

Hermann's Ceylon Herbarium and Linnæus's 'Flora Zeylanica.'
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THE collection of dried plants and the drawings of living ones made in Ceylon by Paul Hermann in the latter half of the 17th Century possess a special interest as being the first important contribution of material towards a knowledge of the botany of the East Indies; but the premature death, in 1695, of the excellent botanist who made it, prevented its becoming available to the scientific world of his time. Indeed, beyond the publication in his 'Hortus Acad. Lugd.-Bat. Catalogus,' in 1687, of some brief descriptions and reduced copies of a few of the drawings, Hermann himself printed nothing on Ceylon botany. After his death, however, some of his MSS. were edited by the illustrious botanist W. Sherard (for the benefit of the widow), and in the 'Paradisus Batavus' of 1698 there are included some more of the descriptions and reduced figures of Ceylon plants. In 1717 also there appeared as an anonymous tract of 71 pages a catalogue of the Herbarium of Ceylon plants under their Singhalese names, no doubt printed from Hermann's own MSS. This bears the title of 'Musæum Zeylanicum,' and the editor is well known to have been also W. Sherard*. In the brief preface it is stated that the plants enumerated were collected either wild or growing in the gardens of the natives, and pasted into three volumes without any order, and probably just as they came to hand. The editor adds that a fourth volume would be made up, and gives at the end of the Catalogue, as "*aliæ plantæ chartis non agglutinatæ*," a large number of additional names.

The herbarium of which this was the catalogue appears to have been completely lost sight of till the year 1744, when August Günther, Apothecary-Royal at Copenhagen†, sent to Linnæus at Upsala to be named a collection of Indian plants in five volumes, one being a volume of drawings. The great botanist was not long in discovering what a treasure he had in his hands—no other than Hermann's own herbarium of Ceylon plants just as enumerated in the 'Musæum,' with the addition of the promised fourth volume

* A second edition, with a new title only, was published in 1726.

† There are five letters from Günther to Linnæus in the correspondence of the great naturalist preserved in the Library of the Linnean Society. The dates of these are from 1744 to 1749. Two are written in Swedish and three in Latin.

and a fifth volume of drawings*. He at once set to work at its examination; and after two years' labour produced in 1747 the 'Flora Zeylanica,' which he dedicated to Günther. In this book Linnæus has classified all the plants in the herbarium which he could determine (429 in number) under their genera†; and these are duly arranged in accordance with his sexual system. Under each species he refers to the names in the 'Musæum,' and at the end he gives lists of those names (228 in number) which he was unable (in nearly all cases from the absence of specimens) to refer to any genus. The whole number of plants enumerated is thus 657. In the herbarium itself he has added to Hermann's labels a reference to the number of the species in his own 'Flora Zeylanica.'

At this period of Linnæus's career he had not yet initiated his binomial system of nomenclature; thus no species in the 'Flora Zeylanica' are *named* in the modern sense, but are only referred to their Linnæan genera. When, however, in 1753 that really epoch-making book the 'Species Plantarum' was published, in which specific names were systematically employed, Linnæus was careful to quote under them the numbers of the 'Fl. Zeylan.,' and thus the specimens of Hermann's herbarium become types for many of Linnæus's species. It is this of course which gives to this interesting collection its great scientific value, and renders it an important supplement to the herbarium of Linnæus himself in the possession of this Society; especially as the large majority of the species in Hermann's herbarium are unrepresented in Linnæus's own collection. It is this consideration mainly which has led me to spend some time in a re-investigation of its contents; and the results of this examination I now offer to the Society which bears Linnæus's name.

As is well known, Hermann's herbarium is now in the Botanical Department of the British Museum. Its history since it left Linnæus's hands is briefly as follows:—From Günther it passed into the possession of Count A. G. Moltke‡, at whose death it was purchased by Prof. Treschow of Copenhagen. The latter sold it to Sir J. Banks for £75 §; and it passed, with the

* See the Preface to Fl. Zeylan. p. 17.

† In Linnæus's own copy of the 'Mus. Zeylan.' in the Society's Library, he has entered in the margin against each name the genus to which he referred it.

‡ Rottböll, Descript. p. 49.

§ MS. Note by Dryander in the Herbarium.

rest of the Banksian collections, into the keeping of the Trustees of the British Museum in 1827. Since it came into the hands of Sir Joseph Banks, it has been frequently the object of examination. Especially it was very thoroughly gone over by Dryander, who, in a copy of the 'Flora Zeylanica' in the Banksian Library (now in the Botanical Department), entered against each species references to the volumes and folios of the herbarium where the corresponding specimens are to be found. These useful notes have much facilitated my examination. Robert Brown, Dryander's successor in the charge of the Banksian collections, was also in the habit of consulting the herbarium, and frequently quotes its specimens. Dr. Wight was unfortunately able to consult it only to a limited extent*. Nor should I forget to mention that my friend Mr. W. Ferguson, F.L.S., of Colombo, when on a visit to England thirty years ago, carefully examined the whole collection, and, I believe, possesses copious notes upon the plants it contains.

Hermann's stay in Ceylon extended over several years, at least from 1672-1677, and perhaps a year or two on either side of that period. He was called to the Chair of Botany at Leyden in 1679, being then only thirty-three years of age. Notwithstanding his youth, he held, while in Ceylon, the office of Chief Medical Officer in the service of the (Dutch) East India Company. At this period the Dutch held most of the coast towns, having wrested Colombo from the Portuguese only so recently as 1655; but the whole interior still remained under the rule of the native Emperor of Kandy, at this time the powerful Raja Singha; and it is interesting to note that our countryman Robert Knox was undergoing his long captivity in the interior at the very period of Hermann's sojourn at Colombo. It may be inferred from the herbarium, which is a representative one of the environs of Colombo, that Hermann neither travelled far from the coast, nor had the opportunity of penetrating into any tract of untouched forest.

Besides the herbarium under consideration, Hermann formed another whilst in Ceylon, which he sent to J. Commelin at Amsterdam. It was from this collection (combined with that made by J. Hartog, which was sent from Ceylon to Voss, Curator of the Amsterdam Gardens) that J. Burman, Commelin's suc-

* Preface to 'Prod. Fl. Ind. Or.' p. x.

cessor, compiled his 'Thesaurus Zeylanicus'*. This book was published in 1737 with 110 well-drawn plates containing numerous figures, and is systematically quoted by Linnæus throughout the 'Flora Zeylanica'†. Hermann also sent specimens to other botanists of the time, especially to Gronovius, from whose herbarium there are several of Hermann's plants in the Banksian collection.

The specimens, considering their age and the vicissitudes the Collection has sustained, are in very fair condition; and in the few cases where identification is uncertain, this arises more from the material being originally scanty or imperfect than from any deterioration since its collection.

A considerable proportion of the plants (about fifty) are exotics, and gathered doubtless from gardens. It is of interest to see at what an early date many of these were already common in Ceylon. Most are of course Old-World plants; but a dozen or more are of American origin, as the Custard-Apple, Guava, Cashew-nut, Capsicum, and Cotton.

But besides these cultivated exotics, the list will be found to contain two or three species from the Cape. These are erroneous inclusions; but the explanation of them is very simple. Hermann called at the Cape, as was usual, on his voyage out, and spent a few days there collecting. The plants gathered there were kept out of the first three volumes of the herbarium, which were no doubt prepared by Hermann himself; but the maker of the fourth volume pasted in Ceylon and Cape plants indiscriminately; and they are mixed up even on the same folios. Linnæus was fully aware of this (see preface to 'Fl. Zeylan.' p. 18), and has omitted all notice of the Cape specimens with the exception of two (see nos. 41 and 307), which he evidently supposed to be from Ceylon. It is only surprising that he avoided the inclusion of more.

It will be found that a few changes of name will be necessitated by this re-examination of the Linnean types in this Collection. It must be confessed that Linnæus has rendered some of his species obscure by erroneous synonymy; in working out the 'Flora Zeylanica' he evidently endeavoured to embody as much as pos-

* See Preface to that book.

† Linnæus had assisted Burman in the preparation of this book when his guest at Amsterdam in 1735.

sible of what had been previously published of the plants of the "East Indies" generally; and he has not unfrequently given under the Ceylon species synonyms and references which belong to quite different Indian or Javan plants. In most, though not all, of these cases I think it must be allowed that the Hermannian *specimens* should determine what was the plant intended by Linnæus rather than his book references.

In the following list of determinations the first column gives the consecutive numbers of the species in the 'Flora Zeylanica,' and each number is immediately followed by the name given to it by Linnæus in his 'Species Plantarum' (1st edition), or in his subsequent systematic works. The second column contains my determinations of the type specimen or specimens representing the species in Hermann's herbarium*. When the word (*drawing*) is appended, it signifies that there is a drawing only to represent the species and no dried specimen. The words *no specimen* mean that there is neither dried specimen nor drawing.

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| 1. <i>Canna indica</i> , Sp. 1 | <i>C. indica</i> , L. |
| 2. <i>Amomum Zerumbet</i> , Sp. 1 .. | <i>Zingiber Zerumbet</i> , <i>Rosc.</i> (<i>drawing</i>). |
| 3. <i>Amomum Zingiber</i> , Sp. 1 | <i>Zingiber officinale</i> , <i>Rosc.</i> |
| 4. <i>Amomum Cardamom</i> , Sp. 1 .. | <i>No specimen</i> . |
| 5. <i>Costus arabicus</i> , Sp. 2 | <i>Alpinia Galanga</i> , <i>Sw.</i> (<i>drawing</i>). |

The plant figured is evidently the "Kaluwala" of the Singha-
lese, much cultivated for its aromatic rhizomes. These are known
in the drug market of London as *Galaugal* or *Greater Galangal*
roots.

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| 6. <i>Curcuma rotunda</i> , Sp. 2 | <i>No specimen</i> . |
| 7. <i>Curcuma longa</i> , Sp. 2 | <i>C. longa</i> , L. |
| 8. <i>Kaempferia Galanga</i> , Sp. 2 .. | <i>K. Galanga</i> , L. (<i>drawing</i>). |
| 9. <i>Kaempferia rotunda</i> , Sp. 2 | <i>K. rotunda</i> , L. (<i>drawing</i>). |
| 10. <i>Boerhaavia diffusa</i> , Sp. 3 | <i>B. diffusa</i> (<i>drawing</i>). |
| 11. <i>Nyctanthes arbor-tristis</i> , Sp. 6. | <i>No specimen</i> . |
| 12. <i>Nyctanthes Sambac</i> , Sp. 6 | <i>Jasminum Sambac</i> , <i>Ait.</i> |
| 13. <i>Jasminum azoricum</i> , Sp. 7 | <i>No specimen</i> . |
| 14. <i>Chionanthus zeylanica</i> , Sp. 6.. | <i>Linociera purpurea</i> , <i>Vahl</i> . |
| 15. <i>Eranthemum capense</i> , Sp. 9 .. | <i>Dædalacanthus montanus</i> , <i>J. And.</i> |

In spite of Linnæus's specific name, this is not a South-African plant. He confuses it with another plant of Hermann's, and gives the habitat as "in Æthiopia."

* The names employed are usually those of the 'Flora of Brit. India' or of my 'Systematic Catalogue of the Plants of Ceylon' (1885).

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| 16. <i>Justicia Adhatoda</i> , Sp. 15 | <i>Adhatoda Vasica</i> , <i>Nees</i> . |
| 17. <i>Justicia Ecbolium</i> , Sp. 15 | <i>Ecbolium Linneanum</i> , <i>Kurz</i> . |
| 18. <i>Justicia Betonica</i> , Sp. 16 | <i>J. Betonica</i> , <i>L.</i> |
| 19. <i>Justicia procumbens</i> , Sp. 16 .. | <i>J. procumbens</i> , <i>L.</i> |
| 20. <i>Justicia repens</i> , Sp. 16 | <i>Rungia repens</i> , <i>Nees</i> . |
| 21. <i>Justicia echioides</i> , Sp. 17 | <i>Andrographis echioides</i> , <i>Nees</i> . |
| 22. <i>Utricularia vulgaris</i> , Sp. 18 .. | <i>Utricularia flexuosa</i> , <i>Vahl</i> . |
| 23. <i>Utricularia cærulea</i> , Sp. 18 .. | <i>U. cærulea</i> , <i>L.</i> |
| 24. <i>Ballota disticha</i> , Mant. 83. . . . | <i>Anisomeles ovata</i> , <i>Br.</i> |
| 25. <i>Anthoxanthum indicum</i> , Sp. 28. | <i>Perotis latifolia</i> , <i>Ait.</i> |
| 26. <i>Piper nigrum</i> , Sp. 28. | <i>Piper nigrum</i> , <i>L.</i> , and <i>P. Betle</i> , <i>L.</i> ? |

The specimens are mostly *P. nigrum*; but one seems rather to be referred to the next.

27. *Piper Betle*, Sp. 28. *P. Betle*, *L.* ?

The specimens have smaller and narrower leaves than the ordinary cultivated Betel Pepper of Ceylon. Burman's t. 83. fig. 2 well represents them, and is quoted with approval by Linnæus.

28. *Piper Malamiris*, Sp. 29 *P. Betle*, *L.*, var. ?

This name is doubtfully applied by authors. The specimens consist of leaves only, and appear to belong to a variety of the Betel-plant, but are only 5-nerved. The name "*Wal miris*," given by Hermann, however, means *wild* pepper, and not Betel. Linnæus has taken another Singhalese name, "*Malamiris*" (also given by Hermann in *Mus. Zeyl.* p. 24), as his specific name. I cannot understand the note *P. Amalago* in *Fl. Brit. Ind.* v. p. 95, as there is no reference to *Fl. Zeyl.* no. 28 under that species in *Linn. Sp. i.* p. 9.

In the Banksian Herbarium there is another specimen from Hermann, sent to Gronovius, and labelled "*Malamiris*, *Bakamumumiris*, & *Walmiris*" by the former. This has 7-nerved leaves, and appears different from the specimens in Hermann's own herbarium.

29. *Piper Siriboa*, Sp. 29 *P. Siriboa*, *L.*

The specimen is the "*Rata-bulat-wel*" (=foreign Betel) of the Singhalese, which is much cultivated, and is supposed to have been introduced from the Malay Islands. I agree with C. de Candolle and Sir J. Hooker (*Fl. B. Ind.* v. p. 85) in considering it a large-leaved form of *P. Betle*.

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| 30. <i>Piper longum</i> , Sp. 29 | <i>P. longum</i> , <i>L.</i> |
| 31. <i>Commelina nudiflora</i> , Sp. 41 .. | <i>Aneilema nudiflora</i> , <i>R. Br.</i> |
| 32. <i>Commelina cristata</i> , Sp. 42 .. | <i>C. cristata</i> , <i>L.</i> (<i>drawing</i>). |
| 33. <i>Tamarindus indica</i> , Sp. 34 | <i>T. indica</i> , <i>L.</i> |

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| 34. <i>Olax zeylanica</i> , Sp. 34 | <i>O. zeylanica</i> , <i>L.</i> |
| 35. <i>Xyris indica</i> , Sp. 42 | <i>No specimen.</i> |
| 36. <i>Cyperus rotundus</i> , Sp. 45 | <i>C. rotundus</i> , <i>L.</i> |
| 37. <i>Cyperus Haspan</i> , Sp. 45 | <i>C. Haspan</i> , <i>L.</i> |

There is a double error in the name *Haspan*. The word is properly given as "Halpan" by Hermann (Mus. Zeyl. p. 23); but was misprinted in Burman's Thes. Zeyl. p. 108, whence Linnæus quoted it. But the Singhalese "Halpan" is not this species of *Cyperus*, but *Fimbristylis globulosa*, Wall.

38. *Scirpus echinatus*, Sp. 50 *Cyperus umbellatus*, *Benth.*, var.
39. *Scirpus capillaris*, Sp. 49 *Fimbristylis barbata*, *Benth.*
40. *Scirpus dichotomus*, Sp. 50 . . *Fimbristylis diphylla*, *Vahl.*

The specimen is merely a young and dwarf state of *Fimbri-stylis diphylla*, and neither the *F. dichotoma*, Nees, nor the *F. dichotoma*, Vahl.

41. *Bobartia indica*, sp. 54 *Bobartia spathacea*, Ker.

This is one of the Cape plants that have unfortunately been enumerated among those of Ceylon. The specimens are in the fourth volume of the herbarium, which, as already mentioned, was known to Linnæus to be a mixture of plants from both countries; and it is not clear why he included it in the 'Flora Zeylanica.' Botanists have been further misled by Lamarck, who, professing to figure *Bobartia indica*, has given a drawing of some Cyperaceous plant (Ill. i. t. 40), which Bentham (Gen. Plant. iii. pp. 698, 1015) and Clarke (Journ. Linn. Soc., Bot. xxi. p. 111) refer to a *Cyperus* of the *C. arenarius* group and to *C. pachyrhizus*, Nees, respectively. But Hermann's specimens are the Cape *Moræa spathacea*, Willd., as was demonstrated and figured by Schumacher in Act. Soc. Nat. Scient. Hafn. iii. p. 8, t. 1. Of course the genus *Bobartia* of Linn. will stand; but his specific name *indica* must be superseded, and the plant take the name of *Bobartia spathacea*, Ker, as Baker correctly has it (Journ. Linn. Soc., Bot. xvi. p. 114).

42. *Panicum compositum*, Sp. 57.. { *Oplismenus compositus*, Roem. &
Sch.
43. *Panicum arborescens*, Sp. 59.. P. ovalifolium, Poir.

The specific name of Linnæus is absurd; for *P. ovalifolium* is a humble grass; and his remark "altitudine certat cum altissimis arboribus" could only apply to a Bamboo. On the confusion as to this name in Linnæus's own herbarium, see Munro in Journ. Linn. Soc., Bot. vi. p. 38.

43. Obs. *Not named* *Isachne australis*, R. Br.

This is the *I. meneritana*, Poir. Eucycl. Méth. Suppl. iii. p. 185, an unnecessary synonym. (See Journ. Bot. 1885, p. 271.)

44. *Panicum glaucum*, Sp. 60 *Pennisetum typhoideum*, Pers.

45. *Andropogon Nardus*, Sp. 1046. *A. Nardus*, L.

Hermann's specimen is the Citronella Grass, grown for its essential oil in the south of Ceylon. The native name he gives, "Pengriman," is also clearly intended for "Pangiri-mana" (=acid or sour mana), by which it is generally known. (See also Bentley and Trimen, 'Medicinal Plants,' tab. 297.)

46. *Poa amabilis*, Sp. 68 *Eragrostis plumosa*, Link.

Linnæus's *Poa amabilis* has given rise to some synonymy. The specimens here are *Eragrostis plumosa*, with which the specimens in Linnæus's own herbarium also agree. (See Munro, Journ. Linn. Soc., Bot. vi. p. 43.)

47. *Arundo Bambos*, Sp. 81 *No specimen*.

48. *Eriocaulon quinquangulare*,
Sp. 87 } *E. quinquangulare*, L.

49. *Eriocaulon sexangulare*, Sp. 87. *E. sexangulare*, L.

The name *E. sexangulare*, L., has been quite misapplied in Ceylon, where it has been used (*e. g.* in Thw. Enum. Plant. p. 341) for the small plant (C. P. 795) called *E. Thwaitesii* by Koernicke. Hermann's type-specimens show it to be the plant (C. P. 220) referred by Thwaites to *E. Wallichianum*, Mart.

50. *Eriocaulon setaceum*, Sp. 87 .. *E. setaceum*, L.

51. *Mollugo pentaphylla*, Sp. 89 .. *M. pentaphylla*, L. (*M. stricta*, L.).

A variety only of *M. stricta*, but the name *pentaphylla* has priority.

52. *Mollugo oppositifolia*, Sp. 89 .. { *M. oppositifolia*, L. (*M. Spergula*, L.).

In this case also *M. oppositifolia*, L., should take the place of the generally used, but later, *M. Spergula*, L.

53. *Cephalanthus orientalis*, Sp. 95. { *Sarcocephalus cordatus*, Miq.
(drawing).

54. *Ixora coccinea*, Sp. 110 *I. coccinea*, L.

55. *Ixora alba*, Sp. 110 *I. coccinea*, L., var.

56. *Pavetta indica*, Sp. 110 *P. indica*, L.

57. *Avicennia officinalis*, Sp. 110 .. *No specimen*.

58. *Elæagnus latifolia*, Sp. 121 *E. latifolia*, L.

59. *Tomex tomentosa*, Sp. 118. }
(*Callicarpa lanata*, Mant. ii. 331.) } *Callicarpa lanata*, L.

60. *Cissus vitiginea*, Sp. 117 *Vitis Linnæi*, Wall.
 61. *Exacum sessile*, Sp. 112 *E. sessile*, L.
 62. *Spermacoe hispida*, Sp. 102 .. *S. hispida*, L.
 63. *Hedyotis fruticosa*, Sp. 101 *H. fruticosa*, L.
 64. *Hedyotis auricularia*, Sp. 101 .. *H. auricularia*, L.
 65. *Hedyotis herbacea*, Sp. 102 *Oldenlandia Heynei*, R. Br.
 66. *Ludwigia perennis*, Sp. 119 .. *L. parviflora*, Roxb.
 67. *Oldenlandia umbellata*, Sp. 119. { *O. umbellata*, L., and *O. corymbosa*, L.
 68. *Oldenlandia biflora*, Sp. 119 .. *O. biflora*, L. (*O. paniculata*, L.).

O. biflora is not separable as a species from *O. paniculata*, L., but is merely a few-flowered variety. Unless it be thought that the name is too little appropriate, *O. biflora*, as the older, should be the name retained.

69. *Coldenia procumbens*, Sp. 125 *C. procumbens*, L.
 70. *Heliotropium indicum*, Sp. 130. *H. indicum*, L.
 71. *Borrigo indica*, Sp. 137 *No specimen*.
 72. *Menyanthes indica*, Sp. 145 .. *Limnanthemum indicum*, Thw.
 73. *Plumbago zeylanica*, Sp. 151 .. *P. zeylanica*, L.
 74. *Convolvulus Turpethum*, Sp. 155. *Ipomœa Turpethum*, R. Br.
 75. *Convolvulus Pes-capræ*, Sp. 159 *Ipomœa biloba*, Forsk. (*drawing*).
 76. *Evolvulus alsinoides*, Sp. ed. ii. { *E. alsinoides*, L.
 392
 77. *Ipomœa Quamoclit*, Sp. 159 .. *No specimen*.
 78. *Ipomœa Pes-tigridis*, Sp. 162 .. *I. Pes-tigridis*, L.
 79. *Ipomœa hepaticæfolia*, Sp. 161. *I. hepaticæfolia*, L. (*drawing*).

A variety of *I. Pes-tigridis*, L., only.

80. *Rondeletia asiatica*, Sp. 172 .. *No specimen*.
 81. *Morinda umbellata*, Sp. 176 .. *M. umbellata*, L.
 82. *Morinda citrifolia*, Sp. 176 { *M. citrifolia*, L., and *M. tinctoria*,
 Roxb.
 83. *Lonicera parasitica*, Sp. 175. { *Loranthus loniceroides*, L.
 (*Loranthus loniceroides*, Sp. ed. ii. 473.)
 84. *Mussænda frondosa*, Sp. 177 .. *Mussænda frondosa*, L.
 85. *Mirabilis Jalapa*, Sp. 177 *No specimen*.
 86. *Datura Metel*, Sp. 179 *No specimen*.
 87. *Rhamnus Napeca*, Sp. 194 *Zizyphus Napeca*, Willd.

Kept up as a species by Lawson (Fl. B. Ind. i. p. 635). It is closely allied to *Z. lucida*, Moon; but differs by its broader and abruptly acuminate leaves, with much less secondary venation, and by the very rufous woolly stems and inflorescence. I have never met with this in Ceylon.

88. *Rhamnus Cœnopia*, Sp. 194 .. *Zizyphus Cœnopia*, Mill.
 89. *Rhamnus Jujuba*, Sp. 194 *Zizyphus Jujuba*, Lam.
 90. *Chironia trinervia*, Sp. 189 *Exacum zeylanicum*, Roxb.
 91. *Strychnos Nux-vomica*, Sp. 189 *S. Nux-vomica*, L.
 92. *Capsicum annuum*, Sp. 188 .. *C. annuum*, L., var.
 93. *Solanum Melongena*, Sp. 186.. *S. Melongena*, L.

As there is no specimen of *A. sarmentosus* in the collection, we have only the drawings by which to determine what Linnæus meant by the name. The drawings were published on a reduced scale in Hermann's Hort. Lugd.-Bat. Cat. tt. 63 & 650, and show a plant with flat cladodes. By many subsequent botanists the name has been erroneously applied to a Ceylon variety of *A. racemosus*, Willd.; and specimens so named are common in herbaria. The *sarmentosus* of Thwaites, Enum. Plant. p. 337, is *A. racemosus*. More recently the name has been transferred to a Cape species, and is so applied by Baker in his revision of the genus (Journ. Linn. Soc., Bot. xiv. p. 625). I see no reason to believe that Hermann's figure was not made from a Ceylon plant*; and I am inclined to think it represents *A. gonoclados*, Baker, a frequent species in several parts of Ceylon. But as the confusion can scarcely be cleared up in the absence of a specimen, the name *A. sarmentosus*, L., had perhaps better be abandoned.

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| 125. Polianthes tuberosa, Sp. 316 | P. tuberosa, L. |
| 126. Pancratium zeylanicum, Sp. 290 | { P. zeylanicum, L. (drawing). |
| 127. Crinum asiaticum, Sp. 292 .. | |
| 128. Burmannia disticha, Sp. 287.. | B. disticha, L. |
| 129. Pontederia hastata, Sp. 288 .. | Monochoria hastæfolia, Presl. |
| 130. Aloe hyacinthoides, Sp. 321 .. | No specimen. |
| 131. Not named | { Pandanus odoratissimus, L. f. (drawing). |
| 132. Acorus Calamus, β . verus, Sp. 324 | |
| 133. Flagellaria indica, Sp. 333.... | F. indica, L. |
| 134. Lawsonia spinosa, Sp. 349 .. | L. alba, Lam. |
| 135. Lawsonia inermis, Sp. 349 ... | L. alba, Lam. |
| 136. Memecylon capitellatum, Sp. 349 | { M. capitellatum, L., and another species of Memecylon. |

I look upon *M. capitellatum* as a well-marked species always to be easily recognized; it is the "Weli-kaha" of the Singhalese and is well figured in Burman's Thes. Zeyl. t. 30. Clarke has, however, reduced it to a variety of *M. edule* in Fl. Brit. Ind. ii. p. 564; but his *M. edule* is a very large concatenation of plants, including also the quite distinct *M. umbellatum*, Burm., "Kora-kaha" of the Singhalese.

One of Hermann's specimens is a different and undeterminable species of *Memecylon*.

* The whole of the Drawings seem to have been made in Ceylon and no Cape plants are among them.

137. *Mimusops Kauki*, Sp. 349 .. *M. Kauki*, L.

The specimen (vol. i. fol. 35) is certainly not the plant whose native name is quoted from Hermann's Mus. Zeyl. by Linnæus, which is 138. *Mimusops Elengi*, of which the specimens are in the herbarium (vol. ii. fol. 40). It is indeed not recorded at all in its place in the Mus. Zeyl., where it should appear on p. 7. This renders it doubtful whether it was collected in Ceylon. It appears to me to correspond pretty closely with Javan specimens of the tree still known as *M. Kauki*, with long petioles and a pale under surface to the leaves, and not with *M. indica*, to which Mr. Benth (Fl. Austral. iv. p. 285) has referred it. *M. Kauki* I have never seen in Ceylon, either wild or cultivated; but it may well have existed there in gardens in Hermann's time. The Fl. Brit. Ind. (iii. p. 549) gives Burma, Malacca, and Malaya generally; as well as N. Australia, whence R. Brown (Prod. Fl. Nov. Holl. p. 531) records it, referring to Hermann's specimen as authority for the name.

138. *Mimusops Elengi*, Sp. 349 .. *M. Elengi*, L.139. *Jambolifera pedunculata*, Sp. { *Acronychia laurifolia*, Blume [see 349 also 185].

There is no doubt as to the correctness of this identification of the *specimens* (vol. ii. fol. 82); though Linnæus has mixed up this with no. 185 in his numbering of other specimens in vol. ii. fol. 38, and has transposed their native names in 'Fl. Zeylan.' Indeed it appears that he subsequently in his later works ended by confirming the transposition; and possibly it would be practically correct to consider that the numbers in the herbarium are to be disregarded rather than the text. Thus in Mant. ii. Linnæus quotes Plukenet, tab. 174. fig. 2, for this, which clearly represents 185. *Eugenia Jambolana* (see that number). Vahl, however, has rightly described and figured (Symbolæ, iii. p. 52, t. 61) *Acronychia laurifolia* as *Jambolifera pedunculata*, L.

140. *Allophylus zeylanicus*, Sp. 348. *A. zeylanicus*, L.141. *Ptelea viscosa*, Sp. 118 (Dodonæa viscosa, Mant. ii. 149). { *Dodonæa viscosa*, L.142. *Cardiospermum Halicacabum*, { *C. Halicacabum*, L.
Sp. 366143. *Paullinia asiatica*, Sp. 365.... *Toddalia aculeata*, Pers.144. *Michelia Champaca*, Sp. 536. *M. Champaca*, L.145. *Laurus Cinnamomum*, Sp. 369. *Cinnamomum zeylanicum*, Blume.146. *Laurus Cassia*, Sp. 369..... { *Litsea zeylanica*, Nees; and *C. zeylanicum*, Blume (wild form).

The *Laurus Cassia* of Linnæus has nothing to do botanically

with the *Cinnamomum Cassia*, Blume, of S.W. China, now known to be the source of the Cassia of commerce. The specimens in Hb. Hermann show Linnæus's species to be founded on two plants,—one the common wild form of the true Cinnamon, and the other a Laurineous tree, also called a wild Cinnamon by the natives, *Litsea zeylanica*, Nees. (See also Wight in Hook. Journ. Bot. 1840, p. 336.)

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| 147. Bauhinia tomentosa, Sp. 375. | B. tomentosa, L. |
| 148. Bauhinia acuminata, Sp. 375. | B. acuminata, L. |
| 149. Cassia Fistula, Sp. 377 | C. Fistula, L. |
| 150. Cassia Sophora, Sp. 379 | C. Sophora, L. |
| 151. Cassia auriculata, Sp. 379 . . . | C. auriculata, L. |
| 152. Cassia Tora, Sp. 376 | C. Tora, L. |
| 153. Cassia absus, Sp. 376 | C. absus, L. |
| 154. Cassia mimosoides, Sp. 379 . . | C. mimosoides, L. |
| 155. Guilandina Moringa, Sp. 381. | Moringa pterygosperma, Gaertn. |
| 156. Guilandina Bonducella, Sp. ed. { | Cæsalpinia Bonducella, Flem. |
| ii. 545 | |

C. Bonducella has not been recently recorded for Ceylon, though *C. Bonduc* is common.

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| 157. Cæsalpinia Crista, Sp. 380 | { Cæsalpinia Nuga, Ait. |
| (Guilandina Bonduc, Mant. ii. 378) | |
| 158. Cæsalpinia Sappan, Sp. 381 . . | C. Sappan, L. |
| 159. Poinciana pulcherrima, Sp. 380. | P. pulcherrima, L. |
| 160. Adenanthera pavonina, Sp. 384. | A. pavonina, L. |
| 161. Melia Azadirachta, Sp. 385 . . | Azadirachta indica, A. Juss. |
| 162. Melia Azedarach, β. semper-virens, Sp. 385 | { M. Azedarach, L. |
| 163. Sophora tomentosa, Sp. 373 . . | S. tomentosa, L. |
| 164. Sophora heptaphylla, Sp. 373. | { S. heptaphylla, L., and Derris sinuata, Benth. |
| 165. Anacardium occidentale, Sp. 383 | { A. occidentale, L. |
| 166. Cynometra cauliflora, Sp. 382. | No specimen. |
| 167. Cynometra ramiflora, Sp. 382. | No specimen. |

166 and 167. There are drawings referred to these numbers which are not determinable, and seem to have been partly made up from *Averrhoa*.

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| 168. Tribulus lanuginosus, Sp. 387. | T. terrestris, L. (drawing). |
| 169. Jussiaea repens, Sp. 388 | J. repens, L. |
| 170. Jussiaea erecta, Sp. 388 | J. suffruticosa, L., var. |
| 171. Melastoma malabathricum, Sp. 390 | { M. malabathricum, L. |
| 172. Melastoma aspera, Sp. 391 . . | Osbeckia aspera, Blume. |
| 173. Melastoma octandra, Sp. 391. | Osbeckia octandra, DC. |
| 174. Triumfetta Bartramia, Sp. ed. { | T. rhomboidea, Jacq. |
| ii. 638 | |

The name *T. Bartramia*, L., has been abandoned by botanists as apparently comprehending more than one species; but the present common Eastern weed is certainly that mainly intended by the author of the name.

175. *Schinus Limonia*, Sp. 389
 (*Limonia acidissima*, Sp. ed.
 ii. 554)..... } *Feronia Elephantum*, *Corr.*

The specimens are in leaf only, without flowers or fruit; but are sufficient to show that the plant is the common Wood-apple of Ceylon, *Feronia Elephantum*, the "Diwul" of the Singhalese, as rightly labelled by Hermann. But most of the synonyms given by Linnæus refer to some small-fruited species of Aurantiaceæ. The plant to which Linnæus's name has been generally applied is *L. crenulata*, Roxb., and does not occur in Ceylon. Roxburgh's name for this must stand instead of Linnæus's.

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| 176. <i>Bannisteria benghalensis</i> , Sp. 427 | } <i>Hiptage Madablota</i> , Gaertn. |
| 177. <i>Averrhoa Bilimbi</i> , Sp. 428. | |
| 178. <i>Averrhoa Carambola</i> , Sp. 428. | <i>A. Bilimbi</i> , sp. 428. |
| 179. <i>Averrhoa acida</i> , Sp. 428 | <i>A. Carambola</i> , <i>L.</i> |
| 180. <i>Oxalis sensitiva</i> , Sp. 434 | <i>A. Carambola</i> , <i>L.</i> , var. ? (<i>drawing</i>). |
| 181. <i>Rhizophora conjugata</i> , Sp. 443. | <i>Biophytum sensitivum</i> , <i>DC.</i> |
| | <i>Bruguiera gymnorrhiza</i> , <i>Lam.</i> |
| | (<i>drawing</i>). |

Hermann's figure is the whole foundation for Linnæus's *R. conjugata*, yet there can be no doubt that it is *Bruguiera gymnorrhiza*; but it would be very undesirable to change so long established a name. The specimens named *R. conjugata* in Linnæus's own herbarium are of some very different plant from either of these species.

182. *Myrtus zeylanica*, Sp. 472.... *Eugenia zeylanica*, *Wight*.
 183. *Myrtus caryophyllata*, Sp. 472. *Eugenia caryophyllæa*, *Wight*.
 184. *Myrtus androsæmoides*, Sp. 472. *Eugenia cordifolia*, *Wight*.
 185. *Myrtus Cumini*, Sp. 471 } *Eugenia Jambolana*, *Lam.* [see also
 139].

See the note on 139. The specimens not mixed up with this other number are in vol. i. fol. 45, and are *E. Jambolana*.

186. *Myrtus Pimenta*, Sp. 472 *No specimen.*
 187. *Eugenia malaccensis*, Sp. 470. *No specimen.*
 188. *Eugenia Jambos*, Sp. 470 *E. Jambos, L.*
 189. *Eugenia uniflora*, Sp. 470 *E. malaccensis, L., var. (drawing).*

E. uniflora of Linnæus is a curious mixture. Hermann's figures show a large-flowered species with usually solitary sessile flowers; apparently a slight variety of *E. malaccensis*. But

Linnæus quotes also Micheli's figure (Nov. Gen. t. 108) of the very different species from S. America, now semi-naturalized in parts of India, *E. Michelii*, Lam. Linnæus's name should be abandoned.

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| 190. <i>Eugenia acutangula</i> , Sp. 471.. | <i>Barringtonia acutangula</i> , Gaertn. |
| 191. <i>Eugenia racemosa</i> , Sp. 471 .. | } <i>Barringtonia racemosa</i> , Blume.
(drawing). |
| 192. <i>Psidium Guajava</i> , Sp. 470 .. | |
| 193. <i>Nymphæa Nelumbo</i> , Sp. 511. | <i>Nelumbium speciosum</i> , Willd. |
| 194. <i>Nymphæa Lotus</i> , Sp. 511.... | <i>N. Lotus</i> , L. |
| 195. <i>Cambogia Gutta</i> , Sp. ed. ii. 728 | } <i>Garcinia Morella</i> , Desr. (the drawing is <i>G. Cambogia</i> , Desr.). |

The specimens are leaves of the true Gamboge-tree, called "Gokatu" or "Kana-goraka" by the Singhalese, as rightly noted by Hermann, and the *G. Morella*, Desr. But the drawings show the common "Goraka," *G. Cambogia*, Desr., with its edible sulcate fruit. (See also Graham in Hook. Comp. Bot. Mag. ii. pp. 193-200.)

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| 196. <i>Euphorbia Tirucalli</i> , Sp. 452.. | <i>No specimen.</i> |
| 197. <i>Euphorbia hirta</i> , Sp. 454 | <i>E. hirta</i> , L. |
| 198. <i>Euphorbia thymifolia</i> , Sp. 454. | <i>E. thymifolia</i> , L. |
| 199. <i>Euphorbia antiquorum</i> , Sp. | } <i>No specimen.</i> |
| 450 | |
| 200. <i>Euphorbia nerifolia</i> , Sp. 451.. | <i>No specimen.</i> |
| 201. <i>Calophyllum Inophyllum</i> , Sp. | } <i>C. Inophyllum</i> , L. |
| 513 | |
| 202. <i>Calophyllum Calaba</i> , Sp. 514. | <i>C. Burmanni</i> , Wight. |

The name *C. Calaba* has been generally abandoned for this Eastern species, to which it originally belongs, in consequence of Jacquin having figured in 1763 (Hist. Select. Strip. Amer. t. 165) as Linnæus's species the Martinique plant, to which Plumier first gave the generic name *Calaba*, taken from the Caribbee name. Linnæus (Sp. Plant. ed. ii. 732) accepted Jacquin's determination, and hence makes his own species to include both the E. and W.-Indian plants. The name should not be maintained for either.

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| 203. <i>Mesua ferrea</i> , Sp. 515 | <i>M. ferrea</i> , L. |
| 204. <i>Vateria indica</i> , Sp. 515 | <i>No specimen?</i> |

Dryander has doubtfully referred to this some leaves in the Herbarium, vol. iv. fol. 27. These are certainly not *Vateria*, but possibly *Pericopsis Mooniana*. The specimen referred to by Linnæus "in tomo quarto" may possibly be the leaves at fol. 36, which appear to be those of some Dipterocarp, though not *Vateria*. (See also Dyer in Fl. Brit. India, i. p. 313.)

205. *Delima sarmentosa*, Sp. ed. ii. }
 736 } *D. sarmentosa*, L.
 206. *Elæocarpus serrata*, Sp. 515 .. *E. serratus*, L.

The 'Flora of Brit. India' (i. p. 401) does not give *E. serratus*, L., as a Ceylon species, and refers (p. 402) Thwaites's specimens to *E. cuneatus*, Wight. I look upon the latter as a slight variety of *E. serratus* merely. Hermann's six specimens of the "Weralu," a very common little tree the fruit of which is known as "Wild Olives" by the English, show the usual variety in form of the leaves—oval, or obovate-oval, or oblong-lanceolate.

207. *Microcos paniculata*, Sp. 514 }
 (*Grewia Microcos*, Syst. ed. } *Grewia Microcos*, L.
 xii. 602) }
 208. *Microcos lateriflora*, Sp. 514 }
 (*Grewia asiatica*, Mant. i. 122.) } *Grewia asiatica*, L.
 209. *Ochna Jabotapita*, Sp. 513 }
 (*O. squarrosa*, Sp. ii. 731) .. } *O. squarrosa*, L.
 210. *Capparis zeylanica*, Sp. ii. 720. } *C. zeylanica*, L., and *C. horrida*,
 L. f.
 211. *Cratæva Tapia*, Sp. 444 (? *drawing*).

Linnaeus says this is among Hermann's drawings; but I cannot trace it there.

212. *Cratæva Marmelos*, Sp. 444 .. *Ægle Marmelos*, *Corr.* (*drawing*).
 213. *Corchorus olitorius*, Sp. 529 .. *C. acutangulus*, *Lam.*

It is remarkable that all the specimens are *C. acutangulus*; but Linnaeus no doubt included this under *C. olitorius* as one species.

214. *Corchorus capsularis*, Sp. 529. *C. capsularis*, L. (*drawing*).
 215. *Mimosa cinerea*, Sp. 520 *Dichrostachys cinerea*, *Wight & Arn.*
 216. *Mimosa pennata*, Sp. 522 *Acacia pennata*, *Willd.*
 217. *Mimosa cæsia*, Sp. 522 *Acacia cæsia*, *Willd.*
 218. *Mimosa bigemina*, Sp. 517 .. *Pithecolobium bigeminum*, *Benth.*
 219. *Mimosa Entada*, Sp. 518 *Entada scandens*, *Benth.*
 220. *Bombax pentandrum*, Sp. 511. *No specimen.*
 221. *Bombax Ceiba*, Sp. 511 *No specimen.*
 222. *Bombax religiosa*, Sp. 512 }
 (*B. gossypinum*, Syst. ed. } *Cochlospermum Gossypium*, *DC.*
 xii. 457) }
 223. *Stratiotes alismoides*, Sp. 535. *No specimen.*
 224. *Uvaria zeylanica*, Sp. 536 *U. zeylanica*, L.
 225. *Anona asiatica*, Sp. 537 *Anona squamosa*, L. (*drawing*).

There is no *Anona* native in Asia. Hermann's drawings represent the Custard-apple, *A. squamosa*; but the name "*Anon. sylvestris*, &c." and the native name given in Mus. Zeyl. p. 59 are to be referred to *Morinda citrifolia*. The confusion of the two plants has arisen from the outward similarity of their fruits. A

twig with leaves in the herbarium (vol. iv. fol. 80) appears to be the original of Linnæus's description, though numbered by him 224; and is probably *A. squamosa*.

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| 226. <i>Atragene zeylanica</i> , Sp. 542 .. | <i>Naravelia zeylanica</i> , DC. |
| 227. <i>Phlomis zeylanica</i> , Sp. 586 .. | <i>Leucas zeylanica</i> , R. Br. |
| 228. <i>Ocymum frutescens</i> , Sp. 597 | } <i>Pogostemon Heyneanus</i> , Benth. |
| (<i>Mentha perilloides</i> , Syst. ed. xii. 736) | |

Linnæus's *Ocymum frutescens* has been erroneously referred, in Fl. Brit. Ind. iv. p. 646, to *Perilla ocymoides*, L., and his *Mentha perilloides* by Benthams (DC. Prod. xii. p. 127) to *Hyptis pectinata*, Poir.; neither of these is a Ceylon plant. Hermann's specimens are the wild Patchouli plant, "Gaṅ-kollaṅ-kola" of the Singhalese, *Pogostemon Heyneanus*, Benth. Moon (Cat. Ceylon Plants, p. 44) rightly refers *Mentha perilloides* to this plant.

229. *Ocymum menthoides*, Sp. 598. *Geniosporum prostratum*, Benth.

The *Ocymum menthoides* of Linnæus has also been often misunderstood. The form of *Geniosporum prostratum* with a slender erect stem is that especially intended by him, as is seen by his description in Fl. Zeyl., and his reference to Burman's excellent figure in Thes. Zeyl. t. 70. fig. 2*. This same little form is again figured in N. Burman's Fl. Indica, t. 39. fig. 1, under the name of *Rhinanthus indica*; but is very different from Linnæus's plant of the same name, for which see no. 238.

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| 230. <i>Gmelina asiatica</i> , Sp. 626 | <i>Gmelina asiatica</i> , L. |
| 231. <i>Volkameria inermis</i> , Sp. 637 .. | <i>Clerodendrum inerme</i> , R. Br. |
| 232. <i>Clerodendrum infortunatum</i> , Sp. 637 | } <i>C. infortunatum</i> , L. |
| | |
| 233. <i>Barleria Prionitis</i> , Sp. 636 | <i>B. Prionitis</i> , L. |
| 234. <i>Ruellia ringens</i> , Sp. 635 | <i>R. ringens</i> , L. |
| 235. <i>Ruellia antipoda</i> , Sp. 635 | <i>Bonnaya veronicaefolia</i> , Spreng. |

Linnæus referred to this also a plant from Barbadoes figured by Plukenet; whence his specific name.

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| 236. <i>Bignonia indica</i> , Sp. 603 | <i>Oroxylum indica</i> , Vent. (drawing). |
| 237. <i>Sesamum orientale</i> , Sp. 634 .. | <i>No specimen</i> . |
| 238. <i>Rhinanthus indica</i> , Sp. 603 .. | <i>Centranthera procumbens</i> , Benth. |

This name of Linnæus's is quoted for *Geniosporum elongatum* in Fl. Brit. Ind. iv. p. 610; but the specimens are *Centranthera procumbens*, and Linnæus's description is very good for that plant.

* But Benthams, who saw Burman's specimen, says it is *G. elongatum* (DC. Prod. xii. p. 45); and the figure is therefore quoted under that species in Fl. Brit. Ind.

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| 239. <i>Cleome gynandra</i> , Sp. 671 .. | <i>Gynandropsis pentaphylla</i> , DC. |
| 240. <i>Cleome icosandra</i> , Sp. 672 .. | <i>No specimen.</i> |
| 241. <i>Cleome viscosa</i> , Sp. 672 | <i>C. viscosa</i> , L. |
| 242. <i>Cleome dodecandra</i> , Sp. 672.. | <i>C. viscosa</i> , L., var. (<i>drawing</i>). |
| 243. <i>Cleome monophylla</i> , Sp. 672. | <i>C. monophylla</i> , L. |
| 244. <i>Waltheria indica</i> , Sp. 673 | <i>W. indica</i> , L. |
| 245. <i>Melochia pyramidata</i> , Sp. 674. | <i>No specimen.</i> |
| 246. <i>Melochia corchorifolia</i> , Sp. 675 | <i>No specimen.</i> |
| 247. <i>Melochia concatenata</i> , Sp. 675 | <i>M. corchorifolia</i> , L., var. |
| 248. <i>Connarus monocarpus</i> , Sp. 675 | <i>C. monocarpus</i> , L. |
| 249. <i>Hugonia Mystax</i> , Sp. 677 | { <i>H. Mystax</i> , L., and <i>Ancistrocladus</i>
<i>VahlII</i> , Arn. |
| 250. <i>Pentapetes suberifolia</i> , Sp. 698 | <i>Pterospermum suberifolium</i> , Lam. |
| 251. <i>Sida periplocifolia</i> , Sp. 684 .. | <i>Wissadula zeylanica</i> , Med. |
| 252. <i>Sida rhombifolia</i> , Sp. 684 | <i>S. rhombifolia</i> , L. |
| 253. <i>Sida alnifolia</i> , Sp. 684 | { <i>S. rhombifolia</i> , L., var. ?, and <i>S. cor-</i>
<i>difolia</i> , L. |

The specimens are very indifferent.

254. *Sida spinosa*, sp. 683..... *S. spinosa*, *L.*
255. *Malva tomentosa*, sp. 687.... *Sida cordifolia*, *L. (drawing).*

This is indeterminable; for though the drawing probably represents *Sida cordifolia*, the specimen (vol. iv. fol. 3) appears to be a fragment without flowers of some Labiate plant.

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| 256. <i>Urena lobata</i> , Sp. 692 | <i>U. lobata</i> , <i>L.</i> |
| 257. <i>Urena sinuata</i> , Sp. 692 | <i>U. sinuata</i> , <i>L.</i> |
| 258. <i>Hibiscus populneus</i> , Sp. 694 .. | <i>Thespesia populnea</i> , <i>Corr.</i> |
| 259. <i>Hibiscus tiliaceus</i> , Sp. 694 .. | <i>H. tiliaceus</i> , <i>L.</i> |
| 260. <i>Hibiscus Rosa-sinensis</i> , Sp. 694 | <i>H. Rosa-sinensis</i> , <i>L.</i> |
| 261. <i>Hibiscus Abelmoschus</i> , Sp. 696 | <i>H. Abelmoschus</i> , <i>L. (drawing).</i> |
| 262. <i>Hibiscus Sabdariffa</i> , Sp. 695 .. | <i>No specimen.</i> |
| 263. <i>Hibiscus ficulneus</i> , Sp. 695 .. | <i>No specimen.</i> |
| 264. <i>Hibiscus Sabdariffa</i> , β , Sp. 695 | <i>H. surattensis</i> , <i>L.</i> |
| 265. <i>Hibiscus vitifolius</i> , Sp. 696 .. | <i>H. vitifolius</i> , <i>L.</i> |
| 266. <i>Hibiscus zeylanicus</i> , Sp. 697. | <i>Pavonia odorata</i> , <i>Willd.</i> |

Hermann's specimen is certainly *P. odorata*, Willd., and not *P. zeylanica*, Cav., as generally named.

267. *Not named* *Gossypium herbaceum*, *L.*
268. *Polygala ciliata*, Sp. 705 *Salomonina oblongifolia*, *DC.*

The specimens quite correspond with *S. oblongifolia*, DC., having oblong-oval leaves, very slightly cordate at the base, and with a few large marginal bristles. As mentioned by Mr. W. Ferguson in Thw. Enum. Pl. Zeyl. p. 22, they agree with C. P. 1086. In Fl. Brit. Ind. (i. p. 207), however, these same specimens are said to be identical with Arnott's *S. cordata*, which has broader leaves, and is C. P. 2906. But I think these are scarcely more than varieties of one species.

269. *Polygala triflora*, Sp. 705 *P. glaucoides*, L., var.

P. triflora, L., is considered a variety of *P. chinensis* in Fl. Brit. Ind. i. p. 204; but it has very short racemes, and is better placed as a variety under *P. glaucoides*, L. It agrees with Thwaites's *P. arvensis*, var. β (Enum. p 400), which is C. P. 1083, and *P. glaucoides*, var. 2, of the Fl. Brit. Ind.

270. *Polygala glaucoides*, Sp. 705. *P. glaucoides*, L.
 271. *Aspalathus indica*, Sp. 712 .. *Indigofera aspalathoides*, Vahl.
 272. *Indigofera hirsuta*, Sp. 751 .. *I. hirsuta*, L.
 273. *Indigofera tinctoria*, Sp. 751. *I. tinctoria*, L.
 274. *Indigofera glabra*, Sp. 751 .. *I. pentaphylla*, L.

The leaves are hairy. This seems quite the same as *I. pentaphylla*, L., which is a later name.

275. *Erythrina Corallodendrum*, sp. { *E. indica*, Lam. (drawing).
 706 }

Linnaeus's *E. Corallodendrum* includes more than one species, and cannot be maintained.

276. *Crotalaria retusa*, Sp. 715 *C. retusa*, L.
 277. *Crotalaria verrucosa*, Sp. 715. *C. verrucosa*, L.
 278. *Crotalaria laburnifolia*, Sp. 715 *C. laburnifolia*, L.
 279. *Cytisus Cajan*, Sp. 739 *Cajanus indicus*, Spreng.
 280. *Phaseolus Max*, Sp. 725 *P. Max*, L.
 281. *Phaseolus radiatus*, Sp. 725 .. *No specimen*.
 282. *Dolichos scarabæoides*, Sp. 726 *Atylosia scarabæoides*, Benth.
 283. *Clitoria ternatea*, Sp. 753 *C. ternatea*, L.
 284. *Glycine Abrus*, Sp. 753 (*Abrus* { *Abrus precatorius*, L.
 precatorius, Syst. ed. xii. 472) }
 285. *Trigonella indica*, Sp. 778 .. *Rothia trifoliata*, Pers.
 286. *Hedysarum triquetrum*, Sp. { *Desmodium triquetrum*, DC.
 746 }
 287. *Hedysarum vaginale*, Sp. 746. *Alysicarpus vaginalis*, DC.
 288. *Hedysarum nummularifolium*, { *Indigofera echinata*, Willd.
 Sp. 746 }
 289. *Hedysarum strobiliferum*, Sp. { *Flemingia strobilifera*, R. Br.
 746 }
 290. *Hedysarum maculatum*, Sp. { *No specimen*.
 746 }
 291. *Hedysarum diphyllum*, Sp. { *Zornia diphylla*, Pers.
 747 }
 292. *Hedysarum pulchellum*, Sp. { *Desmodium pulchellum*, Benth.
 747 }
 293. *Hedysarum umbellatum*, Sp. { *Desmodium umbellatum*, DC.
 747 }
 294. *Hedysarum heterocarpum*, Sp. { *Desmodium heterocarpum*, DC.
 747 } (*D. polycarpon*, DC.).
 295. *Hedysarum viscidum*, Sp. 747. *Pseudarthria viscida*, Wight & Arn.
 296. *Hedysarum biarticulatum*, Sp. { *Desmodium biarticulatum*, Benth.
 747 }

297. *Hedysarum triflorum*, Sp. 747 *Desmodium triflorum*, DC.
 298. *Æschynomene aspera*, Sp. 713 *A. aspera*, L.
 299. *Cracca villosa*, Sp. 752 *Tephrosia villosa*, Pers.
 300. *Cracca maxima*, Sp. 752 *Tephrosia purpurea*, Pers., var.
 301. *Cracca purpurea*, Sp. 752 *Tephrosia purpurea*, Pers.
 302. *Cracca tinctoria*, Sp. 752 *Tephrosia tinctoria*, Pers.
 303. *Cracca senticosa*, Sp. 752 *Tephrosia senticosa*, Pers.

Hermann's are the only specimens of this species I have seen from Ceylon; nor did Thwaites ever meet with it. The pods are only sparingly pilose, much less so than in *T. pentaphylla*, Grah., from Burma. (See also Wight and Arnott, Prod. Fl. Ind. Or. p. 212). One of Hermann's specimens consists of leaves only, very luxuriant, and looking as if from a cultivated plant.

304. *Citrus Aurantium*, Sp. 782 .. *No specimen*.
 305. *Cacalia sonchifolia*, Sp. 835 .. *Emilia sonchifolia*, DC.
 306. *Eupatorium zeylanicum*, Sp. {
 837 } *Vernonia zeylanica*, Less.
 307. *Gnaphalium indicum*, Sp. 852 *Amphidoxa gnaphalodes*, DC.

This is the other case in which Linnæus has taken a Cape plant for a Ceylon one. The specimens are *Amphidoxa gnaphalodes*, DC.; but Linnæus has added a reference to a figure of a Madras plant in Plukenet (t. 187. fig. 5), which may perhaps represent the plant now universally called *Gnaphalium indicum*. Subsequently he seems to have discovered that Hermann's specimens were from the Cape, as he adds in Sp. Plant. ii. p. 1200, "Cap. B. Spei," where *G. indicum*, auct., however, does not occur. It would thus seem that this common Eastern tropical weed cannot retain the name by which it has been so long known, as there is no reason to suppose it to be the *G. indicum* intended by Linnæus*. This weed, *G. indicum*, auct. (*non* L.), is a very recent introduction to Ceylon; Thwaites remarks (Enum. p. 422) that he had never seen it; and I doubt if it were to be found much before 1882, when I first noticed it. It had then become a noticeable weed in some of the coffee-estates in the hills, and went among the planters by the inappropriate name of "Wild Mignonette." Since then it has rapidly spread in the estates.

308. *Verbesina pseudo-Acmella*, Sp. {
 901 (*Spilanthus pseudo-Ac-* } *Wedelia biflora*, DC.?
 mella, Syst. ed. xiii. 610) .. }
 309. *Verbesina Acmella*, Sp. 901 {
 (*Spilanthus Acmella*, Syst. } *Blainvillea latifolia*, DC.
 ed. xiii. 610) } (*The drawing S. Acmella*, L.).

* There is no specimen of *G. indicum*, L., in Linnæus's own herbarium.

308 and 309. Both these species of Linnæus have been usually referred to *Spilanthus Acmea*, L.; but neither of Hermann's specimens are of that plant. The drawing, however, of 309 represents *S. Acmea*; and the figure of Plukenet's quoted is also for that plant, which, in spite of the specimens, is probably what was intended. But 308, *V. pseudo-Acmea*, is almost certainly young *Wedelia biflora*; and with this species Plukenet's figure quoted by Linnæus also corresponds.

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| 310. <i>Verbesina Lavenia</i> , Sp. 902 .. | <i>Adenostemma viscosum</i> , Forst. |
| 311. <i>Verbesina calendulacea</i> , Sp. 902 .. | { <i>Wedelia calendulacea</i> , Less. |
| 312. <i>Sphæranthus indicus</i> , Sp. 927 .. | |
| 313. <i>Lobelia Plumieri</i> , Sp. 929 .. | <i>Scævola Koenigii</i> , Vahl (drawing). |
| 314. <i>Impatiens oppositifolia</i> , Sp. 937 .. | { <i>I. oppositifolia</i> , L. |
| 315. <i>Impatiens triflora</i> , Sp. 938 .. | |
| 316. <i>Impatiens cornuta</i> , Sp. 937 .. | <i>I. Balsamina</i> , L., var. |

I. cornuta, L., seems a well-marked variety at least of *I. Balsamina*, and is quite wild in Ceylon. The leaves are lanceolate and attenuate at the base, and the spur of the rather small flower is very long and slender. Linnæus gives a good description of Hermann's specimens, and quotes with approval the excellent figure in Thes. Zeylan. t. 16. f. 1.

317. *Viola enneasperma*, Sp. 937 .. *Ionidium suffruticosum*, Ging., var.

This is a diffuse form merely of *I. suffruticosum* with the leaves nearly entire.

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| 318. <i>Viola suffruticosa</i> , Sp. 937 .. | <i>Ionidium suffruticosum</i> , Ging. |
| 319. <i>Orchis strateumatica</i> , Sp. 943 .. | <i>Zeuxine sulcata</i> , Lindl. |
| 320. <i>Orchis cubitalis</i> , Sp. 940 | <i>Habenaria cubitalis</i> , R. Br. |
| 321. <i>Nepenthes distillatoria</i> , Sp. 955 .. | { <i>N. distillatoria</i> , L. |
| 322. <i>Pistia Stratiotes</i> , Sp. 963 | |
| 323. <i>Aristolochia indica</i> , Sp. 960 .. | <i>A. indica</i> , L. |
| 324. <i>Grewia orientalis</i> , Sp. 964 | <i>G. orientalis</i> , L. |
| 325. <i>Arum divaricatum</i> , Sp. 966 .. | No specimen. |
| 326. <i>Arum trilobatum</i> , Sp. 965 | <i>Typhonium trilobatum</i> , Schott. |
| 327. <i>Arum macrorrhizum</i> , Sp. 965 .. | { <i>Alocasia macrorrhiza</i> , Schott.
(drawing). |
| 328. <i>Dracontium spinosum</i> , Sp. 967 .. | |
| 329. <i>Pothos scandens</i> , Sp. 968 | <i>P. scandens</i> , L. |
| 330. <i>Coix Lacryma-Jobi</i> , Sp. 972 .. | <i>Coix Lacryma</i> , L. |
| 331. <i>Phyllanthus Niruri</i> , Sp. 981 .. | <i>P. Niruri</i> , L. (drawing). |
| 332. <i>Phyllanthus urinaria</i> , Sp. 982 .. | <i>P. urinaria</i> , L. |
| 333. <i>Phyllanthus Emblica</i> , Sp. 982 .. | <i>P. distichus</i> , Müll. Arg. (drawing.) |

There is no specimen. The plant figured is not the wild "Nelli" of Ceylon, *P. Emblica*, but the cultivated *P. distichus* (*Cicca disticha*).

scabrella. Cogniaux (Mon. Cucurb. p. 623) calls this species *Melothria maderaspatana*.

357. *Antidesma Alexiteria*, Sp. 1027 { *A. Bunius*, Spreng., *A. zeylanicum*,
Lam., and *A. Ghæsambilla*,
Gaertn.

As shown by the numerous specimens in the herbarium, the name *A. Alexiteria*, L., cannot rightly be restricted to *A. zeylanicum*, Lam., as I have applied it in 'Cat. Plants Ceylon,' p. 81.

358. *Dioscorea sativa*, Sp. 1033 .. *Tinospora cordifolia*, Miers.

Linnæus must have been well acquainted with *D. sativa*; and his reference to it of these specimens of the very different "*Rasakinda*," *Tinospora cordifolia*, must be regarded as an inadvertence.

359. *Dioscorea bulbifera*, Sp. 1033. No specimen.

360. *Dioscorea alata*, Sp. 1033 *D. alata*, L. ?

Only leaves represent this; and I cannot feel sure of their identification with *D. alata*, which is a cultivated Yam in Ceylon.

361. *Dioscorea oppositifolia*, Sp. { *D. oppositifolia*, L.
1033

362. Not named *Cyclea Burmanni*, Miers.

In the 'Flora Zeylanica' this is referred from its facies to *Dioscorea*; but it was not taken up by Linnæus in his subsequent works under that or any other genus.

363. *Dioscorea pentaphylla*, Sp. { *D. pentaphylla*, L. (drawing).
1032

364. *Smilax zeylanica*, Sp. 1029 .. *S. zeylanica*, L.

365. *Carica Papaya*, Sp. 1036 No specimen.

366. *Clutia Eluteria*, Sp. 1042 No specimen.

367. *Clutia retusa*, Sp. 1042 *Bridelia retusa*, Spreng.

368. *Musa paradisiaca*, Sp. 1043 .. *M. paradisiaca*, L.

369. *Celtis orientalis*, Sp. 1044 *Trema orientalis* (L.).

370. Not named No specimen.

371. *Parietaria zeylanica*, Sp. 1052 { *Pouzolzia zeylanica*, Gaud., var.
(*Urtica alienata*, Syst. ed. xii.
622)

The *Urtica alienata* of Linn. is rightly regarded by Weddell as a variety only of *Pouzolzia indica*; it is the *P. zeylanica*, J. J. Benn. (Pl. Jav. Rar. p. 67), who quotes Hermann's specimen.

372. *Ficus religiosa*, Sp. 1059 *F. religiosa*, L.

373. *Osmunda zeylanica*, Sp. 1063. { *Helminthostachys zeylanica*, Hook.
(drawing).

374. *Ophioglossum scandens*, Sp. { *Lygodium scandens*, Sw.
1063

375. *Ophioglossum flexuosum*, Sp. { *Lygodium flexuosum*, Sw.
1063

376. *Acrostichum siliquosum*, Sp. } *Ceratopteris thalictroides*, Brong.
 1070

This is nothing more than a starved specimen of 377 with good fructification.

377. *Acrostichum thalictroides*, Sp. } *Ceratopteris thalictroides*, Brong.
 1070
 378. *Acrostichum heterophyllum*, } *Drymoglossum heterophyllum* (L.)*
 Sp. 1067 } (D. piloselloides, Presl).
 379. *Acrostichum digitatum*, Sp. } *Schizæa digitata*, Sw.
 1068
 380. *Acrostichum lanceolatum*, Sp. } *Niphobolus lanceolatus* (L.)* (Poly-
 1067 } podium adnascens, Sw.).
 381. *Adiantum caudatum*, Mant. } *A. caudatum*, L.
 308
 382. *Polypodium quercifolium*, Sp. } *P. quercifolium*, L.
 1087
 383. *Polypodium auriculatum*, Sp. } *Nephrolepis cordifolia*, Presl.
 1088

As this is the type of *P. auriculatum*, L., the name *Nephrolepis auriculata* should, in accordance with the principles which are held to govern the nomenclature of Ferns, take the place of *N. cordifolia*. Linnæus's plant has generally been taken to be *Polystichum auriculatum*, Presl, which perhaps Burman's wretched figure quoted by Linnæus may represent.

384. *Polypodium Speluncæ*, Sp. } *Microlepis Speluncæ*, Moore.
 1093
 385. *Trichomanes adiantoides*, Sp. } *Asplenium falcatum*, Lam. ?
 1099

The determination of this is somewhat doubtful ; the specimen is without fructification.

386. *Lycopodium Phlegmaria*, Sp. } *L. Phlegmaria*, L.
 1101
 387. *Lycopodium cernuum*, Sp. } *L. cernuum*, L.
 1103
 388. *Lycopodium ornithopodioides*, } *Selaginella ornithopodioides* (L.)*
 Sp. 1105 } (S. integerrima, Spring).

Hermann's plant is the very common little species in the South of Ceylon, which Baker (Journ. Bot. xxii. p. 88) refers to *S. integerrima*, Spring, adding that it is the *L. ornithopodioides* of the Linnean herbarium. I think it should keep this latter specific name, though Linnæus has confused his species by quoting for it the figure in Dillenius's 'Hist. Musc.,' which that writer considered to be Hermann's Ceylon plant, but which repre-

* It is customary in Fern-nomenclature to retain the earliest specific name under whatever genus it may have been published.

sents a different species*. Baker (*l. c.* xxi. p. 46), however, retains the name *S. ornithopodioides* for this latter species, as was done by Spring also.

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| 389. <i>Fucus natans</i> , Sp. 1160..... | <i>Sargassum polyphyllum</i> , Turn. |
| 390. <i>Phoenix dactylifera</i> , Sp. 1188. | <i>No specimen.</i> |
| 391. <i>Cocos nucifera</i> , Sp. 1188 | <i>C. nucifera</i> , L. (<i>drawing</i>). |
| 392. <i>Areca Cathecu</i> , Sp. 1189 | <i>Areca Catechu</i> , L. (<i>drawing</i>). |
| 393. <i>Cycas circinalis</i> , Sp. 1188 | <i>Cycas circinalis</i> , L. (<i>drawing</i>). |
| 394. <i>Corypha umbraculifera</i> , Sp. 1187 | { <i>No specimen.</i> |
| 395. <i>Borassus flabellifer</i> , Sp. 1187
(<i>B. flabelliformis</i> , Syst. Veg. ed. xiii. 829) | |
| 396. <i>Caryota urens</i> , Sp. 1189 | <i>Caryota urens</i> , L. (<i>drawing</i>). |
| 397. <i>Elate sylvestris</i> , Sp. 1189 | <i>No specimen.</i> |

Obscuræ.

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| 398. <i>Ophioxylon serpentinum</i> , Sp. 1043..... | { <i>O. serpentinum</i> , L. |
| 399. <i>Verbena nodiflora</i> , Sp. 21.... | |
| 400. <i>Knoxia zeylanica</i> , Sp. 105 .. | <i>Lippia nodiflora</i> , Rich. (<i>drawing</i>). |
| 401. <i>Cyclamen indicum</i> , Sp. 145 .. | <i>K. zeylanica</i> , L. |
| | <i>Cyclamen?</i> (<i>drawing</i>). |

I can make nothing of this extraordinary drawing, which appears to have puzzled Linnæus, who, however, gives a description of it. It seems to be a *Cyclamen*, and the native name "Urula," given by Hermann, which would mean "Pig's Yam," may be compared with the English name "Sow-bread." It may have been grown in some Dutchman's garden.

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| 402. <i>Ophiorhiza Mungos</i> , Sp. 150. | <i>O. Mungos</i> , L. |
| 403. <i>Ribesioides</i> † | <i>Embelia Ribes</i> , Burm. |
| 404. <i>Apocyno-nerium</i> | <i>Hunteria corymbosa</i> , Roxb. |
| 405. <i>Jasmino-nerium</i> | <i>Carissa spinarum</i> , L. |
| 406. <i>Phantis</i> | <i>Atalantia racemosa</i> , Wight & Arn.? |
| 407. <i>Bannisterioides</i> | <i>Xanthophyllum flavescens</i> , Roxb. |
| 408. <i>Santaloides</i> | <i>Rourea santaloides</i> , Wight & Arn. |
| 409. <i>Eugenioides</i> | <i>Symplocos spicata</i> , Roxb. |
| 410. <i>Rhamnicastrum</i> | <i>Scolopia Gærtneri</i> , Thw. |
| 411. <i>Mentha auricularia</i> , Mant. 81. | <i>Dysophylla auricularia</i> , Blume. |
| 412. <i>Stæchado-mentha</i> | <i>Adenosma camphoratum</i> , Hook. f. |
| 413. <i>Vitex trifolia</i> , Sp. 638 | <i>No specimen.</i> |
| 414. <i>Vitex Negundo</i> , Sp. 638 | <i>No specimen.</i> |
| 415. <i>Vitex pinnata</i> , Sp. 638 | <i>Vitex altissima</i> , L. f., var. |

V. pinnata, L. seems but a variety of *V. altissima*, with densely

* As Sir J. E. Smith determined by consulting Dillenius's own specimen at Oxford. (See his MS. note in Linnæus's own herbarium.)

† The names to which no reference is attached are those of the 'Flora Zeylanica' itself, not taken up by Linnæus in his subsequent systematic works.

tomentose-pubescent leaves. The name is not taken up in Fl. Brit. Ind., but its equivalent in Fl. Zeylanica, "*Pistacio-vitex*," is quoted there (iv. p. 585) under *V. pubescens*, Vahl. If this be correct and the species maintained, *V. pinnata*, L., must supersede Vahl's name, and indeed *V. altissima*, L. f., also.

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| 416. <i>Premna serratifolia</i> , Mant. ii. 253 | { <i>P. serratifolia</i> , L. |
| 417. <i>Pterocarpus</i> | |
| 418. <i>Conyza anthelmintica</i> , Sp. ed. ii. 1207 | { <i>Derris uliginosa</i> , Benth. |
| 419. <i>Conyza cinerea</i> , Sp. 863 | |
| 420. <i>Erigeroides</i> | { <i>Vernonia anthelmintica</i> , Willd. |
| 421. <i>Chrysanthemum indicum</i> , Sp. 889 | |
| 422. <i>Dracunculus</i> | { <i>Vernonia cinerea</i> , Less. |
| 423. <i>Hernandia Sonora</i> , Sp. 981 .. | |
| 424. <i>Filix</i> | { <i>Epaltes divaricata</i> , Cass. |
| 425. <i>Filix</i> | |
| 426. <i>Filix</i> | { <i>C. indicum</i> , L. |
| 427. <i>Polypodium unitum</i> , Sp. ed. ii. 1548 | |
| 428. <i>Filix</i> | { <i>Amorphophallus campanulatus</i> , Bl. |
| 429. <i>Filix</i> | |
| | { <i>H. peltata</i> , Meissn. (drawing). |
| | |
| | { <i>Pteris ensiformis</i> , Burm. |
| | |
| | { <i>Stenochlæna palustre</i> (Burm.). |
| | |
| | { <i>Nephrolepis acuta</i> , Presl? |
| | |
| | { <i>Nephrodium unitum</i> , Schott. |
| | |
| | { <i>Pteris quadriaurita</i> , Retz. |
| | |
| | { <i>Gleichenia linearis</i> , C. B. Clarke. |
| | |

Dubiæ.

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|-----------------------------------|---|
| 430. <i>Highulhænda</i> | <i>Maba buxifolia</i> , Pers. |
| 431. <i>Kaluhaburunghos</i> | <i>Cleistanthus acuminatus</i> , Müll. Arg. |
| 432. <i>Nelughas</i> | <i>Mallotus fuscescens</i> , Müll. Arg. |
| 433. <i>Samandura</i> | <i>Samadera indica</i> , Gaertn. |
| 434. <i>Gædawaka</i> | <i>Chaetocarpus castanocarpus</i> , Thw. |
| 435. <i>Mindela</i> | <i>Barringtonia racemosa</i> , Blume? |
| 436. <i>Hibiscoides</i> | <i>Coscinium fenestratum</i> , Colebr. |
| 437. <i>Euonymoides</i> | <i>Gymnosporia emarginata</i> , Roth. |
| 438. <i>Oxycoccoides</i> | <i>Ficus diversiformis</i> , Miq. |

The specimen consists of the creeping stems with small leaves such as are found clinging to rocks abundantly; this state bears a considerable outward resemblance to the Cranberry, which accounts for Linnæus's temporary name.

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| 439. <i>Wælmedya</i> | <i>Hippocratea indica</i> , Willd. |
| 440. <i>Pedalium Murex</i> , Sp. ed. ii. 829. | <i>P. Murex</i> , L. (drawing). |
| 441. <i>Rhus Cobbe</i> , Sp. 267 | <i>Allophylus Cobbe</i> , Blume. |
| 442. <i>Panaghas</i> | <i>Aglaia Roxburghiana</i> , Miq. |
| 443. <i>Jurighas</i> | <i>Filicium decipiens</i> , Thw. |

Barbaræ.

These are numbered 444 to 573. Of none are there specimens in Hermann's herbarium except of:—

- | | |
|--------------------------|----------------------------|
| 499. <i>Oxalis</i> | <i>O. corniculata</i> , L. |
|--------------------------|----------------------------|



Trimen, Henry. 1888. "Hermann's Ceylon herbarium and Linnæus's 'Flora Zeylandica.'" *The Journal of the Linnean Society. Botany* 24, 129–155.

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