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PAPERS READ BEFORE THE ACADEMY.

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I.

CONTRIBUTIONS TO NORTH AMERICAN BOTANY.

BY ASA GRAY.

Presented May 9, 1883. — Issued Oct. 30, 1883.

I. *Characters of New Compositæ, with Revisions of certain Genera, and Critical Notes.*

*Eupatoriaceæ.*

STEVIA AMABILIS, Lemmon. *S. laxifloræ* peraffinis, gracilior, bipedalis; foliis omnibus linearibus basi attenuatis (sesquipollicaribus) integerrimis; capitulis effuso-paniculatis; floribus læte purpureis; pappi paleis 5 cum aristis alternantibus brevissimis. — S. Arizona in the plains near Cave Cañon, Lemmon. The narrowest-leaved forms referred to *S. laxiflora* (coll. Wislizenus, Schaffner) notably approach this.

*Asteroideæ.*

APLOPAPPUS (ERICAMERIA) MONACTIS. Facie *A. laricifolii*, frutex fastigiato-ramosissimus, 1-5-pedalis, vix resinosus; foliis aceroso-linearibus fere impunctatis; capitulis corymboso-cymosis paucifloris; involucreo oblongo 8-10-phylo; bracteis chartaceis oblongis vel sublanceolatis obtusis; floribus hermaphroditis 5 vel 6, corollæ lobis ovato-oblongis, styli ramis latiusculis appendice subovata acuta superatis; fœmineo unico (interdum nullo), ligula elongato-oblonga; acheniis sericeo-villosis; pappo albo molli. — Borders of the Mohave



*Borraginaceæ.*

**ERITRICHIMUM MOLLE.** Inter *Eueritrichium* et *Krynitskiam*, depresso-diffusum, caulibus elongatis basi repentibus radicanibus ut videtur perennans, pilis laxis crebris molliter hirsutum vel potius villosum; foliis elongato-lingulatis (plerisque bipollicaribus); spicis demum elongatis subsolitariis ebracteatis villosis; pedicellis calycis segmentis lineari-oblongis (fructiferis laxis) dimidio brevioribus; corolla alba, limbo lin. 3 lato; nuculis (lineam longis) trigono-ovatis modice obcompressis dorso vix carinatis grosse areolato-rugosis intus superne carinatis, inferne triente cicatrice ovato-lanceolata gynobasi breviblongo affixis. — Sierra Valley, California, on alkaline wet flats and borders of ponds, *Lemmon*, 1874 to 1883, at length with good fruit. In the Botany of California (i. 528) this is referred to as perhaps a decumbent form of *E. Kingii*, of which the fruit was characterized, partly from the original account, and partly from immature nutlets of the present plant, or of *E. Kingii*? collected by Lemmon in the same district, but on sandy dunes. The plant now described is very different from *E. Kingii*, of which I have only now seen, through Prof. Eaton's kindness, the mature, muricate-rugose fruit. Evidently the present plant is most nearly related to *E. Scouleri*, although the scar of the nutlets is wholly introrse.

**ERITRICHIMUM COOPERI.** *Eueritrichium*, *Myosotidea*, *E. Californico* et *E. Scouleri* affine, patenti-diffusum e radice ut videtur annua, setis patentissimis brevibus undique hispidum; foliis subsucculentis fere omnibus alternis linearibus (semipollicaribus); caulibus longe racemifloris inter flores brevissime pedicellatos hinc inde bracteatis; corollæ rotatæ limbo 2-3 lin. lato albo in centro flavo; calyce fructifero aperto sesquilineari profunde 5-partito; nuculis ovatis trigono-obcompressis obtusiusculis glabris ventre reticulato-rugosis dorso transverse rugosis, cicatrice brevi sublineari. — Mohave Desert, S. E. California, at Camp Cady, *Dr. Cooper*, 1860-61; Rabbit Springs, May, 1882, *S. B. & W. F. Parish*, near to and in water.

**ERITRICHIMUM OXYGONUM.** *Krynitzkia*, *E. muriculato* proximum; cyma terminali pedunculata sæpius triradiata; nuculis calycis lobis oblongo-lanceolatis obtusiusculis paullo brevioribus subtriquetris *Fagopyri* instar ex ovata subacuminatis, dorso leviter convexo parce muriculato, angulis lateralibus acutis, faciebus lævibus planis, angulo ventrali sulco sat lato gynobasi elongato-subulatæ usque ad apicem inserto. — Limb of the rotate corolla 2 lines broad, with conspicuous appendages in the throat. Nutlets a line long. — S. E. California, on hills bordering the Mohave Desert, *Pringle*, 1882.



**ERITRICHIMUM MICROMERES.** *Krynitzkia*, erectum, subpedale e radice ut videtur annua, pilis patentibus brevibus hirsutum vel hispidum; caule gracili ramosissimo; foliis parvis (lin. 3-6 longis) linearibus integerrimis; spicis filiformibus pedunculatis demum sparsifloris; floribus minimis; corolla inconspicua; calyce etiam fructifero vix ultra semilineam longo setis uncinatis hispidissimo, lobis lanceolatis obtusiusculis fructum parum superantibus; nuculis ovato-trigonis acutangulis dorso demum muriculato-scabris, sulco ventrali latiusculo basi subito dilatato. — Near Santa Cruz, California, 1881, *Marcus E. Jones*.

**ECHIDIOCARYA URSINA.** Depressa, ramosissima, hispida; floribus fere omnibus folioso-bracteatis; corollis minimis; nuculis breviter stipitatis distinctis lævibus (haud muriculatis) lineis leviter prominulis reticulatis. — Common on dry slopes of Bear Valley in the San Bernardino Mountains, S. E. California, *S. B. & W. F. Parish*, 1879 and 1882. This and the nearly related *E. Californica* effect nearly a transition to the *Plagiobothrys* section of *Eritrichium*.

#### *Convolvulaceæ.*

**IPOMŒA THURBERI**, Gray. *Pharbitis*, præter folia quandoque utrinque hispidulo-pubescentia glaberrima; radice perenni tuberosa; caulibus gracilibus procumbentibus; foliis cordato-hastatis acuminatis (lobis sæpius bifidis) vel superioribus 5-7-fidis lobis triangulari-lanceolatis divergentibus; pedunculis unifloris petiolo brevioribus supra bracteolas clavato-incrassatis; sepalis (pollicaribus) elongato-lanceolatis sensim acuminatis æqualibus glaberrimis; corolla ultra-bipollicari purpurea e tubo gracili superne infundibuliformi; stigmatate trilobo; ovario triloculari (nunc 4-oculari?); seminibus furfuraceo-puberulis. — Syn. Fl. ii. 212. — Southern Arizona, now collected in flower, on limestone rocks, by *J. G. Lemmon*. And the species proves to be of the *Pharbitis* group.

**IPOMŒA CUNEIFOLIA.** Exigua, glabra; caule gracili e cormo globoso enato decumbente; foliis cuneatis brevi-petiolatis e basi 5-9-nervatis apice inciso-dentatis, dentibus 3-7 lanceolatis; pedunculis filiformibus unifloris folium subæquantibus; sepalis (lin. 3-4 longis) oblongis obtusis, omnibus vel exterioribus secus costam processibus mollibus insigniter muricatis; corolla purpurea vix pollicari infundibuliformi; capsula parva 4-valvi disperma, seminibus tantum puberulis. — S. Arizona, in Tanner's Cañon, near Fort Huachuca, *Lemmon*. — The larger leaves of this remarkable species are hardly an inch long. The calyx resembles that of *I. capillacea*, Don (*I. muricata*, Cav.),