

breviori

ventrali valde convexo oblique obovato-oblongo valde obtuso patenti-decurvo, dorsali dimidio ~~minor~~ ^{longior} et angustiori minus convexo erecto-subverticali vel subappresso orbiculato vel late ovato, apice subacuto grossius dentato leniter incurvo, margine externa ad basin longe producta ciliis valde longioribus subdecompositis deflexis ornata; perianthio compresso oblongo terminali, ore subciliato.—*Hep. Bor. Amer. Exsicc. ined.*, No. 19.

On Redwood trees and stumps, California, Dr. H. N. Bolander.

Remarkable for the long, deflexed, often compound ciliae on the attenuated outer basal angle of the dorsal lobe of the leaf, and for the leaves retaining their position and shape in drying. Resembles *S. nemorosa* in general appearance, but is rather smaller than the ordinary forms of that species, with longer and narrower, more obovate, and much more coarsely-toothed leaves.

JUNGERMANNIA RIGIDA, Aust.

J. examphigastriata, subrobusta; caule decumbente flexuoso rigido nudo ex apice prolifero; foliis sursum incrementibus erecto-conniventibus arcte imbricatis oblique cordato-orbiculatis rotundatis integerrimis, margine flexuoso-undulatis praecipue dorsali subsinuatis ventrali inflexis; perianthio terminali nix laterali obovato-oblongo plurimum plicato demum versus basin nudo, ore ciliato; involucri foliis ciliatis.

Sandwich Islands. Communicated by Dr. H. N. Bolander, 1865.

Differs from *J. flexicaulis*, Nees., Syn. Hep. p. 87, in the undulate leaves—those of the involucre ciliate, and in the multi-plicate perianth.

J. colorata, Lehm., Syn. Hep., p. 86, differs in the leaves being more connivent and orbicular, smaller, and not undulate, &c.

J. grandiflora, L. & G., Syn. Hep., p. 673, differs in its small subtrifid involucre leaves, connate with the amphigastria.

JUNGERMANNIA ROBUSTA, Aust.

J. examphigastriata; caule stricto vel subarcuato erecto ex apice prolifero-continuo e ventre toto longitudine radiculoso; foliis pallidis exacte verticalibus late oblique cordato-ovatis rotundatis, toto margine minutissime crenulatis dorsali undulatis subsinuatis subdecurrentibus; perianthio terminali subcylindrico triangulari-subcompresso basi nud ore plicato subciliato; involucri foliis subbilobis, lobo ventrali subciliato lenticulato, altero integro.

Sandwich Islands. Communicated by Dr. H. N. Bolander, 1865.

Differs from *J. rigida* in its pale color, much larger size, more vertical leaves eroded-dentate on the margin, in its bilobed involucre leaves, longer and less plicated perianth, and radiculose stems.

J. colorata, a closely related species, is smaller, with more orbicular and connivent, reddish leaves not undulate on the dorsal margin.

JUNGERMANNIA CORIACEA, Aust.

J. caule repente vel adscendente subramoso radiculoso; foliis subcoriaceis rigidis arcte imbricatis madefactis patulis siccatibus subverticalibus ovato-oblongis obtusis planiusculis, margine subrepandis integerrimis dorsali subdecurrentibus; perianthio magno cylindrico-oblongo sublaevi, ore subplicate minute ciliato; foliis involucrelibus subbilobis inciso-dentatis, basi ventrali minute lobulatis, cum stipulis parvis lanceolatis vel oblongis acute bi-quadrifidis intermixtis.

Sandwich Islands. Communicated by Dr. H. N. Bolander, 1865.

Remarkable for its large size, and for the thick epidermis of the leaves, which are of a reddish color.

Differs from *J. grandiflora*, L. & G., Syn. Hep., p. 673, in its oblong leaves, those of the involucre slightly enlarged and not connate with the amphigastria; also in the radiculose stem. There are no amphigastria except at or near the base of the perianth, and these (about four in number) are situated on

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