whale River, Labrador, in 1896.

45. SCULERIA MUELLERI, KINDER.

Differs from *S. aquatica* in its leaves being broader at the middle; inner basal cells very numerous. These characters are sufficient to make a proper species when they are constant and easily observed.

Collected on a rock in the Klondike River near Dawson, Yukon, August 8th, 1902. No. 295.

46. BARBULA SUBCYLINDRICA, BROTH.

Vancouver Island 1908 and 1909, also fruiting. New to Canada. Pedicel twice longer and neither curved nor exserted.

47. BARBULA ANDRÆOIDES.

Leaves small and short, broadly ovate and subcochleariform, obtusate, mostly obtuse, more or less reflexed, distinctly papillose, appressed when dry, straight suberect and rufescent when moist; cells small subquadrate; costa percurrent reddish-brown. Perichetial leaves broadly ovate-lanceolate acuminate