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## The date of the Linnaean index in John Martyn's Historia plantarum rariorum

Ian MacPhail and William J. Hess

THE EARLIEST printed work in Soulsby's Catalogue of the works of Linnaeus in the British Museum, ed. 2 (London, 1933) bears the date 1728, in which year Linnaeus was a young man of twenty-one preparing to go up to Uppsala University. The work is not of course by Linnaeus, but it was included by Soulsby because it contains an "Index Linnaeanus" (Fig. 1). It is John Martyn's Historia plantarum rariorum (Soulsby 621), published, according to the title page, in London in 1728, but in fact originally published in five "decades" or parts over the years 1728 through 1737.

To quote Soulsby's annotation, "The Preface is dated: Dabam Londini, Martii 25°, 1728. The Index is printed on the *verso* of the last page of the Preface: Index Linnaeanus. [With a footnote:] Cum tabulae careant numeris, cel. Linnaeus citat paginas hujusce operis. The last Decade (no. 5) was issued in 1737, but in either case this seems to be the first English Botanical work to give a Linnaean index. This state of Dec. 1

appears to be unique."

Soulsby was mistaken in believing that the British Museum copy was unique, but what is quite extraordinary is that he did not see the manifest impossibility of a work ostensibly published no later than 1737 having a Linnaean binomial index.

Our interest in this work was aroused when we acquired a copy for the Sterling Morton Library in 1975 and found it to contain the Linnaean index as described by Soulsby. We now know of five copies that contain this index. They are as follows:

1. The British Museum (Natural History) copy, already described. This copy was acquired, as the Addenda and Corrigenda to Soulsby's catalogue make clear, from the library of George Spencer, afterwards Spencer-Churchill, 5th Duke of Marlborough (1766-1840).

 The Sterling Morton Library copy, purchased at auction at Sotheby Parke Bernet, New York, March 5th, 1975, at the Richard-

son sale, lot 82.

3. The Plesch copy, sold at auction at Sotheby's, London, November 18th, 1975, lot 505. The auction catalogue does not mention the Linnaean index, but it is referred to in Mille et un livres botaniques: Répertoire bibliographique de la bibliothèque Arpad Plesch (Bruxelles, 1973, p. 327).

 A copy advertised by Francis Edwards in their catalogue 1015 of 1978, item 410.

 The Royal Botanic Gardens, Kew copy. This copy appears to differ from the others in an important respect (see below).

John Martyn (1699-1768), by profession an apothecary, had a life-long interest in botany. He was elected Professor of Botany at Cambridge University in 1732 and held that post until 1762. He received from Linnaeus a copy of his Flora lapponica (Amsterdam, 1737), and began a correspondence with him about that year. He is best known for the magnificent but incomplete work that he began to issue in 1728, Historia

plantarum rariorum, of which the plates, engraved by E. Kirkall from illustrations by J. van Huysum and other artists, are the earliest examples in botanical books of color-printing from single plates. Pulteney in 1790 called it "the most sumptuous and magnificent work of the kind that had ever been attempted in England," but he was writing before Thornton brought out *The temple of Flora* (London, [1799-] 1807).

The collation of a copy of this work that lacks the Linnaean index (the Hunt Botanical Library copy, Stevenson 476) is as

follows:

F°:  $\pi^2$   $2\pi I$   $a^2$  A-E<sup>2</sup> FI G-H<sup>2</sup>  $\chi I$  I-K<sup>2</sup> LI

M-N<sup>2</sup> O1; [vi] i-iv 1-52.

The collation of the Sterling Morton Library copy differs only in the preliminary pages. The single leaf which Stevenson calls  $2\pi I$  is lacking, as it is in most copies. This leaf is a short Latin prospectus, headed "CONDITIONES." The preface is unsigned and so becomes  $2\pi^2$ . The text of the preface (originally in italic) has been reset in roman and occupies three pages instead of four. The actual text is the same except for a misprint in the first word of the fourth paragraph from the end, which reads "Plantas," instead of, correctly, "Plantae." The AE in the heading "PRAEFATIO" has been changed to a ligature Æ. The tailpiece of a2v is lacking. On the verso of the second leaf of the preface there is now printed "INDEX LINNÆANUS."

At the bottom of this index is the statement, quoted by Soulsby, which reads "Cum tabulae careant numeris, cel. Linnaeus citat paginas hujusce operis." This is, in English: "Since the plates lack numbers the famous Linnaeus cites the pages of this work." Since Linnaeus's citation of this work and the Linnaean names provided in the index have an obvious bearing on the dating of the index, we should now exam-

ine these names.

In the appended table (Table 1), there is a comparison of the Martyn name for each plate with its equivalent entry listed in the Linnaean index, and the name as determined by Hess. The names that Martyn used in the text were similar to binomial names, that is, two-word names. In some instances definite polynomials were used, each comprising three or more words. These "binomials" and phrases were each followed by a comma and a descriptive phrase.

The names found in the third column of Table I are those from the Linnaean index and are binomials except for plates 7, 15, 20, 28, and 31. Of the Linnaean index names. all but four are rooted with Linnaeus and first occur in either Species plantarum, ed. 1 (1753) or ed. 2 (1762-1763), or Systema naturae, ed. 10 (1759) or ed. 12 (1767). Three of the names are Miller's and originally occur in The gardeners dictionary, ed. 8 (1768). N. L. Burman is responsible for the fourth name, a Geranium he described in 1759. There are two plates in which there are assortments of algae (pl. 29) and fungi (pl. 30). It is evident from the dates of publication of the above works that the Linnaean index had to be incorporated into the preface of Martyn's work after 1768.

We have made a determination as to the probable correct name for each of the plates and these names occur in the next to last column of the table. In many instances, Martyn's illustrations were cited by Linnaeus or other authors with the result that the appropriate names can be connected with the plates. At other times, it was necessary to determine the synonymy of the names involved in order to properly identify the plants in the plates. In a few instances, an identification judgement was made by Hess, who accepts the final responsibility for each of the names that occur in

( iv )

## INDEX LINNÆANUS.

	Parameters of the Control of the Con	27. p. 29. Sida criípa.
1. p. 1.	Mirabilis dichotoma.	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
2. p. 3.	Geranium inquinans.	28. p. 30. Mesembryanthemum ringens felinum.
3. P. 4.	Geranium chium.	29. p. 31. Agarici varii.
4. p. 5.	Prunella caroliniana. Mill. dict. vulgaris (ut vide-	30. p. 32. Fuci varii.
	tur) varietas.	31. p. 33. Sidæ species. Abutilon americanum, flore albido,
5. p. 6.	Amaranthus cruentus.	fructu e capsulis vesicariis planis constato, pediculo
6. p. 7.	Celofia margaritacea.	geniculato.
7. p. 8.	Parietaria orientalis, Polygoni folio canescente.	32. p. 34. Malva caroliniana
	Tourn. cor. 38.	33. p. 35. f. 1. Antirrhinum trifte. f. 2. Lin.
8. p. g.	Phyllanthus Niruri.	f. 2. Antirrhinum repens, f. 1. Lin.
9. p. 10.	Phlox carolina.	34. p. 36. Paffiflora ferratifolia.
10. p. 11.	Aloe difticha &	35. p. 37. Paffiflora cuprea.
11. p. 13.	Solidago marilandica. Mill. ditt.	36. p. 38. Croton palustre.
12. p. 14.	Solidago altiffima.	37. p. 39. Maranta arundinacea.
23. p. 15.	Geranium papilionaceum	38. p. 40. Gronovia scandens.
14. p. 16.	Geranium alceoides?	39. p. 41. Milleria quinqueflora.
15. p. 17.	Euphorbiæ species. Tithymalus creticus Characias	40. p. 42. Martynia annua.
	ingustisolius, villosus et incanus. Tourn. cor. 1.	41. p. 43. Crotalaria fagittalis.
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18. p. 20.	Helianthus atrorubens.	44. p. 46. Croton lobatum.
19. p. 21.	Caffia ligustrina.	45. p. 47. f. 1. Milleria biflora.
20. p. 22.	Caffia barbadenfis, pinnis foliorum mucronatis,	- f. 2: Milleria quinqueflora. β.
	calyce floris non reflexo.	46. p. 48. Statice finuata. β.
21. p. 23.	Caffia marilandica.	47. p. 49. f. 1. Turnera ulmifolia.
22. p. 24.	Craffula scabra.	f. 2 β.
23. p. 25.	Cleome viscosa,	48. p. 50. Limodorum altum.
24. p. 26.	Coreopfis lanceolata.	49. p. 51. Paffiflora holosericea.
25. p. 27.	Pancratium caribæum.	50. p. 52. Paffiflora Vespertilio.
26. p. 28.	Geranium angulofum. Mill. dia.	**** * Netter the Company of the Com

Cum tabula careant numeris, cel. Linnaus citat paginas bujusce operis.

the penultimate column. Of the 49 names determined by Hess, the majority are attributable to Linnaeus, and 36 date from before

Several comments can be made concerning a few of the illustrations. For instance, the name in the Linnaean index for Plate 5 is Amaranthus cruentus. Linnaeus cited Martyn's illustration for that species in Species plantarum, ed. 2. Included in Flora europaea, vol. 1 (1964) are both A. cruentus and A. paniculatus, two similar species which differ from one another in that the former has green flowers and the latter, red flowers. Since the Martyn illustration is of a plant with red flowers, we believe it to be A. paniculatus.

Parietaria orientalis (Plate 7) is written in the Linnaean index in the form of a binomial but followed by a descriptive phrase, uncharacteristic of most of the other names in the index. We cannot find that name listed in Index kewensis or in any other source and we suspect that it was never legitimately published. In Martyn's text, "Tourn. cor. 38" is cited as it is in Linnaeus's Species plantarum, eds. 1 and 2, for a plant he named P. cretica. However, Linnaeus did not mention Martyn's plate with any species of Parietaria. It is unclear if Martyn's Plate 7 and P. cretica are one and the same, but there is a strong possibility that they are.

Solidago marilandica is described in ed. 8 of Miller's The gardeners dictionary (as S. marylandica); however, this name does not occur in any of the references that we have examined. The name is based on Plate 11 and, no doubt, is the same as S. altissima, under which it is cited by Linnaeus in Species plantarum, eds. 1 and 2. Again, the perplexing problem is that Miller's name does not appear in any of our indexes or references or lists of synonymy. Plate 12 is also listed in the first and second editions of Species

plantarum under S. altissima; however, it was considered by Linnaeus to be more the basis for S. altissima than the illustration in Plate 11. It ultimately became a source of confusion as to what S. altissima was according to the Linnaean concept-confusion which still has not been completely eliminated. Martyn's Plate 12 has been associated in the literature with S. canadensis, S. rugosa, and S. altissima. We have decided to refer to Martyn's Plate 12 as S. altissima.

The identification of the illustration in Plate 14 is uncertain. N. L. Burman described Geranium alceoides in Specimen botanicum de Geraniis (1759). Index kewensis (fasc. 2, 1893) indicates that G. alceoides is a synonym of Pelargonium grossularioides (L.) L'Hérit. ex Ait., and also that P. grossularioides is a synonym (fasc. 3, 1894) of P. australe Willd. Clifford, in Pelargoniums including the popular "Geraniums" (1970), recognized both P. grossularioides and P. australe as distinct species. No mention of the name G. alceoides was made by Clifford, and we have not been able to find that name listed in any other reference. At this point, Martyn's illustration is an unknown entity, and it is even possible that it may represent a genus other than Pelargonium.

The Linnaean index does not identify the plant illustrated in Plate 15 except as "Euphorbiae species, Tithymalus creticus Characias angustifolium, villosus et incanus. Tourn. cor. 1." We have not seen Tournefort's publication, nor did Linnaeus in Species plantarum cite "Tourn. cor. 1." in any of his descriptions of Euphorbia. Martyn's plant best matches E. characias L. ssp. wulfenii (Hoppe ex W. D. J. Koch) A. R. Sm., which has greenish-yellow flowers similar to the

one that Martyn had illustrated.

Plate 40, Martynia annua, is of taxonomic interest. This plate is the basis for the description of the genus Martynia, which

honors John Martyn, by Linnaeus in Genera plantarum (1754). For reasons not fully understood by us, Index kewensis (fasc. 3, 1894) indicates that the Linnaean name is synonymous with M. proboscidea Gloxin and that the plant has also been called Craniolaria annua. At the same time that Linnaeus described Martynia annua, he described Craniolaria annua, a closely related species. These generic names must have been confused by other botanists. However, the epithet "annua" has to be associated with Martynia, since it is the name for the species from which the genus was described.

Plate 46 has a full illustration of a plant with entire, basal leaves and a second illustration of a single leaf which is pinnately lobed and described as spleenwort-like. Miller, in The gardeners dictionary, ed. 8, described this plant as Limonium africanum and cited Plate 46 (erroneously as "48") with his description. In Index kewensis (fasc. 3, 1894), L. africanum is cited as a synonym for L. thouinii (Viv.) O. Kuntze, a north African plant first described as Statice thouinii ("thouini") in 1802. If this is so, then L. africanum would be the correct name for what is called L. thouinii. However, none of the species which the full illustration could represent has entire leaves, consequently there is a question as to the plant's true identity. Actually, except for the entire leaves, it most closely resembles L. sinuatum (L.) Mill., a name based in part on Martyn's Plate 46. At this point we draw no conclusion as to the proper identification of the plant figured there.

Martyn's Plate 48 figured crucially in the disposition of the genus *Limodorum*. Gronovius in his *Flora virginica* (1738) described *Limodorum* based on a plant sent to him by Clayton, and also cited Martyn's Plate 48 as a possible variety of Clayton's plant. Linnaeus in *Species plantarum*, ed. 1 de-

scribed only one species, which he called L. tuberosum. He cited Gronovius, and Martyn's Plate 48; however, his descriptive phrase was taken verbatim from Martyn's publication. Linnaeus, in Genera plantarum, only cited Gronovius; consequently, the Gronovius publication along with Clayton's specimen becomes the basis for the genus, and hence for the species L. tuberosum. Apparently, botanists after Linnaeus based their concept of the species on Martyn's Plate 48 until the discrepancy between the generic description and Martyn's illustration became evident. There seemed to be enough confusion as to what L. tuberosum was that additional names were published and used for this plant. Ultimately, the International Botanical Congress, because of the confusion, rejected the Linnaean genus Limodorum and placed the Gronovius plant in the genus Calopogon R. Brown. The plant that Martyn illustrated appears to be one now called *Bletia purpurea* (Lam.) A. DC. The name L. altum, which occurs in the Linnaean index, does not apply to the plant that Martyn had illustrated.

The evidence of the names, as we have seen, proves that the Linnaean index must have been added after 1768. Is there any bibliographical evidence for the date of the index? An examination of the paper was helpful.

The paper of the Hunt Botanical Library copy, fide Stevenson, is of two different kinds. The text consists entirely of Imperial, from Genoa, cornermarked GM | T. The same paper was used for the plates in decades I, 4, and 5, but in decades 2 and 3 a different paper was used, Colombier, from Auvergne, marked with Dovecot = T [well] DUPUY FIN | AUVERGNE 1742 (in

<sup>1</sup>We are grateful to Bernadette Callery, Librarian, the Hunt Botanical Library, for this correction to the note on paper in Stevenson 476. cartouches).1 The use of paper dated 1742 requires some explanation. To quote Stevenson:

But what is puzzling here is that the sheets are dated 1742. This can only mean that some plates were in 'short edition' and had to be reprinted in the 1740s (or after) in order to make up complete books. The point deserves study through examination of a number of copies.

The paper of the Sterling Morton Library copy, text and plates, with the significan, exception of four leaves, is all Imperial from Genoa, cornermarked as Stevenson notedt GM | T. There is no Auvergnat paper in this copy. The four leaves of different paper are the two leaves of the preface, the plate opposite p. 23 and the plate opposite p. 28. These are all wove paper; the Genoese paper is of course laid. This in itself is sufficient to put a date of 1757 or later on this copy, since wove paper was not introduced until that year. While the wove paper of the preface and one of the plates is unmarked, the paper of the plate opposite p. 28 bears the watermark J ROSE | 1800.2 It is almost certain that the wove paper of both these plates is from the same batch, possibly even half-sheets of the same piece. They resemble each other in color and are markedly more yellow than the Genoese laid paper used for the other plates. They are also more yellow than the wove leaves of the preface. While this is rather tenuous evidence, we tend to think that the preface paper is not from the same batch as the plate paper and is probably somewhat earlier. It would be interesting to find a copy with watermarked paper in the preface.

What are we to make of all this? Neither

2John Rose is named as the probable owner or master paper maker of Langford Mill in Devonshire circa 1791 in Shorter, Alfred H.: Paper mills and paper makers in England 1495-1800 (Hilversum, 1967). We are indebted to Bernadette Callery for this information also.

of us has been able to examine other copies of this work with the Linnaean index, and what follows, therefore, is a tentative explanation. Whether or not examination of other copies would serve to resolve the question is not clear, but we should be glad to hear from other institutions or persons who own copies with the index.

Historia plantarum rariorum was an expensive work and had to be abandoned for lack of funds after five decades had been published. John Martyn was left with unsold copies or sheets in hand. These were inherited by his son and successor at Cambridge University, Thomas Martyn, who was a greater admirer and promulgator of the Linnaean system. According to William T. Stearn in "An introduction to the Species Plantarum and cognate botanical works of Carl Linnaeus" in the Ray Society facsimile of the first edition of Species plantarum (London, 1957, p. 78), Thomas Martyn's Plantae cantabrigienses (1763) was one of the first English publications with Linnaean names. We theorize that, thinking to bring his father's work up to date, Thomas had the preface reset to cover three pages instead of four, and on the fourth page had printed a Linnaean index to the plants described in the work, which he had compiled from various sources, and issued it with the original sheets of text and plates sometime after 1768. He probably continued to make up copies and issue them over many years, and even, when some of the stocks of plates ran out, have them restruck from the metal plates. The Sterling Morton Library copy, as the watermark date of the restruck plate 26 indicates, was made up after 1800.

It is a question whether these copies with the Linnaean index were really issued in any proper sense of that term. But what are we to call such copies?

Since there are no textual differences in

the main text (indeed the original text sheets are used) and the plates are the same, there are no grounds for calling this a new edition. It is certainly not a state, as Soulsby calls it, a usage which Henrey follows in British botanical and horiticultural literature before 1800 (vol. 3, London, 1975, p. 81, sub no. 1016). A state implies alteration before publication. The resetting of the preface and the addition of the Linnaean index occurred many years after the initial publication. It does not conveniently fit the definition of issue that MacPhail recommended in Huntia 2 (1965) because it does not bear a cancellans title-page. On reflection MacPhail thinks that that definition was too rigid. Ideally an issue should have a cancellans title-page or some equivalent, but there are clearly cases where this did not happen, though they may be rare. Perhaps the fact that Thomas Martyn did not provide a cancellans title-page shows that he did not intend to issue it for public sale, but simply made up copies for friends. Nevertheless, these anomalous copies exist and have to be distinguished from the original copies, if only to lay to rest the fiction that this is the earliest English botanical work with a Linnaean index. The only way to do that seems to be to describe such copies as "reissued after 1768."

There remains the copy at Kew, which may indeed be unique. According to Henrey (op. cit.) it has four pages of preface and the Linnaean index printed on a separate leaf, but it is fruitless to speculate how this came about or where it fits in the sequence without examining that copy.

## Note added in press:

We recently had the opportunity to examine the Plesch copy through the kindness of Mrs. Paul Mellon, Upperville, Virginia, and her librarian, Ms. Dita Amory. This copy is uncut and the text leaves measure 54 cm. in height, the plates 56 cm. The collation is the same as the Sterling Morton Library

The paper of the text is all Imperial from Genoa, marked GM | T, except for the two leaves of the preface, which are wove, marked RG. The paper of the plates is Colombier, Auvergnat, marked with Dovecot—T DUPUY (probably about 1765 but this is not certain), except for the plates opposite pp. 43, 47, 50 and 52, which are laid, unmarked; the plates opposite pp. 45, 46 and 48, which are Imperial from Genoa, marked GM | T, as the text paper; and, most surprisingly, the plates opposite pp. 6-11, 20, 33-42, and 49, a total of eighteen, which are on wove paper, marked RG, as in the preface paper.

The number of plates that have been restruck on wove paper suggests that this copy was made up later than the SML copy, but this is very tentative. We have not so far been able to identify or date the RG watermark, and it would be necessary to do so before we could make any firmer statement.

The Morton Arboretum Lisle, IL 60532

Table 1. Comparison of Martyn's text names, Linnaean index names, and currently accepted names for the plates in John Martyn's Historia plantarum rariorum.

Year	1759	1789	1794	1753	1762		1753	1753	1753	1762	1812	1753	1753	1789		8961		1753	1753	1753	1753	1753	1753	1753	1753	1753	1821	1789	1968
Name as determined by Hess	Mirabilis dichotoma L.	Pelargonium inquinans (L.)	Erodium chium (L.) Willd.	Prunella vulgaris L.	Amaranthus paniculatus L.	(Sp. Pl. II, see note)	Celosia argentea L.	Parietaria cretica L.	Phyllanthus niruri L.	Phlox carolina L.	Gasteria carinata (Mill.) Haw.	Solidago altissima L. (see text)	Solidago altissima L.	Pelargonium papilionaceum (L.) L'Hérit. ex Ait.	(see text)	Euphorbia characias L. ssp. wulfenii (Hoppe ex W.D.J.	Koch) A.R. Sm. (see text)	Scutellaria orientalis L.	Aster grandiflorus L.	Helianthus atrorubens L.	Cassia ligustrina L.	Cassia occidentalis L.	Cassia marilandica L.	Crassula scabra L.	Cleome viscosa L.	Coreopsis lanceolata L.	Hymenocallis caribaeum	Pelargonium angulosum (Mill.) L'Hérit, ex Ait.	Herissantia crispa (L.) Briz. Faucaria felina (Haw.) Schwant.
Year	1759	1753	1763	1768	1759		1762		1753	1762	1753	1768	1753	1753	1759			1753	1753	1753	1753		1753	1753	1753	1753	1753	1768	1753
Source	Syst. nat., ed. 10	Sp. pl.	Sp. pl., ed. 2	Gard. dict., ed. 8	Syst. nat., ed. 10		Sp. pl., ed. 2	(see text)	Sp. pl.	Sp. pl., ed. 2	Sp. pl.	Gard. dict., ed. 8	Sp. pl.	Sp. pl.	Sp. Geranii			Sp. pl.	Sp. pl.	Sp. pl.	Sp. pl.		Sp. pl.	Sp. pl.	Sp. pl.	Sp. pl.	Sp. pl.	Gard. dict., ed. 8	Sp. pl. Sp. pl.
Linnacan index name	Mirabilis dichotoma L.	Geranium inquinans L.	Geranium chium L.	Prunella caroliniana Mill.	Amaranthus cruentus L.		Celosia margaritacea L.	Parietaria orientalis,	Phyllanthus niruri L.	Phlox carolina L.	Aloe disticha L.	Solidago marilandica Mill.	Solidago altissima L.	Geranium papilionaceum L.	Geranium alceoides N.L. Burm.	Euphorbiae species		Scutellaria orientalis L.	Aster grandiflorus L.	Helianthus atrorubens L.	Cassia ligustrina L.	Cassia barbadensis	Cassia marilandica L.	Crassula scabra L.	Cleome viscosa L.	Coreopsis lanceolata L.	Pancratium caribaeum L.	Geranium angulosum Mill.	Sida crispa L. Mesembryanthemum ringens felinim
Martyn name or polynomial	Jalapa officinarum	Geranium africanum	Geranium chium	Brunella caroliniana	Amaranthus sinensis	)a	Amaranthus spica	Parietaria orientalis	Niruri barbadense	Lychnidea caroliniana	Aloe africana	Virga aurea marilandica	Virga aurea altissima	Geranium africanum	Geranium folio alceae	Tithymalus creticus		Cassida orientalis	Aster virginianus	Corona solis caroliniana	Cassia bahamensis	Cassia barbadensis	Cassia marilandica	Cotyledon africana	Sinapistrum zeylanicum	Bidens caroliniana	Narcissus	Geranium africanum	Abutilon americanum Ficoides afra
Page no.	н	3	4	5	9		7	00	6	10	11	13	14	15	91	17		18	19	20	21	22	23	24	25	56	27	28	30
Plate no.	I	7	3	4	S		9	1	<b>%</b>	6	10	11	12	13	14	1.5		91	17	18	61	20	21	22	23	24	25	56	27

Plate no.	Page no.	Martyn name or polynomial	Linnaean index name	Source	Year	Name as determined by Hess	Year
6	31	Amanita fasciculosa	Agarici varii (11 species illustrated)				
0	32	Alga minor	Fuci varii (6 species illustrated)				
I	33	Abutilon americanum	Sidae species			Herissantia crispa (L.) Briz.	1968
2	34	Abutilon caroliniana	na L.	Sp. pl.	1753	Modiola caroliniana (L.) G. Don	1831
3(1)	3.5	Linaria hispanica	Antirrhinum triste L.	Sp. pl.		Linaria tristis (L.) Mill.	1768
3(2)	35	Linaria caerulea	Antirrhinum repens L.	Sp. pl.		Linaria repens (L.) Mill.	1768
4	36	Granadilla americana		Sp. pl.		Passiflora serratifolia L.	1753
5	37	Granadilla americana	Passiflora cuprea L.	Sp. pl.		Passiflora cuprea L.	1753
9	38	Ricinoides palustre	Croton palustre L.	Sp. pl.		Caperonia palustris (L.) StHil.	1824
7	39	Maranta arundinacea	Maranta arundinacea L.	Sp. pl.		Maranta arundinacea L.	1753
8	40	Gronovia scandens	Gronovia scandens L.	Sp. pl.		Gronovia scandens L.	1753
6	41	Milleria annua	Milleria quinqueflora L.	Sp. pl.		Milleria quinqueflora L.	1753
0	42	Martynia annua		Sp. pl.	1753	Martynia annua L. (see text)	1753
I	43	Crotalaria americana	Crotalaria sagittalis L.	Sp. pl.		Crotalaria stipularia Desv.	1914
2	44	Anonis caroliniana	Sophora alba L.	Syst. nat., ed. 12		Baptisia alba (L.) R. Br.	1811
~	45	Sinapistrum indicum	Cleome spinosa L.	Sp. pl., ed 2		Cleome houstonii R. Br.	1812
+	46	Ricinoides herbaceum	Croton lobatus L.	Sp. pl.		Croton lobatus L.	1753
S(I)	47	Milleria annua	Milleria biflora L.	Sp. pl.		Elvira biflora (L.) Cass.	1824
45(2)	47	Milleria annua	Milleria quinqueflora L.	Sp. pl.		Milleria quinqueflora L.	1753
	48	Limonium africanum		Sp. pl.		(see text)	
7(I)	49	Turnera frutescens	Turnera ulmifolia L.	Sp. pl.		Turnera ulmifolia L.	1753
47(2)	49	Turnera frutescens	Turnera ulmifolia L.	Sp. pl.		Turnera ulmifolia L.	1753
00	90	Helleborine americana	Limodorum altum L.	Syst. nat., ed. 12		Bletia purpurea (Lam.) A. DC.	1841
40	17	Granadilla folio	Passiflora holosenicea I.	Sn nl	1762	(see text) Passiflora holosericea I	1753
20	25	Granadilla folio	Passiflora verpertilio L.	Sp. pl.	1753	Passiflora biflora Lam.	1789