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CURRICULUM VITAE

CHRISTINE MARIE JANIS

Address: Department of Ecology and Evolutionary Biology, Box G-B207, Brown University,
Providence, RI 02912, USA
Tel: 401-863-2215. Fax: 401-863-7544.
Email: Christine_Janis@Brown.edu

Positions Held:

1983 - present: Assistant, Associate Professor, and Professor of Biology, Brown University
2001; 2008: Benjamin Meaker Fellowship (Visiting Professor), University of Bristol, UK
1994-1996: Visiting Professor of Geophysical Sciences, University of Chicago
1995: Visiting member of the Committee on Evolutionary Biology, University of
Chicago
1994-1999: Research Associate in Geology, The Field Museum of Natural History,
Chicago.
1984-1996: Research Associate, Harvard University
1979-1983: Research Fellow, Newnham College, University of Cambridge, England
(also a member of the Department of Zoology)
1977-1978: Instructor (Physiology): Department of Zoology, Oregon State University.

Other Scientific Appointments and Activities:

2009 – present: Coordinator for the North American advisory board for the NOW database
(Neogene Old World Mammals).
2011: Invited participant: Catalysis meeting at the National Evolutionary Synthesis
Center on *Earth Surface Processes in the Evolution of Mammalian Tooth Shape*:
Coveners: Richard Madden, Caroline Strömberg, and Matthew Kohn.
2009-2010: Member of Scientific Planning Committee for the Third International Palaeontological
Congress, London, June 2010.
2009: Invited participant: Catalysis meeting at the National Evolutionary Synthesis
Center on *Towards a New Synthesis of the Evolutionary History and Ecology of
C4 Grasses*. Coveners: Erika Edwards, Caroline Strömberg, and Colin
Osborne.
1998 - 2001: Invited participant: Workshop at the National Center for Ecological Synthesis and
Analysis on *Climatic and Habitat Inferences from Features of Mammalian
Communities*. Convener: John Damuth.

Educational Background:

1979: Ph.D. in Biology (Vertebrate Paleontology), Harvard University, USA
Thesis title: *Aspects of the Evolution of Herbivory in Ungulate Mammals*.
1973: BA (Natural Sciences, Zoology) University of Cambridge, UK.

Summary of Research Interests:

- 1: Patterns of Tertiary fossil mammal evolution (with special emphasis on ungulates, or hoofed mammals), and the effects of environmental and climatic changes
- 2: Correlation of morphology in relation to behavior in living and fossil mammals (especially craniodental morphology in relation to diet, and postcranial morphology in relation to locomotion) in herbivorous and carnivorous large mammals.

Scientific Societies:

Society of Vertebrate Paleontology (USA)
The Paleontological Society (USA)
The Palaeontological Association (UK)
Society for the Study of Mammalian Evolution
Society for Integrative and Comparative Biology
National Center for Science Education

Scholarships and Awards:

2008: The Elizabeth H. Leduc award for excellence in teaching in life sciences (Brown University)
2007: Elected as a Fellow of the Paleontological Society
1985: George Gaylord Simpson Prize for Paleontology (Yale University, USA)
1973-76: Science Research Council (UK) NATO Fellowship
1972: Newnham College Scholarship (University of Cambridge, UK)

Grants:

2010-12: National Science Foundation (EAR 0958597 - Sedimentary Geology and Paleobiology Program: Collaborative Research (Co-PI John Damuth, University of California, Santa Barbara): *Were There "Too Many" Browser Species in Local Faunas of the Early Miocene? Testing a Global Hypothesis Using the Australian Mammal Fossil Record*. \$119,097.
1998-99: Salomon Faculty Research Award (Brown University).
Community Evolution in North American Tertiary Mammals: the Development of a Database (\$6000).
1989-94: Howard Hughes Medical Institute Award.
Undergraduate Biological Science Education Initiative (mediated by Brown University). (\$10,000)
1989-90: Brown University BioMedical Research Support (BRSG) Award.
Use of Fossil Ungulates in Computer Modeling for Determination of Past Vegetational Habitats (\$3500).
1988-89: Brown University BRSG Award.
Statistical Analysis of the Correlation between Cranial and Dental Morphology with Dietary Type in Living Ungulates (\$3000).
1986-88: Brown University BRSG Award.
Correlations Between Cranial Proportions and Body Mass in Ungulate Mammals (\$2800).
1985-87: National Science Foundation Grant (Biological Sciences: Systematics. BR-8418148).
Determination of Feeding Ecology in Fossil Ungulates and its Application to the Structure of Fossil Ecosystems (\$65,000). (Extended to 1988.)
1984-85: Brown University BRSG Award.
Analysis of Cranial and Dental Morphological Measurements in Correlation with Feeding Ecology in Ungulate Mammals (\$2500).
1983-84: Brown University BRSG Award.
Gross Dental Wear Patterns in Living and Fossil Mammals (\$3000).
1981: Phyllis and Eileen Gibbs Traveling Fellowship (Newnham College, University of Cambridge, UK)
1980: Royal Society (UK) Travel Award.

Teaching Experience:

Comparative Vertebrate Biology: (tutorials 1979-1983; upper level course 1983-present)
Vertebrate Paleontology and Evolution: (tutorials 1979-1983; upper level course 1984;
undergraduate reading group 1988, 1990, 1992; upper level seminar, 1993, 1995; lower
level course, 1995 - present)
Mammalian Paleobiology (advanced undergraduate reading group, 2011).
The Geological Basis of Ecological Change over Time (graduate seminar, 2007)
History of Ideas in Evolution (graduate seminar, 2006)
Macroecology (graduate seminar, 2001)
Evolutionary Development (graduate seminar, 1998)
Mammalian Diversity, Design and Adaptation: (short course and tutorials 1980-1983; upper
level course 1985-1987; lower level course: (1989-1992)
Human Evolution (course unit, 1993)
Contribution of the Fossil Record to Evolutionary Theory: (graduate seminar, 1986)
General and Comparative Physiology: (Instructor and lab coordinator 1977-1978;
tutorials 1979-1983.)
Introductory Biology: (Instructor and lab coordinator, Harvard Summer School, 1976).

Guest teaching:

Mammalian Paleobiology:
Course (18 lectures) for Masters students at the University of Bristol (2001)
Six lectures in the same course (2008).
Two lectures for third year undergraduates (Part II), University of Cambridge (2008).
Four lectures for undergraduate and graduate students, University of Helsinki, (2008).

Graduate Students:

Primary advisor:

Tracy Popowics (1989-1996). The Determination of Postcanine Tooth Form in Omnivorous and
Dietarily Specialized Mustelids and Viverrids (Mammalia: Carnivora).
Patricia Brady Wilhelm. (1987-1993). Morphometric Analysis of Locomotor Correlates of the
Postcranial Skeleton of Mammals.
Andrew Clifford (co-advisor) (2003 – 2009): On the Occurrence of Unguigrady in Artiodactyla:
a historical, anatomical, and mechanical approach.

Committee Membership:

Francoise Gould (Center for Functional Anatomy and Evolution, Johns Hopkins University:
2012)
Robert Kambic (Department of Ecology and Evolutionary Biology, Brown University: 2009-
present)
Tonya Penkrot (Center for Functional Anatomy and Evolution, Johns Hopkins University:
2006 – 2009)
Daniel Warren (Department of Physiology, Brown University: 2002)
Kevin Middleton (Department of Ecology and Evolutionary Biology, Brown University: 1997-2002.)
Colleen Farmer (Department of Physiology, Brown University: 1995-1997)
Charles Musiba (Department of Anthropology, The University of Chicago: 1995)
Matthew Carrano (Department of Anatomy and Evolutionary Biology, The University of
Chicago: 1994-1998)
Ron Myers (Department of Ecology and Evolutionary Biology, Brown University: 1988-1992)
Diane Angell (Department of Ecology and Evolutionary Biology, Brown University: 1988-1993)

External Reviewer:

Aaron Camens (2010): University of Adelaide, Australia.
Phillipa Brewer (2008): University of New South Wales, Australia.
Loic Costeur (2006): University of Lyon, France.
Mina Bassarova (2005): University of New South Wales, Australia.
Troy Myers (2002): University of New South Wales, Australia.

Postdoctoral Students:

Francisco Borja Figueirido Castillo (Fulbright Fellowship). 2010 – 2011.
Manuel Mendoza (Fulbright Fellowship). 2003- 2005.
Jessica Theodor (Brown University Anatomy teaching postdoctoral fellowship). 1997 – 2000.

Service to University:

Member of Committee for Faculty Equity and Diversity (CFED) (2010 – present)
CFED representative on the Human Resources Advisory Board (2010 – 2011)
Member of the Diversity Advisory Board (2009 - 2011)
Member of Committee to Review the Criteria for Reappointment, Promotion and Tenure, Division of Biology and Medicine (2006 – 2007)
Member of Tenure, Promotions and Appointments Committee (2003 – 2006)
Member of Affirmative Action Monitoring Committee (1996 - 1999)
Member of College Curriculum Committee (plus member of subcommittee for Science and Liberal Learning, and committee representative for the Independent Studies evaluation committee) (1989 - 1992)
Participant in Sophomore Advising Program (1991-present)
Participant in Freshman Advising Program (1984-present)
Academic Advisor for Concentration in Human Biology (1997 - present)
Academic Advisor for Concentration in Human Biology (1989 - 1994)
Member of Fulbright Awards Committee (1984-1988)
Member of Search Committees: Pediatric Orthopedic Surgeon (1986);
Temporary position for Evolutionary Biologist (1988); Senior Anatomist (1988); Junior Anatomist (1989); Senior Anatomist (Committee Chair) (2003).
Interviewer for Premedical Advisory Program (1986)

Service to Profession:

Editorial and Societal Positions:

Member of the Society of Vertebrate Paleontology Program Committee (2010)
President: Society for the Study of Mammalian Evolution (2007 - present)
Associate Editor for *Evolution* (2004 – 2006)
Member of Editorial Board for *Acta Palaeontologica Polonica* (2001 - present)
Associate Editor for *Palaeoclimates - Data and Modelling* (1994 - 1999)
Member of editorial board for *Journal of Mammalian Evolution* (1991-present)
Member of Committee for Honorary Membership, Society of Vertebrate Paleontology (1993 - 1998); Chair of Committee [1998 - 2000].
Member of editorial board for *Cryptozoology* (1984-1992)

Symposia Organized:

- 2010: IIIrd International Palaeontological Congress (London, UK). *From Teeth to Tibet: New Techniques and Views on Mammals and Cenozoic Environmental Change*. (Co-convenor with Mikael Fortelius and Jussi Eronen, University of Helsinki)
- 1985: IVth. International Theriological Congress (University of Alberta, Edmonton, Canada). *Ungulate Feeding and Digestion* (Co-convenor with W. Van Hoven).
- 1985: IIIrd. International Congress of Systematic and Evolutionary Biology (University of Sussex, Brighton, UK). *Comparative and Paleontological Approaches to Mammalian Behavioral Ecology*.

Articles Reviewed for the Following Journals:

Acta Paleontologica Polonica; Ameghenia; American Journal of Physical Anthropology; American Journal of Science; American Naturalist; Applied Animal Behaviour Science; Biological Reviews; British Journal of Veterinary Medicine; Bulletin of the American Museum of Natural History; Cryptozoology; Ecology; Evolution; Evolutionary Theory; Historical Biology; Journal of Archaeological Science; Journal of Biosciences; Journal of Evolutionary Biology; Journal of Human Evolution; Journal of Mammalogy; Journal of Vertebrate Paleontology; Journal of Zoology, London; Lethaia; Nature; Palaeogeography, Palaeoclimatology, Palaeoecology; Palaeontological Electronica; Palaeontology; Palaios; Proceedings of the Royal Society; Science; Physiological and Biochemical Zoology; PNAS; Trends in Ecology and Evolution; Zoological Journal of the Linnean Society.

Peer Reviews for Grant Agencies:

NSF: Systematic Biology, Ecology, Earth Sciences, Physiology; National Geographic Society; The Leverhulme Trust (UK). National Environmental Research Council (UK); The Leakey Foundation.

Requested Book Reviews:

- 2002: *The Palaeontological Association Newsletter*, no. 50. *The Physiological Ecology of Vertebrates: a View from Energetics*. B. K. McNab. 2002.
- 2002: *Quarterly Review of Biology* 77: p. 52 *The Ghosts of Evolution: Nonsensical Fruit, Missing Partners, and other Ecological Anachronisms*. Connie Barlow.
- 2001: *Quarterly Review of Biology* 76: 70-71. *Hominoid Evolution and Climatic Change in Europe; vol. 1: The Evolution of Terrestrial Ecosystems in Europe*. Ed. J. Augusti et al.
- 1999: *Quarterly Review of Biology*, 74: 108-109. *The American Pronghorn: Social Adaptations and the Ghost of Predators Past*. J. A. Byers.
- 1998: *Quarterly Review of Biology* 73: 56. *The Evolution of Western Eurasian Neogene Mammal Faunas*: Ed. R. L. Bernor, V. Fahlbusch, and H.-W. Mittmann.
- 1998: *American Scientist* 86: 195-196. *The Nature of Horses*, S. Budiandy
- 1993: *Journal of Mammalogy* 74: 1089-1091. *Ongules/Ungulates* 91, F. Spitz., G. Janeau, G. Gonzales, and S. Aulagnier, eds.
- 1993: *Journal of Mammalogy* 74: 1083-1085. *Fossil Horses*, B. J. MacFadden.
- 1990: *Journal of Vertebrate Paleontology*, 10(3): 398-399. *The Evolution of Perissodactyls*, D. R. Prothero and R. M. Schoch, eds.
- 1989: *The Providence Sunday Journal*. *Digging Dinosaurs*, J. R. Horner, and *Predatory Dinosaurs of the World*, G. Paul.
- 1989: *American Scientist*, 77: *The Mammalian Herbivore Stomach*, P. Langer.
- 1988: *Boreas*, 18: 81-83. *On Evolution and Fossil Mammals*, B. Kurten.
- 1986: *The Providence Sunday Journal*. *The Dinosaur Heresies*, R. T. Bakker.

Other Activities:

- 2011: Several radio interviews (including ABC Radio Melbourne) for the research on the thylacine showing that it was not a wolf-like fast runner.
- 2009: Appearance on local cable TV (Good Morning Rhode Island) discussing the importance of the new finds of the hominid *Ardipithecus*.
- 2007: Advisor to WGBH for program "Bone Diggers Down Under (plus TV appearance).
- 2004: Advisor for Japanese television program "Miracle Planet II".
- 2003: Advisor for BBC television program on carnivore evolution.
- 2002: Advisor for BBC television program "Walking with Beasts".
- 1999: Participant in WGBH (Boston Public Television) Evolution School for Science Unit production team. (Topics: early tetrapod evolution and early mammalian radiations.)
- 1994: Lecture on dinosaurs for series of lectures to children, jointly sponsored by Rhode Island Space Grant Program and the Roger Williams Park Zoo (Providence).
- 1993: Participation in teachers' workshop organized by the Rhode Island Space Grant Program (Brown University): "Lost Worlds: From Jurassic Park to Mars."
- 1989: Lecture to Junior Scientists group of Brown University Learning Community. "How Anatomy Relates with Ecology in Living and Fossil Mammals."
- 1988-1989: Participant in Brown University Institute for Secondary Education: "Paleoecology of New England."
- 1987-1988: Consultant for "Evolution of Terrestrial Ecosystems" group, Smithsonian Institution, Washington, DC.
- 1986: Consultant for aspects of public display on "Discovering Mammals," British Museum of Natural History (London).
- 1984: Lecture to teachers in Rhode Island Public School Systems on "Principles of Classification."
- 1984: Lecture to Brown University Learning Community. "Great Extinctions: New Scientific Theories and Fossil Record Evidence."

Museum Collections Studied:

- Museum of Comparative Zoology, Harvard University, Cambridge, MA, USA Recent and fossil collections (numerous times since 1973).
- American Museum of Natural History, New York, NY, USA. Recent and fossil collections (numerous times since 1973).
- Yale Peabody Museum, Yale University, New Haven, CT. Fossil collections, several times since 1973.
- Smithsonian Institution, National Museum of Natural History, Washington, DC, USA. Recent and fossil collections. (July 1985; August, 1987).
- Museum of Paleontology, University of California, Berkeley, California, USA. Fossil collections (July, 1980; November, 1984).
- Los Angeles County Museum, Los Angeles, California, USA. Fossil collections (July, 1980; February, 1986).
- Museum of Paleontology, University of Oregon, Eugene, Oregon, USA. Fossil collections (July, 1980).
- Burke Museum, University of Washington, Seattle, Washington, USA .Fossil collections. (July, 1980).
- Field Museum of Natural History, Chicago, Illinois, USA. Recent and fossil collections (May 1988, September 1989).
- Paleontological collections of the University of Nebraska, Lincoln, Nebraska, USA. (April, 2004; August, 2009).
- British Museum of Natural History, London, UK. Recent and fossil collections (numerous times since 1980).
- University Museum, University of Cambridge, Cambridge, UK. Recent and fossil collections (numerous times during 1980-1983).
- Rijksmuseum van Geologie en Minerologie, Utrecht, the Netherlands. Fossil collections (August, 1981; June, 1983).
- National Museum of Kenya, Nairobi, Kenya. Recent and fossil collections (June, 1982.)
- Transvaal Museum, Pretoria, South Africa. Recent and fossil collections. (August, 1982).
- South African Museum, Cape Town, South Africa. Recent and fossil collections (August, 1982.)
- Naturhistorisches Museum, Basel, Switzerland. Fossil collections (July, 1983).
- Musee Crozatier, Le Puy, France. Fossil collections (July, 1983).
- Universite Claude Bernard, Lyon, France. Fossil collections (July, 1983).
- Musee Gimee, Lyon, France. Fossil collections (July, 1983).
- Museum National d'Histoire Naturelle, Paris, France. Fossil collections (August, 1983).
- Laboratoire de Paleontologie des Vertebres et Paleontologie humaine, Universite de Poitiers, Poitiers, France. Fossil collections (August, 1983).
- Queensland Museum, Brisbane, Queensland, Australia. Recent collections (May, 1987, December 2011).
- Australian Museum, Sydney, New South Wales, Australia. Recent and fossil collections (May, 1987, August 2010, December 2011).
- South Australian Museum, Adelaide, South Australia, Australia. Recent and fossil collections (June, 1987, August, 2005, December, 2009, August, 2010, December 2011).
- Flinders University, Bedford Park, South Australia, Australia. Fossil collections (June, 1987, December 2011).
- Western Australian Museum, Perth, Western Australia, Australia. Recent and fossil collections (December, 2009).
- Museum of Victoria, Melbourne, Victoria, Australia. Recent and fossil collections (August, 2010, December 2011).
- Museum of the Northern Territory, Alice Springs, Australia. Recent and fossil collections (December 2011).

Bibliography:

(* denotes a Brown undergraduate author)

Papers in Journals and Books:

- Janis, C. M.**, K. Devlin*, D. E. Warren, and F. Witzmann. (2012) Dermal bone in basal tetrapods: a palaeophysiological hypothesis of adaptation for terrestrial acidosis. *Proceedings of the Royal Society, B*. (published online April 25th doi: 10.1098/rspb.2012.0558)
- Janis, C.M.**, B. Shoshitaishvili* , R. Kambic, and B. Figuerido (2012). On their knees: distal femur asymmetry in ungulates and its relationship to body size and locomotion. *Journal of Vertebrate Paleontology* 32:433-445.
- Figueirido, B., **C. M. Janis**, J. A. Pérez-Claros, M. de Renzi, and P. Palmqvist (2012). Cenozoic climate change influences mammalian evolutionary dynamics. *Proceedings of the National Academy of Sciences* 109:722-727.
- Figueirido, B. and **C. M. Janis** (2011). The predatory behaviour of the thylacine: Tasmanian tiger or marsupial wolf? *Biology Letters* 7:937-940.
- Damuth, J. and **C. M. Janis** (2011). On the relationship between hypsodonty and feeding ecology in ungulate animals, and its utility in palaeoecology. *Biological Reviews* 86: 733-758.
- Fletcher, T. M., **C.M. Janis** and E. Rayfield. 2010. Finite element analysis of ungulate jaws: can mode of digestive physiology be determined? *Palaeontologica Electronica* 13 (3): 21A
- Janis, C.M., E. C. Constable*, K. A. Houpt, W. J. Streich, and M. Clauss (2010). Comparative ingestive mastication in horses and cows: a pilot investigation. *Journal of Animal Physiology and Animal Nutrition* 94:e402-e409.
- Edwards, E.J., C.P. Osbourne, C.A.E. Strömberg, S.A. Smith, and the C₄ Grasses Consortium (21 other authors, including **C.M. Janis**) (2010). The origins of C₄ grasslands: integrating evolutionary and ecosystem science (review article). *Science*, 328:588-591
- Eronen, J.T., K. Puolamäki, L. Liu, K. Lintulaakso, J. Damuth, **C. Janis**, and M. Fortelius (2010). Precipitation and large herbivorous mammals I: estimate from present-day communities. *Evolutionary Ecology Research*, 12:217-233.
- Eronen, J.T., K. Puolamäki, L. Liu, K. Lintulaakso, J. Damuth, **C. Janis**, and M. Fortelius (2010). Precipitation and large herbivorous mammals II: application to fossil data. *Evolutionary Ecology Research*, 12:235-248.
- Bassarova, M., **C.M. Janis**, and M. Archer (2009). The calcaneum – on the heels of marsupial locomotion. *Journal of Mammalian Evolution*, 16:1-23.
- Janis, C.M.** (2009). Artiodactyl "success" over perissodactyls in the late Palaeogene unlikely to be related to the carotid rete: a commentary on Mitchell & Lust (2008). *Biology Letters*, 5:97-98.
- Seckel, L.* , and **C.M. Janis** (2008). Convergences in scapula morphology among small cursorial mammals: an osteological correlate for locomotory specialization. *Journal of Mammalian Evolution*, 15:261-279.
- Palmqvist, P., J.A. Pérez-Claros., **C.M. Janis**, B. Figueirido, V.,Torregrosa, and D.R. Gröcke (2008). Biogeochemical and ecomorphological inferences on prey selection and resource partitioning among mammalian carnivores in an early Pleistocene community. *Palaeos*, 23: 724–737.

- Palmqvist, P., J.A. Perez-Claros, **C.M. Janis**, and D.R. Gröcke (2008). Tracing the ecophysiology of ungulates and predator-prey relationships in an early Pleistocene large mammal community. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 266:95-111.
- Janis, C.M.**, G.F. Gunnell, and M. Uhen (2008). Introduction. In: Janis, C. M., G.F. Gunnell, and M. Uhen (eds). *Evolution of Tertiary Mammals of North America. Vol. 2: Small Mammals, Edentates, and Marine Mammals*. Cambridge University Press, Cambridge, UK. Pp. 1-6.
- Janis, C.M.**, and A. Weil (2008). Nontherian mammals. In: Janis, C.M., G.F. Gunnell, and M. Uhen (eds). *Evolution of Tertiary Mammals of North America. Vol. 2: Small Mammals, Edentates, and Marine Mammals*. Cambridge University Press, Cambridge, UK. Pp. 7-18.
- Janis, C.M.**, M.R. Dawson, and L.J. Flynn (2008). Glires. In: Janis, C.M., G.F. Gunnell, and M. Uhen (eds). *Evolution of Tertiary Mammals of North America. Vol. 2: Small Mammals, Edentates, and Marine Mammals*. Cambridge University Press, Cambridge, UK. Pp. 263-292.
- Janis, C.M.**, R. Hulbert, and M. Muhlbachler (2008). Addendum to Volume 1. In: Janis, C.M., G.F. Gunnell, and M. Uhen (eds). *Evolution of Tertiary Mammals of North America. Vol. 2: Small Mammals, Edentates, and Marine Mammals*. Cambridge University Press, Cambridge, UK. Pp. 645-693.
- Janis, C.M.** (2008). An evolutionary history of browsing and grazing ungulates. In: I.J. Gordon and H.H.T. Prins (eds.), *The Ecology of Browsers and Grazers*. Springer-Verlag, Berlin. Pp 21-45
- Janis, C.M.** (2007). The horse series, pp. 257-280. In: B. Regal (ed), *Icons of Evolution*. Greenwood Press, Westport, CT.
- Janis, C.M.** (2007). Evolutionary patterns and paleobiology. In: D.R. Prothero and S.E. Foss (eds.), *Artiodactyla*. The Johns Hopkins Press, Baltimore. Pp. 292-302.
- Hunter, J.P.*, and **C.M. Janis** (2006). Garden of Eden or Fool's Paradise? Phylogeny, dispersal, and the southern continent hypothesis of placental mammal origins. *Paleobiology*, 32:339-344.
- Hunter, J.P.*, and **C.M. Janis** (2006). Spiny Norman in the Garden of Eden? *Ausktribosphenos* and the biogeography of eutherian origins. *Journal of Mammalian Evolution*, 13:89-123.
- Mendoza, M, **C.M. Janis** and P. Palmqvist (2006). Estimating the body mass of extinct ungulates: a study on the use of multiple regression. *Journal of Zoology* 270:90-101.
- Mendoza, M., **C.M. Janis**, and P. Palmqvist (2005). Ecological patterns in the trophic-size structure of large mammal communities: a taxon-free characterization. *Evolutionary Ecology Research*, 7:1-26.
- Lane, A., **C.M. Janis**, and J.J. Sepkoski, Jr. (2005). Estimating paleodiversities: a test of the taxic and phylogenetic methods? *Paleobiology*, 31:21-34.
- Janis, C.M.**, J. Damuth and J.M. Theodor (2004). The species richness of Miocene browsers, and implications for habitat type and primary productivity in the North American grassland biome. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 207:371-398.
- Gaucher , E.A., L.G. Graddy, T. Li, R.C.M. Simmen, F.A. Simmen, D.R. Schreiber, D.A. Liberales, **C.M. Janis**, and S.A. Benner (2004). The planetary biology of cytochrome P450 aromatases. *BMC Biology* 2:19-33. (Paper rated as "exceptional" by the Faculty of 1000.)

- Tellegren, A., A.-C. Berglund, P. Savolainen, P., **C.M. Janis**, and D.A. Liberales (2004). Myostatin rapid sequence evolution in ruminants predates domestication. *Molecular Phylogenetics and Evolution*, 33:782-790.
- Semprebon, G., **C.M. Janis**, and N. Solounias (2004). The diets of the Dromomerycidae (Mammalia; Artiodactyla) and their response to Miocene climatic and vegetational change. *Journal of Vertebrate Paleontology*, 24:430-447.
- Janis, C.M.** (2003): Tectonics, climatic change and atmospheric carbon dioxide in the evolution of mammalian ecosystems. In: L.J. Rothschild and A. Lister (eds.), *Evolution on Planet Earth: the Impact of the Physical Environment*. Elsevier, London. Pp. 319-338
- Mendoza, M., **C.M. Janis**, and P. Palmqvist. (2002). Characterizing complex craniodental patterns related to feeding behaviour in ungulates: a multivariate approach. *Journal of Zoology, London* 258:223-246.
- Janis, C.M.**, J.M. Theodor, and B. Boisvert*. (2002). Locomotor evolution in camels revisited: a quantitative analysis of pedal morphology and the acquisition of the pacing gait. *Journal of Vertebrate Paleontology*, 22:110-120.
- Janis, C.M.**, J. Damuth and J.M. Theodor. (2002). The origins and evolution of the North American grassland biome: the story from the hoofed mammals. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 117:183-198.
- Janis, C.M.** (2001). The Tertiary radiation of mammals. In: D Briggs (ed.), *Palaeobiology II*, Blackwell Science Publications. Pp 109-112.
- Janis, C.M.** and J.C. Keller* (2001). Modes of ventilation in early tetrapods: costal ventilation as a key feature of amniotes. In *Acta Palaeontologica Polonica* 46(2), *Special Issue on Biomechanics and Palaeobiology*, ed. S.F. Viscaíño, R.A. Fariña and C.M. Janis. Pp. 137 – 170.
- Janis, C.M.**, J. Damuth, and J.M. Theodor (2000). Miocene ungulates and terrestrial primary productivity: Where have all the browsers gone? *Proceedings of the National Academy of Sciences*. 97:7899-7904.
- Janis, C.M.** (2000). The radiation of the North American endemic ruminants. In: E.S. Vrba and G.B. Schaller (eds.), *Antelopes, Deer, and Relatives: Fossil Record, Behavioral Ecology, Systematics, and Conservation*. Yale University Press. Pp. 26-37.
- Janis, C.M.** (2000). Patterns in the evolution of herbivory in large terrestrial mammals: the Paleogene of North America. In: H.-D. Sues and C. Labandera (eds.), *Origin and Evolution of Herbivory in Terrestrial Vertebrates*. Cambridge University Press, Cambridge, UK. Pp. 168-221.
- Carrano, M.T.* , **C.M. Janis**, and J.J. Sepkoski, Jr. (1999). Hadrosaurs and ungulate parallels: lost lifestyles and deficient data. *Acta Palaeontologica Polonica*, 44:237-261.
- Janis, C.M.** and C. Farmer (1999). Proposed habitats of early tetrapods: Gills, kidneys, and the water-land transition. *Zoological Journal of the Linnaean Society*, 126:117-126.
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