Steven E. Jasinski

Section of Paleontology and Geology

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Education

Ph.D. (Earth Sciences, w/ concentration in paleontology), University of Pennsylvania (2018)

Graduate Advisor: Dr. Peter Dodson, University of Pennsylvania

Other Committee Members: Dr. Donald Brinkman, Royal Tyrrell Museum of Paleontology

Dr. Hermann W. Pfefferkorn, University of Pennsylvania

Dr. Douglas J. Jerolmack, University of Pennsylvania

Dr. Reto Gieré, University of Pennsylvania

M.S. (Biology, w/ concentration in paleontology), East Tennessee State University (2013)

Graduate Advisor: Dr. Jim I. Mead, East Tennessee State University

Other Committee Members: Dr. Blaine W. Schubert, East Tennessee State University

Dr. Steven C. Wallace, East Tennessee State University

B.S. (Geobiology), Department of Geosciences, Pennsylvania State University (2008)

Academic Advisor: Dr. Peter D. Wilf, Pennsylvania State University

Thesis Advisor: Dr. Russell W. Graham, Pennsylvania State University

Research Interests

My research interests focus on the anatomy, phylogeny, life history, along with biomechanics and behavior of extinct and extant animals. Understanding the anatomy, morphology, and phylogenetic relationships allow for a more thorough understanding of the animals themselves. Additionally, this allows for more information to be gathered on the life history and behavior of these animals. Understanding these things in extant animals allows one to infer and gain a better understanding in extinct and fossil animals, but also leads to a better understanding how animals live today and in the past. I analyze the biomechanics and behavior, or potential behavior, of extant and extinct animals. I seek to bring life to fossils, and not only does this include describing and analyzing individual extinct animals and fossils but investigating faunas and ancient ecosystems as well. In particular, understanding ancient ecosystems and how they change through

time can allow us to infer potential implications for changes occurring today. Macroevolutionary trends through time are also used to understand change and make inferences for things happening today and potentially in the future, often on large scales.

My research has, thus far, focused on several animal groups. Much of this work has focused on turtles and Testudines evolution. Rather than focusing on how the group first evolved, I have sought to better understand how the group has evolved since its origination. I have been, and am still, investigating how turtles dealt with the end-Cretaceous extinction that killed off all non-avian dinosaurs and numerous other groups, with special emphasis on turtles from the southern United States and Mexico. I have also been investigating the anatomy and systematics of the Emydidae, the group of turtles leading to the box turtles and slider turtles people know today, and which are often kept as pets. Understanding intra- and interspecific variation is vital to understanding the systematics of these turtles.

Additionally, I have been studying various aspects of theropod dinosaurs. Some of this work has dealt with the anatomy, morphology, and phylogenetic relationships of theropods, particularly derived coelurosaurs such as dromaeosaurids and troodontids. While these small predatory dinosaurs are closely related to birds, and at least one of the instances of vertebrate flight, they were also a diverse group and played a key role in ancient ecosystems. In particular, I am investigating the southern members of these groups (in North America), and am seeking to better understand how they were living paleobiologically and their paleoecological roles in their respective ecosystems.

A third major area of research involves members of the Carnivora, both fossil and Recent members. This work focuses on the biomechanics of the group and the roles these predators play in their ecosystems. Rather than looking into the biomechanics of the skull, as most researchers tend to do, I focus more on the postcranial biomechanics of these animals, in particular the felids. While it is assumed that most of these animals are fairly conservative postcranially, my work is finding that there is more variation than previously assumed, allowing behavioral differences to be deduced. Additionally, I investigate the faunal dynamics of carnivorans in various ecosystems and faunas. Using modern analogues, I am able to understand how predators were living in the past and using fossil analogues I am able to infer potential changes in the future for modern ecosystems and faunas.

Publications

2021

30) Lichtig, Asher J., Spencer G. Lucas, and **Steven E. Jasinski**. 2021. Complete specimens of the Eocene testudinoid turtles *Echmatemys* and *Hadrianus* and the North American origin of tortoises. New Mexico Museum of Natural History and Science Bulletin 82:161–176.

2020

29) **Jasinski, Steven E.**, Robert M. Sullivan, and Peter Dodson. 2020. New dromaeosaurid dinosaur (Theropoda, Dromaeosauridae) from New Mexico and biodiversity of dromaeosaurids at the end of the Cretaceous. Scientific Reports 10:5105. 10 pp. https://doi.org/10.1038/s41598-020-61480-7.

28) Vamberger, Melita, Flora Ihlow, Marika Asztalos, Jeffrey E. Dawson, **Steven E. Jasinski**, Peter Praschag, and Uwe Fritz. 2020. So different, yet so alike: North American slider turtles (*Trachemys scripta*). Vertebrate Zoology 70(1):87–96.

2018

27) **Jasinski, Steven E.**, Robert M. Sullivan, Asher J. Lichtig, Spencer G. Lucas, and Peter Dodson. 2018. Baenid (Baenidae: Testudines) lower jaws from the Late Cretaceous and Paleocene of the San Juan Basin, New Mexico. New Mexico Museum of Natural History and Science Bulletin 79:311–318.

26) **Jasinski, Steven E.** 2018. A new slider turtle (Testudines: Emydidae: Deirochelyinae: *Trachemys*) from the late Hemphillian (late Miocene/early Pliocene) of eastern Tennessee and the evolution of the deirochelyines. PeerJ 6:e4338; DOI 10.7717/peerj.4338.

2017

25) Dalman, Sebastian G., **Steven E. Jasinski**, and Spencer G. Lucas. 2017. First occurrence of a tyrannosauroid dinosaur from the lower Campanian Merchantville Formation of Delaware, USA. Bulletin of the Fukui Prefectural Dinosaur Museum 16:29–38.

24) **Jasinski, Steven E**. and David A. Moscato. 2017. Late Hemphillian colubrid snakes (Serpentes, Colubridae) from the Gray Fossil Site of northeastern Tennessee. Journal of Herpetology 51(2):245–257.

2016

23) Moscato, David A. and **Steven E. Jasinski**. 2016. First record of fossil chelydrid and trionychid turtles (Testudines) from the Pleistocene of Sonora, Mexico. New Mexico Museum of Natural History and Science Bulletin 74:163–168.

22) **Jasinski, Steven E.** and Robert M. Sullivan. 2016. The validity of the Late Cretaceous pachycephalosaurid *Stegoceras novomexicanum* (Dinosauria: Pachycephalosauridae). New Mexico Museum of Natural History and Science Bulletin 74:107–115.

21) Lucas, Spencer G., Robert M. Sullivan, Asher J. Lichtig, Sebastian G. Dalman, and **Steven E. Jasinski**. 2016. Late Cretaceous dinosaur biogeography and endemism in the Western Interior Basin, North America: A critical re-evaluation. New Mexico Museum of Natural History and Science Bulletin 71:195–213.

2015

20) **Jasinski, Steven E.** and Steven C. Wallace. 2015. A borophagine canid (Carnivora: Canidae: Borophaginae) from the middle Miocene Chesapeake Group of eastern North America. Journal of Paleontology 89(6):1082–1088. doi:10.1017/jpa.2016.17

19) Robinson, Robert F.*, **Steven E. Jasinski**, and Robert M. Sullivan. 2015. Theropod bite marks on dinosaur bones: indications of a scavenger, predator or both?; and their taphonomic implications. New Mexico Museum of Natural History and Science Bulletin 67:275–282.

18) **Jasinski, Steven E**. 2015. Middle Miocene Carnivora of New Mexico (Tesuque Formation): species patterns, richness, and faunal turnover. New Mexico Museum of Natural History and Science Bulletin 67:89–105.

17) **Jasinski, Steven E**. 2015. A new dromaeosaurid (Theropoda: Dromaeosauridae) from the Late Cretaceous of New Mexico. New Mexico Museum of Natural History and Science Bulletin 67:79–87.

2014

16) **Jasinski, Steven E**. and Steven C. Wallace. 2014. Investigation into the paleobiology of *Dasypus bellus* using geometric morphometrics and variation of the calcaneus. Journal of Mammalian Evolution 21(3):285–298. http://link.springer.com/article/10.1007/s10914-013-9239-0. doi:10.1007/s10914-013-9239-0.

15) **Jasinski, Steven E**. and David A. Moscato. 2014. An undercover hellbender: Unique artificial shelter use by an endangered and threatened amphibian, the Eastern Hellbender (*Cryptobranchus alleganiensis alleganiensis*). Collinsorum: The Journal of Kansas Herpetology 3(1):11–12. (LINK to Collinsorum publications)

2013

14) **Jasinski, Steven E**. 2013. Review of the fossil Trionychidae (Testudines) from Alabama, including the oldest record of trionychid turtles from eastern North America. Bulletin of the Alabama Museum of Natural History 31(2):46–59.

13) Sullivan, Robert M., **Steven E. Jasinski**, and Spencer G. Lucas. 2013. Re-assessment of Late Campanian (Kirtlandian) turtles from the Upper Cretaceous Fruitland and Kirtland formations, San Juan Basin, New Mexico, USA; pp. 337–387 in D. B. Brinkman, P. A. Holroyd, and J. D. Gardner (eds.), Morphology and Evolution of Turtles. Dordrecht: Springer. (book listed as published 2013 but available end of 2012)

2012

12) Sullivan, Robert M. and **Steven E. Jasinski**. 2012. Coprolites from the Upper Cretaceous Fruitland, Kirtland and Ojo Alamo formations, San Juan Basin, New Mexico. New Mexico Museum of Natural History and Science Bulletin 57:255–262.

11) Koenig, Alan E., Spencer G. Lucas, Leonid A. Neymark, Andrew B. Heckert, Robert M. Sullivan, **Steven E. Jasinski**, and Denver W. Fowler. 2012. Direct U-Pb dating of Cretaceous and Paleocene dinosaur bones, San Juan Basin, New Mexico: COMMENT: Geology: e262. doi: 10.1130/G32154C.1.

2011

10) Sullivan, Robert M., Spencer G. Lucas, **Steven E. Jasinski**, and Darren H. Tanke. 2011. An unusual sacral neural spine osteopathy of a chasmosaurine (Dinosauria: Ceratopsidae) from the Upper Cretaceous Kirtland Formation (Hunter Wash Member), San Juan Basin, New Mexico. New Mexico Museum of Natural History and Science Bulletin 53:484–488. (link to volume)

9) Sullivan, Robert M., Spencer G. Lucas, and **Steven E. Jasinski**. 2011. Preliminary observations on a skull of the amiid fish *Melvius*, from the Upper Cretaceous Kirtland Formation, San Juan Basin, New Mexico. New Mexico Museum of Natural History and Science Bulletin 53:475–483. (link to volume)

8) Sullivan, Robert M., Spencer G. Lucas, and **Steven E. Jasinski**. 2011. The humerus of a hatchling lambeosaurine (Dinosauria, Hadrosauridae) referable to cf. *Parasaurolophus tubicen* from the Upper Cretaceous Kirtland Formation (De-na-zin Member), San Juan Basin, New Mexico. New Mexico Museum of Natural History and Science Bulletin 53:472–474. (link to volume)

7) Sullivan, Robert M., **Steven E. Jasinski**, and Mark P. A. van Tomme. 2011. A new caenagnathid *Ojoraptorsaurus boerei*, n. gen., n. sp. (Dinosauria, Oviraptorosauria) from the Upper Cretaceous Ojo Alamo Formation (Naashoibito Member), San Juan Basin, New Mexico. New Mexico Museum of Natural History and Science Bulletin 53:418–428. (link to volume)

6) Sullivan, Robert M., **Steven E. Jasinski**, Merrilee Guenther, and Spencer G. Lucas. 2011. The first lambeosaurin (Dinosauria, Hadrosauridae, Lambeosaurinae) from the Upper Cretaceous Ojo Alamo Formation (Naashoibito Member), San Juan Basin, New Mexico. New Mexico Museum of Natural History and Science Bulletin 53:405–417. (link to volume)

5) Lucas, Spencer G., Robert M. Sullivan, **Steven E. Jasinski**, and Tracy L. Ford. 2011. Hadrosaur footprints from the Upper Cretaceous Fruitland Formation, San Juan Basin, New Mexico, and the ichnotaxonomy of large ornithopod footprints. New Mexico Museum of Natural History and Science Bulletin 53:357–362. (link to volume)

4) **Jasinski, Steven E**., Robert M. Sullivan, and Spencer G. Lucas. 2011. Taxonomic composition of the Alamo Wash local fauna from the Upper Cretaceous Ojo Alamo Formation (Naashoibito Member), San

Juan Basin, New Mexico. New Mexico Museum of Natural History and Science Bulletin 53:216–271. (link to volume)

3**) Jasinski, Steven E**. and Robert M. Sullivan. 2011. Re-evaluation of pachycephalosaurids from the Fruitland-Kirtland transition (Kirtlandian, late Campanian), San Juan Basin, New Mexico, with a description of a new species of *Stegoceras* and a reassessment of *Texacephale langstoni*. New Mexico Museum of Natural History and Science Bulletin 53:202–215. (link to volume)

2) **Jasinski, Steven E**. 2011. Biomechanical modeling of *Coelophysis bauri*: possible feeding methods and behavior of a Late Triassic theropod. New Mexico Museum of Natural History and Science Bulletin 53:195–201. (link to volume)

2009

1) Lucas, Spencer G., Robert M. Sullivan, Steven M. Cather, **Steven E. Jasinski**, Denver W. Fowler, Andrew B. Heckert, Justin A. Spielmann, and Adrian P. Hunt. 2009. No definitive evidence of Paleocene dinosaurs in the San Juan Basin. Palaeontologia Electronica 12(2); 8A:10p. (PDF link)

Presentations

2020

42) **Jasinski, Steven E.**, Andrew B. Heckert, Asher J. Lichtig, Ciara Sailar*, and Peter Dodson. 2020. A rare plastomenid turtle (Testudines: Plastomenidae) from the end of the Cretaceous in North Dakota and survivorship of plastomenids across the Cretaceous-Paleogene boundary. Journal of Vertebrate Paleontology 40(supplement), Programs and Abstracts. (abstract)

41) Kastroll, Lindsay M.* and **Steven E. Jasinski**. 2020. Reevaluating the affinities of a hatchling-size humerus originally assigned to the rare lambeosaurine *Parasaurolophus tubicen* (Dinosauria: Hadrosauridae: Lambeosaurinae). Journal of Vertebrate Paleontology 40(supplement), Programs and Abstracts. (abstract)

2019

40) Reed, Kaiya*, **Steven E. Jasinski**, and Michael B. Meyer. 2019. Community changes during times of orogeny; examples from the Upper Devonian of Pennsylvania. PaleoBios 36 (supplement 1):298. North American Paleontological Convention 2019 Meeting: 29-96. (abstract)

39) Meyer, Michael B. and **Steven E. Jasinski.** 2019. Understanding exceptional preservation through comparative micro-analysis of fossils from the Cambrian Kinzers Formation (~514–509 Mya) of central Pennsylvania, USA. PaleoBios 36 (supplement 1):246. North American Paleontological Convention 2019 Meeting: Symposium 7. (abstract)

38) **Jasinski, Steven E.** 2018. Emydid turtles from the Miocene-Pliocene of the southern Appalachian Mountains and their implications for the evolution of the Emydidae. Society of Integrative and Comparative Biology 2019 Annual Meeting: P1-73. (abstract)

2018

37) **Jasinski, Steven E.** 2018. Fossil emydids (Testudines: Emydidae) from eastern Tennessee and their implications for the evolution of the Emydidae. Journal of Vertebrate Paleontology 38(supplement), Programs and Abstracts: 155A. (abstract)

36) **Jasinski, Steven E.**, Aja M. Carter, and Peter Dodson. 2017. Significance of the scapula for variation and attachment of extrinsic and intrinsic musculature within felids (Mammalia: Felidae). Society of Integrative and Comparative Biology 2018 Annual Meeting: 98-5. (talk)

2017

35) Sallan, Lauren, Travis Lumpkin*, **Steven E. Jasinski**, and Alana Rosen*. 2017. The emergence of modern marine fish faunas after the Jurassic–Cretaceous crisis. 10th Indo-Pacific Fish Conference, 10:45. (talk)

34) Stocker, Michelle R., Hans-Dieter Sues, and **Steven E. Jasinski**. 2017. Uniting the Upper Triassic deposits of central and north Pangea: The first record of *Parasuchus* from the Newark Supergroup and its implications for biochronology. Journal of Vertebrate Paleontology 37(supplement), Programs and Abstracts: 199A. (abstract)

33) **Jasinski, Steven E.**, Robert M. Sullivan, and Peter Dodson. 2017. The last of the North American dromaeosaurids (Theropoda: Dromaeosauridae), based on a new Maastrichtian specimen from New Mexico. Journal of Vertebrate Paleontology 37(supplement), Programs and Abstracts: 136A. (abstract)

32) **Jasinski, Steven E.** 2017. New Neogene turtles from the Eastern United States and their evolutionary implications. 11th Annual Summer Symposium at the Paleontological Research Institution. (talk)

31) **Jasinski, Steven E.** 2017. New emydid turtles from the late Hemphillian Gray Fossil Site of eastern Tennessee. 10th Annual Meeting of the Southeastern Association of Vertebrate Paleontology. (talk)

30) **Jasinski, Steven E**. 2017. A new dromaeosaurid dinosaur (Theropoda: Dromaeosauridae) from New Mexico and its implications for the evolution of the Dromaeosauridae. Geobiology Symposium 2017. (talk)

2016

29) Sullivan, Robert M., Spencer G. Lucas, Asher J. Lichtig, Sebastian Dalman, and **Steven E. Jasinski**. 2016. A critique of Late Cretaceous dinosaur biogeography and endemism in the Western Interior Basin, North America. Journal of Vertebrate Paleontology 36(Supplement), Programs and Abstracts: 234A. (abstract)

28) **Jasinski, Steven E.**, Robert M. Sullivan, Eric Snively, Eric M. Morschhauser, Sebastian Dalman, and Peter Dodson. 2016. Theropods (Dinosauria: Theropoda) from the San Juan Basin, New Mexico, and implications for Late Cretaceous theropod faunas of Laramidia. Journal of Vertebrate Paleontology 36(Supplement), Programs and Abstracts: 161A. (abstract)

27) Lichtig, Asher J., Spencer G. Lucas, and **Steven E. Jasinski**. 2016. Geographic range extension & paleobiogeographic significance of the Late Cretaceous kinosternid turtle *Yelmochelys*. Geological Society of America Abstracts with Programs 48(7): paper no. 75-4. (abstract)

26) Lichtig, Asher J., **Steven E. Jasinski**, and Spencer G. Lucas. 2016. A new species of *Neurankylus* from the Paleocene of New Mexico. New Mexico Geological Society Proceedings Volume, 2016 Annual Spring Meeting: 42. (abstract-talk)

25) Lichtig, Asher J., **Steven E. Jasinski**, and Spencer G. Lucas. 2016. *Hoplochelys*, a dermatemydid turtle from the Paleocene of New Mexico. New Mexico Geological Society Proceedings Volume, 2016 Annual Spring Meeting: 41. (abstract)

24) **Jasinski, Steven E.** and Peter Dodson. 2016. Variation of the felid (Mammalia: Felidae) scapula and implications for felid biology. International Congress of Vertebrate Morphology 13: LOC1-4. (abstract-talk)

23**) Jasinski, Steven E.** and Peter Dodson. 2016. Felid (Mammalia: Felidae) scapula variation; implications for the ecomorphology of felids. Geobiology Symposium 2016.

2015

22) **Jasinski, Steven E.** and Peter Dodson. 2015. Biostratigraphy, paleobiogeography, and evolution of dromaeosaurids (Dinosauria: Dromaeosauridae) in North America. Geological Society of America Abstracts with Programs 47(7): paper no. 222-1. (abstract)

21) Szajna, Michael J., Brian W. Hartline, David L. Fillmore, Edward L. Simpson, and **Steven E. Jasinski**. 2015. A report on five new ichnofossil localities in the Late Triassic Newark Basin, Pennsylvania. Geological Society of America Abstracts with Programs 47(7): paper no. 165-11. (abstract)

20) **Jasinski, Steven E.**, Robert M. Sullivan, and Peter Dodson. 2015. Late Cretaceous dromaeosaurid theropod dinosaurs (Dinosauria: Dromaeosauridae) from southern Laramidia and implications for

dinosaur faunal provinciality in North America. Journal of Vertebrate Paleontology 35(Supplement), Programs and Abstracts: 150A. (abstract)

19) **Jasinski, Steven E**. 2015. Carnivoran faunal dynamics during the middle Miocene of southwestern North America. Geobiology Symposium 2015.

2014

18) Moscato, David A. and **Steven E. Jasinski**. 2014. Late Miocene-early Pliocene colubrid snakes (Serpentes: Colubridae) from Tennessee and their implications for North American snake evolution. Journal of Vertebrate Paleontology 34(Supplement), Programs and Abstracts: 192A. (abstract)

17) **Jasinski, Steven E.** and Leigha M. King. 2014. The middle Miocene Carnivora of New Mexico (Tesuque Formation): species patterns, richness, and faunal turnover. Journal of Vertebrate Paleontology 34(Supplement), Programs and Abstracts: 154A. (abstract)

2013

16) **Jasinski, Steven E.** 2013. The utility of soft-tissue characters in understanding the phylogenetic relationships of fossil taxa: evidence from the evolution of the turtle family Emydidae. Journal of Vertebrate Paleontology 33(Supplement), Programs and Abstracts: 148A. (abstract)

2012

15) Moscato, David A. and **Steven E. Jasinski**. 2012. First record of fossil Chelydridae and Trionychidae from the Pleistocene of Sonora, Mexico. Journal of Vertebrate Paleontology 32(Supplement), Programs and Abstracts: 146A. (abstract)

14) **Jasinski, Steven E.** and Steven C. Wallace. 2012. An armadillo and a leg: inferring behavioral differences of *Dasypus bellus* and *Dasypus novemcinctus* from morphology of the calcaneus. Journal of Vertebrate Paleontology 32(Supplement), Programs and Abstracts: 117A. (abstract)

13) Moscato, David A. and **Steven E. Jasinski.** 2012. A diverse turtle fauna from the Late Pleistocene of Sonora, Mexico. Fifth Annual Meeting of the Southeastern Association of Vertebrate Paleontology Abstracts and Program: 16. (abstract-talk, which Steven gave)

12) **Jasinski, Steven E.** 2012. *Trachemys* (Testudines: Emydidae) from the Miocene-Pliocene Gray Fossil Site of eastern Tennessee and its potential implications for the evolution of the genus. Fifth Annual Meeting of the Southeastern Association of Vertebrate Paleontology Abstracts and Program: 13. (abstract-talk)

2011

11) **Jasinski, Steven E.**, Spencer G. Lucas, and David A. Moscato. 2011. Investigation into the turtles from the Late Cretaceous to Paleocene in the San Juan Basin, New Mexico. Journal of Vertebrate Paleontology 31(Supplement): 131A. (abstract)

10) **Jasinski, Steven E**. 2011. Problems with the classification of fossil emydids (Testudines: Emydidae) and the need for re-evaluation of *Trachemys*. Fourth Annual Meeting of the Southeastern Association of Vertebrate Paleontology Abstracts and Program: 15. (abstract-talk)

2010

9) Sullivan, Robert M., **Steven E. Jasinski**, and Spencer G. Lucas. 2010. Late Cretaceous (Kirtlandian) turtles from the Fruitland and Kirtland formations, San Juan Basin, New Mexico. Journal of Vertebrate Paleontology 30(Supplement): 172A. (abstract)

8) Lucas, Spencer G., Robert M. Sullivan, and **Steven E. Jasinski**. 2010. Giant hadrosaur footprints from the Upper Cretaceous Fruitland Formation, San Juan Basin, New Mexico. Journal of Vertebrate Paleontology 30(Supplement): 124A. (abstract)

7) **Jasinski, Steven E**. and Robert M. Sullivan. 2010. A new small pachycephalosaurid from the San Juan Basin, New Mexico and a re-evaluation of pachycephalosaurids from the Kirtlandian LVA (late Campanian). Journal of Vertebrate Paleontology 30(Supplement): 111A. (abstract)

6) Sullivan, Robert M., Dennis R. Braman, **Steven E. Jasinski**, and Spencer G. Lucas. 2010. New palynological data from Cretaceous strata in the San Juan Basin, New Mexico, do not indicate a Paleocene age for dinosaur fossils. New Mexico Geology, v. 32 (2): p. 67. (abstract)

2009

5) Spielmann, Justin A., Spencer G. Lucas, Robert M. Sullivan, **Steven E. Jasinski**, and Paul L. Sealey. 2009. Giant sea turtle from the Cretaceous (upper Campanian) Pierre Shale, Raton Basin, Northeastern New Mexico. Turtle Symposium Abstracts and Program. 168–173. (extended abstract)

4) Spielmann, Justin A., Spencer G. Lucas, Andrew B. Heckert, Robert M. Sullivan, and **Steven E. Jasinski**. 2009. Land-vertebrate faunachrons, GIS and cladotaxonomy: towards a global Triassic tetrapod biochronology. Geological Society of America Abstracts with Programs 41(7): 107. (abstract)

3) Sullivan, Robert M., **Steven E. Jasinski**, Spencer G. Lucas, and Justin A. Spielmann. 2009. The first "Lambeosaurin" (Dinosauria, Hadrosauridae, Lambeosaurinae) from the Upper Cretaceous Ojo Alamo Formation (Naashoibito Member), San Juan Basin, New Mexico: further implications for the age of the Alamo Wash local fauna. Journal of Vertebrate Paleontology 29(Supplement): 188A. (abstract)

2) Lucas, Spencer G., Andrew B. Heckert, Larry Rinehart, Justin A. Spielmann, and **Steven E. Jasinski**. 2009. Vertebrate fauna, stratigraphy, and age of the Whitaker Quarry (Ghost Ranch, New Mexico), the richest Upper Triassic dinosaur quarry in the world. Journal of Vertebrate Paleontology 29(Supplement): 137A. (abstract)

1) **Jasinski, Steven E.**, Robert M. Sullivan, Spencer G. Lucas, and Justin A. Spielmann. 2009. Taxonomic composition of the Alamo Wash local fauna from the Upper Cretaceous Ojo Alamo Formation (Naashoibito Member), San Juan Basin, New Mexico. Journal of Vertebrate Paleontology 29(Supplement): 122A. (abstract)

Theses:

Jasinski, Steven E. 2018. The integration of morphology, variation, and phylogenetics to better understand fossil taxa and their modern relatives. Ph.D. Dissertational Thesis. University of Pennsylvania. 564 pp.

Jasinski, Steven E. 2013. Fossil *Trachemys* (Testudines: Emydidae) from the late Hemphillian of eastern Tennessee and its implications for the evolution of the Emydidae. M.S. Thesis. East Tennessee State University. 510 pp.

Jasinski, Steven E. 2008. Biomechanical modeling of *Coelophysis bauri* to help analyze possible feeding methods and behavioral characteristics of this Late Triassic theropod. B.S. Thesis. Pennsylvania State University. 76 pp.

Book Reviews:

Jasinski, Steven E. 2018. 'Sabertooth.' By Mauricio Antón. Journal of Avocational Paleontology 21(2):27–29.

Jasinski, Steven E. 2018. 'Turtles as Hopeful Monsters: Origins and Evolution. Life of the Past.' By Olivier Rieppel. The Quarterly Review of Biology. 93(1):55–56.

*student author

Reviewed Publications In:

Bulletin of the Peabody Museum of Natural History

Bulletin of the New Mexico Museum of Natural History and Science

Journal of Herpetology

Lakes & Reservoirs: Science, Policy and Management for Sustainable Use

Palaeontologia Electronica

PeerJ

Western North American Naturalist

Book chapters, including;

How do we know who is related to whom? Systematics and phylogenetic relationships. 2021. In, Dinosaurs: How We Know What We Know. By, Schweitzer, M.H., Schroeter, E.R., and Czajka, Charles Doug. CRC Press, Boca Raton, p. 77–95.

Invited Presentations:

"Dinosaurs of Pennsylvania: What we know about them and their neighbors": for Nittany Mineralogical Society on January 20, 2021

"Understanding dinosaurs without the dinosaurs: What geology can teach us about the dinosaurs of Pennsylvania": for Harrisburg Area Geological Society on November 12, 2020

"Haugrud's slider turtle and New World pond turtle evolution": for East Tennessee State University Paleo Talks on October 16, 2020

"Theropod Dinosaurs: What we know, what we are learning, and what we hope to learn in the future": for Mid-Atlantic Fossil and Nature Adventures on July 8, 2019

"Dinosaurs in Pennsylvania": for the Renfrew Institute on March 21, 2019

"Dinosaurs, Fossils, and Paleontology": for Mid-Atlantic Fossil and Nature Adventures on August 7, 2018

"Dinosaurs of the Eastern United States": for Mid-Atlantic Fossil and Nature Adventures on June 27, 2017

"Evolution of the North American Dromaeosaurids (Dromaeosauridae): The Last "Raptors" in North America: for Delaware Valley Paleontological Society on April 27, 2017

Grants and Funding

Delaware Valley Paleontological Society

Paul Bond Grant (2017, $500)

University of Pennsylvania

Greg and Susan Walker Endowment (2014, $2500; 2015, $3500; 2016, $4500; 2018, $1500)

University of Pennsylvania Paleontology Research Grant (2015, $3000; 2016, $3650; 2017, $5450)

GAPSA Travel Grant (2017, $800; 2018, $850)

SASGov Travel Grant (2014, $500)

SAS Travel Subvention (2014, $400)

State Museum of Pennsylvania

Research Grants (2013, $2000 and $1500; 2014, $1500; 2015; $4000; 2016, $1250; 2018, $1000)

East Tennessee State University

Student Research and Travel Grant, Department of Biological Sciences (2010; $300 and 2011; $400)

Student Research Grant, Don Sundquist Center of Excellence in Paleontology (2010, 2011; $200 each, 2012; $300)

Student Research and Travel Grant, Department of Geosciences (2011; $200)

Student Travel Grant, Graduate and Professional Student Association (2011; $400)

2012-present: *acting curator and head of section*, Section of Paleontology and Geology, State Museum of Pennsylvania, Harrisburg, PA

2014-2018: *Graduate Assistant*, Department of Earth and Environmental Science, University of Pennsylvania, Philadelphia, PA

2011-2013: *Research Associate*, East Tennessee State University Natural History Museum at the Gray Fossil Site; duties included field investigation, screen washing, specimen preparation, tour guide, program assistant

2010-2013: *Research Assistant*, Geosciences Department, East Tennessee State University; duties included cataloging, preparation, and identification of various fossils and modern comparative specimens.

2010-2012: *Teaching Assistant*, Geosciences Department, East Tennessee State University

2008-2012: *Paleontological Research and Field Assistant*, section of Paleontology and Geology, State Museum of Pennsylvania with Dr. Robert Sullivan

2007-2008: *Research Assistant*, the Graham Paleontology Lab Group, Earth and Mineral Sciences Museum, Pennsylvania State University; duties included cataloging, preparation, and identification of various fossil specimens

Teaching/Outreach Experience:

2009-present: Participated in several events with the State Museum of Pennsylvania helping to present paleontology and fossils to the public

This has included programs on; dinosaurs, the Ice Age and Pleistocene in Pennsylvania, Dinosaurs in Pennsylvania, Dinosaurs from the Eastern United States, The size of fossil animals (with a focus on the largest members), Evolution of snakes, Fossils at the State Museum of Pennsylvania, Fossil plants in Pennsylvania, Evolution of deer (in particular reindeer) and their relatives, Meteorites and objects from space

2014-2018: Teaching Assistant, Earth and Environmental Science Department, University of Pennsylvania

Introduction to Environmental Earth Science (ENVS 200: Environmental Earth Science Recitation)

Paleontological Methods and Techniques (GEOL 615: Course investigating advanced research techniques used in paleontology and evolutionary biology)

Earth Through Time (GEOL 125: Investigating how the earth has changed through time, with focus on changes in biological life)

2011-2012: Tour Guide and program assistant, East Tennessee State University Natural History Museum at the Gray Fossil Site, serving to provide information and assist in various interactive activities

2010-2012: Teaching Assistant, Department of Geosciences, East Tennessee State University
Historical Geology Lab (GEOL 1051: Life Through Time Lab)
Physical Geology Lab (GEOL 1041: Exploring Geology Lab)

2010-2012: Helped design and modify several original laboratory exercises for introductory geology courses (GEOL 1041: Physical Geology and GEOL 1051: Historical Geology)

2007-2008: Participated in numerous public outreach events with the Pennsylvania State University Earth and Mineral Sciences Museum, presenting geological and paleontological science to local children and families

Courses Taught or Instructed

Earth Through Time (University of Pennsylvania): A course meant to provide students a basis for understanding how the earth has changed through time. While the course takes into account all changes to the earth since the Big Bang, it focuses on changes to biological life through time.

Paleontological Methods and Techniques (University of Pennsylvania): A course providing students with background to some of the many methods and techniques used in paleontology. Some of these techniques deal directly with how fossil specimens are found and collected in the field and prepared and preserved in museums. It also provided students with a look at some of the various ways to conduct research in paleontology and evolutionary biology.

Introduction to Environmental Earth Science (University of Pennsylvania): A course meant to expose students to the principles that underlie understanding of how the Earth works. The goal of the course is for students to obtain a scientific understanding of the entire Earth system by describing its component parts (lithosphere, hydrosphere, atmosphere, biosphere) and their interactions, and describe how they have evolved, how they function, and how they may be expected to respond to human activity. The challenge to Earth Systems Science is to develop the capability to predict those changes that will occur in the next decade to century, both naturally and in response to human activity. Energy, both natural and human-generated, will be used as a unifying principle. Knowledge gained through this course is meant to students make informed decisions in all spheres of human activity, including science, policy, and economics, among others.

Physical Geology/Exploring Geology (East Tennessee State University): An introductory level geology course focusing on teaching students the basics, including but not limited to: identification and properties of various minerals and rocks, and understanding key concepts in geology such as geologic time, earthquakes, volcanoes and tectonic activities, field geology, and various maps and mapping techniques.

Life Through Time (East Tennessee State University): A course teaching students the fundamentals of biology within the geologic record. This commonly focused on geologic time, fossils, sedimentary structures and similar things, along with biostratigraphy and how the record of biological events and organisms affects our understanding of geology and the history of the earth.

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Laboratory Experience

2008-present: Specimen preparation, preservation, and conservation, organization, identification, specimen molding, and specimen casting within the laboratory in the Section of Paleontology and Geology at the State Museum of Pennsylvania; additionally trained and oversaw volunteers and students working in the paleontology laboratory at the museum

2011-2015: Specimen preparation and organization in East Tennessee State University Vertebrate Paleontology Lab, Department of Geosciences

2011-2013: Fossil preparatory work in the East Tennessee State University Natural History Museum, Gray Fossil Site, Tennessee

2007-2008: Research assistant for Dr. Russell Graham at the Pennsylvania State University Earth and Mineral Sciences Museum; duties included sorting, organizing and labeling fossil specimens

2007-2008: Fossil preparatory work at the Pennsylvania State University Earth and Mineral Sciences Museum

Laboratory Skills

Specimen preparation, including stabilization, consolidation, and preservation utilizing; acetone; polyvinyl acetates (e.g., butvar and B72); various glues, epoxies, and other adhesives; ice picks; chisels; various hammers; brushes; hot plate; molding and casting supplies (including use of various epoxies and dyes); airscribes (including micro jacks of various sizes); dental tools (including picks and scalpels); air abrasion (or micro-abrasion); rotary tools (such as Dremel) for fossil preparation; creation of cradles and storage molds for specimens, particularly for fragile and/or large specimens; microscopic photography (using a Leica EZ4 D, Leica EZ4 HD, Leica Z16 APO macroscope, QImaging MicroPublisher 5.0 RTV image capture, and Zeiss KL200 light source); trained others, often volunteers and students, in these skills as well

Museum Skills

Various curatorial and collections duties, including management of collections; cataloguing specimens, including utilization of electronic collection databases in Microsoft Access and Microsoft Excel, and modification of the current database through those programs; cleaning and storage of

specimens; recording of data; identifying, correcting, and editing of specimen data, namely inconsistencies or errors; assisted in and led field and lab work; trained others, often volunteers and students in many collections management skills so that they could undertake portions of these duties; conducted travel for research, both with fellow researchers and alone; conducted curatorial duties when head curator was not present, and took over curatorial duties after the former curator retired

Paleontological/Geological Field Experience

2014-present: Conducted field work on the stratigraphy and vertebrate paleontology from Late Cretaceous and Paleocene rocks in New Mexico as the PI (State Museum of Pennsylvania; University of Pennsylvania)

2006-present: Conducted on various geology, stratigraphy and fossils in Pennsylvania, both while alone and with several other professional paleontologists and geologists

2010-2015: Conducted on fossil vertebrates in Tennessee in Mio-Pliocene sediments with Dr. Steven Wallace

2015: Conducted on the fossil vertebrates and stratigraphy in Early Cretaceous portion of the Gongpoquan Basin in the northern part of Gansu Province in northwestern China with Drs. Peter Dodson and Daqing Li.

2008-2010, 2013-2014: Volunteered for field work in stratigraphy and (mostly vertebrate) paleontology from Late Cretaceous and Paleocene rocks in New Mexico with Dr. Robert Sullivan (State Museum of Pennsylvania)

2009: Conducted on the geology and stratigraphy of various parts of Virginia and West Virginia with Drs. Lee Kump and Michael Arthur (Pennsylvania State University)

2008: Conducted on fossil vertebrates from Late Jurassic rocks in Colorado with Dr. Kenneth Carpenter and Virginia Tidwell (Denver Museum of Nature and Science)

2007-2008: Conducted field work on geologic mapping and stratigraphy in various parts of Montana, Wyoming, and Utah with Drs. Rudy Slingerland, David Bice, Eric Kirby (Pennsylvania State University)

Zoological/Biological Field Experience

2008-present: Studied modern turtles of south-central Pennsylvania, focusing on the biology of *Glyptemys muhlenbergii*

2012-2015: On turtles in Tennessee, focusing on the biology and genetics of *Trachemys scripta troostii*

2011-2015: On the herpetology of South Carolina and Tennessee, focusing on field techniques and field identifications

2012-2014: On raptors (owls, hawks, kestrels, vultures) in Tennessee, focusing on care and conservation

Field Skills

Paleontological/Geological field skills include, but are not limited to; planning, design, and modification of field work and field methods; field preparation, use of field gear such as various hammers, brushes, chisels, trowels, marsh picks, small picks and ice picks; field use of acetone and preservatives such as polyvinyl acetates; field consolidation, stabilization, and preservation; making plaster field jackets; microfossil collection and screening; mapping of field specimens; field illustration; use of GPS to locate and record locality data; and recording of field data; as PI I have also led field work and have had small field crews including volunteers and other professionals; have also trained others in proper field work techniques and practices in various settings, including in Pennsylvania, Gansu Province in China, and New Mexico

Zoological/Biological field skills include; working with raptors (owls, hawks, vultures, kestrels), including their handling, care, and public outreach; working with reptiles (turtles, snakes), including their handling, care, and public outreach

Memberships and Organizations:

The Society of Vertebrate Paleontology: 2007-present

The Paleontological Society: 2007-present

Society for the Study of Amphibians and Reptiles: 2012-present

Society for the Study of Mammalian Evolution: 2012-present

Society for Integrative and Comparative Biology: 2013-present

Geological Society of America: 2007-present

GSA: Geobiology and Geomicrobiology Division: 2007-present

American Society of Mammalogists: 2017-present

American Society of Ichthyologists and Herpetologists: 2017-present

Society for the Study of Evolution: 2017-present

The Palaeontological Association: 2017-present

The Nature Conservancy: 2009-present

World Wildlife Fund: 2009-present

Collaborators and Other Affiliations

David M. Bice (Pennsylvania State University), J. Kenneth Carpenter (Denver Museum of Nature and Science; Utah State University Eastern Prehistoric Museum), Steven M. Cather (New Mexico Institute of Mining and Technology), Denver W. Fowler (Museum of the Rockies), Russell W. Graham

(Pennsylvania State University), Andrew B. Heckert (Appalachian State University), Amy Henrici (Carnegie Museum of Natural History), Leigha M. King/Leigha M. Lynch (Oklahoma State University), Alan E. Koenig (United States Geologic Survey, Denver, CO), Spencer G. Lucas (New Mexico Museum of Natural History and Science), Jim I. Mead (East Tennessee State University), David A. Moscato (East Tennessee State University), Leonid A. Neymark (USGS, Denver, CO), Larry Rinehart (New Mexico Museum of Natural History and Science), Blaine W. Schubert (East Tennessee State University), Paul L. Sealey (New Mexico Museum of Natural History and Science), Justin A. Spielmann (New Mexico Museum of Natural History and Science), Robert M. Sullivan (State Museum of Pennsylvania), Virginia Tidwell (Denver Museum of Nature and Science), Mark P. A. van Tomme, Steven C. Wallace (East Tennessee State University), Peter Wilf (Pennsylvania State University)

Relevant College Coursework

Pennsylvania State University: Physical Geology; Teaching Internship; Geology of Climate Change; Earth Materials; Physical Processes in Geology (Geophysics); Hydrogeology; Structural Geology; Earth History; Field Geology; Vertebrate Paleontology; Independent Studies; Geobiology; Senior Thesis; Paleobiology Seminar (Graduate course); Evolution of the Biosphere (Graduate course); Basic Concepts and Biodiversity; Biology of Populations and Communities; Biology of Molecules and Cells; Physiological Ecology; Wildlife and Fisheries Conservation; The Vertebrates; Ornithology; Mammalogy; Dinosaur Extinctions and Other Controversies**;** Chemical Principles 1; Chemical Principles 2; Experimental Chemistry 1; Experimental Chemistry 2; Organic Chemistry; Calculus with Analytic Geometry I; Calculus with Analytic Geometry II; Ordinary and Partial Differential Equations**;** Mechanics; Electricity and Magnetism; Materials in Today's World; Rhetoric and Composition (English); Effective Writing: Technical Writing (English); Effective Speech (Communication Arts and Sciences)

East Tennessee State University (all graduate courses)**:** Higher Vertebrate Paleontology; Statistical Methods in Paleontology; Research Methods; Molecular Evolution and Ecology; The Carnivora; Independent Study (centered on statistical study of *Dasypus*); Paleoherpetology; Geochronology; Independent Study (centered on turtle systematics); Taphonomy; Island Biogeography (audited); Independent Study (Colubridae morphology); Independent Study (Pleistocene turtles of Mexico)

University of Pennsylvania: Gross Anatomy; Rates and Dates (geochronology); Independent Study (Dromaeosauridae Evolution); Evolution of Land Ecosystems; Evolutionary History of the Mammalia (advanced vertebrate paleontology seminar); Advanced Paleontology; Topics in Earth Science; Independent Study (Biomechanics and Finite Element Modeling); Independent Study (Agility in Vertebrates); Independent Study (Functions of the Scapula in Felids); Independent Study (Body Size Evolution of Chondrichthyes); Independent Study (Description of a Small Theropod Dinosaur from New Mexico); Independent Study (Fossil Emydid Turtles of North America); Independent Study (Systematics of the Emydidae); Independent Study (Theropoda of New Mexico)