

THE W. N. BONNER (1955-61) COLLECTION OF PLANTS FROM SOUTH GEORGIA

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THE plant collection made by W. N. Bonner on South Georgia between 30 January 1955 and 2 October 1961 is important, not only because it has added a number of hitherto unrecorded species to the check list of the island's vascular flora (Philcox, 1962), but also because it has greatly extended knowledge of the distribution of many species on the island. For most of his time on South Georgia, Bonner was employed by the Government of the Falkland Islands and Dependencies as resident biologist and sealing inspector. In addition to his work on seals, he has published a report on the island's introduced reindeer in which he commented briefly on the vegetation while discussing the feeding habits of the herd (Bonner, 1958).

Most of the plants in this collection were obtained in the Grytviken area, but some specimens were collected from other parts of Cumberland Bay as well as from Bird Island, Bay of Isles, Leith, Husvik, Ocean and Gold Harbours; Trollhul, Paradise Beach and Diaz Cove were the only collecting stations on the south-west coast.

LOCATION OF MATERIAL

Bonner's material is now housed in three herbaria, as follows:

Department of Botany, British Museum (Natural History)

This, the main part of the collection, contains material of all represented plant groups, and was donated in four lots:

9 December 1955	10 angiosperms, 5 bryophytes.
27 June 1957	85 angiosperms, 10 pteridophytes, 61 bryophytes, 33 lichens, 19 marine algae.
23 June 1960	18 angiosperms, 3 pteridophytes (+5 bottled specimens), 4 lichens.
15 June 1962	4 angiosperms.

Royal Botanic Gardens, Kew

This part of the collection consists of 22 angiosperms and 8 pteridophytes, received 8 July 1960.

British Antarctic Survey herbarium

This part of the collection consists of 63 bryophytes, received July 1960, and 7 angiosperms received 1 May 1963.

In addition to the above material, W. N. Bonner has retained a small collection of vascular plants (Table I), all these specimens being duplicates of material in the above-mentioned herbaria.

NUMBERING THE COLLECTION

When the vascular plants in the British Museum and Kew were examined critically between October and December 1962, it was found that several overlapping numerical series had been used by the collector.

A further complication was that identical gatherings in the two herbaria sometimes bore different numbers. To eliminate these and other anomalies, it was decided to revise the numbering of the whole collection and to refer all the specimens to a single numerical series. Since at least five gatherings of the British Museum's collection have not yet been traced,

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some unassigned numbers have been left in the new numerical series which can be added to specimens as required. The allocation of the new serial numbers is as follows:

Nos. 1-150 Angiosperms	Nos. 1-121 (except No. 86) already assigned to specimens.
Nos. 151-70 Pteridophytes	Nos. 151-66 inclusive already assigned to specimens.
Nos. 171-400 Bryophytes	Nos. 171-294 inclusive already assigned to specimens.
Nos. 401-75 Lichens	No numbers assigned as yet.
Nos. 476-500 Marine algae	Nos. 476-90 inclusive already assigned to specimens.

Although it should not be necessary to refer to the numbers which the specimens originally bore, it has been thought advisable to provide the means of collating the two series (see appendix). In Table I only the new numbers are quoted.

The vascular plants in the British Antarctic Survey herbarium are numbered 115-21 inclusive, and are not duplicates of material in either of the two national herbaria. The bryophytes in the last-mentioned herbarium are numbered 171-233 inclusive, the remaining assigned numbers (234-94 inclusive) belonging to specimens in the British Museum collection.

A collection register of all available field data, including a list of final determinations, has been prepared for all the specimens examined and copies have been deposited at the Department of Botany, British Museum (Natural History), and with the herbarium of the British Antarctic Survey housed in the Department of Botany, University of Birmingham.

TABLE I. THE NATIVE AND ALIEN VASCULAR PLANTS DETERMINED FROM THE W. N. BONNER (1955-61) COLLECTION

NATIVE ANGIOSPERMS

<i>Acaena adscendens</i> Vahl ssp. <i>georgiae-australis</i> Bitter	9, 14, 15, 75, 110*
<i>Acaena tenera</i> Alboff	32, 38, 42, 54, 71, 78
<i>Callitriche antarctica</i> Engelm.	22, 23, 41, 109
<i>Colobanthus crassifolius</i> (D'Urv.) Hook. f.	34, 50, 68, 103 , 120*
<i>Colobanthus subulatus</i> (D'Urv.) Hook. f.	98*, 106 , 107 , 116*
<i>Deschampsia antarctica</i> Desv.	5, 6, 7, 20*, 33*, 72*, 74*, 85, 89, 90, 91, 114 , 118*
<i>Festuca erecta</i> D'Urv.	4, 18*, 19*, 43*, 53, 80*, 92, 92
<i>Galium antarcticum</i> Hook. f.	46, 47, 84, 94, 94 , 113* , 119*
<i>Juncus inconspicuus</i> (D'Urv.) Hook. f.	99
<i>Juncus scheuchzerioides</i> Gaudich.	1, 27*, 29*, 35*, 48*, 49*, 81*, 82*, 93, 93 , 115*, 121*
<i>Montia fontana</i> L. ssp. <i>fontana</i>	45, 60, 61, 62, 83, 97*, 112
<i>Phleum alpinum</i> L.	8, 24*, 44*, 55, 64, 73*, 79*
<i>Poa flabellata</i> (Lam.) Hook. f.	88, 88 , 102, 105
<i>Ranunculus biternatus</i> Sm.	28, 36, 40, 51, 76, 96, 96 , 108
<i>Rostkovia magellanica</i> (Lam.) Hook. f.	2, 10, 25*, 26*, 30*, 31*, 37*, 52*, 65, 87, 87* , 95, 95 , 104

NATIVE PTERIDOPHYTES

<i>Cystopteris fragilis</i> (L.) Bernh.	152, 159, 159* , 163
<i>Grammitis kerguelensis</i> Tard.	158, 158*
<i>Hymenophyllum falklandicum</i> Baker	157, 160, 160* , 165
<i>Lycopodium magellanicum</i> Sw.	153, 161, 162*
<i>Ophioglossum opacum</i> Carmichael	154, 156, 166, 166*
<i>Polystichum mohrioides</i> (Bory) C. Presl. var. <i>plicatum</i> (Poep.) C. Chr.	151, 155, 164, 164*

ALIEN ANGIOSPERMS

<i>Achillea millefolium</i> L.	59
<i>Cerastium holosteoides</i> Fr.	16, 17, 58, 66, 67, 100*
<i>Poa annua</i> L.	3, 63*, 77
<i>Poa pratensis</i> L.	21, 57
<i>Ranunculus repens</i> L.	70, 101*, 117*
<i>Rumex acetosella</i> L.	111*
<i>Trifolium repens</i> L.	56
<i>Taraxacum officinale</i> Weber	11, 12, 13, 39, 69

Specimens 115-21 inclusive are in the British Antarctic Survey herbarium.

Bold figures indicate specimens at Kew, the remainder being at the British Museum (Natural History).

* Indicates the presence of a duplicate in W. N. Bonner's private collection.

VASCULAR PLANT DETERMINATIONS

When the material in the collection was examined, it was found that most of the specimens had already been identified by Mr. A. C. Jermy and Mr. J. Lewis of the British Museum (Natural History), Mr. D. Philcox of Kew and Professor C. Skottsberg of Göteborg. Mr. Philcox's determination list for the Kew material (list H/1698/60) indicated that two sterile specimens of grasses had been received, but it is understood that these were considered to be of little value and were discarded. While the present authors fully agree with most of the determinations the following changes have been made as a result of recent studies on the South Georgian vascular flora (Greene, in press):

- Nos. 32, 38, 42, 54, 78 Previously identified as *Acaena adscendens* Vahl or *A. adscendens* var. *minuscula* Bitter; now referred to *A. tenera* Alboff.
 Nos. 14, 15, 75 Previously identified as *Acaena adscendens* var. *majuscula* Bitter; now referred to *A. adscendens* ssp. *georgiae-australis* Bitter.
 Nos. 97, 112 Previously identified as *Montia rivularis* Gmel.; now referred to *M. fontana* L. ssp. *fontana*.^{*}
 No. 158 Previously identified as *Grammitis billardieri* Willd.; now referred to *G. kerguelensis* Tard.

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 MOORE, D. M. 1963. The Subspecies of *Montia fontana* L. *Bot. Notiser*, 116, Fasc. 1, 16-30.
 PHILCOX, D. 1962. Recent Records for the Flora of South Georgia. *Kew Bull.*, 16, No. 2, 243-45.

* Five further South Georgian specimens of *Montia*, Nos. 45, 60-62, 83, were not available for study as they were on loan from the British Museum. It is probable that they are all referable to *M. fontana* ssp. *fontana*, since this is the only form of *Montia* so far known from the island (Greene and Greene, 1963; Moore, 1963).

APPENDIX

COLLATION OF NEW AND OLD SPECIMEN NUMBERS IN THE W. N. BONNER (1955-61) COLLECTION

<i>New</i>	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>	<i>Old</i>
1	s.n.	36	26	71	58	106	<i>11</i>
2	s.n.	37	27	72	<i>58a</i>	107	<i>10</i>
3	s.n.	38	28	73	<i>58b</i>	108	<i>9</i>
4	s.n.	39	29	74	<i>58c</i>	109	<i>4</i>
5	s.n.	40	30	75	59	110	<i>3</i>
6	s.n.	41	31	76	60	111	<i>22</i>
7	s.n.	42	34	77	<i>60a</i>	112	<i>28</i>
8	s.n.	43	<i>34a</i>	78	<i>60b</i>	113	<i>30</i>
9	s.n.	44	<i>34b</i>	79	61	114	<i>6</i>
10	s.n.	45	35	80	<i>61a</i>	115	s.n.
11	<i>1</i>	46	36	81	<i>61b</i>	116	s.n.
12	2	47	37	82	62	117	s.n.
13	3	48	41	83	63	118	s.n.
14	<i>4</i>	49	42	84	<i>64</i>	119	s.n.
15	5	50	<i>42a</i>	85	68	120	s.n.
16	6	51	<i>42b</i>	86	unused	121	s.n.
17	7	52	43	87	<i>1, 1</i>		
18	8	53	<i>43a</i>	88	<i>2, 2, 8</i>		
19	9	54	<i>43b</i>	89	<i>25e</i>		
20	<i>10</i>	55	<i>43c</i>	90	31	151	<i>32, 33</i>
21	<i>11</i>	56	45	91	32	152	<i>38, 39, 40</i>
22	<i>12</i>	57	46	92	<i>7, 33</i>	153	<i>44</i>
23	<i>13</i>	58	47	93	<i>17, 35</i>	154	<i>65</i>
24	<i>14</i>	59	48	94	<i>18, 36</i>	155	<i>66</i>
25	<i>15</i>	60	49	95	<i>19, 37</i>	156	<i>67</i>
26	<i>16</i>	61	50	96	<i>16, 38</i>	157	<i>70</i>
27	<i>17</i>	62	51	97	46	158	<i>26, 41</i>
28	<i>18</i>	63	52	98	47	159	<i>25, 43</i>
29	<i>19</i>	64	<i>52a</i>	99	48	160	<i>24, 42</i>
30	<i>20</i>	65	<i>52b</i>	100	49	161	<i>116c</i>
31	<i>21</i>	66	53	101	50	162	<i>21</i>
32	<i>22</i>	67	54	102	s.n.	163	<i>14</i>
33	<i>23</i>	68	55	103	<i>29</i>	164	<i>23, s.n.</i>
34	<i>24</i>	69	56	104	<i>12</i>	165	<i>15</i>
35	<i>25</i>	70	57	105	<i>13</i>	166	<i>27, s.n.</i>

Figures in italics indicate old numbers borne by specimens at the British Museum (Natural History).

Figures in bold italics indicate old numbers borne by specimens at Kew.

s.n. Indicates the absence of an old number.