

CRAZY MOUNTAINS BASIN PROJECT — LIST OF PUBLICATIONS

(Arranged chronologically and, within years, alphabetically by author)

PEER-REVIEWED RESEARCH ARTICLES

1. Gingerich, P. D., P. Houde, and D. W. Krause. 1983. A new earliest Tiffanian (late Paleocene) mammalian fauna from Bangtail Plateau, western Crazy Mountain Basin, Montana. *Journal of Paleontology* 57:957–970.
2. Krause, D. W., and P. D. Gingerich. 1983. Mammalian fauna from Douglass Quarry, earliest Tiffanian (late Paleocene) of the eastern Crazy Mountain Basin, Montana. *University of Michigan Museum of Paleontology Contributions* 26:157–196.
3. Carlson, S. J., and D. W. Krause. 1985. Enamel ultrastructure of multituberculate mammals: an investigation of variability. *University of Michigan Museum of Paleontology Contributions* 27:1–50.
4. Biknevicius, A. 1986. Dental function and diet in the Carpolestidae (Primates: Plesiadapiformes). *American Journal of Physical Anthropology* 71:157–171.
5. Krause, D. W. 1986. Competitive exclusion and taxonomic displacement in the fossil record: the case of rodents and multituberculates in North America; pp. 95–117 in *Vertebrates, Phylogeny, and Philosophy: a Tribute to George Gaylord Simpson* (K. M. Flanagan and J. A. Lillegraven, eds.), *University of Wyoming Contributions to Geology, Special Paper No. 3*.
6. Krause, D. W. and S. J. Carlson. 1986. The enamel ultrastructure of multituberculate mammals: a review. *Scanning Electron Microscopy/1986*:1591–1607. Reprinted in 1988 as pp. 165–180 in L. Martin, A. Boyde, F. Grine, and S. Jones (eds.), *Scanning Microscopy of Vertebrate Mineralized Tissues*. *Scanning Microscopy International*, Chicago, 384 pp.
7. Archibald, J. D., W. A. Clemens, P. D. Gingerich, D. W. Krause, E. H. Lindsay, and K. D. Rose. 1987. First North American Land Mammal Ages of the Cenozoic Era; pp. 24–76 in M. O. Woodburne (ed.), *Cenozoic Mammals of North America*, University of California Press, Berkeley.
8. Butler, R. F., D. W. Krause, and P. D. Gingerich. 1987. Magnetic polarity stratigraphy and biostratigraphy of middle-late Paleocene continental deposits of south-central Montana. *Journal of Geology* 95:647–657.
9. Krause, D. W. 1987. *Baiotomeus*, a new ptilodontid multituberculate (Mammalia) from the middle Paleocene of western North America. *Journal of Paleontology* 61:595–603.
10. Krause, D. W. 1987. Systematic revision of the genus *Prochetodon* (Multituberculata, Mammalia) from the late Paleocene and early Eocene of western North America. *University of Michigan Museum of Paleontology Contributions* 27:221–236.
11. Krause, D. W., and S. J. Carlson. 1987. Prismatic enamel in multituberculate mammals: tests of homology and polarity. *Journal of Mammalogy* 68:755–765.
12. Maas, M. C., D. W. Krause, and S. G. Strait. 1988. The decline and extinction of Plesiadapiformes (Mammalia: ?Primates) in North America: displacement or replacement? *Paleobiology* 14:410–431.
13. Krause, D. W., and M. C. Maas. 1990. The biogeographic origins of late Paleocene – early Eocene mammalian immigrants to the Western Interior of North America; pp. 71–105 in T. M. Bown and K.

- D. Rose (eds.), Dawn of the Age of Mammals in the northern part of the Rocky Mountain Interior, North America. Geological Society of America, Special Paper 243.
14. Thewissen, J. G. M. 1990. Evolution of Paleocene and Eocene Phenacodontidae (Mammalia, "Condylarthra"). University of Michigan Papers on Paleontology 29:1–107.
 15. Wall, C. E., and D. W. Krause. 1992. A biomechanical analysis of the masticatory apparatus of *Ptilodus* (Multituberculata). Journal of Vertebrate Paleontology 12:172–187.
 16. Krause, D. W., and Z. Kielan-Jaworowska. 1993. The endocranial cast and encephalization quotient of *Ptilodus* (Multituberculata, Mammalia). Palaeovertebrata 22:99–112.
 17. Maas, M. C., and D. W. Krause. 1994. Mammalian turnover and community structure in the Paleocene of North America. Historical Biology 8:91–128.
 18. Buckley, G. A. 1995. The multituberculate *Catopsalis* from the early Paleocene of the Crazy Mountains Basin in Montana. Acta Palaeontologica Polonica 40:389–398.
 19. Maas, M. C., M. R. L. Anthony, P. D. Gingerich, G. F. Gunnell, and D. W. Krause. 1995. Mammalian generic diversity and turnover in the late Paleocene and early Eocene of the Bighorn and Crazy Mountains Basins, Wyoming and Montana (USA). Palaeogeography, Palaeoclimatology, Palaeoecology 115:181–207.
 20. Buckley, G. A. 1997. A new species of *Purgatorius* (Mammalia; Primatomorpha) from the lower Paleocene Bear Formation, Crazy Mountains Basin, south-central Montana. Journal of Paleontology 71:149–155.
 21. Silcox, M. T., D. W. Krause, M. C. Maas, and R. C. Fox. 2001. New specimens of *Elphidotarsius russelli* (Mammalia, ?Primates, Carpolestidae) and a revision of plesiadapoid relationships. Journal of Vertebrate Paleontology 21:132–152.
 22. Zack, S., T. Penkrot, D. W. Krause, and M. C. Maas. 2005. A new apeliscine "condylarth" from the Tiffanian (Late Paleocene) of Montana and Alberta, and the phylogeny of "hyopsodontids." Acta Palaeontologica Polonica 50(4):809–830.
 23. Scott, C. S., and D. W. Krause. 2006. Multituberculates (Mammalia, Allotheria) from the earliest Tiffanian (Late Paleocene) Douglass Quarry, eastern Crazy Mountains Basin, Montana. University of Michigan Museum of Paleontology Contributions 31(10):211–243.
 24. Bloch J. I., M. T. Silcox, D. M. Boyer, and E. J. Sargis. 2007. New Paleocene skeletons and the relationship of plesiadapiforms to crown-clade primates. Proceedings of the National Academy of Sciences USA 104: 1159–1164.
 25. Boyer, D. M., and J. A. Georgi. 2007. Cranial morphology of a pantolestid eutherian mammal from the Eocene Bridger Formation, Wyoming, USA: implications for relationships and habitat. Journal of Mammalian Evolution 14:239–280.
 26. Weil, A., and D. W. Krause. 2008. Chapter 2: Multituberculata; pp. 19–38 in C. M. Janis, G. F. Gunnell, and M. D. Uhen (eds.), Evolution of Tertiary Mammals of North America. Volume 2: Small Mammals, Xenarthrans, and Marine Mammals. Cambridge University Press, Cambridge, UK.
 27. Boyer, D. M., A. R. Evans, and J. Jernvall. 2010. Evidence of dietary differentiation among late Paleocene-early Eocene plesiadapids (Mammalia, Primates). American Journal of Physical Anthropology 142:194–210.

28. St. Clair, E. M., D. M. Boyer, J. I. Bloch, and D. W. Krause. 2010. First records of a triisodontine mammal, *Goniacodon levisanus*, in the late Paleocene of the northern Great Plains, North America. *Journal of Vertebrate Paleontology* 30:604–608.
29. Fox, R. C., C. S. Scott, G. A., Buckley. 2015. A ‘giant’ purgatoriid (Plesiadapiformes) from the Paleocene of Montana, USA: mosaic evolution in the earliest primates. *Palaeontology* 58:277–291.
30. Buckley, G. A. 2018. Magnetostratigraphy of Upper Cretaceous (Lancian) to middle Paleocene (Tiffanian) strata in the northeastern Crazy Mountains Basin, Montana, U.S.A. *Rocky Mountain Geology* 53(2):59–74.
31. Boyer, D. M., M. Bolortsetseg, J. I. Bloch, and D. W. Krause. In prep. First skeletal remains of a neoplagiaulacid multituberculate (Mammalia: Theriiformes) from the Torrejonian-Tiffanian transition of Montana.

DISSERTATIONS AND THESES

1. Biknevicius, A. 1985. Dental function and diet in the Carpolestidae (Primates: Plesiadapiformes). Unpublished M.A. thesis, State University of New York at Stony Brook.
2. Buckley, G. A. 1994. Paleontology, geology and chronostratigraphy of Simpson Quarry (early Paleocene), Bear Formation, Crazy Mountains Basin, south-central Montana. Ph.D. dissertation, Department of Geological Sciences, Rutgers University, 459 pp.

FIELD CONFERENCE GUIDEBOOKS

1. Hartman, J. H., D. W. Krause, G. A. Buckley, and T. J. Kroeger. 1989. Paleocene biochronology in the northern Great Plains: nonmarine Mollusca and Mammalia from the Crazy Mountains Basin; pp. xxii–xxiii in D. E. French and R. F. Grabb (eds.), *Geological Resources of Montana*. Montana Geological Society, 1989 Field Conference Guidebook, Montana Centennial Edition, vol. II.
2. Hartman, J. H., G. A. Buckley, D. W. Krause, and T. J. Kroeger. 1989. Paleontology, stratigraphy, and sedimentology of Simpson Quarry (early Paleocene), Crazy Mountains Basin, south-central Montana; pp. 163–172 in D. E. French and R. F. Grabb (eds.), *Geological Resources of Montana*. Montana Geological Society, 1989 Field Conference Guidebook, Montana Centennial Edition, vol. II.
3. Hartman, J. H., and D. W. Krause. 1993. Cretaceous and Paleocene stratigraphy and paleontology of the Shawmut Anticline and the Crazy Mountains Basin, Montana: road log and overview of recent investigations; pp. 71–84 in L. D. V. Hunter (ed.), *Energy and Mineral Resources of Central Montana*. Montana Geological Society — South-Central Field Conference Guidebook.

ABSTRACTS AND OTHER BRIEF ENTRIES

1. Carlson, S. J. and D. W. Krause. 1982. Multituberculate phylogeny: evidence from tooth enamel ultrastructure. *Geological Society of America, Abstracts with Programs*, 14:460.
2. Krause, D. W. and S. J. Carlson. 1985. The evolution of prismatic enamel in multituberculate mammals. *American Society of Mammalogists, Abstracts with Program*, p. 9.
3. Watters, J. P. and D. W. Krause. 1986. Plesiadapid primates and biostratigraphy of the North American late Paleocene. *American Journal of Physical Anthropology* 69:277.

4. Buckley, G. A., and D. W. Krause. 1987. Simpson Quarry: the first fossil mammal locality in the lower Paleocene Bear Formation, Crazy Mountains Basin, Montana. *Journal of Vertebrate Paleontology*, Abstracts of Papers 7:12.
5. Krause, D. W., and M. C. Maas. 1987. Composition and diversity of mammalian faunas across the Torrejonian-Tiffanian boundary in western North America. For symposium volume: "Dawn of the Age of Mammals in the northern part of the Western Interior," T. M. Bown and K. D. Rose, eds. Geological Society of America (Rocky Mountain Section), Abstracts with Program, 19:287.
6. Maas, M. C., S. Strait, and D. W. Krause. 1987. The decline and extinction of plesiadapiform primates. *American Journal of Physical Anthropology* 72:228.
7. Buckley, G. A. 1988. A new *Purgatorius*-like mammal from Simpson Quarry (Puercan), Crazy Mountains Basin, Montana. *Journal of Vertebrate Paleontology*, Abstracts of Papers 8:10.
8. Krause, D. W., and M. C. Maas. 1988. The biogeographic origins of Clarkforkian and Wasatchian mammalian immigrants to the Western Interior. *Journal of Vertebrate Paleontology* 8:19A.
9. Strait, S. G., and D. W. Krause. 1988. New Paleocene fossils from the Crazy Mountains Basin, Montana: implications for plesiadapid (Mammalia, ?Primates) systematics and biochronology. *Journal of Vertebrate Paleontology* 8:27A.
10. Buckley, G. A. 1989. A new Puercan species of *Catopsalis* (Taeniolabididae, Multituberculata) and the evolution of North American taeniolabidids. *Journal of Vertebrate Paleontology*, Abstracts of Papers 9:14–15.
11. Maas, M. C., and D. W. Krause. 1989. Mammalian faunal turnover in North America during the Paleocene. Fifth International Theriological Congress, Abstracts (Symposium on Mammalian Evolutionary Paleocology), Rome, vol. 2, p. 641.
12. Anthony, M. R. L., and M. C. Maas. 1990. Biogeographic provinciality in North American Paleocene mammalian faunas. *Journal of Vertebrate Paleontology* 10:12A.
13. Dumont, E. R. 1990. Enamel microstructural evidence for the affinities of proposed Early Tertiary archontan taxa. *Journal of Vertebrate Paleontology* 10:21A.
14. Strait, S. G. 1990. Food consistency and the dental morphology of extant faunivorous mammals: implications for reconstructing diet in the fossil record. *Journal of Vertebrate Paleontology* 10:44A.
15. Wall, C. E. 1990. Biomechanical correlates of inferred feeding behavior in *Ptilodus* (Multituberculata). *Journal of Vertebrate Paleontology* 10:47A.
16. Anthony, M. R. L., M. C. Maas, and D. W. Krause. 1991. New collections of mammals from late Torrejonian localities in the eastern Crazy Mountains Basin, Montana. *Journal of Vertebrate Paleontology* 11:14A.
17. Strait, S. G. 1991. Molar microwear in small-bodied faunivorous mammals. *Journal of Vertebrate Paleontology* 11:57A.
18. Maas, M. C., P. D. Gingerich, G. Gunnell, and D. W. Krause. 1992. Patterns of faunal turnover and diversity in the Wyoming-Montana Paleogene in relation to regional and global events. Fifth North American Paleontological Convention – Abstracts and Program (eds., S. Lidgard and P. R. Crane). The Paleontological Society, Special Publication No. 6:191.

19. Buckley, G. A. 1993. Magnetostratigraphy of the Late Cretaceous and early-middle Paleocene formations of the Crazy Mountains Basin, Montana. *Journal of Vertebrate Paleontology*, Abstracts of Papers 13:28.
20. Buckley, G. A. 1995. Biochronology and magnetostratigraphy of Simpson Quarry (Bear Formation, Crazy Mountains Basin, south-central Montana) and a reassessment of the Puercan NALMA. *Geological Society of America, Abstracts with Programs* 27(6).
21. Boyer, D. M., and J. I. Bloch. 2003. Comparative anatomy of the pentacodontid *Aphronorus orieli* (Mammalia, Pantolesta) from the Paleocene of the western Crazy Mountains Basin, Montana. *Journal of Vertebrate Paleontology* 23:36A.
22. Boyer, D. M., J. M. Pares, J. I. Bloch, and D. W. Krause. 2004. Refining intra- and inter-basinal chronostratigraphic correlations of Paleocene mammal-bearing localities in the Crazy Mountains Basin, Montana: initial paleomagnetic results. *Geological Society of America, Abstracts with Programs* 36(5):363.
23. Krause, D. W. 2004. Systematic revision of the genus *Ptilodus* (Ptilodontidae, Multituberculata) from the Paleocene of western North America. *Journal of Vertebrate Paleontology* 24:80A.
24. Lukowski, S. M., J. I. Bloch, and D. W. Krause. 2004. Several new species of *Ectocion* from the Crazy Mountains Basin of Montana and stratocladistic analysis of Paleocene Phenacodontidae. *Journal of Vertebrate Paleontology* 24:86A.
25. Mawyin, C., J. Groenke, D. M. Boyer, and J. I. Bloch. 2004. Novel use for cyclododecane in acid preparation of recently recovered Paleocene limestones from the western Crazy Mountains Basin, Montana. *Journal of Vertebrate Paleontology* 24:90A–91A.
26. McCullough, G. M., M. T. Silcox, J. I. Bloch, D. M. Boyer, and D. W. Krause. 2004. New palaechthonids (Mammalia, Primates) from the Paleocene of the Crazy Mountains Basin, Montana. *Journal of Vertebrate Paleontology* 24:91A.
27. St. Clair, E., D. W. Krause, and D. B. Boyer. 2005. Pantodonts (Mammalia) from the early Tiffanian (Paleocene) of the Crazy Mountains Basin, Montana. *Journal of Vertebrate Paleontology* 25:118A.
28. Bloch, J. I., D. M. Boyer, and D. W. Krause. 2006. New mammal-bearing quarry from the earliest Tiffanian (early Late Paleocene) of the eastern Crazy Mountains Basin, Montana. *Journal of Vertebrate Paleontology* 26:43A.
29. St. Clair, E., D. M. Boyer, J. I. Bloch, and D. W. Krause. 2008. New records of *Goniacodon levisanus* (Mammalia, Triisodontinae) from the late Paleocene of the Crazy Mountains Basin, Montana. *Journal of Vertebrate Paleontology* 28:147A.
30. Buckley, G. A. and J. H. Hartman. 2017. Constraining Chronostratigraphic Boundaries Within the Cretaceous and Paleocene Formations of the Eastern Crazy Mountains Basin, Montana. *Geological Society of America Abstracts with Programs*. Vol. 49, No. 6.