

## Ursid Studies

**Bears.** Their Biology and Management. Papers from a conference, Alberta, B.C., Nov. 1970. STEPHEN HERRERO, Ed. International Union for Conservation of Nature and Natural Resources, Morges, Switzerland, 1972. 372 pp., illus. Paper, \$9. IUCN Publications, new series, No. 23.

This volume contains the findings of an international conference on bear research and management, and so presumably reflects the amount of work being done on the seven sorts of bears found on this planet. These can be called (though not to the satisfaction of all taxonomists) the Malayan sun bear (*Helarctos*), the sloth bear (*Melursus*) of India and Ceylon, the spectacled bear (*Tremarctos*) of South America, the Asiatic black bear (*Selenarctos*), the brown and grizzly bears (*Ursus*) of North America and Eurasia, the American black bear (*Euarctos*), and the polar bear (*Thalarctos*). Of these, the first four are discussed in only one paper—"The status and conservation of bears of the world—1970." The greater part of the volume concerns polar bears (7 papers), American black bears (9 papers) and brown/grizzly bears (14 papers). Most of the contributors are from North America, but Norway, Sweden, the U.S.S.R., and Japan are also represented.

The papers are arranged in five panels: The Ecology, Population Characteristics, Movements, and Natural History of Bears; Denning—Control Mechanisms, Site Selection and Physiology; Polar Bear Studies; Bear Behaviour; and Bears and Human Beings. From the contents it is apparent that over the past decade or so the two techniques of dart-drugging and radio-telemetry have been applied to good effect on the bears of North America. In addition, it is now possible to determine age by tooth annulation. Since bears can be captured, aged, marked, and followed, much new information has been obtained on their movement and population dynamics. The behavior and physiology of free-living bears are being studied also. And the fact that bears are both attractive and dangerous to human beings makes the conservation of bears—particularly grizzly bears—a complex matter. The most acute bear problems in North America are found in national parks, so national parks dominate the final panel, Bears and Human Beings.

Bears seem to have virtually no enemies but man. Man has since earliest

times been an admirer and a killer of bears. He has worshiped bears, and feared them, and eaten them and slept on their skins. The human pressures on bear populations have increased steadily over the centuries, as men and livestock occupied more and more bear habitat, and as men developed better and better weapons. Only in the last few decades have men attempted to ease this pressure on bears, and then largely in the industrialized nations. If these efforts continue, the bears of North America, Europe, and the U.S.S.R. have a reasonable chance of survival. But unless some much more effective approach to bear conservation in the less developed nations is devised the future of bears in other parts seems bleak.

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## Zooarcheology

**Atlas of Animal Bones.** For Prehistorians, Archaeologists and Quaternary Geologists. Knochenatlas. Für Prähistoriker, Archäologen und Quartärgeologen. ELISABETH SCHMID. Drawings by Otto Garraux. Elsevier, New York, 1972. vii, 160 pp. \$29.

Some years ago, as a vertebrate paleontologist, I became interested in zooarcheology (the analysis of animal remains from archeological sites). At that time there was only one volume dedicated to this field, *Ostéométrie des Mammifères* by Edmond Hue (1907). That volume was in French. In recent years a number of fine books dealing with this subject have been released by various English-language presses. Most recently the *Atlas of Animal Bones* by Elisabeth Schmid has become available for research workers in zooarcheology. It will also be of considerable value to most vertebrate paleontologists whose interests are with fossil mammals.

The most notable difference in this work of Schmid's is the presentation of the text in both German and English. Each page is split into two columns, with one devoted to German and the other to English. This obviates duplication of the plates, and most of the plates have Latinized legends and need no cross-captioning. In allowing a ready reference for workers not fluent in both of these languages this double text in no way confuses or detracts from the volume.

The illustrations are exceptionally well done, with a carefully worked layout of those bones most commonly found in European archeological sites. This brings me to the one criticism that I have of Schmid's book. There is a complete neglect of literature dealing with the Western Hemisphere, although there have been numerous publications in this field by American workers. The title of the book does not reveal that this is a volume devoted only to the Old World faunas and literature.

It seems that most authors hope that single works of this kind will be sufficient to solve most of the problems of the archeologists in their fields, but time usually proves that they serve as complements to those already published. The *Atlas of Animal Bones* belongs in this category. I believe that no single volume will solve the osteological problems of the archeologist.

Schmid's book is all in all a good volume and should be in every laboratory where mammal bones from archeological sites are under examination. In addition to aiding the expert, it will give the novice a good start in the right direction in interpreting faunal remains.

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## Books Received

**Actions, Styles and Symbols in Kinetic Family Drawings (K-F-D).** An Interpretive Manual. Robert C. Burns and S. Harvard Kaufman. Brunner/Mazel, New York, 1972. xvi, 304 pp., illus. \$12.50.

**Adsorption-Desorption Phenomena.** Proceedings of a conference, Florence, Italy, Apr. 1971. F. Ricca, Ed. Academic Press, New York, 1972. xvi, 462 pp., illus. \$20.50.

**The Agrarian History of England and Wales.** Vol. 1, part 2, A.D. 43–1042. H. P. R. Finberg, Ed. Cambridge University Press, New York, 1972. xviii, 566 pp., illus. \$37.50.

**Air Pollution.** Part A, Analysis. Joe O. Ledbetter. Dekker, New York, 1972. xiv, 424 pp., illus. Paper, \$11.75. Environmental Health Engineering Textbooks, vol. 2.

**Alaska Trees and Shrubs.** Leslie A. Viereck and Elbert L. Little, Jr. U.S. Forest Service, Washington, D.C., 1972 (available from the Superintendent of Documents, Washington, D.C.). viii, 266 pp., illus., + unbound map. \$3.25.

**Amorphous Materials.** A conference, Sheffield, England, Sept. 1970. R. W. Douglas and Bryan Ellis, Eds. Wiley-Interscience, New York, 1972. xviii, 550 pp. + plates. \$24.95.

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