

at least two sides of the stem, and some of them below the two outer involucral leaves, which are simply retuse at the apex and nearly entire, while the two inner ones are unequally bilobed and incisive-toothed.

*JUNGERMANNIA BIFORMIS*, Aust.

*J. caule dense cespitoso valde intricato e ventre innovante pluries ramoso, valde radiculoso, radicula tenui-simis longissimis subfasciculatis supremis nonnullo rubris; folia succubis vix imbricatis subcomplanatis oblique semi-circularibus vel late ovatis tenuibus, margine dorsali decurrentibus apice integris retusis, rete e cellulis magnis subrotundis hyainis intersticiis angustissimis instructo, surciorum foliis dimidio minoribus ovatis obovatis vel obtusis vix decurrentibus; amphigastriis nullis; fructu ignoto.* —*Hep. Bor. Amer. Exsic. ined.*, No. 26.

On wet rocks, at the Delaware Water Gap, New Jersey, 1867.

Remarkable for the closely entangled and matted stems and surculi, and for the leaves of two forms. The texture of the leaves is much as in *Calypogeia Trichomanis*.

*JUNGERMANNIA POSSOMBROMIODES*, Aust.

*J. caule dense cespitoso adscendente (radicibus purpureis subincassatis) valde radiculoso; foliis disticho-subverticalibus, arcte imbricatis orbiculatis, margine undulato-repandis, apice brevi uniplicatis leniter emarginatis patulo-subcurvis, basi subcordatis caulem amplexentibus subverticosis radiculosis, involucralibus conformibus cum perianthio alte connatis; perianthio maximo longiusculo exerto subcampanulato sex-decemplicato, ore hianto profunde laciniatu, lacinili integerrimis; calyptra omnino violacea; capsula ovali.* —*Hep. Bor. Amer. Exsic. ined.*, No. 32.

On rocks along a rivulet, near Closter, New Jersey.

Remarkable for its large, subcampanulate and multi-plicate perianth. Allied to *J. crenulata*, Smith, but much larger, &c.

*JUNGERMANNIA PORPHYROBLNUCA*, Nees, var.

*Caulis dense lateque cespitoso prostrato innovante ramoso crassiusculo valde radiculoso, radiculis ad cauli insertionem rubris longissimis subfasciculatis; foliis plerumque rubris pallido-iride plus minus variegatis subverticalibus obtusissime subcomplicatis e basi erecta subcurvis oblongo-quadratis subcuneatis emarginato-bilobis integerrimis, sinus obtuso, lobis plerumque acutis subinequalibus incurvis; perianthio adscendente subclavato valde exerto a tergo ventreque subappresso apice obtuse 3-4-plicato ore conivente subciliato; foliis involucralibus parco majoribus, apice subtruncato obtuse 3-4 lobulato et eodemque numero late plicato; caulis gemmifero spiciformi attenuato rigido microphylio, foliis bifariis arcte imbricatis subovatis apice emarginatis eroso-dentatis subintegerrimis, gemmis rubris.* —*Hep. Bor. Amer. Exsic. ined.*, No. 42.

On old logs in the region of the White Mountains of New Hampshire, Oakes; also in Canada West, near Belleville, Macoun.

Remarkable for the usually variegated, often deep red color of the whole plant, and for the cuneate-oblong shape of the leaves. Differs from *J. Michauxii*, Web., in its usually smaller size, reddish color, prostrate and densely radiculos stems, longer, narrower, subcuneate and vertical leaves, with an obtuse and broad sinus, and shorter, less acute and less incurved lobes, and in the obtusely 3-4-lobed, somewhat enlarged involucral leaves; also in the gemmiferous stems, which are almost precisely as in *J. Helleriana*, Nees.

*JUNGERMANNIA POLITA*, Nees.

*J. amphigastriis nullis; caule subsimplici nudiusculo nigrescente flexuoso, adscendente et fertili dissite repente imbricante foliato; foliis nitidis ad*