Professor Auburn's command of technical and scientific detail is extremely impressive and this contributes greatly to his expert exposition of the subject. Although this work by an international lawyer is a valuable contribution to the study of the international lawyer is a valuable contribution to the study of the international law of Antarctica, its importance is much wider and it may well prove influential in the future development of the Antarctic system.

SUB-ANTARCTIC VEGETATION

[Review by David Walton* of M. J. M. Gremmen's *The vegetation of the sub-Antarctic islands Marion and Prince Edward*. The Hague, W. Junk, 1982, x, 149 p, illus. Hardcover Dfl 110, US$48.00.]

The vegetation of the sub-Antarctic islands has interested botanists for many years. J. D. Hooker in the 19th century suggested that the sub-Antarctic flora might hold the key both to an understanding of the ancient flora of Antarctica and to plant adaptation for long-distance dispersal. Despite this, only on South Georgia and Marion Island has there been any major research programme in terrestrial botany, and we must look to these islands for any advances in our understanding of the vegetation.

A good general description of the vegetation and soils of Marion Island existed before Gremmen began his studies (Huntley, 1971). He clearly used this to good effect when planning his research. His decision to use the Braun-Blanquet releve approach to vegetation classification is interesting. Many phytosociologists apparently did not believe that this floristic-sociological approach would work adequately in such species–poor communities. Gremmen has shown very convincingly that it does work and can provide the essential framework for any future botanical ecology. In this context, one useful development from this present work would be numerical analyses to quantify the community relationships along environmental gradients. His classification appears to make little use of the 50 species of lichens known from the islands, and it would be surprising if some of these did not show considerable association fidelity. Considerable taxonomic confusion still exists, especially in crustose lichen genera, and so it may be some time before definitive species lists are possible for all releves.

As well as providing detailed stand characteristics and species lists, Gremmen compares the Marion Island vegetation with that on other sub-Antarctic islands, the Falkland Islands and the maritime Antarctic islands. Generally, his survey of the literature (up to 1979) is good, but he has missed important papers on Iles Crozet (Davies and Greene, 1976) and Macquarie Island (Costin and Moore, 1960) amongst others, which would have added considerably to the comparative assessments.

The book is well produced, indexed and written in excellent English, although there are a surprising number of spelling errors. The photographs would have been much better on gloss paper; considerable definition has been lost by printing them in matt format. The final chapter, which attempts to outline plant community ecology on Marion Island, seems rather short. Perhaps Dr Gremmen will expand on this elsewhere, especially in respect of the dynamic aspects of vegetation. Dr Gremmen and the South African Antarctic programme must be congratulated on producing a valuable addition to our knowledge of the sub-Antarctic. It is to be hoped that similar accounts will be produced for the vegetation of the other islands.

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https://doi.org/10.1017/S0032247400019082 Published online by Cambridge University Press