

NATASHA S. VITEK

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1 November 2017
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EDUCATION

The University of Florida, Department of Biology, Florida Museum of Natural History, Gainesville, FL
August 2013-present, pursuing Ph.D., *Biology*. Advisor: Dr. Jonathan I. Bloch.

The University of Texas at Austin, Jackson School of Geosciences, Austin, TX
August 2011-May 2013. M.S., *Geological Sciences*. Advisor: Dr. Christopher J. Bell.
M.S. Thesis: The Eastern Box Turtle (*Terrapene carolina*) in space and time.

Yale University, New Haven, CT
September 2007-May 2011. Bachelor of Sciences, *Geology & Geophysics*, Paleontology Track.

PEER-REVIEWED PUBLICATIONS

*co-first authors

**mentored student

20. **Vitek, N.S.** In Review. Delineating taxonomic boundaries and exploring range shifts within and between species in the fossil record using shell variation in the Eastern Box Turtle (*Terrapene carolina*). PLoS ONE.
19. Valdes, N.**, Bourque, J.R., **Vitek, N.S.** 2017. A new soft-shelled turtle (Trionychidae, *Apalone*) from the late Miocene of north-central Florida. Bulletin of the Florida Museum of Natural History 55:117-138.
18. **Vitek, N.S.**, Austin, J.D., Bloch, J.I. 2017. Long-term association between the commensal *Podomys floridanus* and *Gopherus polyphemus* in the fossil record of Florida. Bulletin of the Florida Museum of Natural History 55:105-116.
- Press: Odd couple: Florida Mouse, Gopher Tortoise have been rooming for centuries." M.-L. Watkinson.
<https://www.floridamuseum.ufl.edu/science/odd-couple-florida-mouse-and-gopher-tortoise/>
17. **Vitek, N.S.**, Manz, C.L., Gao, T.R., Bloch, J.I., Strait, S.G., Boyer, D.M. 2017. Semi-supervised determination of pseudocryptic morphotypes using observer-free characterizations of anatomical alignment and shape. Ecology & Evolution: 1-15.
16. **Vitek, N.S.**, Danilov, I.G., Nakajima, Y., Hirayama, R. 2017. CT-based redescription of the skull of "*Trionyx*" *kyrgyzensis* and improved phylogenetic taxon sampling of Cretaceous and Paleogene soft-shelled turtles (Trionychidae) of Asia, including the oldest crown trionychids. Journal of Systematic Palaeontology:1-13.
15. **Vitek, N.S.**, and Joyce, W.G. 2015. A review of the fossil record of New World turtles of the clade Pan-Trionychidae. Bulletin of the Peabody Museum of Natural History 56:185-244.
- Invited review, part of fossil turtle book project
14. Danilov, I.G., Sukhanov, V.B., Obraztsova, E.M., and **Vitek, N.S.** 2015. First reliable record of trionychid turtles in the Paleocene of Asia. Paleontological Journal 49:407-412.
13. **Vitek, N.S.**, and Danilov, I.G. 2015. New Material of *Ulutrionyx ninae* from the Oligocene of Kazakhstan with a review of Oligocene trionychids of Asia. Journal of Vertebrate Paleontology 35(5):e973570.
12. Danilov, I.G., **Vitek, N.S.**, Averianov, A.O., and Glinskiy, V.N. 2015. A new softshelled turtle of the genus *Khunnuchelys* (Trionychidae: Trionychinae) from the Upper Cretaceous Bostobe Formation of Kazakhstan. Acta Palaeontologica Polonica 60:155-161.
11. **Vitek, N.S.**, and Danilov, I.G. 2014. Soft-shelled turtles (Trionychidae) from the Cenomanian of Uzbekistan. Cretaceous Research 49:1-12.
10. Danilov, I.G., Hirayama, R., Sukhanov, V.B., Suzuki, S., Watabe, M, and **Vitek, N.S.** 2014. Cretaceous soft-shelled turtles (Trionychidae) of Mongolia: New diversity, records, and a revision. Journal of Systematic Paleontology 12:799-832.
9. Danilov, I.G., Cherepanov, G.O. and **Vitek, N.S.** 2013. Chelonological studies of L.I. Khosatzky with his annotated bibliography on turtles. Proceedings of the Zoological Institute RAS 317:382-425.
8. **Vitek, N.S.**, and Danilov, I.G. 2013. Soft-shelled turtles (Trionychidae) from the Bissekty Formation (Upper Cretaceous: Turonian) of Uzbekistan: skull-based taxa and probable skull-shell associations. Cretaceous Research 43:48-58.
7. **Vitek, N.S.**, Vinther, J., Schiffbauer, J.D., Briggs, D., and Prum, R. 2013. Exceptional three-dimensional preservation and colouration of an iridescent fossil feather from the Middle Eocene Messel Oil Shale. Paläontologische Zeitschrift 87:493-503.
6. Danilov, I.G., and **Vitek, N.S.** 2013. Soft-shelled turtles (Trionychidae) from the Bissekty Formation (late Cretaceous: late Turonian) of Uzbekistan: shell-based taxa. Cretaceous Research 41:5-64.

5. Danilov, I.G., and **Vitek, N.S.** 2013 (2012). Cretaceous trionychids of Asia: a review of record and biogeography In: Brinkman, D.B., Holroyd, P.A., and Gardner, J.D. (eds.), *Morphology and Evolution of Turtles: Origin and Early Diversification*. Springer, Dordrecht, 419-438.
4. **Vitek, N.S.**, and Danilov, I.G. 2012. New data on the soft-shelled turtles from the Upper Cretaceous Kyrkkuduk I locality of southern Kazakhstan. *Proceedings of the Zoological Institute RAS* 316:50-56.
3. **Vitek, N.S.** 2012. Giant fossil soft-shelled turtles of North America. *Palaeontologia Electronica*. Vol. 15, Issue 1:13A, 43p.; palaeo-electronica.org/content/2012-issue-1-articles/210-giant-soft-shelled-turtles.
2. **Vitek, N.S.** 2011. Insight into the taxonomy and systematics of North American Eocene soft-shelled turtles from a well-preserved specimen. *Bulletin of the Peabody Museum of Natural History* 52:189-208.
1. **Vitek, N.S.**, and Danilov, I.G. 2010. New material and a reassessment of soft-shelled turtles (Trionychidae) from the Late Cretaceous of Middle Asia & Kazakhstan. *Journal of Vertebrate Paleontology* 30:2, 383-393.

EXTERNAL GRANTS & AWARDS (\$104,172)

- **FPS Morgan Award**, turtle research with mentored undergrad. \$1,000
- **Paleontological Society of Austin Research Grant**, Spring 2012. Master's thesis research. \$500
- **GSA Research Award**, Spring 2012. Research in St. Petersburg, Russia. \$1,872
- **James M. & Thomas J. M. Schopf Award**, Spring 2012. Master's thesis research. \$800
- **NSF Graduate Research Fellowship**, Spring 2011, deferred until fall 2013. Graduate study in paleontology. \$100,000

INTERNAL GRANTS & AWARDS (\$68,132)

- **GSC travel award**, Summer 2017. Ph.D research. \$350
- **UF Open Access Publishing Fund**, Spring 2017. Ph.D. research publication \$1560.
- **Miss Lucy Dickinson Fellowship**, Fall 2013. Ph.D. research. \$18,000
- **University of Florida matching NSF Research Funds**, Fall 2013. Ph.D. research. \$6,000
- **Off-Campus Research Funds**, Spring 2012. Master's thesis research. \$700
- **Lundelius Scholarship**, Spring 2012. Masters' thesis research. \$900
- **Dorothy B. Banks Scholarship**, Fall 2011. Graduate study. \$24,000
- **Belknap Prize**, Spring 2011. Outstanding achievement in geology. \$1,000
- **Bensinger Prize**, Spring 2011. Research in St. Petersburg, Russia and Austin, Texas. \$3,000
- **Yale College Dean's Research Fellowship**, Summer 2010. Senior thesis research in North Dakota. \$2,490
- **Robert C. Bates Fellowship**, Summer 2010. Research in St. Petersburg, Russia. \$3,506
- **Leitner Project Award**, Summer 2008. Research in St. Petersburg, Russia. \$6,626

CURRENT APPOINTMENTS

January 2017-present. UF Graduate Student Fellow.

HISTORICAL APPOINTMENTS & TEACHING EXPERIENCE

August 2013-present Ph.D student. Advanced to candidacy September 2015.

August 2016-December 2016. Teaching Assistant, PCB4674: Evolution (online).

August 2013-August 2016. NSF Graduate Research Fellow.

September 2011-May 2013 Master's Student, The University of Texas at Austin, Jackson School of Geosciences

January 2013-May 2013. Teaching Assistant, GEO 302M: The Age of Mammals

September 2012-December 2012. Teaching Assistant, UGS 303: Geology in the Movies.

September 2011-August 2012. Research Fellow under the Dorothy B. Banks Scholarship

September 2007-May 2011. Undergraduate Collections Assistant, Yale Peabody Museum.

PUBLISHED ABSTRACTS

*co-first authors

**mentored student

19. **Vitek, N.S.**, Morse, P.E., Strait, S.G., Boyer, D.M., Bloch, J.I. 2017. Changes in relative molar size of the small-bodied mammal *Macrocranium* (Eulipotyphla, Erinaceomorpha) across the Paleocene-Eocene Thermal Maximum follow the inhibitory cascade model. *Climatic and Biotic Events of the Paleocene*, 4-7 September, 2013, Snowbird, UT, 50.
18. Morse, P.E., **Vitek, N.S.**, Bloch, J.I. 2017. Change in relative abundance of primates and small mammal faunal composition before, during, and after the Paleocene-Eocene Thermal Maximum in the Southern Bighorn Basin. *Climatic and Biotic Events of the Paleocene*, 4-7 September, 2013, Snowbird, UT, 51.
17. Bloch, J.I., Morse, P.E., **Vitek, N.S.**, Boyer, D.M., Wing, S. 2017. Decoupling of plant and mammal responses to climate change across the Paleocene-Eocene Thermal Maximum in the Northern Hemisphere. *Climatic and Biotic Events of the Paleocene*, 4-7 September, 2013, Snowbird, UT, 52.

16. **Vitek, N.S.**, Strait, S.G., Boyer, D.M., Bloch, J.I. 2017. Morphological response of three closely related small-bodied mammals (Eulipotyphla, Erinaceomorpha) to climate change across the Paleocene-Eocene Thermal Maximum. *Journal of Vertebrate Paleontology, Programs and Abstracts*, 209.
15. **Vitek, N.S.**, Morse, P.E., Strait, S.G., Boyer, D.M., Bloch, J.I. 2016. Multivariate change in the dental morphology of the small-bodied insectivorous mammal *Macrocranion* (Eulipotyphla, Erinaceomorpha) across the Paleocene-Eocene Thermal Maximum. *Journal of Vertebrate Paleontology, Programs and Abstracts*, 244.
14. Danilov, I.G., **Vitek, N.S.**, Nakajima, Y., Hirayama, R. 2016. Phylogenetic position of some fossil soft-shelled turtles from the Cretaceous and Paleogene of Asia. *Journal of Vertebrate Paleontology, Programs and Abstracts*, 122.
13. **Vitek, N.S.**, Manz, C.L., Bloch, J.I., Boyer, D.M., Strait, S.G. 2015. Differentiating tooth shape using automated three-dimensional geometric morphometrics: testing alignment sensitivity and utility for analyses of small mammals across the Paleocene-Eocene Thermal Maximum. *Journal of Vertebrate Paleontology, Programs and Abstracts*, 232.
12. Rosenbach, K.L.**, **Vitek, N.S.**, Manz, C.L., Bloch, J.I., Boyer, D.M., Strait, S.G. 2015. Morphological disparity of insectivores (Mammalia, Eulipotyphla) across rapid environmental changes during the Paleocene-Eocene Thermal Maximum. *Journal of Vertebrate Paleontology, Programs and Abstracts*, 204.
11. **Vitek, N.**, C. Manz, J. Bloch, D. Boyer, and S. Strait. 2014. Evolution of small mammals during the Paleocene-Eocene Thermal Maximum: A case study using automated geometric morphometric methods to quantify tooth shape and size. *SVP Programs and Abstracts*, 248-249.
10. Wang, Z.*, **N. Vitek***, U.P. Karadkar, A.M. Molineux. 2014. Bringing museum collections to the public through a smartphone app. 10th North American Paleontological Convention Abstract Book. The Paleontological Society Special Publications 13:98.
9. **Vitek, N.** 2013. New patterns of spatiotemporal variation in the Eastern Box Turtle (*Terrapene carolina*) and their influence on evolutionary hypotheses. *SVP Program and Abstracts*, 233.
8. **Vitek, N.S.** 2013. Morphometric analysis of spatiotemporal variation supports reinterpretation of the fossil record of the Eastern Box Turtle (*Terrapene carolina*). Geological Society of America South-Central Section – 47th Annual Meeting, 4-5 April, 2013.
7. **Vitek, N.S.** and R.W. Burroughs, 2012. Variation in complex systematic problems: a case study. *SVP Program and Abstracts*, 189-190.
6. **Vitek, N.S.** and R.W. Burroughs. 2012. Cf. *Terrapene*: a complicated evolutionary history. Symposium on Turtle Evolution Program and Abstracts Volume, 45.
5. **Vitek, N.** 2011. Giant fossil soft-shelled turtles of North America. *Journal of Vertebrate Paleontology, Program and Abstracts Book*, 210A.
4. **Vitek, N.S.** 2011. Giant fossil soft-shelled turtles of North America. Texas Herpetological Society Student Research Symposium Program and Abstracts Volume, 15.
3. **Vitek, N.** 2010. Character reinterpretation and fossil soft-shelled turtle taxa (Trionychidae) work together to recover new relationships. *Journal of Vertebrate Paleontology, SVP Program and Abstracts Book*, 182A.
2. Danilov, I.G. and **Vitek, N.S.** 2009. Cretaceous Trionychids of Asia: a review of record and biogeography. Gaffney Turtle Symposium (17-18 October 2009, Drumheller, Canada). Drumheller, Canada, 52-58.
1. **Vitek, N.** and Danilov, I.G. 2008. [Morphology and systematic position of trionychid turtles from the Late Cretaceous of Kazakhstan and Tadzhikistan]. In *Modern Paleontology: Classic and Newest Methods. The fifth All-Russian Scientific School for Young Scientists in Paleontology. Abstracts. Paleontological Institute of the Russian Academy of Sciences, Moscow*, 17–18 [in Russian].

BROADER IMPACTS

Mentor, independent undergraduate research

Natalí Valdes, October 2013-December 2014, independent research then senior thesis research. Thesis received Highest Honors from Department of Anthropology

Kierstin Rosenbach, December 2014-August 2016, independent research. Recipient of 2015 Biology Graduate Student Association Grant in Aid of Research; Research presented at professional meeting (see abstract #12)

Karlana Cahill, January 2015-January 2016, independent research.

Sabrina Han, April 2016-present, independent research

Kimberly Placencia, August 2016-present, independent research

Michael Christie, August 2017-present, independent research

Haley Bussenbarick, August 2017-present, independent research, co-advised with Paul Morse.

Creator and co-teacher, Super-Sized Life, January 2015-present: a project to use 3D prints of biological objects to teach math to K-12 student

Exhibit committee co-chair, Vertebrate Paleontology Temporary Exhibit. Fall 2016-Fall 2017. Co-lead committee to design, budget, and execute interactive week-long exhibit celebrating the vertebrate paleontology collections for the Florida Museum of Natural History 100th Anniversary celebration.

Exhibit co-designer, Student Research Exhibits. Fall 2015. Design and execute a window exhibit to highlight vertebrate paleontology student research at the Florida Museum of Natural History. Posters from the exhibit won both annual prizes for best student poster. Judging based partly on quality of supporting material designed for exhibit.

Content Developer for “Fossil Roulette” smartphone application & tumblr, May 2012-present. Volunteer work is associated with NSF grant “Open Access: Conservation, Digitization and Interoperability of the Historic Non-Vertebrate Collections of the Texas Natural Science Center,” award number 1057396. Content also released on fossilroulette.tumblr.com starting February 2014. Page views since March 2014: 7,643.

- Graphics created for project republished in (1) de Wever, P. 2014 *La Beau Livre de la Terra*. Dunod, Paris: France, (2) Dallas Paleontological Society. 2016. *Guide to Fossil Collecting*. Dallas: Texas.
- Entry “Batoidea” featured in invited lightning talk for Elegance of Science contest, University of Florida 20 March 2015.

Outreach Volunteer, Florida Museum of Natural History, September 2013-present.

Fossil Pop-up February 25 2017

Women in Paleontology, Orlando Science Center, May 16 2015

Earth Day, April 18 2015; April 16 2016

Opening of Dinosaur named Sue travelling exhibit, Jan 25 2015

Can You Dig It? March 8 2014

Titanoboa school visit, High Springs Community School, December 2013.

Special Programs Volunteer, North Carolina State Museum of Natural Sciences, 2003-2007.

Outreach Volunteer, Non-Vertebrate Paleontology, Texas Natural Sciences Center, September 2011-May 2013

Darwin Day, February 2012

Fright at the Museum, October 2011

Explore UT Volunteer, The University of Texas at Austin. March 2012, 2013.

Paleo-Knowledge Bowl Volunteer, Yale Peabody Museum, November 2009.

FIELD WORK

2015-2017 Florida, Miocene & Pleistocene, various sites with the Florida Museum of Natural History

2013-2017 Wyoming, Paleocene-Eocene, Fort Union and Willwood Fms., with the University of Florida

2013, Texas, Pleistocene, Phillips Cave, with the University of Texas at Austin

2010, 2011. Montana/North Dakota, Hell Creek Fm., with the Marmarth Research Foundation/Yale University

2010, 2011. North Carolina, Pekin Fm., with the North Carolina State Museum of Natural Sciences

2007. Montana, Hell Creek Fm., with the North Carolina State Museum of Natural Sciences

PROFESSIONAL SERVICE & EXPERIENCE

Committee Membership

Library committee, student representative, University of Florida, September 2016 - present

Faculty search committee, for shark biologist at the University of Florida. January-March 2016.

Museum Seminar Committee, student representative, Florida Museum of Natural History, November 2015-present.

Student & Post-Doctoral Liaison Committee, member, Society of Vertebrate Paleontology, October 2015-present.

Graduate Student Council, biology representative, University of Florida, May 2015-2016.

Undergraduate Teaching Committee, Florida Museum of Natural History, March 2015-2016.

Faculty search committee, for invertebrate paleontologist at UT Austin. December-March 2013.

Fossil Preparation Volunteer,

Florida Museum of Natural History, January 2014 – March 2014.

North Carolina State Museum of Natural Sciences, April 2006-June 2011.

Training

Reproducible research short course, iDigBio, 1-2 June 2015

Geometric morphometrics workshop, University of California, Berkeley, 16-20 July 2012

Signature Course Teaching, for first-year interdisciplinary instruction. The University of Texas at Austin Fall 2012.

Reviewer for:

Alabama Bulletin of Natural History, 2012
Bulletin of the Yale Peabody Museum of Natural History, 2015
Cretaceous Research, 2015
Journal of Paleontology, 2010
Journal of Vertebrate Paleontology, 2011, 2012, 2013, 2016
PeerJ, 2015, 2016
Russian Journal of Herpetology, 2011
Scientific Reports, 2017

Volunteer

Geological Society of America South-Central Section – 47th Annual Meeting, 4-5 April, 2013.
10th North American Paleontological Convention, 15-18 February, 2014.
Session Moderator, Society of Vertebrate Paleontology, 2016.

INVITED LECTURES & PRESENTATIONS

- 2105, 2016**, Fall. University of Florida Department of Biology, course PCB4674, Evolution. “How to tell how old a rock is” [dating, geologic time, and the fossil record].
- 2015. 15 June** iDigBio, 3D Digitization of Fossils for Educators & Citizen Scientists Workshop: “Base-ten conversion.” Co-presented with Chris Baker. Can be viewed at https://www.idigbio.org/wiki/index.php/Digitization_Technology_for_Educators_and_Citizen_Scientists_Workshop
- 2015**. Orlando Science Center: “What About Fossils Too Small to See?”
- 2013**. Paleontological Society of Austin: “The Eastern Box Turtle in Time and Space.”
- 2013**. The University of Texas at Austin, Jackson School of Geosciences Vertebrate Paleontology Research Group: “The Space-Time Turtle Continuum.”
- 2011**. The University of Texas at Austin, Jackson School of Geosciences Vertebrate Paleontology Research Group: “The Long and Winding Road to Turtle Zen.”

OTHER PRESENTATIONS

- Vitek, N.S. and R.W. Burroughs. 2013. The impacts of intraspecific variation on phylogenetic resolution in *Terrapene*. 2013 Box Turtle Conservation Workshop, 22-23 March 2013, Asheboro, NC.
- Vitek, N.S. 2013. Patterns of morphological variation in the shell of the Eastern Box Turtle (*Terrapene carolina*). 2013 Box Turtle Conservation Workshop, 22-23 March 2013, Asheboro, NC.
- Vitek, N.S. 2013. Spatiotemporal variation in the Eastern Box Turtle (*Terrapene carolina*). Jackson School Research Symposium, 2 February 2013, Austin, TX.

OTHER PUBLICATIONS

- Vitek, N.S. In Revision. *Podomys floridanus*. Vertebrate Fossil Species of Florida. To be published at <https://www.flmn.h.ufl.edu/florida-vertebrate-fossils/species/>
- Vitek, N.S. In Revision. *Apalone ferox*. Vertebrate Fossil Species of Florida. To be published at <https://www.flmn.h.ufl.edu/florida-vertebrate-fossils/species/>
- Vitek, N.S. 2013. The Eastern Box Turtle (*Terrapene carolina*) in space and time. M.S. Thesis. The University of Texas at Austin.
- Vitek, N.S. 2012. The Systematics of Strange Turtles. Guest post on the Palaeontologia Electronica blog. Posted March 25, 2012. <http://www.palaeo-electronica.org/blog/?p=694>

PROFESSIONAL AFFILIATIONS

Geological Society of America,
Paleontological Society
Society of Vertebrate Paleontology
Society of Integrative and Comparative Biology