

DARRIN C. PAGNAC, Ph.D.

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Birth Date: November 30, 1971

Nationality: American

EDUCATION

Ph.D. in Geology May 2005 University of California, Riverside, CA
Dissertation Title: A Systematic Review of the Mammalian Megafauna of the Barstow Formation (Middle Miocene), Mojave Desert, California
Advisors: Dr. Michael Woodburne, Dr. Richard Minnich, Dr. Mark Springer

M.S. in Paleontology 1998 South Dakota School of Mines, Rapid City, SD
Thesis Title: Variation in the Pectoral Region and Its Implications Concerning Species Level Taxonomy of the North American Sauropod *Camarasaurus* Cope
Advisors: Dr. James Martin, Dr. Philip Bjork, Dr. Sookie Bang

B.S. in Geology 1995 University of North Dakota, Grand Forks, ND

PEER-REVIEWED ARTICLES

Feranec, R. S., and **Pagnac, D.C.** 2013. Stable carbon isotope evidence for the abundance of C4 plants in the middle Miocene of southern California. *Palaeogeography, Palaeoclimatology, Palaeoecology*. 388: 42-47.

Pagnac, D.C. 2012. Additions to the vertebrate faunal assemblage of the Middle Miocene Fort Randall Formation in the vicinity of South Bijou Hill, South Dakota, U.S.A. *The Mountain Geologist*. 49(1):19-34.

Famoso, N., **Pagnac, D.** 2011. A Comparison of the Fossil Equid Assemblages from the Mission Pit, SD, and Ashfall Fossil Beds, NE. *Transactions of the Nebraska Academy of Science*. 32:98-107.

Pagnac, D.C., and Reynolds, R.R. 2010. A Juvenile Specimen of *Archaeohippus mourningi* (Perissodactyla: Equidae) from the Cajon Valley Formation (Middle Miocene) of California. 2010 Mojave Desert Symposium Guidebook. Pp.241-247.

Martin, J.E., and **Pagnac, D.C.** 2009. A Vertebrate Assemblage from the Miocene Rattlesnake Ridge Member of the Ellensburg Formation, Central Washington. In Albright III, L.B. (ed.). *Papers on Geology, Vertebrate Paleontology and Biostratigraphy in Honor of Michael O. Woodburne*. Museum of Northern Arizona Bulletin. 65(197-216).

Pagnac, D.C. 2009. Revised Large Mammal Biostratigraphy and Biochronology of the Barstow Formation (Middle Miocene), California. *Paleobios*. 29(2):48-59.

Pagnac, D. C. 2006. *Scaphohippus*, A New Genus of Horse (Mammalia: Equidae) from the Barstow Formation of California. *Journal of Mammalian Evolution* 13:37-61.

Pagnac, D. C. 2005. New camels (Mammalia: Artiodactyla) from the Barstow Formation (middle Miocene), San Bernardino County, California. *PaleoBios* 25:19-31.

PUBLISHED ABSTRACTS

Feranec, R. and , **Pagnac, D.** 2012. Early Evidence For The Abundance Of C4 Grasses From The Middle Miocene Barstow Formation, San Bernardino County, California. Society of Vertebrate Paleontology 72nd Annual Meeting Abstract Volume.

Hu, H., **Pagnac, D.**, Martin, J., Wu, M., Fang, J. 2012. First Occurrences Of Felidae And Canidae (Mammalia: Carnivora) From The Chiting Formation (Pleistocene) Of Southwestern Taiwan. Society of Vertebrate Paleontology 72nd Annual Meeting Abstract Volume.

Starck, E., Benton, R., Householder, M., Boyd, C., **Pagnac, D.** 2012. From Discovery To Public Outreach: A New Visitor Orientated Fossil Quarry And Fossil Preparation Lab Opens At The Ben Reifel Visitor Center At Badlands National Park. Society of Vertebrate Paleontology 72nd Annual Meeting Abstract Volume.

Pagnac, D., Martin, J., Shelton, S., Wood, A. 2011. Rocks, Regulations and Repositories: The Three Rs of a Successful Curriculum for Paleontology in a PRPA World. Proceedings of the 9th Conference on Fossil Resources, Kemmerer, WY. 49(A): 27.

Shelton, S., Martin, J., **Pagnac, D.**, Wood, A. 2011. The SDSMT Museum of Geology James E. Martin Paleontological Research Laboratory: A Regional Repository for Federal, Tribal, and State Collections. Proceedings of the 9th Conference on Fossil Resources, Kemmerer, WY. 49(A): 32.

Carr, J., **Pagnac, D.** 2011. Why The Long Face: Dental Microwear Comparison of *Longirostromeryx* and *Blastomeryx* (Artiodactyla, Moschidae). *Journal of Vertebrate Paleontology Programs and Abstracts*

Lofgren, D., **Pagnac, D.**, Liskanich, P., Hess, A., Silver, D. 2011. Proboscideans from the Middle Miocene Barstow Formation of California. *Journal of Vertebrate Paleontology Programs and Abstracts*

Dierks, N. **Pagnac, D.** 2010. Paleoniscoid fish from the Permian Minnekahta Limestone of the Black Hills. South Dakota Academy of Science Annual Meeting Abstract and Program.

Holte, S., Agenbroad, L., **Pagnac, D.** 2010. Identification of an unknown carnivoran humerus from the Mammoth Site of Hot Springs, South Dakota. Abstracts with Programs. *Geological Society of America*. 42(3):41

Pagnac, D. 2010. The earliest proboscidean in South Dakota from the middle Miocene (Barstovian) Fort Randall Formation. Abstracts with Programs. Geological Society of America. 42(3):2

Famoso, N., **Pagnac, D.C.** 2010. A Comparison of the Taxonomic Composition of Medial Miocene Equids (Mammalia: Perrissodactyla) from the Mission Pit, South Dakota, and Ashfall Fossil Beds, Nebraska. Society of Vertebrate Paleontology 2010 Annual Meeting Program and Abstracts. 87A.

Pagnac, D., Reynolds, R. 2010. Disparity in Abundance of the Dwarfed Equid *Archeohippus* in the Middle Miocene Deposits of Southern California. Society of Vertebrate Paleontology 2010 Annual Meeting Program and Abstracts. 87A.

Pagnac, Darrin; Benton, Rachel; Shelton, Sally; Branciforte, Chloe; Darbyshire, Jane; Johnson, Shawna; Mead, Jack; Miller, Matthew; Pinsdorf, Michelle; Sauter, Matthew. 2009. Pig Dig Report or Tolstoy? Compiling a Record of Fifteen Years of Student Activity at Conata Picnic Ground, Badlands National Park, SD. 10th Conference on Fossil Resources Abstracts with Programs. St. George, UT.

Pagnac, D. 2008. A Reexamination Of The Shotwell Method Of Community Reconstruction For Use In Taphonomic And Paleoecological Interpretations. Society of Vertebrate Paleontology 2008 Annual Meeting Programs and Abstracts.

Pagnac, D. and Pappas, J. 2007. A Return To Bijou Hill: New Investigations In The Middle Miocene Fort Randall Formation Of South Dakota. Journal of Vertebrate Paleontology. 27(Supplement to no. 3). Society of Vertebrate Paleontology Annual Meeting Programs and Abstracts.

Pagnac, D. 2006. Updates to the mammalian megafauna of the middle Miocene Barstow Formation. Journal of Vertebrate Paleontology, 26(3), 108-108.

Pagnac, D. 2004. New camels (Artiodactyla, Camelidae) from the mid-Miocene Barstow Formation, Mojave Desert, California. Journal of Vertebrate Paleontology. 24(3), 100-100.

Pagnac, D. 2003. Identification of hypsodont horses from the mid Miocene Barstow Formation based on isolated cheek teeth. PaleoBios. 23(1), 6-6.

Pagnac, D. C. 2000. Variation within the pectoral region and its implications concerning species level taxonomy of the North American sauropod, *Camarasaurus*. PaleoBios. 20(1), 7-7.

Foster, J. R., Curtice, B. D., & **Pagnac, D. C.** 1998. First reported occurrence of sauropod remains from the lower Cretaceous (Lakota Formation), Black Hills, South Dakota. Journal of Vertebrate Paleontology. 18(3), 43-43.

Pagnac, D., & Chure, D. J. 1997. Rare sauropod elements from the Carnegie quarry (Morrison fm.), Dinosaur National Monument, UT. *Journal of Vertebrate Paleontology*, 17(3), 68-68.

RECENT GRANT ACTIVITY

Funded

- Pagnac, D. and Boyd, C. 2013. Paleontological field survey, salvage, preparation and curation of fossil vertebrates and invertebrates along Lake Francis Case/Ft. Randall Project lands. US Army Corps of Engineers. Project taken over from Dr. James Martin (retired). Amount Requested \$25000
- Chure, D., Shelton, S., Pagnac, D. 2011. National Park Foundation IMPACT Grant. Develop Long-Term Monitoring and Preservation Plan for 150-Million-Year-Old Dinosaur Fossil Quarry, Dinosaur National Monument. Award \$5700.
- Pagnac, D., Shelton, S., Wood, A. 2011. Paleontological Society Outreach Grant. Development Of A Portable Earth Science Teaching Kit For The South Dakota School Of Mines And Technology Paleontology Club. Award: \$2500

EXPERIENCE

January, 2006-2009

Haslem Postdoctoral Fellow/Assistant Professor, South Dakota School of Mines, Rapid City, SD

- Conducted postdoctoral work with research on medial Miocene mammals of North America and advised Master's students and senior research projects. Additional duties include management of collections and laboratory facilities and managing cleanup and movement to new lab workspace. Also taught courses on biostratigraphy, comparative osteology, and dinosaurs.

June, 2005-December, 2005

Assistant Curator, Raymond Alf Museum, Claremont, CA

- Assisted with the curation of fossil vertebrate material from the Barstow Formation housed at the Raymond Alf Museum in Claremont. Duties include identification and labeling of fossil material, determining stratigraphic provenance, and participating in K-12 outreach programs.

May, 2004

Educational Outreach, University of California, Riverside

- Conducted an education outreach program for kindergarten and sixth grade students on paleontology. Program included exhibition of fossils, explanations of geologic time, and discussion of evolutionary changes in morphology.

2002-2003

Collections Manager, University of California, Riverside

- Acted as manager of the vertebrate paleontology collections at the Department of Earth Sciences at UCR. Duties included curation of specimens, processing of loans, and management of the final transfer of the collections from UCR to the University of California Museum of Paleontology at Berkeley.

1999-2003

Graduate Teaching Assistant, University of California, Riverside, CA

- Assisted with instruction of numerous undergraduate level courses in geology. Duties included instruction and supervision in both discussion and lab courses, development of new laboratory and field exercises, and writing exams.

Summers, 1997-1999

Field Geology Instructor, South Dakota School of Mines, Rapid City, SD

- Supervised instruction of several two-week field paleontology courses for undergraduate and graduate students. Subject matter included field paleontology methods and philosophy, reading of topographic maps, data collection, taphonomy, and stratigraphy. Duties included supervision of student activities at various dig sites and instruction of field geology and field paleontology techniques.

Summers, 1998-1999

Site Coordinator, Little Houston Quarry, Sundance, WY

- Supervised activities at the Little Houston Quarry, a late Jurassic dinosaur locality in the Morrison Fm. of northeastern Wyoming, through the Museum of Geology, SDSMT. Duties included coordination of activities at the site, supervision of site workers including volunteers and students, and excavation of materials from sauropod and theropod dinosaur material to reptilian and mammalian microfossils.

Summers, 1996-1997

Field Paleontologist, South Dakota School of Mines, Rapid City, SD

- Participated in paleontological field investigations with the Museum of Geology, SDSM. Duties included fossil prospecting and excavation at numerous fossil localities including Jurassic Morrison Fm. of Wyoming, Cretaceous Lance Creek Fm. of Wyoming, Oligocene White River Group of South Dakota, various Miocene localities in South Dakota, Nevada, Oregon, and Washington, and Pleistocene deposits of Oregon.

September, 1995-May, 1999

Fossil Preparator, South Dakota School of Mines, Rapid City, SD

- Duties included preparation and conservation of fossil vertebrate material in addition to various molding and casting projects and mounting of an *Allosaurus* skeleton on display at The Journey Museum in Rapid City.

RECENT COLLABORATORS

Ms Sally Shelton—South Dakota School of Mines

Dr. Ming-Chee Wu—National Cheng Kung University

Dr. Rachel Benton—Badlands National Park

Dr. Don Lofgren—Raymond Alf Museum

Dr. Robert Feranec—New York State Museum

Dr. Kent Smith—Oklahoma State University

Dr. Nick Czaplewski—University of Oklahoma

Dr. John Foster—Museum of Western Colorado

Dr. Kelli McCormick—South Dakota School of Mines and Technology

Dr. Marius Ellingson—South Dakota School of Mines and Technology

Mr. Justin Wilkins—Mammoth Site, SD

AWARDS AND HONORS

April, 2009 Bernard A. Ennenga Award for excellence in teaching and motivating students
June, 2007 Appointment, Adjunct Research Associate, Museum of Geology, South Dakota School of Mines
April, 2003 Best Vertebrate Talk, California Paleontology Conference
May, 2001 American Museum of Natural History Collection Study Grant
March 2000 Theodore Roosevelt Memorial Fund Grant, American Museum of Natural History
March, 2000 Geological Society of America Research Grant

OTHER PROFESSIONAL ACTIVITIES AND MEMBERSHIPS

Member: Society of Vertebrate Paleontology
Member: The Geological Society of America