Saline Lakes

Proceedings of the Third International Symposium on \smile Inland Saline Lakes, held at Nairobi, Kenya, August 1985

Edited by John M. Melack

Reprinted from Hydrobiologia, vol. 158

UNIVERSITÄTSPIBLIOTHEK HANNOVER

TECHNICCHE INFORMATIONSBIBLIOTHEK

1988 DR W. JUNK PUBLISHERS

a member of the KLUWER ACADEMIC PUBLISHERS GROUP DORDRECHT / BOSTON / LANCASTER



Contents

Pre	face by John M. Melack	v
List	of Participants	IX
1.	Primary producer dynamics associated with evaporative concentration in a shallow, equatorial soda	
	lake (Lake Elmenteita, Kenya)	
	by John M. Melack	1
2.	Nutrient-phytoplankton relationships in a tropical meromictic soda lake	
	by Stephen G. Njuguna	15
3.	Chemical and algal relationships in a salinity series of Ethiopian inland waters	
	by R. B. Wood and J. F. Talling	29
4.	Photosynthetic activity of phytoplankton and its relation to environmental factors in hypersaline	
	Mono Lake, California	
	by Robert S. Jellison and John M. Melack	69
5.	A microcosm study of nitrogen utilization in the Great Salt Lake, Utah	
	by F. J. Post and J. C. Stube	89
6.	Aquatic macrophytes in saline lakes of the Canadian prairies	
	by U. Theodore Hammer and J. Michael Heseltine	101
7.	The benthic communities of the saline lakes Abijata and Shala (Ethiopia)	
	by Claudiu Tudorancea and Arthur D. Harrison	117
8.	Effect of lake level fluctuations on the habitats of benthic invertebrates in a shallow tropical lake	
	by M. A. Cantrell	125
9.	Experimental effects of elevated salinity on three benthic invertebrates in Pyramid Lake, Nevada	
	by David L. Galat, Mark Coleman and Rob Robinson	133
10.	Comparative population ecology of Ephydra hians Say (Diptera:Ephydridae) at Mono Lake	
	(California) and Abert Lake (Oregon)	
	by David B. Herbst	145
11.	Abundance and spatial distribution of Artemia salina in Lake Abert, Oregon	
	by Frank P. Conte and Paul A. Conte	167
12.	Nearshore and pelagic abundances of Artemia monica in Mono Lake, California	
	by Frank P. Conte, Robert S. Jellison and Gwen L. Starrett	173
13.	In situ hatching of Artemia monica cysts in hypersaline Mono Lake, California	
	by Gayle L. Dana, Christopher J. Foley, Gwen L. Starrett, William M. Perry and John M. Melack	183
14.	Acid brine shrimp: Metabolic strategies in osmotic and ionic adaptation	101
	by Frank P. Conte and Michael C. Geddes	191

VIII

15.	Artemia habitats: Ion concentrations tolerated by one superspecies	
	by Sarane T. Bowen, Martin R. Buoncristiani & Jaya R. Carl	201
16.	Factors influencing species diversity in saline waters of Death Valley, U.S.A.	
	by Elizabeth A. Colburn	215
17.	The biogeographical affinities of the fauna in episodically filled salt lakes: A study of Lake Eyre	
	South, Australia	
	by W. D. Williams and M. J. Kokkinn	227
18.	Spanish salt lakes: Their chemistry and biota	
	by F. A. Comín and M. Alonso	237
19.	An instance of thermal instability in Lake Simbi, Kenya	
	by Peter B. O. Ochumba and David I. Kibaara	247
20.	Thermal stratification and stability of meromixis in the Pretoria Salt Pan, South Africa	
	by P. J. Ashton and F. R. Schoeman	253
21.	Lake Torrens brine	
	by P. M. Schmid	267
22.	The distribution, structure and composition of freshwater ice deposits in Bolivian salt lakes	
	by Stuart H. Hurlbert and Cecily C. Y. Chang	271
23.	The salt lakes of western Canada: A paleolimnological overview	
	by William M. Last and Laurie A. Slezak	301