Salt Lakes

Developments in Hydrobiology 5

Series editor
H. J. Dumont

DR W. JUNK PUBLISHERS THE HAGUE-BOSTON-LONDON 1981

Salt Lakes

*Proceedings of the International Symposium on Athalassic (Inland)
Salt Lakes, held at Adelaide, Australia, October 1979*

Edited by
W. D. Williams

Reprinted from *Hydrobiologia*, vols. 81/82 (1981)

DR W. JUNK PUBLISHERS THE HAGUE-BOSTON-LONDON 1981

Distributors:

for the United States and Canada

Kluwer Boston, Inc.
190 Old Derby Street
Hingham, MA 02043
U.S.A.

for all other countries

Kluwer Academic Publishers Group
Distribution Center
P.O. Box 322
3300 AH Dordrecht
The Netherlands

This volume is listed in the Library of Congress Cataloging in Publication Data

ISBN-13: 978-94-009-8667-1 e-ISBN-13: 978-94-009-8665-7
DOI:10.107/978-94-009-8665-7

Cover design: Max Velthuijs

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Softcover reprint of the hardcover 1st Edition 1981

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Dr W. Junk Publishers, P.O. Box 13713, 2501 ES The Hague, The Netherlands.

Foreword

This publication is composed of papers presented at an International Symposium on Athalassic (Inland) Salt Lakes, which was hosted by the University of Adelaide, South Australia, during a week in October 1979. The genesis of the Symposium was at the Copenhagen Congress of the International Association of Limnology (S.I.L.) where it was noted that a number of papers concerned with inland saline lakes were distributed throughout sessions in such a way as to make it difficult to attend all of them. A number of participants at the Congress felt that the ecology of salt lakes had greater homogeneity or cohesiveness than this sort of distribution would suggest, and it was decided that a symposium on salt lakes be held.

The symposium was the first under the aegis of the S.I.L. to be held in Australia, and it was very well attended, with participants coming from many countries. The week long programme produced a number of lively and interesting sessions on all aspects of athalassic saline lakes. Participants stayed on after the Symposium for an expedition to Lake Eyre, in the north of South Australia, and were given one of the best of all possible introductions to the Australian environment.

The Symposium was supported by a grant from the University of Adelaide. The University of Adelaide is the third oldest in Australia, having been founded in 1874, and it places a high value on promoting research across the whole spectrum of knowledge. It enjoys a high reputation for research excellence and attracts an outstanding share of government and privately allocated research monies in Australia. In addition, where it can, the University offers financial support of its own to activities related to the research interests of its staff. We were honoured and delighted to be able to host this Symposium which provided an opportunity for an exchange of ideas and discussion between colleagues working in related fields of interest in many different regions of the world. It is essential that researchers are able to maintain a broad vision of the way in which research in their field is developing. Conferences are an important means of achieving this end.

It is my hope that there will be many more international symposia such as this one, and that the experiences of Adelaide, and the publication of these proceedings will form an important background to encouraging further development of international research and cooperation in the field.

D. R. Stranks
*Vice-Chancellor,
University of Adelaide*

Editor's preface

The claim that the total volume of inland saline water is not substantially less than that of inland fresh water comes as a surprise to most limnologists, for traditionally (indeed, almost by definition) limnology is the study of fresh waters. Of course, this is understandable in that fresh water is often the only sort of inland water near most limnologists, and in terms of man's need for water is much more important than saline water.

The general lack of awareness amongst limnologists concerning the abundance of inland saline waters is reflected, predictably, in the relatively small amount of attention that has been accorded them. Yet salt lakes have many features of limnological interest as well as considerable economic significance. Recognizing in particular the biological interest of salt lakes, a group of participants at the Copenhagen congress of *Societas Internationalis Limnologiae* (S.I.L.) decided to convene a symposium in which the dominant theme would be the biology of salt lakes. In this way, it was hoped, increased attention would be drawn to the subject, an opportunity would be provided to review information presently available, and other limnologists might be stimulated to research this neglected but fascinating field of limnology. The organization of the symposium was left to Dr I. A. E. Bayly, Prof. U. T. Hammer and myself.

It was decided to hold the symposium in Australia, an apposite choice of venue on several grounds. Australia has many salt lakes and overall they are more common than freshwater lakes; and limnology in Australia is a young but growing discipline so that there is a certain sense of timeliness that the first Australian S. I. L. symposium should be about salt lakes. In due course, the symposium took place and some fifty limnologists from ten countries participated (see List of Participants). The formal proceedings occurred over five days (22–26 October, 1979), and were followed by an expedition to Lake Eyre and other salt lakes in South Australia (led by me), and then to some salt lakes in western Victoria (led by Dr I. A. E. Bayly).

This book results from the formal proceedings, and with its publication I hope the major aims of the symposium will be achieved. A few papers are also published here which were not actually read at the symposium; they are, however, by authors who planned to attend but who were prevented from doing so by last-minute and unforeseen circumstances, or by authors who did attend but who for various good reasons did not read the paper now published. Originally, it was hoped to include in the published proceedings edited versions of the sometimes lengthy discussions which followed the reading of papers. Several reasons (but principally space requirements) have precluded this.

During the symposium and following expedition, a number of my colleagues at the University of Adelaide gave valuable support. Particular acknowledgement is made of the tremendous and unstinting support of Patrick De Deckker, but also gratefully acknowledged is the support of K. F. Walker, D. J. Williams and Miss Sandra Lawson. Mrs Rathman, Manageress of the Rymill Conference Centre, where the symposium was held, is thanked for her hospitality, and the many small kindnesses which ensured that the non-cerebral cares of participants were not a constraint to the success of the symposium.

The publication of the proceedings would not have been possible without the enthusiastic support and help of many people. Especially do I thank Miss Sandra Lawson, Secretary to the Department of Zoology, University of Adelaide, for her meticulous typing and attention to many related matters. Almost all figures were redrawn by Mrs Ruth Hughes, and rephotographed by Mr Phil Kempster, also of the University of Adelaide; they, too, are sincerely thanked.

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All papers here were critically assessed by a number of colleagues before acceptance. In this regard, I gratefully acknowledge the help of I. A. E. Bayly (Monash University, Australia), L. C. Beadle (The University, Newcastle Upon Tyne, U.K.), L. J. Borowitzka (Roche Research Institute of Marine Pharmacology, Australia), T. D. Brock (University of Wisconsin, U.S.A.), H. Caspers (Institut für Hydrobiologie und Fischereiwissenschaft, Hamburg, Western Germany), P. De Deckker (University of Adelaide, Australia), J. Dorgelo (University of Amsterdam, The Netherlands), H. J. Dumont (Rijksuniversiteit, Gent, Belgium), C. Ellis-Evans (British Antarctic Survey, Cambridge, U.K.), G. Fryer, FRS (Freshwater Biological Association, U.K.), G. G. Ganf (University of Adelaide, Australia), M. C. Geddes (University of Adelaide, Australia), U. T. Hammer (University of Saskatchewan, Canada), G. Hartmann (Universität Hamburg, Western Germany), C. den Hartog (Katholieke Universiteit, Nijmegen, The Netherlands), R. B. Heywood (British Antarctic Survey, Cambridge, U.K.), H. B. N. Hynes (University of Waterloo, Canada), R. Marchant (University of Adelaide, Australia), J. W. Neale (University of Hull, U.K.), F. J. Post (Utah State University, U.S.A.), D. Thomas (University of Tasmania, Australia), Winifred A. Tutin, FRS (University of Leicester, U.K.), P. A. Tyler (University of Tasmania, Australia) and K. F. Walker (University of Adelaide, Australia).

Finally, I thank the University of Adelaide for financial support towards the symposium, and for the less tangible but none the less important support of its Vice-Chancellor, Professor D. R. Stranks.

W. D. Williams

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Group photograph. For key to numbers see list of participants.

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* The key to the group photograph is given by the number in brackets after names.

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