

THIRLMERE LAKES, N.S.W. : GEOMORPHIC
ENVIRONMENT AND EVOLUTION

by

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Submitted in accordance with
the requirements of the Honours
Degree of Bachelor of Arts,
Macquarie University.

1974

".... WE CROSST THREE DEEP VALLIES,
WITH LARGE PONDS OF WATER IN EACH
OF THE VALLIES. WE ALSO CROSST
ONE DEEP GULLY: WE THEN CAME TO
FOR THE NIGHT...."

*Diary of the second
Wilson expedition,
14th March, 1798*

ACKNOWLEDGEMENTS

I would like to thank the following individuals and organisations for their assistance and advice during the research for, and writing of, this thesis: the National Parks and Wildlife Service of N.S.W. for permission to work in Thirlmere Lakes State Park, and, in particular, Ranger Mr. J. Wyeth and Operations Officer Mr. T. Barrett for the provision of maps and other information; local landholders Mr. W. Racklyeft, Mr. S. Balaz and Mr. L. Lipping for permission to work on their land, and Mr. Opik for providing a tractor for "debogging" operations; geologists of the N.S.W. Geological Survey for providing an unpublished geological map of the area; Mr. D. Benson, Mr. J. Pickard and others of the National Herbarium for identifying some of the plants; Mr. K. Bamber, Division of Wood Technology, Forestry Commission of N.S.W. for advising on methods of slide preparation; Dr. A. A. Racek and Mr. J. Stanasic of Sydney University Zoology Department for information about the freshwater fauna in the lakes, and particularly the latter for allowing me to use unpublished limnological data; Prof. D. Walker and Dr. G. S. Hope, A.N.U., for identifying the pollen in the peat samples; Dr. R. J. Coventry, C.S.I.R.O. Div. of Soils, Townsville, for permission to use unpublished data on Lake George; Mr. J. W. Tayton and Mr. S. Collins, Macquarie University for conducting the seismic survey and interpreting the data; Dr. J. G. Jones for advice on the structure of the Sydney Basin; Mr. R. Kidd for assistance with echosounding; and Messrs. P. Crozier and G. Gardener for assistance with deep drilling.

Mr. Bob Wasson provided information about alluvial fans and grain size analysis, and advice and support in moments of confusion. Mr. Peter Mitchell was untiring in his assistance, particularly with coring, deep drilling and x-ray photography; his vast knowledge of the physiography of the Sydney region provided much food for thought. Dr. Don Adamson, School of Biological Sciences, Macquarie University, filled the gaps in my knowledge of Botany with much advice and assistance with laboratory procedures; he also braved the cold and deep waters of the lakes to obtain specimens and proved that the peat islands

could support the weight of a human being! Very special thanks are due to my supervisor, Dr. Russell Blong: his advice and continued encouragement helped to make the research worthwhile. Finally, I must thank my family and friends who have been often inconvenienced by my involvement with this project, and my typist, Miss Judi Ewing, who overcame illness to type the manuscript so expertly.

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ABSTRACT

Thirlmere Lakes, N.S.W., are located in an incised former river valley which has undergone considerable infilling with sediments prior to, and possibly during the formation of the lakes.

Research into the geomorphic processes operating in and around the lakes has shown that organic sediment, in the form of sedge peat, is the main type of deposit accumulating in the lakes at the present time. Past lake level changes are indicated by, firstly, alternation of fine with coarse inorganic sediment in the marginal areas of the lakes reflecting oscillations in the location of the littoral zone; secondly, changes in the aquatic vegetation zonation; and, thirdly, the formation of peat islands. Bushfire appears to be a major influence on the initiation of sediment transport on the surrounding hillslopes and alluvial fans.

Lacustrine facies at depth in the valley fill indicate more extensive lacustrine deposition in the valley in the past, and lake formation may be related to tectonic uplift of the area since the Late Tertiary period.