# ADDITIONS AND CORRECTIONS TO THE DISTRIBUTION RECORDS IN A SYNOPTIC FLORA OF SOUTH GEORGIAN MOSSES, PARTS I–V

*By* B. G. Bell *and* S. W. Greene

Abstract. The extent of the bryophyte collections available from South Georgia is considered and some of the new distribution data yielded by field work during 1972–74 are provided.

Since the receipt of the bryophyte collections referred to by Greene (1973, table IV, p. 9) in the first part of "A synoptic flora of South Georgian mosses", which included all that were available for examination up to the end of 1970–71, the following additional collections have been made on the island: in 1971–72 by B. G. Bell, in 1972–73 by C. J. Barrow, T. C. Gunn and J. R. B. Tallowin, and in 1973–74 by T. V. Callaghan, T. C. Gunn, S. P. J. Kightley, P. Stone and D. W. H. Walton. The extent of the B. G. Bell collection has already been indicated (Bell, 1974, p. 73) and material from this collection was cited by Newton (1974). Table I gives details of the remaining material.

These collections have resulted in a significant increase in the number of squares from which bryophytes have been collected, Fig. 1 showing all squares from which mosses are now known, including those indicated by Greene (1973, fig. 2, p. 8). Fig. 2 shows those areas which are permanently covered with snow and ice and from a comparison with Fig. 1 it can be seen that by far the greater proportion of lowland coastal areas available for colonization by mosses has now been visited. To date no real attempt has been made to survey bryologically the mountainous interior of the island much of which is difficult of access.

Following examination of the more recent collections, it is now possible to add to the distribution data already provided for those species described in parts I–V of the "Flora" (Greene, 1973; Bell, 1973b; Clarke, 1973; Newton, 1974; Bell, 1974). Table II gives new records for those squares indicated by Greene (1973, fig. 2, p. 8) and Table III the records for the recently surveyed squares. These data, when added to the distribution maps already published, bring up to date the known distribution of each species but variations in the length of collecting time in squares and the fact that some have not been visited by bryologists often mean that absences signify little more than inadequate collecting. There is no doubt, however, that some species are extremely rare, e.g. *Dendroligotrichum squamosum*, while others have a restricted distribution e.g. *Leptotheca gaudichaudii*.

As in most cases a substantial number of specimens has already been listed for each species described, together with details of their distribution in world herbaria, it is considered unnecessary to provide further data of this kind, since details of all material can be recovered through the computer-based data bank associated with the British Antarctic Survey herbarium. However, owing to the small number of collections of *Dendroligotrichum squamosum* and *Racomitrium crispulum* var. *rupestre* that were available, it is considered appropriate to list the additional specimens which are given in the same style as used in the text of the "Flora".

*Dendroligotrichum squamosum*

085 125 BAS Misc. 128 (AAS). 090 125 BAS Misc. 127 (AAS).
115 105 BAS Misc. 125 (AAS).

*Racomitrium crispulum* var. *rupestre*

130 090 BAS Misc. 126 (AAS).

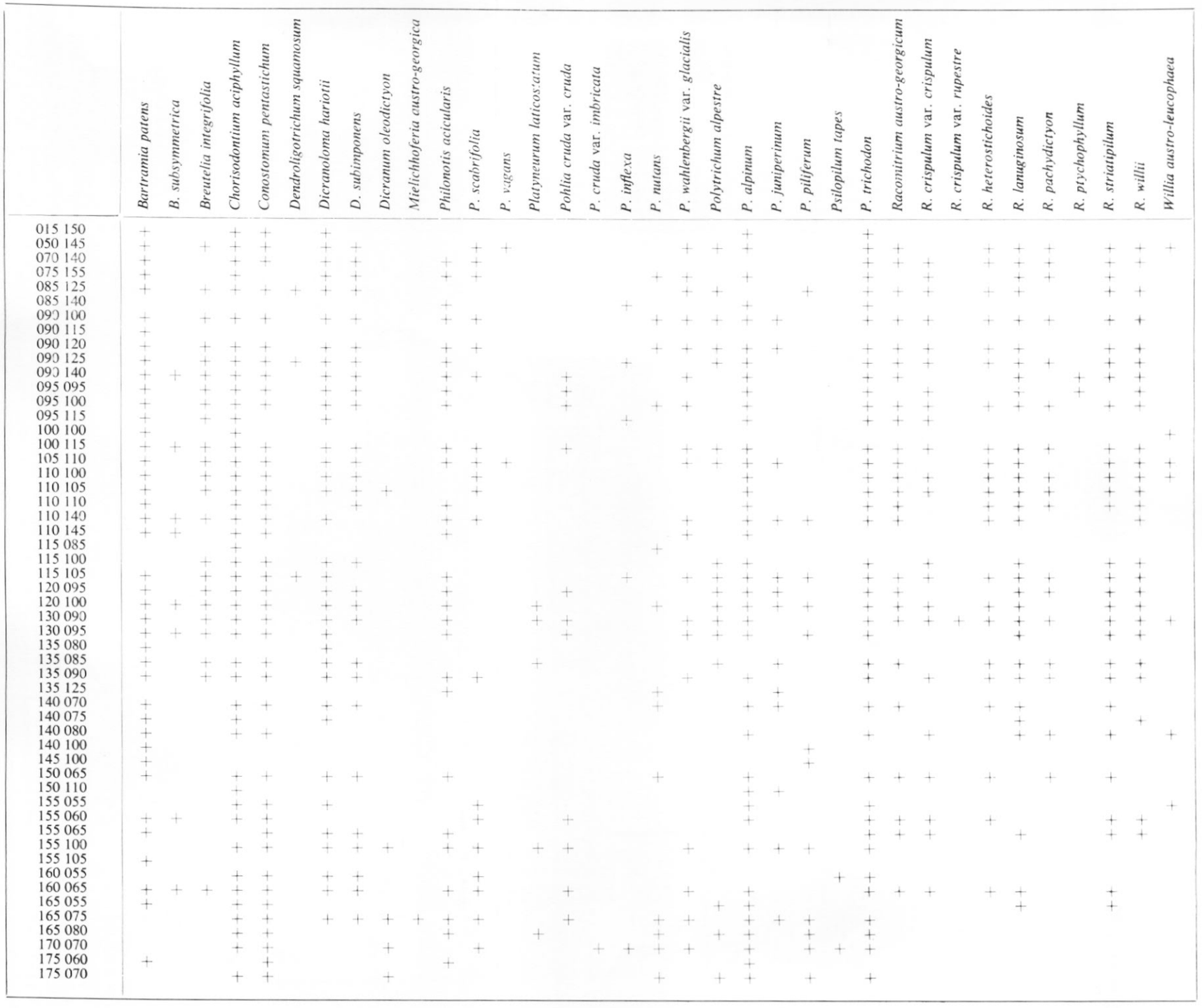
It is necessary to point out that the collection number of a single specimen of *Psilopilum trichodon* from grid square 130 125 was cited incorrectly in Greene (1973, p. 32), i.e. Longton 2337 should have been cited as Longton 2393. There is also an omission from the distribution map of *Psilopilum trichodon* (Greene, 1973, fig. 16, p. 26), no symbol having been included for grid square 160 095 to indicate the occurrence of the species based on the specimens cited for that square in the appendix to that paper.

TABLE I. DETAILS OF SOUTH GEORGIAN MOSS COLLECTIONS OBTAINED DURING 1972–73 AND 1973–74

| *Collection* | *Season* | *Approximate number of specimens* | *Localities visited* | *Herbaria with major holdings** |
|---|---|---|---|---|
| C. J. Barrow, T. C. Gunn and J. R. B. Tallowin | 1972–73 | 1,850 | Cape Disappointment, Paradise Beach, Trollhul, Ranvik, Kupriyanov Islands, Diaz Cove, Novosilski Bay, Pickersgill Islands, Leon Head, Undine South Harbour, Ducloz Head, Rocky Bay, Cape Darnley, Hauge Reef, Annenkov Island | AAS |
| T. V. Callaghan, T. C. Gunn, S. P. J. Kightley, P. Stone, and D. W. H. Walton | 1973–74 | 1,300 | Willis Islands, Cape Buller, Albatross Island, Prion Island, Possession Bay, Cape Best, Fortuna Bay, Barff Point, Luisa Bay, St. Andrews Bay, Doris Bay, Nordenskjöld Peak, nunatak north of Mount Kling, Cooper Island, Trendall Crag, Drygalski Fjord, Nattriss Head, Shannon Point, Rogged Bay, Austin Head, Cape Darnley, Jacobsen Bight, Larvik, Sandefjord, Fanning Ridge, Aspasia Point, Horten, Bore, Cheapman Bay, Ice Fjord | AAS |

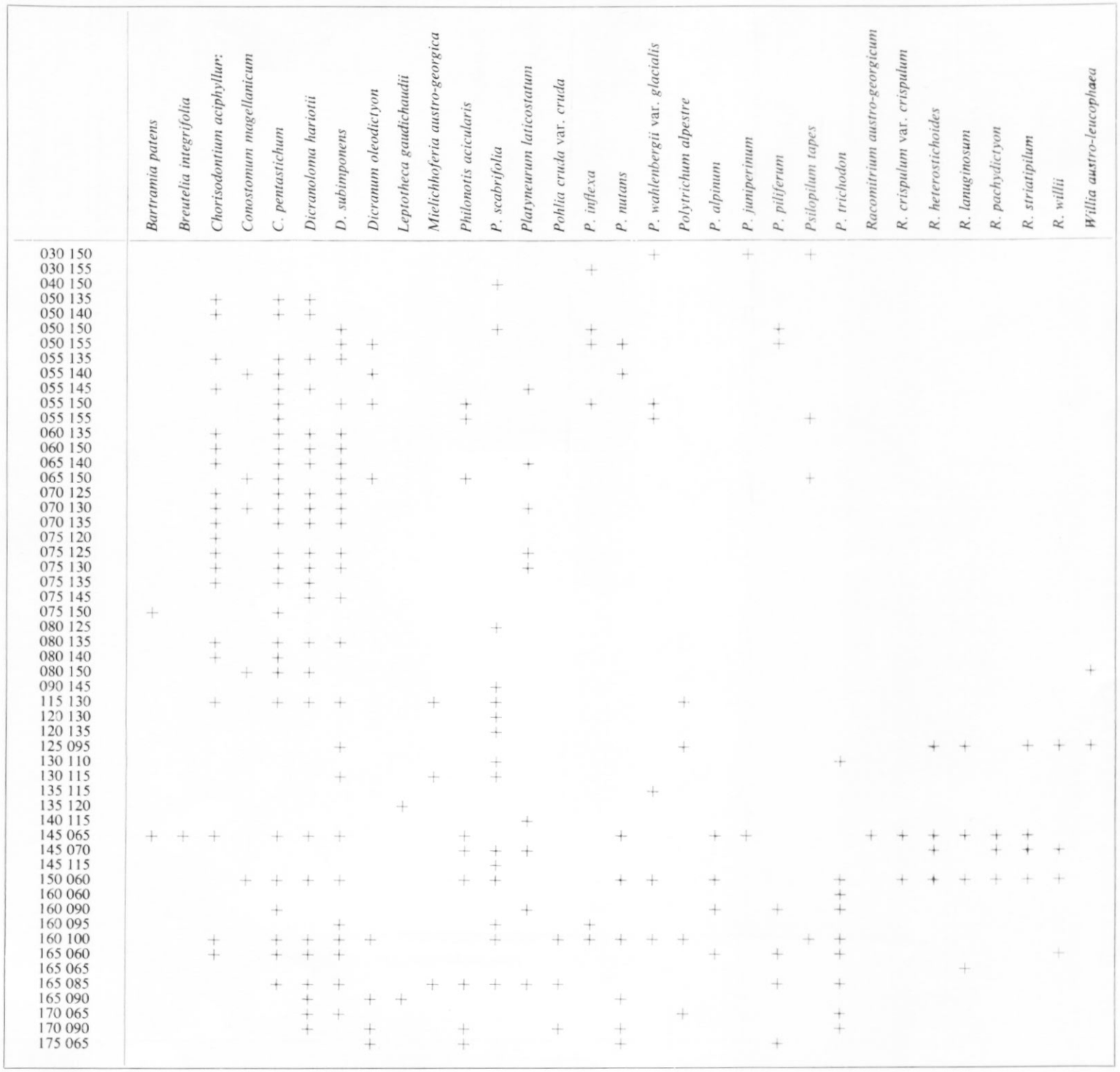
* AAS is used for the British Antarctic Survey herbarium following Greene (1972).

TABLE III. NEW SPECIES DISTRIBUTION RECORDS FOR GRID SQUARES VISITED SUBSEQUENT TO THE 1970–71 SEASON




+ Present.

TABLE II. NEW SPECIES DISTRIBUTION RECORDS FOR GRID SQUARES VISITED UP TO THE END OF THE 1970–71 SEASON




+ Present.

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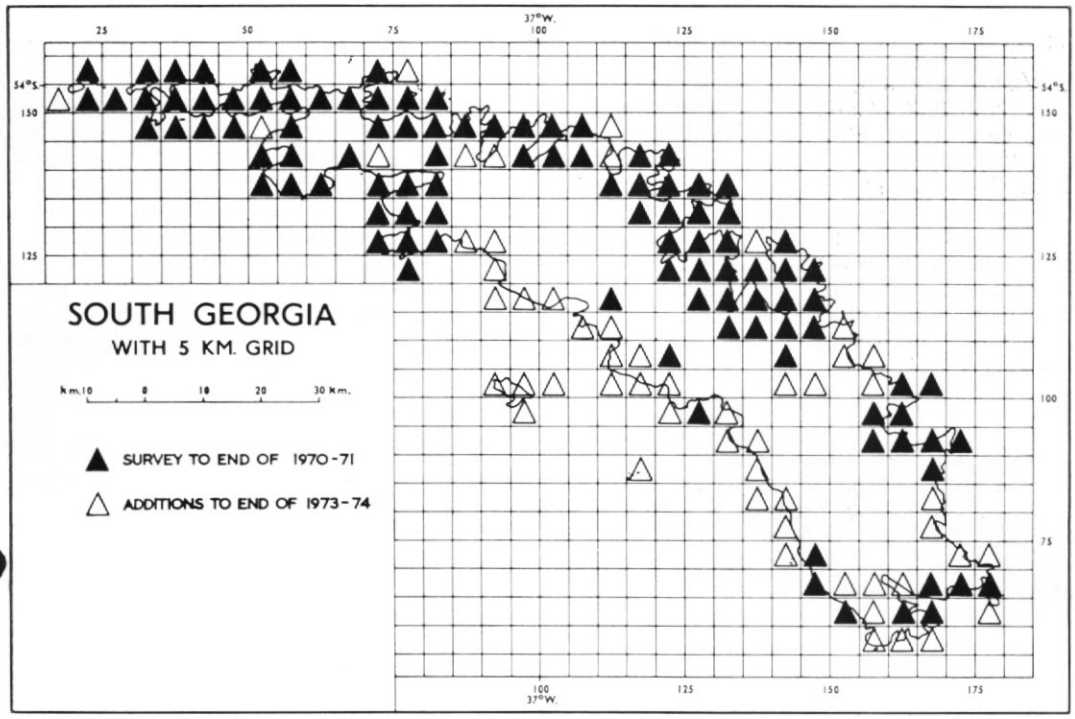


Fig. 1. All squares from which mosses have been collected, including those for which field records are available, up to and including the 1973–74 season.
The occurrence of mosses in square 120 105 is based on a record obtained during 1964–65 and hence it is shown as a solid symbol although it was inadvertently omitted from fig. 2 in Greene (1973, p. 8).

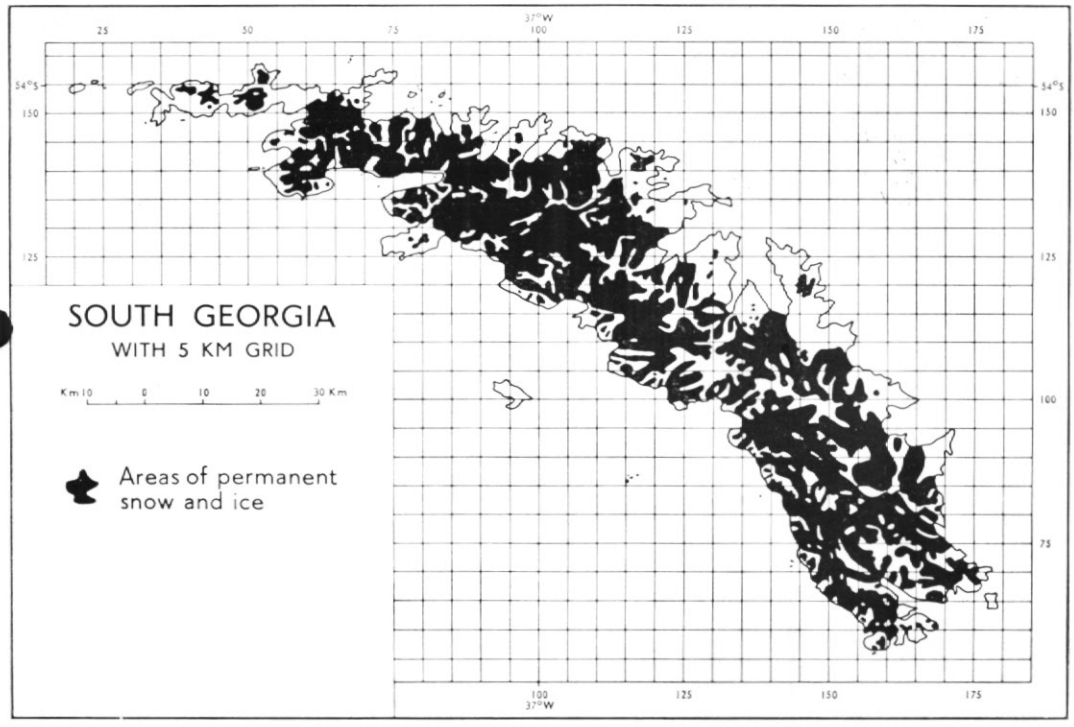


Fig. 2. Areas of South Georgia permanently covered with snow or ice.

When examining the leaf lamellae of the new material of *Dendroligotrichum squamosum*, it was noticed that some of the border cells from BAS Misc. 125 and 127 were slightly papillose, a noteworthy variation in view of the fact that both Smith (1971) and Greene (1973) stated that they are smooth. It is also of interest to record that the same two specimens contained male plants, each bearing the typical discoid polytrichoid perigonium with "growing through" shoot tip, in one case indicating that perigonia had been formed in two successive seasons.

The work on the South Georgian moss flora has established a satisfactory nomenclature for some species which are also present farther south, e.g. in the South Orkney Islands. Two short notes dealing with some of these species have already appeared (Bell, 1973*a*, *c*) and they have provided data on the distribution of *Conostomum magellanicum*, *C. pentastichum*, *Dicranum oleodictyon*, *Racomitrium austro-georgicum* and *R. crispulum* var. *crispulum* south of South Georgia.

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