

IX. *An Enumeration of the Plants of the Galapagos Archipelago; with Descriptions of those which are new.* By JOSEPH DALTON HOOKER, Esq., M.D., F.L.S. &c. &c.

Read March 4th, May 6th, and December 16th, 1845.

FOR the materials upon which the following Flora of the Galapagos Islands has been constructed I am mainly indebted to Charles Darwin, Esq., who formed a collection of plants in that group during the voyage of H. M. Ship 'Beagle.' On my return from the Antarctic expedition, I expressed to that gentleman a wish to examine the botanical results of Captain Fitzroy's voyage, and to incorporate the plants with my own 'Flora Antarctica,' and through his kindness the collections in question were liberally given over to me by Professor Henslow of Cambridge, in whose charge they had been placed for the University. Mr. Darwin drew my attention to the striking peculiarities which mark the Flora of the Galapagos group, and to the fact that the plants composing it not only differ from those of any other country, but that each of these islands has some particular productions of its own, often representatives of the species which are found in the others of the group.

My first attempt to give any clear exposition of these features in the vegetation was frustrated by the novelty of the species themselves, forbidding any direct comparison of the Flora with that of adjacent countries. A clear determination of the plants themselves was indispensable; and I have now the honour of laying before the Society the names of the species, with descriptions of what have proved to be new, and some notices as to the ranges of others previously known. I must here beg to acknowledge the assistance I received from Professor Henslow, by whom the investigation of the species was commenced. These, together with some others collected by various voyagers, though perhaps composing but a small proportion of the Flora of the

Galapagos, afford materials for making some general remarks upon the botany of these islands and its relation to that of other countries.

### FUNGI.

1. *SCHIZOPHYLLUM COMMUNE*, *Fries.*

*Hab.* Charles Island, *Charles Darwin, Esq.*

### LICHENES.

2. *USNEA PLICATA*, *Ach. Syn. Meth.* p. 305.

*Hab.* James Island, "hanging from the boughs of the trees in the upper damp region, where it forms a considerable proportion of the food of the large tortoise." (*Charles Darwin, Esq.*)

*Cladonia rangiferina* is one of the few parallel instances of lichens constituting the main subsistence of any animal among the higher orders. This species is abundant in all temperate and tropical countries.

3. *BORRERA LEUCOMELAS*, *Ach. Lichenogr. Univ.* p. 499, *var. filiformis.*

*Hab.* James Island, *Charles Darwin, Esq.*

The same slender variety is common on the Peruvian coast. The species is a very rare English, though a common tropical plant.

4. *STICTA AURATA*, *Ach. Syn. Meth.* p. 231.

*Hab.* James Island, *Charles Darwin, Esq.*

Also an exceedingly scarce English lichen, much more common in the warmer latitudes.

### HEPATICÆ\*.

5. *JUNGERMANNIA VAGINATA*, *Sw.*

*Hab.* James Island and Charles Island, *Charles Darwin, Esq.* A West Indian plant.

6. *J. TAMARISCI*, *Hook.*

*Hab.* Charles Island, *Charles Darwin, Esq.* A British and very widely diffused species.

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\* For the determination of the *Musci* and *Hepaticæ* I am indebted to the kindness of William Wilson, Esq. of Warrington.—J. D. H.

7. *J. FILIFORMIS*, var.  $\beta$ . *lava*, Sw.

*Hab.* Charles Island, *Charles Darwin, Esq.* Also found in several tropical localities.

8. *J. FILICINA*, *Hook.*; et var.  $\beta$ . *tenuis*.

*Hab.* James Island.  $\beta$ . James and Charles Islands, *Charles Darwin, Esq.* Also a native of the West Indies and South America.

9. *J. ATRATA*, *Sw.*?

*Hab.* Charles Island, *Charles Darwin, Esq.* Found also on the American continent.

10. *J. PUNGENS*, *Wils. MSS.*; caule bipinnato, ramis attenuatis, foliis patulis remotis e basi cordatâ longe acuminatis apicibus siccitate porrectis, stipulis oblongis profundè bifidis basi cordatis amplexicaulibus (dorso nec prominulo) cruribus attenuatis.—*Wils. MSS.*

*Hab.* Charles Island, *Charles Darwin, Esq.*

The *J. atrata* of Swartz, to which this is allied, has the stipules spurred at the back, and the apices of the leaves bent inwards and concealed when dry.

## MUSCI.

11. *MACROMITRIUM SCABRISETUM*, *Wils. MSS.*; repens, surculis brevibus erectis, foliis subpatentibus lineari-lanceolatis acutis plicato-carinatis (nervo subexcurrente), setâ scabrâ, calyptâ glabrâ (capsulâ sulcatâ?); operculo longirostro.—*Wils. MSS.*

*Hab.* Charles Island, *Charles Darwin, Esq.* Probably on trunks of trees in the higher regions of the island.

Very closely allied to an undescribed species from Columbia in *Herb. Hook.*, as also to the *Schlotheimia longifolia*, *Hook.* The seta being rough, this moss should perhaps be referred to the genus *Trachypus*, *R. and Hornsch.*

12. *NECKERA* vel *PILOTRICHUM* sp.? (barren).

*Hab.* James Island, *Charles Darwin, Esq.*

## FILICES.

13. *POLYPODIUM PARADISEÆ*, *Langsd. & Fischer.*

*Hab.* James Island, *Charles Darwin, Esq.* Abundant in all the warm parts of South America and the West Indies.

14. *P. PLEIOSOROS*, *Hook. fil.*; fronde ovatâ bipinnatâ, pinnis linearibus elongatis acuminatis; pinnulis lineari-oblongis approximatis apicibus rotundatis inferioribus grossè crenato-dentatis suprâ pilis sparsis hirtis subtùs molliter pubescentibus, soris 10-14, rachibus costisque pubescentibus paleaceisque.

*Hab.* James Island, *Charles Darwin, Esq.*

Rachis paleacea pilisque brevibus albidis obsita, paleis elongatis brunneis. Pinnæ 6 unc. longæ, ad medium lineares deinde ad acumen gradatim attenuatæ, 1 unc. latæ. Pinnulæ sub-50,  $\frac{1}{2}$ - $\frac{2}{3}$  unc. longæ,  $\frac{1}{4}$  latæ, sessiles, membranacæ v. subcoriaceæ, supernè confluentes, suprâ pubescentes, subtùs pilosæ, pilis sparsis elongatis, marginibus supernè crenatæ. Sori plurimi, medio venulæ inter costam marginemque siti.

Only the upper portion, about half a foot long, of an apparently very large frond exists in Mr. Darwin's collection, and it does not accord with any described species nor with any in the Hookerian herbarium. The veins are twice or thrice forked, and the sori are situated on the middle of the first superior branch.

15. *P. PALEACEUM*, *Hook. fil.*; fronde latè ovatâ bi- vel tripinnatâ, pinnis primariis alternis remotis elongato-ovatis curvatis secundariis profundè pinnatifidis linearibus suprâ pilis rufis densè vestitis subtùs glabriusculis; segmentis oblongis obtusis infimis crenato-dentatis, soris 6-8 parvis, rachi densè subapressèque paleacæ.

*Hab.* Charles and James Islands, *Charles Darwin, Esq.*

Rachis gracilis, pallida, paleis elongatis subulatis fuscis operta, pubescens, tuberculis minimis asperula. Pinnæ remotæ, 8-10 unc. longæ, 3-4 latæ, ultra medium in acumen elongatum gradatim attenuatæ. Pinnulæ 30-40, superiores decurrentes, inferiores 2-3 unc. longæ,  $\frac{1}{2}$ - $\frac{2}{3}$  latæ, profundè pinnatifidæ, basi subpinnatæ, membranacæ. Sori parvi, ut in *P. pleiosoro* siti. Venæ bis furcatæ, ramo superiore apicem segmenti attingente.

Only a portion of a frond was collected, which is about two feet long.

16. *MARGINARIA INCANA*, *Presl* (*Polypodium*, *Sw.*), *var.* frondibus plerumque pinnatis, pinnis inferioribus 2-3 furcatis.

*Hab.* Charles Island, *Charles Darwin, Esq.* Albemarle Island, *Macrae*.

Though a most abundant plant in all the tropical and warm parts of Ame-

rica, and even found so far north as Boston, U.S., the only specimens which have come under my observation with the lower pinnæ forked, are the above, and Mr. Purdie's from Jamaica.

17. *M. ENSIFOLIA*, *Presl* (Polypodium, *Sw.*).

*Hab.* James Island. Common to all the warm regions of South America and the West Indies.

18. *PLEOPELTIS LEPIDOTA*, *Willd.*

*Hab.* Charles Island, *Charles Darwin, Esq.* Abundant throughout the tropics, and probably not distinct from the following species.

19. *P. MACROCARPA*, *Kaulf.*

*Hab.* James Island, *Charles Darwin, Esq.*

The fronds in these specimens are strictly lanceolate and attenuate at both ends; exactly according with individuals from Peru.

20. *P. AUREA*, *Presl* (Polypodium, *L.*).

*Hab.* James Island, *Charles Darwin, Esq.* Also a frequent plant in South America.

Fronds generally pinnatifid, but in one (probably monstrous) specimen, there are four digitate spreading pinnæ.

21. *CAMPYLONEURUM PHYLLITIDIS*, *Presl* (Polypodium, *Sw.*).

*Hab.* James Island, *Charles Darwin, Esq.* Common all over tropical South America.

22. *OLFERZIA LANGSDORFFII*, *Presl* (Acrostichum, *H. & G.*).

*Hab.* James Island, *Charles Darwin, Esq.*

23. *O. VISCIDA*, *Presl* (Acrostichum, *Auct.*).

*Hab.* James Island, *Charles Darwin, Esq.* West Indies, abundant.

24. *HEMIONITIS PINNATA*, *Hook. fil.*; frondibus biformibus (ex eadem radice) supra nudis subtus densè rufo-paleaceis, sterilibus sessilibus elongato-spathulatis obtusis, fertilibus sublongè stipitatis pinnatis, pinnis linearibus elongatis obtusis integerrimis subtus undique soriferis, soris paleaceis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Radices cæspitiosi, fibrosi; fibris atris repentibus. Frondes steriles 10-12, undique patentes.

sessiles, 4-5 unc. longæ, 1 latæ, firmæ sed teneræ, supernè glaberrimæ, medio obscure sulcatæ, siccitate pallidè flavo-virides, subtùs paleis elongatis sericeis rufo-fulvis densè vestitæ, apicibus rotundatis, marginibus siccitate subundulatis lentè recurvis, venis reticulatis obscuris, areolas elongatas efformantibus intra marginem anastomosantes. Frondes fertiles 2-3, 3 unc. longæ, suberectæ, supernè in laminam pinnatifidam expansæ, stipite rachique politis paleis elongatis obsitis. Pinnæ 5-7, superiores confluentes, omnes patentés, coriaceæ, obtusæ,  $\frac{3}{4}$  unc. longæ,  $\frac{1}{2}$  latæ, suprâ nudæ, margine angustè revolutò subindusiiformi. Sori luridè rufo-brunnei, paginam inferiorem frondis omninò tegentes, paleis subsericeis operti.

The venation of the barren frond is that of a true *Pæcilopteris*, but in the (occasional) presence of a free venule it approaches *Acrostichum*. The fertile fronds resemble those of *Notochlæna*, though the sori are decidedly spread over the entire under-surface of the frond.

25. *PTERIS LUTEA*, Cav., *Spr. Sp. Pl.* vol. iv. p. 74.

*Hab.* James Island, *Dr. Scouler*. Galapagos, *Mr. Cuming*.

Our specimens agree with the very imperfect description of Sprengel, except that the pinnæ are nearly opposite. The same plant is also an inhabitant of Peru, in the specimens from which country the lower pinna is generally forked.

26. *GYMNOGRAMMA CHÆROPHYLLA*, Desv.

*Hab.* Charles Island, *Charles Darwin, Esq.* Brazil, Paraguay, Jamaica.

27. *LITOBROCHIA PEDATA*, Presl (*Pteris*, L.).

*Hab.* Charles and James Islands, *Charles Darwin, Esq., Douglas & Cuming*. Also found in the West Indies, Brazils, &c.

28. *ADIANTUM CUNEATUM*, Willd.

*Hab.* James Island, *Charles Darwin, Esq., & Dr. Scouler*. A West Indian plant.

29. *A. PARVULUM*, *Hook. fil.*; glaberrimum, fronde tenerrimâ tripartitâ, ramis pinnatis, pinnis patentibus breviter petiolatis subrhombæo-oblongis apicibus rotundatis margine inferiore recto superiore denticulato ad soros emarginato basi truncato, stipite glaberrimo, rachi vix pilosâ.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Stipes 3-uncialis, filiformis, glaberrima. Rami 3, laterales, horizontaliter patentés, breviusculi. Rachis supernè præsertim parcè pubescens. Pinnæ sub-10, membranacæ,  $\frac{1}{2}$  unc. longæ,  $\frac{1}{2}$  latæ, breviter petiolatæ, lineis radiantibus subrugosæ, margine superiore siccitate subcrispato integro; basi truncatâ, rachi parallelâ. Sori pauci, parvuli, quâvis pinnulâ fundo sinûs solitarii.

A small species, most nearly allied to a native of New Zealand, in which the upper margins of the pinnæ are crenate.

30. *A. HENSLOVIANUM*, *Hook. fil.*; frondibus bi- v. rarius tripinnatis elongato-ovatis, pinnis primariis attenuatis; secundariis raris; pinnulis laxis divaricatis breviter petiolatis rhombéo-lunulatis membranaceis supernè crenato-lobatis, soris in fundo loborum majusculis, rachi puberulâ, stipite rufo-brunneo.

*Hab.* James and Charles Islands, *Charles Darwin, Esq.*

Species pulcherrima, elata, sub-3-pedalis. Stipes gracilis, nitida, canaliculata, fundo sulci pubescens,  $\frac{1}{2}$  ped. longa. Pinnæ primariæ alternæ, remotæ, lineares, gradatim acuminatæ, 6 unc. longæ,  $\frac{3}{4}$  latæ, scabridæ, ut et rachis pilis rigidis sparsæ. Pinnæ secundariæ (dum adsunt) irregulariter insertæ, cum pinnulâ sæpe alternantes, hinc rami quasi proliferi evadunt. Pinnulæ 30-40, alternæ, horizontales, margine inferiori lunatæ, ad apices rotundatæ, superiores basi truncatæ v. in auriculam productæ, 4-fidæ, segmentis quadratis emarginatis ad apices soriferis. Sori plurimi. *Indusia majuscula.*

31. *BLECHNUM OCCIDENTALE*, *Sw.*

*Hab.* James Island, *Charles Darwin, Esq.*

32. *ASPLENIUM SUBULATUM*, *Hook. & Arn. in Bot. Beechey Voy.* p. 313. t. 72.

*Hab.* Charles Island, *Charles Darwin, Esq.* Also found in Jamaica, Mexico and Columbia.

33. *A. FURCATUM*, *L.*

*Hab.* James Island, *Charles Darwin, Esq.* Found in all warm latitudes, and as far north as in Madeira.

34. *A. MACRÆI*, *Hook. & Grev. Ic. Fil.* t. 217.

*Hab.* James Island, *Charles Darwin, Esq.*

Probably a very common West Indian species, of which, or its varieties, many others have been made.

35. *A. MARINUM*, L., var. *auriculatum*; fronde ovato-lanceolatâ pinnatâ, pinnis petiolatis lineari-oblongis obtusis crenatis basi cuneatis sursùm auriculatis.

*Hab.* Charles and James Islands, *Charles Darwin, Esq.*

A very common South American plant, which I feel little hesitation in referring to *A. marinum*. The narrower pinnæ, auricled at the base, and the small size are the chief distinctions between this and the English form. One of Mr. Darwin's specimens cannot be distinguished from the *A. marinum* of New Brunswick in Canada; while some states of the plant from Staffa exhibit rhomboid or nearly orbicular pinnæ. In others, from the Galapagos, the pinnæ, instead of being auricled at the upper base, are there deeply divided down to the costa. In several of the fronds of the Guatemala, Columbian and Caraccas specimens, the pinnæ become longer and gradually attenuated, when the plant is hardly to be known from *A. auritum*, Sw.

36. *A. NIGRESCENS*, *Hook. fil.*; fronde elongatâ pinnatâ, pinnis petiolatis ovato-v. lineari-lanceolatis acuminatis præsertim ad apices crenato-dentatis supernè obliquis basi cuneatis; terminali majusculâ basi sublobatâ, soris brevibus obliquis oblongo-ellipticis, stipite rachique glaberrimis.

*Hab.* James Island, *Charles Darwin, Esq.*

Frons bipedalis. Stipes rachisque glaberrimi, nitidi, validi, anticè canaliculati. Pinnæ remotæ, 3 unc. longæ,  $\frac{1}{2}$ - $\frac{3}{4}$  latæ, membranaceæ, siccitate nigrescentes, plus minusve serrato-dentatæ, dentibus angustis obtusis versus apices explanatis basi cuneatis. Sori 15-30 quâvis pinnâ, breves  $\frac{1}{2}$  lin. longi, costæ subapproximati. Indusia membranacea, oblonga.

Near *A. salicifolium*, L., but the upper base of the pinna, though rather gibbous, is by no means lobed, and the sori are very unlike. It has also the aspect of *A. lucidum*, Forst., the sori being however much shorter, and the texture of the plant totally different. It is Mr. Gardner's n. 5942, from Rio, and is probably a frequent though overlooked South American fern.

37. *NEPHRODIUM PECTINATUM*, *Presl* (*Aspidium*, *Willd.*).

*Hab.* James Island, *Charles Darwin, Esq.* Also found in all the warm districts of South America and the West Indies.



## 38. NEPHRODIUM MOLLE, Schott. (Aspidium, Sw.)

Hab. James Island, Charles Darwin, Esq. A species of South America and the West Indies.

## 39. POLYSTICHUM CORIACEUM, Presl. (Aspidium, Sw.)

Hab. James Island, Charles Darwin, Esq. Very common in all warm latitudes.

In Mr. Darwin's collections there is another fern, in a barren state, from Chatham Island, with a tripinnate frond; it is probably a species of *Poly-podium*.

## MONOCOTYLEDONES.

## GRAMINEÆ.

## 40. PASPALUM PENICILLATUM, Hook. fil.; glaberrimum, spicis numerosis in paniculam subverticillatam dispositis ad axillas ciliatis, rachi latâ undulatâ, spiculis solitariis serialibus oblongis glaberrimis nitidis, culmis adscendentibus, foliis ovato-vel elongato-lanceolatis planis.

Hab. Charles Island, Charles Darwin, Esq.

Culmi  $1\frac{1}{2}$ -2 ped. alti, teretes, dichotomè ramosi, nodis tumidis nigrescentibus, internodiis 2-3-uncialibus fusco-lineatis politis. Vaginæ internodiis æquilongæ, laxè vaginantes, glaberrimæ, sulcatæ, ad basin usque fissæ, juniores ad margines ciliatæ, ad orem contractæ; ligula scariosa, lacera, semilunaris. Foliorum lamina 3 unc. longa, latiuscula, acuminata, plana, margine sub lente scabrido-ciliata, undulata, ad basin contracta, subcordata, membranacea, subtùs glabrescens, striata. Panicula erecta, sub 5 unc. longa. Rami (spicæ) 15-20, erecto-patentes, solitarii binive, ad axillas ciliato-barbati, 1 unc. longi, interdum unilaterales. Rachis latiuscula, concava, dorso carinata, 1 lin. lata, sub lente scabrida, margine undulata, inferior 15-30-flora, ultra flores in acumen producta. Spiculæ parvæ, in costam alternatim flexuosam dispositæ, breviter pedicellatæ, albida, glaberrimæ,  $\frac{3}{4}$  lin. longæ, pedicello articulo cum flore ciliato. Gluma inferior membranacea, concava, vix trinervis, nervis lateralibus valdè inconspicuis, marginibus involutis; superior (seu palea floris inferioris) subsimilis, 3-nervis, nervis obscuris. Palea inferior coriaceo-chartacea, medio tenuissimè 1-nervis; superior enervis, cymbiformis, stamina ovariumque includens, marginibus incurvis supra medium in lobos 2 oppositos productis.

Very near the *P. Walterianum*, Schultz (Kunth, Agrost. p. 41) and to *P. fluitans*, Lam. It differs from those species and all their allies in having smooth leaves and bearded axils to the spikes, also in the smooth spiculæ which are placed in a single series, and faint nerves.

41. *P. LONGEPEDUNCULATUM*, *Leconte*; *fide Nees in Herb. Hook.*, var. *foliis molliter pubescentibus*.

*Hab.* Charles Island, *Charles Darwin, Esq.* Albemarle Island, *Mr. Macrae*.

Culmi subsolitarii, simplices, erecti, 2-3-pedales, glaberrimi. Vaginæ internodiis breviores, glabræ, pilosæ v. ciliatæ. Folia latiuscula, plana, 5-8 unc. longa,  $\frac{1}{2}$  unc. lata, utrinque molliter pubescentia, marginibus ciliatis, basi barbata. Racemus elongatus, 2-5 uncialis, spicis 4-8 alternis, patentibus, 1-1 $\frac{3}{4}$  unc. longis; rachi flexuosâ, glabrâ vel minutè scabridâ, spiculis angustiore, basi interdum barbata. Spiculæ sub 10, geminæ, glaberrimæ, latè ovato-orbiculatæ,  $\frac{1}{2}$  unc. longæ. Gluma inferior fusco-maculata, 3-nervis, nervis 2 marginalibus; superior plana, medio carinata, nervis 2 marginalibus inconspicuis.

These specimens agree with others from Brazil (Piauhy, Gardner, n. 2339) except that the vaginæ are not so hirsute, a character by no means constant even in the individuals from the latter country. In the 'Flora Brasiliensis' of Martius, Nees quotes the *P. longepedunculatum* as a synonym of *P. arena-rium*, from which however it remarkably differs in the spikes being more numerous (3-6), the rachis narrower, the spiculæ and glumes quite smooth, and in the softly pubescent surface of the leaves, which latter vary much in length and breadth. Our specimens again resemble those of *P. supinus*, Bosc. (*Mart. l. c. p. 53*), differing in the culms not being procumbent, and that the glumes are 3- (not 5-) nerved; and they also resemble *P. plicatulus*, Mart. (*l. c. p. 67*), with the exception of the glumes being all smooth, the lower never undulate, and the flowers much smaller than in any of the numerous authentically named specimens which exist in the Hookerian Herbarium.

42. *PANICUM COLONUM*, *L.*

*Hab.* Charles Island, *Charles Darwin, Esq.*

43. *SETARIA ROTTLEI*, *Spr.*

*Hab.* Albemarle Island, *Mr. Macrae*.

These specimens do not differ from East Indian ones. The species is probably of very common occurrence.

44. *SETARIA*, n. sp.? A highly remarkable and distinct-looking grass, but in too imperfect a state to allow of my pronouncing it absolutely new.

*Hab.* Albemarle Island, *Mr. Macrae*.

Gramen rigidum, glaberrimum, læve. Radix, ut videtur, vagè repens. Culmi prostrati, elongati, nudi, geniculati, pluri-nodosi, ad nodos dichotomè ramosi, teretes, glaberrimi, duri; nodis tumidis. Rami ex imâ basi curvatâ adscendentes, 4-6-pedales, deinde erecti, rigidi, apicem versus foliosi, internodiis sub 2-3-uncialibus. Vaginæ cylindraceæ, internodiis  $\frac{1}{2}$  breviores, striatæ, ad basin fissæ, marginibus mox involutis, 3-4 unc. longæ, 2 lin. latæ. Spicæ solitariæ et binæ, terminales vel axillares, filiformes, foliis subbreviores. Rachis undulata, sub lente pubescens. Spiculæ alternæ, subsessiles, distichæ?  $\frac{1}{2}$  lin. longæ, glaberrimæ, basi setis brevibus scabridis suffultæ. Gluma inferior minima, orbiculari-ovata, 3-nervis, paleis  $\frac{1}{2}$  brevior, ad apicem acuminatum eroso-ciliata. Floris inferioris palea ovato-lanceolata, acuminata, chartacea, 5-nervis, glabra; floris superioris palea inferior subsimilis, concava, 3-nervis; superior subæqui-longa, 2-nervis. Squamulæ 2, obovato-quadratæ, truncatæ. Stamina 3. Ovarium minimum, ovatum; stylis 2 elongatis; stigmatibus plumosis. Caryopsis latè ovata, obtusa.

Apparently a widely-creeping and probably binding littoral grass. The upper palea of the fertile flower is decidedly 2-nerved.

45. EUTRIANA PILOSA, *Hook. fil.*; spicis horizontalibus, locustis sub 4 confertis 2-floris, floris inferioris paleâ inferiore 3-nervi ad apicem trifidâ segmentis subulato-aristatis; superiore bifidâ bicarinatâ carinis minutè scabridis, floris superioris paleâ 1 (nempe exteriore) bifidâ inter segmenta ciliatâ longè aristatâ nervis lateralibus ultra segmenta in aristas breves productis, foliis vaginisque suprâ laxè patentim pilosis.

*Hab.* Albemarle Island, *Mr. Macrae.*

Gramen erectum, gracile,  $1\frac{1}{2}$ -pedale. Radix fibrosa. Culmi fasciculati, e basi ramosi, erecti, vel geniculati et adscendentes, ter quaterve nodosi, teretes, glaberrimi, striati, foliosi, nodis contractis brunneis. Vaginæ cylindraceæ, sulcatæ, infernè glabræ, supernè parçè pilosæ, pilis basi minutè tuberculatis, infra medium interdum ad basin fissæ, 2-3 unc. longæ, ad orem penicillato-barbatae. Folia plana, lineari-lanceolata, divaricata, attenuata, acuminata, pilosa, pilis laxis mollibus patulis, 2-3 unc. longa,  $1\frac{1}{2}$  lin. lata. Spicæ horizontales, rariùs suberectæ, brevi-pedunculatæ, secundæ,  $\frac{1}{2}$  unc. longæ; rachis compressa, ultra locustas in laminam subulatam ad apicem bifidam producta. Locustæ in quâvis spicâ sub 4, fasciculatæ, bifloræ; flos superior imperfectus. Glumæ 2, acuminatæ, 1-nerves, nervo lato dorso scabrido; superior apice vix bifida, subcarinata; inferior minor basi subremota. Flos inferior hermaphroditus, breviter pedicellatus. Paleæ 2, inferior ovato-lanceolata, dorso supernè 3-nervis, nervo

medio infernè evanido, segmentis subulato-aristatis scabridis; superior subæquilonga, lineari- v. ovato-lanceolata, ad apicem breviter bifida, 2-carinata, carinis scabridis, marginibus involutis. Squamulæ 2, obovato-cuneatæ, obliquè truncatæ, emarginatæ. Stamina 3; antheris elongatis, stramineis. Ovarium ovatum; stylis 2, terminalibus; stigmatibus plumosis.

Allied to *E. affinis*, but more slender in all its parts and smaller, with shorter racemes.

The species of this curious genus, among which much confusion exists, are almost confined to America, so far as hitherto known, two only being stated as common to that continent and the Philippine Islands. In all that I have examined, the flat rachis which bears the locustæ is produced, beyond the insertion of the latter, into a scabrid rigid lamina, often bifid at its apex and forming an incomplete terminal spikelet. The number of locustæ on the rachis is variable, and they are generally in different degrees of perfection, the lower often neuter. In none of the other species have I seen traces of a third floret, or of any reproductive organs in the upper one of the two\*.

46. *ARISTIDA SUBSPICATA*, Rup. & Trin. *Sp. Gram. Stip.* p. 125. *ex Act. Acad.*

*Imp. Petrop.*, ser. vi. tom. v.

*Hab.* Albemarle Island, *Mr. Macrae*.

\* The following are a few observations on the American species allied to *E. pilosa* :—

1. *E. curtipendula*, Trin. Kunth, *Agrost.* p. 280.

This species varies greatly in the degree of perfection of its upper floret, which is sometimes, though very rarely, entirely wanting. More generally it consists of a simple subulate arista, placed at the back of the upper palea of the lower floret. It is often triaristate, like that of *E. aristoides*, Kunth, and again in other specimens (Herb. Gouan, received from seed and cultivated from Mexico); the upper floret is composed of a fully-developed lower palea, bifid, 2-lobed or bipartite, 3-nerved, the middle nerve produced into a long arista, the lateral ones near the margins of the lateral segments and produced beyond them into aristæ. Other upper florets of the same specimen present only the trifid arista.

2. *E. affinis*, Hook. fil.; spicis racemosis secundis reflexis, locustis 4-7 fasciculatis bifloris, glumis subulato-aristatis infra apicem subtrifidis, floris inferioris paleâ inferiore trifidâ: segmentis aristatis superiore subæquilongâ bifidâ, floris superioris paleâ inferiore scariosâ profundè bifidâ inter segmenta aristatâ trinervi nervis lateralibus submarginalibus in aristas productis; paleâ superiore

47. *A. REPENS*, *Rup. & Trin. l. c.* p. 128.

*Hab.* Galapagos, *Douglas*. No doubt James Island; the only one I believe upon which Mr. Douglas landed.

There is no specimen of this plant in the Hookerian Herbarium.

48. *POA (Eragrostis) PILOSA*, *L. Kunth, Agrost.* p. 329.

*Hab.* James Island, *Charles Darwin, Esq.*

These specimens do not differ from others of North Africa, which are not hairy at the lower base of the panicles. Except with very slight variations in the size and acuteness of the florets, the same plant is found in Peru, the East Indies (sub nom. *P. punctata*, *Roxb.*, paleæ sometimes scariose), North America (*P. tenuis*, *Ell. ð. capillaris*), Buenos Ayres, Brazil (*P. polytricha*, *Nees*), and Mexico and Brazil (*P. Mexicana*, *Link*), specimens of which last, in the Hookerian Herbarium, from Hort. Reg. Berol., entirely coincide with the Galapagos Island plant.

49. *POA (Eragrostis) CILIARIS*, *L. Kunth, Agrost.* p. 337.

*Hab. Var.* paniculâ elongatâ, vaginis hirsutis, culmis erectis.—Albemarle Island, *Mr. Macrae*.

*Var.* paniculâ coarctatâ, vaginis pilosis, culmis suberectis.—Chatham Island, *Charles Darwin, Esq.*

*Var.* paniculâ ellipticâ vel elongato-ovatâ, vaginis glabriusculis, culmis tenuibus procumbentibus.—Charles Island, *Charles Darwin, Esq.*

minimâ (rariùs 0) integrâ v. bifidâ, foliis glaberrimis v. parçè pilosis. *Atheropogon apludoides*, *Heterostegon curtispindulus* et *Eutriana curtispindula*, *Schweinitz* in *Herb. Hook.*

*Hab.* North America, *Schweinitz*. St. Louis Missouri, and Texas, *Drummond*.

Very nearly allied to *E. curtispindula*, but differs in the much smaller spikelets, which bear more numerous (generally 6) flowers. The upper flower too has almost invariably 2 paleæ, and is more perfect than in that species.

3. *E. gracilis*, *Hook. fil.*; glaberrima, paniculâ strictâ erectâ spiculis secundis sessilibus trifloris, glumis inæqualibus superiore flosculum solitarium æquante subacutâ integrâ, paleis subæquilongis inferiore apice breviter bicuspidatâ; superiore latiusculâ convolutâ apice bifidâ dorso basi setulâ subæquilongâ acutâ, culmo erecto gracili folioso, foliis longè lineari-lanceolatis culmo brevioribus in acumen elongatum gradatim productis.

*Hab.* Tucuman, *Tweedie*.

A most distinct species, well-marked by its single-flowered locustæ, the subcaudate apices of the leaves and slender habit.

Apparently a highly variable plant in the length of the culms, habit of growth and hairiness of the vaginæ. Some of Mr. Macrae's specimens (from Albemarle Island) are erect, upwards of a span long, with the slender spikes two or three inches long, and the vaginæ hairy with long soft-bearded cilia seated on conspicuous tubercles; others, from the same locality, are hardly at all hairy and have smooth vaginæ: these agree with individuals from Brazil (*Martius*) and the Island of St. Vincent. Mr. Darwin's Charles and Chatham Island specimens are distinguished by their erect or procumbent culms, their more contracted or elliptical dense spikes, their much smaller leaves and their nearly smooth sheaths. In the *P. Peruviana*, Jacq., which has hirsute leaves, the upper valves of the glumes are described by Willdenow as subciliated, a character noticed by Jacquin himself (Coll. 1. p. 107), who says, "valvulæ dorso aculeatæ," but in his figure 1. t. 18, they are represented quite smooth. His specimens were raised from seed. I do not observe the length of the cilia to vary in any of the specimens (in Herb. Hook.), nor in the *P. Boryana*, Willd. (Mauritius), which seems to me undistinguishable from the West Indian plant. A small state of the same has been collected near Gedda in Arabia.

50. CALAMAGROSTIS PUMILA, *Hook. fil.*; pilosa pilis patentibus, paniculâ erectâ ovatâ laxâ compressâ, glumis lanceolato-subulatis flosculis longioribus 1-5 floris, flosculis pedicellatis basi barbatis pilis strictis superioribus pedicellatis, paleâ inferiore oblongo-lanceolatâ concavâ bifidâ trinervi nervo medio in aristam brevem producto; superiore oblongâ apice truncatâ bicarinatâ carinis scabridis, culmis basi geniculatis ramosis foliis involutis setaceis longioribus.

*Hab.* Albemarle Island, *Mr. Macrae*.

Gramen spithamæum, erectum. Radix fibrosa, fibris pilosis. Culmi cæspitosi, basi bis terve divisi, teretes, nodosi, ad nodos puberuli, obscurè striati, foliosi. Vaginæ vix ad basin fissæ, 1 unc. longæ, teretes, pilosæ, pilis mollibus patentibus in tuberculis minutis sitis; ligulâ brevi, scariosâ. Folia 1-2 unc. longa, erecto-patentia, lineari-lanceolata, sub 1-1½ lin. lata, involuta, laxè pilosa, ut vaginæ dorso tuberculata. Panicula 1½ unc. longa, ¼-½ lata, erecta, ovato-lanceolata. Rachis scabrigo-ciliata, sulcata. Locustæ sessiles v. breviter pedicellatæ, sub 2 lin. longæ, 4-5-floræ, flore terminali abortivo, tabescente. Glumæ 2, subæquales, lanceolatæ, concavæ, acuminatæ; inferior minor, dorso latè 1-nervi versus apicem nervoque scabrigo; superior longior 1-nervis. Flos

infimus subsessilis, cæteri pedicellati. Paleæ 2, inferior glumis brevior, elliptico-linearis, basi extûs et ad margines sericeo-pilosa, ad apicem bifida, 3-nervis, nervo medio scabrido in *aristam* brevem rectam producto, nervis lateralibus submarginalibus infra segmentorum apices evanidis; superior inclusa, inferior  $\frac{1}{2}$  brevior, membranacea, ad apicem minutè lacero-fimbriata, carinis tenuiter ciliatis, marginibus argutè inflexis. Squamulæ 2, majusculæ, obovato-cuneiformes, obliquè truncatæ. Stamina 3. Ovarium minimum, breviter stipitatum, obovatum; stylis 2, basi discretis; stigmatibus plumosis. Caryopsis glaberrima, lineari-oblonga, rufo-fulva,  $\frac{2}{3}$  longit. paleæ inferioris.

I refer the genus of this grass with much hesitation to *Calamagrostis*. The habit is that of *Arundina*, Kunth, though it perfectly coincides with *Bromus* in generic character. The flowers are sometimes quite solitary, but often there are 3-5: the upper, where two or more exist, is generally rudimentary.

51. *CYPERUS ROTUNDUS*, L.

*Hab.* Albemarle Island, *Mr. Macrae*. Common also in all warm parts of South America.

52. *C. STRIGOSUS*, L.

*Hab.* Charles Island, *Charles Darwin, Esq.* Also found in the warm parts of South America, and at Oahu.

53. *C. SURINAMENSIS*, *Rottb.*

*Hab.* James Island, *Charles Darwin, Esq.*

Spikelets rather more lax than when in a more luxuriant state. The specimens are small,  $1\frac{1}{2}$  foot high, and identical with others from the island of Trinidad.

54. *C. INFLEXUS*, *Muhl.*

*Hab.* Charles Island, *Charles Darwin, Esq.* Albemarle Island, *Mr. Macrae*. James Island, *Dr. Scouler*.

Identical with Canadian and other specimens. The species has a very wide range, from Canada to Texas in North America. It hardly differs from the *C. aristatus*, *Rottb.*, found in Senegal, Senegambia and Abyssinia, and is also allied to a Guiana species, from which however it is quite distinct, and apparently is not a South American plant. There are two varieties in the collection.

Var.  $\beta$ . *acaulis*; foliis recurvis, capitulis inter folia subsessilibus.—Charles Island, Charles Darwin, Esq.

Var.  $\gamma$ . *elongatus*; foliis erectis flexuosis, culmis elongatis, 6-uncialibus.—Albemarle Island, Mr. Macrae.

55. *C. RUBIGINOSUS*, Hook. *fil.*; culmo aphylo semitereti, involucre 6–8-phyllo, foliolis lineari-elongatis marginibus argutè ciliato-dentatis, umbellâ simplici 6–8 radiatâ, radiis inæqualibus patentibus, spicis 30–40 in capitulum congestis lineari-oblongis 8–12-floris, squamis valdè compressis obtusè carinatis navicularibus rostratis rostro recurvo dorso virescentibus lateribus rubiginosis binerviis, staminibus 3, stylo trifido.

*Hab.* Charles Island, Charles Darwin, Esq.

Erectus, glaberrimus, simplex, texturâ spongiosâ, bipedalis. Culmi erecti, nudi, semiteretes, supernè canaliculati, siccitate sulcati, sulcis nunc transversè rugosis, pallidè virescentes, glaberrimi, sub 2 lin. diam. Involucri foliola lineari-elongata, spithamæa et ultra, bidentata, flexuosa, basi concava, brunnea, vaginantia, deinde plana, versus apices triquetra, marginibus carinâque argutè ciliato-dentatis. Umbella simplex, radiis 4–5 plerisque 2–3-uncialibus, semiteretibus, aliis brevioribus et 1–2 brevissimis, capitulis in axillis sessilibus. Capitula globosa, solitaria, rariùs gemina,  $\frac{3}{4}$  unc. diam., e spicis 30–40 glomeratis formata. Spiculæ patentès, valdè compressæ,  $\frac{1}{2}$  unc. longæ, lineari-oblongæ, obtusæ, 2 lin. latæ. Squamæ arcetè et distichè imbricatæ, patentès, valdè compressæ, dorso nervosæ; nervo lato, obtusè carinato, virescente, in rostrum validum recurvum producto, scabrido, lateribus 2-nerviis, herbaceis, rubiginosis. Stamina 3; filamentis planis, membranaceis; antheris inclusis. Ovarium triquetrum, obovatum. Stylus basi vix incrassatus, deciduus, in ramos 3 flexuosos desinens. Achænium nigrum, squamâ  $\frac{1}{2}$  brevius, trigonum.

A very distinct species, belonging to the section *Haspan* of Kunth. In the sharp recurved apices of the squamæ it approaches *C. inflexus*, the spikes assuming a similar squarrose appearance. Unfortunately the specimens are destitute of leaves.

56. *MARISCUS MUTISH*, H. B. K.; var. foliis culmo longioribus.

*Hab.* Albemarle Island, Mr. Macrae. Also found in New Grenada and Mexico by Humboldt & Bonpland.

Erectus, glaberrimus, basi foliosus. Radix fibrosa, fibris crassiusculis, fuscis. Culmi solitarii vel bini, basi incrassati, foliosi, supernè nudi v. foliosi, erecti, trigoni,  $1\frac{1}{2}$  ped. alti,



1½ lin. diam., sulcati, simplices. Folia bipedalia, 3 lin. lata, numerosa, pleraque radicalia basi vaginantia; vaginæ pallidè rufis, membranaceis, ad basin fissis, lineari-oblongis, truncatis, 1 unc. longis, compressis, ½ unc. latis; lamina longissimè linearis, flexuosa, plana, nervosa, dorso acutè carinata, striata, flexuosa, marginibus minutè et remotè denticulatis: folia caulina vaginis integris, 2-3-uncialibus, anticè membranaceis, ore integerrimo truncato; lamina longissima, ut in foliis radicalibus. Involucri foliola 4-5, basi imbricata, evaginata, foliis caulinis æquilonga et iis subsimilia. Umbella longiradiata, radiis 8-10, quorum 1-2 sessiles, cæteri longepedunculati, solitarii, v. 2-5, pedunculis basi vaginis cylindricis ¾ unc. longis inclusis. Spicæ terminales, elongato-oblongæ, cylindricæ, ad apices rotundatæ, ¾ unc. longæ, ½ latæ laterales. Spiculæ 80-100, erecto-patentes, 1 lin. longæ, pallidè fuscæ; squamâ inferiore basi plerumque involucellis æquilongis subulatis ciliatis suffultâ, enervi, latè ovatâ, secundâ subsimili ½ breviorè, tertiâ hermaphroditâ, sub 7-9 nervi; infimâ ter longiore convolutâ, ad apicem obtusum obliquè truncatâ, dorso scaberulâ; rachis ultra squamam fertilem dilatata, marginibus membranaceis hyalinis; squamâ quartâ parvâ, exsertâ, latè ovatâ, obtusâ, naviculari, sub 5-nervi, squamulâ auctâ. Stamina 3; filamentis planis, linearibus; antheris inclusis, subulatis, stramineis. Ovarium elongato-obovatum, trilobatum; stylo basi incrassato, trifido, ramis flexuosis exsertis. Achænium trigonum.

In this and the following species the 4th scale is much reduced, forming an appendage at the summit of the dilated rachis, and having a small membranous lanceolate scale at its base, between which is an abortive flower. The leaves are longer than in the specimen figured by Kunth.

57. *MARISCUS BRACHYSTACHYS*, *Hook. fil.*; culmo<sup>1</sup> erecto basi repente, foliis elongatis suberectis rigidis carinatis marginibus denticulatis, involucri foliolis 3-5 striatis, spicis cylindricis umbellatis, radiis brevissimis, squamâ hermaphroditâ infimâ bis longiore latè ovatâ basi convolutâ, lamellâ squamæ superioris elongatâ.

*Hab.* James Island, *Dr. Scouler*. Charles Island, *Charles Darwin, Esq.*

Very distinct from the last in the smaller size, the very rigid and more strict leaves, the almost sessile spikes, and especially in the very abbreviated spikelets of red-brown scales, with the scale of the hermaphrodite flower much shorter, broader, and more open.

#### COMMELINEÆ.

58. *COMMELINA AGRARIA*, *Kunth*.

*Hab.* James and Charles Islands, *Charles Darwin, Esq.*

Rather a small state of a very common tropical weed. Stems 6-8 inches. Leaves elliptical-ovate, an inch long, the surface and margin minutely hispid. Sheaths of the leaves ciliated along the upper edge.

## HYPOXIDEÆ.

## 59. HYPOXIS ERECTA, Willd.

Hab. Charles Island, Charles Darwin, Esq.

I cannot distinguish these from United States specimens: they also very closely resemble others from the Brazils.

## ORCHIDEÆ.

## 60. EPIDENDRUM SPICATUM, Hook. fil.; caule compresso simplici folioso, foliis alternis distichis lineari-lanceolatis acutis rigidis, floribus spicatis, spicâ nutante terminali, sepalis obovato-lanceolatis acuminatis 5-nerviis, petalis æquilongis lineari-spathulatis; labello trilobo basi biauriculato disco incrassato callis 2 prominentibus instructo: lobis lateralibus venosis rotundatis marginibus eroso-crenatis intermedio bifido sinu quadrato.

Hab. James Island, Charles Darwin, Esq.

Radix fibrosa. Caulis spithamæus, basi vaginis foliorum tectus, supernè foliosus; vaginis compressis, striatis,  $\frac{2}{3}$  unc. longis,  $\frac{1}{4}$  latis. Folia erecta, patentia, 3 unc. longa,  $\frac{1}{2}$  lata, siccitate striata. Racemus 2-uncialis, terminalis, nutans, sub 10-florus; floribus patentibus basi bracteatis; bracteis foliaceis, linearibus, acutis, infimis 1-2 unc. longis. Ovarium  $\frac{1}{2}$  unc. longum, curvatum. Sepala patentia, obovato-oblonga, acuminata,  $\frac{1}{2}$  unc. longa. Petala angustè linearia, spathulata, medio 1-nervia, sepalis æquilonga. Label- lum diam.  $\frac{1}{3}$  unc. Columna cylindrica.

## DICOTYLEDONES.

## PIPERACEÆ.

61. PEPEROMIA GALAPAGENSIS, Hook. fil.; caule elongato ramisque prostratis tetragonis puberulis basi nudis, ramulis pubescentibus, foliis parvis brevipetiolatis oppositis 4-5nis elliptico-oblongis obtusis glabris ad apices obtusos subpilosis coriaceis punctulatis, amentis plurimis plerisque terminalibus erectis simplicibus pedunculatis foliis  $\frac{1}{2}$  v. bis longioribus.

*P. Galapagensis*, Miquel in Hook. Lond. Journ. of Bot.

Hab. James Island, Charles Darwin, Esq.

*Caulis* spithamæus, crassitie pennæ olorinæ. Rami oppositi, stricti v. curvati, patentes, divaricati, prostrati, præcipuè apices versus ascendentes, puberuli. Folia parva, sub  $\frac{1}{2}$  unc. longa, patentia vel reflexa, obtusa v. retusa, basi rotundata, sub lente punctata; petiolo brevi, tenui. Amenta stricta, erecta, ad apices ramorum terminalia, 3-6 fasciculata, paucaque axillaria, unâ cum pedunculo  $\frac{1}{2}$  unc. longa et ultra, foveis nudis; nucibus parvis, latè ovatis, subacutis, basibus immersis.

Allied to *P. microphylla*, H. B. K., but differing by the apparently horizontal narrower nearly smooth leaves, not furnished with large glandular impressions, and numerous amenta.

62. *P. PETIOLATA*, *Hook. fil.*; glaberrima, caule prostrato tetragono?, foliis parvis oppositis longè petiolatis latè elliptico-ovatis vel rotundatis utrinque obtusis planis carnosis obscure 5-nerviis, amentis 2-4 terminalibus elongatis.

*Hab.* James Island, *Charles Darwin, Esq.*

Habitu priori subsimilis, sed glaberrima. Folia punctulata, sub  $\frac{1}{2}$  unc. longa, remota, petiolis æquilongis. Amenta sub 4, erecta; unico 4 unc. longo, cæteris subuncialibus, omnibus pedunculatis.

63. *P. FLAGELLIFORMIS*, *Hook. fil.*; glaberrima, caule elongato decumbente tetragono, ramis erectis, foliis quaternis breviter petiolatis obovato-oblongis subretusis nervo medio et intramarginali percursis, amentis 4-7 terminalibus filiformibus pedunculatis interdum ditrichotomis ad axillas bracteolatis.

*P. flagelliformis*, Miquel in *Hook. Lond. Journ. of Bot.*

*Hab.* James Island, *Charles Darwin, Esq.*

Caulis  $1\frac{1}{2}$ -2 ped. longi, graciles, internodiis bi-uncialibus. Folia erecto-patentia, punctata, carnosâ,  $\frac{2}{3}$  unc. longa,  $\frac{1}{2}$  lata, ad apicem subretusum subtilissimè ciliata; petioli 1 lin. longi. Amenta 2-3-uncialia, gracilia, erecta.

Very near the *P. portulacæfolia*, H. B. K.; the spadices are however numerous, much longer, and sometimes branched.

#### URTICÆ.

64. *URTICA (Urena) DIVARICATA*, *Spr.*

*Hab.* Charles Island, *Charles Darwin, Esq.* Common in North America, and probably in South America also.

65. *U. (Urena) CANADENSIS, Spr.*

*Hab.* Charles Island, *Charles Darwin, Esq.* A common North American species.

66. *PARIETARIA FLORIDANA, Nutt.*

*Hab.* Charles and James Islands, *Charles Darwin, Esq.* United States and Valparaiso, &c.

67. *PILEA PEPOIDES, H. & A. (Dubreuilia, Gaud.)*

*Hab.* James Island, *Charles Darwin, Esq.* Oahu? and probably the other South Sea Islands.

68. *PILEA SUCCULENTA. (Urtica succulenta, Salzmann in Herb. Hook.)*

*Hab.* James Island, *Charles Darwin, Esq.*

In the present confused state of this genus it is impossible to determine a solitary species. The present is also a plant of Bahia, and possibly not distinct from *P. peploides*.

## EUPHORBIACEÆ.

69. *EUPHORBIA PILULIFERA, Spr. (E. globulifera, H. B. K.) Kunth Synops. i. p. 386.*

*Hab.* James Island, *Charles Darwin, Esq.* I have the same state from South Brazil.

Apparently a variety, with the stems naked, ascending below, and hairy above.

70. *E. MACULATA, L.*

*Hab.* Charles Island, *Charles Darwin, Esq.* A very common plant in the warm parts of America.

71. *E. RECURVA, Hook. fil.; herbacea, erecta, glaberrima, glaucescens, foliis oppositis sessilibus lineari-oblongis basi cordatis retusis v. emarginatis recurvis coriaceis, stipulis fimbriatis, involucri axillaribus plerumque solitariis breviter pedicellatis.*

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Caulis pedalis, crassitie pennæ anserinæ, infernè nudus, articulatus, ramosus; ramis divaricatis, geniculatim flexuosis, cortice pallidè rufò-fusco subangulato tectis, ad articulos incrassatis, junioribus solummodò foliosis. Folia  $\frac{1}{2}$  unc. longa, 2 lin. lata, disticha, opposita, falcato-recurva, integerrima, marginibus siccitate recurvis, pallidè flavescentia, juniora præsertim glaucescentia, gradatim minora. Stipulæ parvæ, albidæ, coriacæ,

fimbriato-laceræ. Involucra turbinata, in axillis foliorum superiorum solitaria, breviter pedicellata, unâ cum pedunculo sub  $1\frac{1}{2}$  lin. longa, glandulis ad os transversè oblongis nigris. Capsula 3-cocca, parva, glaberrima, sub 1 lin. diam., flavida.

Closely allied to the *E. polygonifolia*, L., though quite distinct in its upright habit, sessile leaves, keeled cocci and shorter fimbriated stipules.

72. *E. AMPLEXICAULIS*, *Hook. fil.*; glaberrima, erecta, glaucescens, caule supernè ramoso folioso, foliis oppositis sessilibus horizontaliter patentibus rotundato-reniformibus basi profundè cordatis amplexicaulibus integerrimis coriaceis, involucris in axillis supremis solitariis: segmentis rotundatis petaloideis, coccis obtusè carinatis.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Radix valida, lignosa, perennis? Caulis sublignosus, pedalis, basi simplex, nudus, multarticulatus, internodiis  $\frac{1}{2}$ -uncialibus, cortice laxo fusco-purpureo glauco tectus, supernè fastigiatis dichotomè ramosus. Rami foliosi, divaricati, albido-glaucoscentes, apicibus ramulorum curvatis. Folia plurima, horizontaliter patentia, uniformia, gradatim sursum minora, basi profundè cordata, (hinc rami spurie perfoliati apparent,) ad apices mucronulata vel retusa, interdum imò emarginata, pallidè flavo-virescentia, marginibus rubris valdè coriaceis, inferiora 5 lin. longa, sub 4 lata. Involucra parva in axillis foliorum summorum brevissimè pedunculata, turbinata, erecta,  $\frac{1}{2}$  lin. longa; segmentis horizontalibus, æquilongis, stramineis, basi nigris. Capsula parva, sub 1 lin. longa; coccis subcompressis, dorso obtusè carinatis.

Allied in habit and appearance to a species from the Bahama islands, but very distinct from any I am acquainted with.

73. *E. NUMMULARIA*, *Hook. fil.*; herbacea, molliter pubescens, caule erecto basi glabro, ramis divaricatis, foliis parvis oppositis breviter petiolatis cordatis basi obliquis apicibus rotundatis, stipulis parvis laceris, involucris ad apices ramulorum terminalibus solitariis sessilibus: segmentis subpetaloideis, capsulis pubescentibus.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Caulis erectus, teres, simplex, remotè subgeniculatis articulatus, 8-uncialis, glaber, striatus, cortice fusco tectus, crassitie pennæ corvinæ, supernè fastigiatis ramosus. Rami divaricati, teretes, tenues, foliosi, foliaque molliter puberula, pube albidâ. Folia parva, plana, coriacea, sordidè rufa, subtus virescentia, integerrima, basi obliquè cordata, lobo

altero latiore,  $1\frac{1}{2}$  lin. longa,  $1\frac{1}{4}$  lata, plana, enervia, superiora minima; stipulis parvis; petiolis brevissimis. Involucra latè turbinata, pubescentia, segmentis subpetaloideis atris, marginibus planis, diametr. ad os  $\frac{1}{2}$  lin. Capsula  $\frac{3}{4}$  lin. lata; coccis compressis, pubescentibus, dorso vix carinatis.

A very distinct and curious little species.

74. *E. DIFFUSA*, *Hook. fil.*; herbacea, glaberrima, dichotomè ramosissima, ramis elongatis prostratis teretibus gracilibus, foliis oppositis breviter petiolatis linearibus subacutis integerrimis basi profundè et obliquè cordatis, stipulis subulatis, involucris parvis axillaribus solitariis: segmentis carnosis.

*Hab.* Albemarle Island, *Mr. Macrae* & *Mr. Cuming*.

Radix lignosus, validus, pennæ anserinæ crassitie. Caules e radice numerosissimi, geniculatim flexuosi, prostrati, glabri, 8 unc. ad pedem longi, ramosissimi, cortice fusco-nigrescenti. Rami dichotomi, spithamæi, stricti, graciles, teretes, læves, rufo-fusci, fragiles, laxè foliosi, ramulis ultimis filiformibus. Folia stricta, linearia, basin versus latiora et inæqualiter auriculato-cordata, lobo unico producto, integerrima, subacuta, siccitate concava, glaberrima, maculata, fusco-viridia, subcoriacea,  $\frac{1}{2}$  unc. longa,  $\frac{3}{4}$  lin. lata; petiolis brevissimis. Stipulæ parvæ, inconspicuæ, subulatæ. Involucra breviter pedunculata, minima, vix  $\frac{1}{2}$  lin. longa, turbinata; ore 4-fido; segmentis transversè oblongis, planis, coriaceis. Capsulæ  $\frac{1}{2}$  lin. longæ; coccis lateraliter compressis, glaberrimis.

General habit and appearance that of a Texian species, *E. arenaria*? Kunth, but leaves very dissimilar.

75. *E. VIMINEA*, *Hook. fil.*; glaberrima, caule elongato lignoso divaricatim ramoso, ramis strictis virgatis simpliciusculis supernè foliosis, foliis in ramulis brevissimis confertis crassis angustè linearibus vel ad apices dilatatis emarginatis utrinque rotundatis breviter petiolatis marginibus decurvis, stipulis majusculis latè ovatis, involucris parvis in foliorum axillis brevissimè pedunculatis solitariis.

*Hab.* Albemarle Island, *Mr. Macrae*.

Caules bi-tripediales, teretes, graciles, crebrè transversim nodosi, cicatrizati, quasi articulati; internodiis  $\frac{1}{4}$ - $\frac{3}{4}$ -uncialibus; cortice fusco, subrugoso. Rami pedales, divaricati, ad caulis nodos siti, imâ basi valdè incrassati, supernè graciles, articulati, ramulos brevissimos foliosos emittentes. Folia patentia vel recurva, apices versus interdum latiora

et retusa, 3 lin. ad  $\frac{1}{2}$  unc. longa,  $\frac{1}{2}$  lin. lata, basi rotundata, supra medio sulcata, siccitate flavo-fusca, marginibus recurvis, nervo latissimo incrassato, petiolo perbrevis crasso continuo. Stipulæ pro magnitudine foliorum majusculæ. Involucra minima, inconspicua, sub  $\frac{1}{2}$  lin. longa, subsessilia, obovata, turbinata, segmentis transversè oblongis, v. subrotundatis. Cocci non visi.

I know of no species with which to compare this highly curious one. The woody stem appears jointed, but does not break at the joints. The leaves are all crowded, on very short axillary branchlets, which seldom exceed two lines in length and are covered with stipules.

76. EUPHORBIA, sp. ?

Hab. Charles Island, *Charles Darwin, Esq.*

Evidently belonging to this genus; but the specimen in Mr. Darwin's herbarium is too imperfect for examination. It is very different from any species I am acquainted with.

77. PHYLLANTHUS OBOVATUS, *Muhl.* (*Maschalanthus obovatus*, Nutt. in *Flora of Arkansa*, Amer. Phil. Trans. 1834, p. 175.)

Hab. Charles Island, *Charles Darwin, Esq.* United States; West Indies; Brazil.

78. ACALYPHA\* PARVULA, *Hook. fil.*; monoica, pubescens, ramosa, ramis ascendentibus, foliis longè petiolatis cordatis vel suborbicularibus obtusis crenato-serratis petiolis brevioribus, pedunculis androgynis gracillimis elongatis, florum fœmin. involucris solitariis v. 2-3 distantibus cucullatis 8-fidis, floribus masculis numerosis in spicam terminalem densam aggregatis.

Hab. Albemarle Island, *Mr. Macrae.*

\* In this and the following species of *Acalypha* the inflorescence is monœcious and spicate; the male flowers are furnished each with a bractea at the base of the pedicel; the female have no proper perianth. In the first the spike is elongated, with a slender axillary rachis; the female flowers, sometimes solitary, are placed at the lower part of the spike, each surrounded by a tri-multifid involucre; rarely more than one is found in each of the involucre. The male flowers occupy the upper part of the spike, and are more or less densely crowded. *A. strobilifera* has the involucre containing the female flowers so numerous, that the upper or male part of the spike is sometimes obliterated, and the inflorescence resembles a strobilus. In *A. reniformis* the male and female flowers are placed together in the involucre, which in the other species are proper to the female flowers only; from whence it appears that this integument should in no case be considered a calyx.

Caulis basi nudus, prostratus. Rami divaricati, spithamæi, filiformes, crassitie pennæ passerinæ, puberuli, cortice fusco. Folia longè petiolata, remota, patula,  $\frac{2}{3}$  unc. longa, latè cordata, utrinque pubescentia, siccitate atro-fusca. Pedunculi solitarii, filiformes, puberuli,  $\frac{2}{3}$  unc. longi. Florum fœmin. involucra 2-flora, hirsuta, flore unico sterili? Capsulæ tomentosæ 3-cocçæ, stylis 3 trifidis coronatæ. Flores masculi terminales, basi bibracteolati; perianthio extùs piloso.

79. *A. CORDIFOLIA*, *Hook. fil.*; tota pilis mollibus patentibus obsita, caule erecto ramoso, foliis longè petiolatis cordatis obtusis crenato-serratis glandulosis petiolis  $\frac{1}{3}$  brevioribus, flor. fœmin. 1-3 involucris sub 8-fidis, pedunculis elongatis apices versus tantùm floriferis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Caulis pedalis et ultrà, teres, crassitie pennæ corvinæ, glanduloso-pubescentis, pilisque pallidè flavis instructus. Folia plana, subrugosa, nervosa, atro-fusca,  $\frac{1}{2}$ - $\frac{1}{2}$ -uncialia, paulò longiora quam lata. Flores fœminei 1-3, involucrati; involucris cucullatis,  $1\frac{1}{2}$  lin. longis, extùs glanduloso-pubescentibus, segmentis subacutis 1. Capsulæ flavo-pilosæ. Pedunculi sub 1 unc. longi; floribus masculis in spicam brevem terminalem aggregatis, basi 1-bracteolatis, extùs pilosis.

Allied to *A. parvula*; but larger, erect, and hirsute with spreading hairs.

80. *A. FLACCIDA*, *Hook. fil.*; caule elongato gracili vix ramoso piloso, foliis petiolatis ovatis subacutis obtusè crenato-dentatis basi cordatis submembranaceis utrinque pilosis, florum fœmin. involucris parvis subsolitariis cucullatis irregulariter 3-partitis, fl. masc. spicis elongatis, pedunculo hirsuto.

*Hab.* James Island, *Charles Darwin, Esq.*

Caulis 2-3-pedalis, gracilis, teres, crassitie pennæ corvinæ, pilis patentibus hirsutus. Folia remota, petiolata,  $1\frac{1}{2}$  unc. longa, basi plus minusve profundè cordata, petiolis  $\frac{1}{4}$ -uncialibus. Fl. fœmin. involucris parvis,  $\frac{2}{3}$  lin. longis, trifidis vel profundè 3-partitis, capsulis pilosis. Fl. masc. spicâ gracili pedunculo longiore, floribus fasciculatis.

Very distinct from any of the former species, in its larger size, lax mode of growth, subacute, ovate leaves, elongated spikes of male flowers, and especially by the very small involucre of the solitary female flower.

81. *A. VELUTINA*, *Hook. fil.*; caule stricto erecto ramoso, ramis petiolis pedun-



culisque undique pilis sericeis nitidis velutino-tomentosis, foliis petiolatis ovatis subacutis sericeo-pubescentibus crenato-dentatis venis reticulatis, floribus fœmineis 2-3, involucri sessilibus, spicis abbreviatis pedunculatis.

*β. minor*; foliis minoribus unâ cum petioliis vix  $\frac{2}{3}$ -uncialibus.

*Hab.* *a.* and *β.* Charles Island, *Charles Darwin, Esq.*

Caulis pedalis et ultrâ, supernè foliosus, crassitie pennæ gallinacæ, teres, pilosus, pilis densis patentibus nitidis pallidè flavis. Folia uncialia, coriacea, pilis appressis sericea, plana, exactè ovata, basi integra, petioliis  $\frac{1}{2}$ - $\frac{3}{4}$  unc. longis. Flor. fœmin. involucrium  $1\frac{1}{2}$  lin. longum, sub 6-fidum, 2-3-florum; capsulis pilosis. Spicæ  $\frac{1}{2}$  unc. longæ, pedunculo brevi tomentoso; glomerulis florum basi bracteatis, bracteolis majusculis, ovatis, acutis, pilosis.

The bracteæ on the spike at the base of the male flowers are the largest of any of the species here described, and are rather longer than the pedicels of the flowers themselves. A very distinct species.

82. *A. STROBILIFERA, Hook. fil.*; tota glanduloso-pubescent, caule erecto ramoso, ramis virgatis supernè foliosis, foliis ovatis basi cordatis crenato-serratis acutis, flor. fœmin. plurimis, involucri imbricatis cucullatis 8-fidis, rachi ultra florem in pedunculum gracilem versus apicem floriferum productâ, floribus masculis laxè spicatis.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Caulis pedalis, crassitie pennæ corvinæ, cortice fusco, supernè ramosus. Rami tenues, elongati, erecti, crassitie pennæ passerinæ, pubescentes, pilis ad apices capitato-glandulosis viscidis. Folia reticulata,  $\frac{1}{3}$ - $\frac{1}{2}$  unc. longa, puberula et glandulosa, petioliis  $\frac{1}{2}$  unc. longis. Flores fœminei densè imbricati, inter se strobilum 1 unc. longum efformantes: involucrium sessile, plicatum, multifidum, segmentis acutis,  $\frac{1}{2}$  unc. longum,  $\frac{1}{4}$  latum, 3-4-florum; capsulis involucri sessilibus, pilosis, 1 unc. longis; seminis testa punctata, brunnea. Pedunculus ultra strobilum productus, gracilis, 1- $1\frac{1}{2}$ -uncialis, floribus parvis interruptè spicatis; bracteolis majusculis ovatis, obtusis, ciliatis, pedicello subæquilongis, sub  $\frac{1}{2}$  lin. longis.

The specimens of this species are very imperfect.

83. *A. RENIFORMIS, Hook. fil.*; pubescens, caule procumbente divaricatim ramoso, foliis parvis petiolatis reniformibus crenatis rugosis glanduloso-pubescentibus, involucri spicatis, spicâ strobiliformi terminali, floribus masculis solitariis sessilibus cum fœmineis involucri inclusis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Humilis, tota glanduloso-puberula. Caulis gracilis, valdè ramosus, ramis tenuibus prostratis foliosis. Folia patentia, reniformia, basi plùs minùsve cordata, nervosa, rugosa, profundè crenata, nigrescentia,  $\frac{1}{2}$  unc. lata, 2 lin. longa, petiolis 1-2 lin. longis. Inflorescentia terminalis, foliis subtensa,  $\frac{1}{2}$  unc. longa. Perianthia densè imbricata, orbiculata, intùs basi flor. fœmin. 3, masculumque solitarium gerentia, marginibus involutis, 3-5-fida, segmentis ciliatis et glanduloso-pilosis venosis. Capsula 3-coeca, valvis dorso ciliatis, stylis elongatis 3-fidis.

84. *CROTON SCOULERI*, *Hook. fil.*; fruticosa, ramosa, ramis incano-tomentosis, ramulis junioribus lepidotis, foliis petiolatis lineari-lanceolatis subacutis integerrimis supernè pilis stellatis sparsis infernè appressè stellato-pubescentibus junioribus squamis lepidotis interjectis, floribus elongato-spicatis, capsulis obovato-rotundatis diam. pisi communis tomentosus.

*Hab.* James Island, *D. Douglas & Dr. Scouler.* Chatham Island, *Charles Darwin, Esq.*

Rami lignosi, puberuli, teretes, cicatrisati, cortice fusco; ramulis canaliculatis, vestitis, versus apices foliosis. Folia alterna, plano-hemisphærica, margine obsolete sinuato-dentata,  $2\frac{1}{2}$ -3-uncialia,  $\frac{1}{2}$  unc. lata, supernè pilis minimis stellatis, infernè pube densè stellatâ flavidâ vel subargenteâ sericeo-incanâ vestita; juniora utrinque densè tomentosa, squamis lepidotis micantibus; petioli 3 lin. longi. Spicæ axillares v. terminales, sub 20-floræ (flores non visi), fructiferæ graciles, 3-4-unciales, nutantes, angulatæ, incano-tomentosæ. Capsulæ solitariae, remotæ, sessiles, basi perianthio marcescente subtensæ, 3-loculares, 3-valves; stylis 3 deciduis; valvis extùs flavo-tomentosis.

85. *C. MACRÆI*, *Hook. fil.*; fruticosa, ramosa, ramis incano-tomentosis, foliis angustè linearibus subcarinatis petiolatis apicibus obtusis nervo valido carinatis supernè pilis stellatis sparsis infernè densè et appressè argenteo-tomentosis junioribus lepidoto-squamosis, spicis elongatis.

*Hab.* Albemarle Island, *Mr. Macrae.*

Fragrans: a priori differt solummodò foliorum formâ, quæ elongato-linearia,  $3\frac{1}{2}$ -4 unc. longa, 2 lin. lata, et spicâ breviori  $1\frac{1}{2}$ -2-unciali, sed his characteribus valdè distincta.

86. *C. XALAPENSIS*, *Humb.?* *Nov. Gen. et Sp.* vol. xi. p. 85. *Kunth, Synops.* vol. i. p. 404.

*Hab.* James Island, *Charles Darwin, Esq.*

I refer this with much hesitation to the plant described by Humboldt, the specimens being very imperfect and the flowers in an exceedingly young

state. The upper leaves do not seem to be ter-quaternate, as stated by Kunth. It may be recognized by the following very imperfect description:—Folia petiolata, petiolo unciali ovato-oblongo, basi cordata, apicem versus rotundata, juniora submucronata, supernè pilis sparsis stellatis, infernè densè tomentosa, 3 unc. longa, 2 lata, luridè virescentia, nervis subtùs prominulis, basi ad petiolum glandulis 2 instructa.

## AMARANTHACEÆ.

87. *AMARANTHUS CARACCASANUS*, *H. B. K., Nov. Gen. et Sp.* vol. ii. p. 157.

*Hab.* Charles Island, *Charles Darwin, Esq.*, on cultivated ground. Probably a common South American species introduced into the Galapagos.

88. *A. CELOSIODES*, *H. B. K., l. c.* p. 156, *var.?*

*Hab.* Charles Island, *Charles Darwin, Esq.*

Differing from the American plant of Humboldt only in having the stems rather less than there described.

89. *BRANDESIA ECHINOCEPHALA*, *Hook. fil.*; appressè pubescens, caule valido suberecto ramoso tereti, foliis petiolatis lanceolatis acuminatis, capitulis globosis sessilibus pedunculatisve, bracteis coriaceis lanceolatis acutè carinatis dorso ciliatis perianthio  $\frac{1}{2}$  brevioribus, perianthii curvati foliolis rigidis lineari-subulatis subpungentibus albidis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Caulis pedalis et ultrà, basi lignosus, crassitie pennæ anserinæ, cortice flavo, supernè præcipuè subtrichotomè ramosus. Folia 1–1 $\frac{1}{2}$  pollicaria,  $\frac{1}{2}$ – $\frac{3}{4}$  unc. lata, patentia, subrigida, petiolis 1–2 lin. longis. Capitula nuda v. foliosa, alba,  $\frac{2}{3}$  unc. diametro, plerumque pedunculata, pedunculis erectis  $\frac{1}{2}$  pollicaribus, floribus rigidis curvatis. Bracteæ 3, subæquilongæ, pilis sericeis elongatis ciliatæ, apicibus subrecurvis. Perianthium  $\frac{1}{2}$  lin. longum, foliolis inæqualibus, exterioribus majoribus, omnibus dorso subcarinatis. Tubus stamineus elongatus, inclusus, laciniis interjectis linearibus apice laceris; antheris linearibus. Stigma capitatum, obscurè bilobum.

90. *ALTERNANTHERA SUBSCAPOSA*, *Hook. fil.*; radice crasso fusiformi, caule nullo, foliis radicalibus lineari-lanceolatis acutis integris basi subvillosis, ramis floriferis omnibus radicalibus gracilibus erectis dichotomè ramosis

parcè pilosis, capitulis rotundatis depressis brevi-bracteolatis, perianthii foliolis oblongis obtusis, antheris 2, stigmatè bipartito.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Radix majuscula, crassitie pollicis humani, descendens, ad collum foliosa. Folia plurima, 2-6 unc. longa,  $\frac{1}{4}$ - $\frac{3}{4}$  lata, substellatim patentia, petiolata, margine integrâ v. obscure sinuata, glabriuscula, basi tantùm pilis albidis tomentosa, paginâ superiore sæpiùs lacunosa. Rami 3-6, omnes e collo orti, diametro pennæ passerinæ, 3 unc. ad pedales, supernè di-trichotomè divisi, ad axillas foliosi, foliis oppositis oblongo-lanceolatis subacutis. Capitula parva, albâ,  $\frac{1}{2}$  unc. lata. Bracteolæ 3, latè ovatæ, obtusæ, perianthio  $\frac{1}{2}$  breviores. Perianthium basi villosò-barbatum, compressum,  $1\frac{1}{2}$  lin. longum, segmentis subscariosis uninerviis medio maculis 2 viridibus. Tubus stamineus cyathiformis, 5-dentatus, dentibus 2 lateralibus tantùm elongatis antheriferis. Ovarium globosum, compressum.

Very unlike the other species in habit, though entirely coinciding with the genus *Alternanthera* in characters. It may be easily recognized by its singularly stout, fusiform root, radical leaves and slender branching stems, which appear like scapes.

91. *IRESINE EDMONSTONEI, Hook. fil.*; erecta, virgatim ramosa, glaberrima, foliis ovato-lanceolatis, paniculæ compositæ ramis alternis patentibus, pedunculis alternis solitariis binisve angulatis divaricatis apice floriferis gracilibus basi obscure bracteatis, spiculis pauci- (6-8-) floris latè ovatis, rachi villosâ, bracteolâ exteriorè latè ovatâ interioribus minoribus, floribus hermaphroditis lanâ immersis.

*Hab.* Charles Island, Galapagos, *Charles Darwin, Esq.*

Caulis bipedalis et ultrâ?, trichotomè ramosus, teres, striatus, crassitie pennæ corvinæ; ramis elongatis patentibus demùm ascendentibus. Folia  $1\frac{1}{2}$  unc. longa, in petiolum 2-3 lin. longum repentè angustata. Panicula  $\frac{1}{2}$ - $\frac{3}{4}$ -pedalis, patula, ramis alternis gracilibus glaberrimis. Pedicelli seu ramuli ultimi divaricati,  $\frac{1}{2}$ - $\frac{3}{4}$ -pollicares. Flores parvi, sub 1 lin. longi, bracteolis scariosis glaberrimis. Perianthii foliola oblonga, basi lanâ densâ immersa. Stamina ad basin ferè libera.

Most nearly allied to *I. celosioides*, L., of Columbia and the West Indies, but the leaves are much broader, the panicle patent, and the branches longer and more slender, the peduncles seldom if ever branched, and the flowers fewer and smaller. Also allied to the Mexican *I. interrupta*, Benth., but the

peduncles are longer and the flowers not collected into capitula. The most remarkable character of the species consists in the ultimate ramuli of the panicle being so elongated and uniform in size as to resemble true peduncles bearing spikes of flowers, whereas they branch irregularly in the other species.

92. *BUCHOLTZIA NUDICAULIS*, *Hook. fil.*; erecta, virgata, ramis elongatis nudis teretibus striatis glaberrimis v. parcè pilosis 3-4-chotomè ramosis, foliis ad axillas ramorum sparsis oppositis linearibus obtusis coriaceis marginibus recurvis subtùs adpressè pilosis, spicis ad apices ramulorum sessilibus solitariis ternisve multifloris, floribus latè ovatis extùs tomentosis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Suffrutex? Caulis erectus, infernè lignosus, crassitie pennæ anserinæ, supernè ramosus, pluries divisus; ramis tenuioribus, ad axillas incrassatis, supremis spicigeris divaricatis patentibus, pilis albidis sparsis, siccitate nigrescentibus. Folia  $\frac{1}{2}$ -1-uncialia, patentia, valdè inconspicua, suprâ sulcata, subtùs nervo valido percurta. Spicæ ex apicibus ramulorum ortæ, ovatæ v. cylindraceæ,  $\frac{1}{4}$ - $\frac{1}{2}$ -unciales, siccitate luteæ. Flores densè imbricatæ, appressæ, tomentosæ, pilis articulatis subramosis, latè ovatæ v. subtriangulares, anticè planæ, dorso convexæ. Bracteæ latè ovatæ, subcymbiformes, coriaceæ, perianthio  $\frac{1}{2}$  breviores. Perianthium sub  $1\frac{1}{2}$  lin. longum, foliolis latè ovatis subobtusis crassis valdè coriaceis, 3 exterioribus majoribus. Tubus stamineus profundè 10-partitus, laciniis antheriferis subulatis, sterilibus paulò longioribus supernè subdilatis apice fimbriatis. Ovarium ovato-globosum; stylo capitato, obscurè multifido; semine abortivo.

This curious plant is evidently congeneric with *B. maritima*, of which Martius has published an excellent figure. I have kept it separate from *Frælichia nudicaulis*, though the latter is distinctly marked in Mr. Darwin's herbarium as the fruiting state of this. I can here, however, record my opinion that the plants may be identical, as Mr. Darwin considers them: though the characters of the present agree with *Bucholtzia*, and those of the latter with *Frælichia*, and there being no intermediæ states to show the transition of the one genus into the other, I feel bound, in describing them, to follow the present arrangement of the order, and employ the same trivial names for each.

93. *B. GLAUDESCENS*, *Hook. fil.*; caule basi lignoso ramoso, ramis teretibus strictis erectis trichotomè divisis glaberrimis striatis glaucescentibus,

ramulis ad axillas constrictis, foliis oppositis brevi-petiolatis angustè oblongo-lanceolatis subacutis planis integerrimis glaberrimis, spicis terminalibus sessilibus ovatis densifloris.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Suffrutex pedalis. Rami crassiusculi, inferiores lignosi, superiores medio incrassati, subarticulati, nodosi, internodiis 2-uncialibus. Folia  $1\frac{1}{2}$ -2 unc. longa, sub  $1\frac{1}{2}$  lata, valdè coriacea, patentia, suprà medio obscurè sulcata, infrà nervo medio crasso lateralibus evanidis. Spicæ ut in *B. nudicaule*.

Very similar to the last, though with leaves and branches perfectly glabrous and more or less glaucous; the former also are more numerous, broader, smooth and glaucous, especially underneath, and their margins not at all recurved. The only flowers are loose on the sheets with the specimens.

94. *B. FILIFOLIA*, *Hook. fil.*; caule basi lignoso ramoso, ramis erectis dichotomis glaberrimis, ramulis ultimis junioribus parcè pubescentibus, foliis elongatis angustè filiformibus glaberrimis carnosis?, spicis terminalibus axillaribusque sessilibus ter-quaternis cylindraceis densifloris, floribus ovato-lanceolatis acuminatis extùs pubescentibus.

*Hab.* James Island, *Dr. Scouler*.

Folia 1-2-uncialia, sub  $\frac{1}{2}$  lin. lata, siccitate compressa. Perianthii segmenta subcuspidata.

Readily distinguishable from *B. glauca* by its leaves, and from *B. nudicaulis* by the very different shape of the flowers. ‡

95. *FRELICHTIA NUDICAULIS*, *Hook. fil.*; erecta, virgata, ramis elongatis nudis teretibus striatis glaberrimis 3-4-chotomè ramosis aphyllis, spicis fructiferis terminalibus brevè pedicellatis, bracteis latè ovatis concavis scariosis, perianthio villosa-barbato ampullaceo ore 5-fido latè bialato crasso crustaceo utriculum parvum includente:—*Bucholtziæ nudicaulis* exemplar fructiferum?

*Hab.* Charles Island, *Charles Darwin, Esq.*

Under *Bucholtzia nudicaulis* are given the reasons for retaining this in a separate genus. The more remarkable points of difference between the present plant, of which I have only seen ripe fruit, and that where the spikes are only in flower, consist in the absence of foliage and in there being no hairs on

the stems and branches (circumstances perhaps attributable to age), the scarious nature of the bracteas, and a more intimate cohesion between the segments of the perianth than I can well imagine to exist in the former, together with the development of broad wings in that organ. May they not be two sexes of a dioecious plant?

96. *CRYPTOCARPUS PYRIFORMIS*, *H. B. K.*

*Hab.* Chatham Island, *Charles Darwin, Esq.* It is also found on the continent of South America.

In these specimens the filaments are united into the base, and placed on one side of the ovary, which is oblique, with a penicillate stigma, arising from the side opposite the phalanx of stamens.

PHYTOLACCEÆ.

97. *PHYTOLACCA DECANDRA*, *L.*

*Hab.* James Island, *Charles Darwin, Esq.* An abundant South American plant.

98. *BOUSSINGAULTIA BASELLOIDES*, *H. B. K.*

*Hab.* Charles Island, *Charles Darwin, Esq.* Also a widely-diffused American plant.

NYCTAGINEÆ.

99. *BOERHAAVIA HIRSUTA*, *L.*

*Hab.* Albemarle Island, *Mr. Macrae.*

100. *B. DECUMBENS*, *L.?*

*Hab.* James Island, *Charles Darwin, Esq.*

Specimens very imperfect.

101. *B. ERECTA*, *L.*

*Hab.* Albemarle Island, *Mr. Macrae.*

102. *B. SCANDENS*, *L.*

*Hab.* James and Charles Islands, *Charles Darwin, Esq.* This and the three former are all common tropical plants.

103. *PISONIA FLORIBUNDA*, *Hook. fil.*; arborea, ramis nudis teretibus, foliis sparsis petiolatis ovato-oblongis obtusis integerrimis utrinque sed subtus

præcipuè pubescenti-velutinis, floribus in corymbis compositis lateralibus terminalibusve dispositis, pedunculis elongatis, pedicellis brevibus, perianthio campanulato, staminibus exsertis.

*Hab.* James Island, *Charles Darwin, Esq.*

Rami lignosi, cortice cinereo. Folia 2-3-pollicaria, petiolis  $\frac{1}{2}$  uncialibus. Corymbi pubescentes, pedunculis petiolo æquilongis. Antheræ majusculæ.

A large tree, growing between the low dry and upland moist countries, almost leafless. The specimen is very defective, and allied to a species of Bertero from the Pacific, as also to a South Brazilian species gathered by Tweedie.

#### PLUMBAGINEÆ.

##### 104. PLUMBAGO SCANDENS, L.

*Hab.* Albemarle and Charles Islands, *Charles Darwin, Esq.* A very common tropical plant.

##### 105. P. TOMENTOSA, Lam.?

*Var.* pumila; acaulis, annua, foliis stellatim patentibus obovato-lanceolatis sinuato-dentatis  $\frac{1}{2}$ - $\frac{3}{4}$  unc. longis parcè pilosis, pedunculo abbreviato-hirsuto, spicâ brevi 6-8-florâ, capsulis latis dispermis.

*Hab.* James Island, *Charles Darwin, Esq.*

These specimens are in a young or a starved state. I suppose them to belong to a large and common Chilian and Buenos Ayrean plant named *P. tomentosa*, Lam. (in Hort. Reg. Berol.). The roots of the latter are often perennial, the leaves 2-4 inches long, and, together with the peduncles, more or less hispid. The spikes vary considerably in length, from 2-3 inches. After flowering, the segments of the corolla imbricate over the ripening capsule and form a conical hood to that organ. In many respects this resembles the *P. Virginica*, L., where however the peduncles are generally long and slender, and the leaves erect and long.

#### VERBENACEÆ.

##### 106. VERBENA OFFICINALIS, L.

*Hab.* James Island, *Charles Darwin, Esq.*

This appears to be a very widely diffused species, and the two following are certainly closely allied to it.



107. *V. POLYSTACHYA*, *H. B. K.*, *Nov. Gen. et Sp.* vol. ii. p. 274. *Kunth, Synops.* vol. ii. p. 59; *var. foliis incisus segmentis grossè serratis.*

*Hab.* James Island, *Charles Darwin, Esq.*

Sprengel unites this species with *V. urticæfolia*, to which our plant bears a close affinity; but the margins of the leaves in the present are far more deeply cut, and the segments again coarsely serrated. They may very possibly be mere varieties of one species.

108. *V. LITTORALIS*, *H. B. K.*

*Hab.* Charles Island, *Charles Darwin, Esq.* Found in salt marshes on the American coast, from Truxillo to Lima.

109. *CLERODENDRON MOLLE*, *H. B. K.*

*Hab.* Charles Island, *Charles Darwin, Esq.* James Island, *Dr. Scouler.* Found also on the opposite coast of Columbia.

110. *LANTANA RECTA*, *Ait.*

*Hab.* Albemarle and Charles Islands, *Charles Darwin, Esq.* Apparently a very common and rather variable plant in the Brazils, West Indies and other tropical parts of South America.

111. *L. CANESCENS*, *H. B. K.*, *Nov. Gen. et Sp.* vol. ii. p. 209; *var. ramis aphyllis apices versus foliosis, foliis 1-1½ unc. longis.*

*Hab.* Charles Island, *Charles Darwin, Esq.* Probably frequent in South America; it is the same as Gardner's no. 1385, from Rio.

112. *AVICENNIA TOMENTOSA*, *L.*

*Hab.* Chatham Island, *Charles Darwin, Esq.*

#### ACANTHACEÆ.

113. *DICLIPTERA PERUVIANA*, *Juss.*

*Hab.* James Island, *Charles Darwin, Esq.* Common throughout tropical South America.

#### RUBIACEÆ.

114. *TETRAMERIUM*, *n. sp.?*

*Hab.* James Island, *Charles Darwin, Esq.*

Specimens too imperfect for determination.

## BORAGINEÆ.

## GALAPAGOA, genus novum.

*Calyx* 4-5-partitus, laciniis linearibus. *Corolla* infundibuliformis, tubo lato, limbo 5-fido patente, fauce nudâ. *Stamina* 5, inclusa, imo corollæ tubo inserta. *Ovarium* 4-loculare. *Stylus* terminalis, ad basin usque bipartitus; stigmata 2, obtusa. *Semina* pendula; albumine parco, carnoso; cotyledonibus planis; radiculâ majusculâ, superâ.

Genus Ehretiarum, inter *Coldeniam* et *Rhabdiam* (suadente *clariss.* Bentham) medium, ob *stylum 2-partitum staminaque fundo corollæ inserta singulare.*

Herbæ *Insularum* "Galapagos," *hispido-pilosæ*. *Caules prostrati, ramosissimi.* *Folia alterna, coriacea, versus apices ramulorum densissimè conferta.* *Flores parvi, in axillis foliorum omninò sessiles, valdè inconspicui.*

A highly remarkable genus, and abundantly distinct from any other among *Boragineæ*. Though allied to the South American forms, especially *Coldenia* from Peru, and *Rhabdia*, a Brazilian genus, it would hitherto appear to be quite confined to this curious group of islands.

115. GALAPAGOA DARWINI, *Hook. fil.*; tota pilis albidis hispidis cana, foliis elliptico-ovatis subacutis marginibus valdè recurvis suprâ setis rigidis elongatis basi incrassatis obsitis infrâ nervo crasso.

*Hab.* Chatham Island, *Charles Darwin, Esq.* Albemarle Island, *Mr. Macrae.*

*Radix* crassa, lignosa, descendens, tortuosa, cortice fusco. *Caules* plurimi, prostrati, fragiles, ramosissimi, alternatim flexuosi, ad angulos incrassati, pedales, crassitie pennæ corvinæ, teretes, epidermide corticis albidâ hic illic parcè pilosâ. *Folia* plurima, parva, 1-2 lin. longa, versus apices ramulorum conferta, sæpiùs stellatim disposita, patentia, subrecurva v. incurva, elliptico-ovata, obtusa, crassa et coriacea, tota pilis albidis hispida et cana, suprâ convexa, medio canaliculata, setis 3-5 instar *Urticæ* rigidis folio æquilingis instructa, marginibus latè recurvis, infrâ concava, nervo medio prominente incrassato costata; petiolus folio brevior, latus, basi dilatatus, semiamplexicaulis, pilis mollibus subsericeus. *Flores* omninò sessiles, in axillis foliorum oclusi, solitarii. *Calyx* quinque-rariùs quadri-partitus, post anthesin incrassatus, laciniis erectis linearibus obtusis hispido-pilosis setâ rigidâ aciculari terminatis. *Corolla* infundibuliformis v. potiùs subcampanulata, tubo lato calycem paulò superante, supernè modicè ampliata, fauce nuda; limbi laciniis patentibus, rotundatis, undulatis. *Stamina* fundo tubi inserta, filamentis elongatis flexuosis filiformibus; antheris inclusis majusculis. *Receptaculum* carnosum. *Ovarium* minutum, sessile, profundè 4-lobum, lobis æqualibus. *Ovula* in loculis solitaria, pendula. *Stylus* terminalis, inclusus, in lacinias 2 filiformes

æquilongas usque ad basin fissus. Stigmata simplicia, vix incrassata, truncata. Nuculæ 4, æquales, calyce incrassato coriaceo inclusæ, sessiles, obliquè ovatæ, dorso convexæ, globosæ, lateribus compressis supernè obtusis erostratis, secus angulos internos inter se coadunatæ, demùm ab axi inconspicuâ discedentes, distinctæ; pericarpio osseo, atro, nitido, lævi. Semen ab apice loculi pendulum; testâ subcarnosâ, laxâ; albumine carnosum v. subaqueo parco; cotyledonibus plano-convexis latiusculis; radiculâ superâ, majusculâ conum acutum basi contractum referente.

116. *G. FUSCA*, *Hook. fil.*; tota pilis fusco-cinereis pubescens, foliis latè elliptico-ovatis v. orbicularibus supernè subundulatis rugosisve setis mollibus marginibus recurvis nervo infernè inconspicuo.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Quite distinct from the former species, though so similar in habit and ramification as to be easily confounded with it. Here the stems and whole plant are of a lurid brown colour: the leaves are broader and rugose on the upper surface between the lateral nerves (which in the preceding species are obliterated); they are destitute of those curious large setæ, similar to the stings of a nettle, so prominent in *G. Darwini*; their margins are less strongly recurved, and the nerve beneath is neither so broad nor so prominent. The nucules also are smaller and much narrower, and the radicle is larger, almost equalling the cotyledons in size.

117. *TOURNEFORTIA RUFO-SERICEA*, *Hook. fil.*; fruticosa, erecta, ramosa, velutino-tomentosa, foliis petiolatis ovato-oblongis acuminatis integerrimis, pedunculis terminalibus dichotomis polystachyis, corollâ extùs villosâ tubo calycis duplò longiore.

*Hab.* James Island, *Charles Darwin, Esq.*

Tota pileis sericeis rufo-brunneis densè velutino-tomentosa. Rami teretes, crassitie pennæ anserinæ. Folia 2-4-uncialia, 2-2½ unc. lata, utrinque velutina, tomento sericeo nitido, pilis demùm canescentibus, venis subtùs prominentibus; petiolis subuncialibus. Spicæ 8-10, pluries dichotomè ramosæ. Calycis segmenta ovata, acuta. Corolla 2 lin. longa, extùs villosa, pilis pallidis, limbo patente 5-fido plicato.

I entertain little hesitation in referring this, in the absence of fruit, to the neighbourhood of *T. velutina*, H. B. K., from which it mainly differs in the dense inflorescence, more copious silky clothing of hairs, and in the leaves being neither cordate at the base nor white underneath.

118. *T. PUBESCENS*, *Hook. fil.*; suffruticosa erecta ramosa, ramis teretibus nudis, ramulis velutinis foliosis, foliis petiolatis elliptico-ovatis subacutis in petiolum attenuatis suprâ pubescentibus subrugosis subtùs molliter velutinis, pedunculis terminalibus ramosis, spicis dichotomis, corollæ tubo calyce bis longiore, drupâ dipyrênâ pilosâ.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Rami lignosi, teretes, cortice fusco. Ramuli teretes, breviusculi, crassitie pennæ gallinacæ, tomento brevi brunneo obtecti. Folia patentia, 2-uncialia,  $\frac{3}{4}$ -1 unc. lata, subrigida, utrinque attenuata, integerrima, suprâ subrugosa, pilosa v. subscabrida, pilis albidis, subtùs velutina, pilis appressis griseis, nervis prominentibus; petiolis  $\frac{1}{2}$  unc. longis. Spicæ 14-16, corymbosæ, rariùs subsolitariae, pedunculis pedicellisque pubescentibus. Calyx parvus, hispido-pubesçens, segmentis obtusis. Corollæ tubus 1 lin. longus, lobis obovato-rotundatis patentibus. Drupa conica,  $1\frac{1}{2}$  unc. longa, siccitate nigra, obscure 4-loba; nuculis 2 osseis collateralibus 2-locularibus. Testa alba, membranacea: albumine copioso.

Though very similar to several South American and West Indian species of this genus, I have been unable to refer it to any.

119. *T. PSILOSTACHYS*, *H. B. K.* *Kunth, Synops.*; vide *Linnaea*, vol. iv. p. 470.

*Hab.* James Island, *Mr. Douglas & Dr. Scouler.* Very common in South America and the West Indies.

120. *HELIOTROPIUM PARVIFLORUM*, *L.*

*Hab.* Charles Island, *Charles Darwin, Esq.* James Island, *Douglas.* Frequent in South America. The specimens from James Island are larger and with more tender foliage.

121. *H. CURASSAVICUM*, *L.*

*Hab.* Chatham Island, *Charles Darwin, Esq.* Of common occurrence throughout the tropics.

122. *CORDIA LUTEA*, *Lam.* (*C. rotundifolia*, *Ruiz & Pavon.*)

*Hab.* Chatham Island, *Charles Darwin, Esq.* Albemarle Islând, *Mr. Macrae.*

A particularly variable plant as regards pubescence and size, also in the marginal divisions of the leaf. Abundant in Peru and Columbia.

123. *Cordia (Varronia) LEUCOPHLYCTIS*\*, *Hook. fil.*; fruticosa, ramosa, foliis petiolatis oblongo-lanceolatis obtusis margine undulatis rigidis rugosis utrinque scabridis supernè setis albidis basi tuberculatis densè obsitis, pedunculis folio longioribus calycibusque pilosis, floribus capitatis, dentibus calycinis subulatis.

*Hab.* Albemarle Island, *Charles Darwin, Esq. & Mr. Macrae.* James Island, *Dr. Scouler.*

Rami teretes, infernè cortice nigro-fusco, supernè pilis patentibus albidis undique hispidi. Folia  $1\frac{1}{2}$ -2 unc. longa,  $\frac{1}{2}$  unc. lata, supernè præsertim asperrima, setis papillisque lacteis conspersa, siccitate nigrescentia, subtùs rugosa, fusco-viridia, pilis albidis hispida et subcana; petiolis 2 lin. longis. Pedunculi stricti, erecti, unciales et ultrà. Capitula globosa, sub 12-flora. Calyx strigosus, pilis interdum stellatis, ore contracto, segmentis subulatis. Corollæ tubus cylindraceus, 2 lin. longus, ad oram nudus, limbo revolutò brevissimè quinquefido.

A most distinct species.

124. *C. (Varronia) LINEARIS*, *Hook. fil.*; suffruticosa, ramis gracilibus, ramulis hispidis, foliis angustè lineari-elongatis acutis integerrimis rigidis marginibus revolutis suprâ pilis albidis asperis subtùs pubescentibus, pedunculis terminalibus lateralibusque, floribus capitatis.

*Hab.* James Island, *Charles Darwin, Esq.*

Rami elongati, crassitie pennæ corvinæ, cortice nigro. Folia sparsa, 2-3 unc. longa,  $1\frac{1}{2}$  lin. lata, in petiolum brevem attenuata, supernè planiuscula, medio canaliculata, venis lateralibus crebris divaricatis, subtùs concava, fusco-virescentia. Pedunculi pubescentes, pilis rufis v. pallidis. Calyx globosus, pallidus, pubescens. Corolla cylindracea, sub  $\frac{1}{2}$  unc. longa.

125. *C. (Varronia) REVOLUTA*, *Hook. fil.*; fruticosa, ramis hispidis, foliis angustè linearibus obtusis integerrimis marginibus revolutis rigidis rugosis supernè setis albidis asperis subtùs hispidò-pubescentibus, pedunculis terminalibus et lateralibus calycibusque pubescentibus, floribus capitatis.

*Var. β.* nigricans; foliis siccitate nigricantibus, calycibus rufo-brunneis.

*Hab.* Charles Island, *Charles Darwin, Esq.* *Var. β.* Albemarle Island, *Mr. Macrae.*

Rami validi, lignosi, teretes, cortice fusco, pilis albidis asperis. Folia 2-2 $\frac{1}{2}$  unc. longa, 2-3 lin. lata, apicibus obtusissimis. Pedunculi foliis breviores v. subæquilongi. Flores 18-20, capitati. Corolla cylindracea, ore crenato glabro.

\* Nomen e *λευκός*, *albus*, et *φλυκτίς*, *papilla*.

Distinguishable from *C. linearis* by the larger size, broader and obtuse leaves and robust habit. The var.  $\beta$ . is always blacker when dry, and its peduncles and calyx are covered with rufous pubescence, but I have detected no other difference.

126. *C. (Varronia) SCOULERI*, *Hook. fil.*; fruticosa, foliis petiolatis lanceolatis obtusis subacutisve repando-dentatis supernè scabridis subtùs pilis stellatis pubescentibus, pedunculis terminalibus, floribus capitatis, calycis tomentosi segmentis filiformibus curvatis, corollâ calyce inclusâ, ore breviter 4-fido glabro.

*Hab.* James Island, *Dr. Scouler*.

Rami teretes, crassitie pennæ gallinacæ, cortice nigro, ramulis hirtis. Folia  $1\frac{1}{2}$  unc. longa,  $\frac{1}{2}$  unc. lata, utrinque attenuata, suprâ nigrescentia, pilis albidis rigidis scabrida, subtùs fusca, pubescentia, petiolis sub  $\frac{1}{4}$  unc. longis. Pedunculi unciales et ultrâ, pilis stellatis pubescentes. Calyx inflatus, globosus, extùs stellatim pubescens, ore parvo valdè contracto, breviter 5-fido, segmentis basi subulatis in apices vermiformes curvatos desinentibus. Corolla cylindræa, tubo calyce ferè omninò incluso, limbo breviter 5-fido, segmentis undulatis. Stamina 5, filamentis brevibus subulatis.

A very distinct plant from the former or any other species.

#### SCROPHULARINÆ.

127. *SCOPARIA DULCIS*, *L.*

*Hab.* Charles Island, *Charles Darwin, Esq.* A most abundant tropical weed.

128. *SCROPHULARINA?*

*Hab.* James Island, *Charles Darwin, Esq.*

A very dwarf species, in fruit only, and too imperfect for determination.

#### LABIATÆ.

129. *SALVIA OCCIDENTALIS*, *Sw.*

*Hab.* Charles and James Islands, *Charles Darwin, Esq.* Very abundant in South America and the West Indies.

130. *S. TILIÆFOLIA*, *Vahl* (*S. fimbriata*, *H. B. K.*).

*Hab.* Charles Island, *Charles Darwin, Esq.* Also a common South American plant.

131. *S. PROSTRATA*, *Hook. fil.*; caule herbaceo procumbente hic illic radicante, ramis divaricatis glabriusculis, foliis longè petiolatis latè triangulari-ovatis

obtusis crenatis, utrinque parcè pilosis subrugosis purpurascensibus, racemis axillaribus breviusculis 3-4-floris, pedunculis folio brevioribus pubescentibus, calycibus campanulatis pilosis labio supremo integro inferiore apice bifido.

*Hab.* James Island, *Charles Darwin, Esq.*

Caules vagè ramosi, 6-10-unciales, ramis breviusculis. Folia patentia, divaricata, sub  $\frac{1}{2}$  unc. longa, latitudine subæqualia; petiolo laminâ bis longiore, valido. Calyx sub 2 lin. longus. Corolla non visa.

Mr. Bentham, who had the kindness to look over the few *Labiatae* among the Galapagos plants, pronounced this species to be new and allied to *S. tenella*, Sw., a West Indian species.

### 132. TEUCRIUM INFLATUM, L.

*Hab.* Charles Island, *Charles Darwin, Esq.* Common throughout tropical America, and also an inhabitant of the South Sea Islands. Forster's *T. villosum* is perhaps a variety.

#### SOLANEÆ.

### 133. SOLANUM VERBASCIFOLIUM, L. var.

*Hab.* James Island, *Charles Darwin, Esq.* A *S. verbascifolio*, L. differt præsertim floribus majoribus.

### 134. S. NIGRUM, L.

*Var.* caule tuberculato, foliis glabriusculis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

*Var.* minor; caule tereti lævi, foliis glaberrimis.

*Hab.* James Island, *Charles Darwin, Esq.*

*Var.* caule herbaceo, foliis puberulis.

*Hab.* James Island, *Dr. Scouler.*

This plant presents the same varieties (all of which are small-flowered) as occur on the southern parts of the American continent and in the South Sea Islands.

135. *S. EDMONSTONEI*, *Hook. fl.*; suffruticosum, inerme, viscoso-pubescentibus, caule tereti basi prostrato ascendente divaricatim ramoso, foliis ovato-oblongis in petiolum brevem angustatis sinuato-pinnatifidis marginibus recurvis segmentis integerrimis lobatisve obtusis, paniculâ longè pedun-

culatâ pauciflorâ, calycis lobis inæqualibus lineari-oblongis obtusis corollâ campanulatâ breviter 5-lobâ extûs puberulâ dimidio brevioribus.

*Hab.* Charles Island, Galapagos, *T. Edmonstone, Esq.*

Perenne? Caulis basi lignosus, pedalis, vagè ramosus, uti planta tota viscoso-puberulus. Folia  $1\frac{1}{2}$ -2-pollicaria, obtusa, ad medium pinnatifida, lobis 4-9 erecto-patentibus, siccitate fusca, superiora sessilia. Pedunculi 4-pollicares, 2-3-flori. Pedicelli  $\frac{1}{2}$ -unciales. Calycis lobi 3 lin. longi, fructiferi dilatati. Corolla 7 lin. longa. Stamina stigmaque inclusa.

A very distinct species, whose nearest ally is a species from extra-tropical North America, *S. triflorum*; it is also related to Mexican and Texian species.

136. *LYCOPERSICON PIMPINELLIFOLIUM, L.*

*Hab.* Chatham Island, *Charles Darwin, Esq.* Precisely similar to the South American plant.

137. *L. ESCULENTUM, L. var. minor.*

*Hab.* James Island, *Charles Darwin, Esq.*

There are perfectly similar specimens of this plant, both from the continent of South America and the South Sea Islands, in the Hookerian herbarium, under the name of *L. esculentum*. All these are smaller than the common state of the species.

138. *L. PERUANUM, var. parviflorum, Hook. fil.*

*Hab.* Chatham Island, *Charles Darwin, Esq.*

The flowers of the Peruvian specimens are larger than these, but as they are not constant in that respect, and no other difference seems to exist, I have kept the present as a variety.

139. *NICOTIANA GLUTINOSA, L.*

*Hab.* Charles Island, *Charles Darwin, Esq.* Of very frequent occurrence in South America.

**DICTYOCALYX, genus novum.**

*Calyx* cylindraceus, 5-fidus, lobis acutis, tubo post anthesin subinflato membranaceo, reticulatim venoso. *Corolla* membranacea, subinfundibuliformis; tubo gracili gradatim supernè ampliato; limbo plicato, brevi, vix explanato. *Staminum filamenta* elongata;



*antheræ* inclusæ. *Ovarium* disco carnosio insertum; *stigmatè* capitato. *Capsula* evalvis, indehiscens, bisulcata, incompletè 4-locularis, calyce ventricoso inclusa. *Semina* plurima, majuscula, tuberculata, dissepimento medio prope angulum parietalem affixa; testa nitida obscurè granulata. *Embryo* arcuatus.

Herbæ Americanæ *repentes, glanduloso (?) pubescentes, cum tribu* *Daturearum, suadente clariss. Miers, conferendæ. Folia membranacea, angulata v. sinuata, subopposita v. bina. Flores avillares.*

140. *Dictyocalyx Miersii, Hook. fil.*; caule herbaceo procumbente (?) flexuoso glanduloso-pubescente, foliis sæpiùs binis longè petiolatis triangulari-v. rhombeo-ovatis repando-dentatis petiolisque pubescentibus, floribus axillaribus longè pedunculatis, corollâ subinfundibuliformi tubo valdè elongato limbo breviter 5-fido segmentis rotundatis acuminatis trinerviis, capsulâ ovatâ acutâ sub 4-gonâ calyce membranaceo subinflato nervoso inclusâ, seminibus majusculis.

*Hab.* Charles and Albemarle Islands, *Charles Darwin, Esq. & Mr. Macrae.*

Caules  $\frac{1}{2}$  pedales et ultrâ, herbacei, divaricatim flexuosi, uti tota planta plùs minùsve glanduloso-pubescentes. Folia magnitudine varia, 1-2 unc. lata, interdùm profundè sinuato-dentata, tenera; petiolis laminâ bis terve longioribus, divaricatis. Flores numerosi, solitarii, v. rariùs bini, longitudine sat variabiles, pedunculo folio  $\frac{1}{2}$  brevior. Calyx cylindraceus, sub  $\frac{1}{2}$  unc. longus, nervosus, 5-fidus, segmentis acutis. Corolla membranacea, 1-2 $\frac{1}{2}$  unc. longa, gradatim supernè ampliata, extùs puberula, limbo brevi vix explanato. Stamina 5; filamentis gracilibus; antheris inclusis. *Ovarium* parvum, disco carnosio insertum; stylo elongato; *stigmatè* subcapitato, incluso. *Capsula* aterima, nitida, utrinque bisulcata, calyce ventricoso, membranaceo, reticulatim venoso oblecta; pedicello fructifero plerumque deflexo. *Semina* plurima, pro genere maxima, atra, nitida, subtuberculata.

This plant I find nowhere described, though it exists in the Hookerian Herbarium, from various parts of the coasts of Peru and Columbia. It appears, judging by Galapagoan specimens, to vary considerably in the size of all its parts. From *Nicotiana* it is remarkably distinguished by the large seeds, curved embryo, habit and minor points.

141. *Acnistus ellipticus, Hook. fil.*; fruticosus, ramis lignosis apices versus foliosis, foliis petiolatis ellipticis utrinque attenuatis integerrimis glaberrimis, floribus ad axillas foliorum plurimis longè pedicellatis, pedicellis

calycibusque breviter urceolatis obscure 5-dentatis glaberrimis, corollâ cylindraceâ extûs pubescente 5-fidâ segmentis erectis marginibus incurvis, staminibus inclusis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Rami validi, crassitie pennæ anserinæ, cortice griseo. Folia e ramulis brevissimis pro genere ampla, 2-3 unc. longa,  $1\frac{1}{2}$  unc. lata, planiuscula, latè viridia, summo apice obtusa; petiolis  $\frac{1}{2}$  unc. longis. Pedicelli florum graciles, subunciales, infra florem gradatim incrassati. Calyx brevis, 2-3 lin. longus, subcoriaceus, ore obscure æqualiter 5-crenatus. Corolla  $\frac{1}{2}$  unc. longa, extûs fusco-brunnea, pubescens. Stamina 5, inclusa; filamentis supra medium corollæ affixis breviusculis flexuosis; antheris linearibus. Ovarium conicum, disco majusculo insidens; stylo gracili subcurvato; stigmatè depresso, obscure bilobo.

A well-marked species, ranking near *A. fuchsoides*, H. B. K.

#### CONVOLVULACEÆ.

142. *IPOMÆA MARITIMA*, *Br.* *Convolvulus pes-capræ*, *Auct.*

*Hab.* Chatham Island, *Charles Darwin, Esq.*

143. *I. LINEARIFOLIA*, *Hook. fil.*; glaberrima, caule filiformi volubili tereti elongato, foliis petiolo longioribus angustè linearibus basi hastatis subobtusis auriculis petiolo subparallelis, pedicellis solitariis elongatis subclavatis bracteolatis, foliolis calycinis majusculis ovato-lanceolatis acuminatis concavis dorso 5-costatis, staminibus inclusis, stigmatè capitato globoso.

*Hab.* James Island, *Charles Darwin, Esq.*

Caules bi-tripediales et ultrâ, crassitie pennæ corvinæ, cortice pallido substriato. Folia uncialia,  $1\frac{1}{2}$  lin. lata, ad apices obtusos breviter apiculata, integerrima, auriculis subulatis, 2-3 lin. longis, petiolis  $\frac{1}{2}$  unc. longis. Pedicelli  $\frac{3}{4}$  unc. longi, validi, supra basin articulati geniculatique, supernè sulcati, gradatim incrassati, costis minutè tuberculatis. Foliola calycina  $\frac{1}{2}$  unc. longa. Corolla infundibuliformis, pallidè purpurea, calyce bis longior. Capsula bilocularis, calyce inclusa, bivalvis, valvis apicem versus bifidis; seminibus fuscis.

The specimens of this plant are rather imperfect, but still appear sufficiently distinct from any other species.

144. *I. TUBIFLORA*, *Hook. fil.*; glaberrima, caule simpliciusculo scandente tereti nitido parcè folioso, foliis petiolatis latè ovatis basi profundè cordatis lobis

rotundatis sinu acuto supernè productis summo apice obtusis submembranaceis venosis, pedunculo solitario unifloro petiolis longiore, pedicello brevi sub calyce vix incrassato, calycis angustè campanulati foliolis ovato-oblongis acuminatis, corollæ tubo elongato infundibuliformi calyce triplò longiore limbo patente, staminibus inclusis.

*Hab.* James Island, *Charles Darwin, Esq.*

Caules graciles, subnitidi, crassitie pennæ corvinæ. Folia lætè viridia, 2-3 unc. longa, sub 2 unc. lata, petiolo  $\frac{2}{3}$  unc. longo. Pedunculus validus, uncialis et ultrà; pedicello crassiore, 2 lin. longo, calyce paulò longiore. Calyx pro magnitudine floris parvus,  $\frac{2}{3}$  unc. longus. Corolla rosea, 2 unc. longa, tubo basi vix 2 lin. diametro, ore unciali. Stamina inclusa; antheris parvis. Stigma capitato-bilobum.

Of this plant there is only a solitary specimen in Mr. Darwin's Herbarium.

145. *EVOLVULUS GLABRIUSCULUS*, *Choisy, Diss. Sec. Convolv.* p. 156.

*Hab.* James Island, *Dr. Scouler.*

M. Choisy looks upon this as identical with the West Indian plant, and different from the *E. alsinoides*, a widely diffused species, with which it has many points in common.

146. *CUSCUTA SANDVICENSIS*, *Choisy, Monogr. Cuscut.* p. 180.

Var. *Mimosæ*, pedicellis florum brevioribus, seminibus fulvis.

*Hab.* James Island: in immense abundance amongst *Mimosa* bushes, *Charles Darwin, Esq.*

Except by the characters above cited, I am unable to distinguish this from the Sandwich Island plant described by Choisy.

#### APOCYNÆ.

147. *VALLESIA GLABRA*, *Link (Rauwolfia, Cav.).*

*Hab.* Chatham Island, *Charles Darwin, Esq.* Also found in the West Indies and on the South American continent, both on the eastern and western coasts.

There is probably but one hitherto-described species of the genus.

#### GOODENOVIÆ.

148. *SCÆVOLA PLUMIERI*, *Vahl.*

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Professor Henslow remarks that one of these specimens is in a monstrous

state, having 6 segments to the corolla, and one of the filaments furnished with 2 anthers. The same species is found in South America and the Mauritius.

## LOBELIACEÆ.

## 149. LOBELIA XALAPENSIS, H. B. K.

*Hab.* James and Charles Islands. A frequent inhabitant of South America and the West Indies.

## COMPOSITÆ.

## 150. LORENTEA TENUIFOLIA, DeC. Prodr. vol. v. p. 103.

*Hab.* Albemarle Island, Mr. Macrae.

## 151. L. GRACILIS, Hook. fil.; caule tenui ascendente scabriusculo parçè vagè ramoso, foliis sparsis linearibus acuminatis hispidulis pilosisque subtùs vix glandulosis basi longè ciliatis, pappo florum radii bisetosò.

*Hab.* Albemarle Island, Mr. Macrae.

Radix annua. Caules basi prostrati, spithamæi, teretes, crassitie pennæ passerinæ, brunnei, pilis brevibus hispiduli. Folia sparsa,  $\frac{1}{2}$ -uncialia, vix  $\frac{3}{4}$  lin. lata, sessilia, subrecurva, basi paulò dilatata, suprâ medio sulcata, pilis albidis hispidula, marginibus recurvis, basi utrinque longè setoso-ciliatis. Pedunculi terminales, solitarii, gracillimi, sub 1 unc. longi. Capitula  $\frac{1}{2}$ - $\frac{1}{3}$  unc. longa, subcylindracea. Involucri squamæ lineares, dorso pilosiusculæ. Pappus fl. radii scabridus, corolla  $\frac{1}{2}$  brevior; disci flavidus, setis inæquialongis.

This may readily be distinguished by the hispid leaves, which are broader and shorter than those of any of the other species and hardly punctate, and by the bisetose pappus of the ray.

## 152. L. SUBSQUARROSA, Hook. fil.; caule robusto, ramis suberectis divaricatis fastigiatim ramosis puberulis, foliis subsquarrosis glaberrimis subfasciculatis lineari-subulatis acuminatis subtùs grossè glanduloso-punctatis glandulis biserialibus marginibus basi longè ciliatis, pedunculis brevibus, achæniis puberulis radii epapposis disci setis inæqualibus.

*Hab.* Chatham Island, Charles Darwin, Esq.

Radix perennis, lignosus. Caulis e basi ramosus. Rami ascendentes, pluries ramosi, teretes, sublignosi, cortice rufo-brunneo puberulo. Folia per plurima, in ramis abbreviatis fasciculata, siccitate squarroso-patentia, glaberrima,  $\frac{1}{2}$  unc. longa,  $\frac{1}{2}$  lin. lata, glandulis orbicularibus, marginibus vix recurvis. Pedunculi in ramis brevissimis lateralibus terminales, breviores quam in præcedente, vix 1 unc. longi. Capitula ut in congeneribus.

Also a very distinct species, with much shorter leaves than *L. tenuifolia*, and shorter cilia at the base: the peduncles too are more abbreviated and stouter.

153. *AGERATUM CONYZOIDES*, Linn. *Sp. Pl.* 1175. *DeC. Prodr.* vol. v. p. 108.

*Hab.* Charles Island, *Charles Darwin, Esq.* A very widely-diffused native of the tropics, both in the old and new world. Some of the specimens have no pappus whatever, and in others the pappus is shorter than in the ordinary state of the plant.

154. *ERIGERON TENUIFOLIUM*, *Hook. fil.*; fruticosum, ramis infernè denudatis cicatricosis, foliis patentibus angustè linearibus acuminatis basi ciliatis, capitulis terminalibus pedunculatis subcorymbosis, pedunculis folio brevioribus, involucri obconici squamis linearibus pluriserialibus.

*Hab.* Charles and James Islands, *Charles Darwin, Esq.*

Rami lignosi, teretes, crassitie pennæ anatinae, cicatricibus foliorum delapsorum subannulati, supernè subfastigiatim di-trichotomè ramosi, cortice pallidè fusco. Folia versus apices ramulorum fasciculata, patentia, 1 unc. longa, vix  $\frac{1}{2}$  lin. lata, glaberrima v. parcè pilosa, marginibus subrecurvis basi ciliatis in ramum subdecurrentibus. Pedunculi plurimi,  $\frac{1}{2}$  unc. longi, validi, in axillis foliorum summorum, inferiores longiores, unde corymbosi, bracteati, bracteis in squamas involucrales gradatim desinentibus. Capitula obconica v. subcampanulata, basi angustata,  $\frac{1}{2}$  unc. longa. Involucri squamæ plurimæ, gradatim longiores, angustè lineares, subscariosæ, post anthesin patentes v. reflexæ. Receptaculum paulò convexum, papillosum. Flores radii pauci, ligulâ oblongâ revolutâ 3-nervi; disci tubo parcè piloso, dentibus glanduloso-incrassatis. Stamina ecaudata. Stylus fl. radii ramis linearibus, obtusis, marginibus incrassatis; disci brevioribus, cono dorso glanduloso terminatis. Achænia compressa, subtrigona, puberula. Pappus 1-serialis, rigidus; setis inæqualibus, scabrido-pilosis, flavidis.

This species and the following nearly agree with the character of *Solidago*, but the habit and inflorescence are entirely different, and the involucre are neither cylindrical nor elongated. The scales of the involucre are more imbricated and conical than in *Erigeron*, the flowers of the ray fewer and probably yellow. Mr. Bentham, who has had the kindness to inspect both the *Composite* and *Leguminosæ* of this curious collection, agrees with me as to the propriety of including these in *Erigeron*, though they form a group in that genus quite distinct from any other.

155. *ERIGERON LANCIFOLIUM*, *Hook. fil.*; fruticosum, foliis erectis lanceolatis in petiolum attenuatis integerrimis utrinque puberulis subcoriaceis, capitulis pedunculatis subcorymbosis.

*Hab.* Albemarle Island, *Charles Darwin, Esq.*

Rami teretes, cicatricati, cortice brunneo tecti; ramulis glanduloso-puberulis, divaricatis. Folia pleraque erecta, interdum patentia, plana, penninervia,  $1\frac{1}{2}$  unc. longa, 3 lin. lata. Inflorescentia et capitula omnino ut in priore, sed pedunculis longioribus, capitulis majoribus, acheniis brevioribus, pappo saturatiore.

156. *HEMIZONIA SQUALIDA*, *Hook. fil.*; glanduloso-puberula, caule gracili superne ramoso parce folioso, foliis sparsis sessilibus linearibus obtusis integerrimis basi paulo dilatatis utrinque glanduloso-pilosis, capitulis solitariis terminalibus nutantibus, involucri squamis lineari-lanceolatis flores radii amplectentibus, ligulis lineari-cuneatis, receptaculi paleis 1-serialibus in coronam membranaceam subcoalitis.

*Hab.* Galapagos Archipelago, *Adm. du Petit Thouars.*

Caulis diametro pennae passerinae, ramosus. Folia sparsa, 3-4 lin. longa, vix  $\frac{1}{2}$  lin. lata. Capitula brevissime pedunculata, cum radio sub  $\frac{1}{2}$  unc. diametro. Involucrum hemisphaericum  $\frac{1}{2}$  unc. latum, basi bracteis plurimis linearibus subaequilongis suffultum, squamis 1-serialibus dorso glandulosis, marginibus involutis subscariosis. Radii circa 10, tubo gracili pubescente, ligula latiuscula, apice trifida. Achenia glaberrima, obovata, modice obcompressa-trigona, dorso valde gibbosa, membranacea, pappo nullo. Paleae receptaculi intra flores radii positae, 1-seriales, membranaceae, lanceolatae, acuminatae, ad medium coalitae, involucri squamis aequilongae, dorso subglanduloso-pilosae. Fl. disci tubulosi, acheniis marcescentibus; pappi squamellis brevibus, inaequalibus.

A very distinct species of a genus hitherto supposed to be peculiar to California.

#### DESMOCEPHALUM, n. g.

*Capitula* in axillis foliorum densissime congesta, monoica, sex-flora; floribus 3 femineis ligulatis, caeteris masculis tubulosis. *Involucrum* compressum; foliolis 3-5, inaequalibus. *Receptaculum* minimum, epaleaceum. *Corolla* fem. tubo brevi, lato, piloso; ligula lata, involuta, bifida: *masc.* quadrifida, dentibus extus hispido-barbatis. *Antherae* ecaudatae. *Stylus fl. masc.* indivisus, acutus; *fl. fem.* in ramos 2 elongatos desinens. *Achenium* late obcuneatum, compressum, subtrigonum, superne pilosum, foliis involucralibus immutatis tectum.

*Genus* *Elviræ affine*. Radix annua. Caulis pedalis, herbaceus, teres, erectus, e basi trichotomè divisus; ramis ascendentibus, pubescentibus. Folia opposita, petiolata, ovata, obtusè duplicato-serrata, coriacea, suprâ scabriuscula, nitida, subtùs pubescentia, nigricantia. Capitula axillaria, densissimè congesta, massam depresso-sphæricam  $\frac{1}{2}$  unc. latam efformantia. Folia involucrentia latè ovata, acuminata, hispida. Corollæ valdè inconspiciuæ.

157. DESMOCEPHALUM INELEGANS, *Hook. fil.*

*Hab.* Charles Island, Charles Darwin, Esq.

#### MICROCOECIA, n. g.

*Capitula* axillaria, pauca, valdè compressa, monoica, subtriflora; floribus fœmineis ligulatis, masculis tubulosis. *Involucrum* compressum, 3-4-foliolatum, foliolo unico latè obovato unilaterali, cæteris parvis collateralibus. *Receptaculum* minimum, epaleaceum. *Corolla fl. fœm.* tubo gracili; laminâ rotundatâ, obscurè crenatâ: *fl. masc.* 4-fida, tubo supernè ampliati, segmentis extùs barbatis. *Antheræ* semi-exsertæ, ecaudatæ. *Stylus fl. fœm.* in ramos 2 elongatos desinens; *fl. masc.* indivisus. *Achenium* cuneatum, compressum, obscurè trigonum, parcè pilosum.

Herba pusilla, repens, scaberula; ramis gracilibus, ascendentibus. Folia opposita, petiolata, rigidula, ovata, acuta, serrata, suprâ hispidula, subtùs cana, venis prominulis. Capitula minima, breviter pedicellata. Involucrum foliolum exterius planum, acuminatum, nervosum, marginibus basi involutis. Flores exserti, flavi.

158. MICROCOECIA REPENS, *Hook. fil.*

*Hab.* James Island, Charles Darwin, Esq.

A singular little plant, also allied to *Elvira* and *Milleria*, but very distinct from both those genera. The stems are about a span long: the leaves  $\frac{1}{4}$  inch long.

#### MACRAEA, n. g.

*Capitulum* multiflorum, heterogamum, radiatum; floribus radii squamis involucri tectis, paucis, 1-seriatis, fœmineis; disci tubulosis. *Involucri* hemisphærici squamis sub 2-seriatis, disco brevioribus. *Receptaculum* convexum, paleaceum; paleis deciduis flores involucrentibus. *Corollæ* radii tubo brevi, gracili; ligulâ latâ bifidâ: disci tubo 4-fido, dentium marginibus incrassatis. *Antheræ* breviter appendiculatæ. *Stylus fl. radii* in ramos 2 obtusos desinens; *fl. disci* ramis cono latiusculo terminatis. *Achenium* obovato-cuneatum, compressum, trigonum, hispidum, pappo brevi e squamis paucis ciliatis coronatum.

*Genus* *Heliopsidis relatum*. Frutex ramis erectis, virgatis, nodosis. Folia in ramis abbre-

*viatis fasciculata, rigida, linearia, integerrima, pilosa, suprâ nitida, marginibus revolutis. Pedunculi folia superantes, graciles, sericei. Capitula spherica. Flores flavi, radii pauci. Receptaculi paleæ lineares, apicibus incurvis acuminatis dorso hispidis.*

159. *MACRAEA LARICIFOLIA, Hook. fil.*

*Hab.* Charles Island, *Charles Darwin, Esq.* Albemarle Island, *Mr. Macrae & Charles Darwin, Esq.*

160. *LECOCARPUS PINNATIFIDUS, Decaisne, in Voy. Venus.*

*Hab.* Chatham and Charles Islands, *Charles Darwin, Esq.*

The leaves of this curious plant are variously cut, sometimes being very deeply pinnatifid, with the segments narrow, as in Decaisne's excellent figure, and at others lanceolate and inciso-pinnatifid, with the segments much broader.

161. *SCALESIA ATRACTYLOIDES, Arnott in Lindley, Introd. to Nat. Ord. p. 204; and in Hook. Journ. of Bot. vol. iii. p. 312.*

*Hab.* Galapagos Islands, *Mr. Cuming.*

162. *SCALESIA INCISA, Hook. fil.; scaberula, foliis scabridis longè petiolatis ovatis ad medium pinnatisectis lobis inæqualiter serratis, pedunculo brevi solitario terminali, capitulis discoideis, involucrio cylindræo, receptaculi squamis trifidis.*

*Hab.* Chatham Island, *Charles Darwin, Esq.*

*Suffrutex?* Rami terminales stricti, indivisi, teretes, crassitie pennæ corvinæ, apices versus foliosi, scaberuli, guttis minimis gummi adpersi, pallidè rufo-fusci, apicibus nigricantibus. Folia alterna, erecto-patentia, subrecurva, ovata, 2-uncialia, coriacea, rigida, utrinque regulariter pinnatisecta, lobis erectis grossè serratis, suprâ subtusque tuberculis minutis scabrida, hic illic obscurè hispidula. Petioli  $\frac{3}{4}$  unc. longi, stricti. Pedunculi solitarii, subterminales, petiolo æquilongi, stricti, erecti, robusti. Capitulum  $\frac{1}{2}$  unc. latum, cylindræum, diametro angustiore; involucri squamis lineari-oblongis, obtusis, subbiseriatis, extûs glanduloso-puberulis. Flores circiter 20, omnes tubulosi, hermaphroditi, squamis brevioribus apice trifidis inclusi. Achænia omninò calva, compressa. Corollæ tubus elongatus, piloso-glandulosus, sursùm campanulatus; segmentis recurvis, extûs ad margines glandulosus. Stylus exsertus, breviter bifidus, ramis divergentibus.



The species of *Scalesia* form a very natural genus, and all those now to be described agree in every essential particular with the generic character, drawn up by Arnott from an examination of *S. atractyloides* alone. The flowers of the ray in some have ligulate corollas, but they are neuter, and such species are here grouped together. The division of the style is a variable character; it has long arms in some of the flowers and is very short in others. Judging by Mr. Darwin's excellent specimens, this and the following species appear very distinct from one another. The habit of the present is rather different from the rest.

163. *SCALESIA PEDUNCULATA*, *Hook. fil.*; frutescens, ramis cicatricosis, foliis in ramis terminalibus petiolatis ovatis longè acuminatis integerrimis utrinque pubescentibus, pedunculis strictis elongatis petiolo triplò longioribus, capitulis discoideis majusculis latè breviter campanulatis.

*Hab.* James Island, *Charles Darwin, Esq.*

Rami ultimi simplices, crassitie ferè pennæ anserinæ, glabri, striati, supernè pubescentes, ad apices villosi, gummiferi, e lapsu foliorum cicatricati. Folia patentia, in ramis terminalia, basi cuneata, apices versus longè attenuata, plana, nervosa, molliter pubescentia, 3-4 unc. longa, petiolis gracilibus,  $\frac{1}{2}$ - $\frac{3}{4}$ -uncialibus, interdum ut folia juniora albo-sericeis. Pedunculi axillares, 3 unc. longi, crassitie pennæ corvinæ, sericei v. pubescentes. Capitula multiflora, circa  $\frac{2}{3}$  unc. diametro, latiora quam lata, basi truncata, pedunculo intruso. Involucri squamæ latè obovatae, acutæ, pubescentes v. sericeæ. Corollæ involuero longiores, tubo puberulo; antheris  $\frac{3}{4}$  exsertis.

A very handsome species.

164. *SCALESIA DARWINII*, *Hook. fil.*; sericeo-pubescentis, ramis gracilibus longè nudis cicatricatis, foliis terminalibus recurvis longissimè lineari-lanceolatis integerrimis breviter petiolatis sericeis basi villosis, capitulis brevissimè pedunculatis depresso-hemisphæricis, involucri squamis subfoliaceis elongatis extùs villosis.

*Hab.* James Island. Characteristic of the vegetation of James Island, forming woods of straight trees in the alpine or damp region.—*Darwin, MS.*

Rami flexuosi, crassitie pennæ corvinæ, cortice cinereo tecti, cicatricibus foliorum lapsorum tuberculati, supernè puberuli, ad bases foliorum sericei. Folia ad apices ramulorum numerosa, conferta, breviter petiolata, 4 unc. longa,  $\frac{1}{4}$  unc. lata, patenti-recurva, in acumen

longè attenuata, utrinque sericeo-pubescentia, marginibus integerrimis subrecurvis, subtùs reticulatim venosa; petiolis brevibus,  $\frac{1}{2}$  unc. longis, pulcherrimè pilis albidis sericeo-villosis. Pedunculi inter folia omninò occlusi, breves, densè sericei. Capitula magna, 1 unc. diametro, subsessilia, depresso-globosa, multiflora. Involucri squamæ foliaceæ, floribus bis longiores, angustè lanceolatae, attenuatae, valdè inæquales. Corollæ tubus puberulus; antheris ferè omninò exsertis.

This, in the form of the leaf, resembles *S. atractyloides*, but in other respects is a perfectly different plant. The large capitula, white silky pubescence, and its imparting a character to the landscape of James Island, render the present species one of the most interesting of this singular genus.

165. *SCALESIA GUMMIFERA*, *Hook. fil.*; pubescens, ramis validis supremis foliosis, foliis petiolatis ovatis ovato-lanceolatisve acuminatis utrinque attenuatis serrulatis in petiolum decurrentibus, pedunculis gracilibus solitariis petiolo æquilongis, capitulis parvis radiatis cylindraceis.

*Hab.* Albemarle Island, *Mr. Macrae*.

Rami robusti, pubescentes, crassitie pennæ olorinæ, tuberculis subannulatis notati, furcati; ultimi elongati, sæpè hirsuti, undique foliosi. Folia patentia, inferiora reflexa, 3 unc. longa, acuminata, subundulata, basi cuneata, suprâ molliter pubescentia, venis obscuris, subtùs sericea v. hirsuta, seniores venis prominulis rugosa, petiolis 1 unc. longis, latiusculis, pubescentibus. Pedunculi graciles, axillares, petiolo longiores, pilosi. Capitula parva, inconspicua, sub  $\frac{1}{2}$  unc. longa, cylindracea, longiora quàm lata, siccitate nigrescentia. Involucri squamæ erectæ, oblongæ, obtusæ, extùs puberulæ. Corollæ radii ligulati, 1-seriales, disci tubo elongato glaberrimo; ligulâ suberectâ, oblongâ, multinervi; achenio elongato, calvo, angusto, 3-costato; flores disci ut in congeneribus.

The specific name is suggested by the gummy exudation on this plant, but which is perhaps more or less common to the whole genus.

166. *SCALESIA AFFINIS*, *Hook. fil.*; pubescens, foliis ovatis acuminatis in petiolum brevem gradatim attenuatis serratis subtùs hirsutis, pedunculis gracilibus petiolo multò longioribus, capitulis radiatis majusculis campanulatis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

*S. gummiferæ* simillima, sed differt præcipuè foliorum petiolis brevibus v. subnullis, capitulisque duplò majoribus latioribus campanulatisque.

Very similar to the last; still the several excellent specimens in Mr. Darwin's herbarium seem sufficiently distinct. *S. affinis* has very short petioles, and its capitula are nearly thrice the size of those of *S. gummifera*, are broader also in proportion, and of a campanulate form.

167. *WEDELIA TENUICAULIS*, *Hook. fil.*; herbacea, pubescens, caule gracili tereti erecto supernè ramoso, ramis erecto-patentibus gracilibus, foliis flaccidis petiolatis elliptico-oblongis acutis serratis basi cuneatis, pedunculis filiformibus erectis pilosis folia superantibus, capitulis discoideis hemisphæricis, involucri squamis latè ovatis subacutis flosculos radii vaginantibus, receptaculo paleaceo, floribus omnibus hermaphroditis, disci paleis vaginatis, achæniis pilosis bi-trisetosis.

*Hab.* Albemarle Island, *Mr. Macrae*.

Annual. Caules bi-tripediales, stricti, diametro pennæ corvinæ. Folia sparsa, alterna, patula, membranacea, utrinque puberula. Petioli gracillimi  $\frac{1}{2}$ -2-unciales. Pedunculi axillares,  $1\frac{1}{2}$ -3-unciales, filiformes. Capitula parva, depresso-hemisphærica,  $\frac{1}{2}$  unc. lata. Involucri squamæ exteriores paucæ, 6-8 lin. longæ, pilosæ, nervosæ. Flores sub 10, omnes tubulosi, tubo gracili glabro. Achænium maturum latè obconicum, nigrum, pubescens, turgidum, pappo rigido bi-trisetoso scabriusculo coronatum.

The present species is closely allied to the *W. discoidea*, Schlect., a West Indian plant: they possibly form a new genus.

168. *JÆGERIA GRACILIS*, *Hook. fil.*; annua, patentim pilosa, caulibus plurimis ascendentibus elongatis trichotomè ramosis teretibus gracilibus, foliis patentibus sessilibus ovato-oblongis acutis obscure dentatis subhispido-pilosis, pedunculis axillaribus filiformibus, capitulis depresso-sphæricis discoideis, squamis involucri lanceolatis non vaginantibus pilosis triner-viis, floribus omnibus tubulosis basi pilosis, achæniis calvis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Herba ramosa, pedalis, ramis gracilibus. Folia inferiora uncialia, supernè gradatim minora, membranacea, virescentia; petiolo nullo. Pedunculi erecti, 1 unc. longi. Capitula 2-3 lin. lata, seniores paleis persistentibus apice nigris onusta. Flores hermaphroditis; radii squamis involucri oppositi, 5-fidi; styli ramis brevibus obtusis. Receptaculum elongato-conicum. Achænium oblongo-lanceolatum, compressum, glaberrimum, coronâ cupuliformi minimâ.

This differs from its congeners in the capitula being discoid, and in the scales of the involucre and of the receptacle not sheathing the flowers.

169. *JÆGERIA PROREPENS*, *Hook. fil.*; piloso-pubescentis gracilis, caule repente radicante parè di-trichotomè ramoso, foliis sessilibus oblongis obtusis obscurè dentatis utrinque subhispido-pilosis, pedunculis axillaribus filiformibus folio æquilongis v. longioribus, capitulis parvis radiatis subsphæricis, squamis involucri ovato-lanceolatis acutis flores radii vaginantibus, receptaculi paleis involutis, fl. radii ligulatis, ligulâ latâ bifidâ.

*Hab.* James Island, *Charles Darwin, Esq.*

Caules 6 unc. longi, repentes, radicanes, ramis ascendentibus v. erectis. Folia uniformia,  $\frac{1}{2}$  unc. longa. Capitula 2 lin. lata.

Allied to the *J. hirta*, but a much smaller plant, of a different habit of growth, and with leaves rounder at the base.

170. *SPILANTHES DIFFUSA*, *Hook. fil.*; herbacea, hispido-pilosa, caule gracili prostrato ascendente subsimplici, foliis petiolatis ovatis acutis interdùm basi cordatis integerrimis utrinque hispidis, capitulis discoideis latè ovatis obtusis longè pedunculatis, involucri squamis uniseriatis oblongis obtusis dorso pilosis, floribus omnibus tubulosis hermaphroditis, styli ramis erectis, achæniis omninò calvis, receptaculo columnari.

*Var. β.* minor, vagè ramosa.

*Hab.* Charles Island; *var. β.* James Island, *Charles Darwin, Esq.*

Caules tenues, 3 unc. ad spithamæum, ramis divaricatis elongatis. Folia  $\frac{1}{2}$ – $\frac{3}{4}$  unc. longa, planiuscula, subcoriacea, utrinque pilis sparsis albidis hispida v. substrigosa, interdùm obscurè sinuata; petiolis 2–4 lin. longis. Capitula parva,  $\frac{1}{2}$  unc. longa, juniora globosa demum elongata. Receptaculi paleæ flores vaginantes, subscariosæ, obtusæ, dorso obscurè ciliatæ. Achænium atrum, glaberrimum. Corollæ dentibus 4–5 glanduloso-incrassatis. Stamina inclusa, nigra. Styli ramis breviusculis, erectis, apicibus subacutis recurvis.

A very insignificant weed, though apparently undescribed: it differs from the generic character of *Spilanthes* in the arms of the styles being erect.

171. *CHRYSANTHELLUM PUSILLUM*, *Hook. fil.*; annua, glaberrima, caulibus gracillimis ramosis, ramis ascendentibus, foliis omnibus petiolatis ovatis dissectis laciniis linearibus acuminatis, capitulis longè pedunculatis hete-

rogamis paucifloris, floribus radii ligulâ lineari apice bidentatâ disci 4-fidis, involucri squamis oblongis obtusis nervosis, achæniis oblongis glaberrimis calvis.

*Hab.* Albemarle Island, *Charles Darwin, Esq.*

Herba spithamæa, vagè ramosa, ramis ascendentibus gracillimis. Folia pauca,  $\frac{1}{2}$  unc. longa. Pedunculi filiformes, 2-3-unciales. Capitula vix 2 lin. lata. Flores radii pauci, 1-seriati; disci tubulosi, nervis incrassatis. Receptaculum planum, paleis lanceolatis onustum. Stylus fl. radii ramis obtusis, fl. disci ramis appendicibus valdè elongatis terminatis. Achænia lævia, integumento crassiusculo non crustaceo.

Much the most slender species of the genus with which I am acquainted.

172. *APLOPAPPUS LANATUS*, n. sp.; fruticulosus, totus arachnoideo-lanatus, foliis membranaceis angustè lineari-spathulatis acuminatis integerrimis v. remotè serratis marginibus revolutis crispatulo-undulatis, capitulis terminalibus subsolitariis breviter pedunculatis nutantibus, involucri latè campanulati squamis linearibus imbricatis dorso lanatis, floribus radii perpaucis sterilibus ligulatis pappo pauci-setoso, disci plurimis achæniis villosis pappo setis plurimis scabridis subinæquilongis rufo-fulvis.

*Hab.* Galapagos Archipelago, *Adm. Du Petit Thouars.*

Specimen mancum 4-pollicare basi validum lignosum; ramis gracilibus herbaceis. Folia  $\frac{3}{4}$ -1 unc. longa, vix  $1\frac{1}{2}$  lin. lata, integerrima, rariùs remotè argutè serrata. Capitula  $\frac{1}{2}$  unc. longa, e floribus radii inconspicuis primo visu discoidea. Receptaculum alveolatum, fimbriiferum.

A very distinct species, allied to *Heterotheca* in the flowers of the ray being neuter, very few in number, and incompletely developed.

#### UMBELLIFERÆ.

173. *HELOSCIADIUM LACINIATUM*, *DeC. Prodr.* vol. iv. p. 105.

*Hab.* Charles Island, *Charles Darwin, Esq.*

174. *HELOSCIADIUM LEPTOPHYLLUM*, *DeC. Prodr.* vol. iv. p. 105.

*Hab.* James Island, *Charles Darwin, Esq.*

These specimens are starved and very diminutive. It is more than probable that this, the former and *H. ranunculifolium*, *DeC.*, will all merge into one species.

## LORANTHÆÆ.

175. *VISCUM HENSLOVII*, *Hook. fil.*; foliosum, ramis dichotomis teretibus, foliis breviter petiolatis obliquè ovato-lanceolatis subacutis basi subattenuatis 5-nerviis opacis, spicis 6-8-articulatis folio  $\frac{1}{2}$  brevioribus: axillaribus geminis: terminalibus ternis, vaginulis bifidis acutis, floribus hexastichis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Rami crassitie pennæ anserinæ, teretes, hic illic articulati, internodiis 1-2-uncialibus; articulis vaginatis, ad axillas foliosis. Folia tripollicaria, valdè coriacea,  $1\frac{1}{2}$  unc. lata, venis primariis 5 parallelis, paginâ inferiore reticulatim venosâ; petiolo 1- $1\frac{1}{2}$  unc. longo, crassiusculo. Spicæ ad axillas foliorum 2-4, sæpè terminales, erectæ vel adscendentes,  $1\frac{1}{2}$ -2 unc. longæ, articulis supremis sterilibus. Baccæ parvæ, sub 1 lin. diametro, globosæ, semi-immersæ.

Very near the *Viscum Perrottetii* of Guiana, judging by the description in DeCandolle's 'Prodromus'; the leaves are however smaller, the spikes with more articulations, and the principal nerves of the leaf can hardly be considered as branched. In the specimens of this and the following species the branches are di- or rarely trichotomous, and the leaves only in the axils of the branches, never at the other articulations of the stem. The flowers appear confined to the axils, and do not spring, as in some species, from other parts of the plant.

176. *VISCUM GALAPAGEIUM*, *Hook. fil.*; foliosum, ramis teretibus lignosis dichotomè divisis, foliis breviter petiolatis latè obovatis apice rotundatis valdè coriaceis aveniis, spicis axillaribus solitariis vel ad apices ramulorum ternis articulatis cylindraceis, floribus subhexastichis, ovariis semi-immersis.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Priori affine, sed foliorum aveniorum formâ distinctum. Rami crassitie pennæ anserinæ, internodiis 3-uncialibus. Folia 2 unc. longa, subsessilia v. petiolo brevi instructa. Spicæ  $\frac{3}{4}$  unciales multiarticulatæ, ad articulos vaginatæ; vaginis breviter bifidis.

## RUBIACÆÆ.

177. *RUBIA* (sp.)?

*Hab.* Charles Island, *Charles Darwin, Esq.*

Apparently an unnamed Peruvian species; but the specimens from the

Galapagos have neither flower nor fruit. It approaches the *R. Reblun* (Hook. & Arn.) of Chili.

*BORRERIA*, Meyer.

The following species belong to DeCandolle's second section, "floribus in axillis subfasciculatis aut solitariis," and they all seem peculiar to the small group of islands under consideration. The corollas are furnished with a tuft of hair above the faux. The stipules have long cilia. The flowers and fruit are small, and the seeds rough with depressed tubercles, but the latter organs afford scarcely any character.

178. *BORRERIA DISPERSA*, *Hook. fil.*; radice lignosâ, caulibus diffusis prostratis vagè dichotomè ramosis acutè tetragonis glaberrimis v. pilis minutissimè conspersis lævibus nitidis, foliis sessilibus latè ellipticis mucronatis suprâ glabriusculis marginibus subrecurvis ciliatis subtùs glaberrimis, corollæ limbo calycem vix superante.

*Hab.* Charles and James Islands, *Charles Darwin, Esq.*

Caulis gracilis, vix diam. pennæ passerinæ. Folia pallidè virescentia, coriacea, 4-5 lin. longa, subtùs pallidiora.

179. *BORRERIA LINEARIFOLIA*, *Hook. fil.*; caulibus elongatis gracilibus procumbentibus vagè divaricatim ramosis, infernè teretiusculis sublignosis, ramulis acutè tetragonis glaberrimis nitidis, foliis patentibus lineari-lanceolatis planis acutis mucronatis suprâ tenuiter hispido-pilosis marginibus lentè recurvis ciliatis subtùs glaberrimis, corollâ ut in *B. dispersâ*.

*Hab.* James Island, *Charles Darwin, Esq.*

Caulis pedales et ultrâ, graciles, remotè foliosi, infernè cortice rufo tecti, subteretes. Folia  $\frac{1}{2}$ - $\frac{3}{4}$  unc. longa, plana,  $1\frac{1}{2}$ -2 lin. lata, luridè viridia, subtùs pallidiora.

Very different from the last in the form of the foliage.

180. *BORRERIA SUBERECTA*, *Hook. fil.*; tota hispido-pilosa, radice caulibusque inferioribus lignosis, ramis striatis suberectis virgatis acutè tetragonis foliosis, foliis linearibus pungentibus patulis curvatisve marginibus revolutis utrinque hispido-pilosis coriaceis, calycis laciniis ovato-lanceolatis acuminatis corollam subæquantibus, fructibus majusculis pilosis.

*Var.*  $\beta$ . flaccida, ramis tenuioribus, foliis submembranaceis.

*Hab.* Albemarle Island, *Mr. Macrae*.

Caules pedales, infernè teretes, lignosi, cortice rufo-fusco glaberrimo tecti, supernè tetragoni, hispido-pilosi. Folia in ramulis abbreviatis fastigiata, 3-4 lin. longa, vix 1 lin. lata, luridè viridia. Fructus 1 lin. longus.

The variety  $\beta$ . is in a very imperfect state, and may possibly belong to the former or to another species; it is much slenderer, and the leaves are scarcely hispid underneath.

181. *BORRERIA PERPUSILLA*, *Hook. fil.*; hispidula, radice lignosâ, ramis divaricatis acutè tetragonis, foliis lineari-oblongis v. elliptico-lanceolatis acutis suprâ hispido-pilosis subtùs glaberrimis marginibus revolutis ciliatis, floribus majusculis, corollâ campanulatâ laciniis calycinis bis longiore ovarioque latiore, fructibus pilosis.

*Hab.* James Island, *Charles Darwin, Esq.*

Radix crassitie pennæ corvinæ, pro plantâ maxima, lignosa, fibras plurimas emittens. Rami substricti, vix unciales. Folia 1-1½ lin. longa, fusco-viridia, patentia. Flos folia vix longitudine æquans.

A very distinct little species, barely an inch long.

182. *BORRERIA ERICÆFOLIA*, *Hook. fil.*; tota glaberrima, caule lignoso robusto, ramis subsimplicibus plurimis subfasciculatim ramosis strictis erectis gracilibus teretibus, ramulis tetragonis, foliis parvis in ramulis brevissimis lateralibus fasciculatis lineari-subulatis paulò curvatis pungentibus rigidè coriaceis marginibus revolutis, fructu glaberrimo.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Suffrutex, verosimiliter pedalis. Caulis basi crassitie pennæ anserinæ, statim in ramulos subsimplices plurimos divisus. Ramuli ½-¾-pedales, stricti, erecti, virgati, graciles, diametro pennæ corvinæ, nunc longè nudi, cortice fusco-castaneo tecti, ramulis ultimis subfiliformibus tetragonis. Folia parva, vix 3 lin. longa, ½ lin. lata, rigida, pungentia, margine supra basin revoluta, siccitate nitida, flavo-fusca. Flores ad apicem ramorum rari, inconspicui. Calycis laciniæ ovato-subulatæ, acuminatæ, marginibus subciliatis, corollam æquantes. Fructus ut in congeneribus.

183. *BORRERIA PARVIFOLIA*, *Hook. fil.*; ramis gracilibus virgatis ramulosis infernè subteretibus angulatisve ramulis brevibus foliosis per totam longitudinem sparsis, foliis parvis coriaceis subfasciculatis lineari-obovatis



obtusis marginibus vix recurvis suprâ hispidis subtùs glabriusculis, fructu glaberrimo.

*Hab.* Albemarle Island, *Mr. Macrae*.

A priore, cui valdè affinis, differt ramis ramulosis, ramulis foliiferis longioribus, et præcipuè foliis latioribus obtusis paginâque superiore scabridis.

184. *BORRERIA DIVARICATA*, *Hook. fil.*; caule protrato? lignoso, ramis teretibus divaricatim ramosis virgatis remotè foliosis, cortice pallidè cinereo, ramulis tetragonis scaberulis, foliis parvis fasciculatis oblongis obtusis coriaceis rigidis margine ciliatis paginâ superiore hispidulis, floribus inconspicuis, lobis calycinis acuminatis subciliatis, corollæ tubo brevi fance longè barbatâ, fructu glaberrimo.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Suffrutex parvulus. Caulis spithamæus, teres, strictus, parcè divaricatim ramosus. Rami ultimi angulati v. tetragoni, scaberuli, remotè foliosi. Folia sub 1 lin. longa, in ramulos breves fasciculata.

185. *BORRERIA FALCIFOLIA*, *Hook. fil.*; caule tereti robusto lignoso, ramis elongatis strictis gracillimis parcè ramosis, ramulis divaricatis angulatis glabriusculis, foliis parvis linearibus obtusis basi subattenuatis suprâ scaberulis medio sulcatis marginibus scaberulis revolutis, fructu glaberrimo.

*Hab.* Albemarle Island, *Mr. Macrae?* (*in Herb. Hook.*).

A very distinct species, though, like the former, the only peculiarity lies in the leaves, which in all the Galapagos Island species of this genus, whether gathered by Darwin or Macrae, present tangible and constant specific characters. All the above differ exceedingly from their congeners on the American coast.

186. *SPERMACOCE TENUIOR*, *L.*

*Hab.* James Island, *Charles Darwin, Esq.*

187. *CHIOCOCCA TRISPERMA*, *Hook. fil.*; foliis petiolatis ovato-vel elliptico-lanceolatis utrinque attenuatis acuminatis glabris coriaceis subnitidis, stipulis latissimis breviter cuspidatis, racemis multifloris, corollæ tubo calyce quadruplò longiore, staminum filamentis glaberrimis, ovario profundè trilobo, fructu triloculari loculis 1-spermis.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Rami stricti, graciles, teretes v. obscure tetragoni. Folia 2 unc. longa, subrecurva, coriacea, longè acuminata, glaberrima, siccitate flavescentia, venis subtùs obscuris. Racemi oppositi, axillares, foliis breviores, cernui v. nutantes, 12-15-flori, pedunculo gracili. Flores pedicellati, pedicellis sub 2 lin. longis, basi bracteolatis. Calycis tubus urceolatus, profundè trilobus; limbus 4-fidus, segmentis brevibus ovatis subacutis. Corollæ tubus obconicus, limbi laciniis linearibus. Stamina ut videtur epigyna, filamentis brevibus glaberrimis. Stylus apice obscure 3-lobus. Fructus immaturus trilobus, 3-pyrenus, pyrenis osseis, compressis, monospermis; semina ex apice oculi pendula, oblonga, compressa, immatura testâ brunneâ.

This has entirely the habit of *Chiococca*, and might even at first sight be confounded with *C. racemosa*. It is however abundantly distinct, differing even from the generic character by its 3-celled ovary and smooth filaments; the latter indeed are so represented in *C. racemosa* of Hooker's 'Exotic Flora,' of which Andrews remarks that the stigma is trifid.

## 188. CHIOCOCCA?.

*Hab.* Albemarle Island, *Mr. Macrae*.

Specimens with neither flowers nor fruit: the leaves are smaller, narrower, and more elliptic-lanceolate than those of the former.

189. CHIOCOCCA RACEMOSA, *Jacq.*

*Hab.* James Island, *Dr. Scouler*.

In a very imperfect state, but apparently the South American plant, which is extremely variable; the three species of DeCandolle's first section being with difficulty distinguishable from each other.

## 190. PSYCHOTRIA, sp.?

*Hab.* Charles Island, *Charles Darwin, Esq.*

The leaves and whole plant quite glabrous.

191. PSYCHOTRIA RUFIPES, *Hook. fil.*; pedunculis petiolis foliisque subtùs ad nervos rufo-tomentosis, ramis teretibus, foliis petiolatis obovato-lanceolatis obtusis basi attenuatis suprâ glabris subtùs pubescentibus, stipulis majusculis concavis latè ovatis integris ramis latioribus, paniculis terminalibus v. axillaribus brevibus, floribus ad apices ramorum congestis

breviter pedicellatis, calycis limbo obsoleto, corollâ tubulosâ extûs villosâ intûs barbatâ laciniis linearibus obtusis reflexis, fructibus ellipticis.

*Hab.* James Island, *Charles Darwin, Esq.*

Rami robusti, glaberrimi, læves, siccitate nigri, albo-maculati, ultimi infra stipulas subtomentosi. Folia 3-5-pollicaria, patentia, plana, subtûs pilis mollibus pubescentia, ad nervos rufo-tomentosa, margine integerrimo plano. Petioli 3-4 lin. longi, rufo-tomentosi. Stipulæ coriaceæ, extûs subpubescentes, rarò bidentatæ. Panicula uncialis, 3-ramosa. Flores 2 lin. longi, extûs pilis albidis villosi. Fructus  $2\frac{1}{2}$  lin. longus; carpellis dorso 8-10-sulcatis.

#### PORTULACÆÆ.

192. *SESUVIUM EDMONSTONEI, Hook. fil.*; ascendens, caule basi lignoso dichotomè ramoso ramisque siccitate cellulis furfuraceis undique obsitis, foliis internodio longioribus linearibus obtusis integerrimis basi gradatim angustatis carnosiss, floribus axillaribus terminalibusque breviter pedunculatis, pedunculis cum flore æquilongis basi bibracteolatis, calycis laciniis lanceolatis acuminatis.

*Hab.* Charles Island, *A. Goodridge, Esq.*

Caules basi angulatim flexuosi, teretes, crassitie pennæ anserinæ, ramique siccitate e cellularum serie externo inflato furfuracei. Internodia vix uncialia. Folia uncialia, 1-1 $\frac{1}{2}$  lin. lata, valdè carnosissima. Bracteolæ oppositæ, oblongæ, subscariosæ. Pedunculus  $\frac{1}{2}$  unc. longus. Perianthium basi conicum, laciniis erectis concavis, apicibus uncinatim incurvis, marginibus membranaceis inflexis. Stamina plurima, inclusa. Ovarium oblongum.

The narrow foliage and other characters will amply distinguish this species from its congeners.

#### PLEUROPETALUM, n. g.

*Calyx* persistens, bipartitus, sepalis latè ovatis. *Petala* 5, subæqualia, libera, concava, coriacea, siccitate multicostata. *Stamina* 8, toro inserta, filamentis in tubum membranaceum coalitis, antheris elongatis ovarium vix superantibus. *Styli* 4, lineares. *Ovarium* uniloculare, pluri-ovulatum; ovulis placentæ basilari funiculis elongatis adnexis.

*Suffrutex?* *perennis, glaberrima, siccitate nigricans, ramis teretibus strictis, apices versùs foliosis. Folia petiolata, patentia, elliptica, utrinque attenuata, longè acuminata, integerrima. Flores in paniculas breves paucifloras terminales dispositi, breviter pedicellati, inconspicui. Calyx parvus, carnosus. Petala majuscula.*

193. *PLEUROPETALUM DARWINII, Hook. fil.*

*Hab.* James Island, *Charles Darwin, Esq.*

Rami in exemplaribus nostris 6 unc. longi, subsimplices. Folia  $1\frac{1}{2}$ -2-pollicaria, in apicem attenuatum producta. Petala sub 2 lin. longa.

## LOASEÆ.

194. ACROLASIA SQUALIDA, *Hook. fil.*; hispido-pilosa, caule decumbente vagè ramoso, ramis angulatim flexuosis divaricatis, foliis parvis petiolatis ovatis subacutis lobatis angulatisve, floribus sessilibus, calycis tubo subcylindraceo elongato-turbinato: lobis lanceolatis, petalis inæqualibus latè obovatis dorso apices versùs pilosis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

I have referred this to Presl's genus *Acrolasia*, though it is very dubious if that be distinct from *Bartonia*. The specimens are in a most imperfect state, yet appear to belong to a very well-marked species.

## PASSIFLOREÆ.

195. PASSIFLORA (*Cieca*) LINEARILOBA, *Hook. fil.*; caule ramisque gracillimis teretibus, ramulis pubescentibus, foliis brevè petiolatis glaberrimis tripartitis: laciniis subæquilongis lineari-elongatis acutis integerrimis lateralibus divergentibus, petiolis suprâ medium biglandulosus, cirrhis simplicibus.

*Hab.* James Island, *Dr. Scouler & Mr. Douglas (Herb. Hook.)*.

Rami 1-2-pedales, flexuosi, crassitie pennæ passerinæ, ramulis pube brevi subvelutinis. Folia patentia, in lacinias 3 elongatas lineares divisa, sinubus obtusis, ad petiolum rotundata, laciniis 2 unc. longis, planis, sub 3 lin. latis; petiolo  $\frac{1}{4}$  unc. longo pubescente, glandulis 2 instructo.

A very distinct and undescribed species, but the specimens are very bad.

196. PASSIFLORA (*Cieca*) TRIDACTYLITES, *Hook. fil.*; glaberrima, caule gracili parè ramoso, ramis teretibus elongatis, foliis petiolatis imâ basi subcordatis profundè trilobis: lobis lineari-oblongis acutis integerrimis submembranaceis lateralibus brevioribus divaricatis interdùm obtusis, pedunculis cirrhisque simplicibus ex iisdem axillis, involucreo nullo, calyce 5-lobo: lobis linearibus obtusis, ovario longè pedicellato.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Caulis diametro pennæ corvinæ, flagellaris. Petioli  $\frac{1}{2}$  unc. longi, infra laminam bibracteolati. Foliorum lobus intermedius 2-3-uncialis, laterales  $1\frac{1}{2}$ - $2\frac{1}{4}$ -unciales, omnes sub  $\frac{1}{2}$  unc. lati, suprâ virides subnitidi, infrâ subglauci, sinibus rotundatis. Pedunculus perbrevis. Flos  $\frac{7}{8}$  unc. diametro; filamentis coronæ sepala vix æquantibus.

197. *PASSIFLORA (Cieca) PUBERULA*, *Hook. fil.*; tota pilis brevibus sub lente micantibus pubescens, caule tereti ramoso, foliis trilobis basi cuneatis: lobis lineari-lanceolatis acutis integerrimis lateralibus  $\frac{1}{2}$  brevioribus erecto-patentibus sinibus obtusis, cirrhis simplicibus pedunculisque arcuatis ex iisdem axillis, involucro nullo, calyce 5-lobato.

*Hab.* James Island, *Charles Darwin, Esq.*

Caules graciles, elongati. Petioli  $\frac{1}{2}$  unc. longi, supra medium biglandulosi. Folia uncialia basi cuneata, ad apicem petioli rotundata, utrinque pilis brevibus crispatis sub lente nitentibus pubescentia; lobus intermedius acutus v. acuminatus,  $\frac{1}{2}$  unc. diametro; laterales erecto-patentes. Pedunculi petiolo longiores, arcuati. Calyx 5-lobus, segmentis angustè linearibus dorso pubescentibus. Bacca ovato-oblonga, sub  $\frac{1}{2}$  unc. longa.

#### FICOIDEÆ.

198. *OPUNTIA GALAPAGEIA*, *Henslow in Magazine of Zoology and Botany*, vol. i. p. 467. tab. xiv. f. 2.

*Hab.* James Island, *Charles Darwin, Esq.*

199. *CEREUS* ?, sp.

*Hab.* Galapagos, *Charles Darwin, Esq.*; vid. *Henslow, l. c.*

#### CUCURBITACEÆ.

200. *SICYOS VILLOSA*, *Hook. fil.*; caule petiolis paniculâque tomento laxo patente glanduloso vestitis, cirrhis corymboso-multifidis, foliis longè petiolatis latè ovato-rotundatis basi profundè cordatis obscurè sinuato-lobatis spinuloso-dentatis suprâ papillatis subtùs puberulis, floribus masculis paniculatis, pedunculo folium superante tripartito, ramis multifloris, pedicellis patentibus reflexis elongatis.

*Hab.* Charles Island, *Charles Darwin, Esq.*; forming great beds, and very injurious to the other vegetation.

Caules siccitate profundè sulcati, crassitie digiti minoris, toti, ut petioli cirrhi paniculæque, pilis mollibus patentibus apice glanduliferis vestiti. Folia  $\frac{1}{2}$  ped. lata, et ferè ejusdem

diametri, membranacea, obscure sinuato-lobata, basi pro  $\frac{1}{2}$  longitudinis bifida v. cordata, lobis rotundatis, sinu acuto, paginâ superiore papillis minutis albidis conspersâ, nervis pubescentibus, inferiore pilis albidis puberulâ, margine ad apices nervorum subspinuloso-dentato. Petiolus folio longior v. subæquilongus. Cirrhus 3-uncialis, deindè in flagellas plurimas fissus. Panicula pedalis, supernè in ramos 3 divisa, ramis multifloris. Flores longè pedicellati, divaricatim patentes; pedicellis villosis, gracilibus,  $\frac{1}{2}$ -uncialibus. Flores masculi diametro 2-3 lin., lutei. Calycis tubus brevis, dentibus 5 subulatis. Corolla calyci adnata, extùs pubescens. Columna antherifera in glandulam insidens, erecta, filamentis 3, antheris 5? Pedunculus florum fœmineorum ad basin masculorum, solitarius, 2 unc. longus, apice multiflorus. Flores ignoti. Fructus ellipticus,  $\frac{1}{2}$  unc. longus, pubescens, setisque axillaribus retrorsùm sub lente pilosis obsitus. Semen unicum.

Mr. Darwin mentions this as a very pernicious weed. It is a distinct species from any I have seen, and I believe not hitherto described.

201. *ELATERIUM CORDATUM*, *Hook. fil.*; glabriusculum, foliis membranaceis rotundatis basi profundè cordatis lobis rotundatis approximatis sinu obtuso membranaceis margine obscure sinuato-dentatis utrinque sparse papillatis ad nervos minutè setosis, cirrhis bifidis, pedunculis masculis elongatis bi-trifidis bi-trifloris, floribus luteis fœmineis ad basin pedunculi maris solitariis, calyce longè tubuloso basi truncato infra limbum brevissimè 5-dentatum hirsuto.

*Hab.* James Island, *Charles Darwin, Esq.*

Caulis gracilis, elongatus, glaberrimus v. parcè pilosus. Folia remota, 2-3 unc. lata, basi ad  $\frac{1}{2}$  longitudinis biloba, apice rotundata et breviter acuminata, marginibus ad apices nervorum obscure dentatis, juniora interdùm angulata, petiolis longitudine variis. Pedunculi flor. fœm.  $\frac{1}{2}$ -1 unc. longi, 2-5-flori. Calycis tubus 3-4 lin. longus. Petala patentia, cum tubo calycis æquilonga v. longiora, lineari-subulata. Columna antherifera gracilis; antheris elongatis. Flos fœmineus semper (in exemplari unico) ad basin pedunculi floris masculi solitarius, breviter pedicellatus. Fructus ignotus.

A well-marked species, probably peculiar to the Galapagos group.

#### MYRTACEÆ.

202. *PSIDIUM GALAPAGEIUM*, *Hook. fil.*; ramis teretibus v. rarè angulatis divaricatis cortice cinereo tectis, ramulis tomentosis, foliis parvis breviter petiolatis ellipticis acutis coriaceis junioribus utrinque pilosis venis sub-

obscuris glandulis pellucidis minutis, pedicellis ex axillis foliorum subsolitariis unifloris  $\frac{1}{2}$  folii æquantibus gracilibus tomentosis teretibus, alabastris breviter pyriformibus, fructu magnitudine pisi globoso.

*Hab.* James Island, *Dr. Scouler & Charles Darwin, Esq.*

Frutex? ramis gracilibus; ramulis tomento fulvo obtectis. Folia  $\frac{3}{4}$  unc. longa,  $\frac{1}{2}$  lata. Flores plurimi, pedicellis  $\frac{1}{2}$  unc. longis, curvatis nutantibusve, alabastris 2 lin. longis.

Apparently distinct, though, like many of its congeners, difficult to be defined. *Dr. Scouler's* specimens are only in bud; the leaves are young and turn black in drying. The foliage of *Mr. Darwin's* specimen is more coriaceous, and there are berries, which are globose and 3-seeded: the testa is singularly thick and osseous.

## RHIZOPHOREÆ.

203. RHIZOPHORA MANGLE, *Linn. DeC. Prodr.* vol. iii. p. 32.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

## LEGUMINOSÆ.

204. CROTALARIA LUPULINA, *DeC. Prodr.* vol. ii. p. 133.

*Hab.* Albemarle Island, *Charles Darwin, Esq.* Tropical shores of America.

205. CROTALARIA PUBERULA, *Hook. fil.*; ramis junioribus folisque sub lente puberulis, caule suberecto ramoso, stipulis parvis setaceis, foliis trifoliolatis obovatis obtusis, racemis oppositifoliis brevibus paucifloris, corollâ  $\frac{1}{3}$  unc. longâ, leguminibus sub 6-spermis oblongis glabriusculis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Variat foliis  $\frac{1}{2}$ – $\frac{2}{3}$  unc. longis. Caulis interdum lignosus.

*C. lupulinæ* affinis, sed floribus leguminibusque triplo longioribus.

206. DALEA PARVIFOLIA, *Hook. fil.*; fruticulosa, glabra, ramis diffusis divaricatis verrucosis, foliolis sub 8 parvis obovatis obtusis coriaceis supra concavis subtus ramulisque nigro-punctatis, spicis terminalibus ovatis sericeo-villosis densifloris, bracteis ovatis acuminatis concavis cum calyce æquilongis, calyce longè villosus: segmentis subulatis tubo longioribus.

*Hab.* James Island, *Charles Darwin, Esq.*

Fruticulus, e foliis valdè deciduis quasi aphyllus. Rami 4–6 unc. longi, cortice cinereo-fusco obtecti, verrucis parvis undique conspersi. Folia in ramulis brevissimis subfasciculata,

2-3 lin. longa, foliolis vix 1 lin. longis. Spicæ erectæ,  $\frac{1}{2}$ - $\frac{1}{3}$  unc. longæ, ovatæ v. cylindraceæ, densè villosæ, multifloræ, ad apices ramulorum sessiles. Pedunculus villosus, strictus. Bractea navicularis, subitò acuminata v. longè apiculata. Calyx sub 3 lin. longus, undique pilis elongatis sericeis densè villosus. Corolla calyce ter longior, siccitate purpurea. Carinæ foliola oblonga, obtusa, longè unguiculata. Legumen calyce inclusum, membranaceum, grossè glanduloso-punctatum, obliquè trapezoideum, utrinque attenuatum, apicem versus longè ciliato-barbatum; seminibus 2.

An exceedingly well-marked species, having most affinity with *D. ramosissima*, Benth. Voy. Sulphur, Botany, p. 11. tab. x.

207. *DALEA TENUICAULIS*, *Hook. fil.*; fruticulosa, diffusa, ramosa, glaberrima, ramis nigro-punctatis, ramulis plurimis gracillimis foliosis erecto-patentibus, foliis 8-10-foliolatis; petiolo filiformi; foliolis parvis obcordatis planiusculis utrinque nigro-punctatis, spicis in ramulis breviusculis terminalibus v. lateralibus ovatis villosis, bracteis navicularibus gradatim acuminatis, calycis laciniis subulatis tubo lato ovato densè pilis villosis sericeo.

*Hab.* Albemarle Island, *Charles Darwin, Esq.*

Caulis lignosus, basi robustus, irregulariter ramosus. Rami teretes virgati, superiores elongati, gracillimi, ultimi setâ porcinâ vix crassiores, omnes cortice striato pallidè rufosusco tecti, nigro-punctati, primarii ramulos abbreviatis foliiferos gerentes. Folia subfasciculata, patentia, subflexuosa, 1 unc. longa, petiolo gracillimo creberrimè nigropunctato; foliolis caducis, magnitudine variis, 2-4 lin. longis, pallidè fusco-virescentibus, emarginato-bilobis, nervo valido percursis. Pedunculi in ramulis terminales, v. e ramulis abbreviatis foliiferis quasi laterales,  $\frac{3}{4}$ -unciales, pubescentes. Spica ovata, obtusa, sub 12-flora, floribus approximatis. Calyx densè sericeo-villosus, pilis fulvis nitidis, tubo brevi ovato, laciniis angustè subulatis. Carina calyce quadruplò longior, foliolis oblongis obtusis extùs basi maculâ flavâ notatis, unguibus laminæ æquilongis. Alæ subsimiles. Vexillum plicatum.

208. *TEPHROSIA LITTORALIS*, *Pers. DeC. Prodr.* vol. ii. p. 253. *var.* foliolis subsericeis.

*Hab.* Albemarle Island, *Mr. Macrae.*

Mr. Bentham, to whom I am much indebted for assistance in determining the *Leguminosæ* and *Compositæ*, pronounces this to be merely a variety of *T. littoralis*, a West Indian plant.



209. *PHACA EDMONSTONEI*, *Hook. fil.*; caule decumbente subramoso petiolisque subsericeis, foliis sub 9-jugis angustè elliptico-obovatis subacutis utrinque sericeo-pubescentibus, pedunculis folium superantibus, racemis oblongis paucifloris, dentibus calycinis subulatis, petalis breviusculis, leguminibus obovatis inflatis breviter stipitatis tenuissimè tomentosis demum glabratis.

*Hab.* Galapagos, *Adm. Du Petit Thouars*. Charles Island, *T. Edmonstone, Esq.*

Radix lignosus; caulis validus, crassitie pennæ corvinæ, simplex v. basi divisus, substriatus, puberulus; stipulis acutè semisagittatis. Foliola  $\frac{1}{2}$ – $\frac{3}{4}$ -uncialia, utrinque sed subter præcipuè sericeo-pubescentia. Pedunculi floriferi foliis  $\frac{1}{2}$  longiores, axillares, suberecti, apice floriferi, fructiferi 8–10 unc. longi. Racemus oblongus, sub 15-florus. Flores vix  $\frac{1}{2}$  unc. longi. Calyx sericeus, vexillo  $\frac{1}{2}$  brevior. Petala brevia, latiuscula. Legumen chartaceum, tenuiter tomentosum, pallidè flavidum, obovatum, apice abruptè acuminatum, basi in stipitem brevem attenuatum. Semina sub 12, imbricata, obliquè reniformia, compressa, fusco-castanea, sub 2 lin. longa.

A very handsome and distinct species, allied to the *P. densifolia*, Sm., which is smaller, more villous, has 15 jugate leaflets of a much shorter and broadly-ovate figure, and longer petals: also to *P. macrodon*, Hook., of the same country, which may readily be distinguished by the calycine teeth.

210. *DESMODIUM FILIFORME*, *Hook. fil.*; tota velutino-pubescentis, caule simpliciusculo gracili elongato, foliis sparsis pinnatim trifoliolatis; foliolis ovato-lanceolatis acutis utrinque pubescentibus lateralibus minoribus; petiolo retrorsum piloso, stipulis parvis membranaceis glaberrimis, racemis terminalibus elongatis laxifloris, floribus remotis, pedicellis solitariis v. binis gracilibus, bracteis lineari-subulatis, calycis pilosi laciniis acuminatis.

*Hab.* James Island, *Charles Darwin, Esq.*

Caulis bipedalis, subfiliformis. Petioli  $\frac{2}{3}$  unc. longi. Foliola pallidè viridia,  $\frac{1}{2}$  unc. longa, venosa, utrinque piloso-pubescentia. Racemi 2–4 unc. longi, flexuosi, 8–10-flori. Flores ut videtur flavi. Pedicelli  $\frac{1}{2}$  unc. longi. Calyx breviter campanulatus. Corolla 4 lin. longa. Legumina desunt.

211. *RHYNCHOSIA RETICULATA*, *DeC. Prodr.* vol. ii. p. 385.

*Hab.* Chatham Island, *Charles Darwin, Esq.* West Indies, Peru, &c.

DeCandolle describes the corolla as shorter than the calyx in the present species, and Mr. Bentham remarks that this was probably the case in the specimens which that author examined, because the corolla is often abortive in the *Phaseoleæ*.

212. RHYNCHOSIA MINIMA, *DeC. Prodr.* vol. ii. p. 385.

*Hab.* Albemarle Island, *Charles Darwin, Esq.* West India Islands.

213. PISCIDIA ERYTHRINA, *Linn. DeC. Prodr.* vol. ii. p. 267.

*Hab.* Chatham Island, *Charles Darwin, Esq.* West Indies.

214. PHASEOLUS (*Drepanospermum*) MOLLIS, *Hook. fil.*; subvolubilis, totus molliter velutino-pubescentibus, foliolis subæqualibus latè ovatis integris apice rotundatis utrinque pubescentibus marginibus recurvis reticulatim venosis petiolulatis lateralibus obliquis, stipulis stipellisque parvis atris, racemis axillaribus elongatis laxifloris folio bis terve longioribus, floribus solitariis geminisve, pedicellis suberectis, bracteolis parvis, calycibus puberulis obtusè lobatis, leguminibus compressis velutinis lineari-oblongis rectis.

*Hab.* James Island, *Charles Darwin, Esq.*

Caulis elongatus, ut videtur volubilis, teres, pilis mollibus subferrugineis pubescens, crassitie pennæ corvinæ. Petioli  $1\frac{1}{2}$ -pollicares basi incrassati, stipulis 2 parvis atris aucti; foliola  $1\frac{1}{2}$  unc. longa et lata, nervis subtùs prominulis, juniora densè sericeo-velutina. Racemi semipedales et ultra, 12-15-flori, densè velutini, substricti. Flores plerumque gemini, purpurei. Pedicelli 3 lin. longi. Calyx latior quam longus, segmentis brevibus valdè obtusatis, superiore obsoleto. Vexillum vix  $\frac{1}{2}$  unc. longum, obtusum.

215. VIGNA OWYHENSIS, *Vogel in Linnæa*, vol. x. p. 585, *var.*

*Hab.* James Island, *Charles Darwin, Esq.* South Sea Islands, Chili, &c.

216. DESMANTHUS DEPRESSUS, *Kunth, Mimoseæ*, p. 115. t. 35. *DeC. Prodr.* vol. ii. p. 444.

*Var.* foliolis paucijugis.

*Hab.* Charles Island, *Charles Darwin, Esq.*

217. ACACIA CAVENIA, *Hook. fil. & Arn. Bot. Beechey*, p. 21.

*Hab.* Albemarle Island, *Charles Darwin, Esq. & Mr. Macrae.* Chili and Bonaria.

218. ACACIA FLEXUOSA, *H. B. K. DeC. Prodr.* vol. ii. p. 463.

*Hab.* James Island, *Dr. Scouler.* West Indies and Chili.

Leaves acute and larger than in the preceding, and peduncles longer.

219. ACACIA TORTUOSA,  $\beta$ . glabrior.

*Hab.* James Island, *Charles Darwin, Esq. & Dr. Scouler.* Guayaquil, Jamaica and West Indies.

220. PROSOPIS DULCIS, *Kunth, Mimoseæ*, p. 110. tab. 34. *DeC. Prodr.* vol. ii. p. 447.

*Hab.* Charles Island, *Charles Darwin, Esq.*: eaten by the curious Lizard (*Amblyorhynchus*) that inhabits this island. Mexico to Mendoza, West Indies, &c.

221. CASSIA PICTA, *Don, Gardener's Dict.* vol. ii. p. 444.

*Hab.* Chatham and Albemarle Islands, *Charles Darwin, Esq. & Mr. Macrae.* Guayaquil.

#### RHAMNÆ.

222. DISCARIA PAUCIFLORA, *Hook. fil.*; ramis ramulisque teretibus spinoscentibus, foliis sparsis caducis oblongo-obovatis oblongisve integerrimis mucronulatis breviter petiolatis, floribus sparsis solitariis binisve subsessilibus quinquefidis, petalis latissimè spathulatis bifidis ungue brevi, ovario biloculari.

*Hab.* Albemarle Island, *Charles Darwin, Esq.*

Forming thickets generally near the sea. In habit resembling the other species of the genus, from which it is sufficiently distinguished by the very small flowers and bilobed petals.

#### Ord. ——— ?

223. CASTELA GALAPAGEIA, *Hook. fil.*; ramis strictis inermibus cortice glabro cinereo rimoso indutis, foliis lineari-lanceolatis acutis valdè convexis.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

I cannot venture to unite the present plant with the *C. erecta*, Turp., or *C. Nicholsonii*, Hook., one of them having spinous branches, and the other terete and pubescent ones. The latter species indeed is perfectly different, for the flowers are larger, and the filaments longer, narrower, and less hairy. I have never seen specimens of *C. erecta*.

## CELASTRINÆ.

224. *MAYTENUS OBOVATUS*, n. sp.; inermis, ramis divaricatis, foliis petiolatis obovatis v. obovato-cuneatis coriaceis obtusis v. plerumque retusis emarginatis integerrimis v. obscurè sinuato-dentatis, floribus axillaribus rarè solitariis, pedicellis unifloris.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

Caulis fruticosus? ramis angulatim flexuosis, cortice fuliginoso striato tectis. Folia subuncialia, basi cuneata, ad apicem rotundata retusa v. obcordata, interdum apiculata, coriacea, utrinque opaca, siccitate flavo-virescentia venis obscuris. Flores in racemis axillaribus brevibus aggregati, parvi, inconspicui; pedicellis petiolis brevioribus, gracilibus. Calycis lobi rotundati. Petala  $\frac{1}{2}$  lin. longa, deltoideo-ovata. Stigmata 3-4. Fructus majusculus, erectus, oblongo-obovatus,  $\frac{1}{2}$  unc. longus, trigonus angulis subacutis, perianthio persistente suffultus, siccitate fusco-ruber, unilocularis, trivalvis, valvis intùs medio costatis; semina in fundo capsulæ 3.

Specimens coinciding with *Maytenus uliginosa*, Kunth, except that the leaves are cuneate, not rounded at the base, and that the upper ones especially are retuse or emarginate, sometimes even obcordate.

## SPONDIACEÆ.

225. *SPONDIAS EDMONSTONEI*, *Hook. fil.*; foliis glaberrimis impari-pinnatis; petiolo supernè alato; foliolis 2-3-jugis elliptico-lanceolatis utrinque angustatis grossè serratis, racemis paniculatis folio brevioribus, pedunculis pedicellisque gracilibus, bracteis oblongo-linearibus obtusis caducis.

*Hab.* Albemarle Island, *Mr. Macrae*. Charles Island, *T. Edmonstone, Esq.*

Rami validi, teretes, hic illic tumidi, crassitie pennæ olorinæ, cortice sublævi pallidè rufo-fusco tecti, ramulis abbreviatis subuncialibus validis transversè creberrimè striatis annulatimque constrictis, apice floriferis foliiferisque, bracteolis squamæformibus. Folia e summo apice ramuli orta, fasciculata, patentia, juniora tenerimè, ad nervos tenuissimè puberula, seniora subcoriacea, 4-7 unc. longa, petiolo inter foliola alato, parte infrafolioloæo gracili elongato basi subincrassato. Foliola 1-1 $\frac{1}{2}$  unc. longa. Bracteolæ reflexæ,  $\frac{1}{2}$ -unciales, caduæ. Panicula 2 $\frac{1}{2}$ -uncialis, erecta, ramis ramulisque gracilibus patulis. Flores masculi (solùm mihi noti) campanulati, 1 $\frac{1}{2}$  lin. longi, tetrameri. Calycis limbus brevissimus, segmentis lineari-oblongis, erectis, obtusis, corollâ ter brevioribus, apice ciliatis. Petala angustè lineari-obovata, acuminata. Stamina petalis breviora; filamentis lineari-subulatis; antheris oblongis. Discus obtusè 8-lobus. Ovarii rudimentum minimum bilobum.

Wholly distinct from any known congener, though allied to a Guayaquil species, *S. purpurea*, L.

## XANTHOXYLÆ.

226. XANTHOXYLUM PTEROTA, *H. B. K. DeC. Prodr.* vol. i. p. 725.

*Hab.* James Island, *Charles Darwin, Esq.* West India Islands.

The specimens are in bud only and very imperfect; unarmed, as are some of *X. pterota* in Hook. Herb.

## ZYGOPHYLLÆ.

227. TRIBULUS CISTOIDES, L. *DeC. Prodr.* vol. i. p. 703.

*Hab.* Albemarle and James Islands, *Charles Darwin, Esq. & Mr. Macrae.* Tropical America.

No fruit, and therefore incapable of satisfactory determination.

## SAPINDACÆ.

228. CARDIOSPERMUM MOLLE, *H. B. K. DeC. Prodr.* vol. i. p. 601.

*Hab.* Chatham Island, *Charles Darwin, Esq.* Tropical America.

## BYTTNERIACÆ.

229. WALTHERIA RETICULATA, *Hook. fil.*; ramulis divaricatis pubescentibus, foliis cordato-ovatis acutis infra præcipuè reticulatim venosis marginibus crenato-dentatis crispatis utrinque appressè velutinis tomentosis, floribus in axillis foliorum 3-5 subfasciculatis breviter pedicellatis, calyce oblongo obtusè 5-dentato, petalis spathulatis calyce  $\frac{1}{2}$  longioribus.

*Hab.* Chatham, James and Albemarle Islands, *Charles Darwin, Esq., Mr. Macrae & Mr. Douglas.*

Rami cortice fusco tecti, crassitie pennæ anatinae. Petioli 4-5 lin. longi. Folia  $\frac{3}{4}$ -1 unc. longa, interdum lineari-oblonga, semper venis subtus prominulis reticulata. Flores parvi. Calyx 2 lin. longus. Habitus *Melochiæ tomentosæ*, L.

## MALVACÆ.

230. MALACHRA CAPITATA, L. *DeC. Prodr.* vol. i. p. 440.

*Hab.* James Island, *Charles Darwin, Esq.* Very common in the West Indies.

231. GOSSYPIUM PURPURASCENS, *Poir.* (an *G. Barbadense, Willd.*?)

*Hab.* Chatham and James Islands, *Charles Darwin, Esq.*

Professor Henslow remarks that the capsule is 4-locular instead of 3-locular, but that this character of the capsule is one which cannot be relied on.

232. *SIDA (Abutilon) DEPAUPERATA*, *Hook. fil.*; pubescens, ramis teretibus virgatis lignosis cinereis albo-maculatis, foliis sparsis petiolatis latè cordatis acutis obtusè crenatis coriaceis utrinque velutinis venis reticulatis senioribus rugosis supernè scaberulis ferrugineis, pedicellis brevibus 2-3-floris, calyce latè campanulato rufo-ferrugineo segmentis obtusis, corollâ calyce bis longiore, carpellis 5-6, seminibus 3-5.

*Hab.* Charles Island, *Charles Darwin, Esq.*

Rami crassitie pennæ anatinæ, pedales, teretes. Folia ramis terminalibus majora,  $1\frac{1}{2}$  unc. longa, petiolo  $\frac{1}{4}$ - $\frac{2}{3}$  unc. longo, ramis lateralibus multò minorâ. Flores  $\frac{1}{2}$  unc. diametro, flavi.

Though the specimens are very imperfect, they evidently belong to a hitherto undescribed and quite distinct species.

233. *SIDA (Malvinda) TENUICAULIS*, *Hook. fil.*; caule erecto ramoso lignoso, ramis puberulis gracilibus parèè foliosis subflexuosis, stipulis subulatis, foliis petiolatis lineari-oblongis utrinque rotundatis subduplicato-crenato-serratis suprâ (siccitate) brunneis subtùs canis reticulatim venosis, pedunculis axillaribus folio brevioribus, lobis calycinis acutis, carpellis sub 4 calyce omninò inclusis obliquè ovatis acutis bidentatis obscurè transversè reticulatis monospermis.

*Hab.* James Island, *Charles Darwin, Esq.*

Fruticulus bipedalis; ramis cortice fusco tectis, gracilibus, elongatis, parèè foliosis. Folia subuncialia, petiolo laminam subæquante v. breviorâ. Calyx 3 lin. longus.

Near *S. spinosa*, L.; the leaves however are smaller, and the carpels much less and quite included in the calyx, and only toothed at the apex.

#### CARYOPHYLLÆ.

234. *DRYMARIA GLABERRIMA*, *Bartl. Rel. Hænk. (an D. divaricata, H. B. K. ?)*

*Hab.* James Island, *Charles Darwin, Esq.* Warm parts of South America, Peru and Columbia.

235. *MOLLUGO VERTICILLATA*, L. *DeC. Prodr. vol. i. p. 391.*

*Hab.* Chatham Island, *Charles Darwin, Esq.* West Indies and South America.

*Var. β.* Chatham and Albemarle Islands, *Charles Darwin, Esq. & Mr. Macrae.* Warm parts of South America.

Highly variable. In young specimens the peduncles are short, and the flowers almost capitate, but in older ones these parts differ extremely in length.

## POLYGALÆÆ.

236. POLYGALA (*Timutua*) OBOVATA, *Hook. fil.*; glaberrima, caule basi lignoso erecto ramoso, foliis sparsis v. rariùs confertis oblongis lineari-oblongisve obtusis v. subacutis coriaceis enerviis grossè pellucido-punctatis subglaucescentibus, racemis brevibus ovatis laxis, alis elliptico-oblongis subacutis capsulam æquantibus.

*Hab.* Chatham Island, *Charles Darwin, Esq.*

*P. paniculatæ*, L. affinis; sed foliis coriaceis latioribus, floribus majoribus, spicisque multoties brevioribus.

237. POLYGALA (*Timutua*) GALAPAGEIA, *Hook. fil.*; glaberrima, caule gracillimo erecto parcè ramoso, ramis virgatis, foliis sparsis coriaceis linearibus utrinque attenuatis acuminatis, racemis spicæformibus valdè elongatis, alis ovato-oblongis obtusis capsulam æquantibus.

*Hab.* Charles and Albemarle Islands, *Charles Darwin, Esq. & Mr. Macrae.*

Fruticulus  $1\frac{1}{2}$ -pedalis, gracillimus. Folia 3-4 lin. longa. Racemi 1-3-unciales, gradatim elongati, seniores basi e floribus delapsis cicatricati. Flores *P. paniculatæ*, L. sed duplò majores.

## CRUCIFERÆ.

238. SENEBIERA PINNATIFIDA, *DeC.*, et varietas *incisa*, *DeC.*

*Hab.* James Island, *Charles Darwin, Esq.* West coast of South America.

## MENISPERMÆÆ.

239. CISSAMPELOS PAREIRA, *Lamarck.*

*Hab.* Charles and James Islands, *Charles Darwin, Esq.* All tropical America.