

The author achieved his objective, summarizing new and old information about the eight species. Valuable personal observations gathered as director of animal care in the Tierpark Berlin and on a number of expeditions in Europe and Asia are presented in addition to observations of others. Thus, considerable previously unpublished or obscure information is provided, which is the major strength of this book. The literature is widely reviewed but not exhaustively so. The sources of observations are not always adequately described to allow the reader to judge the reliability of the data. Fischer makes relatively few general interpretations; some of his interpretations are simplistic. This third edition has 46 more pages than the second edition and features more excellent photographs. The book reads easily and, as do other books in this series, represents a valuable reference source for biologists and naturalists interested in sea eagles and particularly the whitetailed sea eagle.

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**THE ROGER J.E. BROWN MEMORIAL VOLUME.** Edited by H.M. FRENCH.  
Proceedings, Fourth Canadian Permafrost Conference. Ottawa: National  
Research Council of Canada, 1982. 594 p.

The profound influence of Roger J.E. Brown on the development of permafrost studies in Canada is unquestioned. The quality of his research is manifested in the Proceedings of the Fourth Canadian Permafrost Conference, where Roger's work is quoted in all but two papers dealing with climate and permafrost, his special interest. It is appropriate that the Proceedings volume be dedicated to him, and that an extensive obituary, bibliography and photos

from Roger's career be included.

The first thing that struck me about this volume is the diversity of the 65 papers and the large number of people now involved in permafrost research. Although the conference was Canadian and by far the greatest number of papers are authored by Canadians, many international workers participated, indicating the Conference's importance. Papers are categorized into seven sections. The first two sections, dealing with Climate and Permafrost and Soils and Permafrost, centre on a variety of themes including processes, distribution, thermal regimes, influence of terrain factors on distribution and microclimate, and relict permafrost. Most papers in the section on Hydrology in Permafrost Regions are on various aspects of icings, although surface water movement and isotope variations are treated. Stimulated by oil and gas exploration, the Geophysics and Subsea Permafrost section contains papers mostly on physical characteristics, distribution, and thickness of permafrost below the Beaufort Sea, determined by geophysical methods. In addition, papers on acoustic testing of frozen soils and electro-magnetic methods for mapping permafrost along pipeline corridors are presented. In a departure from previous permafrost conferences, a section on Gas Hydrates and Permafrost is included. The interest in this timely subject is indicated by the inclusion of nine papers on a variety of subjects including the development and production of gas hydrate deposits. The next section is on Laboratory Testing of Frozen Soils. Papers deal with strain, compression, deformation, creep and relaxation tests on various frozen materials. The last section on Engineering Applications in Permafrost Areas is the largest, containing 16 papers. Aspects of frost heave, thaw, heat flow, and electrical freezing potentials are treated, as are methods and techniques utilized in various engineering activities in permafrost regions.

The volume will appeal to professionals and students who want to keep abreast of the latest results in all areas of permafrost research. As with many conference proceedings volumes dealing with a general subject, specialists with narrow interests or persons with a cursory interest in permafrost may not find it necessary to own.

Generally, the papers are well written and illustrated. The editor has done a good job. The papers are arranged in a logical sequence and the illustrations are well presented and easy to read. All in all, the production of the book is first rate.

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