



AN ANALYSIS OF THE VEGETATION ON SOME STRANDED
COASTAL DUNE RANGES IN THE LOWER SOUTH-EAST,
SOUTH AUSTRALIA

by

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(M.Sc. Thesis, Adelaide, 1965)

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This project was carried out in association with the Botany Department of the University of Adelaide, and the thesis was submitted for the degree of Master of Science in October 1965. The thesis contains no material which has been accepted for the award of any other degree or diploma in any other University, and to the best of the author's knowledge and belief contains no material previously published or written by another person, except where due reference is made.

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SUMMARY

Dune ranges representing Pleistocene coastlines in the South-East of South Australia are most distinct in County Robe, where they form a chronosequence. Within this area the predominant ecosystem is dry sclerophyll forest containing Eucalyptus baxteri on deep podsolized sands. On the basis of the occurrence of about a hundred species, this vegetation consists of environmentally controlled associations, of which there are about ten depending on the method of analysis employed.

Association-analysis, proposed by Williams and Lambert (1959-1961) for use with an electronic computer, is preferred to the manual interspecific correlation method of Goodall (1953). This is because the former is based on the most strongly associated species, which is more meaningful in detecting local vegetation and habitat differences than is the most frequent species. Furthermore, the latter only produces a limited number of associations, and the analysis is influenced by choice of significance level. Nevertheless results obtained by the two methods are not dissimilar, and accordingly some further comparative studies are suggested.

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2 To correlate vegetation and habitat.	
3 To compare analytical methods.	

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