### **Mammals of Oklahoma**

By William Caire, Jack D. Tyler, Bryan P. Glass, and Michael A. Mares. 1989. University of Oklahoma Press, Norman. 544 pp., illus. U.S.\$29.95

*Mammals of Oklahoma* is one of a number of recently published state mammal accounts. Oklahoma was one of the few remaining states lacking a comprehensive account of its native mammals. As stated by Caire: "The primary objective of this book is to acquaint the public with the mammals of Oklahoma. At the same time, sufficient technical information is included to be useful to the professional mammalogist." I feel the authors have adequately met this objective.

This book is unusual in that each of the chapters was written by an individual author or combination of authors, instead of the typical "consolidated approach." Although this approach is probably more convenient for the authors, cohesiveness of the book is decreased by different writing styles and inconsistent editing.

The book is divided into two parts. Part one includes an introduction, history of mammalogy in Oklahoma, physiognomic regions of the state, zoo-geographical affinities of these mammals, glossary, an illustrated identification key, and a checklist of mammals of Oklahoma. Part two consists of species accounts, divided into eight chapters by order and including additional chapters on species of unverified occurrence [*Mustela nivalis* has since been recorded in Oklahoma (Clark and Choate, 1988, Prairie Naturalist 20: 134) and *Sorex longirostris* was reported (Taylor and Wilkinson, 1988 Southwestern Naturalist 33: 248.)], and domestic and exotic species.

Each species account is two to five pages long and contains a pen-and-ink drawing (of varying quality) and a distribution map. The distribution maps would be of greater use if approximate ranges were incorporated, similar to the cross-hatching used in species accounts of *Antilocapra americana* and *Ursus arctos* to present their probable historic ranges. Harvest records are included for furbearing species. Species accounts begin with common and scientific names, followed by morphology, distribution and natural history. Overall, a thorough literature review of pertinent information from Oklahoma and adjacent states was used to support the text.

Three appendices are also included. Appendix one gives locality information for the 19 228 specimens examined, appendix two contains an etymology of scientific names of mammals listed in the text, and appendix three contains a list of scientific names of plants mentioned in text. Also included is a highly functional index.

Several of the scientific names Caire et al. used are now out of date, although alternate names used are explained in the introduction. As with any other comprehensive account of this magnitude, *Mammals* of Oklahoma is not error free. I found a number of minor errors that detract from its overall quality, most of which could have been eliminated by more rigorous editing by the co-authors. For example, in the introduction. Odocoileus is stated as preferred to Dama (Hall, 1981, The mammals of North America, Second edition, John Wiley and Sons); however in O. virginianus species account, Dama is used rather than Odocoileus. Many citations are not included in the literature cited, and a considerable number of typographical errors are present.

Ending on a positive note, the authors have completed a major contribution in Oklahoma mammalogy. I believe this reasonably priced book will serve as a useful reference to Oklahoma mammals. It is a must for students of mammalogy and individuals interested in the fauna of the Southwestern United States.

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#### **The Natural History of Seals**

By W. Nigel Bonner. 1990. Facts on File, New York. 196 pp., illus. U.S. \$24.95; \$33.95 in Canada.

This is a popular book by a highly qualified author. Bonner recently retired after 35 years of working with marine mammals, including stints as head of the Seal Research Unit of the British Natural Environment Research Council and in senior jobs with the British Antarctic Survey. Any naturalist who spends time near the sea will find the book interesting and informative. It deals with all the world's seals, and describes their lives, their adaptations (anatomical and physiological) to the marine environment, their senses, their social systems, and their evolution. This occupies a little over half the book. The second part deals with interactions between seals and people: the history of seal hunting, the consequent fluctuations in seal populations, the uses made of seal products, the damage seals do to fisheries, the effects of marine pollution on seals, seals as hosts of codworms, Greenpeace's successful anti-sealing campaign, the conservation of seals, seal watching as part of ecotourism, and much more.

The book is about seals *sensu stricto*, that is true seals, of the family Phocidae. Other pinnipeds – sealions and fur seals (Otariidae), and walruses (Odobenidae) – are excluded. For Canadian readers, this is disappointing; to exclude from the book the sea-lions and fur seals of our Pacific coast, and the walruses of our Arctic seas seems arbitrary. Bonner's reason is that the order Pinnipedia may be evolutionarily artificial: according to many paleontologists the terrestrial ancestors of the Phocidae were not closely related to those of the other pinnipeds, and their similarities stem from convergent evolution.

The book is for naturalists rather than professional scientists. The occasional lapses into technical report style are too few and too short to matter. There are some quaint archaisms: Inuit are called Eskimos; humanity is called Man (with capital M); and the fish-store customer who comes across parasitic worms in a cod fillet is described as "the house-wife"!

But these are trivial complaints. The book is full of interesting material: for example, on how seals conserve oxygen for long dives, on how they avoid the bends, and on how they fast for long periods. The author's opinions on seal conservation and the future prospects for various species give much food for thought.

It is a pleasure to have these subjects discussed dispassionately. Here is his concluding opinion: "No sensible person can be optimistic about the future for the human race or for many of the higher animals with which we share this planet. But things are perhaps a little brighter for seals than for some other mammals." The author does not say whether this is good news or bad. The book has a useful bibliography and a full index. It is a book to refer to again and again.

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## Protecting Internationally Important Bird Sites: A Review of the EEC Special Protection Area Network in Great Britain

By David A. Stroud, G. P. Mudge, and M. W. Pienkowski. 1990. Nature Conservancy Council, Northminster House, Peterborough PE1 1UA, U.K. 230 pp. £17.

Which European Economic Community (EEC) country has set aside (a) the highest (22%) and (b) the lowest (0.52%) proportion of its total area as Special Protection Areas (SPA) for birds? Did you guess (a) Denmark and (b) Britain?

The EEC Council issued a Directive on the conservation of wild birds in 1979 requiring its 12 member states to set up SPA's for vulnerable species and for migratory species. In 1988 the Nature Conservancy Council was asked by the British government to review the extent to which the proposed SPA's in Britain met the EEC Directive. This publication is their report. It contains a wealth of information: population, habitat, and site maps with discussion; a dictionary of common bird names in seven languages; a detailed description of the "Bezzell Index" (a system producing indices of vulnerability of species); and international legislation. The British Isles provide vital wintering grounds for geese and wildfowl breeding in Northern Canada, Greenland, Iceland, and northern Europe, equally vital staging areas for migrating waders, and habitat for breeding seabirds (gulls, auks, petrels, etc.). The criterion for an SPA site is that it should contain at least 1% of the species international population: the total world populations of Greylag, Barnacle, Pink-footed, and Greenland White-fronted geese winter in the U.K. There are 48 vulnerable species breeding or wintering in Britain, and a further 71 regularly occurring migratory species. An extensive appendix details the conservation status, habitat, population, and distribution for each one. As well, a case is made for protection of small British populations of birds plentiful elsewhere as insurance against population crashes.

The NCC concludes that a good start has been made but the U.K. "could do much better". For example, the map showing concentrations of estuarine birds is ominously similar to the map showing potential land-claim schemes. This is an informative report and useful model for Canadian conservationists. It is sobering that the initial aim is to provide protection for at least 1% of bird populations. Suppose this was a goal for preserving human populations? It would mean that about 260 000 Canadians would be protected!

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