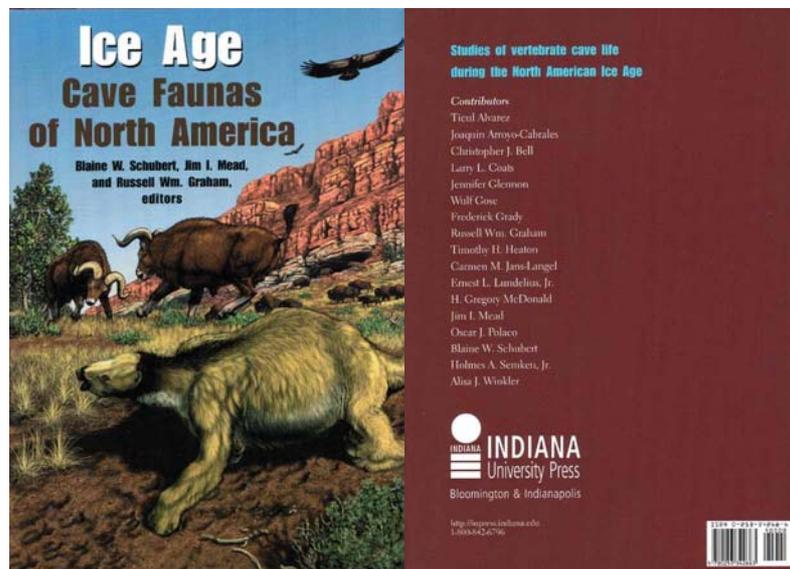


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Bloomington, Indiana University Press

Book review by J. de Vos



As a macro vertebrate palaeontologist who is familiar with the Pleistocene mammals of Eurasia, I was attracted by the title “Ice Age cave faunas of North America”. I thought the book would make me familiar with the Ice Age vertebrates of North America with the idea to see if there is a correlation with the Ice Age vertebrates from Eurasia.

The book is a collection of independent scientific papers, written by specialists in the field of cave faunas of North America. The preface to the book mentions that many of these papers were presented previously at a cave palaeontology symposium at the National Speleological Society convention in Sullivan, Missouri, 1997. The book is dedicated to Elaine Anderson (1936-2002), who was a vertebrate palaeontologist and the driving force in the Porcupine Cave project.

Chapter 1 by Gregory McDonald (16 pages) is interesting because it deals with the “Sloth remains from North American caves and associated Karst Features”. Although sloths are not known in Eurasia, they fascinate me, because they are part of the strange Tertiary South American fauna and migrated to North America. Intriguing is the fact that from these creatures soft tissue, such as skin and nail material as well as dung, is preserved. Figures of these items are given.

Timothy H. Heaton & Frederick Grady describe in chapter 2 (36 pages) “The Late Wisconsin vertebrate history of Prince of Wales Island, southeast Alaska”. Here, already in the abstract, I found species I know, like *Alopex lagopus* (the arctic fox), *Ursus arctos* (the brown bear), *Rangifer tarandus* (the reindeer) and *Saiga tatarica* (the Saiga antelope) and therefore I thought this chapter particularly interesting. After an introduction the taphonomy of the caves is described and a map shows where the sites are. There are two tables with radiocarbon dates on bones, ranging from 260 to 45.000 years. Running through table 2.2, *Alopex lagopus* is already present at 36.000 years; a date also valuable for Eurasia. Table 2.4 shows a long list of taxa, ranging from fishes to mammals, recovered from caves of Prince of Wales Island, Alaska. In other words, this chapter might be of some interest for vertebrate palaeontologists working with European material.

I only browsed chapter 3 (10 pages) by Christopher J. Bell & Jennifer Glennon on Arvicola rodents, and chapter 5 (31 pages) by Russell Graham, on Pleistocene tapir and the like, because both chapters are for specialists on rodents and tapirs. The chapter of Graham shows scatter diagrams in which the different tapir species are plotted. Unfortunately the diagrams are too small to be useful. At least 7 species are indicated in the key belonging to the diagrams, but, looking at the clouds in the diagrams, I could only distinguish one. Probably there are six species too much but anyway there are two species, a small and a large one, at the most. However, I do not think Graham agrees.

Jim I. Mead, whom I know from the Mammoth site of Hot Springs, South Dakota, and his co-authors Coats & Schubert describe in chapter 4 in 10 pages the “Late Pleistocene faunas from caves in the Eastern Grand Canyon, Arizona”. After an introduction they describe the localities, followed by the systematical part in which they present the material and describe it. Giving the Reptilia and Aves only little attention I continued with the

section on Mammalia. Most of the species could only be identified at genus level, like *Sylvagus* sp., which was caused by the fact that the material could not be attributed to one of the still recent species *S. audubonii* and *S. nuttallii*. The same happened with the ground squirrel *Spermophilus* (*Spermophilus*) sp. The species they mention are not familiar to me; I had hoped that some were comparable to the ones found in Eurasia in order to detect possible relationships. In their discussions Mead *et al.* give a chronology of Middle Wisconsinan Glaciation (ca 50,000-25,000 Yr B.P.), Glacial Maximum (ca 25,000 -15,000 yr B.P.) and Late Glacial (15,000-11,000 Yr B.P.). But for someone working in Europe this chronology is unknown. From the dates I could conclude that it must be in the Late Weichselian in Europe, but where to place it exactly remains unknown. Nevertheless, I figured out that they fall within Isotope stage 2 and 3; so, there is no relation with European stratigraphy.

Joaquin Arroyo-Cabrales whom I met at the Mammoth Conference in Rotterdam in 1999 and who worked with *Mammuthus* in Mexico has two papers, chapter 10 and 11. Chapter 10 headed "A preliminary report of the Late Quaternary mammal fauna from Loltún Cave, Yucatán, Mexico". After an introduction, informing the reader who had excavated there and when, a long faunal list is presented in table 10.2. It shows that the fauna can be divided in three groups: Pleistocene only, Holocene only and a mix of Pleistocene/Holocene. The fauna of this site ranges from 30.000 to 500 yr. B.C. In chapter 11, Arroyo-Cabrales and his co-author Polaco describe in 19 pages "Caves and the Pleistocene vertebrate paleontology of Mexico". According to the abstract fifteen caves and three fissure fillings are documented but 19 localities are described. A long list with 173 species (table 11.1) is given.

Chapter 6 (29 pages) by Jangs-Langel & Semken offers a "Paleoecological interpretation of Late Holocene and Late Pleistocene micro mammal faunules from Duhme Cave, Eastern Iowa". This may be a very interesting chapter for micro mammal specialists, but is of minor importance for a macro vertebrate specialist.

Chapter 7 (51 pages) is the longest paper. Schubert describes "A late Pleistocene and Early Holocene mammalian fauna from Little Beaver Cave, Central Ozarks, Missouri". The chapter has the same composition as chapter 4. After an introduction, Schubert describes the locality after which the systematical part follows, in which he presents the material recovered (table 7.7) and determines it. Again a lot of taxa are only identified on genus level.

Lundelius jr. describes in chapter 8 (14 pages) "A history of paleontological investigations of Quaternary Cave deposits on the Edward Plateau, Central Texas". The chapter is exactly what the title pretends to be. First the author describes the geographic setting, after which the early investigations, recent investigations, the chronology follows. He ends with the conclusions and future work. Also this chapter is not useful for my work in Eurasia.

Chapter 9 (45 pages) by Winkler & Gose present the "Mammalian fauna and Paleomagnetism of the Middle Irvingtonian (Early Pleistocene) Fyllan Cave and Kitchen Door Localities, Travis County, Texas". Again, an introduction to the sites, followed by the systematical part including the remains, a determination and a discussion. The main part consists of the taxonomy of the micro mammals. When browsing through the paper, one sentence struck me. In the systematic part of *Allophaiomys* it is said that (p. 232): "these ratio's, as well those for another well sampled population, *A. pliocaenicus* from Java.....". As far as I know there is no *A. pliocaenicus* on Java, if Java Indonesia is meant.

A reference list is inserted after every paper as is common in scientific papers. At the end of the book there is an index. The cover shows an artistic reconstruction of a possible Pleistocene landscape as if taken from a children's book. The maps, diagrams and photographs are in general clear. To summarize, the book is a collection of congress papers of high standard, written by qualified scientists, mainly for scientists working with faunal remains of North America. A large part is devoted to micro mammals. The book is not very useful for vertebrate palaeontologists working with the fauna from Eurasia or for a layman who would like to know something about the "Ice Age cave faunas of North America".

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