

## Snow Ecology: An Interdisciplinary Examination of Snow-Covered Ecosystems

Edited by H. G. Jones, J. W. Pomeroy, D. A. Walker, and R. W. Hoham. 2001. Cambridge University Press, New York. xx + 378 pp., illus. U.S. \$80.

As its title suggests, *Snow Ecology* examines snow and its effects from many points of view. The book is divided into seven multi-authored chapters or review papers. The chapter titles provide a good summary of the entire book: Snow Cover and the Climate System, Physical Properties of Snow, The Chemistry of Snow: Processes and Nutrient Cycling, Microbial Ecology of Snow and Freshwater Ice with Emphasis on Snow Algae, The Effect of Snow Cover on Small Animals, Snow-Vegetation Interactions in Tundra Environments, Tree-ring Dating of Past Snow Regimes.

Given the wide range of topics covered the book is best viewed as a reference book or textbook rather than something to sit down to read from cover to cover. To this end the book includes a very comprehensive table of contents (5 pages). This allows the reader to easily locate a topic within a chapter. In addition, there is a 20-page glossary of terms and a fairly thorough index. I was also impressed that most chapters concluded with suggestions for future research needs, although not all chapters explicitly listed this as topic in the

table of contents. The book is profusely illustrated with black-and-white drawings and graphs. There are four pages (two sheets of glossy paper) with colour illustrations that added little to the quality of the book but one wonders what effect they had on the cost.

It should be stressed that this book's emphasis is on snow, not winter. Hence there is only one slender chapter on animals and this is focused on winter active invertebrates and small mammals. Topics such as hibernation, or adaptations in birds or large mammals to winter conditions are beyond the scope of the book. This is not a criticism, as the editors have carefully avoided the broader term winter ecology, but it still might mislead some readers.

Overall, the writing is clear and strong. There is no poetic language here. The statements are fully referenced. While this is not the definitive book on winter ecology it clearly is an excellent guide to snow and how it affects the landscape.

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## Seabirds and Atlantic Canada's Ship-Source Oil Pollution

By F. Wiese. 2002. World Wildlife Fund, Toronto, Canada. 82 pp., illus.

The public seems to have a love-hate relationship with oil. Oil allows for high salaries and contributes to civilisation, but it also can create severe pollution. As this report shows well, chronic offshore oil ranks among the most severe pollution problems in the world.

"Many people consider Canada to be one of the leading nations in environmental conservation in the world". However, the still conservative estimate of 300,000 dead Canadian seabirds due to chronic oil pollution and presented in this report is shocking, to say the least. Besides a seabird population issue this is also a major animal care issue: over 300 000 animal individuals are suffering and are dying a gruesome death. As this informative report emphasizes, for each oiled seabird found in Newfoundland one can assume that at least 10 more have died.

Together with several individuals devoted to the issue of marine oil pollution, author Dr. F. Wiese studied seabirds and their oil-related mortality for many years. His report on chronic offshore oil pollution is structured in two parts: The Problem (11 chapters) and The Solution (8 chapters); four appendices, a list of abbreviations, and some references are also given. Half of the report

deals with OSIRs (Oil Spill Intelligence Reports 1997-2000), presented in Appendix 4. OSIRs are only accessible for a few signed-up members, and it is great that Wiese's report provides the wider public with an opportunity to access this information. Besides reporting baseline numbers of seabird mortalities and oil pollution incidents, other highlights of this document are presented to a wide audience dealing with ocean modelling, detectabilities of oiled birds on a beach, drift block experiments and emphasizing how important such methods are to address the chronic offshore oil pollution efficiently and in accurate terms.

"Most of those in the marine industry carry out their operations in a safe and environmentally responsible manner." This statement is somewhat in contrast to the fact that oiled birds keep washing up on shorelines worldwide which suggests that national legislation and international conventions and guidelines are not being followed or that they are inefficient. "The illegal discharge of oil from ships into the world's oceans is a global problem that affects the entire marine ecosystem". This calls for a well-designed global oiled bird survey; e.g., citizen- and volunteer-based marine and beach surveys.

From this nice report it becomes quickly obvious that the history and track-record of chronic oil pollution, a