







XVI. *Descriptions of the new Genera and Species of the Class Compositæ belonging to the Floras of Peru, Mexico, and Chile.*
By Mr. David Don, Libr. L.S.

Read January 20, and March 17, 1829.

THE extensive herbaria formed in Peru, Quito, and Chile, by Ruiz, Pavon, and Tafalla, and the Mexican collections of Sessè and Mociño, having by fortunate circumstances come into the possession of Aylmer Bourke Lambert, Esq., whose unwearied zeal in the advancement of botanical science is already well known, I have thought that a description of the *Compositæ*, which form an important part of these collections, might not prove unacceptable to the Linnean Society. Perhaps no people have made greater sacrifices for science than the Spanish nation. Her expeditions and voyages of discovery were fitted out on a most munificent and extensive scale; but unfortunately, the results of them have in but few instances been given to the scientific world. Don Hipolito Ruiz and Don Josè Pavon, accompanied by two draftsmen, were charged with the botanical mission to Peru in 1777, which lasted eleven years; and their labours were afterwards continued by Don Juan Tafalla, a distinguished pupil of Ruiz, and formerly Professor of Botany at Lima, whose investigations were also extended to the province of Quito, and the fertile district of Guayaquil. Don Martin Sessè, Don Josef Mociño, and Don Vincente Cervantes, were charged with a similar mission to Mexico in the

year 1788 ; but the botanical expedition for the purpose of exploring the vegetable riches of New Granada, under the direction of the celebrated Mutis, was organized on a much more extensive plan. From these several expeditions there has resulted an immense mass of materials, the greater part of which still remain unpublished, although many years have elapsed since their collection. The whole of the manuscripts belonging to the Peruvian expedition, having also come into Mr. Lambert's hands, I have been enabled to render the descriptions in some cases much more complete, and to add many circumstances relative to particular species, that could not have been ascertained from an inspection of the dried samples, which, however, are very perfect, and in most instances there are several duplicates of each species. Notwithstanding the labours of Humboldt and Bonpland, whose numerous discoveries have already been given to the world by my learned friend M. Kunth, through whose liberality, while at Paris in the autumn of 1821, I was permitted to examine a considerable part of the *Compositæ* contained in the herbarium of M. de Humboldt ; a very small proportion of the species in this collection are identically the same with those I am about to describe.

I have been successful in determining many of the *Compositæ* figured in the work of Hernandez ; and to the kindness of my inestimable friend Professor Lagasca I am indebted for pointing out to me the various genera which he himself has described. A small collection from Don Pablo de la Llave has made me acquainted with the genera described in the "*Descriptiones Novorum Vegetabilium.*" I have inserted a few species from other sources, partly with a view to point out their relative affinities, and more fully to illustrate the characters of certain groups ; but although I may differ widely in regard to the generic distribution of the species, the trivial names given to them

them by their discoverers, if not previously applied to other species, I have scrupulously preserved. In the distribution of the species, and in the formation of the generic divisions, I have followed the comprehensive views of Mr. Brown and M. Casini, whose important labours in this class are universally admitted: and having myself been engaged for several years studying this department of botany,—of which very few have had so extensive opportunities,—the characters of the groups which I shall have to propose in the sequel, may, therefore, with more confidence be relied on. In order to render the divisions more intelligible, I shall in the first place proceed to give a descriptive character of the class itself.

COMPOSITÆ. *Adans., Brown.*

FLORES sæpiùs hermaphroditi, capitati, toro proprio inserti, sessiles, involucre è squamis (folia mutata) sæpè plurimis inclusi.

CALYX ovario arcuè adharens: *margo* obsoletus v. elevatus, plerumque scissus, aut in pappum formâ varium abeuns, nunc (in *Zinnia*) corollam æmulans!

COROLLA monopetala, tubulosa, limbo 5-fida (rarò 4-fida), æstivatione valvata! laciniis 2 v. 3 connatis nunc bilabiata, aut latere interiore longitudinaliter rupta, explanata, ligulæformis: *nervis primariis* laciniis alternantibus!

STAMINA corollæ laciniis numero æqualia, iisdemque alterna: *filamenta* libera v. partim aut omninò corollæ tubo adharentia, prope apicem articulata! *articulo superiore* persæpè dissimili: *antheræ* biloculares: loculis parallelis, longitudinaliter dehiscentibus: *valvulis* inæqualibus; *interiore* angustissimâ; basi truncatis v. decurrentibus, aut productis, apice in appendiculam planam confluentibus.

PISTILLUM;

PISTILLUM: *ovarium* inferum, indehiscens: *disco* epigyno: *ovulo* erecto, solitario, *funiculis* 2 pistillaribus manifestis suspenso: *stylus* e duobus conflatus, indivisus: *stigmata* 2, sæpiùs soluta, patentia.

FRUCTUS (Achenium): *pericarpium* indehiscens, monospermum.

SEMEN: *testa* duplex; *exterior* coriacea v. crustacea; *interior* membranacea, vascularis, vasis propriis et spiralibus instructa: *albumen* nullum.

EMBRYO dicotyledoneus, erectus, seminis cavitati conformis: *cotyledones* oblongæ: *radicula* his persæpè brevior, obtusa, centripeta.

Plantæ polymorphæ in orbis temperatis vulgatissimæ.

The *Compositæ* constitute the most extensive and the most interesting portion of the vegetable kingdom; and their distribution is so universal, that they form a large proportion of the Flora of almost every country: but countries traversed by extensive mountain-chains, and situate within or near the tropics, are found to be most favourable to the development of the plants of this class: for in the Floras of Peru, Chile, and Mexico, they appear to constitute a sixth part of the whole phænogamous vegetation; and this estimate of their number is justified by an actual comparison both of the published and unpublished plants of these countries.

The *Compositæ* are related on the one hand to *Calycereæ*, *Dipsacæ*, and *Valerianæ*; and on the other to *Campanulacæ* and *Goodenoviæ*; but the disposition of the primary vessels in the corolla essentially distinguish them from every other family. The plurality of styles, the inferior monospermous ovarium, and the presence of an epigynous disk, show at least a considerable degree of analogy, if not of affinity, to the *Umbelliferae*,

to

to whose mode of inflorescence that of *Compositæ* may be compared. Singular instances of monstrosity are sometimes to be observed in *Tragopogon*, *Scorzonera*, &c., wherein the capitula have assumed the form of the compound umbel. I have already had an opportunity of showing that the other parts of fructification in this class frequently experience a remarkable degree of increase in number, and that the stigmata are generally unaffected by the number of the other parts of the flower.

I have now to state an interesting example of reduction of stamina in *Calliopsis bicolor*, a genus widely different from *Dahlia* and *Coreopsis*, with which it has been hitherto associated. In this genus most of the florets of the capitulum are quadrifid and tetrandrous; and, besides the primary vessels, there are others which occupy singly the axis of two or three of the laciniaë, but in no instance all of them. These secondary vessels evidently arise from the base, and not from the confluence of the primary trunks, as they become fainter near the apex of the laciniaë; and I am disposed to believe, that in many instances the secondary vessels take their rise with the primary trunks.

I have distributed the groups in accordance with their natural affinities, at least as far as this was practicable in a linear series: for the families appear evidently to return into each other, exhibiting a number of points of contact.

Fam. 1. CICHORACEÆ. *Juss.*

FLOSCULI ligulati, hermaphroditi, uniformes: *ligula* apice 5-dentata, 6-nervia: *nervis* rectis, parallelis, parùm infra dentium sinus furcatis

ANTHERÆ cristâ membranaceâ pellucidâ coronatæ, basi bisetæ (setis dentibusve membranaceis) s. ligulâ simplici truncatâ auctæ.

STIGMATA libera, filiformia v. semicylindrica, obtusa, papillosa.

ACHENIA

ACHENIA nunc apice calva.

Plantæ lactescentes. Folia alterna. Flores sæpiùs lutei.

This family constitutes but a very small part of the *Compositæ* in the South American Flora, being scarcely in the proportion of one to forty-five, while in the European Flora they are generally as one to two. The *Cichoraceæ* are readily distinguished from the other families of *Compositæ* by their uniform, ligulate, hermaphrodite florets. The primary vessels are five in the tube, but at the sinus, where the corolla splits open and expands into the ligulate lamina, the interior nerve divides into two simple branches, which run along the opposite sides, either directly on the margin itself, or more frequently placed a little within the border. The apparently simple trunks of the intermediate vessels divide a little below the sinus of the teeth, and traverse their margins, uniting at the summit of each tooth; but I have only in one instance, that of *Prenanthes virgata* of Michaux, detected secondary vessels, and therefore conclude that they are rarely present in the plants of this family. The disposition of the vessels in the lamina of the corolla will be found an important character in distinguishing the *Cichoraceæ* from such individuals belonging to other families, whose florets may have assumed an analogous form.

Besides being lactescent, the alternate leaves, their nervation, and the inequality of their teeth, when present, the irregularity of the corolla in *Lobelia*, the cohesion of its antheræ, and its papillary stigmata, show that many analogies exist between this family and *Campanulaceæ*.

Trib. 1. HIERACEÆ. *Receptaculum* epaleatum. *Antheræ* basi interiore ligulâ simplici membranaceâ truncatâ auctæ! *Involucrum* polyphyllum.

HIERACIUM.

HIERACIUM.

HIERACII SP., L.

Involucrum imbricatum. *Receptaculum* subfavosum. *Achenia* apice simplicia. *Pappi radiis* simplici ordine copiosis, persistentibus, setaceo-pilosis.

Involucrum multiplici ordine polyphyllum, imbricatum: *squamis* sæpiùs adpressis. *Receptaculum* subfavosum: *scrobiculis* margine elevatis, ciliato-laceris. *Flosculi* plurimi: *fauce* extùs barbatâ. *Antheræ* appendiculâ oblongâ diaphanâ coronatæ, basi interiore ligulâ membranaceâ truncatâ sæpiùs lacerâ instructæ. *Stigmata* semicylindrica, obtusa, recurvata, cum dimidio superiore styli papilloso-hispidula. *Achenia* tetragona, apice simplicia: *angulis* sulcatis, lævibus. *Pappi radiis* singulo ordine digestis, copiosis, pilosis, rigidis, fragilibus, persistentibus, denticulis plurimis exasperatis, basi distinctis.

Herbæ *polymorphæ*, *radice perenni*. Flores *lutei*, *solitarii* v. *corymbosi*. Pappus *cinereo-fulvellus*.

1. *H. strigosum*, pilosum; foliis lineari-lanceolatis acutis denticulatis; caulinis sessilibus, paniculâ racemosâ, caule simplici fistuloso.

Hieracium hirsutum. *Herb. S. et M.*

In Mexico. *Sesse et Mocinno. 4.*

Planta strigosa, pilis copiosis, longis, patulis vestita, hispidula. *Caulis* erectus, cubitalis, filiformis, simplex, fistulosus. *Folia radicalia* petiolata, palmaria, lanceolata, acuta, mucronulo obtuso, remotè denticulata, membranacea, viridia, subtùs pallidiora, basi attenuata; *caulina* sessilia, lineari-lanceolata, 3—4-pollicaria, nunc spithamæa. *Panicula* racemosa,

strigosa, multiflora, spithamæa. *Flores* *H. cymosi*, citrini. *Pedunculi*, ut et *involuera*, pube copiosissimâ pilis glanduliferis interstinctâ vestiti; *inferiores* remotissimi. *Involucrum* nigricans, cylindricum: *squamis* triplici ordine imbricatis, pluribus (18—26), linearibus, obtusis, planis, adpressis, margine membranaceis; *intimis* subæqualibus. *Receptaculum* subfavosum. *Flosculi* involucrum longitudine æquantes, apice dentibus 5, linearibus, obtusis. *Antheræ* appendiculâ lanceolatâ, acutâ! membranaceâ coronatæ, basi interiore ligulâ exiguâ lineari truncatâ instructæ. *Stigmata* semicylindrica, obtusa, minutè papillosa. *Achenia* tetragona, sulcata, glabra, apice simplicia. *Pappus* pilosus, persistens, fulvellus: *radiis* duplici serie digestis, rigidis, denticulato-scabris.

2. *H. Lagopus*, villosissimum; foliis lanceolatis subintegerrimis glaucis, caule ramoso multifloro nudiusculo, ligulis 5-fidis.

In Mexico. *Sesse et Mocinno*. 4.

Herba facie *H. cerinthoides*, paulò tamen minor, similiter cæspitosa et glauca. *Caulis* pedalis, erectus, teres, flexuosus, folio uno alterove tantùm ornatus, inde nudiusculus, infernè villosissimus. *Folia radicalia* petiolata, lanceolata, acuta, remotè denticulata, membranacea, utrinque villosa, demùm nudiuscula evadunt, basi attenuata, tripollicaria; *caulina* paucissima, multò minora, amplexicaulia, acuminata. *Petioles* ut et *Caudex*, qui ad leporis pedem non paulò refert, villis longis sericeis, exsiccatione aureis, copiosissimis vestiti. *Flores* laxè paniculati, citrini. *Pedunculi* filiformes, uniflori, pollicares. *Involucrum* cum *pedunculis*, tomento copioso glandulisque pedicellatis numerosissimis ornatum: *squamis* linearibus, acutis, multiplici ordine imbricatis,

bricatis, adpressis. *Receptaculum* leviter favosum, scabrum. *Flosculi* plurimi, ligulati, apice profundè 5-dentati, involucre multoties longiores: *laciniis* linearibus, obtusis. *Antheræ* appendiculâ ovatâ acutâ! membranaceâ coronatæ, basi ligulâ lineari, truncatâ instructæ. *Stigmata* semicylindrica, obtusa, minutè papillosa. *Achenia* tetragona, sulcata, glabra. *Pappus* pilosus, persistens, cinereus, fragilis: *radiis* simplici serie digestis, contiguis, rigidis, denticulis exasperatis.

I have already proposed* to separate certain species hitherto referred to *Hieracium*, and characterized by their flat, attenuated achenia surmounted by a dilated epigynous disk, and by their soft capillary pappus disposed in a double series. This group, which I have named *Hapalostephium*, comprises *Hieracium paludosum* and *pyrenaicum* of Linnæus, the *Hieracium macrophyllum* of Pursh, and the *Crepis Sibirica* of Linnæus. M. de La Peyrouse has referred the *H. pyrenaicum* to his *Lepicaune*, an unnatural assemblage, which, independent of the faulty name, deserves to be erased from the catalogue of genera. By the removal of these species, and the *Hieracium aureum* and *fruticosum* of authors, which do not even belong to the same tribe, the genus, although still very extensive, will scarcely admit of further division. The *Hieracium pusillum* of Pursh from Labrador I have ascertained by an examination of an authentic specimen to belong to the genus *Erigeron* of authors. The crest of the anthers in most of the species of this genus is obtuse; but in the two above described, and in *Hieracium murorum*, it is acute.

Trib. 2. HYPOCHERIDEE. *Receptaculum* paleis distinctis referunt. *Antheræ* basi bidentatæ. *Pappus* persistens. *Involucrum* polyphyllum.

* *Prod. Fl. Nep.* p. 165. *Edinb. New Phil. Journ.* April 1829, p. 307.

OREOPHILA.

HYPOCHÆRIDIS SP., *Kunth.*

Pappus plumosus, sessilis. *Involucrum* imbricatum.

Involucrum subrotundum, polyphyllum, imbricatum: *squamis* lanceolatis, obtusis, membranaceis; *exterioribus* apice lanuginosis. *Receptaculum* paleatum: *paleis* lanceolatis, scariosis, uninerviis, acumine longo, setaceo instructis. *Flosculi* lineari-ligulati: *tubo* tenui, ligulâ 5-dentatâ, 6-nerviâ, duplò longiore. *Antheræ* appendiculâ ligulatâ, membranaceâ coronatâ, basi dentibus 2, lanceolatis, acuminatis, membranaceis, æqualibus munitæ. *Stigmata* filiformia, recurvata, minutissimè papillosa. *Achenia* oblonga, ancipiti-compressa, lævia. *Pappus* sessilis: *radiis* simplici serie contiguis, filamentoso-plumosis, validis, inæqualibus, basi crassiore persistentibus.

Herba *perennis*, *cæspitosa*, *acaulis*. *Radix* fusiformis, *cortice fusco obducta*, *digiti minoris crassitie*. *Folia* numerosa, *in orbem acta*, *humifusa*, *petiolata*, *linearia*, *tunc lanceolata*, *obtusa*, *obtusè sinuato-dentata*, *coriacea*, *suprà glabra*, *subtùs sed præcipuè ad costam mediam pilosa*, 2—3-pollicaria. *Flos solitarius*, *sessilis*, *in foliorum medio latens*, *magnus*, *aureus*. *Pappus cinereus*.

Herba locis alpinis incola, unde nomen ab *opos*, *opeos*, *mons*, et *φιλεω*, *amo*, i. e. planta in montibus florescens.

1. *O. sessiliflora*.

Hypochoëris sessiliflora. *Kunth in H. et B. Nov. Gen. et Sp. Pl. iv. p. 2.*

In Peruvix summis alpibus Cordilleras de los Andes Hispanicè dictis. *Ruiz et Pavon. 4.*

The uniform sessile pappus has led me to regard this plant as constituting

constituting a distinct genus, to which, it is very probable, the *Hypochaeris sonchoides* of M. Kunth should also be referred. From *Hypochaeris*, which must now be limited to *H. glabra* and *minima*, it will be necessary to separate *H. radicata* and *maculata*, essentially distinguished by having the pappus uniformly stipitate. This division, first proposed by Scopoli under the name of *Achyrophorus*, has been very properly adopted by Gærtner. The genus *Seriola* of Linnæus, the *Achyrophorus* of Vaillant, which also belongs to this family, is characterized by a simple polyphyllous involucre, and by the rays of the pappus being dilated towards the base.

Trib. 3. LACTUCEÆ. *Receptaculum* epaleatum. *Antheræ* basi bidentatæ. *Pappus* fugax, mollissimus, capillaceus.

CHONDRILLA, L.

Involucrum simplici ordine polyphyllum, connivens, basi squamulis pluribus calyculatum. *Receptaculum* nudum. *Achenia* fusiformia, tuberculata. *Pappus* stipitatus.

Involucrum simplici ordine poly-(8—12)phyllum, cylindricum, connivens, basi squamulis pluribus (8—10) calyculatum: *foliolis* æqualibus, margine invicem se imbricatis. *Receptaculum* nudum. *Flosculi* indefiniti. *Antheræ* appendiculâ ligulatâ v. ovali diaphanâ coronatæ, basi acutè bidentatæ. *Stylus* hispidulus. *Stigmata* semicylindrica, obtusa, brevia, crassiuscula, minutissimè papillosa. *Achenia* fusiformia, subtetragona, hinc convexa, inde sulcata, concaviuscula, supernè tuberculata, apice in stipitem longum filiformem producta. *Discus* epigynus depresso-capitatus! *Pappus* fugax, tenuissimè capillaceus: *radiis* duplici ordine copiosissimis, basi solutis.

Herbæ foliis radicalibus sæpiùs runcinatis, floribus citrinis, pedunculatis.

Sect.

Sect. 2. *Involucri calyculo* polyphyllo, lineari-setaceo, patulo. *Flosculi* numerosi. *Herbæ perennes, caulibus nudiusculis, sub-unifloris.* Crinissa.

1. *C. pauciflora*, glabra; foliis runcinatis, caule subbifloro.
Chondrilla pauciflora. *Herb. S. et M.*
In Mexico. *Sesse et Mocinno. 4.*

Herba aspectu *Apargiæ*, perennis, glabra. *Radix* fusiformis. *Caulis* erectus, cubitalis, teres, simplex, uniflorus, subinde ramo uno alterove instructus, nudiusculus, hinc inde folio minore ornatus. *Folia radicalia* patula, runcinato-pinnatifida, lævissima, viridia, 3-pollicaria, basi in petiolum attenuata: *lobis* remotis, lanceolatis, acutis, integerrimis; *caulina inferiora* radicalibus conformia; *suprema* in squamas pinnatifidas abeuntia. *Flores* magnitudine *Apargiæ Taraxaci*, solitarii, citrini. *Involucrum* simplici serie 12-phyllum, cylindraceum, glaucum, tenuissimè pubescens, longitudine unguiculare, basi squamis pluribus (8—10) lineari-setaceis, patulis, apice nigricantibus munitum: *foliis* linearibus, membranaceis, sub apice tuberculo auctis. *Receptaculum* nudum. *Flosculi* plurimi (30), ligulati, 5-dentati: *ligulâ* 6-nerviâ, involucrum longè superante. *Antheræ* appendiculâ ovali obtusâ membranaceâ coronatæ, basi acutè bidenticulatæ. *Stigmata* brevia, semicylindrica, obtusa, cum styli apice minutè papillosa. *Achenia* fusiformia, hinc ventricosa, 4-sulcata, inde depressa, planiuscula, undique tuberculata. *Discus epigynus* apice annulo lanuginoso instructus. *Pappus* longè stipitatus, mollissimus, fulvellus: *radiis* tenuissimè capillaceis, duplici ordine copiosissimis, confertis, longitudine inæqualibus, basi solutis.

2. *C. Sessæana*, glabra; foliis linearibus acuminatis subintegerrimis, caule unifloro.

In Mexico. *Sesse et Mocinno. 2.*

Herba perennis, caespitosa, glabra. *Radix* fusiformis. *Caules* plures ex eadem radice, erecti, spithamæ, filiformes, uniflori, læves, folio unico, lanceolato, integerrimo, sessili ad medium v. paulò infrà, inde squamis aliquot lineari-setaceis muniti, apicem versus pubescentes. *Folia radicalia* plurima, sessilia, linearia, acuminata, glabra, integerrima, v. nunc subruncinata, dentibus paucis, magnis, retrorsis instructa, 2—3-uncialia, sesquilineam lata. *Flores* citrini, parùm minores. *Involucrum* simplici serie 12-phyllum, cylindræum, glaucum, tenuissimè pubescens, unguiculare, basi squamis pluribus (8—10) lineari-setaceis, patulis, apice nigricantibus munitum: *foliis* linearibus, membranaceis, sub apice tuberculo auctis. *Receptaculum* nudum. *Ligulæ* 5-dentatæ, 6-nerviæ, involucri ferè duplò longiores. *Antheræ* cristâ ovali membranaceâ coronatæ, basi bidentulatæ. *Stigmata* brevia, crassiuscula, lineari-lingulata, pruinosa. *Achenia matura* nondùm vidi. *Pappus* omninò ut in præcedente.

The simple polyphyllous involucrium, independent of any other character, is alone sufficient to distinguish *Chondrilla* from *Lactuca*, its nearest ally. To the normal group of the genus, besides *Chondrilla juncea* of Linnæus, belong *Chondrilla latifolia* and *graminea* of the “*Flora Taurico-Caucasica*,” and a fourth species contained in the Pallasian herbarium, marked “*Prenanthes nova*,” and which possibly may prove to be the *Prenanthes aspera* of Schrader and Willdenow. It is very probable that *Chondrilla lævigata* of Pursh may prove a third aberrant species of this genus, as the description appears to indicate an intimate affinity to *C. Sessæana* above described.

TRACHODES.

TRACHODES.

Involucrum imbricatum. *Receptaculum* læve. *Achenia* subfusiformia, transversè rugosissima. *Pappus* sessilis; *radiis* basi solutis.

Involucrum multiplici ordine polyphyllum, imbricatum, cylindraceum, tubulatum: *squamis exterioribus* ovatis, obtusis, margine scariosis; *intimis* 8, elongatis, lineari-ligulatis, conniventibus. *Receptaculum* læve. *Flosculi* indefiniti (20—24): *ligulis* 5-dentatis, 6-nerviis. *Antheræ* cristâ ovatâ acutâ! membranaceâ coronatæ, basi bidentatæ. *Stigmata* semicylindrica, obtusa, cum apice styli papilloso-hispidula! *Achenia* subfusiformia, tetragona, apice attenuato acutè quadrangulo, angulis prominulis, costisque solitariis v. binis ininterstinctis, rugis transversis elevatis scabra. *Pappus* sessilis, capillaceus, mollissimus, fugax: *radiis* triplici ordine digestis, basi solutis; *intimis* crassitie parùm dissimilibus.

Herba biennis, e viridi cærulescens. Caulis bipedalis, erectus, rigidus, paniculatim ramosus, teres, aculeis minutissimis scaber, basin versus purpureo-maculatus, vix calamum scriptorium crassitie adæquans. Folia radicalia vix spithamæa, subsessilia, spathulata, sinuato-runcinata, mucronata, margine copiosè spinuloso-denticulata, pollicem v. sesquipollicem lata; caulina amplexicaulia, altiùs lobata: lobis triangulari-ovatis, acuminatis. Flores citrini? pedicellati, Lactuæ virosæ iis vix majores. Pedicelli squamis ovatis margine scariosis muniti. Pappus niveus. Nomen ad plantæ asperitatem refert, τραχώδης, scabrosus.

1. *T. paniculatus*.

Sonchus paniculatus. *Herb. S. et M.*

In Mexico Sesse et Mocinno. ♂.

In

In *Sonchus* the rays of the pappus are united into bundles at the base, and the receptacle is rough and much dilated.

Trib. 4. SCORZONERÆ. *Receptaculum* epaleatum. *Antheræ* basi bisetæ, appendiculâ exiguâ reniformi! coronatæ. *Stigmata* sæpiùs filiformia, papillosa. *Involucrum* simplex v. imbricatum.

PICROSIA.

Involucrum 8-phyllum. *Ligulæ* tridentatæ, 4-nerviæ! *Pappus* capillaris, stipitatus.

Involucrum simplici serie 8-phyllum, cylindricum, basi omninò nudum: *foliis* ligulatis, obtusis, margine invicem se imbricatis, planis. *Receptaculum* planum, nudum. *Flosculi* plurimi: *tubus* tenuissimus, filiformis; *fauce* extùs villosiusculâ: *ligulâ* lineari, tridentatâ, 4-nerviâ. *Stamina* ferè omninò exserta: *filamenta* capillaria, libera: *antheræ* leviter coalitæ, basi bidentulatæ, cristâ exiguâ brevissimâ coronatæ. *Stigmata* brevia, semicylindrica, obtusa, papilloso-pruinosa, arcuato-conniventia. *Achenia* fusiformia, sulcis plurimis longitudinaliter notata, glabra. *Pappus* longè stipitatus, capillaris, mollis, caducus: *radiis* duplici ordine confertis, scabriusculis, inæqualibus, basi solutis.

Herba *perennis*, *lævigata*, *glauca*. *Caulis erectus*, *pedalis*, *ramosus*, *teres*, *striatus*, *calamum scriptorium crassitie ferè adæquans*. *Rami paucissimi*. *Folia sessilia*, *lanceolata*, *integerrima*, *nunc remotissimè dentata*, *palmaria* v. *spithamæa*, *pollicem lata*; *inferiora basin versus angustata*, *sublingulata*; *superiora amplexicaulia*, *basi sagittata*. *Flores solitarii*, *pedunculati*. *Involucrum unciale*, *lævissimum*: *foliis apice puberulis*. *Flosculi lutei?* *tenuis*, *invulcro longiores*. *Pappus semipollicem longus*, *cinereo-fulvus*. *Nomen a πικρος, amarus*.

1. *P. longifolia*.

Tragopogon sp. nova. *Herb. R. et P.*

In Peruviae alpibus. *Ruiz et Pavon. 4.*

There is no genus with which this can well be compared: it has the involucrem of *Tragopogon*, and in habit it resembles *Cynthia virginica**, the *Troximon virginicus* of Gærtner; but the structure of its pappus and florets removes it from every genus to which it bears any affinity. The *Scorzonereæ* are well distinguished from the rest of *Cichoraceæ* by the very short, reniform appendage surmounting the anthers; that organ in most of the other tribes having an oblong form. This interesting genus concludes the family of *Cichoraceæ*; and we shall now proceed to the consideration of the *Labiatifloræ*, which constitute a much more numerous and interesting portion of the collection.

Fam. 2. LABIATIFLORÆ. *Dec. et Lag.*

FLOSCULI difformes, plerumque tubulosi: *limbo* sæpiùs bilabiato-partito, multinervio.

ANTHERÆ appendiculâ cartilagineâ v. callosâ, plerumque elongatâ terminatæ, basi biaristatæ.

STIGMATA obtusa, papilloso-pruinosa, rariùs partim v. omninò connata.

ACHENIA pappo rarò destituta.

Plantæ non lactescentes. Folia alterna. Flores sæpiùs purpurei.

The *Labiatifloræ* were first proposed as a distinct group by Messrs. DeCandolle and Lagasca in the 19th volume of the "*Annales du Muséum.*" Professor Lagasca having communicated to M. DeCandolle his remarks on this family, together with the essential characters of many new genera belonging to

* *Edinb. New Phil. Journ.* l. c. p. 309.

it, the paper may therefore be considered as the joint production of these two distinguished botanists; but about the same period Professor Lagasca published at Orihuela a separate treatise on this family, which he therein denominates *Chænanthophoræ*, with the addition of a few more genera, and several of those occurring in the other memoir are there given under different names. The names comprised in the memoir inserted in the "*Annales du Muséum*" have however prevailed, from the more extensive circulation of the work, although the former has the right of priority by some months, as the latter occurs in the commencement of the nineteenth volume, which was published in 1812, the year after the separate treatise by Professor Lagasca had appeared. In the series of natural affinities the *Labiatifloræ* form the connecting link between the *Cichoraceæ* and *Carduaceæ*; and although an exact definition of them is scarcely attainable, yet they appear to me sufficiently distinct to entitle them to rank as a separate family. Some botanists, however, have doubted of the propriety of this separation, and still think that they ought to be reunited to the other families of *Compositæ*; but it is unnecessary here to argue against such an opinion,—derived more, probably, from the works of others, than from actual observation,—as little investigation is requisite to see that by this reunion, the limits hitherto well-defined between the *Cichoraceæ* and *Carduaceæ* would be completely removed: and as no advantage whatever can be derived from this arrangement, it is certainly preferable to retain them as a distinct group, and more especially as they evidently have throughout a very marked affinity.

The *Labiatifloræ*, with the exception of a few species chiefly belonging to the group *Perdiceæ*, are peculiar to the western hemisphere; and they constitute one fifth of the *Compositæ* of the South-American Flora, where they appear to occupy the

place of the *Cichoraceæ* of the Northern hemisphere, to whom they bear a striking analogy both in habit and structure; but in the Chilian Flora, where this family is more especially abundant, they form nearly one-half of the whole class. I have ventured to give the descriptions of a few interesting species from Brazil belonging to this family, whose affinities seemed to justify their insertion in this memoir.

Trib. 1. TRIXIDÆ. *Receptaculum* epaleatum. *Flosculi* uniformes, bilabiati, hermaphroditi. *Stigmata* soluta, semicylindrica, truncata, papillosa. *Plantæ sæpiùs fruticosæ, foliis integris.*

Sect. a. PAPPUS PILOSUS.

TRIXIS. *P. Br., Dec., Lag.*

PERDICII SP., *L.*

Receptaculum villosum. *Flosculi* indefiniti. *Involucrum* æquale. *Involucrum* simplici v. duplici ordine poly-(5—16)phyllum, basi squamis paucissimis s. bracteis amplis munitum: *foliolis* subæqualibus. *Receptaculum* densè villosum. *Flosculi* indefiniti (5—25) hermaphroditi, bilabiati; *labio* *exteriore* ligulato, patulo, tridenticulato, 4-nervio (nervis rectis, lateralibus longè intramarginalibus); *interiore* revoluto, bipartito: *laciniis* lineari-lanceolatis, binerviis, apice puberulis. *Antheræ* in tubum connatæ, basi bisetosæ (setis simplicibus) apice appendiculâ lineari lanceolatâ acutâ coriaceâ coronatæ. *Stigmata* semicylindrica, truncata, recurva, apice papillosa, nervo manifesto. *Achenia* subteretia, nunc compressiuscula, undique papilloso-scabra: *disco epigyno* concavo, parùm dilatato, margine elevato, calloso. *Pappus* capillaris, caducus: *radiis* duplici ordine copiosis, basi solutis, denticulato-scabris.

Frutices

Frutices foliis *indivisis*, floribus *terminalibus numerosis*, *albis aut luteis*.

* *Involucri foliolis simplici serie dispositis*. *Propriæ*.

1. *T. cacaloides*, foliis petiolatis ellipticis subintegerrimis sericeis, involucro pentaphyllo : foliolis ligulatis obtusis flosculis brevioribus.

Perdicium cacaloides. *Kunth in H. et B. Nov. Gen. et Sp. Pl. 4. p. 154.*

In Peruviâ. *Ruiz et Pavon. 7.*

Caulis fruticosus, erectus, ramosissimus, rigidus, cortice fuscescente obductus. *Ramuli* hirsuti. *Folia* petiolata, ex obovatâ ad ellipticam formam variantia, sed rariùs obovata, mucronulata, integerrima, nunc rariùs perparcè denticulata, utrinque sericeo-pubescentia, pollicem v. 2 pollices longa, è semipollicari ad unciam latitudine variantia. *Petioli* breves. *Flores* parvi, fasciculato-corymbosi, numerosissimi. *Pedicelli* sericeo-villosi. *Bracteolæ* ad basin involucris subsolitariae, angustè lineares, obtusæ, pubescentes. *Involucrum* pentaphyllum : *foliolis* ligulatis, obtusis, æqualibus. *Receptaculum* copiosè villosum. *Flosculi* pauci (5—7), hermaphroditi, bilabiati, lutei ; *labio exteriori* ligulato, obtusè tridenticulato ; *interiore* bipartito, revoluto : *laciniis* linearibus, obtusiusculis, apice barbulatis. *Antheræ* appendiculâ lineari obtusiusculâ terminatæ, basi bisetæ : *setis* simplicibus. *Stigma* bifidum : *laciniis* recurvatis, truncatis, minutè papillois. *Achenia* linearia, compressa, minutè papilloso-scabra. *Pappus* capillaris, flavescens, denticulis asper, caducus.

2. *T. calycina*, foliis petiolatis ovato-lanceolatis dentatis subtùs lanatis, involucro 10-phylllo : foliolis subulatis flosculis longioribus.

Perdicium

Perdicium calycinum. Mart. Mss.

In Bahiâ Brasiliensium. Martius. 7.

Frutex facie *Æthonia fruticosa**, erectus, rigidus, ramosissimus, fragilis. *Ramuli* teretes, undique villis copiosis glandulis minutis pedicellatis interstinctis vestiti. *Folia* alterna, petiolata, ovato-lanceolata, acuta, acutè dentata, tum dentibus approximatis subserrata, basi attenuata, subtùs copiosè villosolanata, suprâ demùm nuda, viridia, bi- v. tripollicaria, semunciam v. ultra lata. *Corymbi* terminales, laxè divaricati. *Pedunculi* filiformes, minutè glandulosi, pollicares v. bipollicares, apicem versus crassiores, squamis aliquot (2—3) lineari-lanceolatis acuminatis muniti. *Involucrum* ferè *Kleinia*, simplex, decaphyllum minutè glandulosum, basi bracteolâ angustissimâ instructum: *foliis* lineari-subulatis, erectis, acutis, flosculis longioribus. *Receptaculum* copiosè villosum. *Flosculi* 10—12, hermaphroditi, bilabiati; *labio exteriorè* ligulato, patulo, acutè tridenticulato; *interiore* bipartito: *laciniis* lineari-lanceolatis, acutis, revolutis, apice imberbibus. *Antheræ* basi longè biaristatæ, appendiculâ lineari-lanceolatâ obtusiusculâ terminatæ. *Stigma* bipartitum: *laciniis* recurvatis, semicylindricis, apice truncatis, papilloso-puberulis. *Achenia* longa, teretiuscula, undique asperè papillosa, apicem versus paululùm angustiora. *Pappus* capillaris, cinereus, denticulis asper, caducus.

3. *T. corymbosa*, foliis petiolatis lanceolatis integerrimis puberulis, involucri 8-phylo: foliis lineari-lanceolatis acutis.

Perdicium corymbosum. Herb. S. et M.

In Mexico. Sesse et Mocinno. 7.

Caulis lignosus, diffusè ramosissimus. *Rami* teretes, cortice striato cinereo-fusco obducti. *Folia* sparsa, petiolata, lan-

* *Edinb. New Phil. Journ.* l. c. p. 309.

ceolata,

ceolata, mucronata, margine integerrima, nunc plana, subinde reflexa, utrinque cum ramulis pube subtili vestita, subtùs costâ prominulâ, reticulato-venosissima, membranacea, basi attenuata, sesqui- v. tripollicaria, semunciam v. paulò ultra lata. *Flores* lutei, copiosissimi, laxè corymbosi. *Pedunculi pedicellique* densè pubescentes. *Bracteæ inferiores* per pedunculos sparsæ, foliis conformes; *superiores* sensim minores; *supremis* lineari-lanceolatis, acutis, basi attenuatis, margine revolutis, multò minoribus, involucrum munientibus. *Receptaculum* copiosè villosum. *Flosculi* 10—12, hermaphroditi, bilabiati; *labio easteriore* ligulato, obtusè tridenticulato, patulo; *interiore* bipartito: *laciniis* lineari-lanceolatis, revolutis, apice obtusis, barbularis, marginibus primùm conglutinatis. *Antheræ* setis 2 capillaceis basi munitæ, apice appendiculâ lineari acutiusculâ ipsius antheræ longitudine coronatæ. *Stigma* bipartitum: *laciniis* semiteretibus, papilloso-pruinosis, apice truncatis, recurvis. *Achenia* teretia, minutè papillosa, et glandulosa. *Pappus* capillaris, flavescens, denticulis scaber, caducus.

** *Involucris squamis duplici ordine dispositis.*

4. *T. glutinosa*, foliis sessilibus oblongis integerrimis subtùs lanatis, floribus corymbosis, involucris foliolis lineari-lanceolatis coriaceis.

Perdicium brasiliense. *Mart. Mss.* non *L.*

In Brasiliæ provinciâ Minas Geraes vulgò dictâ. *Martius.* 7.

Caulis fruticosus, erectus, ramosus. *Rami* teretes, cortice cinnamomeo obducti, pilis glandulisque copiosè ornati, viscosi, pennâ corvinâ vix crassiores. *Folia* alterna, sessilia, oblonga, v. lineari-lanceolata, mucronulata, integerrima, coriacea, suprâ gramineo-viridia, reticulato-venosa, parcè incumbenti-pilosa, glandulosa, et glutinosa, subtùs copiosè cinereo-

reo-lanata, lanâ villosâ nunc lutescenti, sesqui- v. bipollicaria, semunciam lata. *Flores* corymbosi, magni, aurei. *Corymbus* simplex, terminalis pluri-(5—7)florus. *Pedunculi* robusti, uniflori, teretes, ut et *involucrum*, glandulis pedicellatis omninò induti, viscosissimi, foliolis aliquot (2—4) cæteris foliis simillimis, at perquàm minoribus, instructi. *Involucrum* duplici ordine polyphyllum: *foliolis* linearilanceolatis, acutis, obtusè carinatis; prætereà *bracteolæ* paucæ, lanceolatæ, acutæ, subtùs tomentosæ, breviores. *Receptaculum* densè villosum. *Flosculi* numerosi, hermaphroditi, tubo longo, limbo bilabiati: *labiis* revolutis; *exteriore* ligulato, obtusè 3-denticulato; *interiore* bipartito: *laciniis* lanceolato-linearibus, spiraliter convolutis. *Antheræ* appendiculâ lineari-lanceolatâ acutâ terminatæ, basi longè bisetæ: *setis* simplicibus, muticis. *Stigma* bifidum: *lobis* recurvis, semiteretibus, suprâ canaliculatis, apice truncato, papilloso-barbulato. *Achenia* subteretia longiuscula, undique papilloso-scabra. *Pappus* pilosus, niveus, denticulis scaber.

This is totally distinct from the *Perdicium brasiliense* of Linæus, as will hereafter appear.

5. *T. divaricata*, foliis lanceolatis acuminatis denticulatis basi auriculatis, floribus paniculatis, involucri foliolis lanceolatis membranaceis.

Perdicium divaricatum. *Kunth in H. et B. Nov. Gen. et Sp. Pl. 4. p. 155. t. 355.*

P. auriculatum. *Bot. Mag. t. 2765.*

In Peruvîâ. *Ruiz et Pavon. 2.*

Caulis fruticosus, teres, flexuosus, ut videtur scandens, divaricato-ramosissimus, cortice fulvello pubescente indutus.

Folia alterna, sessilia, lanceolata, acuminata, margine denticulis

ticulis plurimis perexiguis instructa, membranacea, deorsum attenuata, imâ basi auriculato-cordata, 3—5-pollicaria, latitudine pollicaria v. sesqui-pollicaria, supra gramineo-viridia, nunc glabra, subtus pallida, villosiuscula. *Flores* nutantes, paniculati, lutescentes. *Panicula* terminalis, divaricata, multiflora. *Pedunculi* flexuosi, *pedicellique* copiosè pubescentes. *Bracteolæ* paucissimæ, lanceolato-subulatæ, recurvulæ, pubescentes. *Involuerum* duplici serie poly-(13—16)-phyllum, velutinum : *foliolis* lanceolatis, acuminatis, politis, membranaceis ; *intimis* plurimum longioribus. *Receptaculum* villosum. *Flosculi* 12—14, bilabiati, hermaphroditi ; *labio exteriori* ligulato, 3-denticulato ; *interiore* bipartito : *segmentis* lanceolato-subulatis, apice puberulis. *Antheræ* appendiculâ lineari-lanceolatâ obtusiusculâ ipsâ antherâ longiore, basi setis 2 simplicibus munitæ. *Stigma* bipartitum : *laciniis* recurvis, apice truncatis, minutè papillosis. *Achenia* longiuscula, compressa, undique papilloso-glandulosa. *Pappus* capillaris, flavicans, caducus, denticulis scaber.

The figure given in the *Nova Genera et Species* is accurate as to the general character of the plant ; but the leaves are represented with a perfectly entire margin, which is clearly an error ; for there can be no question as to the identity of the two plants, and indeed the description of M. Kunth shows that the figure is faulty in this respect. I have no doubt that the *Perdicium auriculatum* given in the *Botanical Magazine* (tab. 2765.) is really this plant, and that it is not, as there erroneously stated, from Brazil, but had been imported from Peru.

*** *Involuerum* basi bracteis 5 amplis foliaceis obvallatum : *foliolis* simplici ordine digestis. *Flosculi* plurimi. Alcithoë.

6. *T. longifolia*, foliis petiolatis lanceolatis acuminatis integerrimis lævibus.

Perdicium longifolium. *Herb. S. et M.*

In Mexico. *Sesse et Mocinno.* 7.

Caulis fruticosus. *Rami* cylindrici, pallidi, perparcè sericeo-pubescentes. *Folia* (Salicis) numerosa, alterna, brevissimè petiolata, lanceolata, acuminata, integerrima, submembranacea, utrinque, sed præsertim subtùs, adpressè villosiuscula, costâ prominulâ, venisque plurimis obliquis reticulatim ramosissimis manifestis, basi v. acutâ, v. (in superioribus) obtusâ, gramineo-viridia, plerumque palmaria, vix semipollicem lata. *Petioles* teretiusculi, lineam v. ultra longi. *Flores* terminales, corymbosi, aurei. *Corymbus* simplex, foliosus, multiflorus. *Pedunculi* copiosè glanduloso-pubescentes, unciales. *Bractea* 5, amplæ, foliaceæ, ovato-lanceolatæ, acuminatæ, glanduloso-pubescentes. *Involucrum* simplici ordine 8-phyllum : *foliis* ligulatis, acutis, coriaceis, costatis, intùs sericeo-villosissimis, extùs atomis resinosis copiosissimis. *Receptaculum* copiosè villosum. *Flosculi* plures, (18—20) hermaphroditi, bilabiati ; *labio exteriore* ligulato, patulo, obtusè tridentato ; *interiore* bipartito, revolutò : *segmentis* lineari-lanceolatis, apice obtusis puberulisque. *Anthera* appendiculâ ligulatâ obtusâ cartilagineâ antheram ipsam longitudine æquante, basi setis 2 simplicibus longis cuspidatis munitæ. *Stigma* bipartitum : *laciniis* recurvis, apice papilloso-barbatis, truncatis. *Achenia* teretiuscula, undique papilloso-scabra. *Pappus* capillaris, fulvellus, denticulis minutissimis scaber, fragilis, inæqualis, caducus.

7. *T. alata*, foliis decurrentibus ellipticis denticulatis scabris.

In Mexico. *Sesse et Mocinno.* 7.

Caulis fruticosus, erectus, rigidus, ramosus. *Rami* teretes, foliaceo-alati, copiosè pilosi, scabri. *Folia* alterna, longè per caulem

caulem decurrentia, oblongo-ovata, acuta, mucronuloque corneo munita, utrinque papillis setosis exasperata, viridia, margine denticulata, costâ basi penitùs prominenti apicem versus perexili, venis prominulis obliquis ramosissimis, 2—3-uncialia, unciam v. sesquiunciam lata. *Flores* terminales, plures, corymbosi. *Corymbus* simplex. *Pedunculi* teretes, validi, densè glanduloso-pilosi, semunciales. *Bractæ* 5, amplæ, foliaceæ, ovato-lanceolatae, acuminatae, copiosè glandulosæ, pollicares v. sesquipollicares, vix semipollicem latae, involucri longiores, atque obvallantes. *Involucrum* simplici serie 8-phyllum : *foliis* lineari-lanceolatis, acuminatis, coriaceis, apice membranaceis, papilloso-glandulosis. *Receptaculum* densè pilosum. *Flosculi* aurei, plurimi (24) hermaphroditi, bilabiati, omnibus majores ; *labio exteriori* ligulato, elliptico, tridenticulato ; *interiore* profundè bipartito : *segmentis* linearibus, obtusis, pilosiusculis, spiraliter revolutis. *Antheræ* basi bisetæ : *setis* simplicibus, aristatis : *appendiculâ* ligulatâ, obtusâ, cartilagineâ, ipsâ antherâ brevior. *Stigma* bipartitum : *lobis* recurvatis, apice truncatis et papillosis. *Achenia* teretiuscula, papilloso-scabra, spadicea. *Pappus* capillaceus, denticulis scaber, caducus, niveus.

8. *T. involucreta*, foliis ovato-lanceolatis integerrimis subtùs sericeo-villosissimis.

In Mexico. *D. Paullus de La Llave*. ½.

Caulis fruticosus, ramosus. *Rami* teretes, undique villosissimi. *Folia* alterna, sessilia, conferta, ovato-lanceolata, acuminata, integerrima, uninervia, venis angulo acuto obliquis, plurimis ; membranacea, suprâ viridia, glandulis pedicellatis copiosè ornata, subtùs sericeo-villosissima, pollicaria. *Flores* magni, in apice ramulorum pauci (4—5), corymbosi.

Involucrum copiosè glandulosum, serie simplici 8-phyllum, bracteis amplis, foliaceis, ovato-lanceolatis, mucronatis obvallatum : *foliis* lineari-lanceolatis, mucronatis, nervosis. *Receptaculum* copiosè villosum. *Flosculi* aurei, copiosi, bilabiati, hermaphroditi, æquales : *tubo* intùs hirsuto ; *labio* *exteriore* ligulato, patulo, apice tridenticulato ; *interiore* altè bipartito : *segmentis* linearibus, revolutis, apice obtuso, barbato. *Filamenta* compressa, glabra. *Antheræ* appendiculâ ipsius antheræ longitudine, ligulatâ, coriaceâ terminatæ, basi longè biaristatæ : *aristis* nudis, lineari-setaceis. *Stylus* filiformis, glaber. *Stigmata* semicylindrica, truncata, minutè papillosa. *Achenia* longitudine ferè involucri, angusta, tragona, minutè papilloso-scabra. *Pappus* pilosus, fulvo-cinereus : *radiis* duplici ordine digestis, creberrimè denticulatis, basi solutis, deciduis.

This genus constitutes the transition from the *Cichoraceæ* to the more aberrant groups of the *Labiatifloræ*. The habit and the general resemblance of its flowers to those of the former family, justify the place which I have assigned to it. I have followed Lagasca and DeCandolle in restoring the old name of *Trivis*, first applied to designate the original species of this genus by Dr. Patrick Browne ; but the genus having been united to *Perdicium* by Linnæus, the name was subsequently used by Swartz to denote the *Baillieria* of Aublet. The third section may probably be reckoned sufficiently distinct to constitute another genus ; but this point I shall leave till further observations shall determine.

CLEANTHES.

PERDICII SP., L.

Receptaculum glabrum ! *Flosculi* indefiniti. *Involucrum* æquale. *Involucrum* simplici v. duplici ordine polyphyllum : *foliis* sub-æqualibus.

æqualibus. *Receptaculum* convexum, glabrum. *Flosculi* indefiniti, hermaphroditi, bilabiati; *labio exteriori* elliptico, obtusè tridentato, 4-nervio, patulo: *interiore* bipartito: *laciniis* lanceolatis, acutis, binerviis, revolutis, sæpè margine conglutinatis. *Stamina* tubo inserta: *filamenta* glabra: *articulo superiore* teretiusculo: *antheræ* appendiculà linearilanceolatà, acutà, cartilagineo-membranaceà coronatæ, basi bisetosæ: *setis* compressis, attenuatis, simplicibus, æqualibus. *Stylus* filiformis, glaber, basi bulbosus. *Stigmata* semicylindrica, apice truncata, minutè papillosa, recurvata. *Achenia* subfusiformia, compressa, undique papilloso-scabra, 5-costata: *costis* callosis. *Discus epigynus* dilatatus, concavus. *Pappus* pilosus, persistens: *radiis* duplici ordine copiosis, denticulato-scabris.

Herbæ perennes, habitu omninò Hieracii. *Caulis multiflorus*.
Folia indivisa; radicalia maxima, petiolata. *Flores corymbosi*. *Pappus cinereus*.

1. *C. brasiliensis*, pilosissima; caule angulato, involucri foliolis lanceolatis obtusis.

Perdicium brasiliense. *Lin. Mant.* 115. *Vahl. in Act. Soc. Hist. Nat. Haf.* 1. p. 12.

In Brasiliâ. *Arduini.* 4.

Herba perennis, tota pilis basi callosis copiosè vestita, hispidula.

Caulis erectus, angulatus, supernè sulcatus, apice ramosus, pedalis. *Folia radicalia* petiolata, patula, elliptico-oblonga, aut spatulata, sinuato-dentata (dentibus tuberculo calloso terminatis, productis, tunc rarò paulò retrorsis), basi attenuata, costâ mediâ subtùs prominulà nervisque angulo acuto obliquè transversis instructa, palmaria, sesquinciam lata; *caulina* plura, multoties minora, sessilia, linearilanceolata, margine dentata, revoluta, tuberculo calloso terminata,

terminata, uncialia v. biuncialia. *Petioli* unciales, subtùs carinati, basi valdè dilatati. *Flores* plures (7) corymbosi, magnitudine *Hieracii Subaudi*. *Pedunculi* sulcati, bipollicares, uniflori, undique densè pilosi et glandulosi, basi sæpiùsque supra medium bracteolâ lineari-lanceolatâ canaliculatâ muniti. *Involucrum* hispidissimum, duplici ordine poly-(14—18)phyllum : *foliis* ligulatis, obtusis, basi subtùs obtusè carinatis, apice planis membranaceis latioribusque. *Flosculi* lutei, numerosi, hermaphroditi, bilabiati : *tubo* glanduloso, basi 5-angulo, fauce dilatato ; *labio exteriore* elliptico-oblongo, obtusè tridenticulato, 4-nervio, nervis intermediis profundè bipartitis ; *interiore* bipartito : *segmentis* lanceolatis, acutis, revolutis, nervis 2 longè intramarginalibus. *Filamenta* glabra ; *articulo superiore* teretiusculo, duplò breviorè. *Antheræ* appendiculâ lineari, obtusâ, subfalcatâ, cartilagineâ coronatæ basi bisetosæ : *setis* complanatis, attenuatis, æqualibus. *Stylus* glaber, basi callosâ. *Stigmata* linearia, truncata, minutè papillosa, recurva. *Achenia* subfusiformia, undique papilloso-scabra. *Discus* *epigynus* concavus. *Pappus* pilosus, cinereus : *radiis* duplici ordine copiosissimis, denticulato-scabris, deciduis.

The foregoing description of this interesting, and hitherto obscure plant, is taken from the original specimen preserved in the Linnæan herbarium, which together with the extensive collections and library of the late Sir James Edward Smith have now become the property of the Linnean Society. The acquisition of these collections will add much to the honour and credit of the Society, and will tend greatly to advance the science of Natural History in this country. Now that the number of species is so much increased, it is impossible in extensive genera to determine satisfactorily the older ones, without having recourse to the authentic materials on which they were founded.

2. C. hie-

2. *C. hieracioides*, glabriuscula; caule subnudo tereti, involucri foliolis cuneato-lanceolatis acutis.

In Brasiliâ. *Sello*. 4.

Planta herbacea, leviter papillosa, virens. *Radix* perennis, è fibris pluribus, fili emporetici crassitie composita. *Caules* è radice plures, erecti, teretes, subfiliformes, apice tantùm ramosi, foliis ferè destituti, sesquipedales, pennam corvinam crassitie vix adæquantés. *Folia radicalia* maxima, petiolata, patula, oblongo-spathulata, repanda, vix ac ne vix sinuata, uninervia, basi attenuata, suprâ prope marginem præsertim scabriuscula, aculeis minutissimis callosis, subtùs ad costam pilosa, palmaria, latitudine ferè biuncialia; *caulina* paucissima (2 v. 4) plurimùm minora, semiamplexicaulia, lineari-lanceolata, mucronulata, denticulata, uncialia. *Flores* plures (5—7) corymbosi. *Pedunculi* longi, simplices v. bifidi, copiosè papilloso-glandulosi. *Bracteæ* lineares, mucronulatae. *Involucrum* simplici ordine poly(10-)phyllum: *foliolis* cuneato-lanceolatis, acutis, concavis, extùs copiosè papilloso-glandulosis, scabris. *Receptaculum* nudum. *Flosculi* plures, hermaphroditi, albi? *tubo* glanduloso: *limbo* eodem breviorè, bilabiato; *labio exteriorè* elliptico, obtusè tridenticulato, 4-nervio, patulo; *interiore* bipartito: *laciniis* lanceolatis, acutis, binerviis, revolutis, sæpè margine conglutinatis. *Antheræ* appendiculâ lanceolatâ acutâ, cartilagineo-membranaceâ coronatæ, basi longè bisetosæ. *Stylus* filiformis, glaber, basi bulbosus. *Stigmata* semicylindrica, recurvata, apice truncata, parùm dilatata, minutèque papillosa. *Achenia* subfusiformia, compressa, papilloso-scabra, 5-costata. *Pappus* pilosus, cinereus, persistens: *radiis* duplici ordine copiosis, scabris, rigidulis.

Very near akin to the preceding species; but in that the stem is angular and somewhat leafy, and the whole plant clothed with
bristly

bristly hairs. The flowers are also larger; and the leaflets of the involucre nearly twice the number, and arranged in a double series. The genus, which appears to be a very natural one, is essentially distinguished from *Trixis* by the naked receptacle.

PROUSTIA. *Lag. et Dec.*

Receptaculum pilosum. *Flosculi* 5. *Pappi radiis* penicillatis.

Involucrum polyphyllum, imbricatum.

Involucrum tubulosum, polyphyllum: *squamis* ellipticis, integerimis, multiplici serie adpressè imbricatis. *Receptaculum* parvum, copiosè pilosum. *Flosculi* 5, hermaphroditi, bilabiati; *labio exteriorè* ligulato, tridenticulato, 4-nervio, patulo, demùm revoluto; *interiore* profundè bipartito: *segmentis* lineari-lanceolatis, binerviis, obtusiusculis, revolutis, primùm conglutinatis. *Antheræ* in tubum connatæ, basi bisetæ: *setis* simplicibus v. ramulosis: *appendicula terminalis* linearis, acutiuscula, cartilaginea. *Stigma* bilobum: *lobis* apice truncatis, papilloso-pruinosis, recurvis. *Achenia* cuneata, compressa, pilosa v. teretiuscula et papillosa: *disco epigyno* dilatato. *Pappus* persistens: *radiis* duplici ordine copiosis, apice penicillatis.

Arbusculæ v. *Frutices ramosissimi*. *Folia alterna, indivisa*. Flores *thyrsoidei* v. *fasciculato-corymbosi, purpurei aut lutei*.

* *Floribus thyrsoideis purpureis, acheniis pilosis, pappo colorato*.
Propriæ.

1. *P. pyrifolia*, foliis petiolatis cordato-rotundis ovalibusve subtùs tomentosis.

Proustia pyrifolia. *Lag. et Dec. in Ann. Mus.* 19. p. 70. t. 4.

In Chili prope Talcahuana (*Ludovicus Née*); ad Coquimbo.

Caldclough. 7.

Arbuseula erecta, ramosissima, tempore florendi ornatissima.

Rami

Rami teretes, à casu foliorum nodosi, tomento cinereo deciduo vestiti. *Folia* omninò *Mali* v. *Cydoniæ*, alterna, petiolata, subrotundo-cordata v. ovalia, abruptè mucronulata, mucronulo brevissimo conico, margine integerrima, v. nunc sæpè dentibus pluribus mucronulatis instructa, coriacea, basi nunc rotundata, tunc obsoletius cordata, suprà viridia, nitida, glandulisque elevatis copiosè ornata, reticulato-venosissima, subtùs tomento denso cinereo, demùm flavicanti et partim deciduo, instructa, sesqui- v. ferè tri-pollicaria, unciam aut sesquiunciam lata. *Petioli* teretes, densè tomentosi, suprà depressiusculi, 3 lineas longi, basi crassiore remanenti, inde rami tuberculati. *Flores* purpurei, in thyrso amplo copiosissimi, glomerati, hinc comosi. *Rachis* et *pedicelli* omninò lanati. *Involucrum* oblongo-cylindricum, polyphyllum: *squamis* ovalibus, obsoletè mucronulatis, coriaceis; *extimis* ovatis, levissimè lanuginosis, margine ciliatis, adpressè et decussatim imbricatis. *Receptaculum* punctum pilosum. *Flosculi* 5, hermaphroditi, bilabiati; *labio exteriore* ligulato, acutè tridenticulato, parùm revoluto; *interiore* profundè bipartito, spiraliter revoluto: *laciniis* linearibus, acutis, primùm marginibus leviter conglutinatis. *Antheræ* appendiculâ lineari acutâ cartilagineâ terminatæ, basi bisetæ: *setis* linearibus, compressis, basi ramulosis. *Stigma* bilobum: *lobis* crassis, recurvulis, apice obtusis, minutè papilloso-pruinosis. *Achenia* pilosa. *Pappus* purpureus: *radiis* basi solutis, apice penicillatis.

2. *P. oblongifolia*, foliis petiolatis oblongis subtùs tomentosis.

In Peruviâ. *Ruiz et Pavon.* 7.

Præcedenti similis. *Rami* teretes, flexuosi, post foliorum lapsum nodulosi, tomento cinereo caduco primò vestiti, glandulisque elevatis persistentibus perparcè muniti. *Folia* alterna, pe-

tiolata, oblonga, mucronata, mucrone brevi subulato recto, margine integerrima v. parcè denticulata, coriacea, suprâ viridia, lucida, reticulato-venosissima, venis siccitate prominulis, subtùs densè cinereo-tomentosa, ferè bipollicaria, 9 lineas v. parùm ultra lata. *Flores* glomerati, in thyrsum confertum ovatum dispositi. *Pedunculi* et *pedicelli* brevissimi, densè lanati. *Involucrum* polyphyllum, decussatim imbricatum; *squamis exterioribus* ovatis, acutiusculis, concavis; *interioribus* oblongis, obtusis, pariter coriaceis, levissimè lanuginosis. *Flosculi* 5, omninò ut in *præcedente*. *Antheræ* basi bisetæ: *setis* basi ramulosis: *appendiculâ* lineari, acutiusculâ. *Stigma* bilobum: *lobis* semiteretibus, obtusis, crassis, minutè papillosis. *Achenia* pilosa. *Pappus* fusco-purpureus: *radiis* apice penicillatis, imâ basi connexis.

This species is intimately allied to the preceding; but its oblong, and much narrower leaves, appear to constitute a specific distinction.

** *Floribus pappoque albis, acheniis papilloso-scabris, teretiusculis.*

3. *P. reticulata*, foliis sessilibus oblongo-cuneatis serrulatis glabris, thyrso composito laxo.

Proustia reticulata. Lag. *Ms.*

Perdicium serrulatum. *Herb. S. et M.*

In Mexico. *Sesse et Mocinno.* 7.

Frutex erectus, rigidus, ramosissimus. *Rami* sulcati, glabri.

Folia sessilia, oblongo-cuneata, quandoque obovata, argutè serrulata, coriacea, basin versus integerrima, utrinque glabra, siccitate lutescenti-viridia, costâ venisque ramosissimis prominulis reticulata, subtùs punctis numerosissimis resinosis ornata, 3 pollices longa, unciam v. sesquiunciam lata; *rameis* lineari-oblongis, mucronulatis, vix pollicaribus.

Flores

Flores glomerati (glomeruli 4—9-flori), in thyrsum laxum, obtusè pyramidatum digesti, albi, siccitate flavescentes. *Involucrum* tubulosum, imbricatum, ferè semunciale: *squamis* ovalibus, obtusis, ciliatis, adpressis. *Receptaculum* pilosum. *Flosculi* 5, hermaphroditi, bilabiati; *labio exteriorè* ligulato, obtusè 3-denticulato; *interiore* bipartito: *segmentis* lineari-lanceolatis, obtusis, revolutis, primùm conglutinatis. *Antheræ* appendiculâ lanceolatâ muticâ cartilagineâ coronatæ, basi bisetæ: *setis* simplicibus, setaceo-subulatis, acutissimis, ipsâ antherâ longioribus. *Stigma* bilobum, minutè papilloso-pruinose. *Achenia* cuneata, compressa, minutè papillosa. *Pappus* albus, demùm flavescent, deciduus: *radiis* tenuissimis, apice penicillatis.

4. *P. mexicana*, foliis amplexicaulibus cordatis acuminatis denticulatis membranaceis, corymbis fasciculatis, involucri squamis ovato-lanceolatis acuminatis.

Proustia mexicana. *Lag. Mss.*

Perdicium mexicanum. *Herb. S. et M.*

In Mexico. *Sesse et Mocinno. 7.*

Rami erecti, sulcati, pube glandulosâ vestiti. *Folia* alterna, amplexicaulia, cordato-ovata v. oblonga, acuminata, argutè copiosèque spinuloso-denticulata, tunc subserrata, membranacea, reticulato-venosa, utrinque asperè papillosa, viridia, subtùs et ramuli, præcipuè juventute, atomis resinosis aureo-micantibus adpersa, pollicaria v. bipollicaria, unciam lata. *Flores* fasciculato-corymbosi. *Pedicelli* squamis ovato-lanceolatis, acuminatis, recurvulis, minutè glandulosis muniti. *Involucra* oblonga, tubulosa, polyphylla, copiosè glandulosa: *squamis* ovato-lanceolatis, acuminatis, adpressis. *Flosculi* 5, hermaphroditi, bilabiati, albi; *labio exteriorè* ligulato, acutè tridentato; *interiore* bipartito: *laciniis* lineari-

bus, obtusiusculis, revolutis. *Antheræ* basi setis longis, simplicibus, acutis munitæ, appendiculâ lineari-lanceolatâ, obtusiusculâ terminatæ. *Stigma* bifidum : *laciniis* semiteretibus, truncatis, recurvis, papilloso-pruinosis. *Achenia* teretiuscula, papilloso-scabra. *Pappus* albus : *radiis* denticulis scabris, imâ basi connexis, apice subsimplici !

*** *Flores* laxè spicati, rosei. *Achenia* cuneato-trigona, villosa. *Pappus* capillaris, fusco-purpureus. Harmodia.

5. *P. cuneifolia*, foliis lanceolato-cuneatis mucronulatis dentatis coriaceis glabris, floribus spicatis.

In Chili ad Coquimbo. *Caldcleugh*. 7.

Frutex erectus, rigidus, facie proteaceâ. *Rami* teretes, glabri, foliosi. *Folia* alterna, petiolata, bipollicaria, lanceolato-cuneata, mucronulata, coriacea, rigida, glabra, subtùs costâ prominente venisque conspicuis reticulata, margine nunc integerrima, nunc denticulata, illinc dentibus paucis majoribus ad apicem instructa, infernè attenuata, vix semipollicem lata. *Flores* sessiles, solitarii v. per paria remotiusculi, bracteâ lineari-lanceolatâ mucronatâ foliaceâ suffulti, hinc quasi axillares, in spicam terminalem, nunc basi ramosam, palmarem dispositi. *Involucra* polyphylla, imbricata, parcè lanuginosa : *squamis* ovalibus ellipticisve, obtusis, concavis, coriaceis, margine præcipuè lanuginosis, adpressis. *Receptaculum* villosum. *Flosculi* 5, hermaphroditi, bilabiati, rosei ; *labio* exteriori ligulato, acutè tridentato ; *interiore* bipartito, revoluti : *laciniis* linearibus, obtusis. *Antheræ* basi setis 2, longis, simplicibus, acutis auctæ, appendiculâ ligulatâ, acutiusculâ, cartilagineâ terminatæ. *Stigma* bifidum : *lobis* lingulatis, obtusis, minutè papillosis, recurvis. *Achenia* cuneata, trigona, sericeo-villosa.

villosa. *Pappus* fusco-purpureus, mollissimus: *radiis* longis, capillaceis, apice puberulis.

ACOURTIA.

Receptaculum nudum. *Flosculi* indefiniti. *Pappi radiis* penicillatis. *Involucrum* polyphyllum, imbricatum.

Involucrum turbinatum, multiplici ordine polyphyllum, imbricatum: *squamis* lanceolatis, mucronatis, adpressis, integerrimis, basi dilatâtâ cum rachi articulatis, deciduis! *Receptaculum* nudum, scrobiculatum. *Flosculi* plurimi (25—30) hermaphroditi, bilabiati, æquales; *labio exteriori* ligulato, obtusè tridentato, 4-nervio; *interiore* bipartito, revoluto: *segmentis* linearibus, obtusis, binerviis. *Antheræ* appendiculâ lineari-lanceolatâ, acutiusculâ, cartilagineâ terminatæ, basi bisetosæ: *setis* simplicibus, obtusis. *Stigmata* linearia, truncata, apice papillosa. *Achenia* teretiuscula, (semuncialia) undique papilloso-scabra: *disco epigyno* parùm dilatato, planiusculo. *Pappi radiis* simplici serie contiguis, deciduis, apice penicillatis.

Planta fruticosa, habitu omninò Serratulæ, glauca. Caulis sesquipedalis, erectus, rigidus, teres, paniculatim ramosus. Rami sulcati, glabri, virides, nunc sanguinolenti, pennæ corvinæ crassitie. Folia alterna, amplexicaulia, cordato-oblonga, quandoque supernè latiora, subspathulata, mucrone calloso instructa, margine spinuloso-serrata, posticibus rotundatis, substantiâ cartilaginea, rigida, utrinque nuda, reticulato-venosissima, 2—4-uncialia, pollicem v. sesquipollicem lata; summis multò minoribus, sæpiùsque integerrimis. Flores in apice ramulorum plures (3—10) corymboso-glomerati, Serratulæ coronatæ magnitudine. Pedunculi teretes, glabri, semipollicares. Involucra sæpè sanguineo-colorata. Flosculi purpurci:

purpurei: nervis infra sinus laciniarum dichotomis. Pappus niveus.

1. *A. formosa*.

In Mexico. *Sesse et Mocinno*. ½.

This genus agrees with the preceding in the structure of its involucrem, and with *Trixis* in the indefinite number of its florets; but it is distinguished from both by its naked receptacle, and from *Clarionia* by the structure of its pappus, by its equal florets, as well as by its widely different habit.

I have dedicated this very distinct and interesting genus to Mrs. A'Court, of Heytesbury House, Wilts, whose botanical taste and knowledge have long merited for her this compliment.

CLARIONIA. *Lag. et Dec.*

PEREZIA. *Lag. Amen. Nat.* 1. p. 31.

Receptaculum nudum. *Flosculi* indefiniti. *Pappus* capillaris.

Involucrem polyphyllum, imbricatum.

Involucrem oblongum, cylindricum, multiplici ordine polyphyllum, imbricatum. *Receptaculum* nudum. *Flosculi* omnes hermaphroditi, bilabiati; *marginales* majores, radium æmulantes; *labio exteriori* longo, ligulato, 4-nervio, obtusè tridenticulato, patulo; *interiore* profundè bipartito: *segmentis* lineari-angustissimis, binerviis, apice attenuatis, spiraliter revolutis, primò margine conglutinatis, uti sæpiùs perfacilè pro unico et simplici habitis; *disci* multoties breviores; *labio exteriori* elliptico, concavo, obtusè tridenticulato; *interiore* bipartito, spiraliter revoluto: *segmentis* similiter conglutinatis, at latioribus. *Filamenta* capillaria, glabra, articulo manifesto. *Antheræ* appendiculâ lineari, acutâ, cartilagineo-

cartilagineo-membranaceâ terminatâ, basi bisetâ : *setis* inæqualibus, validiusculis, mucronatis, simplicibus. *Stigmata* linearia, truncata, revoluta, suprâ canaliculata, apice parùm dilatato, papilloso. *Achenia* teretiuscula v. compressa : *disco epigyno* dilatato. *Pappus* persistens, pilosus : *radiis* duplici ordine copiosis, scabris, apice simplicibus.

Herbæ perennes. Flores solitarii, magni, rubri v. albi.

* *Caulescentes foliis indivisis.*

1. *C. spathulata*, foliis planis spathulatis.

Clarionia spathulata. Lag. Mss.

In Chili. Ruiz et Pavon. 4.

Herba cæspitosa. *Caulis* pedalis, erectus, simplicissimus, aliquandò ramulum unicum protrudit, uniflorus, filiformis, glaber, crassitie pennæ corvinæ, apicem versus glandulis pedicellatis copiosè ornatus. *Folia radicalia* ferè omninò *Othonnæ cheirifoliæ*, numerosa, spathulata, plana, coriacea, margine integerrima v. crenulata, utrinque lætè viridia, glaberrima, subtùs costâ validâ venisque reticulatis instructa, basin versus in petiolum attenuata, sesquipollinaria, ad laminam latitudine unguem adæquantia ; *caulina* sparsa, plurimùm minora, stricta, subadpressa, linguata, margine integerrima ac cartilaginea, basi dilatâtâ et denticulatâ, unguicularia v. nunc (præsertim inferiora) ferè uncialia. *Flos* terminalis, solitarius. *Involuerum* triplici ordine polyphyllum, imbricatum : *squamis* ligulatis, integerrimis, adpressis, minutè glandulosis ; *interioribus* mucronulatis, longioribus. *Flosculi* hermaphroditi, bilabiati, albi ; *labio exteriori* longo, ligulato, obtusè tridenticulato, 4-nervio ; *interiore* bipartito : *segmentis* angustissimis, revolutis, binerviis. *Antheræ* appendiculâ lineari, acutâ, coloratâ,

loratâ, cartilagineâ terminatâ, basi bisetâ : *setis* longissimis, linearibus, complanatis, filamentoso-aristatis. *Stylus* inclusus. *Stigma* bipartitum : *segmentis* linearibus, truncatis, recurvis, apice papillosis. *Achenia* ancipiti-compressa, adpressè sericeo-villosissima. *Pappus* pilosus, inæqualis, creberrimè denticulatus, fusco-cinereus.

Near akin to *Clarionia lactuoides*, the *Perdicium lactuoides* of Vahl (*Act. Havn.* 1. pars 2. p. 11. t. 5.), which however is readily distinguished by having the radical leaves on long foot-stalks, lanceolate, and obtuse. In other respects both plants are much alike.

2. *C. recurvata*, foliis recurvatis linearibus rugosis margine revolutis spinuloso-denticulatis.

Perdicium recurvatum. Vahl. l. c. 1. p. 13. t. 7. (bona.)

In Chili. Ruiz et Pavon. 4.

Caulescens, sempervirens, fruticulosa. *Caules* palmares, densè foliosi. *Folia* undique versa, basibus valdè dilatatis, margine membranaceo-ciliatis, imbricata, sursùm recurvato-patula, linearia, spinulâ cartilagineâ albâ apiculata, nitida, viridia, margine revoluta, suprâ transversim reticulato-rugosa, costâque latâ planiusculâ instructa, utrinque glandulis minutis pedicellatis, præsertim ad costam, munita, in periphæriâ paginæ superioris præcipuè denticulis plurimis spinulosis, cartilagineis, albis, unicâ serie digestis, aliisque rarè adspersis, ornata, pollicaria, sesquilineam lata. *Pedunculus* solitarius, terminalis, tripollicaris, erectus, filiformis, uniflorus, pube glandulosâ asperulus, foliolis aliquot sparsis, linearibus, costâ validâ carinatis, spinuloso-mucronatis, margine ciliatis, adpressis munitus. *Involucrum* campanulatum, unciale : *squamis* multiplici ordine adpressè imbricatis,

catis, ligulatis, spinuloso-mucronatis, extùs papilloso-glandulosus, asperiusculus; *exterioribus* margine spinuloso-ciliatis; *interioribus* margine membranaceis, integerrimis. *Flosculi* hermaphroditi, bilabiati, albi; *labio eatiore* ligulato, 3-denticulato, 4-nervio; *interiore* bipartito, membranaceo, spiraliter revoluto. *Antheræ* appendiculâ lineari-lanceolatâ acutâ, basi longè bisetosæ. *Stigma* exsertum, bipartitum: *segmentis* semicylindricis, recurvatis, apice latiore truncato, minutè papilloso. *Achenia* ancipiti-compressa, glabra. *Pappus* pilosus, inæqualis, creberrimè denticulatus, fusco-brunneus.

** *Acaules foliis pinnatifidis, acheniis elongatis, teretiusculis.*
Palesia.

3. *C. runcinata*, foliorum segmentis rotundatis spinoso-serratis undulatis, scapis elongatis, involucri squamis integerrimis.

Perezia runcinata. Lag. *Mss.*

In Mexico. *Sesse et Mocinno.* 4.

Radix fusiformis. *Caudex* brevissimus, lanatus. *Folia* plurima, radicalia, breviter petiolata, spathulato-oblonga, runcinato-pinnatifida, membranacea, utrinque viridia, punctis elevatis aspera, siccitate tactu arida (an similiter in *vivis*?) 3—5-pollicaria, unciam v. sesquiunciam lata: *lobis* latis, rotundatis, crebrè inæqualiterque spinoso-serratis, undulatis. *Scapi* erecti, filiformes, scabri, uniflori, folia longitudine æquantes, apicem versus paululùm crassiores. *Involucrum* multiplici ordine polyphyllum, imbricatum: *squamis* lanceolatis, pungenti-mucronatis, integerrimis, rigidis, aliisque similibus per scapi superius dimidium sparsis. *Receptaculum* nudum. *Flosculi* omnes hermaphroditi, bilabiati, nervis infra laciniarum sinus profundè bipartitis; *exteriore* multò majores; *labium exterius* maximum, ligu-

latum, patulum, apice tridenticulatum, nervis 4 æqualiter distantibus; *interius* profundè bipartitum: *segmentis* lineari-lanceolatis, binerviis, apice spiraliter revolutis. *Antheræ* appendiculâ lanceolatâ acutâ cristatæ, basi longè bicornutæ. *Stigmata* linearia, revoluta, suprâ canaliculata, apice truncato, dilatato, papilloso. *Achenia* teretiuscula, papilloso-muricata, semuncialia: *disco epigyno* dilatato, calloso. *Pappus* longus, pilosus, cinereo-fulvellus: *radiis* duplici ordine confertissimis, scabris, apice simplicibus, inæqualibus.

4. *C. ? virens*, foliorum segmentis ellipticis spinuloso-ciliatis planis, flore sessili, involucri squamis dentatis.

In Peruviae summis alpibus Cordilleras de los Andes Hispanicè dictis. *Ruiz et Pavon.* 2.

Herba ex habitu *Cl. Magellanica* affinis videtur, acaulis, cæspitosa, intensè clarèque virens. *Radix* e fibris compluribus longis crassiusculis composita. *Folia* in orbem acta, numerosa, patentissima, profundè pinnatifida, circumscriptione lanceolata, membranacea, tactu arida, rigentia, sesqui- v. bipollicaria, semunciam lata, basi tenuissimè membranaceo-ciliatâ, costâ validâ infernè latiore subtùs convexâ: *segmentis* ovalibus, planis, margine ciliis plurimis cartilagineis, setaceo-spinulosis ornatis, apice aristâ tenui, longiusculâ, rectâ instructis, utrinque oculo armato punctis numerosis, minutissimis adpersis. *Flos* solitarius, sessilis. *Involucrum* polyphyllum: *squamis* oblongis, mucronatis, spinuloso-dentatis. Cætera mihi ignota.

HOMOIANTHUS. *Bonpl., Dec.*

HOMANTHIS. *Kunth.*

PEREZIÆ SP., *Lag.*

PERDICI SP., *Vahl.*

Receptaculum tuberculatum. *Pappus* pilosus. *Involucrum* duplici ordine polyphyllum, subæquale.

Involucrum hemisphæricum, duplici ordine polyphyllum: *foliis* longitudine æqualibus; *exterioribus* dentatis; *interioribus* integerrimis, mucronatis. *Receptaculum* tuberculis truncatis margine fimbriatis instructum. *Flosculi* subæquales, hermaphroditi, bilabiati; *labio* *exteriore* elliptico, concavo, marginibus induplicatis, obtusè tridenticulato, substantiâ crassiusculo, cartilagineo; *interiore* membranaceo, bipartito: *laciniis* linearibus, spiraliter revolutis. *Filamenta* complanata, glabra, articulo manifesto. *Antheræ* appendiculâ lineari-lanceolatâ acutâ cristatâ, basi bisetâ: *setis* simplicibus, attenuatis. *Stylus* filiformis. *Stigma* inclusum, bifidum: *lobis* semicylindricis, apice truncatis, papilloso-pruinosis. *Achenia* compressa, densè hirsuta. *Pappus* pilosus: *radiis* duplici serie digestis, denticulato-scabris, basi solutis, deciduis.

Herbæ perennes. Folia pinnatifida. Flores solitarii v. corymbosi. Flosculi cærulei v. albi. Pappus sordidè fulvus. Achenia villis adpressis ferrugineis nitidis tecta.

1. II. *pinnatifidus*, inermis; foliorum segmentis ovalibus obtusis ciliatis imbricatis, caule unifloro foliis brevior.

Homoianthus. *Dec. in Ann. Mus. xix. p. 65. t. 3. f. 2.*

Homanthis pinnatifidus. *Kunth in H. et B. Nov. Gen. et Sp. Pl. 4. p. 308.*

Chaetanthera pinnatifida. *H. et B. Pl. Æqu.* 2. p. 170. t. 136.
Perezia pinnatifida. *Lag. Mss.*

In Peruviae alpibus summis frigidissimis. *Ruiz et Pavon.* 4.

Herba perennis, subcaulis, caespitosa. *Radix* e fibris compluribus filo emporetico crassitie aequalibus, longissimis composita. *Caules* plures, foliis duplò breviores, erecti, simplices, uniflori, teretes, supernè pilosi, vix pennam anserinam crassitie aequantes. *Folia radicalia* plurima, in orbem acta, patula, petiolata, profundè pinnatifida, circumscriptione linearia, obtusa, costâ dilatâtâ, subtùs convexâ, nervosâ, bi- v. tri-pollicaria: *segmentis* subrotundo-ovalibus, obtusis, inaequilateris, coriaceis, suprâ punctis numerosis elevatis asperis, subtùs glabris, margine setaceo-ciliatis, sæpiùs conduplicatis, invicem se imbricatis, unguicularibus; *caulina* paucissima (2—3) lineari-lanceolata, duplicato-serrata, serraturis aristatis, semuncialia, 2 lineas lata, petiolis longioribus membranaceis paginam ipsam latitudine penissimè aequantibus. *Petioles* lineares, dilatati, nervosi, margine membranacei, basin versus latiores, subtùs striati, 2—3-unciales, 3—4 lineas lati. *Flores* terminales, solitarii, albi. *Involucrum* hemisphaericum, duplici ordine poly-(24—30)phyllum, æquale: *foliis exterioribus* duplicato-serratis (serraturis aristatis) foliis caulinis subsimilibus; *intimis* ligulatis, apice rotundatis, mucronato-aristatis, margine membranaceis, integerrimis. *Receptaculum* an tuberculatum? *Flosculi* omnes hermaphroditi, æquales, bilabiati; *labio exteriori* ovali-oblongo, obtusè tridenticulato, substantiâ crassâ cartilagineâ, marginibus inflexis concavo; *interiore* membranaceo, bipartito: *laciniis* linearibus, attenuatis, spiraliter revolutis. *Filamenta* complanata, glabra. *Antheræ* basi setis 2 simplicibus attenuatis auctæ, appendiculâ

diculâ lineari-lanceolatâ acutâ atro-purpureâ terminatâ. *Stigma* bilobum, inclusum : *lobis* semicylindricis, truncatis, minutè papillosis, recurvis. *Achenia* elliptica, compressiuscula, densè hirsuta. *Pappus* pilosus, creberrimè denticulatus, fulvellus, deciduus.

2. *H. multiflorus*, spinosus ; foliis dentato-pinnatifidis, floribus corymbosis.

Homoianthus. *Dec. l. c. t. 3. f. 6.*

Homanthis multiflorus. *Kunth l. c. 4. p. 14.*

Chætanthera multiflora. *H. et B. l. c. 2. p. 168. t. 135.*

In Peruviæ locis alpinis frigidis Provinciarum Cantæ, Tarmæ, Huanuci, Huamalies, Jaujæ, et Huarochiri. *Ruiz et Pavon. 4.*

Radix fusiformis. *Caulis* pedalis v. cubitalis, erectus, foliosus, teres, villis mollibus articulatis viscidis copiosè vestitus, crassitie digiti minoris. *Folia* alterna, sessilia, bi- v. tripollicaria, lineari-lanceolata, dentato-pinnatifida, coriacea, suprâ pube glandulosâ, subtùs villis articulatis copiosè vestita : *dentibus* magnis, triangulari-ovatis, simplicibus v. rariùs tricuspидatis, spinulâ albâ rectâ terminatis. *Flores* terminales, numerosi (20—30) in corymbum digesti. *Pedunculì* crassi, lanati, bracteati. *Involucrum* duplici ordine poly-(10—16)phyllum : *foliolis* ovato-lanceolatis, spinuloso-acuminatis, glanduloso-tomentosis ; *intimis* margine lato scarioso apice producto, hinc abruptè emarginato-truncatis cum mucrone ; *extimis* margine inde unidentatis. *Receptaculum* convexum, tuberculatum : *tuberculis* truncatis, margine fimbriatis. *Flosculi* albo-cærulei, quàm in præcedente triplò minores, hermaphroditi, æquales, bilabiati ; *labio exteriori* elliptico-oblongo, concavo, subcartilagineo, obtusè tridentato ; *interiore* membranaceo, bipartito : *laciniis* lanceolato-

lanceolato-linearibus, acutiusculis, primùm conglutinatis, demùm spiraliter revolutis. *Antheræ* basi setis 2 simplicibus munitæ: *appendiculâ* lineari-lanceolatâ acutâ atro-violaceâ. *Stigma* bifidum: *laciniis* semicylindricis, apice latiore, truncato, minutè papilloso. *Achenia* cuneato-oblonga, pilis rufis hirsutissima. *Pappus* pilosus, fulvus: *radiis* creberrimè denticulatis, mucronulo simplici nudo apiculatis.

Obs. Planta *Scorzoncræ peruvianæ* nomine a Ruizio inscripta. Floret tempore pluviarum. Vulgò *Escorzonero*. Maximè refrigerans et cordialis est: usus ejus communissimus est in omni Regno Peruviano. *Ruiz Mss.*

This genus is intimately allied to the preceding; but its tuberculate receptacle, the consistence and greater uniformity of its florets, and its involucre composed of a double series of nearly equal scales, appear to constitute a sufficient generic distinction. Intimately allied to the last species is the *Perdicium squarrosum* of Vahl (*Act. Havn. i. par. 2. p. 11. t. 6.*), which is, however, distinguished by its more slender habit; by the more numerous and closely disposed segments of its leaves; and lastly, by having much fewer flowers on longer peduncles, disposed in a loose spreading corymbus.

b. PAPPUS PLUMOSUS.

LEUCERIA. *Lug. et Dec.*

Flosculi marginales radiati. *Pappi radiis* plumosis simplici serie dispositis. *Involucreum* imbricatum.

Involucreum semiglobosum, triplici circiter serie polyphyllum, imbricatum. *Receptaculum* nudum, scrobiculatum. *Flosculi* plurimi, hermaphroditi, bilabiati; in periphæriâ majores ligulâ longiore patulo et hinc radium constituentibus; *labio exteriori* ligulato, 4-nervio, tridentato; *interiore* profundè bipartito: *segmentis* lineari-angustissimis, obtusiusculis,

culis, spiraliter revolutis, margine primùm conglutinatis. *Antheræ* appendiculâ lanceolatâ terminatæ, basi longè bisetæ: *setis* tenuissimis, simplicibus. *Stigmata* semicylindrica, apice dilatato, truncato, papilloso. *Achenia* cuneata, compressa, pilosa. *Pappi radiis* plumosis, simplici ordine contiguis, basi conferruminatis.

Herbæ caulescentes, niveo-lanatae, radice sæpè annuâ. Folia rarò indivisa. Flores pedunculati, purpurei, albi, aut flavi. Ligulæ nervi exteriores longè intramarginales. Pappus niveus.

* *Involuceri squamis multiplici serie imbricatis; intimis intramarginalibus, scariosis, paleas mentientibus.* Propriæ.

1. *L. acanthoides*, caule subsimplici, foliis amplexicaulibus pinnatifidis spinuloso-mucronatis.

In Chili. Ruiz et Pavon. 4.

Herba perennis, niveo-canescens. Radix fusiformis, crassa, fusca. Caulis cubitalis, strictus, simplex, teres, gracilis, uno latere erubescens, lanugine niveo et setulis numerosis glanduliferis obsitus, crassitie vix pennam corvinam adæquans. Folia radicalia ferè *Arctotis tristis*, longè petiolata, profundè pinnatifida, niveo-lanata, palmaria: segmentis oblongis, mucronulatis, tridentatis, v. rariùs sinuato-dentatis, unguicularibus; caulina amplexicaulia, pinnatifida, subtùs lanuginosa, suprâ pallidè viridia, et lanugine ferè destituta, punctis elevatis glanduliferis, scabriuscula, pollicaria v. sesquipollicaria: laciniis ovato-lanceolatis, spinuloso-mucronatis, margine revolutis, integerrimis. Flores plures (3—5 v. 7) longè pedunculati, in corymbum digesti, terminales. Involucrum semiglobosum, ut et pedunculi tripollicares, lanuginosum, glandulisque pedicellatis munitum: squamis multiplici ordine imbricatis, lanceolatis, muticis v. mucronulatis, membranaceis, adpressis. Receptaculum scrobiculatum.

Flosculi

Flosculi cyanei, omnes hermaphroditi, bilabiati, tubo cylindrico limbo æquali; *labio exteriori* elliptico, obsolete tridenticulato; *interiore* bipartito, spiraliter revoluti: *laciniis* linearibus, obtusiusculis, primùm margine conglutinatis. *Antheræ* basi longè bisetæ, appendiculâ lineari-lanceolatâ obtusâ terminatâ. *Stigma* bipartitum: *laciniis* semicylindricis, apice dilatato-truncatis, minutè papillois, recurvis. *Achenia* cuneato-compressa, pilosa. *Pappus* niveus, caducus: *radiis* plumosis, basi leviter connexis.

2. *L. divaricata*, caule diffusè ramosissimo, foliis amplexicaulibus inciso-pinnatifidis.

In Chili ad Coquimbo. *Caldeleugh*. ☉.

Caulis tripedalis, erectus, ramosissimus, divaricatus, uti cum totâ ferè herbâ glandulis pedicellatis confertissimis necnon lanugine albâ parciore instructus. *Folia caulina* (superiora tantùm vidi) remotè alterna, amplexicaulia, inciso-pinnatifida, subtùs costâ prominenti instructa, lanugine niveâ vestita, suprâ opaco-viridia, glandulosa, uncialia v. sesquiuncialia; *segmentis* lanceolatis, cuspidatis, margine revolutis, integerrimis; *imis duobus* sagittæ more porrectis. *Flores* laxè paniculati. *Pedunculi* filiformes, uti cum *involucro* copiosissimè glandulosi atque lanuginosi, sesquipollicares. *Involucrum* subglobosum, truncatum: *squamis* multiplici ordine imbricatis; *exterioribus* ovato-lanceolatis, obtusis, adpressis; *intimis* longioribus, acutis. *Receptaculum* scrobiculatum. *Flosculi* flavi, omnes hermaphroditi, bilabiati; *marginales* plures (15—16) radium æmulantes; *labio exteriori* ligulato, tridenticulato, in radio majore patulo, in disco revoluti; *interiore* bipartito: *segmentis* lineari-angustissimis, membranaceis, primò conglutinatis, revolutis. *Filamenta* capillaria, glabra. *Antheræ* basi setis 2 tenuissimis simplicibus

plicibus longis auctæ, appendiculâ lineari acutâ antherâ ipsâ longiore terminatæ. *Stigma* bipartitum: *segmentis* semicylindricis, revolutis, apice dilatato-truncatis, papilloso-pruinosis. *Achenia* oblonga, compressa, undique setulosa. *Pappus* albus, fugax: *radiis* plumosis, simplici ordine digestis, imâ basi connexis.

** *Involucri squamis duplici ordine dispositis, subæqualibus.* Cassiopea.

3. *L. cinerea*, foliis petiolatis pinnatifidis: lobis subrotundis dentatis, involucris squamis mucronulatis.

In Chili, aridis arenosis ad urbem Conceptionis. Ruiz et Pavon. ☉.

Herba facie *Senecionis viscosæ*, niveo-lanata. *Radix* capillaceo-fibrosa. *Caulis* erectus, teres, ramulosus, altitudine perquam varius, bi- v. tri-pollicaris, nunc palmaris v. spithamæus. *Folia* alterna, petiolata, cuneato-oblonga, sinuoso-pinnatifida, subtùs densiùs lanata, basi attenuata, uncialia v. sesquiuncialia: *segmentis* subrotundo-ovatis, nunc trapezoideo-ovatis, mucronulatis, margine paululùm reflexis, dentibusque inæqualibus mucronulatis instructis, 3 lineas longis. *Petioles* lineares, margine membranaceo-alati, subtùs convexiusculi, striati, hinc inde lanati, vix unciales. *Flores* pauci (3—5) magnitudine et facie ferè *Senecionis elegantis*, pedunculosi, rubicundi. *Involucrum* globosum, duplici v. rarò subtriplici ordine polyphyllum, imbricatum: *squamis* ellipticis sive elliptico-oblongis, mucronulatis, membranaceis, adpressis, longitudine subæqualibus, extùs glanduloso-pubescentibus, apice sanguineo-coloratis. *Flosculi* omnes hermaphroditi, bilabiati; *labio exteriori* ligulato, elliptico-oblongo, tridentato; *interiore* bipartito, revolutò: *segmentis* linearibus, obtusiusculis, margine congluti-

natis. *Antheræ* basi setis longis, tenuissimis, simplicibus auctæ, appendiculâ lanceolatâ acutâ terminatæ. *Achenia* cuneata, compressa, pilis brevibus adpressiusculis vestita. *Pappus* niveus, fugax: *radiis* leviter plumosis, imâ basi connexis.

4. *L. pulchella*, foliis amplexicaulibus pinnatifidis: laciniis ovato-lanceolatis margine revolutis subintegerrimis, involucri squamis acuminatis.

In Chili ad Coquimbo. *Caldclough.* ☉.

Herba niveo-lanata, glandulis pedicellatis copiosè munita. *Radix* fibrosa, annua. *Caulis* erectus, ramosus, teres, 4—5-uncialis. *Folia radicalia* petiolata, patula, cuneata, dentata; *caulina* amplexicaulia, sinuato-pinnatifida, mucronulata, uncialia, margine revoluta, subtùs niveo-lanata, suprâ viridia, glandulisque copiosis ornata, vix lanuginosa: *segmentis* ovatis v. lanceolatis, simplicibus, aut rarè denticulatis, apice mucronulatis. *Flores* pedunculati, rubicundi, magnitudine præcedentis. *Pedunculi* tomentosi et glandulosi, filiformes, graciles, uniflori, pollicares v. sesquipollicares. *Involucrum* hemisphæricum, copiosè glandulosum, atratum: *squamis* duplici serie digestis, lanceolatis, acuminatis, adpressis, subæqualibus. *Flosculi* omnes hermaphroditi, bilabiati; *labio exteriori* ligulato, patulo, tridenticulato; *interiore* bipartito, revoluti: *laciniis* lineari-angustissimis, primùm margine conglutinatis. *Antheræ* appendiculâ lineari obtusiusculâ membranaceâ terminatæ, basi bi-setæ: *setis* simplicibus, basi cuspidatis, antherâ ipsâ paulò brevioribus. *Stigma* bipartitum: *segmentis* semicylindricis, recurvatis, apice dilatato-truncatis, minutè papillosis. *Achenia* hispidula. *Pappus* albus, caducus: *radiis* plumosis, imâ basi connexis.

5. *L. glan-*

5. *L. glandulosa*, foliis sessilibus sinuato-dentatis, involucri squamis mucronulatis.

Cum præcedente. *Caldcleugh*. ☉.

Herba lanugine albâ glandulisque pedicellatis copiosissimis prædita. *Radix* fibrosa, annua. *Caulis* erectus, ramosus, teres, gracilis, spithamæus v. pedalis. *Folia radicalia* brevissimè petiolata, cuneato-oblonga, patentia, acutè sinuato-dentata, sesqui- v. tri-pollicaria; *caulina inferiora* conformia, sed remotiùs dentata (dentibus mucronulo obtuso terminatis); *superiora* lanceolata, acuminata, nunc integerrima, sub-amplexicaulia, nunc rariùs tripartita! *Flores* plures, longè pedunculati, intensè rubicundi, necnon majores quàm in præcedente. *Pedunculi* recti, filiformes, uniflori, undique, uti *involucrum*, copiosè lanuginosi atque pilis glandulosis patulis præditi. *Involucrum* semiglobosum, truncatum, duplici ordine imbricatum: *squamis* oblongis, mucronulatis, subæqualibus, adpressis, margine membranaceis. *Receptaculum* scrobiculatum. *Flosculi* omnes hermaphroditi, bilabiati; *labio exteriorè* ligulato, tridenticulato, superficie asperiusculâ; *interiore* bipartito: *segmentis* lineari-attenuatis, revolutis, primùm margine conglutinatis; *marginales* multoties majores, radium æmulantes. *Antheræ* appendiculâ lineari-lanceolatâ acutiusculâ membranaceâ terminatæ, basi bisetæ: *setis* simplicibus, acutis, ipsâ antherâ paulò brevioribus. *Stigma* bipartitum: *laciniis* recurvis, apice dilatato-truncatis, papilloso-pruinosis. *Achenia* cuneata, compressa, pilosissima. *Pappus* niveus, fugax: *radiis* eleganter plumosis, imâ basi in anulum connexis.

The *Trixis senecioides* of Dr. Hooker's Exotic Flora belongs, as we have elsewhere stated, to this genus, whose receptacle is certainly naked; for the paleaceous scales attributed to its cir-

cumference are clearly nothing more than the scales composing the inner series of the involucre. The plumose pappus compared with that of the inner floret of the partial capitula of *Polyachyrus*, a genus hereafter to be described, the form and structure of their corolla, the outer lamina of which is traversed in both by four distant slender nerves, and the habit of the plants themselves, show that there is a considerable degree of affinity between these two genera.

PTILURUS.

Flosculi æquales. *Pappi radiis* plumosis, duplici serie dispositis.

Involucreum subæquale.

Involucreum duplici ordine poly-(18—20)phyllum, subæquale: *foliis* ovato-lanceolatis, trinerviis, apice membranaceo acuminato radiatis. *Receptaculum* nudum. *Flosculi* omnes hermaphroditi, tubulosi, bilabiati, æquales; *labio exteriori* ligulato, 4-nervio, obtusè tridenticulato; *interiore* bipartito, demùm revoluto: *segmentis* linearibus, obtusis, binerviis. *Antheræ* coalitæ, basi longè bisetosæ: *setis* simplicibus: *appendiculâ* lineari-lanceolatâ, acutâ. *Stigma* bipartitum: *laciniis* semicylindricis, recurvis, apice dilatato-truncatis, pruinosis. *Achenia* elliptico-oblonga, compressa, densè papilloso-glandulosa, apice angustata, disco parvo. *Pappi radiis* crassiusculis, eleganter plumosis, mollissimis, duplici ordine digestis, basi dilatâtâ imbricatis! deciduis.

Herba perennis, humilis, cæspitosa, facie Dauci v. Athamantæ, setulis erectis, glanduliferis, copiosissimè instructa. Radix fusiformis, ramosa. Caulis erectus, teres, subramosus, triuncialis, vix calami scriptorii crassitie. Folia supradecomposita, densè glandulosa, pollicaria v. sesquipollicaria: segmentis linearibus, obtusis, sesquilineam longis. Petioli foliis longiores, maximè dilatato-membranacei; inferiorum foliorum latiores

latiores et longiores, basibus caulis partem inferiorem imbricatim tegentes. Flores terni, brevissimè pedunculati, magni, semiglobosi. Involucrum villis longis articulatis, copiosè lanatum: foliolis ovato-lanceolatis, acuminatis, æqualibus, discum paulò superantibus. Flosculi albi.

Obs. Nomen ad pappi structuram refert, a *πτίλος pluma*, et *ουρα cauda*.

1. *P. daucifolius.*

In Peruviae summis alpihus Cordilleras de los Andes Hispanicè dietis. *Ruiz et Pavon. 2.*

This is another instance of the many analogies that might be pointed out between the *Compositæ* and *Umbelliferae*; its leaves, their dilated petioles clasping the stem; the pubescence, and indeed the whole habit, has much the air of an umbelliferous plant; and without the flowers the acutest botanist would not be censurable for mistaking it for one of that family. The structure of its involucrum, the equality of its florets, and the rays of the pappus arranged in a double series, with dilated imbricate bases, abundantly distinguish it from *Leuceria*, to which it otherwise comes nearest in affinity.

C. PAPPO PALEACEO.

TRIPTILION. *Ruiz et Pavon.*

Receptaculum villosum. *Flosculi* 5. *Involucrum* polyphyllum, imbricatum.

Involucrum tubulosum, polyphyllum, imbricatum: *squamis* lanceolatis, apice spinoso-mucronatis; *extimis* squarrosis. *Receptaculum* parvum, densè villosum. *Flosculi* 5, hermaphroditi, bilabiati; *labio exteriori* pataloideo, tridenticulato, 4-nervio (nervis arcuatis), radium perbreve patulum constituenti; *interiore* membranaceo, bipartito, duplò breviorè, revoluto:

revoluto: *laciniis* lineari-lanceolatis, obtusiusculis, binerviis, margine primò conglutinatis. *Antheræ* appendiculâ lanceolatâ, acutâ, membranaceâ ! terminatâ, basi bisetâ : *setis* simplicibus, nudis, attenuatis. *Stigma* bipartitum : *segmentis* semicylindricis, recurvis, apice truncato, papilloso. *Achenia* triquetra, sursùm crassiora. *Pappi radiis* 3 (rariùs 5) paleaceis, linearibus, canaliculatis caducis : *apicibus* penicillato-plumosis v. ciliatis, involucre longioribus, recurvato-patulis.

Herbæ *ramosissimæ*, *decumbentes*, *squarrosæ*. *Folia alterna*, *sessilia*, *simplicia*, *spinoso-mucronata*. *Flores fasciculato-corymbosi*, *aut rarò subsolitarii*, *cyanei v. albi*. *Pappus niveus aut flavicans*.

* *Pappi radiis apice penicillatis*. *Propriæ*.

1. *T. spinosum*, foliis pinnatifidis, floribus fasciculatis, pappi radiis apice penicillatis.

Triptilion spinosum. *Ruiz et Pavon Gen. Pl. Fl. Per. et Chil.* p. 102. t. 22. *Syst.* 1. p. 185.

In Chili campis et collibus, præsertim circa Conceptionis urbem (*Ruiz et Pavon*) ; ad urbem S. Jacobi Chilensium. *Caldcleugh.* 4.

Herba diffusè *ramosissima*, *squarrosa*. *Radix* fibrosa. *Caules* plures, *decumbentes*, *flexuosi*, *graciles*, *teretes*, *rigidiusculi*, undique copiosè *pilosi*, *spithamæi v. pedales*. *Folia* sparsa, *sessilia*, *circumscriptione lanceolata*, margine *revoluta*, utrinque *pilosa*, *substantiâ cartilaginea*, *rigentia*, *tactu arida*, *subtùs costâ manifestè prominente*, *reverà tamen avenia*, *semunciam v. unciam longitudine æquantia* ; *inferiora pinnatifida* ; *superiora inciso-dentata*, sive rarò *integerrima* : *laciniis paucis*, *lanceolatis*, *apiceque folii ipsius mucrone spinoso elongato stricto armatis*. *Flores* *confertissimi*,

tissimi, fasciculato-corymbosi. *Involuerum* imbricatum, unguiculare : *squamis bracteisque* lanceolato-subulatis, apice patulo elongato triquetro spinoso-mucronatis ; *interioribus* adpressis, margine dilatato-membranaceis. *Receptaculum* punctum densè villosum. *Flosculi* 5, hermaphroditi, radium perbreve, pulchrè cyaneum, colore persistente, constituentes ; *labio exteriorè* subrotundo-ovali, patulo, subtùs concavo, obtusè tridenticulato ; *interiore* pallidè luteo, bipartito, revolutò, exteriorè duplò breviorè : *laciniis* lineari-lanceolatis, obtusiusculis, margine primùm conglutinatis. *Antheræ* appendiculâ lanceolatâ acutâ membranaceâ apice cæruleâ terminatæ, basi bisetosæ : *setis* simplicibus, nudis, attenuatis. *Stigma* bipartitum : *segmentis* linearibus, subtùs convexis : *apice* dilatato-truncato, minutè papilloso. *Achenia* pyramidato-trigona, basi attenuata, glabra. *Pappus* exsertus, niveus, pulcherrimus : *radiis* 3, paleaceis, linearibus, canaliculatis caducis, apice recurvato-patulo, penicillato-plumoso.

Obs. Vulgò dicitur Siempreviva ob colorem florum permanentem quorum usus est communissimus ad ornamentum. Floret Januario et Februario. Planta valdè amara est, et ad ardores urinæ atque dolores nephriticos levigandos utilissima. *Ruiz Mss.*

2. *T. diffusum*, foliis lineari-lanceolatis integerrimis, floribus diffusè corymbosis, pappi radiis apice penicillatis.

In Chili ad Coquimbo. *Caldclench. 4.*

Herba diffusè ramosissima. *Caules* decumbentes, filiformes, lenti, supernè ramisque virgatis copiosè pilosi, spithamæi v. dodrantales. *Folia* sparsa, sessilia, lineari-lanceolata, spinuloso-mucronata, subtùs pilosa, margine revoluta, integerrima, aut rarò dente uno alterove instructa, uncialia, sesqui-

sesquilineam v. 2 lineas lata. *Flores* laxè diffusèque corymbosi. *Involucris squamis exterioribus* lineari-subulatis, apice triquetro spinuloso-mucronatis, patulis, squarrosis; *intimis* membranaceo-dilatatis, extùs pilosiusculis. *Flosculi* radio subrotundo-ovali, albo? Cætera ut in præcedente.

This is intimately allied to the preceding species, of which it may ultimately prove to be only a variety; but I must leave this question undecided until further observations shall determine whether the characters by which they are here separated, are permanent.

** *Pappi radiis apice ciliatis.*

S. T. *cordifolium*, foliis subrotundo-cordatis margine setaceo-spinosis, floribus subternis.

Triptilion cordifolium. Lag. in *Bot. Reg.* t. 853.

In Chili. D. Place. ☉.

Herba radice tenuissimè fibrosâ, annuâ, diffusè ramosissima, lætè virens. *Caules* filiformes, valdè flexuosi, pubescentes. *Folia* sparsa, sessilia; *inferiora* subrotundo-cordata, amplexicaulia; *superiora* subrotunda v. rhombea; cartilagineo-membranacea, costâ prominente venisque reticulatis ad oram confluentibus, hinc marginata, utrinque leviter pubescentia, viridia, margine spinis longis setaceis, rectis, divaricato-patulis, solitariis, geminis, aut fasciculatim ternatis armata, ad apicem semper trinis approximatis, et tunc tricuspida. *Flores* numerosi, dispersi, in apice ramulorum subsolitarii v. terni, sessiles. *Involucrum* virens, pubescens, polyphyllum, imbricatum, squarrosum: *squamis* lanceolatis, spinoso-mucronatis, carinatis, inæqualibus. *Receptaculum* punctum villosum. *Flosculi* 5, hermaphroditi, bilabiati, tubo luteo; *labio interiore* bipartito, demùm revoluto, luteo: *laciniis* lanceolatis, acuminatis, primùm
conglutinatis;

conglutinatis; *exteriore* subrotundo, patulo, albo, subtùs concavo, apice tridenticulato. *Antheræ* appendiculâ lanceolato-attenuatâ, apice obtusulâ, membranaceâ, terminatæ, basi bisetæ: *setis* lineari-angustissimis, acutis, simplicibus, ipsâ antherâ brevioribus. *Stigma* bipartitum: *laciniis* angustissimis, semicylindricis, apice minutè papillois, truncatis. *Achenia* turbinato-trigona, glabra. *Pappi radiis* paleaceis, linearibus, canaliculatis, apice recurvis, ciliatis, flavicantibus.

*** *Acheniis villosis, pappi radiis apice ciliatis.*

4. T. *glomerulosum*, foliis propriis ovatis: acumine trigono spinoso; secundariis glomeratis muticis, floribus solitariis sessilibus.

Triptilion glomerulosum. Lag. *Amen. Nat.* 1. no. 1.

In Chili summis alpebus Cordilleras de los Andes Hispanicè dictis. Ruiz et Pavon. 7.

Planta cæspitosa, suffrutescens. *Caules* procumbentes, lignosi, rigidissimi, sesqui- v. tripollicares, crassitie ferè calami scriptorii, undique glomerulis sphæricis foliorum secundariorum simulque propriis persistentibus muniti, inde tuberculati, hinc spinosi. *Folia propria* basi latè dilatata, ovata, imbricata, margine membranacea, apice in acumen trigonum, spinâ subulatâ, rigidâ, validâ, rectâ terminatum producta, persistentia; *cætera* (secundaria scilicet) in capitulis (ramulis abortivis) axillaribus congesta, minuta, ovalia, obtusissima, subtùs carinata, margine valdè incrassata, apice recurvata, similiter persistentia. *Flores* terminales, solitarii, sessiles. *Involucrum* polyphyllum, undique imbricatum: *squamis* ovatis, carinatis, margine dilatatis, scarioso-membranaceis, apice spinâ conicâ, validâ, perbrevis armatis, adpressis. *Receptaculum* densè villosum. *Flosculi* 5, hermaphroditi,

bilabiati, lactei; *labio* *exteriore* petaloideo, orbiculato, obtusè tridenticulato, 4-nervio, patulo; *interiore* bipartito: *segmentis* lanceolato-attenuatis, apice obtusulis, revolutis. *Antheræ* appendiculâ ovato-lanceolatâ, acutâ, membranaceâ terminatâ, basi bisetâ: *setis* linearibus, acutis, complanatis, simplicibus, ipsâ antherâ ferè duplò brevioribus. *Stigma* bipartitum: *segmentis* recurvis, apice truncatis, minutè papillosis. *Achenia* trigona, undique villosissima. *Pappi radiis* 3, paleaceis, linearibus, canaliculatis, caducis: *apice* recurvato, ciliato, niveo.

This curious genus agrees with *Proustia*, before described, in the definite number of its florets, in its hairy receptacle, and in its imbricate involucre; but I have placed it here principally on account of the structure of its pappus, although the difference of this organ is more apparent than real: for the paleæ, which crown the fruit of this genus, are evidently formed by the confluence of innumerable fibres, whose extremities even in this instance are free.

Trib. 2. JUNGEE. *Receptaculum* paleatum, paleis distinctis. *Flosculi* uniformes, bilabiati, hermaphroditi. *Stigmata* soluta, angusta, obtusa, vix papillosa. *Frutices* foliis sæpiùs lobatis, floribus paniculatis.

JUNGIA, L.

DUMERILIA. Lag. et Dec.

MARTRASIA. Lag. Amen. Nat. 1. p. 36.

Involucrem simplex. *Pappus* plumosus.

Involucrem simplici ordine polyphyllum, basi squamulis aliquot munitum: *foliolis* æqualibus, basi callosis. *Receptaculum* paleis distinctis, involucri squamis conformibus copiosè refertum.

fertum. *Flosculi* numerosi, bilabiati, hermaphroditi; *labio* *exteriore* ligulato, tridenticulato, nunc trifido; *interiore* bipartito: *segmentis* lineari-lanceolatis, obtusis, revolutis. *Antheræ* appendiculâ lineari-lanceolatâ acutâ cartilagineâ coronatæ, basi bisetæ: *setis* brevibus, acutis, simplicibus. *Stigmata* soluta, linearia, truncata, pruinosa, non papillosa. *Achenia* triquetra, papilloso-scabra. *Pappus* mollis, fugax: *radiis* simplici ordine digestis, copiosis, imâ basi coalitis, gracilibus, plumosis.

Frutices (Peruviani) *facie peculiari, ferè ad Vitem accedunt.*
Folia alterna, petiolata, latissima, multiloba. Flores *parvi, lutei v. nivei, sæpiùs terminales copiosissimi.* *Pappus niveus.*

The numerous points of accordance, both in habit and structure, evidently existing between *Dumerilia* and *Jungia*, induced me to suggest the probability of the identity of these two genera, in which opinion I was agreeably surprised to find myself anticipated by Sprengel; but the acquisition by this Society of the Linnæan herbarium has afforded me the opportunity of setting this question at rest by an examination of the specimen of the original species of *Jungia* described in the *Supplementum Plantarum*, which removes all doubt as to their identity. Several capitula being closely associated together at the extremity of the divisions of the panicle, and the presence of small bractæa at their base, have no doubt suggested to Linnæus the idea of a compound capitulum.

1. *J. ferruginea*, foliis subtùs densè tomentosis: lobis subæqualibus rotundatis, floribus corymbosis, ligulis revolutis tridenticulatis.

Jungia ferruginea. *Linn. Suppl. p. 390.*

In ruderatis et ad margines agrorum in Provinciâ Cantæ Peruvianorum. *Ruiz et Pavon. 2.*

Planta fruticosa, subscandens, sarmentosa. *Caulis* ramosus, teres, glaber. *Rami* cylindrici, flexuosi, densè pannoso-tomentosi, fulvescentes. *Folia* remotè alterna, petiolata, 5—7-loba, circumscriptione orbiculato-cordata, suprà pilis brevibus recumbentibus aspera, subtùs venis prominentibus varicosa, tomento albo copiosissimo obruta, holosericea, 2—3 uncias longa, latitudine æqualia: *lobis* rotundatis, repando-crenatis, nunc integerrimis. *Petoli* unciales, teretes, densè fulvescenti-tomentosi, basi crassiore inappendiculati, pennam corvinam crassitie cæterùm æquantes. *Corymbi* terminales, compositi, densè fulvescenti-tomentosi. *Involucra* sphaerica, basi bracteolis aliquot lineari-subulatis munita: *squamis* simplici ordine plurimis (15—20) lanceolatis, acuminatis, tomentosis, æqualibus, margine membranaceis, induplicatis, dorso convexis. *Paleæ* plurimæ, lanceolatae, acutæ, membranaceæ, obtusè carinatae, dorso apiceque nigricante puberulis. *Flosculi* 30 circiter, lutei, hermaphroditi, bilabiati: *labiis* revolutis; *exteriore* elliptico-oblongo, obtusè tridenticulato; *interiore* bifido: *laciniis* linearibus, obtusis. *Antheræ* appendiculâ lineari-lanceolatâ acutâ cartilagineâ coronatæ, basi bisetæ: *setis* brevibus, acutis, simplicibus. *Stylus* tenuis, glaber. *Stigmata* lineari-lingulata, truncata, pruinosa. *Achenia* longiuscula, triquetra, papilloso-scabra. *Pappus* fugax, albus: *radiis* tenuissimis, plumosis.

Obs. Rami hujus plantæ ad sarmenta *Vitis* non paulò referunt. Vulgò *Vingri-Vingri*. Floret Februario et Martio. Flores valdè fragrantés, lutei. *Ruiz* *Mss.*

The *Dumerilia paniculata* of DeCandolle is distinguished from this species by the lobes of its leaves being longer, somewhat acute, and the margin more deeply and abruptly crenated, and finally by the trifid ligulate lip of the corolla, which in this is terminated by three small teeth only.

2. *J. spec-*

2. *J. spectabilis*, foliis pubescentibus : lobis acutis, floribus radiatis glomerato-paniculatis, ligulis patulis tridenticulatis.
In Guayaquilâ. Tafalla. 2.

Planta fruticosa, floribus niveis copiosissimis foliisque latissimis viridibus ad florendi tempus ornatissima. *Rami* teretes, obsolete velutini. *Folia* remotè alterna, petiolata, subrotundo-cordata, 7—9-loba, membranacea, subtùs copiosè pubescentia, reticulato-venosa, suprâ minutè papilloso-setulosa, asperiuscula, 3—5-uncialia, tunc ferè spithamæa ; *ultima* plurimùm minora, 5-loba, basi vix emarginata : *lobis* semi-ovatis, mucronulatis, acutè dentatis s. rariùs integerimis ; *intermedio* paululùm majore. *Petioles* bipollicares, teretes, velutini, basi inappendiculati, concavi. *Flores* terminales, copiosissimi, glomerato-paniculati, nivei, pulcherrimi. *Pedicelli* squamulosi, pubescentes. *Bracteolæ* lineares, obtusæ, patulæ, velutinæ. *Involucra* ovalia, insertione depresso-umbilicata : *squamis* simplici ordine digestis, pluribus (10—12) lanceolatis, acutis, leviter pubescentibus, dorso convexis, margine membranaceis induplicatis, basi callosâ subtorulosis. *Paleæ* plurimæ, distinctæ, elliptico-oblongæ, acutiusculæ, obtusè carinatæ, pubescentes. *Flosculi* 21 circiter, bilabiati, hermaphroditi ; *exteriores* majores, radium constituentibus ; *labio exteriori* elliptico, tridenticulato patulo, nunquàm revoluti ; *interiore* bipartito, revoluti : *segmentis* lanceolato-linearibus, acutis. *Antheræ* appendiculâ lineari acutâ terminatæ, basi bisetæ : *setis* brevibus, acutissimis, simplicibus. *Stigmata* linearia, revoluta, apice truncata, pruinosa. *Achenia* longiuscula, triquetra, papilloso-scabra. *Pappus* niveus, caducus : *radiis* apice tantùm plumosis.

PLEOCARPIUS.

Involucrum imbricatum. *Pappus* capillaris.

Involucrum triplici serie polyphyllum, imbricatum: *squamis* lanceolatis, acuminatis, membranaceis; *interioribus* sensim majoribus. *Receptaculum* paleatum: *paleis* distinctis, lanceolatis, acutis v. truncatis lacerisque, rigidis, carinatis, margine scariosis. *Flosculi* plures, hermaphroditi, bilabiati; *labio* exteriori ligulato, tridentato, quadrinervio, revoluto; *interiore* bipartito: *laciniis* lanceolatis, acutis, binerviis, revolutis. *Filamenta* gracillima, glabra. *Antheræ* in tubum connatæ, appendiculâ lineari-lanceolatâ obtusâ cartilagineâ terminatæ, basi longè bisetæ: *setis* simplicibus. *Stylus* filiformis, glaber. *Stigma* bipartitum: *segmentis* semicylindricis, obtusis, revolutis, minutè papillois. *Achenia* angusta, pentagona, copiosè papilloso-micantia, scabra: *disco epigyno* dilatato, planiusculo. *Pappus* capillaris, persistens: *radiis* duplici ordine copiosissimis, denticulis minutissimis scabris, apice paulò crassiore vix penicillatis.

Caulis fruticosus, erectus, ramosus, teres. *Rami* cylindrici, undique glandulis pedicellatis copiosè induti, rufescentes. *Folia* alterna, sessilia, linearia, obtusula, v. mucronulo perbrevis sæpè aucta, margine revoluta, utrinque glandulis capitatis pedicellatis copiosè vestita; *primaria* sesqui- v. bipollicaria, basi aliis 2 stipulas mentientibus, sublunatis, semi-ovatis, obtusis, margine exteriori revolutis, persistentibus appendiculata; *ramea* breviora atque angustiora, basi nuda, attenuata, vix tamen petiolata. *Flores* lutei, in ramulis pedunculati, solitarii, aut sæpiùs copiosissimi, tunc racemi v. paniculae modum æmulantes. *Pedunculi* uniflori, teretes, ut cum involuero glandulosi, 4—6 lineas longi. *Corollæ* nervi longè infra sinus loborum dichotomi, hinc ramis intramarginalibus. *Pappus* cinereus.

Nomen

Nomen ad receptaculum crebrè paleatum refert, a *πλεος refertus*,
et *καρφος palea*.

1. *P. revolutus*.

In Chili ad Coquimbo. *Caldclough*. ½.

This curious and well-marked genus has been referred to the *Jungeæ* entirely from its similarity of structure in the parts of fructification: for its habit certainly indicates no affinity to *Jungia*, unless we regard the stipule-like appendages of the leaves of *Pleocarpus* and some species of the former genus as pointing out a connexion.

Trib. 3. POLYACHYRÆ. *Receptaculum* paleatum. *Flosculi* uniformes, hermaphroditi, bilabiati. *Stigmata* linearia, truncata, apice papillosa. *Achenia* difformia. *Herbæ foliis pinnatifidis*.

a. PAPPO DIFFORMI.

POLYACHYRUS. *Lag. et Dec.*

Involucella tetraphylla, biflora, in capitulum congregata. *Flosculi* inæquales. *Pappus* flosculo interiori elongatus, plumosus.

Capitulum compositum, globosum, basi squamis aliquot ovato-lanceolatis mucronatis rigidis munitum. *Involucella* plurima, tetraphylla, biflora, paleis ovato-lanceolatis, mucronatis, lanugine interstinctis interjecta: *foliis* imbricatis, ovali-oblongis, apice emarginato-truncatis, scariosis, coloratis, conniventibus; *exteriore* latiore, basi gibbosâ. *Receptaculum* *partiale* nudum. *Flosculi* singulo involucello gemini, hermaphroditi, bilabiati, inæquales (*exteriore* minore); *labio exteriore* ligulato, obtusè tridenticulato, patulo; *interiore* profundè bipartito: *laciniis* lineari-lanceolatis, acutis, spiraliter revolutis. *Antheræ* appendiculâ lineari-lanceolatâ

lanceolatâ acutâ terminatâ, basi biaristatâ : *aristis* lineari-lanceolatis, deorsùm attenuatis. *Stigma* bifidum : *lobis* lineari-cuneatis, truncatis, plano-convexis, minutè papillois, revolutis. *Achenia exteriora* cuneato-oblonga, papilloso-scabra ; flosculis verò majoribus (interioribus) longiora, subtetragona. *Pappus* difformis ; achenio exteriori brevissimus, setaceus, denticulatus, basi solutâ caducus, fusco-cinereus : interiori verò elongatus, plumosus, niveus, involucellum superans, subpersistens, radiis basi crassiore conferruminatis, apice mucronulo simplici.

Herba habitu omninò *Echinopsidis*, lanâ niveâ mollissimâ dense obruta. Caulis cubitalis, erectus, ramosus, teres. Folia alterna, basi auriculatâ amplexicaulia, palmaria, runcinato-pinnatifida, vix ultrâ semunciam lata, suprâ parciùs lanata : segmentis rhombeo-ovatis, dentatis, margine recurvis, mucronulo reflexo-adpresso terminatis. Capitula spherica, pedunculata, corymbosa. Pedunculi erecto-patuli, teretes, lanati, pollicares v. sesquipollicares. Involucella nudiuscula, nitida, sanguineo-colorata. Flosculi rosei.

1. *P. sphaerocephalus*.

In Peruviâ. Ruiz et Pavon. ☉.

The capitulum in this genus consists of a congregation of smaller capitula, each containing two flowers. It is precisely analogous to that of *Echinops*, and may be compared to the compound umbel in other plants. Expansion first takes place in the florets of the apex of the capitulum, as Mr. Brown has already remarked in that of the before-mentioned genus. The compound capitulum, the two unequal florets, each of which is furnished with a distinct kind of pappus, sufficiently distinguish this genus from the following.

b. PAPPUS

b. PAPPUS UNIFORMI.

GASTROCARPIA.

Involucrum 5-phyllum. *Receptaculum* paleatum: *paleis* difformibus; *exterioribus* cucullatis, basi gibbosâ, apice truncatis cum mucronulo flosculum quasi involucello proprio obvalantibus. *Flosculi* hermaphroditi, bilabiati, æquales. *Pappus* paleaceus, brevissimus, polyphyllus.

Involucrum 5-phyllum (nunc 6-phyllum): *foliolis* ovatis, mucronatis, æqualibus. *Receptaculum* paleatum: *paleæ* difformes; *exteriores* 8, periphæricæ, simplici ordine digestæ, foliaceæ, dilatatae, cucullatae, marginibus ciliatis, ferè collapsis, flosculos marginales sigillatim, quasi involucello proprio, includentes, apice truncatae, mucronuloque instructæ, extùs basi gibbosâ, reticulatim varicosæ; cæteræ interiores, lineari-lanceolatae, scariosæ, canaliculatae, apice acuminato simplici, v. bi- aut tri-cuspidato. *Flosculi omnes* hermaphroditi, bilabiati, subæquales (periphæricis paulò majoribus) extùs pilosiusculi; *labio* *exteriore* ligulato, tridenticulato, patulo; *interiore* multò minore, profundè bipartito, revolutò, laciniis linearibus, acutis: *tubo* limbo breviorè, apice paululùm dilatato. *Filamenta* capillaria, teretia, glabra, elastica, articulo manifesto. *Antheræ* coalitæ, flavæ, appendiculâ lineari-lanceolatâ, acutâ, albâ, antheræ ipsius longitudine terminatæ, basi longè bisetæ: *setis* simplicibus, attenuatis. *Stylus* filiformis, lævis, basi bulbosus. *Stigma* bipartitum: *lobis* linearibus, compressis, extùs bisulcatis, apice truncato, papilloso-hispidulo, parùm dilatato. *Achenia* difformia: *marginalia* obovata, dorso gibbosa, lævia; *disci* pentagona, minutè papillosa. *Pappus* uniformis, paleaceus, brevissimus, polyphyllus: *foliolis* lanceolatis, mu-

cronatis, ciliatis, rigidis, simplici serie contiguïs, persistentibus, basi solutis.

Herba erecta, ramosa, virens, copiosè glanduloso-villosa, tempore florendi formosa, odorem moscho similem redolens; radice fibrosâ, annuâ. Caulis teres, flexuosus, spithameus v. pedalis; in hortis tamen sæpè 5 pedes attingens. Folia alterna, profundè runcinato-pinnatifida, suprâ opaca, subtùs lucida, bi- v. tri-pollicaria: in hortis sæpè spithamea v. pedalia; caulinis superioribus basi auriculatâ amplexicaulibus: segmentis lanceolatis, mucronatis, undulatis, lobatis, acutèque dentatis. Flores diffusè paniculati, pedicellati. Involucrum foliaceum, virens, hirtellum. Flosculi plures (12—16) singulo involucri, nivei. Nob. in Sw. Br. Fl. Gard. t. 229.

1. *G. runcinata*. Nob. in l. c.

Moscharia pinnatifida. Ruiz et Pavon *Syst. Veg. Fl. Peruv. et Chil.* 1. p. 186? *Gen.* p. 103?

In Chili ad Coquimbo (*Caldclough*), ad Valparaiso (*D. Bridges*).
 ☉. (v. v. etiam in hort.)

Whether this be really the *Moscharia pinnatifida* of Ruiz and Pavon I must leave for the present undetermined, as there exists no specimen of it in their herbarium; and the description of the parts of fructification, both in the published account of the genus and also in the manuscripts of Ruiz, cannot be reconciled to *Gastrocarpha*.

Trib. 4. CHÆTANTHEREÆ. *Receptaculum* epaleatum. *Flosculi* difformes; *radii* fœminei. *Antherarum setis* subplumosis! *Stigmata* crassa, obtusa, partim connata. *Herbæ* (*Chilenses*) plerumque caulescentes, floribus solitariis, magnis, radiutis.

CHÆTANTHERA.

CHLETANTHERA.

CHLETANTHERE SP., *Ruiz et Pavon.*

Involucrum polyphyllum, subæquale. *Pappi radiis* capillaceis, simplici ordine dispositis.

Involucrum depressum, multiplici ordine polyphyllum: *squamis* subæqualibus, numerosissimis, foliaceis, perornatè spinuloso-ciliatis; *intimis* membranaceis, integerrimis. *Receptaculum* nudum. *Flosculi radii* plurimi, fœminei, bilabiati, staminibus sterilibus; *labio exteriori* ligulato, obtusè trilobo, 4-nervio, subtùs villosissimo; *interiore* bipartito: *laciniis* linearibus angustissimis, binerviis apice filo longo spirali terminatis; *disci* hermaphroditi, tubulosi, bilabiati: *labiis* subæqualibus; *exteriore* obtusè tridentato; *interiore* ovato, emarginato. *Antheræ* appendiculatæ lanceolatæ acutæ terminatæ, basi longè bisetæ: *setis* puberulis. *Stigma* fœmineis bifidum: *lobis* cymbiformibus, obtusis, conniventibus; hermaphroditis inclusum: *lobis* adpressis, plano-convexis. *Achenia* ovalia, papilloso-micantia. *Pappus* capillaris: *radiis* copiosis, inæqualibus, persistentibus, scabriusculis, simplici ordine dispositis, imâ basi conferruminatis.

Herba radice fibrosâ annuâ. Caulis spithameus, erectus, simplex v. rariùs divisus, teres, pubescens. Folia alterna, sessilia, ferè uncialia, latè linearia, spinuloso-ciliata, suprâ villosa, subtùs glabra! uninervia, viridia. Flos terminalis, solitarius, rarò altero laterali, sessilis. Involucrum virens, magnitudine nucis *Avellanæ*: squamis, tanquàm foliis, suprâ villosulis, subtùs nudis, politis! lanceolatis, uninerviis; intimis linearibus, mucronatis, maculo atrato, extùs ad apicem, notatis. Flosculi lutei. Pappus fusco-cinereus.

1. *C. ciliata*.

Chaetanthera ciliata. Ruiz et Pavon *Syst. Veg. Fl. Peruv. et Chil.* 1, p. 190. *Gen. t.* 23.

In Chili collibus et campis versus Guilquilemu oppidum copiosè. Ruiz et Pavon. ☉.

Chaetanthera is here limited to the species on which the genus was originally founded by Ruiz and Pavon. It is sufficiently characterized by its involucrem, composed of a series of loose, foliaceous, and nearly equal scales, and by its capillary pappus. A comparison of the leaves and the scales of the involucrem of this plant affords a most satisfactory explanation of the origin of the latter. There being no sample of this plant in the collections of Ruiz and Pavon, the above description has been drawn up from a specimen presented to Mr. Lambert by Mr. Brown.

PROSELIA.

CHAETANTHERE SP., Ruiz et Pavon.

PERDICII SP., Willd.

Involucrem imbricatum. *Pappi radiis* setaceis, simplici ordine dispositis.

Involucrem triplici circiter serie polyphyllum, imbricatum, campanulatum: *squamis* adpressis, lanceolatis, mucronatis, integerrimis; *exterioribus* gradatim minoribus. *Receptaculum* planum, nudum. *Flosculi radii* plures, fœminei, bilabiati, staminibus sterilibus; *labio exteriore* amplo, ligulato, 4-nervio, obtusè tridenticulato, subtùs sericeo-villosissimo; *interiore* tenuissimo, bipartito: *segmentis* primò margine conglutinatis, inde unicum simulantibus, binerviis apice in filo longo, spirali attenuatis; *disci* hermaphroditi, tubulosi, limbo bilabiati; *labio exteriore* elliptico, obtusè tridentato; *interiore* lanceolato, bifido. *Antheræ* appendiculâ lineari acutâ cartilagineâ

cartilagineâ terminatæ, basi bisetæ: *setis* inæqualibus, puberulis. *Stylus* teres. *Stigma* clavatum, bilobum: *lobis* crassis, obtusis, conniventibus. *Achenia* lineari-oblonga, ancipiti-compressa, tuberculis minutis crystallizatis copiosè ornata. *Pappus* setaceo-pilosus, subpersistens: *rudiis* simplici ordine dispositis, denticulis exasperatis, apice attenuatis, basi conferruminatis.

Planta perennis, suffrutescens. Caules ex eadem radice plures, adscendentes, simplices, teretes, viminei, læves, rigidiusculi, fragiles, palmares v. spithamæi, imâ basi lanuginosi et lignosi. Folia linearia, supernè paululùm dilatata, subcuneata, spinuloso-dentata, coriacea, rigida, sericeo-villosa, apice tricuspidata, dente medio longiori, uncialia v. sesquiuncialia; radicalia plurima, erecta, infernè marginibus involutis, penè filiformia, hinc prout petiolata; caulina sparsa, breviora, decidua, ob basin tanquàm cum caule articulata. Flos terminalis, solitarius, sessilis. Involucrum basi foliis nonnullis bracteatum: squamis extùs villosis, apice nigro-coloratis, subinde sphacclatis. Flosculi aurei, extùs quandoque purpurascens. Pappus flavo-cinereus.

Nomen a *προσηλιος apricus*, quod huic plantæ aptè convenit, propterea in arenosis et campis apricis se delectare videtur.

1. *P. serrata*.

Chætanthera serrata. Ruiz et Pavon l. c. p. 191.

C. Chilensis. Dec. in Ann. Mus. 19. p. 70. t. 3. f. 8. Lag. Amen. Nat. 1. p. 38.

Perdicium Chilense. Willd. Sp. Pl. 3. p. 2118.

In arenosis prope urbem Conceptionis et in Rere provinciâ Chilensium. Ruiz et Pavon. 4.

This genus differs essentially from the preceding by its imbricate involucre, composed of many unequal, adpressed, entire scales,

scales, and in the structure of its pappus. M. DeCandolle's description and figure of this plant above referred to, are very faithful; but both he and Professor Lagasca, in adopting the name of Willdenow, who had referred it to *Perdicium*, were evidently ignorant of its being the *Chatanthera serrata* of Ruiz and Pavon.

BICHENIA.

Involucrum imbricatum. *Flosculi radii* labio exteriori multinervio! *Pappi radii* triplici ordine dispositi, apice penicillatis.

Involucrum polyphyllum, inordinatè imbricatum: *squamis* lanceolatis, acuminatis, adpressis; *intimis* elongatis, radium æquantibus. *Receptaculum* planum, nudum. *Flosculi radii* plurimi (15—18), ligulati, bilabiati, fœminei, staminibus sterilibus; *labio exteriori* amplo, cuneiformi, obtusè tridentato, coriaceo, glabro, multi-(10 v. 15)nervio; *interiore* exiguo, membranaceo, bipartito: *segmentis* lineari-filamentosis, spiraliter revolutis; *disci* hermaphroditi, tubulato-bilabiati: *labiis* longitudine æqualibus; *exteriore* ligulato, obtusè trilobo; *interiore* bipartito: *segmentis* linearibus, obtusis, erectis. *Filamenta* linearia, complanata, nervo medio manifestè subcarinata. *Antheræ* appendiculâ ligulatâ, mucronulatâ, coriaceâ terminatæ, basi bisetæ: *setis* ramulosis, plumosis, extremitate simplici, elongatâ. *Stigma* clavatum, bilobum: *lobis* brevissimis, crassis, conniventi-applicatis, pruinosis. *Achenia* angusta, compresso-tetragona, undique copiosè papillosa. *Pappus* pilosus, subpersistens: *radiis* inæqualibus, triplici ordine digestis, apice penicillatis, leviter plumosis.

Herba perennis, acaulis, cæspitosa, lanâ albâ, villosâ, molli, siccitate lutescente, omninò induta. Folia ferè Pedicularium quarundam, numerosa, radicalia, petiolata, interruptè bipinnatifida,

natifida, suprâ demùm nudiuscula ac vividia, bi- v. tri-pollinaria; segmentis primariis remotis, linearibus, obtusè pinnatifido-dentatis, uncialibus, margine parùm revolutis; aliis interjectis, brevissimis, simplicibus, integerrimis s. rariùs unidentatis. Petioli unciales, teretiusculi, basi dilatato-concavi, atque invicem se imbricati. Scapi erecti, cylindrici, simplicissimi, uniflori, undique copiosè fulvescenti-lanati, apicemque versus squamis aliquot lanceolatis, acuminatis muniti, crassitie pennæ corvinae, longitudine palmares v. spithamei. Flos terminalis, solitarius, facie et magnitudine Galardiæ bicolori omninò similis, aureus. Involucrum densè lanatum: squamis fuscescentibus. Pappus niveus.

1. *B. aurea.*

In Chili ad Coquimbo. *Caldcleugh. 4.*

A highly interesting addition to this group, for the discovery of which we are indebted to Alexander Caldcleugh, Esq., F.R.S. and L.S., who amid other more important avocations has not neglected the interests of science during his residence in a part of Chile hitherto but little explored, but has added much to our knowledge of the Chilian Flora, which, as we have already seen, is rich in this department of botany.

I have dedicated this genus to my much-valued friend James E. Bichenon, Esq., F.R.S., the zealous Secretary of this Society, whose merits as a botanist, and whose liberal views in every department of science, justly entitle him to this compliment.

Bichenia is most satisfactorily distinguished by its penicillate pappus, the rays of which are disposed in a triple series, and by the ligulate florets of the circumference being furnished with an indefinite number of nerves, which are from 10 to 15, and apparently all primary, as they are of equal size, traversing in straight parallel lines the corolla from the base to the apex, where they
become

become confluent. They occupy the centre of the laciniaë, and, unlike the other plants of this family, there are no vessels terminating in, or branching off from the sinus.

TYLLOMA.

Involucrum imbricatum. Flosculi marginales unilabiati! Pappus capillaris: radiis simplici ordine dispositis.

Involucrum ovatum, polyphyllum, multiplici ordine imbricatum: squamis integerrimis, mucronulatis, lævibus, coriaceis, adpressis; interioribus oblongis, apice coloratis. Receptaculum nudum. Flosculi marginales pauci, fœminei, unilabiati, vix radiati, obtusè tridentati; disci hermaphroditi, tubulosi, extùs sericeo-villosi, limbo bilabiati: labiis abbreviatis; exteriorè obtusè tridentato; interiorè bifido, lobis lanceolatis, acutis, erectis. Stamina tubo infra medium inserta: filamenta angusta, complanata, glabra, apice attenuata: antheræ in tubum coalitæ, basi bisetæ: setis longis, ramulosis, subplumosis: appendicula terminalis lanceolato-linearis, acuminata, cartilaginea, antherâ ipsâ brevior. Stylus filiformis, glaber. Stigma clavatum, bilobum: lobis abbreviatis, conniventibus, crassis, obtusis, pruinosis, margine incrassatis. Achenia trigona, papilloso-muricata. Pappus capillaris, deciduus: radiis simplici ordine contiguis, subæqualibus, basi apiceque puberulis.

Herba multicaulis, lanugine laxâ parciùs instructa. Radix ramosa, annua. Caudex brevissimus. Caules procumbentes, cylindracei, purpurascens, 2—4-unciales. Folia alterna, subsessilia, in apice ramulorum aggregata, cæterùm sparsa, cuneato-lanceolata, limbata, integerrima, complicata, flexuosa, valdè coriacea, colore glauco cærulescentia, utrinque glandulis majusculis, pedicellatis, sparsis munita, subtùs costâ validâ basi valdè dilatata, hinc carinata, semuncialia; juniora præcipuè supra

suprà lanigera : limbo recurvato-patulo, circumscriptione cordato, periphæriâ callosâ rotundatâ luteolâ marginato, mucronulo perbrevis corneo apiculato. Flores terminales, solitarii, sessiles, foliis numerosis bracteati. Involucrum longitudine viâ ultrâ semipollicare : squamis interioribus apice purpurascens. Flosculi rosei. Pappus niveus.

Nomen a *τυλος* *callus*, et *λωμα* *margo*; ob folia orâ callosâ cincta.

1. *T. limbatum*.

In Chili ad Coquimbo. *Caldclough*. ☉.

Trib. 5. *PERDICEÆ*. *Receptaculum* epaleatum. *Flosculi* difformes; *marginales* fœminei: *stigmatibus* semicylindricis, obtusis, sæpiùs lævibus. *Antherarum setis* plerumque nudis. *Herbæ* perennes, ucaules, *scapis* plerumque unifloris.

CHAPTALIA. *Vent.*, *Dec.*

PERDICII *SP.*, *Thunb.*

TUSSILAGINIS *SP.*, *Mich.*

Flosculi periphæriæ fœminei, ligulati, radiati; *disci* masculi, bilabiati.

Involucrum campanulatum, multiplici serie imbricatum: *squamis* lanceolatis, acutis, membranaceis, adpressis. *Receptaculum* nudum. *Flosculi* in *periphæriâ* plurimi, fœminei, sæpiùs duplici ordine digesti; *extimis* elongatis, ligulatis, radiatis (labio interiore nullo v. minimo); *interioribus*, dùm adsint, conformibus, sed multoties minoribus, ligulis linearibus integerrimis, labello interiore minimo bidentulato; *disci* masculi, tubulosi, bilabiati: *labiis* revolutis; *exteriore* tridentato; *interiore* bipartito: *segmentis* lanceolatis, acuminatis. *Antheræ* appendiculâ ligulatâ obtusâ coriaceâ

terminatæ, basi longè biaristatæ : *aristis* simplicibus, setaceis. *Stigma* masculis inclusum, clavatum, bilobum ; fœmineis longè exsertum, bipartitum : *segmentis* brevibus semicylindricis, obtusis, recurvis, undique pruinosis. *Achenia* elliptico-oblonga, ancipiti-compressa. *Pappus* pilosus, fulvellus, persistens : *radiis* duplici serie digestis, copiosis, creberrimè denticulatis.

Herbæ (Amer. et Asiat.) *acaules*, *perennes*, *niveo-lanatae*. *Folia simplicia*, *coriacea*. *Flores sæpiùs albi*.

* *Flosculi fœminei duplici ordine dispositi, difformes, labello interiore aucti. Foliis integerrimis.*

1. *C. oblonga*, foliis petiolatis oblongis, involucris hirsutissimis. *Perdicium oblongum. Herb. R. et P.*
In Peruvix alpihus prope Panao. *Ruiz et Pavon. 4.*

Herba cæspitosa. Radix crassa, præmorsa, fibris numerosissimis, aliis crassis, aliis capillaceis, instructa. *Folia* longè petiolata, lanceolata, v. elliptico-oblonga, obtusa, coriacea, basi parùm attenuata, margine angusto, revoluto, denticulis semi-ovatis, obtusis, nudis, reflexo-adpressis ornato ; suprâ leviter lanuginosa, demùm nuda, costâ latiusculâ, nervis transversis venisque reticulatis instructa, subrugosa ; subtùs lanâ intertextâ, niveâ, siccitate fulvescente, densè vestita ; 2—5-uncialia, unciam v. sesquiunciam lata. *Petioles* simplices, semiteretes, undique copiosè lanati, 3—6-unciales. *Scapus* solitarius, teres, validior quàm in cæteris sequentibus, uniflorus, undique lanâ copiosissimâ fulvescente instructus, squamis plurimis, præsertim apicem versus, lanceolatis, obtusiusculis, nudis, nitidis, coloratis munitus, pedalis v. ultrâ. *Involucrum* campanulato-patens, polyphyllum, imbricatum : *squamis* lanceolatis, acutis, adpressis,

pressis, sanguineo-coloratis; *exterioribus* lanuginosis; *intimis* elongatis, acuminatis, radiatis. *Flosculi* albi; *radii* plurimi, 30 circiter, fœminei, duplici ordine dispositi, lineari-ligulati; *extimis* multoties majoribus, involucri squamis intimis vix longioribus, obtusè tridenticulatis, radium distinctum constituentibus; *labio interiore* minimo, bipartito: *laciniis* angustè linearibus, obtusulis, inæqualibus, rectis; *disci* masculi, tubulosi, bilabiati; *labio exteriori* ligulato, obtusè 3-dentato; *interiore* bifido: *laciniis* lanceolato-linearibus, obtusis. *Atheræ* basi bisetæ, appendiculâ lineari-ligulatâ cartilagineâ coronatâ. *Stigma* masculis inclusum bilobum, clavatum; fœmineis exsertum, bifidum: *lobis* obtusis, papilloso-pruinosis. *Achenia* elliptica, ancipiti-compressa, glabra: *disco epigyno* dilatato, planiusculo. *Pappus* capillaris, cinereo-fulvellus, denticulis scaber.

2. *C. ovalis*, foliis petiolatis ovalibus, involucri hirsutissimis.

Perdicium ovale. *Herb. R. et P.*

In Peruviâ ad Huassahuassi et Churapallanam. *Ruiz et Pavon.* 4.

Herba cæspitosa. *Radix* compacta, fibris numerosissimis, longissimis, fuscis. *Folia* plura, radicalia, petiolata, ovalia v. subrotundo-ovalia, coriacea, orâ angustissimâ, recurvatâ, denticulis ovatis, obtusis, nudis, adpressè reflexis, costâ mediâ, validâ, nervisque transversis atque venis prope marginem anastomosantibus; suprâ demùm calva, viridia, lucida; subtùs densè fulvo-lanata: *basi* transversâ, v. attenuatâ; 2 v. $2\frac{1}{2}$ pollices longa, sesquiunciam lata. *Petioli* semiteretes, simplices, sesquiunciales, undique fulvo-lanati. *Scapus* dodrantalis, erectus, filiformis, uniflorus, undique lanâ fulvâ copiosè vestitus, squamisque nonnullis lanceolatis, obtusis, membranaceis, nudis, adpressis munitus. *Flos*

nutans, albus. *Involucrum* quadruplici circiter serie polyphyllum, campanulatum: *squamis* lanceolatis, mucronulatis, adpressis, margine apiceque sanguineo-coloratis; *intimis* radiantibus. *Flosculi radii* plurimi, foeminei, duplici ordine digesti (serie interiore plurimum minore); *extimis* 20 circiter ligulatis, obtusè tridenticulatis; *labio interiore* minuto, obtusè bidentato; *disci* masculi, bilabiati: *labiis* revolutis; *exteriore* ligulato, obtusè tridenticulato; *interiore* bipartito: *segmentis* lanceolatis, attenuatis. *Antheræ* basi longè biaristatæ, appendiculâ ligulatâ, obtusâ coronatæ. *Stigma* masculis inclusum clavatum, bilobum; radiis bifidum: *laciniis* semicylindricis, obtusis, recurvis, pruinosis. *Acheuia* elliptica, compressa, glabra: *disco epigyno* dilatato. *Pappus* capillaris, denticulis scaber, fulvellus.

3. *C. rotundifolia*, foliis petiolatis subreniformibus, involucris lævibus.

In stagnatis altis frigidis Peruviae ad Pillao. Ruiz et Pavon. 4.

Herba caespitosa, facie et magnitudine *Tussilagini alpinae* omninò accedens. *Radix* præmorsa, fibris atro-fuscis, longis, crassis instructa. *Folia* plurima, radicalia, petiolata, nunc subrotunda basi integrâ, nunc cordata v. subreniformia, obtusa, suprâ demum nuda, costâ validiusculâ, nervis obliquè transversis peragrata, indè reticulato-venosa, rugosa, subtus lanâ niveâ, siccitate fulvâ, copiosè vestita, orâ perangustâ, revolutâ, denticulisque plurimis, obtusis, nudis, reflexo-adpressis munitâ, unguicularia, v. nunc rariùs pollicaria. *Petiololi* filiformes, simplicissimi, lanati, sesqui- v. bi-pollicares. *Scapus* altitudine maximè varians, nunc tripollicaris, nunc dodrantalis, v. rariùs ferè pedalis, filiformis, solitarius, uniflorus, gracilis, lanâ villosissimâ rufescente, squamis pluribus,

pluribus, lanceolatis, obtusulis, nudis, coloratis, adpressis munitus. *Flos* magnitudine *Tussilaginis prædictæ*, albus, nutans. *Involucrum* polyphyllum, imbricatum, campanulatum: *squamis* lanceolatis, acutis, membranaceis, adpressis, demùm glabris, lucidulis, viridibus, rarò sanguineo-coloratis; *intimis* longioribus, radiatis. *Receptaculum* nudum. *Flosculi radii* duplici ordine digesti, fœminei, in serie exteriore 20 circiter, ligulati, radium distinctum constituentes, obtusè tridentulati: *labio interiore* minimo, bipartito: *laciniis* acutis, lineari-angustissimis, inæqualibus, rectis; *interiore serie* consimili, at plurimùm minore, discum vix superante; *disci* tubulato-bilabiati, hermaphroditi, fauce dilatati; *labio exteriore* brevi, ligulato, obtusè tridentato; *interiore* bipartito: *laciniis* lineari-lanceolatis, acutiusculis, revolutis. *Antheræ* basi bisetæ: *setis* simplicibus: *appendiculâ* lineari-ligulatâ, obtusâ, subcoriaceâ. *Stigma* disci flosculis bilobum, clavatum, papillosum; radiis bifidum: *laciniis* brevibus, semicylindricis, obtusis, pruinosis. *Achenia* lineari-oblonga, compressa, glabra, apice angustata: *disco epigyno* dilatato. *Pappus* capillaris, fulvellus, denticulis scaber.

** *Flosculi marginales simplicei ordine uniformes, fœminei, ligulati, unilabiati!* *Foliis sessilibus, pinnatifidis.*

4. *C. lyrata*, foliis sessilibus lyratis ciliato-denticulatis.

Hieracium stipitatum. *Herb. S. et M.*

In Mexico. *Sesse et Mocinno. 4.*

Herba cæspitosa. *Radix* crassa, fibris compluribus longissimis instructa. *Folia* plurima, radicalia, sessilia, in orbem acta, patentia, spathulata, lyrata, membranacea, suprâ demùm nuda, viridia, subtùs densè niveo-tomentosa, margine undulata, denticulisque setaceis copiosè ornata, bi- v. tripollicaria,

caria, sesquipollicem lata: *lobis* abbreviatis, rotundatis; *terminali* amplo, elliptico, mucronulato. *Scapus* solitarius, gracilis, filiformis, lanuginosus, squamis paucissimis lineari-bus acuminatis munitus. *Flos* minor, albus? nutans. *Involucrum* 4-plici circiter seriè polyphyllum, imbricatum: *squamis* lineari-subulatis, dein glabratis. *Receptaculum* nudum. *Flosculi radii* simplici ordine uniformes, ligulati, fœminei, apice acutiusculo, integro; *labio interiore* nullo; *disci* copiosi, hermaphroditi, tubulato-bilabiati; *labio exteriori* ligulato, revoluto, obtusè tridentato; *interiore* bipartito: *laciniis* lineari-lanceolatis, obtusis, spiraliter revolutis. *Antheræ* basi longè biaristatæ, appendiculâ lineari-angustâ obtusâ terminatæ. *Stylus* filiformis. *Stigma* masculis inclusum, clavatum, bilobum; radii sexsertum, bifidum: *lobis* brevibus, obtusis, pruinosis. *Achenia* oblonga, compressa, pilis brevissimis vestita. *Pappus* pilosus, fulvellus, denticulis scaber.

*** *Involucri squamis ellipticis, obtusis, disco brevioribus. Flosculi marginales simplici ordine dispositi: labello bipartito, spirali. Antherarum setis ramulosis. Stigmatis lobis brevibus. Foliis petiolatis, integris. Eurytis.*

5. *C. heterophylla*, foliis lanceolatis planis dentatis integerri-misve, scapo esquamato, involucris squamis obtusis disco brevioribus.

Onoseris heterophylla. Spreng. Syst. 3. p. 503?

In Monte Video. *Sello. 4.*

Herba acaulis, lanâ adpressâ niveâ obruta. *Folia* plurima, radicalia, erecto-potentia, petiolata, lanceolata, acutiuscula, coriacea, margine obtusè dentata v. integerrima, costâ mediâ validâ, venis angulo acuto obliquis, plerumque inconspicuis,

inconspicuis, basi attenuata, utrinque plana, palmaria, vix pollicem lata; *adultiora* lanâ fugaci nudiuscula. *Petioli* bipellicares, canaliculati, supernè angusti, basi dilatati, imbricati et villosi. *Scapus* erectus, filiformis, apice in discum dilatatus, uniflorus, squamis omninò destitutus, spithamæus v. dodrantalis. *Flos* erectus, magnus, aureus. *Involucrum* hemisphæricum, triplici ordine adpressè imbricatum: *squamis* ovatis, obtusis, coriaceis; *intimis* oblongis, disco duplò brevioribus! quandoque extimis duabus elongatis bracteas simulantibus. *Flosculi radii* plurimi (17—20), fœminei, elongati, bilabiati, staminibus sterilibus; *labio exteriori* maximo, ligulato, tridentato, coriaceo, nervis secundariis manifestis; *interiore* bipartito: *segmentis* linearibus, obtusis, spiraliter convolutis, primùm margine conglutinatis; *disci* masculi, tubulosi, tubo 5-angulo: *limbo* bilabiato: *labiis* subæqualibus; *exteriore* obtusè tridentato, 4-nervio; *interiore* bipartito, segmentis linearibus, obtusiusculis, binerviis, apice revolutis. *Filamenta* articulo inferiore minutè papilloso. *Antheræ* appendiculâ ligulatâ acutiusculâ cartilagineâ coronatæ, basi bisetosæ: *setis* compressis, basi ramulosis, vix plumosis. *Stylus* 5-angulus. *Stigma* bilobum: *lobis* obtusis, brevissimis, pruinosis. *Achenia* ancipiti-compressa, densè adpressè pilosa. *Pappus* capillaris, persistens, cinereus: *radiis* denticulatis, scabris, duplici ordine digestis, copiosissimis.

Besides the *Chaptalia integrifolia*, which wants the inner lobe to the marginal florets, and consequently agrees in this respect with my second section, *Perdicium piloselloides* of Vahl and *Perdicium tomentosum* of *Flora Japonica* belong also to this genus. This latter species has all the characters of my second section; but *C. integrifolia* having the female flowers disposed in a double series,

series, will constitute perhaps another section. The *Chaptalia maxima* of the *Prodromus Floræ Nepalensis* has been improperly referred by me to this genus, being really a species of *Perdicium*, as constituted by Lagasca and DeCandolle. The *Chaptalia runcinata* of M. Kunth having the centre florets with a regular five-cleft limb appears to belong more properly to the following genus.

ONOSERIS. *Dec.*

ONOSERIDIS SP., *Willd., Kunth.*

ATRACTYLIDIS SP., *L.*

Flosculi periphæriæ fœminei, radiati, bilabiati; *disci* hermaphroditi, tubulosi: *limbo* regulari, 5-fido.

Involucrum hemisphæricum, triplici ordine polyphyllum, imbricatum. *Receptaculum* nudum. *Flosculi radii* fœminei, bilabiati, staminibus sterilibus; *labio exteriori* maximo, ligulato, tridentato; *interiore* tenuissimo, sæpiùs bipartito, spiralter convoluto; *disci* hermaphroditi, tubulosi: *limbo* regulari, 5-fido: *laciniis* linearibus, obtusis, binerviis. *Antheræ* appendiculâ lineari-lanceolatâ cartilagineâ coronatæ, basi bisetosæ. *Stigma* bilobum: *lobis* obtusis, pruinosis. *Achenia* ancipiti-compressa, sericeo-villosa. *Pappus* capillaris, persistens: *radiis* duplici ordine digestis, denticulato-scabris.

Herbæ acaules, lanatæ. Scapo simplici v. diviso. Flores sæpiùs purpurei.

1. *O. brevifolia*, foliis subsessilibus ellipticis denticulatis scabris venosissimis, flosculis radii labello interiore indiviso.

In Monte Video. *Sello. 2.*

Radix præmorsa fibris compluribus prælongis instructa. *Caudex* brevissimus, fulvo-villosissimus. *Folia* subsessilia, humo adpressa,

adpressa, elliptica, obtusa, margine copiosè denticulata, subcoriacea, reticulato-venosissima, rugosa, subtùs pilosa, suprâ punctis elevatis scabra, utrinque viridia, pollicaria v. sesquipollicaria. *Scapus* rectissimus, filiformis, cubitalis, undique lanâ adpressâ niveâ obtectus, squamis paucis brevissimis adpressis instructus. *Flos* erectus. *Involucrum* hemisphæricum, triplici ordine polyphyllum, imbricatum: *squamis* lanceolato-linearibus, setaceo-acuminatis, extùs lanuginosis: *intimis* disco longioribus. *Receptaculum* nudum, scabriusculum. *Flosculi* lutei? *radii* plures, bilabiati, fœminei, singulo ordine dispositi, staminibus sterilibus, radium distinctum constituentibus; *labio* *exteriore* amplo, ligulato, obtusè tridentato, 4-nervio; *interiore* lineari-angustissimo, obtuso, canaliculato, erecto, binervio; *disci* copiosi, tubulosi, 5-fidi, hermaphroditi: *segmentis* linearibus, obtusis, erectis, binerviis. *Filamenta* gracilia, lævia. *Antheræ* appendiculâ lineari-lanceolatâ mucronatâ cartilagineâ coronatæ, basi bisetosæ: *setis* ramulosis, subplumosis. *Stigma* utriusque bilobum: *lobis* brevibus, adpressis, obtusissimis, pruinosis. *Achenia* linearia, ancipiti-compressa, sericeo-villosa. *Pappus* capillaris, persistens, sordidè cinereus: *radiis* duplici ordine copiosis, denticulato-scabris.

This genus, constituting an intermediate group between *Chaptalia* and *Leria*, differs from the former in the regularity of the limb of the florets of the disk, and from the latter in the female florets of the circumference forming a distinct radius, and being arranged generally in a single series. The *Onoseris purpurata* of Willdenow, and the *hieracioides* and *speciosa* of M. Kunth, are clearly referable to the genus, and perhaps also the *Chaptalia runcinata*; but I doubt whether any of the other plants hitherto included in it are really species of this genus.

LERIA. Dec.

TUSSILAGINIS SP., L.

Flosculi disci masculi, tubulosi, 5-fidi; *marginales* fœminei, filiformes: *limbo* abbreviato.

Involucrum hemisphæricum, triplici v. quadruplici serie polyphyllum, imbricatum: *squamis* linearibus, acuminatis, adpressis, apice coloratis. *Receptaculum* nudum. *Flosculi disci* masculi, tubulosi, 5-fidi: *laciniis* æqualibus; *marginales* fœminei, multiplici ordine numerosissimi, tunc difformes, extimis ligulatis, unilabiatis, inæqualiter tridentatis vix radiantibus; nunc simplici ordine pauciores, cæterisque filiformibus, supernè gradatim coarctatis: *limbo* parvo, bilabiato: *labiis* erectis, abbreviatissimis; *exteriore* tridentato; *interiore* bipartito. *Antheræ* basi longè bisetæ, appendiculâ lineari-ligulatâ, subcoriaceâ terminatæ. *Stigma* masculis inclusum, clavatum, bilobum; fœmineis longè exsertum, bipartitum: *laciniis* filiformibus, lævibus. *Achenia* fusiformia, infernè compressa, 5-costata, apice attenuata. *Pappus* tenuissimè capillaris, nunc stipitatus: *radiis* inæqualibus, denticulatis.

Herbæ perennes, niveo-lanatæ. Folia simplicia. Scapi uniflori.

1. *L. nutans*, foliis sessilibus sinuatis, flosculis fœmineis difformibus, pappo stipitato.

Leria nutans. Dec. in *Ann. Mus.* 19. p. 68.

Tussilago nutans. *Linn. Aman. Acad.* 5. p. 406. *Sp. Pl.* p. 1213.

Dens leonis folio subtùs incano, flore purpureo. *Sloan. Hist.* 1. p. 255. t. 150. f. 2.

Aster primulæ veris folio, flore singulari purpureo. *Plum. Sp.* 14. t. 41. f. 1. (bona.)

In Mexico. *Sesse et Mociuno.* 4.

Herba

Herba perennis, cæspitosa, acaulis, densè niveo-lanata. *Radix* præmorsa, fibris compluribus, longissimis (5—6-uncialibus), filiformibus, validis, radiculosis. *Folia* plurima, radicalia, impetiolata, spathulata, nunc sinuata, nunc lyrata, margine minutissimè denticulata, membranacea, suprâ demùm nuda, viridia, subtùs niveo-tomentosa, infernè angustata, 3—4-pollicaria, nunc spithamæa, unciam v. 2 uncias lata; *lobo terminali* maximo, oblongo, obsoletè mucronulato. *Scapi* plures, filiformes, uniflori, undique copiosè niveo-lanati, palmares v. rariùs dodrantaes. *Flos* terminalis, solitarius, nutans, roseus, diametro pollicem v. ultrâ adæquans. *Involucrum* hemisphæricum, polyphyllum: *squamis* linearibus, acuminatis, quadruplici circiter serie imbricatis, apice coloratis. *Receptaculum* nudum. *Flosculi centrales* pauci, masculi, tubulosi, supernè vix dilatati, regulariter 5-fidi; *cæteris* fœmineis, numerosissimis, tenuissimè filiformibus; *extimis* ligulatis, unilabiatis, inæqualiter tridentatis, involucro paulò longioribus, subinde radiatis; *interioribus* limbo parvo bilabiatis: *labiis* abbreviatis, erectis; *exteriore* tridentato; *interiore* bipartito: *laciniis* linearibus, obtusis, erecto-patulis. *Antheræ* basi setis tenuissimis longis auctæ, appendiculâ lineari, obtusâ coronatæ. *Stylus* masculis inclusus: *stigmatæ* clavato, bilobo, lobis abbreviatis crassis, obtusis, conniventibus; fœmineis longè exsertus: *stigmatæ* bipartito, segmentis filiformibus, obtusis, recurvis, lævibus. *Achenia* fusiformia, minutè papillosa, basi compressâ, 5-costatâ, apice in stipitem filiformem prodeuntia. *Pappus* subinde stipitatus, tenuissimè capillaceus, fulvellus: *radiis* inæqualibus, minutissimè denticulatis, triplici ordine digestis, copiosissimis.

2. L. *spathulata*, foliis petiolatis integris, flosculis masculis indefinitis.

Cacalia spathulata. *Herb. S. et M.*

In Mexico. *Sesse et Mocinno.* 4.

Herba caespitosa. *Folia* plurima, radicalia, petiolata, lanceolato-spathulata aut elliptico-oblonga, membranacea, denticulata, suprâ demùm calva, viridia, subtùs niveo-lanata, mollissima, 2—3-pollicaria, basi attenuata; *juniora* margine revoluta. *Petioli* lineares, plani, membranaceo-alati, pollicares v. bipollicares. *Scapi* cubitales, subsolitarii, filiformes, uniflori, squamis destituti, undique lanuginosi. *Flos* nutans. *Involucrum* polyphyllum: *squamis* triplici circiter serie imbricatis, lanceolatis, acuminatis, coriaceis, lanuginosis. *Receptaculum* nudum. *Flosculi disci* copiosissimi, masculi, tubulosi, 5-fidi, longitudine unguiculares, nervis ad sinum divisis, fauce parùm dilatâtâ: *laciniis* lingulatis, apice nervis marginalibus validis confluentibus incrassatis, obtusis, nervis secundariis recurrentibus ad basin laciniarum usque manifestis! *peripherici* fœminei, pauci, simplici ordine digesti, uniformes, tenuissimè filiformes, bilabiati, non radiati, fauce coarctati: *labiis* minutis; *interiore* bifido, laciniis linearibus, revolutis; *exteriore* ligulam abbreviatam, linearem, obtusè tridentatam constituyente. *Antheræ* basi bisetæ (setis inæqualibus cuspidatis) appendiculâ lineariligulatâ, obtusâ, cartilagineâ coronatæ. *Stigma* masculis bilobum, lobis brevibus, crassis, obtusissimis, minutè papillois; fœmineis longè exsertum, bipartitum: *laciniis* semicylindricis, obtusis, lævibus, recurvis. *Achenia* fusi-formia, compressa, pilosiuscula, apice tantùm angustata: *disco epigyno* dilatato. *Pappus* capillaris, fulvellus, nec stipitatus: *radiis* inæqualibus, minutè denticulatis, duplici ordine copiosissimis.

This interesting genus is also allied to the *Inuleæ* and *Cichoraceæ*.

choraceæ. Its entire capitulum may be compared with that of *Gnaphalium*, and its soft stipitate pappus with that of *Lactuca*, thus showing that the genus is to be regarded as constituting an osculant group between the three families. The modification of the apex of the achenium proves that the stipitate pappus is not a character of generic importance in *Leria*.

Trib. 6. DIAZEUXEÆ. *Receptaculum* subpaleatum. *Flosculi* (rarò dioici!) *disci* hermaphroditi, tubulosi, 5-dentati; *radii* ligulati, fœminei, nunc bilabiati. *Antherarum setis* nudis. *Plantæ sæpè fruticosæ, capitulis plerumque solitariis, magnis, pedunculatis.*

DIAZEUXIS.

ATRACYLIDIS SP., L.

ONOSERIDIS SP., Willd.

Flores dioici! *Receptaculum* alveolatum.

Flores dioici! *Involucrum* sphæroideum, multiplici serie imbricatum: *squamis* innumeris, lanceolatis, acuminatis, coriaceis, rigidis, adpressis. *Receptaculum* alveolatum: *alveolis* margine laciniato-fimbriatis. *Flosculi masculi* creberrimi, cylindrico-tubulati, 5-nervii, limbo 5-fidi: *laciniis* linearibus, obtusis, canaliculatis, recurvato-patulis, nervis prominentibus apice confluentibus, hinc margine apiceque incrassatis: *ligulis* plurimis, accessoriis, patulis, substantiâ coriaceis, obtusè trilobis, 6-nerviis (nervis per paria lacinarum discum occupantibus, paribus intermediis magis approximatis) nunc neutris unilabiatis, nunc pistillo (an sterili!) staminum rudimentis, labioque interiore simplici, angustissimo, canaliculato, obtuso, binervio, coriaceo, recurvato, basi dilatato auctis; *fœminei* copiosissimi, filiformes, 5-nervii, coriacei, basi callosâ, difformes; *centrales* limbo æquali, 5-partito;

5-partito; *marginales* non radiantés, limbo irregulari, ob laciniam quintam (interiorem) profundius sejunctam, indè quasi bilabiati: *segmentis* linearibus, obtusis, subsecundis, canaliculatis, nervis prominulis, summo apice confluentibus. *Filamenta* lineari-angustissima, compressa, glabra. *Antheræ* semi-exsertæ, in tubum connatæ, appendiculâ lineari-lanceolatâ, obtusâ, coriaceâ, rigidâ, ipsâ antherâ breviorē coronatæ, basi longè biaristatæ: *aristis* linearibus, setaceo-acuminatis, canaliculatis, antherâ longioribus, æqualibus. *Stylus* filiformis, basi bulbosus. *Stigma* masculis pentagonum! obtusum, indivisum; ligulis tereti-clavatum, læve, exsertum; fœmineis bipartitum, exsertum: *lobis* lineari-lingulatis, obtusis, pruinosis, persæpè spiralliter convolutis. *Achenia* lineari-oblonga, compressa, glaberrima. *Pappus* masculis cinereus, caducus: *radiis* inæqualibus, paleaceo-setaceis, complanatis, longissimis, denticulis spinulosis exasperatis, apice acuto, nunc subpenicillato, infrâ medium flexuosis, simplici tantùm ordine digestis; fœmineis capillaris, persistens, albus: *radiis* triplici serie confertissimis, denticulato-scabris, longioribus basi latiore subpaleaceâ.

Frutices *niveo-lanati*. Folia *alterna*, *petiolata*, *integra*. Flores *terminales*, *plerumque solitarii*, *sessiles*, *magni*, *purpurei*, *cernui*.

Nomen a *διαζευξις separatio*, et generi huic imposuit, ob flores raros esse dioicos in hac familiâ.

This is without doubt the most remarkable genus of the whole family. It is diœcious, and, in the structure of the capitula and pappus of the male and female flowers, it differs as much as *Antennaria*. The male capitula are very much smaller, and besides the male florets of which they are composed, there is a single series of ligulate florets, either with or without pistilla,
and

and having imperfect stamina. The florets of the female capitulum differ in the disposition of their lacinia; for in the central ones the limb is regularly five-cleft, whereas in those of the circumference it is somewhat bilabiate, the inner segment being more deeply separated than the rest. The two sexes of this plant might be readily mistaken for two distinct genera. The *Atractylis mexicana* of Linnæus I have ascertained to be the male sex of a third species of this genus. Of this interesting plant, for which I propose the name of *Diazenvis Mutisiana*, I have had an opportunity of examining the original sample in the Linnæan herbarium.

1. *D. trinervis*, foliis lanceolatis acuminatis triplinerviis, floribus solitariis.

Aster trinervis. *Herb. R. et P.*

In Guayaquilâ Peruvianorum. *Tafalla.* 7.

Frutex erectus, ramosus, niveo-lanatus, sempervirens, omnium speciosissimus. *Rami* teretes, striati, lanugine albâ fugaci vestiti. *Folia* alterna, breviter petiolata, lanceolata, acuminata, margine denticulis plurimis acutis ornata, nunc rarò integerrima, 5-nervia, nervis lateralibus extimis ferè obsoletis, hinc quasi triplinervia, membranacea, basi obtusâ, suprâ denudata, lætè viridia, et lucida, subtùs lanâ implexâ copiosissimâ niveâ, demùm fulvescenti, vestita, 3—5-pollicaria, pollicem v. sesquipollicem lata. *Petioli* suprâ canaliculati, 2—3 lineas longi, basi paulò dilatati. *Flores* terminales, solitarii, sessiles, nutantes, purpurei; *feminei* magnitudine et facie ferè *Cnici centauroides*, diametro 2-pollicares; *masculi* triplò minores. Cætera omninò ut in caractere generico.

2. *D. ? ser-*

2. D. ? *serrata*, foliis ovato-lanceolatis acutis dentato-serratis penninerviis, floribus glomeratis.

Carduus mitis. *Herb. S. et M.*

In Mexico. *Sesse et Mocinno.* 7.

Frutex erectus, ramosus. *Rami* sulcato-angulati, undique omninò albo-lanati. *Folia* alterna, brevissimè petiolata, spithamæa, ovato-lanceolata, acuta, dentato-serrata, dentibus triangulari-ovatis, mucronatis, leviter antrorsum uncinatis, aliis minimis interjectis, penninervia, nervis obliquè transversis, costâque mediâ validâ prominentibus, suprâ demum calva, viridia, punctisque elevatis copiosissimis asperiuscula, subtus lanâ albâ densè implexâ copiosissimè vestita, 5—7-pollicaria, 2—3 uncias lata, basi acutâ integerrimâ. *Pctioli* crassi, brevissimi, vix sesquilineam longi. *Flores* terminales, plures (5—10), sessiles, glomerati. *Involucra* globosa, densè lanata: *squamis* multiplici ordine lanceolatis, acuminatis, rigidis, adpressis. *Receptaculum* planum, scrobiculatum, angulis elevatis, acutis exasperatum. *Flosculi* perfecti nondum observati: *pappo* setaceo, scabro.

Having only seen specimens of this with the capitula in a very young state, it has been placed here solely from the habit of the plant itself and from the structure of its involucre. What relates to the florets still remains undetermined.

CENTROCLINIUM.

Receptaculum aculeatum. *Flosculi* disci tubulosi, hermaphroditi; *radii* ligulati, fœminei.

Involucrum subglobosum, multiplici ordine imbricatum: *squamis* lanceolatis, acuminatis, coriaceis, adpressis. *Receptaculum* aculeatum: *aculeis* subulatis, callosis, rigidis, brevibus, in circulis plurimis dispositis. *Flosculi* disci hermaphroditi, tubulosi,

tubulosi, æquales, 5-dentati, latere interiore profundius fissi, hinc limbus perinde obliquus: *segmentis* lanceolato-linearibus, obtusis, erectis, nervis primariis validis, apice confluentibus, inde incrassatis; *radii* fœminei, plures (10—14), rudimentis staminum omninò destituti, bilabiati; *labio exteriori* (ligulâ) longissimo, obtusè trilobato, coriaceo, subtùs lanato, 6-nervio, nervis per paria utriusque lobi discum occupantibus, strictis, parallelis, apice confluentibus; *interiore* profundè bipartito, membranaceo, spiraliter revoluto: *segmentis* lineari-filamentosis, margine primùm conglutinatis. *Filamenta* glandulosa. *Antheræ* basi aristis 2 longis, attenuatis, munitæ, appendiculâ lanceolato-lineari, acutâ, coriaceâ, rigidâ coronatæ. *Stylus* filiformis, basi depressobulbosus. *Stigma* hermaphroditis bilobum: *lobis* lingulatis, minutè papillois; fœmineis tereti-clavatum (lobis primò aretè applicatis), pruinatum. *Achenia* pentagona, demùm glabrata. *Pappus* fuscescens, basi fulvus; *radiis exterioribus* brevibus, pilosis; *interioribus* duplici serie longissimis, setaceis, supernè dilatato-complanatis, denticulatis, deciduis.

Frutex ramosissimus, sempervirens, candidissimus. Rami teretes. Folia alterna, petiolata, lanceolata, acuminata, dentata, coriacea, penninervia, nervis obliquè transversis, suprâ demùm nuda, viridia, polita, subtùs copiosè ut et rami niveo-tomentosa, mollissima, basi cuneatâ, integerrimâ, sesqui- v. nunc ferè tripollicaria, unciam, aut et dimidium ad medium lata. Petioli semicylindrici, 2 v. 3 lineas longitudine æquantes. Flores purpurei? solitarii, longè pedunculati. Pedunculus cylindricus, primò quasi terminalis, sed prodeunte ramulo revera lateralis, 5—10-uncialis. Radius pollicaris.

Nomen a κεντρον stimulus, et κλωνη lectus, et ab ipso receptaculum

culum spinulosum, hujus stirpis optimum characterem constituens, designare volui.

The *Onoseris salicifolia* of M. Kunth may possibly belong to this genus; but not having had an opportunity of examining a sample of it, I am unable to determine this point at present. It cannot belong to *Onoseris*, which has the habit of the *Perdiceæ*, and with which tribe the genus must be associated.

1. *C. albicans*.

Hieracium albicans. *Herb. R. et P.*

In Peruviâ. *Ruiz et Pavon.* 7.

CHÆTACHLÆNA.

Receptaculum favosum. *Flosculi* disci hermaphroditi, tubulosi, 5-dentati; *radii* fœminei, ligulati.

Involucrum semiglobosum, polyphyllum: *squamis* numerosissimis, quadruplici circiter serie imbricatis, lanceolatis, in setam longam, recurvato-patentem prodeuntibus. *Receptaculum* favosum, dentato-scabrum. *Flosculi radii* plures, fœminei, ligulati, unilabiati, trilobati, 6-nervii (nervis per paria discum laciniarum occupantibus) fœminei? staminum rudimentis; *disci* hermaphroditi, tubulosi, 5-dentati, tubo infra medium angustiore, fauce cylindricâ, latere exteriori profundius fissi: *nervis* 5 primariis ad laciniarum sinus divisis: *dentibus* linearibus, obtusis. *Antheræ* appendiculâ lineari-lanceolatâ, acutiusculâ, coriaccâ coronatæ, basi setis 2, longis, tenuissimis, simplicibus munitæ. *Stigma* hermaphroditis inclusum, emarginatum, obtusum; fœmineis exsertum, magnum, indivisum, clavatum, pruinatum. *Achenia* cuneato-oblonga, pilosiuscula. *Pappi radii* persistentibus, triplici ordine digestis, copiosis; *interioribus* compressis, rigidis, serrulatis; *extimis* brevissimis, pilosis.

Herba

Herba annua, niveo-lanata, facie *Cryptostenematis calendulæci*.

Radix longissima, descendens, fulvella, fibris plurimis, capillaceis munita. Caules plures, procumbentes, simplices v. divisi, palmares aut spithamæi. Folia alterna, petiolata, ovata, mucronata, sinuato-dentata, nunc subhyrata, dentibus inæqualibus, mucronatis, distantibus, membranacea, maximè fragilia, triplinervia, subtùs densiùs lanata, mollissima, pollicaria v. sesquipollicaria, semunciam v. unciam latitudine æquantia; radicalia longiùs petiolata. Flores solitarii, longè pedunculati, pulcherrimi, odorati; diametro sesqui-unciales. Pedunculi filiformes, uniflori, assurgentes, nunc ex ipsâ radice ortum ducentes, stricti, palmares v. spithamæi, lanuginosi, squamulâ unicâ setacê muniti. Radius atropurpureus, vix semuncialis.

Discus pallidior. Pappus cinereo-fulvellus.

Nomen a *χαίτη* seta, et *χλαίνα* involucrium.

1. *C. odorata*.

Leysera odorata. *Herb. R. et P.*

In Guayaquilâ Peruvianorum. *Tafalla*. ☉.

Chatachlena is intimately allied to the preceding genus; the structure of the florets and pappus proves this most satisfactorily; and the elongated almost cirrhose points of the scales of the involucrium compared with the tendrils of the leaves of *Mutisia*, as well as the woolly habit of the plant, and the general resemblance of the flower, appear to me to indicate considerable affinity to that genus. The leaves of this genus and of *Mutisia lanata* are extremely fragile in the dried state.

EUTHRIXIA.

Receptaculum scrobiculatum. *Flosculi disci* hermaphroditi, tubulosi, 5-dentati; *radii* fœminei, bilabiati.

Involucrium campanulatum, polyphyllum, basi attenuatum: *squamis*

mis quadruplici circiter ordine imbricatis, obtusis, membranaceis, margine scariosis. *Receptaculum* depressum, scrobiculatum. *Flosculi disci* numerosi, hermaphroditi, tubulosi, basi angustati: *limbo* obtusè 5-dentato, subæquali; *dentibus* 2 *exterioribus* majoribus, profundiusque sejunctis: *nervis primariis* ad sinum laciniarum bifidis, ramis marginalibus: *radii* plures, fœminei, bilabiati, staminibus sterilibus; *labio* *exteriore* ligulato, elliptico-oblongo, 4-nervio (nervis extimis longè intramarginalibus) apice obtusè tridentato; *interiore* lineari-angustissimo, recto, acutè bidentato. *Antheræ* appendiculâ lineari-lanceolatâ acutâ, cartilagineo-membranaceâ coronatæ, basi setis 2, longis tenuissimis, puberulis ipsâ antherâ longioribus munitæ. *Stigma* clavatum, bilobum: *lobis* obtusis, conniventibus, minutè papillosis. *Achenia* lineari-oblonga, compressa, punctis elevatis, crystallinis copiosè ornata: *disco epigyno* parùm dilatato, concavo. *Pappus* pilosus, persistens: *radiis* simplici ordine contiguis, æqualibus, tenuissimè denticulatis.

Herba erecta, ramosa, tenella, fragilis, palmaris v. spithamæa, omninò glaberrima, radice fibrosâ, annuâ. Rami elongati, erecto-patentes, filiformes, purpurascens, nitiduli, virgati, rigidiusculi, foliosi. Folia alterna, sessilia, lineari-subulata, mucronulata, subcarnosa, glabra, subtùs convexa, suprâ concava, margine glandulosa, basi adpressâ remanenti, semuncialia v. parùm ultra; superiora sensim breviora, et in foliolis involucri abeuntia, nunc rarò semipollicem longa. Flores terminales, pro ratione plantæ magni, solitarii, v. pauci laxè corymbosi, sessiles. Involucrum semipollicare, omninò leve: squamis scarioso-membranaceis, nitidis, nunc purpurascens. Flosculi aurei. Pappus niveus.

Nomen ab *ev* benè, et *θριξ* capillus (i. e. benè comatus), et ad pappum refert.

1. *E. salsoloides*.

In Chili. *Ruiz et Pavon.* ☉.

The naked receptacle, the rays of the pappus disposed in a simple series, and the habit of the plant itself, readily distinguish this genus from the rest of this group.

Trib. 7. MUTISEÆ. *Receptaculum nudum. Flosculi difformes: disci tripartito-bilabiati. Antherarum aristis subplumosis. Stigmata obtusa, pruinosa, partim connata. Frutices sæpè scandentes, foliis apice cirrhosis!*

MUTISIA, L.

Involucrum polyphyllum, multiplici serie imbricatum: squamis latis, integerrimis. Receptaculum nudum. Flosculi radii fœminei, ligulati: ligula ampla, multinervia (nervis 10 v. 15 parallelis, nunc supernè dichotomis, extimis longè intramarginalibus), apice tridentata, fauce sæpè ad interiùs dentibus (labello interiore) accessoriis lineari-setaceis munita: disci masculi: tubo 10-nervio: limbo altè tripartito-bilabiato: labio interiore bipartito, revoluta, segmentis binerviis; exteriori multò majore, ligulato, 8-nervio (nervis alternis secundariis prope apicem omninò oblitteratis) obtusè tridenticulato. Antheræ omninò exsertæ, in tubum connatæ, appendiculâ longissimâ, lineari-ligulatâ, obtusâ, coriaceâ terminatæ, basi biaristatæ: aristis prælongis, pubescentibus, subplumosis. Stylus basi callosus. Stigma bilobum: lobis obtusis, pruinosis. Achenia linearia, compresso-quadrangula, glabra: disco epigyno parùm dilatato. Pappus deciduus: radiis validis, compressiusculis, filamentoso-plumosis, simplici ordine copiosis, contiguis: villis mollissimis, caducis.

Frutices

Frutices (Amer. Austr.) *scandentes*, *Vicias facie æmulantes*. Folia *alterna*, *pinnata* v. *simplicia*, *apice cirrho* (*foliolis abortivis aut costæ elongatione*) *pinnatè partito* v. *simplici*, *spiralì in-structa*! Flores *solitarii*, *magni*, *speciosi*, *purpurei* v. *lutei*.

The presence or absence of the labellum in the rays is evidently a character of no importance in this genus. Its mutability even in species otherwise intimately allied, shows that it cannot be employed with advantage as a sectional distinction; and in those species where it is less developed, I hardly think it of specific importance. The younger Linnæus in his description of *Mutisia Clematis* appears to have mistaken the two lobes of the labellum for the rudiments of stamina. Humboldt and Bonpland have represented and described their *Mutisia grandiflora* (*Pl. Eq. i. t. 50.*) as having the florets of the disk tubular, and equally five-toothed. This is clearly an error, for the origin of which it is difficult to account, as we know of no species with a similar structure; and indeed this character, if really present, would alone be sufficient to justify its removal from *Mutisia*: but its evident affinity to *M. Clematis*, which would also have led us to expect the presence of an interior labellum in the rays, induces us to reject this opinion, and to regard the description and figure in the *Plantæ Equinoxiales* as erroneous in these respects. I am not satisfied that this is really distinct from *M. Clematis* of the *Supplementum Plantarum*, as the sample of the latter preserved in the Linnæan herbarium appears to approach very near to it, even as regards the size of the flower, which is erroneously compared by the younger Linnæus to the *Dianthus caryophyllus*. They both agree in having the leaflets on distinct footstalks, which the plant of Cavanilles appears to want entirely. This last being from Peru, may prove to be a distinct species. The most remarkable character in *Mutisia* is the number of vessels
in

in the corolla, which are from 10 to 15 in the florets of the circumference, and 10 in those of the disk. These vessels are generally of the same thickness, and all originate from the base; but in the exterior lip of the centre florets, where they are eight in number, the alternate ones are more slender, and disappear before they reach the apex of the laciniaë. The number of vessels is uniform in the nine species here enumerated, and there is every probability of its being general throughout the rest of the genus. This character and the pubescent setæ of the antheræ show an intimate affinity between *Mutisia* and *Bichenia*, before described.

* *Foliis pinnatis.*

1. *M. lanata*, niveo-lanata; foliis 7-jugis, involueris subrotundis: squamis appendiculatis cirrhosis, radiis copiosis bilabiatis, caule alato.

Mutisia lanata. Ruiz et Pavon *Syst. Veg. Fl. Peruv. et Chil.* p. 192. *Gen. Pl. t. 23.*

In Peruviaë nemoribus prope Muna vicum in Pozuzo viâ.
Ruiz et Pavon. 7.

Planta fruticosa, scandens, copiosè niveo-lanata. Caules angulati, plerumque 4-anguli, alati: alis foliaceis, retrorsùm dentatis, dentibus triangulari-lanceolatis, acutis. Folia alterna, sessilia, pinnata, palmaria v. spithamæa: rachis subtùs convexa, suprâ canaliculata, margine alata, basi dilatata: pinnis 6—7-jugis, lanceolatis, obtusiusculis, integerimis, planis, subtùs densè lanatis, suprâ hinc nudiusculis, nunc (præsertim in junioribus) lanatis, basi latâ decurrentibus, 2 v. 2½-pollicaribus, semunciam v. ultra latis; imis 2 stipulas mentientibus, caulem amplexantibus. Cirrhi (foliola abortiva) pinnatè partiti: segmentis (3—5) filiformi-compressis,

compressis, obtusis, spiraliter revolutis. *Flores* terminales, solitarii, magni, omnium formosissimi, pedunculati, diametro ferè 3 pollices adæquantes. *Pedunculi* spithamæi, cylindrici, pennâ corvinâ parùm crassiores, apicem versus foliolis simplicibus cirrhosis muniti. *Involucrum* amplum, subrotundum, truncatum, longitudine et latitudine 2 uncias adæquans : *squamis* ellipticis, adpressis, latissimis, membranaceis, appendice (præsertim in exterioribus) sæpè pollicari, lanceolatâ, longissimè subulato-acuminatâ, apice obtusâ, cirrhosâ, revolutâ auctis! hinc squamæ involucri, ut omnibus appareant, tantùm folia sunt mutata. *Receptaculum* planum, nudum. *Flosculi radii* plurimi (18—20) atrosanguinei, fœminei, staminum rudimentis, bilabiati ; *labio exteriori* ligulam amplam, bipollicarem, 3 lineas latam, subtùs lanatam, obtusè tridentatam, dependenti-patulam constituyente ; *interiore* profundè bipartito : *laciniis* setaceis, apice bidentatis! revolutis ; *disci* creberrimi, hermaphroditi, tubulati, tripartito-bilabiati : *labiis* revolutis ; *exteriore* lineari-ligulato, obtusè tridentato ; *interiore* bipartito : *laciniis* linearibus, obtusis : *nervis primariis* validis. *Filamenta* angustè linearia, complanata, glabra, libera. *Antheræ* in tubum connatæ, nervo manifestissimo instructæ, basi biaristatæ : *aristis* unguicularibus, infernè attenuatis, basi ramulosis, subplumosis : *appendiculâ* lineari-ligulatâ, obtusâ, cartilagineâ, ipsâ antherâ dimidio longiori. *Stylus* filiformis, lævis, basi incrassato-clavatus. *Stigma* bilobum : *lobis* brevibus, crassis, obtusissimis, pruinosis. *Achenia* radiis tetragona ; *disco* oblongo-compressa, glabra. *Pappus* fuliginoso-cinereus, sesquipollicaris, mollissimus : *radiis* valdè plumosis, imâ basi connatis, ramulis demùm deciduis, tunc simplicibus.

2. *M. viciæfolia*, glabriuscula; foliolis 12-jugis, involucro cylindrico: squamis inappendiculatis, radiis paucis unilabiatis, caule tereti.

Mutisia viciæfolia. *Cav. Ic.* 5. p. 62. t. 490. *Willd. Sp. Pl.* 3. p. 2069. *Lam. Illustr.* 6. t. 690. f. 2.

In Chili prope Valparaiso. *Ludovicus Née, Ruiz et Pavon.* 7.

Planta fruticosa, scandens, Viciis quibusdam facie ferè similis.

Caules teretes, rubri, striati, tenuissimè pubescentes. *Folia* alterna, sessilia, pinnata, 3—4-uncialia: *rachi* teretiusculâ, pubescenti, margine superiore angustè alata: *foliolis* plurimis (10—13-jugis) ellipticis lanceolatisve, acuminatis, inæquilateris, glabris, semunciam v. nunc ferè pollicem longis. *Circhi* pinnatè partiti: *laciniis* 3—5, subulatis, obtusiusculis, revolutis, semuncialibus. *Flores* in dichotomiis solitarii, longè pedunculati. *Pedunculi* cylindrici, striati, minutè pubescentes, 3—5-unciales, apice incrassati. *Involucrum* tubulato-cylindricum, læve, bipollicare: *squamis* lattissimis, integerrimis, lævissimis, adpressis, nudis, nec appendiculatis; *extimis* brevissimis, ovatis, acutis; *interioribus* oblongis, mucronulatis; nunc in juventute lanigeris. *Receptaculum* nudum. *Flosculi radii* pauci (6—8), fœminei, atropurpurei, unilabiati, ligulâ oblongâ, patenti, obtusè tridenticulatâ, subtùs glabrâ, involucro duplò breviorè, rudimentis staminum nullis; *disci* hermaphroditi, pallidiores, plures (16—17), tubulosi, tripartito-bilabiati: *labiis* erectis; *exteriore* trifido, lobis lineari-lanceolatis, obtusis; *interiore* bipartito, laciniis linearibus, obtusiusculis: *nervis primariis* validis. *Antheræ* biunciales, appendiculâ lineari, acuminatâ, unguiculari coronatæ, basi longè biaristatæ: *aristis* complanatis, infernè capillaceo-attenuatis. *Stigma* radiis bifidum, segmentis linearibus, acutis, pruinosis; disco bi-

lobum, lobis obtusiusculis, minutè papillois. *Achenia* radiis quadrangula, glabra; disco compressa, lævia. *Pappus* fulvellus, mollissimus, plumosus.

3. *M. acuminata*, glabra; foliolis multijugis, involucri pyramidalis lanuginoso; squamis exterioribus ovatis reflexis, caule teretiusculo.

Mutisia acuminata. Ruiz et Pavon *Syst. Veg. Fl. Peruv. et Chil.* i. p. 192.

In præruptis, collibus et sepibus Tarmæ et Haurocheri ubique. Ruiz. 7.

Planta frutescens, 6-pedalis. *Caulis* scandens, ramosissimus, glaber, fragilis, tereti-angulatus. *Folia* alterna, pinnata, cirrho furcato terminata: *foliola* lanceolata, acuminata, integerrima, glabra, sessilia: *extima* minora, subacinaciformia, leviter decurrentia. *Pedunculi* terminales, foliosi, uniflori, folio oppositi. *Calyx* pyramidalis, ovato-oblongus, imbricatus, lanuginosus, extùs coloratus: *squamis* 24, concavis; *exterioribus* ovatis, reflexis; *interioribus* lanceolato-cuneiformibus. *Corollulæ* plures in disco hermaphroditæ, flammeæ; *femineæ* septem in radio, aureæ v. flavæ. *Pappus* plumosus. Ruiz *Mss.*

Obs. Vulgò *Chinchinculma* nuncupatur. Floret Maio et Julio. Ruiz *Mss.*

There being no specimen of this species in the Herbarium of Ruiz and Pavon, and as the plant has been only known by the short specific character contained in the work above-quoted, I have thought that the above description, derived from the manuscripts of Ruiz, might not prove unacceptable to my botanical readers.

4. *M. arachnoidea*, lanigera; foliolis subseptemjugis, involucri squamis

squamis ovato-lanceolatis acuminatis, radiis copiosis bilabiatis: ligulis linearibus revolutis.

Mutisia arachnoidea. Mart. Mss.

M. speciosa. Bot. Mag. t. 2705.

In Brasiliâ ad Rio de Janeiro. Martius. 2.

Planta suffruticosa, ramosissima, scandens, lanâ cinereâ, copiosâ, fugaci, arachnoideâ vestita, quandoque omninò læviuscula evadit. *Caulis* 5-gonus. *Folia* alterna, sessilia, pinnata, palmaria, patentissima: *pinnæ* alternæ, 12—14, elliptico-oblongæ, obsoletè mucronulatæ, integerrimæ, membranaceæ, basi angustatâ substipitatæ, posticibus sæpiùs rotundatis, nec attenuatis, pollicem v. sesquipollicem longæ, 6—8 lineas latæ: *rachis* simplicissima, purpurascens, suprâ planiuscula, canaliculata, subtùs carinata, apice in cirrhum pinnatè partitum, cujus laciniæ filiformes spiraliter contortæ, prodeunte. *Flores* terminales, solitarii, pedunculati. *Pedunculi* erecti, teretiusculi, inde planiusculi, spithamæi. *Involucrum* oblongum, cylindricum, imbricatum, apice paululùm coarctatum: *squamis* ovato-lanceolatis, acuminatis, membranaceis, extùs præsertim ad oram lanuginosis, nunc omninò glabris; *exterioribus* patentibus, basi tantùm adpressis; *intimis* oblongis, conniventibus, apice rotundatis, mucronulatis, margine lanuginosis. *Receptaculum* nudum. *Flosculi radii* bilabiati, rubri, plurimi (15—20) fœminei, staminibus sterilibus, tubo compressiusculo longitudine involucri: *ligulâ* lineari, tridentatâ, revolutâ, involucrio triplò breviorè, quandoque bipartitâ; *labio interiore* paulò breviorè, pallido, bipartito, laciniis lineari-angustissimis, spiraliter revolutis, primùm margine conglutinatis; *disci* hermaphroditi, albi, tubulosi, bilabiati: *labiis* revolutis; *exteriore* ligulato, tridentato, 4-nervio; *interiore* bipartito, laciniis linearibus obtusis, binerviis. *Filamenta* linearia, compressa, minutissimè glandulosa.

dulosa. *Antheræ* in tubum pentagonum coalitæ, appendiculâ linearî, obtusâ terminatæ, basi bisetosæ: *setis* longis, basi ramulosis. *Stylus* filiformis, glaber, basi incrassatus. *Stigma* bilobum: *lobis* brevissimis, obtusis, papillois, partim connatis. *Achenia* compressiuscula, disco parùm concava, non dilatata, glabra. *Pappi radiis* copiosis, contiguis, plumosis, cinereo-fulvellis, mollissimis.

The appellation of *speciosa* being so truly inapplicable to this species, I have preferred the unpublished one given to it by Dr. Martius. The plant was imported into this country from some continental nursery, where the name of *speciosa* no doubt originated.

** *Foliis pinnatifidis, basi decurrentibus.*

5. *M. retrorsa*, niveo-lanata; foliis runcinatis, caule tereti.

Mutisia retrorsa. Cav. *Ic.* 5. p. 65. t. 498.

M. runcinata. Willd. *Sp. Pl.* 3. p. 2069. Hook. *Bot. Misc.* 1. p. 8. t. 5.

In Chili (*Ruiz et Pavon*); ad Fretum Magellanicum. *Ludovicus Néé et P. P. King.* ½.

Planta suffruticosa, sesqui- v. bipedalis. *Caulis* scandens, cylindricus, flexuosus, undique lanâ fugaci niveâ copiosè obrutus, demùm nudus. *Folia* alterna, basi decurrenti edentulâ, lanceolata, acuminata, runcinata, coriacea, margine revoluta, subtùs densè niveo-lanata, costâ prominenti, suprâ minùs copiosè lanata, et tandem denudata, perlucida, uncialia v. sesquiuncialia, 10 lineas v. paulò ultra lata: *lobis* triangulari-ovatis, spinoso-mucronatis. *Cirrho* simplicissimi, nunc bipartiti, compresso-filiformes, obtusiusculi, revoluti, glabri, vix unciales. *Flores* terminales, solitarii, subsessiles. *Involucrum* uncialia, cylindricum: *squamis* subrotundo-ovalibus, adpressis; *exterioribus* appendice lanceolatâ, spinoso-mucronatâ,

mucronatâ, ipsâ squamâ brevior, patulâ; *intimis* mucronulatis, margine lanuginosis. *Receptaculum* nudum. *Flosculi* lutei! *radii* plures (8—14) fœminei, bilabiati, staminibus sterilibus; *labio exteriori* amplo, ligulato, obtusè tridenticulato, patulo; *interiore* bipartito, laciniis linearibus, revolutis; *disci* tubulato-bilabiati; *labio exteriori* trifido; *interiore* angustiore, bipartito; utroque revoluti. *Antheræ* basi setis 2, attenuatis, simplicibus, longis aristatæ, appendiculâ lineari, apice inflexâ, cartilagineâ, interiùs carinatâ coronatâ. *Stylus* teres, validus. *Stigma* bilobum: *lobis* brevissimis, crassis, obtusis, conniventibus, pruinosis. *Pappus* plumosus, cinereus, mollissimus.

6. *M. sinuata*, nudiuscula; foliis pinnatifidis basi attenuatis, caule alato.

Mutisia sinuata. *Cav. Ic.* 5. p. 66. t. 499. *Willd. Sp. Pl.* 3. p. 2070.

In Chili. *Ruiz et Pavon.* 2.

Caulis suffruticosus, scandens, flexuosus, alatus: *alis* dentatis, interruptis, quòd basin versus attenuatis, ibique obliterated, nec continuatis. *Folia* alterna, linearia, pinnatifida, dentata v. grossè serrata, margine revoluta, basi attenuata, decurrentia, subcoriacea, utrinque nunc leviter lanuginosa, tunc (præcipuè in *adultioribus*) glabriuscula, pollicaria v. paulò ultra: *lobis* ovatis, mucronatis, retrorsis v. sæpiùs porrecto-patulis. *Cirrho* simplices, subulati, corneo-mucronati, folio dimidio breviores, recurvati, vix revoluti. *Flores* terminales, solitarii, sessiles. *Involucrum* cylindricum, vix longitudine unciale: *squamis* subrotundis, adpressis, lævissimis, margine tantùm lanuginosis; *exterioribus* appendice lanceolatâ, acuminatâ, strictâ, glabrâ auctis. *Flosculi* purpurei? *radii* 8, fœminei, ligulati, unilabiati, staminum rudimentis; *disci* plures

plures (15) tubulato-bilabiati, hermaphroditi; *labio exteriore* ligulato, tridentato; *interiore* bipartito, revoluto. *Antheræ* basi longè bisetæ, appendiculâ lineari cartilagineâ coronatæ. *Stigma* bilobum, pruinatum. *Pappus* cinereus, valdè plumosus, mollissimus.

*** *Foliis amplexicaulibus, tantùm dentatis.*

7. *M. ilicifolia*, foliis cordato-oblongis spinuloso-serratis venosissimis, caule teretiusculo.

Mutisia ilicifolia. Cav. *Ic.* 5. p. 63. t. 493. Willd. *Sp. Pl.* 3. p. 2069. Hook. *Bot. Misc.* 1. p. 7. t. 4.

M. spinosa. Ruiz et Pavon *Syst. Veg. Fl. Peruv. et Chil.* i. p. 193.

In Chili copiosè ad Arauco arcem supra Colocolo montem intra fossas (Ruiz et Pavon); in summis montibus Chilensibus Cordillera del Planchon dictis, et ad Cucha-Cucha. *Ludovicus Néc. Caldclough.* 7.

Planta suffruticosa, scandens, nunc lanâ fugacissimâ leviter ornata, tunc glaberrima, glauca. *Caulis* tripedalis v. ultra, teretiusculus, foliosus. *Rami* angulati, in plantis adhuc teneris alati. *Folia* alterna, amplexicaulia, conferta, subimbricata, cordato-oblonga, argutè æqualiterque dentato-serrata (dentibus spinulâ rigidâ brevissimâ terminatis) undulata, coriacea, reticulatim venosissima, apice truncata, costâ validâ basi dilatatâ, apice in cirrho simplici, filiformi, mucronulato, spiraliter revoluto productâ, pollicem v. sesquipollicem longa, 8—10 lineas lata. *Flos* terminalis, solitarius, brevissimè pedunculatus. *Pedunculus* squamis aliquot cordatis, coriaceis, denticulatis, apice recurvis munitus. *Involucrum* oblongum, unciale: *squamis exterioribus* appendice ovato-lanceolatâ, acuminatâ, reflexo-patenti, coriaceâ auctis; *interioribus* latissimis, adpressis, subrotundis, coriaceis, mucronulo

cronulo recurvo, lanuginoso. *Flosculi radii* fœminei, plures (8—10) bilabiati, intùs albi, extùs purpurei; *labio exteriorè* elliptico-oblongo, apice tridenticulato, subtùs bicarinato: *interiore* brevissimo, bidentato, nunc simplici v. obsoleto: staminibus sterilibus; *disci* plurimi (20—30) hermaphroditi, tubuloso-bilabiati: *labiis* revolutis. *Antheræ* basi longè bisetæ, appendiculâ lineari obtusiusculâ coronatæ. *Stigma* bifidum: *lobis* recurvatis, apice paulò incrassatis, minutè papillosis. *Pappus* albus, mollissimus, plumosus.

8. *M. truncata*, foliis cordato-oblongis truncatis basi apiceque spinoso-dentatis undulatis subaveniis, caule angulato.

In Chili. *Caldcleugh*. ♀.

Planta suffruticosa, scandens, ramosissima, glabra. *Caulis* angulatus. *Folia* remotè alterna, sessilia, amplexicaulia, e basi cordatâ oblonga, lobis posticis truncatis, spinoso-dentatis, conniventibus, apice truncata, emarginata, dentibusque 2, spinosis, subremotis utrinque ornata, marginibus strictis, integerrimis; subcoriacea, rigida, utrinque glabra, glaucoviridia, sesqui- v. bipollicaria, vix unciam lata, venis vix manifestis, costâ utrinque prominulâ lævi, in cirrhum longissimum (3—4-uncialem) filiformem, lævissimum, apice complanatum, spiraliter revolutum prodeunte. *Flores* terminales et alares solitarii, pedunculati. *Pedunculi* filiformes, unciales, glabri. *Involucrum* cylindricum, pedunculi longitudine: *squamis* subrotundis ovalibusve, adpressis, margine membranaceis; *extimis* appendice lanceolatâ, acutâ, coriacea, patentissimâ auctis; *interioribus* apice obsoleto mucronulatis et lanugine parcissimâ barbatis. *Receptaculum* nudum. *Flosculi radii* 8 circiter, purpurei, ligulati, fœminei, involucro longitudine æquales, obtusè tridentati, labello interiore obsoleto v. bidenticulato; *disci* hermaphroditi, tubulato-

lato-bilabiati; *labio exteriore* tridentato; *interiore* bipartito: *laciniis* linearibus, acutis, revolutis. *Antheræ* basi bisetæ (setis longis basi ramosis) appendiculâ lineari, antherâ ipsâ paulò longiori, apice conniventi, obtusiusculâ terminatæ. *Stigma* bilobum: *lobis* lingulatis, obtusis, pruinosis, sæpè facie interiore applicatis. *Pappus* valdè plumosus, mollissimus, cinereus.

For the opportunity of adding this truly distinct species to the genus *Mutisia* I am indebted to Mr. Caldcleugh, by whom specimens of it as well as of the preceding were transmitted to Mr. Lambert.

9. *M. latifolia*, foliis basi decurrentibus cordato-ovalibus spinoso-dentatis integerrimisve subtùs lanatis, radiis copiosis, caule alato.

In Chili ad Valparaiso. *D. Bridges.* 7.

Caulis fruticosus, ramosus, scandens, alatus. *Rami* alati, foliosi: *alis* 3, latis, foliaceis, dentatis. *Folia* conferta, amplexicaulia, cordato-ovalia, coriacea, apice rotundata et emarginata, aut omninò truncata, margine dentato-serrata, undulata, dentibus spinoso-mucronatis, utrinque lanâ fugaci vestita, suprâ demùm nuda, viridia, venis siccitate conspicuis, reticulatis, costâ basi latiore, apice in cirrhum longum (3-uncialem) compressum, obtusum, spiraliter convolutum prodeunte; sesqui- v. bipollicaria, pollicem v. sesquipollicem lata: *lobis posticis* productis, rotundatis, sinu baseos decurrentibus. *Flos* terminalis, solitarius, sessilis. *Involutum* magnum, cylindricum, unciale, densè arachnoideo-lanatum; *squamis intimis* simplici ordine dispositis, limbo dilatato, rotundato, membranaceo, margine lanuginoso; *exterioribus* appendice ovato-lanceolatâ spinoso-mucronatâ, patentibus auctis. *Flosculi radii* plures (14) rosei, ligulati, spatulato-

spathulato-oblongi, obtusè tridentato, multinervio, labello interiore aucti, hujus laciniaë lineares, erectæ, brevissimæ, staminibus sterilibus; *disci* circiter 30, tubulato-bilabiati: *tubo* 5-angulo: *labiis* revolutis; *exteriore* ligulato, obtusè tridentato; *interiore* bipartito: *segmentis* linearibus, obtusis, revolutis, binerviis. *Stamina* tubo inserta: *filamenta* compressa, pubescentia, apice articulata. *Antheræ* exsertæ, in tubum coalitæ, appendiculâ ligulatâ obtusâ callosâ coronatæ, basi bisetosæ: *setis* longis, compressis, canaliculatis, basi ramosis, nunc rariùs bipartitis. *Stylus* 5-angulus, basi clavatus, glaber. *Stigma* bilobum: *lobis* brevissimis, obtusis, minutè papillosis. *Achenia* ancipiti-compressa, leviter quadrangula, glabra: *disco epigyno* dilatato, planiusculo. *Pappus* sordidè cinereus: *radiis* simplici ordine copiosis, contiguis, plumosis, basi dilatatis, apice mucronulatis.

Specimens of this *Mutisia* were collected in the neighbourhood of Valparaiso by Mr. Thomas Bridges, an enterprising young botanist, from whose exertions we may confidently expect many valuable additions to the Chilian Flora. Mr. Bridges informs me that the plant flowers in October, and that the rays are pink.

**** *Foliis simplicibus, integerrimis.*

10. *M. inflexa*, foliis deflexis perangustis cirrhosis, involucri squamis appendiculatis.

Mutisia inflexa. *Cav. Ic.* 5. p. 65. t. 496. *Willd. Sp. Pl.* 3. p. 2070. *Hook. Bot. Misc.* 1. p. 9. t. 6.

M. subulata. *Ruiz et Pavon Syst. Veg. Fl. Peruv. et Chil.* i. p. 193.

M. linearifolia. *Hook. l. c.* p. 11. t. 8. non *Cav.*

In Chili in sylvis arenosis prope urbem Conceptionis (*Ruiz et Pavon*); ad Valparaiso et Cucha-Cucha. *Ludovicus Née.* 2.

Caulis suffruticosus, scandens, teres, flexuosus, ramosissimus, ut

et tota planta lanâ fugacissimâ leviter instructus, cortice cinereo lævi obductus, altitudine maximè varians, nunc altissimus, sæpè 12-pedalis! *Ramuli* foliosi, tortuosi, angulati. *Folia* (laricina) alterna, sessilia, conferta, lineari-angustissima, coriacea, glabra, lætè viridia, nunc leviter lanuginosa, margine revoluta, integerrima, apice cirrho brevi trilineari v. unguiculari subulato, mucronulato, revoluto instructa, basi nunc rariùs longè decurrentia; *inferiora* deflexo-patula; *suprema* erecta, tantùm mucronata; sesqui- v. tripollicaria, quàm lineæ tertiâ latitudine vix ampliora. *Flores* terminales, solitarii, sessiles. *Involucrum* cylindricum, longitudine unciale, demùm lævigatum; *squamis exterioribus* appendice lanceolatâ spinuloso-mucronatâ patulâ auctis; *interioribus* ovalibus, obtusis, nudis, adpressis. *Flosculi radii* sanguinei, plures (8—10), fœminei, staminibus sterilibus, ligulati, subbilabiati; *labello interiore* bidentato, dentibus brevissimis setaceis, nunc rariùs obsoletis v. nullis: *ligulâ* lanceolatâ, obtusè tridentatâ, involucro vix brevior: *tubo* filiformi, unciali; *disei* plurimi (20—25) hermaphroditi, lutei, tubulato-bilabiati: *labiis* revolutis; *interiore* bipartito; *altero* 3-dentato. *Antheræ* appendiculâ lineari, apice obtusâ, inflexâ, ipsâ antherâ ferè dimidio breviori coronatæ, basi biaristatæ: *aristis* subsimplicibus, sesquilineam longis, sursùm latioribus. *Stylus* filiformis. *Stigma* bilobum: *lobis* brevibus, obtusis, pruinosis. *Pappus* cinereus, mollissimus, plumosus.

11. *M. linearifolia*, foliis erectis linearibus subimbricatis, involucri squamis inappendiculatis.

Mutisia linearifolia. Cav. *Ic.* 5. p. 66. t. 500.

M. linifolia. Hook. *Bot. Misc.* 1. p. 12. t. 9?

In Chili cum præcedente. Ludovicus Née. 7.

Caulis

Caulis erectus, dodrantalis. *Rami* teretes, cortice cinereo lævi, foliosi. *Folia* duplò latiora, erecta, subimbricata, linearia, glabra, margine revoluta, mucrone recto instructa, uncialia v. sesquiuncialia, lineam v. sesquilineam lata. *Flos* terminalis, solitarius, sessilis. *Involucrum* tubulato-cylindricum, sesquiunciale, tandèm lævissimum: *squamis* ovalibus, obsoletè mucronulatis, dilatatis, margine superiore puberulis. *Flosculi radii* 8, purpurei, involucri breviores. *Pappus* albus, plumosus. Reliqua ut in præcedente, ad quam maximè, ut videtur, affinis sit hæc planta; sed satis discrepat foliis erectis duplò latioribus non cirrhosis, involucri longiore squamis inappendiculatis, atque ligulis brevioribus.

Trib. 8. BARNADESÆE. *Receptaculum* paleacco-villosum. *Flosculi* difformes v. regulares, 5-partiti. *Filamenta* nunc monadelphæ! *Antheræ* basi quandoque muticæ! *Stigmata* crassa, conniventia, papilloso-pruinosa. *Frutices erecti, foliis integerrimis.*

BARNADESIA, L.

DIACANTHA. Lag.

BACASIÆ SP., Ruiz et Pavon.

Flosculi radii bilabiati, hermaphroditi; *disci* masculi, tubulosi. *Pappus* difformis.

Involucrum oblongum, basi ventricosum, multiplici ordine polyphyllum, imbricatum: *squamis* mucronatis, integerrimis, cartilagineis; *intimis* elongatis, radiantibus. *Receptaculum* paleis tenuissimis, capillaceis, longis, membranaceis, acutis, muticis, spiraliter tortuosis copiosissimè vestitum. *Flosculi* dissimiles; *disci* paucissimi (1—3) masculi, tubulati, 5-fidi, basi callosâ, genitalibus omninò inclusis: *nervis primariis* validis,

validis, infrà laciniarum sinus profundè bipartitis; *secundariis* per paria interjectis, tenuioribus, ultra medium corollæ obscurioribus, demùm evanescentibus; *peripheriæ* plurimi (10—20) hermaphroditi, bilabiati, unicâ serie digesti, radiati, tubo longissimo, filiformi; *labio exteriore* amplo, ligulato, patulo, 4—5-fido, 5—6-nervio; *interiore* tenuissimo, subsetaceo, canaliculato, indiviso, uninervio. *Filamenta* in tubum cylindricum connata! membranacea, intùs villosa, nervo manifesto medium cujusque percurrenti; nunc rariùs omninò libera. *Antheræ* coalitæ, appendice lineari-lanceolatâ apice uncinatâ obtusâ cartilagineâ coronatæ, valvulis in filamentis decurrentibus, hinc basi simplices, muticæ. *Stylus* hermaphroditis teres, glaber; masculis subclavatus, pentagonus, stigmatè emarginato, imberbi. *Stigma* hermaphroditis clavatum, bilabiatum: *lobis* crassis, brevibus, obtusis, apice subdilatis, superficie minutè papillosis. *Achenia* turbinata, densè villosa. *Pappus* difformis; *peripheriæ* longus, eleganter plumosus, mollis, erectus: *radiis* simplici ordine copiosis (18—20) imâ basi connatis; *disci* setosus radiis plurimis (15—21) inæqualibus, subulatis, validis, recurvatis, hirsutis, vix plumosis, suprâ planiusculis, imâ basi connatis, callosis.

Frutices (Amer. Æquin.) sæpiùs spinosi. Folia *petiolata*, *integerrima*, *mucronata*, sæpè *fasciculata*. Spinæ (dum adsint folia esse mutata) *geminæ*, *subulataæ*. Flores *solitarii sessiles* v. *plures terminales corymbosi*, *magui*. Flosculi *purpurei*, *sericeo-villosissimi*. Pili receptaculi et achenii *structurâ simillimâ*, *fulvi*. Pappus *fulvus*.

* *Flosculis disci nonnullis, tubulosis. Filamentis in tubum connatis. Propriæ.*

1. B. *spinosa*, foliis obovatis mucronatis nervosis, involucris pubescentibus;

bescentibus ; squamis exterioribus ovatis acuminatis adpressis.

Barnadesia spinosa. *Linn. Suppl.* p. 348. *Lam. Ill. t.* 660? *Willd. Sp. Pl.* 3. p. 1705. *Humb. et Bonpl. Pl. Æqu.* 2. p. 176. *t.* 138. *Kunth Syn.* 2. p. 360.

In Andibus Novo-Granatensibus. *Mutis.* ½.

Frutex erectus, ramosus, rigidus, spinosus. *Rami* cylindrici, striati, leviter sulcati, glabriusculi, cortice purpureo induti. *Ramuli* densè villosi. *Folia* fasciculata, petiolata, obovata, abruptè mucronata (mucrone setaceo, reflexo) integerrima, nervosa (nervis pluribus, arcuatis), parùm undulata, utrinque subvillosa, suprâ viridia, demùm nudiuscula, subtùs pallidiora, basi attenuata, sesquipollicem longa, ferè pollicem lata. *Spine* patentes, aciculares, rigidæ, brunneæ, uncie dimidium et ultra longæ, basi sejunctæ. *Capitula* subpaniculata. *Involucrum* oblongum, basi ventricosum, obtusum, copiosè fulvescenti-pubescens, pollicare ; *squamis exterioribus* ovatis, acuminatis (acumine subulato, spinescenti), adpressis, callosis, integerrimis ; *intimis* lineari-lanceolatis, mucronatis, elongatis, erectis, radiantibus. *Receptaculum* paleis capillaceis fulvis densè obsitum. *Flosculi periphæriæ* numerosi, duplici ordine digesti, hermaphroditi, bilabiati : *tubo* cylindrico, lævi ; *labio exteriori* ligulato, quadrifido (laciniis lanceolato-linearibus, acutis), 5-nervio, subtùs densè fulvescenti-villoso, sericeo ; *interiore* minimo, simplici, setaceo, canaliculato ; *disci* 3, masculi, tubulosi, 5-fidi, coriacei, extùs villosissimi, inâ basi callosâ, genitalibus longè inclusis. *Filamenta* in tubum membranaceum connata. *Antheræ* coalitæ, basi simplices, muticæ, appendiculâ ligulatâ obtusâ callosâ apice incurvatâ coronatæ. *Stigma* bilobum : *lobis* crassis, obtusissimis, brevibus, dilatatis,

tatis, suprâ concaviusculis, pruinosis. *Achenia* turbinata, fulvescenti-villosissima. *Pappus* fulvus, dissimilis; hermaproditis plumosus, mollissimus, radiis copiosis (20—25) basi connatis; masculis setosus, radiis 20, subulato-setaceis, recurvatis, hirsutis, basi callosis, connatis.

The above description is taken from the original sample preserved in the Linnaean herbarium, and which had been communicated to Linnaeus by Mutis. The figure in the *Plantae Equinoxiales* is a good representation of this species; but I am in doubt respecting that of Lamarek, which appears to approach nearer to the following. It is most probable that *B. spinosa* is peculiar to New Granada, and that the Peruvian plant said to be the same, is really distinct, and that it belongs to one of the other species I have enumerated.

2. *B. media*, foliis obovatis mucronatis subaveniis, floribus corymboso-paniculatis, involucri lanatis; squamis exterioribus lanceolatis mucronatis.

In Peruvîâ. *Ruiz et Pavon.* 2.

Frutex erectus, ramosus, spinosus. *Rami* undique cinereo-pubescentes. *Spinæ* subulatæ, graciles, semunciales, rectæ, divaricato-patentes. *Folia* fasciculata, brevissimè petiolata, obovata, mucronata, integerrima, plana, basi attenuata, utrinque subsericea, subtùs leviter canescentia, exsiccatione obsoletè venosa, pollicaria. *Flores* duplò minores, in ramulorum apice plures (8—10) corymboso-paniculati. *Pedunculi* uniflori, filiformes, tomentosi, nunciales v. sesquiunciales. *Involucria* campanulata, longitudine vix uncialia, basi paululùm attenuata, folio unico sæpiùs bracteata: *squamis* fulvo-lanatis; *exterioribus* lanceolatis, pungenti-acuminatis, demùm reflexis, squarrosis; *intimis* elongatis, linearibus, mucronatis, radiatis, revolutis! *Flosculi radii* 15, ligulâ

ligulâ semipollicari, laciniis linearibus obtusis : *pappo* plumoso, mollissimo, radiis 18—20 erectis ; *disci* 3, infundibuliformes, limbo 5-fidi : *pappo* subulato, rigido, radiis 15, recurvatis, hirsutis, dimidio brevioribus. Cætera omninò ut in genere.

3. *B. reticulata*, foliis elliptico-oblongis abruptè mucronulatis reticulato-venosis subtùs sericeis, involucri squamis adpressis nudiusculis nitidis.

In segetibus Tarmæ Peruvianorum. *Ruiz et Pavon.* 7.

Frutex biorgyalis, erectus, ramosissimus, spinosus, cortice fusco.

Rami dependentes, teretes, glabriusculi, apicem versus levissimè puberuli. *Ramuli* nutantes. *Spinæ* semunciales, horizontaliter patentés, nec divaricatæ, fulvæ, nitidæ. *Folia* in fasciculis paucissima (3—6) rarò subsolitaria, elliptico-oblonga, abruptè mucronulata, integerrima, plana, substantiâ tenuiora, ferè membranacea, suprâ, nisi ad venas primarias, nudiuscula, subtùs sericea, nervis plurimis obliquè parallelis, venisque ramosissimis connexis reticulata. *Capitula* multò majora, 8—10 subcorymbosa, terminalia, breviter pedunculata. *Involucria* oblonga, basi ventricosa, rotundata, longitudine sesquipollicaria, v. paulò ultra : *squamis* siccitate fulvo-coloratis, nitidis ; *exterioribus* ellipticis, subsericeis, abruptè mucronulatis, adpressis ; *intimis* elongatis, erectis ! acuminatis, radiantibus. *Flosculi* villosissimi. Cætera ut in præcedente.

4. *B. lanceolata*, foliis obovato-lanceolatis mucronatis aveniis utrinque sericeo-pubescentibus, floribus subsolitariis sessilibus, involucri lanatis.

Bacasia lanceolata. *Ruiz et Pavon Mss.*

In Andibus Peruviae. *Ruiz et Pavon.* 7.

Species

Species distinctissima. *Frutex* ramosissimus, rigidus, armatus. *Rami* teretes, flexuosi, glabriusculi. *Ramuli foliiferi* tomentoso-pubescentes, nunc pollicares, infernè de lapsu foliorum tuberculati. *Spinæ* lignæ, validæ, subulatae, divaricato-patentes, rectæ, rigidissimæ, ad basin ramulorum geminatim oppositæ, vicem stipularum fungendæ, unciales v. sesquiunciales. *Folia* alterna, conferta, quasi fasciculata, obovato-lanceolata, mucronata, integerrima, plana, coriacea, utrinque avenia, pube ferrugineâ atomisque resinosis numerosissimis vestita, basi attenuata, petiolo ramis adnato suffulta, costâ mediâ conspicuâ; *adultiora* suprâ nudiuscula. *Capitula* subsolitaria, sessilia. *Involucra* sesquipollicaria: *squamis* extûs, sed præsertim in junioribus, copiosè fulvo-lanuginosis, mollissimis; *intimis* elongatis, strictis, radiantibus; *æterioribus* ovatis, acuminatis, demùm revolutis, squarrosis. *Flosculi radii* magis copiosi (20) longiores, ligulâ ferè pollicari, 6-nerviâ, tubo involucri vix longitudine, filiformi; *disci* 3, infundibuliformes, masculi, limbo 5-fidi. *Pappus peripheriæ* radiis (20) eleganter plumosis, erectis, mollissimis, validioribus; *disci* 18, validis, rigidis, recurvatis, subulatis, hirsutis, infernè crassioribus, imâ basi connatis. Cætera ut in genere.

** *Flosculo disci solitario, tubuloso. Filamentis in tubum connatis.*

5. *B. corymbosa*, inermis; foliis sparsis ovato-lanceolatis acuminatis nervosis, floribus corymbosis, involucribus pubescentibus.

Bacasia corymbosa. Ruiz et Pavon *Syst. Veg. Fl. Peruv.* 1. p. 189. *Gen. t.* 22.

In Andium nemoribus prope Muna vicum Peruviae. Ruiz et Pavon. 7.

Frutex

Frutex inermis, erectus, 2-orgyalis. *Rami* angulati, leviter sulcati, calamus scriptorium crassitie adæquantes, cortice fusco-cinereo obducti, apicem versus fulvo-tomentosi. *Folia* sparsa, petiolata, ovato-lanceolata, acuminata, coriacea, rigida, margine callosa, integerrima, suprâ glabra, lucida, subtùs villosa, basi attenuata, costâ mediâ subtùs prominenti, nervis plurimis incurvatis, reticulatim connexis, venosissima, sesqui- v. quadri-uncialia, tunc pollicem v. sesquipollicem lata. *Petiolì* semiteretes, tomentosi, suprâ canaliculati, semunciales. *Flores* terminales, numerosi (7—14) corymbosi, *Serratule coronatæ* magnitudine et facie similes. *Pedunculì* teretes, copiosè fulvo-tomentosi, semi- v. pollicares. *Involucrum* ovatum, multiplici ordine polyphyllum, imbricatum, basi ventricosum; *squamis exterioribus* ovatis, acuminatis, integerrimis, adpressis, cartilagineis, extùs pubescentibus; *intimis* elongatis, linearibus, mucronulatis, recurvato-patulis, radium efformantibus. *Receptaculum* paleis capillaceis fulvis tectum. *Flosculi periphæriæ* plures (8—10) hermaproditii, bilabiati, purpurei, ferè sesquipollicares; *labio exteriorè* maximo, ligulato, patente, obtusè 4—5-dentato, subtùs tuboque sericeo-villosissimo, nervis tantùm primariis 5 v. 6, rectis, parallelis; *interiore* subsetaceo, canaliculato, indiviso; *disci* unicus, tubulosus, limbo 5-fidus, genitalibus longè inclusis (an sterilibus?) basi callosâ, extùs villosissimus: *lobis* ovato-oblongis, obtusis: *nervis primariis* validis, infra loborum sinus altè bipartitis; *secundariis* 2 interstinctis, parallelis, tantùm a basi ad medium et ultra manifestis, supernè obscurioribus, demùm evanescentibus, hinc reverà non recurrentibus. *Filamenta* in tubum membranaceum connata, intùs villosa, exserta, infernè tubo flosculi adhærentia. *Antheræ* connatæ, costâ dilatatâ, appendice lan-

ceolato-lineari, coriaceâ, rigidâ, apice uncinatâ, obtusâ, ipsâ antherâ quater breviori coronatâ, basi simplices, muticâ, ob valvas basi in filamentis decurrentes. *Stylus* hermaphroditis filiformis, lævis. *Stigma* bilabiatum: *lobis* crassis, obtusis, brevibus, suprâ concaviusculis, pruinosis. *Achenia* turbinata, fulvescenti-villosissima. *Pappus* fulvus, dissimilis; flosculo centrali setosus, radiis 21 inæqualibus subulatis, validis, recurvatis, hirsutis, vix plumosis, basi connatis; cæteris duplò longior, eleganter plumosus, mollis, radiis 20 circiter, tenuioribus, imâ basi conferruminatis.

*** *Flosculo disci solitario, tubuloso. Filamentis omninò liberis.*
Penthea.

6. *B. laxa*, spinosa; foliis . . . floribus subsolitariis sessilibus, involucri squamis intimis erectis radiatis.

In Brasiliâ. *Sello.* 7.

Caulis fruticosus, spinosus, diffusè ramosissimus, laxus, cortice fusco obductus. *Rami* teretes, glabri, atrofusci. *Folia* nondùm vidi. *Spinæ* geminæ, aciculares, læves, æquales, rigidæ, patulæ, basi distinctæ, semipollicares et ultra. *Flores* copiosi, in apice ramulorum subsolitarii, sessiles, in paniculam laxam dispositi. *Involucra* campanulata, sesqui v. bi-pollicaria: *squamis* ovatis, mucronulatis, adpressis, coriaceis, sericeis, demùm læviusculis; *interioribus* gradatim longioribus, lanceolatis; *intimis* elongatis, linearibus, acuminatis, rectis, radiatis. *Receptaculum* copiosè villosum. *Flosculi* plurimi, hermaphroditi, bilabiati; *labio exteriori* maximo, ligulato, obtusè tridentato, 5-nervio, subtùs sericeo-villosissimo; *interiore* lineari-setaceo, binervio, brevior; *disci* solitarii, masculi, tubulosi, 5-dentati. *Filamenta* libera,

libera, complanata, glabra ; *articulo superiore* longo, substantiâ crassiore. *Antheræ* in tubum coalitæ, appendiculâ lignulatâ obtusâ callosâ rigidâ coronatæ, basi bidentatæ : *dentibus* brevissimis, setaceis. *Stigma* bilobum : *lobis* obtusis, minutè papillois. *Achenia* undique sericeo-villosissima. *Pappus* difformis ; hermaphroditis plumosus, mollissimus ; flosculo disci setosus, radiis subulato-setaceis, recurvatis, rigidis, basi connatis.

The character of *Bacasia* appears to have been constructed entirely from *B. corymbosa*, whose only point of distinction would consist in the reduced number of male florets, these being solitary in each capitulum, while in *Barnadesia* there are several ; but this must be admitted to be a character too unimportant to be regarded as sufficient to constitute a generic distinction. Ruiz and Pavon in their *Systema Vegetabilium Floræ Peruvianæ et Chilensis* added a second species to *Bacasia*, namely *B. spinosa*, but without altering the generic character previously given in their *Genera Plantarum*. It is evident they had not examined this plant with due attention, otherwise it would have been impossible for them to have determined in referring to *Bacasia* a plant which accords in so few particulars with their generic description, and which proves to be really a species of *Chuquiraga*. The *Diacantha* of Lagasca is apparently identical with *Barnadesia spinosa*, but by no means with the *Bacasia spinosa* of Ruiz and Pavon, which he has inadvertently regarded as the same plant. The central florets of *Barnadesia* have been hitherto described as sterile, but as the anthers evidently contain grains of perfect pollen, I have considered them as male.

CHUQUIRAGA. *Juss.*JOHANNIA. *Willd.*BACASIÆ SP., *Ruiz et Pavon.**Flosculi* regulares, 5-partiti, hermaphroditi. *Pappus* uniformis.

Involucrum turbinato-campanulatum, multiplici ordine polyphyllum, imbricatum: *squamis* adpressis, cartilagineis, exterius gradatim minoribus, costâ validâ apice in mucronem rigidum subulatum excurrente; *intimis* elongatis, acuminatis, radium constituentibus. *Receptaculum* densè villosolanatum. *Flosculi* indefiniti, hermaphroditi, tubulosi, altè 5-partiti, villosi: *fauce* intùs densè barbatâ! *segmentis* linearibus, strictis, apice penicillatis! *nervis* marginalibus prominulis. *Stamina* disco epigyno inserta: *filamenta* complanata, libera, basi tubi corollæ adhærentia: *antheræ* in tubum connatæ, appendice lineari-ligulatâ cartilagineâ coronatæ, basi bisetæ v. bidentatæ. *Stigmata* lineari-lingulata, conniventia, papilloso-pruinosa. *Achenia* turbinata, undique villosissima. *Pappi radiis* copiosis, valdè plumosis, infernè crassioribus, simplici ordine digestis, imâ basi connatis, apice simplici.

Frutices sempervirentes, erecti, rigidi, ramosissimi, inermes v. spinosi. Folia alterna, margine integerrima, callosa, pungenti-mucronata, coriacea, nitida; aut omninò subulata, spinosa. Capitula terminalia, solitaria, sessilia, erecta, magna, v. plura paniculata. Involucra extùs fulvescenti-villosissima, nunc glabriuscula: squamis luteo-coloratis. Flosculi aurei.

Obs.—Folia sapore amarissimo gaudent.

* *Capitulis*

* *Capitulis solitariis, sessilibus. Antheris basi bisetosis. Propriae.*

1. *C. insignis*, inermis ; foliis imbricatis, setis antherarum æqualibus.

Chuquiraga insignis. Humb. et Bonpl. Pl. Æqu. 1. p. 153. Lam. Ill. t. 691. Kunth in H. et B. Nov. Gen. et Sp. Pl. 4. p. 18. Syn. 2. p. 361.

C. microphylla. Humb. et Bonpl. l. c. p. 151. t. 43. Kunth in H. et B. Nov. Gen. et Sp. Pl. 4. p. 19. Syn. 2. p. 361.

C. lancifolia. Humb. et Bonpl. l. c. p. 153. Kunth in H. et B. Nov. Gen. et Sp. Pl. 4. p. 19. Syn. 2. p. 361.

In Antisanâ Quitensium, et alpebus Peruvianis. *Jos. Jussieu, Humboldt et Bonpland. v.*

Frutex erectus, ramosus, rigidus, 5-pedalis. *Rami* teretes, a casu foliorum cortice scabro cicatricoso obducti. *Ramuli* adpressè copiosèque pilosi, demùm glabriusculi. *Folia* alterna, sessilia, confertissima, undique imbricata, ovata, integerrima, margine calloso, incrassato, mucrone brevi, recto, subulato, rigido, pungentia, avenia, substantiâ crassa, coriacea, suprâ concava, subtùs costâ validâ carinata, utrinque viridia, perlucida, juventute villosiuscula, demùm nuda, et exsiccatione præsertim punctis minutissimis quasi resinosi notata, basi angustiora, 4—5 lineas longa, 2 lata. *Capitula* in ramulorum summitate solitaria, sessilia. *Involucra* turbinato-campanulata, multiplici ordine polyphylla, imbricata : *squamis* adpressis, cartilagineis, rigidis, fulvescenti-villosissimis, nervo percurrente apice exserto prominulo, subinde mucronatis ; *exterioribus* ovatis ; *interioribus* gradatim longioribus ; *intimis* lanceolato-linearibus, elongatis, acuminate, erectis, radium constituentibus. *Receptaculum* densè villoso-lanatum, villis fulvescentibus. *Flosculi* numerosissimi (45—50), regulares, hermaphroditi, pollicares, profundè 5-partiti :

5-partiti: *tubo* pentagono, 5-nervio, substantiâ crassiore, extûs et intûs densè fulvo-villoso, limbo ter brevior: *segmentis* linearibus, villosoplumis, apice penicillatis, strictis, basi latiore planis, nervis marginalibus prominulis, margine superne involutis: *villis* fulvis. *Stamina* disco epigyno cum corollâ inserta: *filamenta* linearia, angustissima, complanata, ferè membranacea, nervo manifestissimo, basi parùm latiore, imo tubo corollæ adhærentia: *antheræ* in tubum angustum coalitæ, longitudine 8-lineares, appendiculâ lineari-ligulatâ obtusâ antherâ ipsâ dimidio breviori cartilagineâ coronatæ, basi bisetæ: *setis* æqualibus, compressis, validis, sulco exaratis, 2 lineas longis, extremitate filamentosâ, spirali, retroflexâ. *Stylus* glaber, 5-angulus, basi incrassatâ. *Stigmata* lineari-lingulata, obtusa, facie interiori canaliculata, cum superiore parte styli atomis resinosis copiosissimis ornata, conniventi-applicata. *Achemia* turbinata, undique fulvo-villosissima, hinc convexa, inde biangulata. *Pappi radiis* pluribus (20—24) valdè plumosis, inæqualibus, infernè crassioribus, simplici ordine digestis, imâ basi connatis, apice simplici setaceo, brevi: *ramulis* persistentibus.

Obs.—Tabula Lamarckiana, errore pictoris, tubum antherarum pro corollâ exhibet.

I have, without hesitation, united the *Chuquiraga insignis* and *microphylla*, being fully persuaded that the characters relied on, as marks of distinction, are of too transitory a nature to justify the separation of two plants otherwise so much alike. In the Lambertian herbarium are two specimens of *C. insignis* from M. Bonpland himself, with the branches thickly clothed with short hairs, and the young leaves slightly villous, which circumstances are regarded by him as constituting the specific distinction of his *C. microphylla*; but, as the epidermis is deciduous,

ciduous, and the older branches consequently devoid of hairs, I have no doubt that these two presumed species, as well as the *C. lancifolia*, will be found to possess the same characters, and that they will prove to be only different states of the same plant, as M. Kunth has already suspected.

2. *C. spinosa*, armata; foliis patulis, setis antherarum inæqualibus.

Bacasia spinosa. Ruiz et Pavon *Syst. Veg. Fl. Per. et Chil.* i. p. 188.

In Peruvix subalpinis et præruptis frigidis ad Huarocheri, Tarmæ et Cantæ provincias. Ruiz et Pavon. *h.* Fl. Maio et Junio. *Vulgò* Clavelon de Serranias.

Frutex bipedalis, erectus, ramosissimus, spinosus, cortice fusco scabro obductus. *Ramuli* copiosè adpressèque pilosi. *Folia* alterna, sessilia, patentia, ovato-lanceolata, coriacea, plana, avenia, margine calloso integerrima, basi angustiori, spinâ subulatâ rectâ terminata, subtùs convexiuscula, costâ validâ carinata, juventute utrinque hirsutissima, sed denique omninò denudata, perlucida, atomis resinosis conspersa, semipollicaria, 2—3 lineas lata. *Spinx proprie* (folia mutata) axillares, plerumque geminæ, subulatæ, divaricato-patentes, sæpè foliorum longitudine. *Flores* in apice ramulorum solitarii, sessiles, minores quàm in præcedente. *Involucrum* turbinato-campanulatum, multiplici ordine polyphyllum, imbricatum, nunc pedunculo brevissimo undique squamoso suffultum: *squamis* adpressis, lanceolatis, spinuloso-mucronatis, pungentibus, sericeo-villosissimis (villis fulvescentibus); *interioribus* gradatim longioribus; *intimis* elongatis, erectis, subscariosis, radiatis. *Receptaculum* densè villosolanicatum. *Flosculi* pauciores (15—20), regulares, hermaphroditi, minùs profundè 5-partiti: *segmentis*

segmentis lineari-ensatis, strictis, margine conniventibus, cartilagineis, apice acutis, intùs canaliculatis, densè sericeo-villosissimis, penicillatis, denique glabratis: *tubo* cylindraceo, vix fauce dilatata, extùs et intùs copiosè sericeo-villoso, substantiâ crassiore, limbo ferè duplò breviorè: *nervis* 5, in tubo simplicibus, ad laciniarum sinùs divisus in ramis 2 strictis marginalibus, summo apice confluentibus; *secundariis* nullis. *Stamina* disco epigyno cum corollâ inserta: *filamenta* libera, complanata, glabra, infernè ferè membranacea, neryo manifestissimo, canaliculata, basi dilatata, corollæ imò tubo adhærentia; *articulo superiore* duplò angustiorè, 5-plò breviorè: *antheræ* in tubum connatæ, 5 lineas longæ, appendiculâ lineari-ligulatâ obtusâ membranaceâ, ipsâ antherâ dimidio longiori coronatæ, basi biseptosæ: *setis* callosis, strictis, inæqualibus, interiori latere leviter canaliculatis, extremitate filamentosâ, spirali, nunc retrofractâ v. revolutâ, deciduâ! *Stylus* filiformis, uncialis, v. ferè sesquiuncialis. *Stigma* bilobum: *lobis* lingulatis, obtusis, pruinosis, compressis. *Achenia* turbinata, undique adpressè villosissima. *Pappus* fulvus, deciduus: *radiis* 20 circiter, valdè plumosis, inæqualibus, imâ basi in anulum connatis: *rachibus* setaceis, infernè gradatim crassioribus, apice tenuissimo, simplici.

Such is the description of authentic specimens of *Bucasia spinosa* contained in the herbarium of Ruiz and Pavon, which will be found to correspond in every essential point of structure with the genus *Chuquiraga*. It is evident, as I have before observed, that this plant had been referred to *Bucasia* by the above-mentioned botanists from habit alone, without any regard to the structure of the flower, as the slightest examination would have convinced them of the incorrectness of that arrangement. Cavanilles
seems

seems also to have been deceived with regard to the affinity of this plant, as appears by specimens from him in the Lambertian herbarium, marked "*Barnadesia ex Peruvîâ*."

** *Capitulis paniculatis. Antheris basi bidentatis: appendiculâ terminali, bilobâ. Erinesa.*

3. *C. hispida*, foliis elliptico-oblongis acuminatis subtùs ramulisque setosis, spinis basi coadunatis, pedunculis armatis.

In Brasiliâ. *Sello.* 7.

Frutex diffusus, spinosus. *Caulis* teres, cortice cinereo-fusco, demùm læviusculo. *Ramuli* pilis setaceis persistentibus fuscis copiosè vestiti. *Spinæ* geminæ, in ramulorum foliorumque axillis præcipuè positæ; *caulis* erectæ, rigidæ, subulatae, durissimæ, basi coadunatae, sæpè setis ornatae, semunciam et ultra longæ; *ramulorum* brevissimæ, recurvatae. *Folia* alterna, brevissimè petiolata, elliptico-oblonga, acuminata, integerrima, obsoletè triplinervia, reticulato-venosa, coriacea, suprâ glabra, subtùs hispidè pilosa, basi parùm attenuata, 3-pollicaria, unciam v. sesquiunciam lata. *Petioli* semicylindrici, hispidi, suprâ canaliculati, vix 2 lineas longi. *Flores* terminales, plures, subpaniculati. *Pedunculi* breves, uniflori, undique copiosè fulvo-pilosi, spinis solitariis geminisve reflexis, rectis, subulatis armati. *Involucra* semipollicaria, cylindrica: *squamis* ovatis, spinuloso-mucronatis, coriaceis, adpressis, margine ciliatis; *intimis* conniventibus. *Receptaculum* parvum, densè pilosum: *pilis* fulvis, brevibus. *Flosculi* 8—10, hermaphroditi, æqualiter tubulosi, coriacei: *tubo* intùs villosissimo: *limbo* regulari, 5-partito: *segmentis* angustè linearibus, acutis, canaliculatis, binerviis, erectis, margine conniventibus, pube adpressâ fulvâ sericeis. *Filamenta* gracillima, glabra, infernè corollæ tubo adhærentia. *Antheræ* in tubum coalitæ, basi bidentatae: *dentibus* æqua-

libus, obtusis: *appendicula terminalis* brevis, ligulata, cartilaginea, emarginata! *Stigma* bilamellosopartitum, cum stylo apice minutè papillosum, scabriusculum: *lobis* planis, mucronulatis. *Achenia* undique villosissima, fulva. *Pappus* fulvus, mollissimus: *radiis* plumosis, apice mucronulatis, imâ basi crassioribus, nudis et connatis, simplici ordine digestis.

4. *C. latifolia*, foliis ovatis acutis trinerviis, spinis inæqualibus, floribus racemoso-corymbosis, involucri squamis intimis revolutis.

In Brasiliâ. *Sello.* 7.

Frutex ramosus, spinosus. *Rami* cylindrici, leviter sulcati, cortice fusco-cinereo obducti. *Folia* alterna, petiolata, ovata, v. ovato-oblonga, acuta, integerrima, trinervia, reticulatim venosa, submembranacea, basi latâ rotundatâ, rarò parùm in petiolum decurrentia; palmaria, ferè bipollicem lata, utrinque demùm glabrata; *juniora* tamen cum ramulis novellis villis adpressis fulvescentibus subsericea. *Spinæ* axillares, geminæ, inæquales, subulatæ, rigidæ, divaricatæ, sæpiùsque deflexæ, basi coadunatæ, trilineares; *altero* brevior. *Petioles* brevissimi, semicylindrici, pubescentes, basi parùm dilatâtâ ramis articulati. *Flores* in apice ramulorum copiosi, racemoso-corymbosi. *Pedunculi* uniflori, inermes, vix pollicares. *Involucra* semipollicaria, campanulata: *squamis* ovatis, mucronulatis, ciliatis, subcarinatis, coriaceis, adpressè imbricatis; *intimis* elongatis, radium efformantibus, revolutis. *Receptaculum* magis dilatatum, copiosè pilosum. *Flosculi* indefiniti, omnes regulares, hermaphroditi, tubulosi, 5-partiti, coriacei, infernè vix attenuati: *segmentis* linearibus, acutis, æqualibus, canaliculatis, binerviis, apice barbatis: *fauce* intùs villosâ. *Stamina* brevissima, sub fauce inclusa: *filamenta*

filamenta capillaria, libera, glabra : *antheræ* appendiculâ linearî, membranaceâ, bifidâ ! coronatæ, basi obtusè bidentatæ. *Stigma* bilamellosò-partitum : *lobis* ovalibus, obtusis, revolutis, cum apice styli minutissimè papillosis, scabriusculis. *Achenia* turbinata, undique fulvo-villosissima. *Pappus* plumosus, fulvus : *radiis* simplici ordine digestis, imâ basi crassiore connatis.

5. *C. paniculata*, inermis ; foliis elliptico-oblongis triplinerviis subtùs pubescentibus, floribus thyrsoides, involucri squamis intimis revolutis.

In Brasiliâ ad ripas fluminis La Plata. *Sello.* 7.

Caulis fruticosus, diffusè ramosissimus, inermis. *Rami* angulati, pubescentes. *Folia* alterna, petiolata, elliptico-oblonga, acuta, triplinervia, integerrima, plana, suprâ glabra, subtùs copiosè pubescentia, denique denudata, basi paululùm attenuata, 3—5-pollicaria, sesquipollicem lata. *Petioli* pubescentes, suprâ planiusculi, semunciales. *Capitula* terminalia, copiosissima, thyrsoides-paniculata. *Pedunculi* angulati, fulvescenti-tomentosi. *Involucrum* tubulato-campanulatum, longitudine semipollicare : *squamis* coriaceis, tomentosis ; *exterioribus* ovatis, acutis, adpressis ; *intimis* linearibus, mucronulatis, elongatis, revolutis. *Receptaculum* densè villosum. *Flosculi* 12 circiter, tubulosi, hermaphroditi, limbo profundè 5-partiti : *segmentis* linearibus, acutis, apice barbatis, recurvis : *nervis* marginalibus : *tubo* pentagono, substantiâ crassiore, basi attenuato, intùs villosissimo. *Stamina* tubo inclusa, brevia : *filamenta* angustè linearia, complanata, glabra : *antheræ* basi obtusè bidentatæ, appendiculâ membranaceâ, ligulatâ, bilobâ ! coronatæ. *Stigma* exsertum, bilobum : *lobis* crassis, obtusis, pruinosis. *Achenia* turbinata, undique densè adpressèque pilosissima.

pilosissima. *Pappi radiis* 18, eleganter plumosis, simplici ordine digestis, imâ basi connatis, apice truncatis: *rachibus* fulvis, infernè crassioribus: *ramulis* persistentibus, argenteis.

6. *C. vepreculata*, foliis ovato-lanceolatis acuminatis trinerviis, spinis falcatis basi coadunatis, floribus thyrsoides, antherarum appendiculâ bicuspidatâ.

Ad Caracas. *D. Fanning.* 2.

Frutex more *Rubi* capreolatus, sæpè scandens, ramosissimus, spinosus. *Rami* teretes, sulcati, pubescentes. *Folia* alterna, petiolata, ovato-lanceolata, acuminata, trinervia, integerima, utrinque (præsertim in junioribus) villosa, demùm glabrata, suprâ lucidula, basi subacuta, pollicaria v. bipollicaria. *Petiolî* semicylindrici, densè villosi, basi ramis articulati, sesqui v. bilineam longi. *Spinæ* interpetiolares, brevissimæ, subulatæ, coadunatæ, divaricatæ, arcuatæ, rigidæ, fulvescentes, sesquilineares. *Flores* terminales, thyrsoides. *Thyrsi* compositi, multiflori. *Pedunculi* brevissimi, teretes, validi, tomentosi, uniflori. *Involucra* oblonga, cylindrica, semuncialia: *squamis* ovato-lanceolatis, adpressis, coriaceis, tomentosis, spinâ rectâ brevi terminatis; *intimis* linearibus, elongatis, radiantibus, nunc rariùs revolutis. *Receptaculum* pilis cinereis densè vestitum. *Flosculi* plures (18—20) uniformes, tubulosi, 5-fidi, hermaphroditi, albi: *tubo* attenuato, extùs et intùs villosa, 5-angulo, substantiâ coriaceo, fauci longitudine subæquali: *laciniis* linearilanceolatis, obtusiusculis, erectis, villosis, nervis primariis marginalibus. *Stamina* basi tubi inserta: *filamenta* capillaria, glabra; *articulo superiore* brevi: *antheræ* in tubum pentagonum coalitæ, basi acutè bidentatæ, appendiculâ membranaceâ bicuspidatâ coronatæ. *Stylus* capillaris, 5-angulus.

angulus. *Stigma* clavatum, bilobum, pruinosum. *Acheuia* turbinata, copiosè sericeo-villosa. *Pappus* cinereus: radiis 16 circiter, simplici ordine digestis, eleganter plumosis.

Specimens of this curious species of *Chuquiraga* formed part of a small but interesting collection of dried plants made in Caracas by Mr. Fanning, and which is now in the possession of Mr. Lambert. Mr. Fanning discovered it in the vicinity of Caracas, extending its feeble branches, like a bramble, for support over the other shrubs and trees in its neighbourhood, and frequently spreading to fifteen or even to thirty feet. Mr. Fanning has also brought to this country a valuable collection of seeds and living plants, among which is the famous Cow-tree, *Palo de Vaca*.

This section, which has entirely the habit of *Barnadesia*, constitutes a very remarkable osculant group connecting *Chuquiraga* with that genus. The species are evidently intimately allied, and although I have not ventured to separate them entirely from *Chuquiraga*, yet I am satisfied that they are sufficiently characteristic to merit being regarded as a distinct genus.

Trib. 9. STIFFTIÆ. *Receptaculum* nudum. *Flosculi* tubulosi, 5-partiti, regulares, hermaphroditi. *Stamina* faucii inserta! *Antheræ* basi bisetæ. *Stigmata* plerumque soluta, papillosa, recurva. *Frutices* foliis simplicibus.

STIFFTIA. *Mikan*.

AUGUSTA. *Leand*.

PLAZIÆ SP., *Spreng*.

Stamina limbi sinubus inserta. *Pappi* radiis multiplici ordine digestis, cylindricis, undique scabris, apice incrassatis.

Involucrum subglobosum, polyphyllum, imbricatum: *squamis* obtusis,

obtusis, integerrimis, planis, coriaceis, adpressis. *Receptaculum* nudum, scrobiculatum. *Flosculi* infundibuliformes, regulares, hermaphroditi, infernè substantiâ coriacei, limbo altè 5-partiti: *segmentis* linearibus, obtusis, spiraliter revolutis, nervis primariis prominulis marginatis; nunc primùm 2 v. 3 marginibus leviter connexis, tunc flosculum bilabiatum æmulantibus. *Stamina* inter corollæ lacinias inserta: *filamenta* e sinibus supernè libera, gracilia, glabra: *antheræ* coalitæ, basi longissimè biaristatæ, appendice lineari-subulata compressâ callosâ rigidâ coronatæ. *Stylus* filiformis, lævis. *Stigmata* soluta, linearia, recurva, papilloso-pruinosa, acuta v. truncata. *Achenia* elongata, hinc convexa, inde angulata. *Pappus* longus, coloratus, persistens: *radiis* multiplici ordine digestis, cylindricis, undique denticulato-scabris, apice incrassato, hinc penicillatis.

Frutices *frondosi, sempervirentes, speciosi*. Folia *alterna, simplicia, integerrima, uninervia, reticulato-venosa, glabra*. Flores *terminales solitarii v. paniculati*. Pedunculi *squamis obtusis ornati*. Flosculi *aurei v. rosei*.

1. *S. chrysantha*, foliis lanceolatis acuminatis, floribus solitariis, flosculis indefinitis.

Stiffia chrysantha. Mik. Bras.

Augusta grandiflora. Leand. in Act. Mon. 7. t. 14.

Plazia brasiliensis. Spreng. Syst. 4. pars 2. p. 301.

Frater biorgyalis, erectus, ramosissimus, frondosus, cortice lævissimo cinereo obducta. Folia (*Lecythidis*) alterna, petiolata, lanceolata, obtusè acuminata, integerrima, basi acutâ membranacea, nervo medio subtùs prominente, reticulato-venosissima, utrinque glaberrima, nitida, viridia, 4—6 uncias longa, sesqui v. biunciam lata. *Petioli* brevissimi, teretiusculi, suprâ leviter canaliculati, subtùs convexi, unguiculares.

guiculares. *Flos* speciosus, terminalis, solitarius, pedunculatus. *Pedunculus* teres, supernè incrassatus, undique squamis plurimis, ovalibus oblongisve, coriaceis, concavis, glabris munitus, uncialis. *Involucrum* globosum, sextuplici circiter serie imbricatum, ut et *pedunculus*, læve, magnitudine atque structurâ *Centaurea majori* simillimum: *squamis* obtusissimis, integerrimis, coriaceis, adpressis, lævibus, exterius gradatim minoribus; *intimis* elongatis, ligulatis. *Receptaculum* depressum, nudum. *Flosculi* numerosissimi, hermaphroditi, infundibuliformes, longissimi, (biunciales): *tubo* basi coriaceo: *fauce* dilatata: *limbo* profundè 5-partito: *segmentis* linearibus, obtusis, spiraliter revolutis, nervis primariis validis marginatis, 10 lineas longis; nunc primùm 2 v. 3 margine inter se connexis, tunc flosculum bilabiatum æmulantibus. *Stamina* inter limbi lacinias inserta: *filamenta* tubo corollæ omninò arcè adhærentia, e sinibus supernè tantùm libera, gracilia, glabra: *antheræ* pollicares, in tubum coalitæ, appendice lineari-lanceolata, acuminata, coriaceâ, rigidâ terminatæ, basi aristis 2 simplicibus, setacco-attenuatis, longissimis (semipollicaribus) instructæ. *Stylus* longitudine staminum, filiformis, glaber. *Stigma* bilobum, exsertum: *lobis* semicylindricis, acutis, pruinosis, recurvis. *Achenia* angusta, pentagona, hinc convexiuscula, undique rugulosa, pubescentia, semuncialia. *Pappus* longissimus (sesquiuncialis) persistens, croceus: *radiis* triplici v. quadruplici ordine digestis, setaceo-capillaribus, teretibus, rigidiusculis, undique puberulis, scabris, apice penicillato, mucronulato; *intimis* compressis.

Obs.—Hujus stirpis pulcherrimæ exempla quatuor a Langsdorffio et Sellovio communicata vidi.

2. *S. parviflora*,

2. *S. parviflora*, foliis cuneato-lanceolatis, floribus paniculatis, flosculis definitis.

Augusta parviflora. *Leand. l. c.*

Plazia parviflora. *Spreng. Syst. 4. pars 2. p. 301.*

In Brasiliâ ad Campos Novos et ad Rio das Contas. *Martius. 7.*

Frutex erectus, frondosus. *Rami* cylindrici, cortice cinereo lævi obducti. *Folia* alterna, brevissimè petiolata, spathulato-oblonga, nunc rarè lanceolata, integerrima, coriacea, uninervia, venis obscurioribus, utrinque glabra, viridia, basin versus attenuata, 5-pollicaria, unciam v. sesquiunciam latitudine æquantia. *Petioles* semicylindrici, glabri, suprâ plani, 3 lineas longi. *Flores* parvi, copiosissimi, paniculati. *Panicula* terminalis, diffusa. *Pedunculi* teretes, glabri, apicem versus crassiores, squamis nonnullis ovalibus obtusis concavis muniti. *Involucra* globosa: *squamis* ovalibus, obtusissimis, concavis, membranaceis, lævibus, triplici ordine imbricatis, adpressis: *intimis* oblongis. *Receptaculum* nudum. *Flosculi* definiti (12) hermaphroditi, infundibuliformes, basi coriaceâ, limbo 5-partiti: *segmentis* linearibus, acutis, glabris, revolutis. *Stamina* sinibus limbi inserta: *filamenta* e limbo supernè libera, capillaria, glabra, infernè nervis primariis longitudinaliter adnata! *antheræ* in tubum coalitæ, exsertæ, basi calcaribus 2 linearibus, acutis, complanatis, ipsâ antherâ 4-plo brevioribus ornata, appendice lanceolatâ mucronatâ coriaceâ rigidâ terminatæ. *Stylus* filiformis, glaber. *Stigma* bilobum: *lobis* lingulatis, truncatis, pruinosis, revolutis. *Achenium* angusta, hinc convexa, inde angulata, glabra, 3—4 lineas longa. *Pappus* capillaris, persistens, flavicans: *radiis* triplici circiter serie dispositis, inæqualibus, undique puberulis, apice penicillatis, semipollicem longis.

ANASTRAPHIA.

Stamina faucis corollæ inserta. *Pappi radiis* singulo ordine contiguis, complanatis, margine denticulatis, apice simplici.

Involucrum polyphyllum, campanulatum, basi ventricosum, multiplici serie imbricatum: *squamis* ovato-lanceolatis, acuminatis, adpressis, cartilagineis; *intimis* lineari-lanceolatis, tantùm acutis. *Receptaculum* nudum. *Flosculi* numerosissimi, hermaphroditi, tubulosi: *tubo* æquali, angulato, coriaceo: *limbo* profundè 5-partito: *segmentis* linearibus, obtusis, revolutis, glabris. *Stamina* faucis infra laciniarum sinum inserta: *filamenta* supernè libera, capillaria, glabra: *antheræ* in tubum coalitæ, basi aristis 2, simplicibus, lævibus, ipsius antheræ longitudine munitæ, appendice lineari-subulatâ apice inflexâ terminatæ. *Stylus* filiformis, glaber. *Stigma* exsertum, clavatum, emarginatum, pruinatum. *Achenia* linearia, ancipiti-compressa, sericeo-villosa. *Pappus* capillaris, persistens: *radiis* singulo ordine contiguis, basi solutis, apice simplici setaceo complanatis, margine denticulatis.

Frutex ramosus, rigidus, sempervirens, cortice cinereo. Rami teretes, pube brevissimâ cinereâ obruti, de lapsu foliorum tuberculati. Folia omninò Querci Ilicis, alterna, petiolata, elliptica, margine spinoso-dentata, subreflexa, ac undulata, coriacea, basi truncatâ v. acutâ, suprâ nuda, viridia, lucida, subtùs tomento brevissimo albo flocculoso densè vestita, exsiccatione venosissima, costâ venisque prominentibus, 2-pollicaria, vix ultra pollicem lata. *Involucrum* campanulatum, extùs tomento flocculoso, brevissimo, cinereo vestitum, bipollicare, diametro unciale. *Flosculi* purpurei, involucri longiores. *Antheræ* semiexsertæ, albæ. *Pappus* vix uncialis, sordidè cinereus.

Nomen ab *αναστραφεις* revolutus, atque ad limbum flosculi revolutum refert.

1. *A. ilicifolia*.

In Americâ Meridionali. *Joannes Fraser. 7.*

From the preceding, *Anastraphia* is readily distinguished by the insertion of its stamina and by the structure of its pappus, the rays of which are disposed in a single series. The specimen in the Lambertian herbarium was received from the late Mr. Fraser, but in what part of South America it was collected is not known.

PENTAPHORUS.

Stamina limbi sinubus inserta. *Pappi radiis* setaceo-complanatis, serrulatis, multiplici ordine collocatis. *Involucrum* 5-florum, cylindricum, connivens.

Involucrum oblongum, cylindraceum, polyphyllum, imbricatum: *squamis* lanceolatis, acuminatis, coriaceis, adpressis, lanuginosis; *interioribus* conniventibus. *Receptaculum* nudum. *Flosculi* 5, tubulosi, hermaphroditi, basin versus sensim angustati, limbo 5-partiti: *segmentis* linearibus, apice crassiore obtusis, revolutis. *Stamina* intra limbi lacinias inserta: *filamenta* tantùm è sinubus supernè libera, capillaria, glabra: *antheræ* in tubum coalitæ, basi bicalcaratæ (calcaribus linearibus, complanatis, acutis), appendice lanceolatâ, mucronatâ (mucrone tenui, elongato), coriaceâ, rigidâ coronatæ. *Stylus* filiformis, glaber. *Stigma* bilobum: *lobis* lingulatis, pruinosis, recurvis. *Achenia* trigona, densè villosa. *Pappus* persistens: *radiis* setaceis, complanatis, tenuissimè serrulatis, mucronulatis, inæqualibus, multiplici ordine collocatis; *intimis* latioribus.

Frutex procumbens? *ramosissimus, diffusus*. *Rami teretes, cortice lævi, fusco vestiti*. *Ramuli floriferi conferti, brevissimi, foliosi, pubescentes, semunciales*. *Folia alterna, sessilia, vix illa Buxi magnitudine adæquantia, obovata, mucronulata, integerrima,*

tegerrima, coriacea, basi attenuata, utrinque punctis parùm elevatis, resinosis, et pube brevissimâ cinereâ copiosè instructa, subtùs obsoletè trinervia. Flores in apice ramulorum sæpiùs 5, rariùs 3 v. 7, brevissimè pedicellati. Involucrum semipollicis longitudine. Flosculi purpurei. Pappus cinereus.

Nomen e vocibus græcis *πεντε* *quinque*, et *φέρω* *porto*, compositum.

Genus a præcedente distinctissimum pappi radiis multiplici ordine dispositis, atque involucro connivente, 5-floro, undè nomen.

1. *P. foliolosus.*

In Chili. *Caldcleugh.* ̄.

ADDITIONS AND CORRECTIONS.

After *TRINIS corymbosa*, p. 188, insert the three following Species.

T. glabra, foliis petiolatis ovato-oblongis mucronulatis integerrimis glabris, paniculâ foliosâ.

In Mexico prope Laguna Verde. *Schiede et Deppe.* ̄.
Floret Martio.

Caulis fruticosus, ramosissimus, lævis. *Rami* diffusi, cylindrici, glabri. *Folia* alterna, petiolata, ovato-oblonga, mucronulata, integerrima, membranacea, utrinque glaberrima, subtùs reticulata, basi rotundata, sesquiuncialia. *Panicula* foliosa, multiflora. *Bracteolæ* subsolitariae, lineares, acutæ, involucro duplò breviores. *Involucrum* 8-phyllum: *foliolis* linearibus, acutis, pubescentibus, erectis, simplici serie digestis.

gestis. *Receptaculum* densè pilosum. *Flosculi* 8, hermaphroditi, bilabiati, lutei; *labio exteriore* ligulato, tridentato; *interiore* bipartito, revoluto. *Antheræ* appendiculâ lineari obtusiusculâ elongatâ cartilagineâ terminatæ, basi bisetosæ: *setis* longis, simplicibus, attenuatis. *Stigmata* soluta, truncata, apice minutè papillosa. *Achenia* angusta, angulata, papilloso-scabra: *disco epigyno* dilatato. *Pappus* capillaris, denticulato-scaber, cinereo-fulvellus.

T. *salicifolia*, foliis elongato-lanceolatis acuminatis denticulatis subtùs tomentosis basi auriculatis, involucris multibracteolatis pedunculisque glanduloso-pubescentibus.

In Brasiliâ. *Sello*. 7.

Caulis fruticosus, diffusè ramosissimus, teres, striatus. *Rami* hirsuti. *Folia* alterna, sessilia, elongato-lanceolata, acuminata, membranacea, margine denticulis plurimis subsetaceis ornata, suprâ hirsuta, subtùs cinereo-tomentosa, basi attenuatâ et auriculatâ, 4—5 pollices longa, 10 lineas lata. *Panicula* ramosissima, divaricata. *Pedunculi* teretes, densè glanduloso-pubescentes. *Involucrum* 8—10-phyllum, basi bracteolis 5 v. 7, lineari-lanceolatis, acuminatis, patulis munitum: *squamis* lineari-lanceolatis, acuminatis, membranaceis, leviter carinatis, pube copiosâ glandulisque intermixtâ vestitis. *Receptaculum* densè pilosum. *Flosculi* plures (10—12) hermaphroditi, bilabiati, æquales: *fauce* tubo angusto 5-angulo longiore, dilatâtâ, intùs villosâ: *labiis* brevioribus; *exteriore* ligulato, acutè tridentato; *interiore* bipartito, revoluto: *segmentis* lanceolato-linearibus, obtusiusculis. *Filamenta* membranacea, canaliculata, glabra. *Antheræ* appendiculâ lineari-lanceolatâ obtusâ subfalcatâ coronatæ, basi *setis* 2 simplicibus longis instructæ. *Stigmata* recurvata, apice truncata, minutè papillosa. *Achenia* undique

undique papilloso-scabra: *disco epigyno* dilatato, concaviusculo. *Pappus* capillaris, flavicans.

T. mollissima, foliis petiolatis ovato-lanceolatis acuminatis serratis basi attenuatis utrinque sericeo-villosissimis.

In Brasiliâ. *Sello.* 7.

Frutex erectus, ramosissimus. *Rami* teretes, undique tomentosi. *Folia* alterna, petiolata, ovato-lanceolata, acuminata, serrata, basi acuta, penninervia, utrinque sericeo-villosissima, suprâ demùm viridia, 4-pollicaria. *Flores* diffusè corymboso-paniculati. *Bracteæ* lanceolatæ, acutæ, integerrimæ. *Involucrum* duplici ordine polyphyllum: *foliolis* lanceolatis, acuminatis, sericeo-villosissimis; *interioribus* angustioribus. *Receptaculum* densè pilosum. *Flosculi* plures, hermaphroditi, bilabiati; *labio exteriori* ligulato, tridenticulato, 4-nervio; *interiore* bipartito, revoluti: *segmentis* lanceolatis, acuminatis, binerviis. *Antheræ* appendiculâ lineari, obtusâ breviori cartilagineâ coronatæ, basi biseptosæ: *setis* compressis, vix attenuatis. *Achenia* subpentagona, undique copiosè papilloso-glandulosa: *disco epigyno* dilatato, concavo. *Pappus* capillaris, denticulato-scaber, cinereo-fulvellus.

TRIXIS *divaricata*, p. 190.

The flowers of this species are most probably entirely white, although in the dried state they have assumed a yellow colour. This species, as well as *cacaloides*, have been already referred to *Trixis* by Sprengel.

After JUNGIA *spectabilis*, p. 227, insert

3. *J. pyramidalis*, foliorum lobis obtusis pubescentibus, stipulis maximis,

maximis, paniculâ amplâ terminali, corollæ labio exteriori tridenticulato.

In Brasiliâ ad ripas fluminis La Plata. *Sello.* 7.

Planta pube brevissimâ densè vestita, rubiginosa. *Caulis* leviter angulatus, crassitie digiti minoris. *Folia* alterna petiolata, subrotundo-cordata, 7-loba, 5-nervia, suprâ planiuscula, punctis minutissimis granulosa, subtùs reticulato-venosissima, varicosa, latitudine 2—3-uncialia: *lobis* obtusis, brevibus, grossè inæqualiterque dentatis, margine paululùm revolutis. *Petioli* teretes, 2—3-pollicares, basi dilatâtâ, concavâ. *Stipulæ* 2, maximæ, foliaceæ, lobatodentatæ, sessiles, basi parùm angustatæ, 5-nerviæ, reticulato-venosissimæ, pollicares v. sesquipollicares. *Panicula* terminalis, ampla, laxa, tripedalis: *ramis* elongatis, multifloris. *Pedicelli* filiformes, densè pubescentes. *Bracteolæ* lanceolatæ, acuminatæ, dentatæ; *ultimis* integerrimis. *Involucra* simplici ordine polyphylla: *foliis* lanceolatis, acuminatis, membranaceis, striatis, pubescentibus. *Palææ* foliis involucris conformes, lanceolatæ, acuminatæ, membranaceæ, concavæ, striatæ, margine scariosæ. *Flosculi* 10 circiter, albi, bilabiati, hermaphroditi; *labio exteriori* ligulato, revoluti, 4-nervii, obtusè tridenticulato, tubo brevior; *interiore* bipartito, spiraliter revoluti: *segmentis* linearibus, obtusis, binerviis, adprimùm margine conglutinatis. *Filamenta* capillaria, glabra. *Antheræ* coalitæ, appendiculatæ lineari, falcâtâ acutiusculâ cartilagineâ coronatæ, basi bidentatæ: *dentibus* lineari-lanceolatis, acutis. *Stylus* capillaris. *Stigmata* soluta, semicylindrica, recurvata, apice dilatato, truncato, minutè papilloso. *Achenia* angustè fusiformia, sulcata, minutè papillosa: *disco epigyno* dilatato, planiusculo. *Pappus* cinereus: *radiis* plurimis (28) elegantè

ganter plumosis, simplici ordine digestis, inâ basi con-
natis, patentibus, æqualibus.

PROSELIA, p. 234.

Two new species of this genus have been discovered by Dr. Gillies, of which he has had the kindness to favour me with specimens. The rays of the pappus in these are disposed in a double series.

TYLLOMA, p. 238.

The flowers in the specimen of *Tylloma limbatum* which I had to examine being hardly sufficiently advanced to admit of my ascertaining their structure with perfect accuracy, I beg to sub-join the following amendments of the character and description from an inspection of more complete specimens, for which I am indebted to the liberality of Dr. Gillies.

Flosculi radii fœminei, bilabiati; *labio interiore* brevissimo, erecto, bifido. *Pappus* capillaris: *radiis* simplici ordine digestis.

Flosculi radii numerosi (18—20) bilabiati, fœminei, staminibus sterilibus; *labio exteriori* amplo, ligulato, obtusè tridenticulato, patulo, 4-nervio, subtùs sericeo-villosissimo, nervis lateralibus longè intramarginalibus simplicibus, intermediis supernè bifurcatis, ramis apice confluentibus; *interiore* lanceolato, acuminato, erecto, bifido, brevissimo; *disci* hermaphroditi, tubulosi, bilabiati: *labiis* erectis, abbreviatis: *exteriore* obtusè tridentato; *interiore* bilobo.

Obs.—Hujus flosculi aurei, nec rosei, radio semipollicari. In alterâ specie ab amicissimo D. Gillies lectâ flosculi albi; *radii* 10, fœminei, absque sterilium rudimentis; *labio exteriore* ligulato, acutè tridentato; *interiore* brevissimo, bipartito, laciniis linearibus, acutis, erectis, inæqualibus.

DIAZEUXIS!

DIAZEUXIS? *serrata*, p. 254.

In a collection of dried plants, which Mr. Lambert lately received from Messrs. Schiede and Deppe, is a specimen in flower of this plant, which proves to be a genus akin to *Serratula*; and it is therefore to be expunged from *Diazeuxis*, to which it had been referred from habit alone, and the following inserted in its place.

2. *D. latifolia*, foliis lanceolatis acuminatis triplinerviis basi attenuatis, involucri squamis ovato-lanceolatis, pappi fœminei radiis fasciculatis.

Ad Caracas. *D. Fanning.* 2.

Præcedenti proxima. *Rami* angulati, sulcati, undique lanâ fugaci vestiti. *Folia* brevissimè petiolata, latè lanceolata v. elliptico-oblonga, acuminata, triplinervia, coriacea, basi attenuata, margine angustissimo, reflexo, denticulato, suprâ nuda, polita, viridia, subtùs lanâ implexâ copiosissimâ niveâ tecta, spithamæa, 2 pollices lata. *Involucria fœminea* spheroidæa: *squamis* ovato-lanceolatis, mucronatis, coriaceis, adpressè imbricatis, extùs lanuginosis, obsoletè striatis. *Flosculi fœminei* filiformes, limbo 5-fidi: *laciniis* linearibus, obtusiusculis. *Stigmata* lingulata, lævia. *Pappi radiis* copiosissimis, fasciculatis, apice penicillatis, cinereis.

MUTISIA, p. 260.

I ought to have added to my remarks on this genus, that the presence or absence of appendages to the scales of the involucrium is a character of specific importance only, as may be seen by a comparison of species intimately allied, such as *Mutisia Clematis* and *lanata*, and *M. inflexa* and *linearifolia*. I have now satisfied myself as to the identity of *Mutisia grandiflora* of Humboldt and Bonpland with the *M. Clematis* of Linnæus, from
the

the examination of another and very perfect specimen of the latter species in the herbarium of the younger Linnaeus, now incorporated with that of Sir James Edward Smith.

MUTISIA *viciifolia*, p. 363.

The specimens of this species from Cavanilles, as well as from Ruiz and Pavon, are marked on the tickets as being from Peru; but it is stated by Cavanilles in his *Icones Plantarum* as being a native of Valparaiso in Chile. Should this information be incorrect, and the plant really proves to be a native of Peru, the *M. acuminata* may ultimately be found to be identically the same.

MUTISIA *sinuata*, p. 267.

From a specimen I have received from Dr. Gillies, the rays appear to be of a pale pink, almost approaching to white. The broad base of the leaves, and the continuous wings of the stalks, sufficiently distinguish the *M. subspinosa* from this species, although Dr. Hooker has proposed to unite them. I have also a specimen of this from Dr. Gillies. The rays of *M. subspinosa* are bright yellow.

MUTISIA *linearifolia*, p. 272.

I have specimens of this from Dr. Gillies marked *M. rigida*, *nov. sp.?* The exterior scales of the involucrem are furnished with a short abrupt point. I have referred to this species, with a mark of doubt, the *M. linifolia* of Dr. Hooker, which, however, turns out to be a very distinct plant, as I find from examining a specimen with which Dr. Gillies has favoured me. It differs in having perfectly flat leaves, and the exterior scales of the involucrem ovate and acuminate.

[The continuation of this Paper will be given in a future Part of the Transactions.]

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