

ore connivente lobulato-dentato nonnullo anguste scarioso; involucri foliis tribus erectis haud coalitis; pedicello longitudine semilineari; capsula ovali. —Hep. Bor. Amer. Essic. ined., No. 50.

J. divaricata, Sulliv, Musc. Alleghan. N. 239.

On very rotten wood near Columbus, Ohio, Sullivant. About Closter, New Jersey, and Jordansville, New York. Also near Belleville, Canada West, Macoun.

Remarkable for its extremely minute size. Differs from *J. divaricata*, Engl. Bot., in the much smaller size of the whole plant, particularly the perianth, in the larger, sublancoate amphigastria, in the discrete involucreal leaves, and in the roundish, less quadrate and less angular cells of the leaves.

JUNGERMANNIA MACOUNII, Aust.

J. caule compacte latesque caespitose tenni valde innovante ramuloso, ramulo fructifero brevissimo ventrali; foliis caule latioribus subimbricatis erecto-subverticalibus subcomplicato-concavis e basi angustiori subcuneato-quadratis ultra medium bifidis, sinu plerumque lato obtuso, lacinulis triangulari-lanceolatis vel subulatis rectiusculis sub pressura divaricatis, areolis parvisculis angularibus; perianthio minuto albidio subtrigono ovali-obovato gibbositate subinflato, apice contracto subplicato, ore denticulato ciliatove; involucri foliis subovatis subinæqualiter bi-trifidis serratis longe ciliatisve.—Hep. Bor. Amer. Essic. ined., No. 55.

On decayed logs in woods, Canada West, John Macoun.

Differs from *J. divaricata* in the more matted stems, in the rather wider, more complicate leaves with an obtuse sinus; and chiefly in the much shorter, white, and differently shaped perianth, which is situated on a short ventral branch. The habitat (old logs) is also different. Color very dark green, changing to dark fuscous- or brownish-green in the herbarium. Perianth shaped much as in *J. Helleriana*, Nees.

JUNGERMANNIA PLENICEPS, Aust.

J. caule dense caespitose perbrevis e ventre valde radiculoso innovanteque ramoso; foliis incrassatis orbiculatis valde concavis verticali-conniventibus subsemiamplexicaulibus ad $\frac{1}{2}$ bifidis, sinu acutiusculo obtusove, lobis omnino acutis incurvis valde conniventibus; fructu in ramulo ventrali terminali, perianthiis confertissimis magnis oblongo-cylindricis obtuse trigonis, ore plicato denticulato hinc laciniato; involucri foliis rectis oblongis bipalmato-quadrifidis nonnullis stipuloides; rete foliorum e cellulis amplissimis subrotundis hyalinis instructo.

Among Sphagna, White Mountains of New Hampshire, Oakes.

Remarkable for the very concave, upwardly connivent and thick leaves, which are composed of very large inflated cells; for the very short stems with numerous ventral innovations, and for the very abundant fruit,—the perianths completely covering the caespites. Color pale or albescent. (Some of the involucreal leaves (the ventral ones) are amphigastria-like. Resembles *J. connivens*, Dicks., but is somewhat larger, with shorter stems, more vertical and concave and thicker leaves, which are not decurrent, and a larger more cylindrical perianth, which is not ciliate at the mouth. Perianth much as in *J. bicuspidata*, but the shape of the leaves is quite different from the specimens of that species collected by Oakes, in precisely similar situations; the stems are also shorter and the involucreal leaves not spreading at the apex.

LOPHOCOLEA HALLII, Aust.

L. caule repente parvissime radiculoso; foliis subverticalibus oblongis integris vel subrepandis crenulatis fere ad medium bilobis, sinu obtuso, lacinulis subrectis plerumque obtusis, rete e cellulis subparvis rotundis convexis hyalinis, interstitiis angustissimis instructo; amphigastriis inferioribus parvis profunde bipartitis, sinu valde obtuso, lacinulis subæqualibus teretiusculis patulis in-