WILLIAM ROSCOE'S MONANDRIAN PLANTS OF THE ORDER SCITAMINEAE

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ABSTRACT. Roscoe's 'Monandrian Plants', containing 112 coloured illustrations of Zingiberaceae Cannaceae and Marantaceae, was issued in 15 parts between 1824 and 1829. Details are given of the contents of each part, and suggestions made about the dates of their publication.

William Roscoe (1753-1831) was one of the most notable citizens of Liverpool during the late 18th and early 19th centuries. As solicitor, banker, Member of Parliament, man of letters and botanist, he was known to a wide circle of acquaintances, both within the city and in the country generally. His botanical interests developed early, and in 1799 he was responsible for founding the Liverpool Botanic Garden, which provided him with facilities for growing the plants in which he was interested-particularly the Monandrian Scitamineae (Cannaceae, Marantaceae and Zingiberaceae). At this time many new plants of the group were being introduced into Britain from explorers and missionaries in various parts of the world, and Roscoe was soon corresponding with many of them (e.g. Nathaniel Wallich and William Carey) and with other British botanists (e.g. Sir J. E. Smith and Sir W. J. Hooker), who were able to supply the Liverpool Garden with plants. This special interest led him to publish two important papers, namely 'A new arrangement of the plants of the Monandrian class usually called Scitamineae' (Trans. Linn. Soc. Lond. 8: 330-357, 1807) and 'Remarks on Dr. Roxburgh's description of the monandrous plants of India' (Trans. Linn. Soc. Lond. 11: 270-282, 1816). The culmination of all this activity was the publication, between 1824 and 1828 of his 'Monandrian Plants of the Order Scitamineae'. Further details of Roscoe's life and botanical interests can be found in H. Stansfield, 'William Roscoe, Botanist', Liverpool Libraries, Museums and Arts Committee Bulletin 5, 1-2: 18-61 (1955). There is a general biography in the Dictionary of National Biography 49: 222-225 (1897) which gives an account of Roscoe's many other interests.

'Monandrian Plants' is a handsome imperial folio volume containing handcoloured illustrations of 112 species; associated with each plate is a page of text containing synonymy, descriptions and notes, and there are introductory remarks to the whole volume and to each genus included within it. Until recently, very little was known about the publication of the book—it was known, for instance that it was issued in 15 parts, between 1824 and 1825 but the actual contents of each part were unknown. Dates of publication of the various parts have been suggested by Stearn (Fl. Malesiama Ser. 1, 4(5): ccx, 1950, based on the J. E. Smith/Rosco correspondence in the Linnean Society of London, but these dates were not very useful as long as the contents of the parts remained unknown.

A search through the voluminous Roscoe papers, held by Liverpool Public Libraries, revealed that more information was available, and eventually a clearer picture of the publication of the book emerged. The most important sources are as follows:

- a, letters from Roscoe to various botanists and other correspondents (and their replies). [Liverpool Record Office].
- letters from Roscoe's London agent, Thomas Hunneman, who was responsible for delivering copies of the book to London booksellers [Liverpool Record Office].
- statements of Accounts between Roscoe and George Smith, the printer of the book [Liverpool Record Office].
- d, a printed label showing the contents of Part 12 of 'Monandrian Plants' [Hornby Library].
- e, a publicity sheet announcing the completion of the first 14 (illustrated) parts, and the imminent publication of part 15 [Hornby Library].

From this mass of documentation it is clear that the plates were drawn and the associated text written as the plants flowered in the garden. When sufficient plates had been completed for 2 parts, they were then printed and published. Roscoe obviously aimed at including 8 plates per part, as suggested by Stearn (op. cit.), but, after part 4, the numbers varied (see below). Each part consisted of a cardboard folder, containing the plates and associated text, labelled on the outside with a coloured paper label showing the contents. The only one of these labels which seems to have survived is that mentioned under 'd' above. It reads as follows:

October 1, 1826 No. 12

LXXIX Canna lanuginosa
XCI Phrynium myrosma
XCII Phrynium comosum
Hedychium carneum
XCIII Alpinia penicillata
XCIV Zingiber squarrosum
XCV Zingiber elatum
XCVI Curuma petiolata

That other such labels were used is indicated by the accounts, where charges are indicated for a whole set of them. It is clear from the Hunneman correspondence that the parts were issued to the public in pairs, except for part 15 which contained only title page, dedication, general introduction, introductory matter to each genus, and binding instructions.

The contents of each pair of parts are indicated clearly in the accounts; each plate is referred to by species name, and the entries for the folder labels separate the content of each pair of parts. These are listed below in the order they appear in the accounts, together with observations, and comments on the dating as suggested by Stearn (the plate numbers are those used in the final bound copies, following the instructions to the binder issued in part 15).

Parts 1 & 2: 68, 69, 59, 6, 34, 53, 83, 103; 8, 93, 47, 29, 62, 22, 97, 112.

Part 1 contained the first 8 species, part 2 the second 8; this is indicated in the accounts by pencilled brackets. 103 Curcuma aromatica is not mentioned in the accounts, but must go here on watermark evidence. 59 Hedychium longifolium appears twice in the list for part 1; this is presumably

a clerk's error. Stearn suggests 'early 1824 (? Feb. or Mar.)' for Part 1 and '1824 (July; after 7 June)' for Part 2, but both were available in Liverpool by the 21st April 1824 (letter from M. Gregson to Roscoe, acknowledging receipt).

Parts 3 & 4: 19, 20, 49, 52, 86, 109, 74, 50; 23, 24, 76, 95, 77, 71

Part 3 contained the first 8, part 4 the following 6 (pencilled brackets), No. 50 Hedychium flavescens is not mentioned at all in the accounts: it is placed here on evidence of watermarks. Stearn suggests '1825 (before 3 Sept.)' for the publication of these parts; Hunneman had distributed copies in London by May 29th 1825.

Parts 5 & 6: 58, 1, 63, 33, 25, 96, 14, 108, 60, 110, 88, 105, 90, 55, 61, 82, 4, 3, 107, 32.

Hunneman had distributed these parts by 26th December 1825. Stearn suggests 'late 1825'.

Parts 7 & 8: 12, 13, 36, 80, 17, 18, 30, 48, 111, 73, 56, 94, 104.

Stearn suggests '1826 (apparently between 7th April and 22nd July)'. Hunneman had completed distribution by 24th July 1826.

Parts 9 & 10: 11, 15, 27, 28, 92, 51, 87, 21, 106, 42, 45, 5, 70, 46, 101, 85, 99.

99 Curcuma amada is not mentioned in the accounts; on watermark evidence this is the best place for it. 27, 28, 42 and 45 were known to Stearn as being included in parts 9 & 10. Stearn suggests '1826 (apparently between 7th Oct. and 14th Dec.)'. Hunneman had distributed his copies by 8th December 1826.

Parts 11 & 12: 9, 10, 43, 44, 57, 54, 35, 38, 84, 91, 16, 102, 100, 72, 64, 89, 39, 98.

16, 35, 39, 57, 72, 89, 91 & 100 are known from the label already mentioned to have formed part 12. 98 Amonum melegueta is not mentioned in the accounts, but, according to Stearn, it appeared after April 1827; on watermark evidence this is the most likely place for it, though it could have been included in parts 13 & 14. Parts 11 & 12 were received in Durham by April 5, 1827 (letter from T. Gisborne to Roscoe, acknowledging receipt). Stearn suggests '1827 before 12th Aug.)'.

Parts 13 & 14: 31, 2, 7, 37, 67, 66, 40, 26, 81, 78, 75, 65, 41, 79.

41 Phrynium setosum and 79 Costus spiralis are not mentioned in the accounts, but must go here on watermark evidence. 66 Renealmia fasciculata was first printed with the generic name 'Matonia'; this was later erased, and Renealmia substituted. These parts were available before 1st Mar. 1828 (publicity sheet mentioned above). Stearn suggests '1827 (between 23 Oct. and 8 Jan. 1828)' for part 13 and '1828' for part 14; there is no doubt, however, that both parts were issued together.

Part 15

Contained only letterpress, as indicated above. It appeared after 14 March 1828; Stearn suggests '1829 (after May)', on the basis of a footnote referring on an article by Lindley (Bot. Reg. 14: 1.1210) which is known to have appeared on Feb. 1, 1829. Smith was apparently paid off by August 1828.

The specimens on which the illustrations were based were pressed and became part of the Liverpool Botanic Garden Herbarium. This eventually became the property of Liverpool Museums (LIV) which still holds the bulk of the collection. Unfortunately, the Museum was bombed in 1941, and part of the herbarium was destroyed, including, presumably, some of the Roscoe material. The following list of surviving specimens was drawn up by Miss B. Walker, of the staff of the Museum's Botany Department.

Alpinia calcarata, E. Indies, 1815 (whole	C. brasiliensis	(floral parts)	
plant)	C. coccinea	" "	
Alpinia nutans, E. Indies, 1816 (leaves	C. flaccida	,, ,,	
only)	C. latifolia	,, ,,	
	C. limbata	" "	
Hedychium flavum	C. lutea	" "	
H. maximum > (floral parts	C. nudata		
H. spicatum only)	C. pallida		
regarded beauty and along a state, and a second	C. polymorpha	" "	
Kaempferia rotunda, E. Indies, 1814	C. speciosa	" "	
(whole plant)	C. speciosa	,, ,,	

Thalia dealbata, S. Carolina, 1813 (whole plant)

Canna aurantiaca (floral parts)

One species mentioned in the accounts as having been drawn and printed, viz. Alpinia pulchella, does not appear in 'Monandrian Plants'. I have not seen any copies of this plate, and it would be interesting to know whether any were distributed independently.

Most of the work reported here was done while I was Assistant Director of Liverpool University Botanic Gardens, Ness, and I would like to thank the following for their help: Mr K. Perkin, Keeper of the Special Collections, Harold Cohen Library, University of Liverpool; the librarian of the Athanaeum, Liverpool; the staffs of the Liverpool Record Office and Hornby Library; Mr E. F. Greenwood and Miss B. Walker of the Botany Department, Liverpool Museums. I am also grateful to Mr B. L. Burtt (Edinburgh) and Dr W. T. Stearn (Natural History Museum, London) for reading through the typescript and making many helpful suggestions.

INDEX TO PLATES

(Species described by Roscoe are marked with an asterisk)

Name	No.	Part	Date	Name	No.	Part	Date
Alpinia allughas* A. auriculata* A. bracteata* A. calcarata A. difissa*	67 74 70 68 71	13/14 3/4 9/10 1/2 3/4	1828 1825 1826 1824 1825	A. magnifica* A. mutica A. nutans* A. penicillata* Amomum melegueta	75 69 73 72 98	13/14 1/2 7/8 11/12 11/12	1828 1824 1826 1827 1827

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Name	No.	Part	Date	Name	No.	Part	Date
Canna aurantiaca*	21	9/10	1826	H. flavescens	50	3/4	1825
C. carnea*	15	9/10	1826	H. flavum	49	3/4	1825
C. coccinea	11	9/10	1826	H. garnerianum	62	1/2	1824
C. compacta*	22	1/2	1824	H. glaucum*		1/2	1824
					53		
C. denudata	23	3/4	1825	H. longifolium*	59	1/2	1824
C. denudata var.*	24	3/4	1825	H. maximum*	52	3/4	1825
C. edulis	5	9/10	1826	H. spicatum	48	7/8	1826
C. flaccida		1/2	1824	H. thyrsiforme	56	7/8	1826
C. glauca	7	13/14	1828	H. villosum	54	11/12	1827
C. indica	1	5/6	1825	Hellenia caerulea	76	3/4	1825
C. iridiflora	14	5/6	1825			-	
C. lamberti	2	13/14	1828	Kaempferia			
C. lanuginosa*	16	11/12	1827	angustifolia	94	7/8	1826
C. latifolia	4	5/6	1825	K. galanga	92	9/10	1826
C. limbata*	9	11/12	1827	K. marginata	93	1/2	1824
C. lutea	18	7/8	1826	K. ovalifolia	95	3/4	1825
C. orientalis	12	7/0	1826		96		1825
	12	7/8	1820	K. pandurata		5/6	1824
C. orientalis var.		-10		K. rotunda	97	1/2	1024
flava*	13	7/8	1826				
C. pallida*	19	3/4	1825	Maranta			3 12 70
C. pallida var.	20	3/4	1825	arundinacea	25	5/6	1825
C. patens	3	5/6	1825	M. bicolor	32	5/6	1825
C. pedunculata*	8	1/2	1824	M. cuspidata*	31	13/14	1828
C. speciosa*	17	7/8	1826	M. divaricata*	27	9/10	1826
C. sylvestris*	10	11/12	1827	M. divaricata var.*	28	9/10	1826
Costus cylindricus	78	13/14	1828	M. gibba	29	1/2	1824
C. discolor*	81	13/14	1828	M. indica	26	13/14	1828
C. maculatus*	82	5/6	1825	M. tonchat	30	7/8	1826
	80	7/8	1826	W. tolichat	30	110	1020
C. nipalensis*				Diameters allowers	38	11/12	1827
C. spicatus	77	3/4	1825	Phrynium allouya*		11/12	1827
C. spiralis*	79	13/14	1828	P. casupo*	43		
Curcuma aeruginosa		9/10	1826	P. comosum	35	11/12	1827
C. amada	99	9/10	1826	P. cylindricum*	40	13/14	1828
C. amarissima*	101	9/10	1826	P. ellipticum*	44	11/12	1827
C. aromatica	103	1/2	1824	P. grandiflorum*	33	5/6	1825
C. elata	104	7/8	1826	P. myrosma*	39	11/12	1827
C. ferruginea	105	5/6	1825	P. parkeri*	42	9/12	1826
C. latifolia*	108	5/6	1825	P. parviflorum	34	1/2	1824
C. leucorrhiza	102	11/12	1827	P. setosum*	41	13/14	1828
C. petiolata	100	11/12	1827	P. violaceum*	37	13/14	1828
C. rubescens	107	5/6	1825	P. zebrinum*	36	7/8	1826
C. rubescens C. zedoaria	109	3/4	1825	1.20011110111	3.	11-	
C. zedoaria	109	3/4	1025	Renealmia exaltata	65	13/14	1828
				R. fasciculata*	66	13/14	1828
		10					1827
Globba careyana	110	5/6	1825	Roscoea purpurea	64	11/12	102/
G. maranta	III	7/8	1826			-1	-0-6
G saltatoria	112	1/2	1824	Thalia dealbata	46	9/10	1826
				T. geniculata	45	9/10	1826
TT-deahinm				Zingiber capitatum	90	5/6	1825
Hedychium		-10	. 90.	Z. cassumunar	85	9/10	1826
acuminatum*	47	1/2	1824		86		1825
H. angustifolium		5/6	1825	Z. chrysanthum*		3/4	1827
H. aurantiacum	61	5/6	1825	Z. elatum	91		
H. carneum	57	11/12	1827	Z. officinale	83	1/2	1824
H. coccineum	58	5/6	1825	Z. roseum	87	9/10	1826
H. coronarium	51	9/10	1826	Z. rubens	88	5/6	1825
H. elatum	63	5/6	1825	Z. squarrosum	89	11/12	1827
H. ellipticum	55	5/6	1825	Z. zerumbet	84	11/12	1827
empireum	00	01 -	9				