

## ZHE-XI LUO

Department of Organismal Biology  
The University of Chicago  
1027 East 57<sup>th</sup> Street, Chicago, Illinois 60637  
E-Mail: [zluo@uchicago.edu](mailto:zluo@uchicago.edu); Tel: (773)702-7816  
[HTTP://pondside.uchicago.edu/oba/faculty/Luo.html](http://pondside.uchicago.edu/oba/faculty/Luo.html)

### I. University & Museum Appointments

- Since 2012 Professor  
Department of Organismal Biology and Anatomy & the College  
Committee on Evolutionary Biology  
The University of Chicago
- Since 2012 Research Associate  
Field Museum of Natural History (Chicago)
- 2004-2012 Associate Director of Research and Collections  
Carnegie Museum of Natural History
- 2007-2008 Acting Co-Director  
Carnegie Museum of Natural History
- 1996-2012 Curator (2003–2012), Associate Curator (1999-02), Assistant Curator (1996-99)  
Section of Vertebrate Paleontology  
Carnegie Museum of Natural History
- 1996-2012 Adjunct Prof (2005–12), Associate Prof (2000-05) Assistant Prof (1996-99)  
Departments of Biological Sciences & Geological and Planetary Sciences  
University of Pittsburgh
- 1991-1996 Assistant Professor (Tenure-Track)  
Department of Biology, College of Charleston, South Carolina

### II. Education & Training

- 1989-1991 Postdoctoral Fellow  
Museum of Comparative Zoology &  
Department of Organismic and Evolutionary Biology  
**Harvard University** - Adviser: Prof. (emeritus) Alfred W. Crompton
- Ph.D. 1989 University of California at Berkeley, Paleontology  
1983-1988 Museum of Paleontology & Department of Paleontology  
**University of California at Berkeley** - Adviser: Prof. (emeritus): William A. Clemens
- B.S. 1982 **Nanjing University, Nanjing, China**, Geology & Paleontology

### III. Honors, Awards & Fellowships

**Fellow of American Association for the Advancement of Science**, Elected in 2016  
**Korrespondierenden Mitglied** (Die Paläontologische Gesellschaft, Germany), 2013  
**Humboldt-Forschungspreis** - Humboldt Award for Senior Scientists  
Humboldt Foundation (Alexander von Humboldt-Stiftung), Germany, 2007  
**Outstanding Overseas Chinese Young Scientist Award**  
Earth Sciences Division, National Natural Science Foundation of China, 2004  
**CAREER Award**, National Science Foundation, USA, 1996  
**Outstanding Graduate Student Instructor Award**, UC, Berkeley, 1988

**IV. Museum Administrative Experience**

- 2007- 2008     **Acting Co-Director**  
                  **Carnegie Museum of Natural History (Pittsburgh)**
- 2004-2012     **Associate Director of Research & Collections**  
                  **Carnegie Museum of Natural History**

**V. Museum Curator Experience** (partial list)

Curatorial Participation in Exhibit Development (1996-2008)  
*Dinosaurs In Their Time* Exhibition, Carnegie Museum of Natural History  
Initial scientific and architectural planning; numerous social events and behind-scenes tours for donor cultivation and long-term fund-raising effort; scientific support for dinosaur specimen conservation and remount, fabrication and installation of exhibition

International Exhibit Collaboration  
Extinction of Dinosaurs and Rise of Mammals  
(Preparation during January – June, exhibition July-October, 2008)  
Fukui Prefectural Dinosaur Museum, Fukui, JAPAN

Tour leader  
China’s Ancient Silk Road (September – October 2010)  
Travel with Carnegie Museums of Pittsburgh Trustees and Donors - a cultivation and development function by Carnegie Museums of Pittsburgh (CMP) and Carnegie Museum of Natural History

Tour leader  
Archaeology and Paleontology of China’s Silk Road (September – October 2002)  
Travel with Carnegie Museums of Pittsburgh Trustees and Donors - a donor cultivation and development function by Carnegie Museums of Pittsburgh (CMP)

Project Coordinator and Curator  
China’s Feathered Dinosaurs Exhibit (August-October 1998)  
Carnegie Museum of Natural History

Co-organizer of the Earth Explorers Evening Lecture Series (2002)  
Carnegie Museum of Natural History

NSF-Principal Investigator and Co-convener  
The US-China Workshop on Geology and Paleontology: Critical Transitions in History of Life (I)  
(Nov. 2005, Washington, DC)  
The China-US Workshop in Paleontology: Critical Transitions In History of Life (II)  
(June 2006, Beijing, China)

Both workshops jointly sponsored by National Science Foundation of US (NSF) and National Natural Science Foundation of China (NSFC).

Curatorial and Collections Responsibilities:  
Accumulating and maintenance of collection of fossil vertebrates; supervising preparation laboratory staff; receiving extramural scientific visitors to Carnegie Museum; providing loans of research materials for extramural researchers; field paleontological expeditions; providing consultation for other museums on exhibits.

**VI. Faculty Service at the University of Chicago (since 2013):**

Dean’s Faculty Advisory Committee (elected 2018)  
Division of Biological Sciences, UChicago

Faculty Awards Committee (2017- present)  
Division of Biological Sciences, UChicago

Faculty Committee On Appointment and Promotion (COAP) (2014-2018)  
Division of Biological Sciences, UChicago

Faculty Committee On Graduate Education Administration 2017-18  
Division of Biological Sciences, UChicago (Chair: Prof. and Dean Victoria Prince)

Committee for 2013-15 Reviews of Graduate Programs in Biological Sciences (Co-chairs: Profs.  
Victoria Prince & Richard Fehon)

The China-US Paleontology Workshop on Bilateral Collaborative Research 2015  
(Field Museum of Natural History; Makovicky PI, Luo Co-PI of NSF grant). Jointly funded by  
US National Science Foundation (SPG panel) and National Natural Science Foundation of  
China (stratigraphy and paleontology program).

Faculty Coordinators (since 2013, with Prof. David Jablonski) for Evolutionary Morphology  
(EvMorph) Seminar Series, Committee On Evolutionary Biology

Faculty Advisory Committee for Center In Beijing of University of Chicago (since 2013)

## **VII. Public Outreach and Science Education (partial list):**

### **At UChicago (since 2012):**

Mesozoic Mammals of China Exhibition (June – August 2018)  
Public Exhibition of Beijing Museum of Natural History  
(Contribution in Exhibit Development and Scientific Content)

Symposium On Mesozoic Mammal Evolution  
Beijing Museum of Natural History  
(Co-Organizers: Qing-Jin Meng and Zhe-Xi Luo)

Press Briefing for Discovery of Gliding Jurassic Mammaliaforms  
Beijing Museum of Natural History (China)

Public lectures:  
Florida Museum of Natural History (Gainesville, Florida)  
Chicago Cultural Center and Chicago Public Libraries  
Harvard Museum of Natural History & UChicago Center In Beijing

Popular article “Rise of Mammals – Our ancestors began to flourish long before dinosaurs died out” (by S. L. Brusatte and Z-X Luo) Scientific American June 2016 Issue – Cover Story and Feature Article.

About 100 press interviews on new discoveries of early fossil mammals in UChicago, since 2013.

Participation in, and content contribution to Sir David Attenborough’s BBC Documentary “Dawn of Mammals” (filmed in China in January, and broadcast in UK by BBC-2 in Sept-Dec 2013).

Contribution on scientific content on early mammals to Prof. Neil Shubin’s Documentary Series “Your Inner Fish” (by PBS and Howard Hughes Medical Institution, 2012-2013).

Participation in, and scientific contribution to popular program by NHK Sciences Program on Mammalian Evolution and Mammalian Brains (programs broadcast nationally in Japan in 2015)

Participation in and content contribution to TV documentary series “A New Prehistory” of French-German Television Network Channel Arté (Produced by Saint Thomas Productions of Marseille, France; filmed in China in 2013 and released in 2016 in Europe).

**At Carnegie Museum (1997-2012):**

More than 50 popular public scientific lectures as a museum curator and paleontologist; for non-scientific audience on the topics of Mesozoic mammal evolution, fossil cetaceans, and field exploration for Mesozoic vertebrates.

**Notable outreach work with popular media (Carnegie Museum):**

- National Geographic Magazine, Cover feature of the April 2003 issue (“Rise of Mammals”)
- NHK (Japan National Broadcasting Corporation)  
Mammals vs. Dinosaurs – Secrets of Mammalian Survival  
(2007 Nomination for the International Emmy Award – Documentaries).
- Mammals vs. Dinosaurs (90 minutes scientific TV program, distributed by NHK and Discovery Science Channel). This TV program was aired in Japan (2006 – 07), USA (2007-08) France by French Televisions Distribution/France5; in Canada by Discovery Channel Canada and National Film Board of Canada (2007-2010).
- Hearing Evolution In Early Mammals, scientific TV program by A&E History Channel
- NHK (Japan National Broadcasting Corporation)  
Evolution of Mammals (2010 TV program broadcast in Japan in 2010).

1997-2012: about 400 interviews with international and national press and news media organizations regarding scientific discoveries of early mammals, Carnegie Museum’s new exhibit *Dinosaurs In Their Time*, on behalf of the Carnegie Museum of Natural History.

1997-2012: Consultation for popular scientific magazines and other media organizations (reviews and critiques requested by journalists and science writers on popular science articles, providing scientific information, etc., partial list): National Geographic Magazine; Scientific American; Discover Magazine; Carnegie Magazine; Earth Magazine; Geotimes; Focus; Nature (News Dept); Science (News Dept); New Scientist; Science News, BBC (background research department) and news features; National Public Radio; CBC Radio; ABC News; CNN; Discover Science Channel; Der Spiegel; Washington Post; New York Times, San Francisco Chronicle, NHK (Japanese Broadcasting Corporation), Discovery Science Channel (USA), The History Channel, etc.

**VIII. Extramural Research Grants**

- |                |   |
|----------------|---|
| 2017-          | National Science Foundation Grant (BRS-TCN 1702421)<br>Awarded to John Bates (PI) Zhe-Xi Luo, Ben Marks, and Alan Resetar (co-PIs).<br>Project Director: David C. Blackburn (University of Florida) |
| Project title: | Digitization TCN: Collaborative Research: oVert: Open Exploration of Vertebrate Diversity in 3D.  |
| 2014-15        | National Science Foundation Grant (EAR 01450143)<br>Awarded to Peter Makovicky (PI), Zhe-Xi Luo (co-PI)<br>(P. Makovicky, Z.-X. Luo & P. Herendeen as steering committee)                           |
| Project Title: | China-US Collaborative Research On Critical Transitions In History Of Life (workshop at Field Museum of Natural History, Chicago).  |
| 2006-2012      | National Science Foundation Grant (EF0629959)<br>Awarded to Zhe-Xi Luo & John R. Wible (co-PI’s)<br>Carnegie Museum of Natural History (PI-institution)   |

- Project title: ATOL (Assembly of Tree of Life): “Collaborative Research: Resolving Mammalian Phylogeny with Genomic and Morphological Approaches”  
Team proposal with five PI institutions (five PI’s and about 20 co-PIs):  
AMNH (the lead institution) (PI & PD – Michael J. Novacek),  
CMNH (PI institution), Stony Brook University (PI institution),  
Texas A & M University (PI institution), and University of California at Riverside  
(PI institution).
- 2005-2007 National Science Foundation Grant (EAR 0534155 – EAR0634718)  
awarded to Zhe-Xi Luo (PI), Y. Jin, D. H. Erwin & S. A. Bowring (co-conveners)  
Project Title: China-US Collaborative Research On Critical Transitions In History Of Life  
(workshops).
- 2004-2006 National Natural Science Foundation of China (NSFC) (Grant 40328004)  
“Outstanding Overseas Chinese Young Scientist Award” to Zhe-Xi Luo (PI)  
Project Title: Evolutionary studies of early mammals.
- 2003-2007 National Science Foundation Grant (DEB 0316558)  
awarded to Zhe-Xi Luo (PI)  
Project Title: New mammals of Early Cretaceous and Their Implications for Deep Mammalian  
Phylogeny.
- 2001-2002 National Geographic Society Grant (7042-01)  
awarded to Zhe-Xi Luo (PI) & Hai-Lu You (co-PI).  
Project Title: Fossil Vertebrates of the Lower Cretaceous in Gansu, Northwestern China.
- 1996-2001 National Science Foundation Grant (DEB 95-27892)  
awarded to Zhe-Xi Luo (PI)  
Project title: CAREER: A 3-D Graphic Study of the Skull Evolution in Early Mammals and  
Advanced Cynodonts.
- 1994-1998 National Science Foundation Grant (DEB 94-19898)  
awarded to Zhe-Xi Luo (PI)  
Project Title: Phylogenetic Analyses of the Cetacean Basal Cranium and Inner Ear, and Study  
of the Cetacean Relationships.
- 1994-96 National Geographic Society Grant (5338-94)  
awarded to Zhe-Xi Luo (PI) & Xiao-Chun Wu (co-PI)  
Project Title: Fossil Vertebrates of the Lower Lufeng Formation, Yunnan, China.
- 1994-95 NSF REU Summer Research Funding  
(Through Medical University of South Carolina, as the Faculty Adviser to  
Students Marc Klingshirm and Jonathan H. Geisler).  
Project Title: Inner ear Structures of Ungulates and Whales.
- 1993 Bio-Engineering Alliance of South Carolina Grant (1993)  
awarded to Zhen Zhang & Zhe-Xi Luo.  
Project Title: 3-D Model of the Mammalian Cochlear Basilar membrane.
- 1989-1992 National Science Foundation Grant (DEB 8818098-DEB9020034)  
awarded to A. W. Crompton (PI), Zhe-Xi Luo (Postdoctoral associate)  
Project Title: The Cranial Structure of Chinese Liassic Mammals and Tritylodontids

#### **IX. Intramural Funding**

1996-99 Netting’s and O’Neil Research Funds (Carnegie Museum of Natural History)  
(4 research proposals) for 1997-1999 field explorations of various vertebrate fossil sites of  
Mesozoic in China and India.

1991-94 Faculty Research & Development Committee Grants (College of Charleston) and Department of Biology Faculty Research funds (several research proposals) for evolutionary studies of the inner ears in Mesozoic mammals and Tertiary cetacean mammals.

#### **X. Field Exploration in Paleontology and Geology**

##### **As Team Leader:**

- 1997- 2002 Lower Cretaceous (Xinminbao Group), Gansu Province, China  
Support: National Science Foundation, National Geographic Society, Carnegie Museum O'Neil Funds (sponsored by Z.-L. Tang of Institute of Vertebrate Paleontology and Paleoanthropology [IVPP] and X. Zhang of Gansu Provincial Museum).
- 1997 Cretaceous beds of Inner Mongolia, China  
Support: Carnegie Museum O'Neil Funds (sponsored by Z.-M. Dong of IVPP).
- 1988, 1994, 1995, 2000 Upper Triassic and Lower-Middle Jurassic Red Beds  
(Yipinglang Group, Lower and Upper Lufeng Formations)  
Yunnan Province, China  
Support: National Geographic Society; Carnegie Museum O'Neil Funds; National Science Foundation (sponsored by A.-L. Sun and Z.-M. Dong of IVPP).
- 1995, 1999 Jurassic Beds (Zhenzhuchong and Shaximiao Formations)  
Sichuan Province, China  
Support: National Geographic Society, National Science Foundation (sponsored by Z.-M. Dong of IVPP).
- 1999 Upper Cretaceous (Intertrappean Beds) and Lower Jurassic (Kota Formation)  
Andhra Pradesh, India.  
Support: Carnegie Museum O'Neil Funds (sponsored by Geological Survey of India)
- 1992- 1996 Tertiary marine and coastal deposits & cetacean faunas  
South Carolina, North Carolina, Maryland, and Virginia  
Support: National Science Foundation; Faculty Grants from College of Charleston

##### **In collaboration with other investigators:**

- 2016 -2011 Middle – Late Jurassic Tiaojishan Formation of Inner Mongolia, Liaoning and Hebei Provinces of China (in collaboration with Dr. Qingjin Meng, Beijing Museum of Natural History, and Dr. Qiang Ji, Chinese Academy of Geological Sciences, Beijing)
- 2011 -1999 Early Cretaceous Yixian and Fuxin Formations of Liaoning Province, China  
Support (to Luo): National Science Foundation (USA), National Geographic Society (Sponsored by Professor Qiang Ji of National Geological Museum of China, and Chinese Academy of Geological Sciences, Beijing)
- 2004 -1999 Late Jurassic Morrison Formation in Colorado, USA (in collaboration with John Wible)  
Support: National Science Foundation and Carnegie Museum of Natural History
- 2008 Cretaceous Winton Formation, Queensland, Australia  
Collaboration with Dr. Steve Salisbury (Team leader, University of Queensland) and Dr. Matthew Lamanna (Carnegie Museum).  
Support: Australian Research Council (to Salisbury), National Science Foundation (to Luo), Carnegie Museum O'Neil Funds (to Lamanna).
- 2007 Late Jurassic Morrison Formation in Wyoming, USA (Spring Creek Preserve of University of Pittsburgh (with Matthew Lamanna)

Support: University of Pittsburgh and Carnegie Museum of Natural History

2000 Paleocene-Eocene of Tibet, China (also reconnaissance of the Mesozoic and Pliocene) (K. C. Beard, team leader; D. Gebo and Z.-X. Luo, team members; sponsored by Y.-Q. Wang and T. Qi of IVPP)

**Field experience in paleontology and geology as graduate and undergraduate student:**

Cretaceous and Paleocene in Montana and Wyoming, USA (1983, 1986, 1988).

Geological mapping and field stratigraphy in the Paleozoic and Mesozoic in southeastern China (Jiangsu, Zhejiang, Anhui Provinces) (1978, 1979, 1981).

**XI. Experience in University Teaching**

Mammalian Evolutionary Biology (since 2014)  
Biological Sciences Collegiate Division, The University of Chicago  
(co-instructor with Dr. Kenneth D. Angielczyk, Field Museum of Natural History)

Natural History of Medicine (elective course for Medical Graduate curriculum, 2006-2012)  
Taught by museum curators at the Carnegie Museum for the MD graduate students of University Pittsburgh School of Medicine (one of the four co-instructors)

Evolutionary Biology (Adjunct Assist./Assoc./Full Professor – Univ. of Pittsburgh 1998-07)  
Vertebrate Comparative Anatomy (Assistant Professor--College of Charleston 1991-96)  
Gross Human Anatomy (Assistant Professor--College of Charleston 1991-1994)  
General Biology (Assistant Professor--College of Charleston 1994-1995)  
Comparative Anatomy and Physiology (Teaching Fellow--Harvard, 1990)  
Vertebrate Paleontology (Teaching Fellow--Harvard, 1989)  
Introductory Biology (Teaching Fellow--Harvard, 1988)  
Functional Evolution of Vertebrates (Teaching Assistant--Berkeley, 1984, 1985, 1986)  
Vertebrate Paleontology (Teaching Assistant--Berkeley, 1984, 1985, 1986)  
Macroevolution (Teaching Assistant--Berkeley, 1985)  
Principles of Systematics (Teaching Assistant--Berkeley, 1987)  
Phylogeny and Systematics of Tetrapods (Teaching Assistant--Berkeley, 1987)  
Phylogeny and Systematics of Mammals (Teaching Assistant--Berkeley, 1985, 1988)  
Archaeological Osteology (Teaching Assistant--Berkeley, 1988)

**XII. Sponsorship for Postdoctoral Fellows & International Scientists** (Partial list)

**Supervisor for postdoctoral fellows**

Dr. Julia A. Schultz (August 2015-August 2017)  
DAAD Postdoctoral Fellowship  
(Co-sponsor with Callum Ross)

Dr. Bhart-Anjan Bhular (2014 to 2015)

Dr. Michelle Spaulding (2011 - 2012)  
Rea Postdoctoral Fellowship of Carnegie Museum  
(Co-adviser with John Wible)

Dr. Lucja Fostowicz-Frelik (2008 to 2009)  
Fellowship from Polish Foundation for Science  
Carnegie Museum of Natural History, Pittsburgh, PA

Dr. Sean P. Modesto (2000-2002)  
Rea Postdoctoral Fellowship of Carnegie Museum  
Carnegie Museum of Natural History, Pittsburgh, PA

(Co-adviser with David Berman)

**Sponsorship for Prof. Dr. Thomas Martin (Sabbatical 2004-05)**

Max Kade Foundation Fellowship for Faculty Researchers  
Deutsche Forschungsgemeinschaft (DFG)  
Carnegie Museum of Natural History, Pittsburgh, PA

**Sponsorship for research visits for international scientists at Carnegie Museum:**

Mr. Meng Chen (China/US: 2013, 2014)  
Mr. Robin Cristofari (France: 2011)  
Dr. Da-Qing Li (China: 2008)  
Dr. Chongxi Yuan (China: 2006-07, 2009)  
Prof. Jose F. Bonaparte (Argentina: 2004)  
Prof. Dr. Qiang Ji (China: 1998, 1999, 2000, 2002, 2003)  
Prof. Zhiming Dong (China: 1997, 1999)  
Prof. Peiji Chen (China: 2000, 2005)  
Mr. Zhilu Tang (China: 1999; 2001)  
Dr. P. Yadagiri (India: 1997)  
Mr. Guihai Cui (China: 1998)  
Mr. Fakui Zhang (China: 1997).

**XIII. Experience in Graduate Training and Education**

**Current PhD Graduate Students in UChicago (as of 2019):**

Robert Burroughs (since 2014)  
Committee On Evolutionary Biology, UChicago  
(Major Advisor Kenneth Angielczyk; Co-advisor Zhe-Xi Luo)

Jacqueline K. Lungmus (since 2014)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago  
(Co-advisor; Kenneth Angielczyk and Zhe-Xi Luo)

Kelsey T. Stilson (since 2017)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago  
Member of Graduate Committee (member) (Callum Ross, major advisor)

Stephanie L. Baumgart (since 2017)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago  
Member of Graduate Committee (Paul Sereno, major advisor)

Elsa L. Panciroli (since 2017)  
National Museum of Scotland and University of Edinburgh (UK)  
External Member of PhD Dissertation Committee

**Previous Graduate Students:**

Dr. David M. Grossnickle (Ph.D. 2018)  
Committee On Evolutionary Biology, University of Chicago  
Zhe-Xi Luo (co-advisor) and Kenneth Angielczyk (co-Advisor) (2013-2018)

Dr. Lu Yao (Ph.D. 2016)  
Committee On Evolutionary Biology, UChicago  
Member of graduate committee (Major advisors: Dr. Robert Martin and Dr. Corrie Moreau)

Dr. Daniel J. Urban (Ph.D. 2016)  
Department of Animal Sciences

University of Illinois Urbana-Champaign  
External Member of Ph.D. Dissertation Committee

External examiner of Ph.D. Dissertation (Ph.D. 2012)  
Dr. Jun Liu  
Department of Earth Sciences  
The University of Hong Kong, China

Dr. Eric G. Ekdale (Ph.D. 2009)  
Laboratory of Vertebrate Paleontology  
Department of Geological Sciences  
University of Texas at Austin, TX  
External Member of Ph.D. Advisors Committee

External Examiner of Ph.D. Thesis  
Dr. Vera Weisbecker (Ph.D. 2008)  
School of Biological, Earth & Environmental Sciences  
University of New South Wales  
Sydney, Australia

External Examiner of Ph.D. Thesis  
Dr. Anne M. Musser (Ph.D. 2006)  
School of Biological, Earth & Environmental Sciences  
University of New South Wales  
Sydney, Australia

Dr. Thomas E. Macrini (Ph.D. 2006)  
Department of Geological Sciences  
University of Texas at Austin, TX  
External Member of Ph.D. Advisors Committee

External Examiner of Ph.D. Thesis  
Dr. Sandrine Ledevèze (Ph.D. 2005)  
Doctorate du Museum National d'Histoire Naturelle  
Paris, France

Dr. Hai-Lu You (Ph.D. 2002)  
Department of Earth and Environmental Science  
University of Pennsylvania, PA.  
External Member of Ph.D. Advisors Committee (1998-02)

External Examiner of Doctoral Thesis  
Dr. Joern H. Hurum (D. Sc. 1997)  
Museum of Paleontology  
University of Oslo, NORWAY.

Major Adviser to M.S. graduate students:

Mr. Meng Chen (M.S. 2007) (co-adviser)  
Department of Earth Sciences  
Nanjing University (China)

Katherine K. Marsh (M.S. 1996)  
Elizabeth R. Tipton-Jones (M.S. 1996)  
Marine Graduate Biology Program, University of Charleston (South Carolina)

Member of Graduate Advising Committee to M.S. graduate students (10):  
Timothy Zimmermann, Augustine DiNovo, Daniel Karen, Ming Sun, Eric Zolman,

Sandy Bricks, Wendy Moore, Shane Guan, Todd Haney, Dorian McMillan.  
Marine Graduate Biology Program, University of Charleston (South Carolina)

Advisor for Undergraduate Students on Senior Thesis at UChicago:  
Samuel P. Sullivan (BS 2015), R. Benjamin Sulser (BS 2016), James G. A. Wauer (BS 2017)  
Spencer V. Pevsner (BS 2019)

Advisor to Undergraduate Recipients of Metcalf Fellowship at UChicago:  
Mark Juhn (2014), Alexander Okamoto (2017), Spencer Pevsner (2017), Kailin Wu (2018)

#### **XIV. Memberships in Professional Societies**

Deutsche Paläontologische Gesellschaft (2013-Present, Honorary Corresponding Member)  
Society of Vertebrate Paleontology (since 1984)  
Society of Study of Mammalian Evolution (since 1992)  
Paleontological Society (since 1994)  
Sigma Xi (since 1991)  
American Association for Advancement of Sciences (since 1990)  
Geological Society of America (2005 – present)

#### **XV. Institutional or Extramural Professional Services (partial list):**

Member of Curatorial Promotion Committee (2017)  
Center for Integrative Sciences  
Field Museum of Natural History

Member of the Editorial Board (2010 – 2016)  
Proceedings of the Royal Society (London) – Biological Sciences (Series B)

Panel Members of National Science Foundation (US)

Member of the Advisor Program for Chinese Academy of Sciences  
Appointment since 2013

The 2012 External Advisory Committee (Chair)  
High-Resolution Computed Tomography Laboratory (UTCT)  
The Jackson School of Geosciences and National Science Foundation  
University of Texas at Austin

Co-Chair of Host Committee  
The 70<sup>th</sup> Annual Meeting of Society of Vertebrate Paleontology  
Pittsburgh, PA (Hosted by Carnegie Museum of Natural History)

Invited external reviewers  
The MacArthur Foundation (Chicago, USA)

Invited external reviewers (Multiple reviews)  
National Science Awards  
Ministry of Science and Technology  
The Government of China

Member of the 2009 International Review Committee  
Institute of Zoology (Beijing)  
Chinese Academy of Sciences  
(convened by the Administration of Chinese Academy of Sciences)

Member of International Review Committee  
The 2004 Institutional Review  
The Nanjing Institute of Geology and Palaeontology  
Chinese Academy of Sciences (CAS)  
(convened by Administration of Chinese Academy of Sciences)

Member of Editorial Board (2005 to present)  
Geological Journal of Chinese Universities  
(Nanjing University, China)

Member of Editorial Board (2005 to present)  
PalaeoWorld  
(Nanjing Institute of Geology and Palaeontology, Chinese Academy of Sciences)  
(Published by Elsevier, Netherlands)

Member of the Lazendorf PaleoArt Committee (2004-2008)  
Society of Vertebrate Paleontology

Member of Editorial Board (2003 to present)  
Journal of Mammalian Evolution (Springer, Netherlands)

Associate Editor and Editor (2001- 2009)  
Journal of Vertebrate Paleontology

Member-at-Large & Executive Committee (1998-2001)  
Society of Vertebrate Paleontology (Elected 1998)

Member of Editorial Board (1997 to present)  
Vertebrata PalAsiatica  
(Institute of Vertebrate Paleontology & Paleoanthropology, Chinese Academy of Sciences)

Foreign Correspondence Editor (1996-2000)  
News Bulletin, Society of Vertebrate Paleontology

Member of Development Committee (1994-1996)  
Society of Vertebrate Paleontology

Chairman of Graduate Admission Committee (1994-1996)  
Marine Biology Graduate Program  
University of Charleston, South Carolina

Academic and administrative committees (more than 10 during 1991-1995)  
Department of Biology and Grice Marine Biology Laboratory  
College of Charleston

Member of Curator Search Committees (for five searches)  
Carnegie Museum of Natural History

Museum and administrative committees (more than 50 during 1996-2012)  
Carnegie Museum of Natural History

**XVI. External Reviewers for Publications and Granting Agencies** (Partial list)

**General Scientific Journals – reviewers** - NATURE (UK); SCIENCE (USA); Proceedings of National Academy of Sciences (USA).

**Major Research Journals - Reviewers** – Acta Geologica Sinica (China), Acta Palaeontologica Polonica (Poland); Anatomical Record (USA); Biological Reviews (UK); BMC-Biology (UK);

BMC – Evolutionary Biology (USA); Chinese Science Bulletin (China); Cladistics (USA); Comptus Rendus (PalEvol) (France); Current Biology; Evolution; Journal of Evolutionary Biology; EvoDevo (UK); Evolution and Development; Geology (USA); Historical Geology (UK); Italian Journal of Zoology (Italy); Journal of Anatomy (UK); Journal of Mammalogy (USA); Journal of Mammalian Evolution (USA); Journal of Morphology (USA); Journal of Paleontology (USA); Journal of Royal Society Interface (UK); Journal of Systematic Palaeontology (UK); Journal of Vertebrate Paleontology (USA); Lethaia (Sweden); Molecular Phylogenetics and Evolution; Nature-Communications (UK); Nature-Scientific Reports (UK); Naturwissenschaften (Germany); Palaeoecology, Paleoclimatology, Paleobiogeography (Netherlands); Paläontologische Zeitschrift (Germany); Palaeontology (UK); Paleobiology (USA); Papers In Palaeontology (UK); PeerJ; PLoS Biology (USA); PLoS-One (USA); Proceedings of Royal Society of London –B (UK); Progress In Natural Science (National Natural Science Foundation, China); Royal Society Open Science (UK); Systematic Biology (USA); TREE - Trends in Ecology & Evolution (UK); Zoological Journal of Linnean Society (UK).

**Specialty Research Journals – Reviewers** – American Museum Novitates (USA); American Museum of Natural History Bulletin (USA); Ameghiana (Argentina); Aquatic Mammals; Bulletin of Museum of Comparative Zoology (Harvard University, USA); Geodiversitas - Bulletin National Muséum d’Histoire Naturelle, Paris (France); Geologica Belgica (Belgium); PaleoBios (Berkeley, CA); Palaeontologica Electronica (palaeo-electronica.org); Palaeobiodiversity and Palaeoenvironments (Senckenbergische Naturforschende Gesellschaft) (Germany); Palaeontologia Africana (South Africa); PaleoVertebrata Sinica (China); Vertebrata PalAsiatica (Chinese Academy of Sciences, China); Revista Brasileira De Paleontologia (Brazil), Smithsonian Contributions to Zoology (Washington, DC, USA); Zoological Research (Kunming Institute of Zoology, Chinese Academy of Sciences, China).

**Publishing Agencies & Presses** – Blackwell Publishing (Oxford, UK); Cambridge University Press (UK); Columbia University Press (New York); Harper-Collins Academic (London); The Indiana University Press (Bloomington, IN); The Johns Hopkins University Press; Plenum Press (New York); Princeton University Press; Springer-Verlag (New York and Hamburg); Smithsonian Institution Press (Washington, DC); The University of Chicago Press (Chicago); University of California Press (Berkeley, CA), World Scientific Publishings (New Jersey).

**External Reviewers of Proposals for Funding Agencies:**

**USA:** National Science Foundation, USA (for six different panels); the U.S. Civilian Research and Development Foundation (CRDF); National Geographic Society (Research and Exploration Committee); The Paleontological Society; American Chemical Society (Petroleum Research Fund); The MacArthur Foundation (Chicago).

**China:** the National Science Foundation of China (NSFC, for three different programs); Ministry of Science and Technology, the Government of China.

**Europe:** Deutsch Forschungsgemeinschaft (DFG) (Germany); The Leibniz Association (Germany); Biotechnology and Biological Sciences Research Council (Genes and Development Committee) (UK); The Leverhulme Trust (UK); Research Council of Norway; Fundação para a Ciência e a Tecnologia (FCT) (Portugal); The European Research Council (four different programs).

**Others:** Council of Scientific and Industrial Research (CSIR) of India; National Research Foundation of South Africa.

**Institutional Funding Reviews:** National Museum of Natural History, Smithsonian Institution, USA; Institute of Zoology (Beijing), Chinese Academy of Sciences; Canadian Museum of Nature (Ottawa, Canada); South Carolina Bioengineering Council (US).

**Reviews for Faculty Tenure, Promotion, and Awards for Universities and Research Museums:**

**XVII. Publications: Book and Edited Symposium Proceedings**

**Book**

- 113) Kielan-Jaworowska, Z., R. L. Cifelli, and **Z.-X. Luo**. 2004. Mammals from the Age of Dinosaurs: Origins, Evolution, and Structure. Columbia University Press, New York. Pp. i-xv, 1-630; 239 figures.

**Edited Volumes of Symposium Proceedings**

- 112) Xu, X., **Luo, Z.-X.** and J.-Y. Rong (Guest Editors). 2010. Recent Advances in Chinese Palaeontology. Proceedings of Royal Society, Series B (Biological Sciences) 277 (1679): 161-344 (Print issue published on January 22, 2010, after online publications of the papers in this volume during 2009) (Special Issue on Paleontology of China, organized and edited by Xu, Luo and Rong, at the invitation of the Editorial Board of Proceedings of Royal Society)
- 111) Beard, K. C. and **Z.-X. Luo** (Editors). 2007. Mammalian Paleontology On A Global Stage: Papers In Honor of Mary R. Dawson. Bulletin of Carnegie Museum of Natural History 39: 1-234.
- 110) Polly, P. D., Springer, M. S. and **Z.-X. Luo** (Editors). 2005. Journal of Mammalian Evolution – the Clemens Special Volume. Journal of Mammalian Evolution, Volume 12 (Issues 1/2 3/4): 1-552.

**XVIII. Publications (full research papers excluding abstracts, reviews, and popular scientific articles)**

**2018**

- 109) Lautenschlager, S., Gill, P., **Luo, Z.-X.**, Fagan, M. J., and E. J. Rayfield. 2018. The role of miniaturisation in the evolution of the mammalian jaw. Nature. 561:533-537 (doi: 10.1038/s41586-018-0521-4).
- 108) Pancirolli, E. L. Schultz, J. A. and **Z.-X. Luo**. 2019. Morphology of the petrosal and stapes of *Borealestes* (Mammaliaformes, Docodonta) from the Middle Jurassic of Skye, Scotland. Papers in Palaeontology. 5:139-156 (Published online 2018) ([doi.org/10.1002/spp2.1233](https://doi.org/10.1002/spp2.1233))
- 107) Huttenlocker, A. K., Grossnickle, D. M., Kirkland, J. I., Schultz, J. A., and **Z.-X. Luo**. 2018. Late-surviving stem mammal with Gondwanan affinities in the Lower Cretaceous of North America. Nature. 558:109-112 (doi: 10.1038/s41586-018-0126-y).

**2017**

- 106) Chen, M., **Luo, Z.-X.** and G. P. Wilson. 2017. The postcranial skeleton of *Yanoconodon allini* from the Early Cretaceous of Hebei, China and its implications for locomotor adaptation in eutriconodontan mammals. Journal of Vertebrate Paleontology. e1315425 (23 pages) (DOI: 10.1080/02724634.2017.1315425)
- 105) Schultz, J. A., Bhullar, B. A. S., and **Z.-X. Luo**. 2017 (2019). Re-examination of the Jurassic mammaliaform *Docodon victor* by computed tomography and occlusal functional analysis. Journal of Mammalian Evolution. 26: 9-38. (Published in print in 2019; published online in 2017) ([doi.org/10.1007/s10914-017-9418](https://doi.org/10.1007/s10914-017-9418))
- 104) Meng, Q.-J., Grossnickle, D. M., Liu, D., Zhang, Y.-G., Neander, A. I., Ji, Q., and **Z.-X. Luo**. 2017. New gliding mammaliaforms from the Jurassic. Nature. 548: 291-296. (doi:10.1038/nature23476).

- 103) **Luo, Z.-X.**, Meng, Q.-J., Grossnickle, D. M., Liu, D., Zhang, Y.-G., Neander, A. I., and Ji, Q. 2017. New evidence for mammaliaform ear evolution and feeding adaptation in a Jurassic ecosystem. *Nature*. 548: 326-329 (doi:10.1038/nature23483).
- 102) Anthwal, N., Urban, D. J., **Luo, Z.-X.**, Sears, K. E., and A. S. Tucker. 2017. Meckel's cartilage breakdown offers clues to mammalian middle ear evolution. *Nature Ecology & Evolution*. 1:0093. (DOI: 10.1038/s41559-017-0093) ([www.nature.com/natecolevol](http://www.nature.com/natecolevol)).
- 101) Urban, D. J., Anthwal, N., **Luo, Z.-X.**, Maier, J. A., Sadier, A., Tucker, A. S., and K. E. Sears. 2017. A new developmental mechanism for the separation of the mammalian middle ear ossicles from the jaw. *Proceedings of Royal Society (London) B – Biological Sciences*. 284: 20162416. (Published online in 2016) (<http://dx.doi.org/10.1098/rspb.2016.2416>).
- 100) Schultz, J. A., U. Zeller and **Z.-X. Luo**. 2017. Inner ear labyrinth anatomy of monotremes and implications for mammalian inner ear evolution. *Journal of Morphology*. 278:236–263. (Published online in 2016) (DOI 10.1002/jmor.20632).

## 2016

- 99) **Luo, Z.-X.**, Schultz, J. A. and E. G. Ekdale. 2016. Evolution of the middle and inner ears of mammaliaforms: the approach to mammals. In J. A. Clack, R. R. Fay and A. N. Popper (editors) *Evolution of the Vertebrate Ear: Evidence from the Fossil Record*. Springer Handbooks for Auditory Research. 59:139-174. (DOI 10.1007/978-3-319-46661-3\_6).
- 98) Lautenschlager, S., Gill, P., **Luo, Z.-X.**, Fagan, M. J. and E. J. Rayfield. 2017. Morphological evolution of the mammalian jaw adductor complex. *Biological Reviews*. 92: 1910–1940. (doi: 10.1111/brv.12314) (Published online 2016, in print 2017).
- 97) Rowe, T. B., **Luo, Z.-X.**, Ketcham, R. A., Maisano, J. A. and M. W. Colbert. 2016. Data Descriptor: X-ray computed tomography datasets for forensic analysis of vertebrate fossils. *Nature - Scientific Data*. 3:160040 (DOI:10.1038/sdata.2016.40) ([www.nature.com/scientificdata](http://www.nature.com/scientificdata))
- 96) Girard, R., Zeineddine, H. A., Orsbon, C., Tan, H., Moore, T., Hobson, N., Shenkar, R., Lightle, R., Shi, C., Fam, M. D., Cao, Y., Shen, L., Neander, A. I., Rorrer, A., Gallione, C., Tang, A. T., Kahn, M. L., Marchuk, D. A., **Luo, Z.-X.**, and I. A. Awad. 2016. Micro-computed tomography in murine models of cerebral cavernous malformations as a paradigm for brain disease. *Journal of Neuroscience Methods*. 271:14–24. (<http://dx.doi.org/10.1016/j.jneumeth.2016.06.021>)
- 95) **Luo, Z.-X.** Meng, Q.-J., Liu, D., Y.-G. Zhang, and C.-X. Yuan. 2016. Cruro-pedal structure of the paulchoffatiid multituberculate *Rugosodon eurasiaticus* and evolution of the multituberculate ankle. *Palaeontologia Polonica*. 67: 149-169. ([http://dx.doi.org/10.4202/pp.2016.67\\_149](http://dx.doi.org/10.4202/pp.2016.67_149))

## 2015

- 94) **Luo, Z.-X.**, Gatesy, S. M., Jenkins, F. A., Amaral A. A. and N. H. Shubin. 2015. Mandibular and dental characteristics of Late Triassic mammaliaform *Haramiyavia* and their ramifications for basal mammal evolution. *Proceedings of National Academy of Sciences USA*. 112 (51): E7101–E7109 (doi: 10.1073/pnas.1519387112).
- 93) Martin, T., Marugán-Lobón, J., Vullo, R., Martín-Abad, H., **Luo, Z.-X.**, and A. D. Buscalioni. 2015. A Cretaceous eutriconodont and integument evolution of early mammals. *Nature*. 526(7573): 380–384.
- 92) **Luo, Z.-X.** 2015. Origin of the mammalian shoulder. Pp.167 -187. In: K. P. Dial, N. H. Shubin & E. L. Brainerd (eds.) *Great Transformations: Major Events in the History of Vertebrate Life*. The University of Chicago Press.
- 91) **Luo, Z.-X.**, Q.-J. Meng, Q. Ji, D. Liu, Y.-G. Zhang, and A. I. Neander. 2015. Evolutionary development in basal mammaliaforms as revealed by a docodontan. *Science*. 347: 760-764.

- 90) Meng, Q.-J., Q. Ji, Y.-G. Zhang, D., Liu, D. M. Grossnickle, and **Z.-X. Luo**. 2015. An arboreal docodont from the Jurassic and mammaliaform ecological diversification. *Science*. 347: 764-768.
- 89) Hughes, E. M., J. R. Wible, M. Spaulding, and **Z.-X. Luo**. 2015. Mammalian petrosal from the Upper Jurassic Morrison Formation of Fruita, Colorado. *Annals of Carnegie Museum*. 83: 1-17.

**2014**

- 88) **Luo, Z.-X. 2014**. Evolution: tooth structure re-engineered. *Nature*. 512: 36-37 (News and Views commentary).

**2013**

- 87) Yuan, C.-X., Ji, Q., Meng, Q.-J. and **Z.-X. Luo**. 2013. Earliest evolution of multituberculate mammals revealed by a new Jurassic fossil. *Science*. 341: 779-783.
- 86) Zhou, C.-F., Wu, S., Martin, T. and **Z.-X. Luo**. 2013. A Jurassic mammaliaform and the earliest mammalian evolutionary adaptations. *Nature*. 500: 163-168 (doi:10.1038/nature12429).
- 85) Ruf, I., **Z.-X. Luo**, and T. Martin. 2013. Re-investigation of the basicranium of *Haldanodon expectatus* (Docodonta, Mammaliaformes). *Journal of Vertebrate Paleontology*. 33:382-400.
- 84) O'Leary, M. A., Bloch, J. I., Flynn, J. J., Gaudin, T. J., Giallombardo, A., Giannini, N. P., Goldberg, S. L., Kraatz, B. P., **Luo Z.-X.**, Meng, J., Ni, X., Novacek, M. J., Perini, F. A., Randall, Z. S., Rougier, G. W., Sargis, E. J., Silcox, M. T., Simmons, N. B., Spaulding, M., Velazco, P. M., Weksler, M., Wible, J. R., and A. L. Cirranello. 2013. The placental mammal ancestor and the post-K-Pg radiation of placentals. *Science*. 339: 662-667.

O'Leary M. A. et al. 2013. Response to Comment on "The Placental Mammal Ancestor and the Post-K-Pg Radiation of Placentals" *Science*. 341: 613 (DOI: 10.1126/science.1238162).

- 83) Walsh, S. A., **Z.-X. Luo** and P. M. Barrett. 2013. Modern imaging techniques as a window to prehistoric auditory worlds. Pp. 227 – 261. In: C. Köppel, G. A. Manley, A. N. Popper and R. F. Fay (editors), *Insights from Comparative Hearing Research - Springer Handbook of Auditory Research*. Springer, New York, Heidelberg, Dordrecht, and London.

**2012**

- 82) **Luo, Z.-X.**, I. Ruf and T. Martin. 2012. The petrosal and inner ear of the Late Jurassic cladotherian mammal *Dryolestes leiriensis* and implications for evolution of ear in therian mammals. *Zoological Journal of Linnean Society (London)*. 166:433-463.
- 81) Chen, M. and **Z.-X. Luo**. 2012. Postcranial skeleton of the Cretaceous mammal *Akidolestes cifellii* and its locomotor adaptations. *Journal of Mammalian Evolution*. 20: 159-189 (DOI10.1007/s10914-012-9199-9 (published online in 2012, published print in 2013)

**2011**

- 80) **Luo, Z.-X. 2011**. Developmental patterns in Mesozoic evolution of mammal ears. *Annual Review of Ecology, Evolution and Systematics*. 42: 355–80 (10.1146/annurev-ecolsys-032511-142302).
- 79) **Luo, Z.-X.**, C.-X. Yuan, Q.-J. Meng, and Q. Ji. 2011. A Jurassic eutherian mammal and the divergence of marsupials and placentals. *Nature*. 476: 442-445 (doi:10.1038/nature10291).
- 78) Rowe, T. B., T. E. Macrini, and **Z.-X. Luo**. 2011. Fossil evidence on origin of the mammalian brain. *Science*. 332: 955-957 (DOI: 10.1126/science.1203117).

**2010**

- 77) **Luo, Z.-X.**, I. Ruf, J. A. Schultz, and T. Martin. **2011**. Fossil evidence on evolution of inner ear cochlea in Jurassic mammals. *Proceedings of Royal Society Series-B (Biological Sciences)*. 278: 28-34 (doi: 10.1098/rspb.2010.1148) (Published online in July 28, 2010).
- 76) **Luo, Z.-X.** **2010**. Evolutionary development and homoplasy of the middle ear in early mammal evolution. Pp. 163-179. *In: Darwin's Heritage Today* (Manyuan Long, Zhonghe Zhou and Hongya Gu, editors). China Higher Education Press. Beijing, China (Invited contribution to the Proceedings of Darwin-China 200 Symposium, Beijing, China, October 2009, hosted by Peking University, Chinese Academy of Sciences and National Natural Sciences Foundation of China).

**2009**

- 75) Ji, Q., **Z.-X. Luo**, X.-L. Zhang, C.-X. Yuan, and L. Xu. **2009**. Evolutionary development of the middle ear in Mesozoic therian mammals. *Science*. 326:278-231 (DOI:10.1126/science.1187501).
- 74) Gao, C.-L., G. P. Wilson, **Z.-X. Luo**, A. M. Maga, Q.-J. Meng, and Wang, X.-R. **2009**. A new mammal skull from the Lower Cretaceous of China with implications for the evolution of obtuse angled molars and amphilestid eutriconodonts. *Proceedings of Royal Society (London) Series B (Biological Sciences)*. 277:237-246 (doi:10.1098/rspb.2009.1014).
- 73) Ruf, I., **Z.-X. Luo**, J. R. Wible, and T. Martin. **2009**. Petrosal anatomy and inner ear structure of the Late Jurassic mammal *Henkelotherium* and the ear region characters of basal therian mammals. *Journal of Anatomy*. 214: 679-693. doi:10.1111/j.1469-7580.2009.01059.x

**2008**

- 72) Chen, M. and **Z.-X. Luo**. **2008**. Morphology of dentition and postcranial skeleton of *Akidolestes*. *Acta Geologica Sinica (Chinese Edition)*. 82(2): 155-164 (with English Abstract).
- 71) You, H.-L. and **Z.-X. Luo**. **2008**. Dinosaurs from the Lower Cretaceous Gonpoquan Basin in Jiuquan Area, Gansu Province, China. *Acta Geologica Sinica (Chinese Edition)*. 82(1): 139-144. (with English Abstract).

**2007**

- 70) **Luo, Z.-X.** **2007**. Transformation and diversification in the early mammalian evolution. *Nature*. 450: 1011-1019.
- 69) **Luo, Z.-X.**, Q. Ji and C.-X. Yuan. **2007**. Convergent dental evolution in pseudotribosphenic and tribosphenic mammals. *Nature*. 450: 93-97.
- 68) **Luo, Z.-X.**, P.-J. Chen, G. Li, and M. Chen. **2007**. A new eutriconodont mammal and evolutionary development of early mammals. *Nature*. 446: 288-293.
- 67) **Luo, Z.-X.**, and T. Martin. **2007**. Analysis of molar structure and phylogeny of docodontan genera. *Bulletin of Carnegie Museum of Natural History*. 39: 27-47.
- 66) **Luo, Z.-X.** **2007**. Successive diversifications in early mammalian evolution. Pp. 337-391. *In: Major Transitions In Vertebrate Evolution* (J. S. Anderson and H.-D. Sues, eds.). Indiana University Press, Bloomington and Indianapolis, Indiana.

**2006**

- 65) Ji, Q., **Z.-X. Luo**, C.-X. Yuan, and A. R. Tabrum. **2006**. A swimming mammaliaform from the Middle Jurassic and ecomorphological diversification of early mammals. *Science*. 311: 1123-1127. (Cover Featured).
- 64) Li, G., and **Z.-X. Luo**. **2006**. A Cretaceous symmetrodont therian with some monotreme-like postcranial features. *Nature*. 439: 195-200.
- 63) Hurum, J. H., **Z.-X. Luo**, and Z. Kielan-Jaworowska. **2006**. Were mammals originally venomous? *Acta Palaeontologica Polonica*. 51(1): 1-11.

**2005**

- 62) **Luo, Z.-X.**, and J. R. Wible. **2005**. A new Late Jurassic digging mammal and early mammalian diversification. *Science*. 308: 103-107.
- 61) Martin, T., and **Luo, Z.-X.** **2005**. Paleontology: Homoplasy in the Mammalian Ear. *Science*. 307: 861-862.
- 60) **Luo, Z.-X.**, and Q. Ji. **2005**. New study on dental and skeletal features of the Cretaceous mammal *Zhangheotherium*. *Journal of Mammalian Evolution*. 12: 337-357.
- 59) Geisler, J. H., A. E. Sanders, and **Z.-X. Luo**. **2005**. A new protocetid whale (Cetacea: Protocetidae) from the Middle Eocene of South Carolina, U.S.A. *The American Museum Novitates*. 3480: 1-65.
- 58) **Luo, Z.-X.** **2005**. Fossil Vertebrates: Mesozoic mammals. Pp. 527-534. In, R. C. Selley, R. Cocks and I. Pilmer (editors): *Encyclopedia of Geology* (2004 Edition). Academic Press/Elsevier Science Ltd, Oxford and London.

**2004**

- 57) **Luo, Z.-X.**, Z. Kielan-Jaworowska, and R. L. Cifelli. **2004**. Evolution of Dental Replacement in Mammals. Pp. 159 - 175, in *Fanfare for an Uncommon Paleontologist - Festschrift in Honor of Dr. Malcolm C. McKenna*, (M. R. Dawson, and J. A. Lillegraven, eds.). The Carnegie Museum of Natural History Bulletin. 36: 159-175.
- 56) Dooley, A. C., Jr., N. C. Fraser, and **Z.-X. Luo**. **2004**. The earliest member of the rorqual-gray whale (Mammalia, Cetacea). *Journal of Vertebrate Paleontology* 24: 453-463.
- 55) Datta, P. M., D. P. Das, and **Z.-X. Luo**. **2004**. A Late Triassic dromatheriid (Cynodontia, Synapsida) from Tiki Formation of India. *Annals of Carnegie Museum*. 73(2): 72-84.

**2003**

- 54) **Luo, Z.-X.**, Q. Ji, J. R. Wible, and C.-X. Yuan. **2003**. An Early Cretaceous tribosphenic mammal and metatherian evolution. *Science*. 302: 1934-1940. (Research Article, with a Perspective from Richard L. Cifelli and Brian M. Davis).
- 53) You, H.-L., F. Tang, and **Z.-X. Luo**. **2003**. A new basal titanosaur (Dinosauria: Sauropoda) from the Early Cretaceous of China. *Acta Geologica Sinica (English Edition)* (Beijing) 77: 424-429.
- 52) Shapiro, M. D., H.-L. You, N. H. Shubin, **Z.-X. Luo**, and J. P. Downs. **2003**. A large ornithomimid from the Lower Cretaceous of the Mazongshan area, northern Gansu Province, People's Republic of China. *Journal of Vertebrate Paleontology*. 23: 695-698.
- 51) You, H.-L., **Z.-X. Luo**, N. H. Shubin, L. M. Witmer, Z.-L. Tang, and F. Tang. **2003**. The earliest-known duck-billed dinosaur from deposits of late Early Cretaceous age in northwest China and hadrosaur evolution. *Cretaceous Research*. 24: 347-355.

2002

- 50) Ji, Q., **Z.-X. Luo**, C-X. Yuan, J. R. Wible, J.-P. Zhang, and J. A. Georgi. **2002**. The earliest known eutherian mammal. *Nature*. 416: 816-822.
- 49) Kielan-Jaworowska, Z., R. L. Cifelli, and **Z.-X. Luo**. **2002**. Dental structure of *Shuotherium* and its relationships. *Acta Palaeontologica Polonica*. 47: 479-486.
- 48) **Luo, Z.-X.**, Z. Kielan-Jaworowska, and R. L. Cifelli. **2002**. In quest for a phylogeny of Mesozoic mammals. *Acta Palaeontologica Polonica*. 47: 1-78.

2001

- 47) **Luo, Z.-X.**, A. W. Crompton, and A.-L. Sun. **2001**. A new mammaliaform from the Early Jurassic of China and evolution of mammalian characteristics. *Science*. 292: 1535-1540. (Cover Feature).
- 46) **Luo, Z.-X.**, R. C. Cifelli, and Z. Kielan-Jaworowska. **2001**. Dual origin of tribosphenic mammals. *Nature*. 409: 53-57.
- 45) Tang, F., **Z.-X. Luo**, Z.-H. Zhou, H.-L. You, J. A. Georgi, Z.-L. Tang, and X.-Z. Wang. **2001**. Biostratigraphy and Paleoenvironment of the Dinosaur-bearing Sediments in Lower Cretaceous of Mazongshan Area, Gansu Province, China. *Cretaceous Research*. 22: 115-129.
- 44) **Luo, Z.-X.** **2001**. Inner ear and its bony housing in tritylodonts and implications for evolution of mammalian ear. Pp. 81-97, *in Studies in Organismic and Evolutionary Biology in Honor of Alfred W. Crompton* (F. A. Jenkins, M. D. Shapiro, and T. Owerkowicz, eds.). *Bulletin of Museum of Comparative Zoology, Harvard University*. 156: 81-97.

2000

- 43) **Luo, Z.-X.** **2000**. Evolution: in search of the whales' sisters. *Nature*. 404: 235– 239. (Invited News & Views Commentary on the relationships of cetaceans to ungulate mammals).

1999

- 42) **Luo, Z.-X.** **1999**. A refugium of relicts. *Nature*. 400: 23-25. (Invited News & Views commentary on the age of the feathered dinosaur fauna in China).
- 41) **Luo, Z.-X.**, and P. D. Gingerich. **1999**. Transition from terrestrial ungulates to aquatic whales: transformation of the basicranium and evolution of hearing. *Papers on Paleontology* 31: 1-98. Monograph Series of Museum of Paleontology, University of Michigan, Ann Arbor, Michigan.
- 40) Ji, Q., **Z.-X. Luo**, and S.-A. Ji. **1999**. A Chinese triconodont mammal and mosaic evolution of mammalian skeleton. *Nature*. 398: 326-330. (with a News & Views commentary from Timothy Rowe).

1998

- 39) Tang, F., **Z.-X. Luo**, Z.-H. Zhou, H.-L. You, and L. Tan. **1998**. Genesis of the stratigraphic sequence in the late Mesozoic terrestrial basin in the Ma-Zong-Shan areas of Gansu Province. *Chinese Geology*. 1998(10): 40-44. [in Chinese]
- 38) Kielan-Jaworowska, Z., R. L. Cifelli, and **Z.-X. Luo**. **1998**. Alleged Cretaceous placental mammal from down under. *Lethaia*. 31: 267-268.

- 37) Zhang, F.-K., A. W. Crompton, **Z.-X. Luo**, and C. R. Schaff. **1998**. Pattern of dental replacement of Sinoconodon and its implications for evolution of mammals. *Vertebrata Palasiatica* .36: 197-217. (in both Chinese and English).
- 36) Hu, Y.-M., Wang, Y.-Q., C.-K. Li, and **Z.-X. Luo**. **1998**. Morphology of dentition and forelimb of Zhangheotherium. *Vertebrata Palasiatica*. 36: 102-125. (in both Chinese and English).
- 35) Geisler, J. H., and **Z.-X. Luo**. **1998**. Cranial vascular evolution in mesonychids and cetaceans and the phylogenetic position of cete. Pp. 161-212, in Evolutionary Emergence of Whales, (J. G. M. Thewissen, ed.). Plenum Press, New York.
- 34) **Luo, Z.-X.** **1998**. Homology and Transformation of the cetacean ectotympanic structures. Pp. 269-301, in Evolutionary Emergence of Whales, (J. G. M. Thewissen, ed.). Plenum Press, New York.

**1997**

- 33) Hu, Y.-M., Wang, Y.-Q., **Z.-X. Luo**, and C.-K. Li. **1997**. A new symmetrodont mammal from China and its implications for mammalian evolution. *Nature*. 390: 137-142.

**1996**

- 32) Geisler, J. H., and **Z.-X. Luo**. **1996**. Petrosal and inner ear structures of Herpetocetus, their implications on relationships and hearing function of archaic mysticetes. *Journal of Paleontology*. 70: 1045-1066.
- 31) **Luo, Z.-X.**, and K. K. Marsh. **1996**. Petrosal (periotic) and inner ear of a Pliocene kogiine whale (Kogiinae, Odontoceti): implications on relationships and hearing evolution of toothed whales. *Journal of Vertebrate Paleontology*. 16: 328-348.

**1995**

- 30) **Luo, Z.-X.**, S. G. Lucas, J.-J. Li, and S.-N. Zhen. **1995**. A new specimen of Morganucodon oehleri from the Lower Lufeng Formation, Yunnan, China. *Neues Jahrbuch für Geologie und Paläontologie*. 11: 671-680.
- 29) **Luo, Z.-X.**, and X.-C. Wu. **1995**. Correlation of vertebrate assemblage of the Lower Lufeng Formation, Yunnan, China. Pp. 83-88, in Sixth Symposium on Mesozoic Terrestrial Ecosystems and Biotas, Short Papers, (A.-L. Sun, and Y.-Q. Wang, eds.). China Ocean Press, Beijing, China.
- 28) **Luo, Z.-X.**, and E. R. Eastman. **1995**. The petrosal and inner ear structures of a squalodontoid whale: implications for evolution of hearing in odontocetes. *Journal of Vertebrate Paleontology*. 15: 431-442.
- 27) **Luo, Z.-X.**, A. W. Crompton, and S. G. Lucas. **1995**. Evolutionary origins of the mammalian promontorium and cochlea. *Journal of Vertebrate Paleontology*. 15: 113-121.

**1994**

- 26) **Luo, Z.-X.**, and X.-C. Wu. **1994**. The small vertebrate fauna of the Lower Lufeng Formation, Yunnan. Pp. 251-270, in In the Shadow of Dinosaurs—Early Mesozoic Tetrapods, (N. C. Fraser, and H.-D. Sues, eds.). Cambridge University Press, Cambridge, New York and Melbourne.
- 25) **Luo, Z.-X.** **1994**. Sister taxon relationships of mammals and the transformations of the diagnostic mammalian characters. Pp. 98-128, in In the Shadow of Dinosaurs—Early Mesozoic Tetrapods, (N. C. Fraser, and H.-D. Sues, eds.). Cambridge University Press, Cambridge and New York.

- 24) **Luo, Z.-X.**, and A. W. Crompton. **1994**. Transformations of the quadrate (incus) through the transition from non-mammalian cynodonts to mammals. *Journal of Vertebrate Paleontology*. 14: 341-374.

**1993**

- 23) Crompton, A. W., and **Z.-X. Luo**. **1993**. The relationships of the Liassic mammals *Sinoconodon*, *Morganucodon oehleri* and *Dinnetherium*. Pp. 30-44, *in Mammal Phylogeny* (F. S. Szalay, M. J. Novacek, and M. C. McKenna, eds.). Springer-Verlag, New York.
- 22) Lucas, S. G., and **Z.-X. Luo**. **1993**. *Adelobasileus* from the Upper Triassic of West Texas: the oldest mammal. *Journal of Vertebrate Paleontology*. 13: 309-334.
- 21) **Luo, Z.-X.**, and A.-L. Sun. **1993**. *Oligokyphus* (Cynodontia: Tritylodontidae) from the Lower Lufeng Formation (Lower Jurassic) of Yunnan, China. *Journal of Vertebrate Paleontology*. 13: 477-482.

**1991**

- 20) **Luo, Z.-X.**, and D. R. Ketten. **1991**. CT scanning and computerized reconstructions of the inner ear structure of multituberculate mammals. *Journal of Vertebrate Paleontology*. 11: 220-228.
- 19) **Luo, Z.-X.** **1991**. The variability of dental morphology and the relationships of the earliest arctocyonid species. *Journal of Vertebrate Paleontology*. 11: 452-471.

**1989**

- 18) McKenna, M. C., M.-C. Chow, S.-Y. Ting, and **Z.-X. Luo**. **1989**. *Radinskya yupingae*, a perissodactyl-like mammal from the late Paleocene of Southern China. Pp. 24-37, *in The Evolution of Perissodactyls*, (D. R. Prothero, and R. M. Schoch, eds.). Oxford University Press, Oxford.

**Published Reviews & Popular Scientific Articles**

- 17) Brusatte, S. L. and **Z.-X. Luo**. 2016. Ascent of Mammals. *Scientific American*. 2016 June Issue: Pages 28-35.
- 16) **Luo, Z.-X.** 2010. Journal Club (Commentary on mammalian dental evolutionary development – Invited Column on Research Highlights). *NATURE*. 465: 669 (10 June 2010).
- 15) Xiao, S.-H., Q. Yang, and **Z.-X. Luo** 2010. A golden age of paleontology in China? A SWOT analysis. *Palaeontologia Electronica* Vol. 13, Issue 1; 3E:4p; [http://palaeo-electronica.org/paleo/2010\\_1/commentary/china.htm](http://palaeo-electronica.org/paleo/2010_1/commentary/china.htm)
- 14) Xu, X., **Luo Z.-X.** and J.-Y. Rong. 2009. Recent advances in Chinese palaeontology. *Proceedings of Royal Society B (Biological Sciences)*. 277:161-164. (DOI: 10.1098/rspb.2009.1668)
- 13) **Luo, Z.-X.** 2009. The 100<sup>th</sup> Anniversary of the Discovery of Dinosaur National Monument. Pp: 22-25. *Dinosaur Expo 2009 – The Miracle of Deserts Exhibit Catalogue Book*. (Exhibit in Tokyo, Japan) Published by the Nikkei Press, Tokyo, Japan. (Translated into Japanese by Nikkei).
- 12) **Luo, Z.-X.** 2008. Rise of marsupial and placental mammals in the Cretaceous of Asia. In, K. Miyata (ed.) *Extinction of Dinosaurs and Rise of New Rulers (Exhibit Book for Special Exhibition)*, pp. 105-108. Fukui Prefectural Dinosaur Museum, Fukui, Japan. (In English and Japanese: Japanese translation provided by Dr. K. Miyata).
- 11) Beard, K. C. and **Zhe-Xi Luo**. 2007. Mammalian paleontology on a global stage: a tribute to Mary R. Dawson. *Bulletin of Carnegie Museum of Natural History*. 39: 1-5.

- 10) **Luo, Z.-X.** 2007. Book Review: Natural history of human's most distant relatives: Echidna – Extraordinary egg-laying mammal. By Michael L. Augee, Brett A. Gooden, and Anne M. Musser. *Journal of Mammalian Evolution*. 14: 283-285.
- 9) **Luo, Z.-X.** and M. Chen. 2007. The magic story of mammalian ear evolution. *Scientific American* (Chinese Edition, Taiwan). June 2007. No. 64: 96-98. (In Chinese).
- 8) Polly, P. D., J. A. Lillegraven, and **Z.-X. Luo**. 2005. Introduction: Paleomammalogy in Honor of Professor Emeritus William Alvin Clemens, Jr. *Journal of Mammalian Evolution*. 12:3-9.
- 7) **Luo, Z.-X.** 2005. Book review: "Doushantuo Fossils: Life on the Eve of Animal Radiation." By Xun-lai Yuan, Shu-hai Xiao, Lei-ming Yin, Andrew H. Knoll, Chuan-ming Zhou and Xi-nan Mu. 2002. *Journal of Paleontology*. 75:1040-1042.
- 6) **Luo, Z.-X.** 2004. A Window on Early Animal Evolution (Book review): for "The Cambrian Fossils of Chengjiang, China – The Flowering of Early Animal Life" by Xian-Guang Hou, Richard J. Aldridge, Jan Bergström, David J. Siveter, Derek J. Siveter & Xiang-Hong Feng. *Nature*. 430: 405.
- 5) **Luo, Z.-X.** 2002. Evolutionary story of the Mesozoic tribosphenic mammals. *Scientific American* (Chinese Edition, Taiwan), April 2002: 62-63. (Popular Scientific Article, in Chinese).
- 4) **Luo, Z.-X.** 2002. Symmetrodonts (an entry to the McGraw-Hill Encyclopedia). The McGraw-Hill Encyclopedia of Science and Technology, Ninth Edition. P. 84. New York, NY. (Published Review).
- 3) **Luo, Z.-X.** 2001. Foreword to Rise of the Dragon. Pp. ix-xiv, in Rise of the Dragon – Recent Advancement in Palaeontology in China, (Henry Gee, ed.). The University of Chicago Press. (Invited contribution by the editor)
- 2) **Luo, Z.-X.** 1997. How do whales hear? *Carnegie Magazine*, Vol. LXIII: Pp. 23-25. (Popular Scientific Article).
- 1) **Luo, Z.-X.**, and Z. Zhang. 1995. Thrinaxodon: Digital Atlas of the Skull (by T. Rowe, W. Carlson, and W. Bortoroff). *Journal of Vertebrate Paleontology*. 15: 871-874. (Published Review).

#### **Ph.D. Thesis**

- Luo, Z.-X.** 1989. The petrosal structures of Multituberculata (Mammalia) and the molar morphology of early Arctocyonidae (Condylarthra, Mammalia). Ph.D. Dissertation, Museum of Paleontology, University of California at Berkeley. Pp. 1-426. (Major adviser: W. A. Clemens, Jr.; Committee Members: M. H. Wake, and K. Padian).

#### **XIX. Published Abstracts & Presentations at Conferences and Symposia (partial list)**

- 54) Grossnickle, D., P. D. Polly, and **Z.-X. Luo**. 2013. Morphological disparity of Mesozoic mammals through time. The 73rd Annual Meeting of Society of Vertebrate Paleontology Program and Abstracts. *Journal of Vertebrate Paleontology* (Supplement): 137A.
- 53) Chen, M., **Z.-X. Luo** and G. P. Wilson. 2013. Morphometric analysis of locomotor specialization in the Cretaceous mammal Yanocodon: implications for ecomorphological diversification within eutriconodont mammals. The 73rd Annual Meeting of Society of Vertebrate Paleontology Program and Abstracts. *Journal of Vertebrate Paleontology* (Supplement): 104A.
- 52) Cristofari, R. and **Z.-X. Luo**. 2012. Vertebral identities in modern monotreme and therian mammals and their homeotic variations in early mammal evolution. Euro Devo Devo (Lisbon, Portugal) 2012 Conference. Meeting Program with Lecture Abstracts (Abstract 441).

- 51) **Luo, Z.-X. 2011.** Negative allometry in ontogeny and evolution of mammalian middle ear in Mesozoic mammals. The 71<sup>st</sup> Annual Meeting of Society of Vertebrate Paleontology Program and Abstracts: 148A.
- 50) Rowe, T. B., Macrini, T. E. and **Z.-X. Luo. 2011.** Oldest fossil evidence on origin of the mammalian brain. The 71<sup>st</sup> Annual Meeting of Society of Vertebrate Paleontology Program and Abstracts: 182A.
- 49) **Luo, Z.-X. 2011.** Developmental Patterns In Mesozoic Evolution of Mammal Ears. IV Congreso Latinoamericano de Paleontología de Vertebrados (San Juan, Argentina). Programs with Abstracts.
- 48) **Luo, Z.-X. 2011.** Mesozoic mammal fossils of northeastern China and their significance on early mammal evolution. International Symposium on Paleontology & Geology in Liaoning, China Abstracts with Symposium Program (Editors: G. Sun and Y. Zhang): pp. 8-9. Paleontological Museum of Liaoning, Shenyang, China.
- 47) Ruf, I., **Luo, Z.-X.** and T. Martin. **2010.** CT scanning analysis of the basicranium and the inner ear of *Haldanodon expectatus* (docodonta, mammalia). The 70<sup>th</sup> Annual Meeting of Society of Vertebrate Paleontology Program and Abstracts: 154A.
- 46) **Luo, Z.-X. 2010.** Morphological evolution of the double craniomandibular joint in cynodont-mammaliaform transition. The 70<sup>th</sup> Annual Meeting of Society of Vertebrate Paleontology Program and Abstracts. 125A.
- 45) Chen, M. and **Z.-X. Luo. 2010.** New study on skeleton of Cretaceous Mammal Akidolestes and its implications for early therian mammal postcranial evolution. The 70<sup>th</sup> Annual Meeting of Society of Vertebrate Paleontology Program and Abstracts. 71A.
- 44) **Luo, Z.-X. 2009.** Evolutionary development and homoplasy of definitive mammalian middle ear. Terra Nostra – Schriften der GeoUnion Alfred-Wegener-Stiftung. 2009(3) (Kurzfassung der Tagungsbeiträge. P. 75-76 (Abstract).
- 43) **Luo, Z.-X. 2009.** Homoplastic Evolution In The Precursor States of the Definitive Mammalian Middle Ear (DMME) Characters in the Earliest Mammalian Transition. Journal of Vertebrate Paleontology 29(3) (Supplement): 138A.
- 42) Chen, M. and **Z.-X. Luo. 2009.** Homoplasy In Vertebral Serial Identities In Mesozoic Mammals And Evolutionary Development By Homeobox Genes. Journal of Vertebrate Paleontology 29(3) (Supplement): 76A.
- 41) Egberts, S., Rowe, T., Sues, H.-D., **Luo, Z.-X.** and F. A. Jenkins. **2009.** The first semi-aquatic synapsid from the Kayenta formation, Arizona. Journal of Vertebrate Paleontology 29(3) (Supplement): 91A.
- 40) Macrini, T. E. and **Z.-X. Luo. 2008.** Digital cranial endocast of *Hadrocodium wui* (Mammaliaformes) and its bearing on mammalian brain evolution. Journal of Vertebrate Paleontology 28(3) (Supplement): 110A.
- 39) **Luo, Z.-X. 2007.** Development heterochrony and transformation of the definitive mammalian middle ear among Mesozoic mammals. Journal of Vertebrate Paleontology 27(3) (Supplement): 108A.
- 38) Ruf, I. **Z.-X. Luo,** T. Martin, and J. R. Wible. **2007.** CT Scanning investigation of the petrosal bone and the inner ear of *Henkelotherium guimarotae* (Paurodontidae, Dryolesoidea). Journal of Vertebrate Paleontology 27(3) (Supplement): 136A (SVP Meeting Program with Abstracts).
- 37) **Luo, Z.-X. 2007.** Molecular Time Estimates of Mammalian Divergence Versus Fossil Records of Ecomorphological Diversification of Mesozoic Mammals. Journal of China University Geosciences 18 (Special Issue): 389-391 (Abstract, 2007 Meeting of International Professionals for

Advancement of Chinese Earth Sciences –IPACES, hosted by China University of Geosciences-Wuhan)

- 36) **Luo, Z.-X.**, A. R. Tabrum, Q. Ji, and C.-X. Yuan. **2006**. Phylogenetic and ecological diversities of docodontan mammaliaforms, and their paleobiogeographic patterns. *Journal of Vertebrate Paleontology* 26(3) (Supplement): 92A.
- 35) You, H.-L. and **Z.-X. Luo**. **2006**. Dinosaurs from the Lower Cretaceous Mazongshan area in northwestern China. P. 453, in, Q. Yang, Y.-D. Wang and E. A. Weldon (editors) *Ancient Life and Modern Approaches – Abstracts of the Second International Palaeontological Congress (June 17-21, Beijing, CHINA)*. University of Science and Technology of China Press.
- 34) **Luo, Z.-X.** and, T. Martin. **2006**. Phylogeny of mammaliaform docodontan genera and their biogeographic patterns. P. 475-476, in, Q. Yang, Y.-D. Wang and E. A. Weldon (editors) *Ancient Life and Modern Approaches – Abstracts of the Second International Palaeontological Congress (June 17-21, Beijing, CHINA)*. University of Science and Technology of China Press.
- 33) **Luo, Z.-X.**, and J. R. Wible. **2005**. Convergent evolution of myrmecophagan and fossorial adaptations of *Fruitafossor* and ecomorphological diversification of mammals of the late jurassic and early cretaceous. *Journal of Vertebrate Paleontology* 25(3)(supplement): 85A.
- 32) **Luo, Z.-X.**, J. R. Wible, Q. Ji, and C.-X. Yuan. **2004**. Morphological divergence and earliest evolution of marsupial and placental mammals. *Journal of Vertebrate Paleontology* 24(3)(supplement): 86A.
- 31) **Luo, Z.-X.** **2004**. Evolution of diphyodont dental replacement and determinate skull growth through cynodont-mammal transition. *Journal of Morphology* 360(3):308. Abstract for the 7<sup>th</sup> International Congress of Vertebrate Morphology (Boca Raton, FL).
- 30) **Luo, Z.-X.** **2003**. Successive diversification of Mesozoic mammal clades and accumulative evolution of their anatomical apomorphies. *Journal of Vertebrate Paleontology* 23(3)(supplement): 73A-74A. (Invited presentation for "Evolutionary Transition among Vertebrates - A Symposium In Honor of Robert Lynn Carroll" at the 63<sup>rd</sup> Annual Meeting of Society of Vertebrate Paleontology)
- 29) **Luo, Z.-X.** **2003**. Evolution of endocast and braincase through cynodont-mammal transition. *Festschrift Symposium and Celebration in Honor of Professor William A. Clemens*. Museum of Paleontology & Department of Integrative Biology, University of California at Berkeley, Berkeley, CA. (April, 2003)
- 28) **Luo, Z.-X.**, and G.-H. Cui. **2001**. Internal structures of tritylodontid skulls as revealed by serial sectioning and CT scanning. *Journal of Vertebrate Paleontology* 21(3)(supplement): 75A.
- 27) **Luo, Z.-X.**, A. W. Crompton, and A.-L. Sun. **2001**. Cranial structures of mammaliaform *Hadrocodium* and origins of mammalian characteristics. *Journal of Vertebrate Paleontology*, 21(3)(supplement): 75A.
- 26) Cifelli, C. L., **Z.-X. Luo**, and Kielan-Jaworowska, Z. **2001**. The relationships of monotremes and the earliest-known southern tribosphenic mammals. *Journal of Vertebrate Paleontology* 21(3)(supplement): 40A-41A.
- 25) McKenna, M. C., M. Chow, and **Z.-X. Luo**. **2001**. New phenacodont-like mammal, Late Paleocene of China. *Journal of Vertebrate Paleontology* 21(3)(supplement): 79A.
- 24) **Luo, Z.-X.**, Kielan-Jaworowska, Z., and R. L. Cifelli. **2001**. Relationships of major Mesozoic mammalian clades. *PaleoBios* 21(2)(supplement): 86. (North American Paleontological Convention 2001, Programs and Abstracts).

- 23) **Luo, Z.-X.**, Q. Ji, and S.-A. Ji. **2001**. Dental replacement in *Zhangheotherium* and its implications on evolution of mammalian dentition. *Journal of Morphology* 248(3): 256-257. (Abstract of the 6<sup>th</sup> International Congress of Vertebrate Morphology. Jena, Germany).
- 22) Dooley, A. C., Jr., N. C. Fraser, and **Z.-X. Luo**. **2000**. The earliest member of the balaenopteridae-eschrichtidae clade from the Miocene of Virginia. *Journal of Vertebrate Paleontology* 20(3)(supplement): 39A.
- 21) Geisler, J. H., A. E. Sanders, J. A. Georgi, and **Z.-X. Luo**. **2000**. A revised phylogeny of Odontoceti and Mysticeti with a reinterpretation of cetacean cranial evolution. *Journal of Vertebrate Paleontology* 20(3)(supplement): 43A.
- 20) You, H.-L., P. Dodson, **Z.-X. Luo**, Z.-M. Dong, and Y. Azuma. **1999**. *Archaeoceratops* and other dinosaurs from the late early Cretaceous of the Mazongshan area, northwest China. *Journal of Vertebrate Paleontology* 19(3)(supplement): 86A.
- 19) **Luo, Z.-X.** 1999. Evolution of inner ears through the cynodont-mammal transition. Festschrift Symposium and Celebration in Honor of Professor Alfred W. Crompton. Museum of Comparative Zoology & Department of Organismic Biology and Evolution. Harvard University, Cambridge, MA. (May, 1999)
- 18) **Luo, Z.-X.** **1998**. Evolution of underwater hearing in whales. The Biannual Science Fiction Writers Conference (Mars, Pennsylvania, USA). (Invited Scientific Presentation)
- 17) **Luo, Z.-X.** **1997**. Transformation of the mammalian middle ear through the cynodont-mammal transition. *Journal of Morphology* 232(3): 290. (Abstract to the International Congress of Vertebrate Morphology V. Bristol, UK).
- 16) **Luo, Z.-X.** **1997**. Sphenoidal sinus in advanced and early mammals, and its implications on mammalian skull evolution. *Journal of Morphology* 232(3): 290. (Abstract to International Congress of Vertebrate Morphology V. Bristol, UK).
- 15) Tipton-Jones, E., B. A. Keith, and **Z.-X. Luo**. **1996**. A study of the functional evolution of the inner ear of baleen whales. *Bulletin, South Carolina Academy of Science* Volume LVIII: 147-148.
- 14) Geisler, J., A. E. Sanders, and **Z.-X. Luo**. **1996**. A new protocetid cetacean from the Eocene of South Carolina, USA; phylogenetic and biogeographic implications. P. 139, in *Sixth North American Paleontological Convention Abstracts of Papers* (Smithsonian Institution, Washington, DC), (J. E. Repetski, ed.). The Paleontological Society Special Publications No. 8.
- 13) Tipton-Jones, B. R., and **Z.-X. Luo**. **1996**. A study of the functional evolution of the inner ear of mysticetes. P. 394. In *Sixth North American Paleontological Convention Abstracts of Papers* (Smithsonian Institution, Washington, DC), (J. E. Repetski, ed.). The Paleontological Society Special Publications No. 8.
- 12) **Luo, Z.-X.** **1996**. Phylogenetic implications of the petrosal features on relationships of the multituberculate families of the Late Cretaceous. *Journal of Vertebrate Paleontology* 16(3)(supplement): 49A.
- 11) **Luo, Z.-X.**, P. D. Gingerich, and X.-Y. Zhou. **1995**. Evolution of the isolated petro-tympanic complex in cetaceans - new evidence from archaeocetes. *Journal of Vertebrate Paleontology* 14(3)(supplement): 41A.
- 10) **Luo, Z.-X.**, J. Geisler, and K. Marsh. **1994**. Evolutionary divergence of hearing specializations in mysticetes and odontocetes (Cetacea, Mammalia). *Journal of Vertebrate Paleontology* 14(3)(supplement): 34A.

- 9) **Luo, Z.-X.**, and E. R. Eastman. **1993**. Inner ear of a squalodont whale (Odontoceti, Mammalia). *Journal of Vertebrate Paleontology* 13(3)(supplement): 47A.
- 8) Kohler, K., E. R. Eastman, and **Z.-X. Luo**. **1993**. Inner ear structures of two fossil odontocetes, and their phylogenetic and functional significance. Abstracts for the Tenth Biannual Conference on the Biology of Marine Mammals (with Programs). Galveston, Texas.
- 7) **Luo, Z.-X**. **1991**. The phylogenetic relationships of tritheledontids, tritylodontids and Sinoconodon. Presentation at the Symposium of Triassic-Jurassic Small Vertebrate Faunas, Virginia Museum of Natural History, May, 1991.
- 6) **Luo, Z.-X**. **1991**. Evolutionary transformations of the promontorium and the cochlea among major clades of mammals. *Journal of Vertebrate Paleontology* (supplement) 11(3): 27A.
- 5) Lucas, S. G., and **Z.-X. Luo**. **1991**. The Oldest Mammal: Adelobasileus cromptoni from the Late Triassic of Texas. *Journal of Vertebrate Paleontology* 11(3)(supplement): 26A.
- 4) Crompton, A. W., and **Z.-X. Luo**. **1990**. Relationships of Sinoconodon and Morganucodon oehleri from Yunnan, China. Presented at the Sloan Foundation Symposium on Mammal Phylogeny at America Museum of Natural History in New York. June, 1990.
- 3) **Luo, Z.-X.**, and D. R. Ketten. **1989**. Observation of the acousto-vestibular structures of multituberculate mammals with computerized tomography. *Journal of Vertebrate Paleontology* 9(3)(supplement): 30A.
- 2) **Luo, Z.-X**. **1988**. Two distinct patterns of apomorphous petrosal characters among major mammalian groups and their phylogenetic implications. *Journal of Vertebrate Paleontology* 8(3)(supplement): 20A.
- 1) **Luo, Z.-X**. **1987**. The ontogeny and phylogeny of the facial nerve features on the petrosal of primates. Presentation at the 47th Annual Meeting of Society of Vertebrate Paleontology.

**XX. Invited Research Seminars and Popular Scientific Talks** (2008-2019, Partial list)

- 2019 University of Toronto (Mississauga) - Department of Biology (Canada)  
The University of Chicago - Department of Geophysical Sciences  
Peking University - School of Earth and Space Sciences (Beijing, China)
- 2018 Plenary Lecture - The 13th International Symposium on Mesozoic Terrestrial Ecosystems  
(Bonn, Germany)  
Keynote Presentation for Symposium on Mapping Vertebrate Skeletomuscular Evolution,  
The First Asia Evolutionary Biology Conference (Shenzhen, China)
- 2017 Plenary Lecture - XXV Congresso of Brasileiro de Paleontologia (Ribeirão Preto, Brasil)  
Harvard University - Department of Organismic and Evolutionary Biology  
Early Evolution and Diversity of Vertebrates Symposium (RIKEN) (Kobe, Japan)
- 2016 University of Illinois at Chicago - Department of Earth and Environmental Sciences  
University of Louisville - Dept. of Anatomical Sciences and Neurobiology (Kentucky)  
Cornell University - Department of Ecology and Evolutionary Biology  
University of Florida - Florida Museum of Natural History
- 2015 Plenary Lecture - The 2015 Meeting of Paleontological Society of China (Shenyang)  
Nanjing Institute of Geology and Palaeontology, Academia Sinica (Nanjing, China)  
University of California at Berkeley - Museum of Paleontology
- 2013 The University of Chicago Center in Beijing - Public Lecture  
University of Illinois (Chicago) School of Dentistry  
Invited Keynote Talk - Oral Biology Centennial Legacy Conference
- 2013 Harvard University - Museum of Natural History “Evolution Matters” Public Lecture
- 2012 Field Museum of Natural History – The Watson Armour Science Seminar  
Indiana University - Department of Geological Sciences  
Carnegie Museum of Natural History - The Carnegie Discoverers Seminar  
Duchesne University – Department of Biological Sciences
- 2011 University of Pittsburgh - Ecology and Evolution Seminar  
The University of Chicago, Dept of Organismal Biology and Anatomy  
University of Zurich, Institute of Paleontology (Switzerland)  
Paleontological Museum of Liaoning (Shenyang, China)  
École Normale Supérieure de Lyon - Institute of Functional Genomics of Lyon &  
Centre National de la Recherche Scientifique (CNRS) (France)
- 2010 University of Illinois, Urbana-Champaign - Ecology, Evolution & Conservation Biology  
Universität Bonn - Steinmann-Institut für Mineralogie, Geologie und Paläontologie  
University of Cambridge, Department of Zoology (Cambridge, UK)  
The Santa Fe Institute - Institute Curriculum (Santa Fe, New Mexico)  
Carnegie Museum of Natural History - The R. W. Moriarty Science Seminar
- 2009 Carnegie Science Center (Pittsburgh) - Café Scientifique Lecture  
Peking University - The Darwin-China 200 Conference (Invited speaker) (China)  
Keynote Speaker - 79 Jahrestagung der Paläontologischen Gesellschaft  
(Annual Meeting of the German Paleontological Society – 2009 Bonn)  
University of Cambridge, The Museum of Zoology (Cambridge, UK)  
Humboldt Museum Naturkunde (Berlin, Germany)  
Princeton University - Department of Geosciences  
University of Texas at Austin - The High-Resolution CT Laboratory  
University of Texas at Austin - The Jackson School of Geosciences  
University of Pittsburgh – Foundation of Science lecture for undergraduates

- 2008    University of California at Berkeley - Dept of Integrative Biology (Berkeley, California)  
Field Museum of Natural History - The Watson Armour Research Seminar  
University of Michigan - The Ermine Cowles Case Lecture (Ann Arbor, Michigan)  
University of Michigan - Museum of Paleontology Research Seminar  
The Fukui Prefectural Dinosaur Museum, Pubic Lecture (Fukui, Japan\_  
University of Pittsburgh School of Medicine - Eye and Ear Institute  
College of Charleston - The Charles Darwin Anniversary Lecture (Charleston, SC)
- University of Pittsburgh and Carnegie Museum of Natural History  
Adult and Continuing Education Program Public Lecture  
Community Foundation of Upper St. Claire– Quest for Lifelong Learning