MAMMALS FROM THE BLUE ASH LOCAL FAUNA (LATE OLIGOCENE), SOUTH DAKOTA.
RODENTIA PART 5: FAMILY CRICETIDAE

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ABSTRACT
Ten species of cricetid rodents are identified from the Blue Ash fauna including three new species, *Eumys brachyodus*, *E. parvidens*, *Scottimus* sp., cf. *S. longiquus*, *Leidymys* sp., cf. *L. blacki*, *Paciculus dakotensis* n. sp., *P. sp.*, cf. *P. nebraskensis*, *Geringia copiosa* n. sp., and an indeterminate species. The cricetids are the best represented and one of the most diverse families of rodents from the Blue Ash anthill fauna. Some of the genera of cricetids present in the fauna are more characteristic of the Arikareean land mammal age (*Leidymys, Paciculus, Geringia*), but the species are either smaller or morphologically more primitive than those from the Arikareean. However, three species in the fauna (*E. brachyodus*, *E. parvidens*, *S. longiquus*) are currently only known from the Orellan or Whitneyan. It appears that the age of the Blue Ash fauna, based on the cricetid rodents, is somewhere near the Whitneyan-Arikareean boundary.

INTRODUCTION
Previously, a number of taxa from the Blue Ash fauna have been identified that are elsewhere known from the Arikareean, as well as other taxa that are more typical of earlier Orellan and Whitneyan ages (see Korth, 2009 and references therein). The cricetids are the most abundant family of rodents in the Blue Ash fauna, being represented by over 500 specimens. Distinct cricetid characterize the land mammal ages Orellan, Whitneyan, and Arikareean. The suites of genera represented from these adjacent levels are therefore diagnostic of their respective land mammal ages. The earlier horizons (Orellan and Whitneyan) are dominated by species of *Eumys, Scottitus, Wilsoneumys*, and *Eoeumys*; the Arikareean fauna is dominated by species of *Leidymys, Geringia*, and *Paciculus* with rare occurrences of *Eumys* (Wood, 1937, 1980; Martin, 1980; Korth, 1994). The distinctiveness of the Whitneyan and Arikareean cricetid faunas, and the great number of specimens, suggests that the cricetids should be quite valuable in determining the biostratigraphic horizon of the fauna.

Dental terminology modified from that of Wood and Wilson (1936). Capital letters indicate upper teeth and lower-case letters represent lower teeth (e.g. M1 or m1). Abbreviations for institutions: AMNH, American Museum of Natural History; FAM, Frick Collections, American Museum of Natural History; CM, Carnegie Museum of Natural History; MWC, Museum of Comparative Zoology, Harvard University; ROM, Royal Ontario Museum; UNSM, University of Nebraska State Museum; YPM-PU, Yale Peabody Museum, Princeton Collection.

SYSTEMATIC PALEONTOLOGY

Order Rodentia Bowdich, 1821
Family Cricetidae Fischer de Waldheim, 1817

Eumys Leidy, 1856


Range—Orellan to early Arikareean (early to late Oligocene) western North America.

Discussion—Thirteen species of *Eumys* have been named from North America. Of these, five have been referred to other genera (Table 1). In his review of Oligocene and early Miocene cricetids, Martin (1980) recognized only four species, *E. elegans*, *E. brachyodus*, *E. parvidens* and *E. pristinus*. He synonymized *E. obliquidens*, *E. cricetodontoides*, *E. latidens*, *E. spokanensis* and *Cricetodon nebraskensis*