

## Arctic Microclimates

By P. S. Corbet. 1972. The microclimate of arctic plants and animals, on land and in fresh water. *Acta Arctica* 18. 43 pp.

This is a very clearly written general review of arctic micrometeorology that brings together North American information to about 1970 and serves as an extrapolation of Geiger's (1966) *The Climate near the Ground* into arctic areas. I believe the author has attempted to provide a review useful to any biologist who has a general understanding of meteorology rather than to provide a highly quantitative view of arctic meteorology. The 128 references in the present work will serve as a beginning point for a student new to the field.

Corbet's research at Lake Hazen, Ellesmere Island (81°49' N) since the mid-1960s prompted him to write this review. The now-published work from Hazen Camp, by himself and his colleagues, is incorporated. Almost all of the 23 figures come from work completed at other research sites and already published in research journals. As with all summaries on arctic research, this one is already out of date. A good deal more information is now available from the International Biological Programme studies at Char Lake on Cornwallis Island, on Devon Island, and at Point Barrow, Alaska. Some of the questions raised in the review have been answered and many more quantitative data are now available from these studies.

The author has logically divided up the review into general arctic microclimates, below-ground microclimates, and freshwater microclimates. Within each of these major sections a short description of the biota and major seasonal limiting features is provided. With this as

a background the microclimatic factors of temperature, moisture, and wind are examined to give the reader an understanding of the spatial and temporal variation. Although focus is on the physical factors, responses of organisms are included. The author defines plants and animals mainly in terms of flowers and insects, because much of the Hazen Camp research with which he was associated was so oriented. I feel that he would have strengthened his paper for general readers by including examples from other divisions of macro- and micro-organisms. A few photographs illustrating points in the text would likewise be useful.

Since biology is becoming more and more quantitative and predictive, I initially expected to find some references to preliminary mathematical or world models of micro-meteorological phenomena. Quantification of physical parameters such as thermal conductivity of animal pelts and resultant winter survival, or thermal conductivity of soil and resultant microbial activity, would have made the review more useful for researchers. Perhaps the author felt that he had to leave out the more quantitative aspects to retain the general readership, but I hope he can be encouraged to attempt in the near future a larger, more quantitative review including the Old World literature. Many arctic researchers would welcome such a work.

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## Clearcut, The Deforestation of America

By Nancy Wood. 1971. A Sierra Club Battlebook, Sierra Club, New York. 151 pp. \$2.75.

Controversial books often advocate the extreme and hence are ignored by but a few. Ms Wood's book is an exception. She has effectively organized and presented pertinent material on forestry practices in the United States in a clear and factual way.

The text is organized into eight chapters, preceded by a prologue and followed by an epilogue. The prologue introduces the text by suggesting what the reader may have personally experienced — "a virgin forest, growing by itself without man to manage it or decide its fate, a forest which has not yet been humbled, a forest which has no 'use' except to those who come to gain some insight from it." The epilogue reads as a confession from a logger who has realized that, with his axe, he has destroyed one of life's few but undefined pleasures: "I am deeply concerned about our forests . . . they are

going, going, gone. . . . Gentlemen this is all there is. There is no more and the time is running out."

In the main body of the text are two noticeable features. First, Ms Wood has a remarkable ability to organize coherently a large volume of factual material into readable order. Secondly, she shows absolute confidence in her material, accrediting numerous quotations to specific, named individuals rather than to 'a company spokesman.'

The controversial issue of clearcutting or even age management has been dealt with by a wide range of publications, including *Reader's Digest* (September 1971) and the *Journal of Soil and Water Conservation* (1972, 27(6)). For all the attention, the arguments and controversy continue.

Ms Wood makes no disguise of her opinions regarding the cutting procedures practised in the United States. Her principle objection, however, is to the invasion of



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