

CURRICULUM VITAE

CONTACT INFORMATION

NATHAN E. VAN VRANKEN

EDUCATION

August, 2013 – May, 2015: M.S., Geology

The University of Texas at the Permian Basin, Odessa, TX

Thesis: Identification of a subadult mosasaur *Tylosaurus kansasensis* (Reptilia: Squamata).

August, 2012 – May 2013; B.S Interdisciplinary Studies (Geology / Biology).

University of Texas at Arlington. Arlington, Texas.

Dean's List.

Thesis: Paleoecology of coastal environments using marine assemblages of the Cretaceous Woodbine Formation of North Central Texas: an interdisciplinary evaluation.

PROFESSIONAL APPOINTMENTS

Current

Mar., 2018 – present: On-site Paleontologist, Navarro County Mosasaur project, Navarro Co.

Jan., 2018 – present: Adjunct Professor, Geology Department, Tarrant Community College

Jan., 2017 – present: Instructional Associate, Biology Department, Brookhaven College

Historical

Jun., 2016 – Jul., 2016: Big Thought Inc. STEM Teaching Artisan.

Jan., 2016 – May, 2016: Adjunct Professor, Collin College

May 2015 – Aug. 2015: Paleontology lab manager & field assistant: Carter County Museum

Aug. 2013 – May 2015: Graduate Assistant University of Texas of the Permian Basin.

Jan. 2011-May 2017: Research Assistant: Arlington Archosaur Site.

Aug. 2009-Aug. 2013: Science Tutor: Collin College.

Courses Taught (Majors and Non majors)

Earth Science

Physical Geology

Oceanography

Historical Geology

Fossil preparation techniques

PUBLICATIONS AND PROFESSIONAL SERVICE

Published journal articles & book chapters

- Van Vranken, N. E. 2018. An overview of ichthyosaurian remains from the Cretaceous of Texas, USA. *Alcheringa*. DOI 10.1080/03115518.2018.1523462.
- Van Vranken, N. E. 2017. The last of their kind. *52 More Things You Need to Know About Paleontology*. Libre Agile. pp. 102-103.
- Van Vranken, N. E. 2017. A note on the occurrence of an Upper Cretaceous Ichthyosauromorph tooth, From West Texas. *Journal of Paleontological Sciences*. JPS.C.2017.02.
- Van Vranken, N. E. 2011. Pennsylvanian stratigraphy and paleoecology of the outcrops in Jacksboro, Texas. Dallas Occasional Papers Vol 9.

Journal articles & book chapters in preparation

- Van Vranken, N.E. in prep. Coastal reptiles of the Texas Cretaceous interior seaway. Intended for *The Navarro County mosasaur project: a field guide*.
- Van Vranken, N. E. and Boyd, C. in prep. An unequivocal mosasaur vertebra collected from the Late Cretaceous Hell Creek Formation of North Dakota, USA. Intended for *Paleontologica Electronica*.
- Van Vranken, Nathan E., Gay, R. J., Racay, C. A. in prep. A tooth embedded in the lower jaw of a *Tylosaurus* (Squamata; Mosasauridae) investigated through 3D visualization. Intended for *Paleontologica Electronica*.
- Van Vranken, Nathan E., Fielitz, C., & Ebersole, J. in prep. New occurrences of *Belonostomus* (Teleostomorphi: Aspidorhynchidae) from the Middle and Late cretaceous of the North American gulf coast, U.S.A. Intended for *Paleontologica Electronica*.
- Gay, R. J., Van Vranken, N. E. Jenkins, X.A. in prep. A diminutive sphenosuchian from the Lower Jurassic Kayenta Formation of the Navajo Nation. Intended for *Volumina Jurassica*

Published Abstracts

- Van Vranken, N.E. 2017. Texas cretaceous ichthyosaurs: a glimpse of their last days in the Early-Late Cretaceous. Geological Society of America South-Central Section annual meeting. 9-5. San Antonio, TX. [oral presentation]
- Gay, R.J., Jenkins, X.A., Milner, R.C., Van Vranken, N.E., Dewitt, D.M., Lepore, T. 2017. A new Triassic bonebed from the Bears Ears region of Utah. Western Association of Vertebrate Paleontology Annual Meeting, Flagstaff, AZ.. 6. [poster presentation].
- Van Vranken, N. E.& Fielitz, C. 2016. Bridging the gap: the biostratigraphic record of the genus *Belonostomus* with notes on new occurrences in Texas and Mexico. Society of Vertebrate Paleontology annual meeting, Salt Lake City, UT. [poster presentation]
- Van Vranken, Nathan E. 2016. Shaking the trees: Further analysis of the maniraptorian evolutionary framework in regards to the “allied plunderer”, *Dakotaraptor steini* (Theropoda: Dromaeosauridae). Geological Society of America South-Central Regional Meeting, Baton Rouge, LA.[oral presentation]
- Van Vranken, Nathan E. 2015. Phylogenetic reassessment and paleoecology of the mosasaur *Tylosaurus kansasensis*. Society of Vertebrate Paleontology annual meeting, Dallas, TX. [poster presentation]
- Van Vranken Nathan E. 2015. Taxonomic revision and paleoecology of “the captain”, a uniquely derived *Tylosaurus kansasensis* specimen. Geological Society of America South-Central Regional Meeting, Stillwater, OK. [oral presentation]
- Van Vranken Nathan E. 2015. Review of the North American Early-Late Cretaceous ichthyosaur, *Platypterygius* (Von Huene, 1922). Geological Society of America South-Central Regional Meeting, Stillwater, OK. [poster presentation]
- Van Vranken Nathan E. 2014. The Ecology and life history of “the captain”: a new occurrence of *Tylosaurus kansasensis*. Geological Society of America South-Central Regional Meeting, Fayetteville, AR.[oral presentation]

- Van Vranken N. E., and Main D. J. 2013. Paleocology of coastal environments using invertebrate assemblages of the Cretaceous Woodbine Formation of North Central Texas. Geological Society of America South-Central Regional Meeting, Austin, TX. [oral presentation]
- Van Vranken, N.E., and Main D.J. 2012. Of deltas and dinosaurs: Cretaceous (Cenomanian) Sequence stratigraphy and paleocology of the Woodbine Formation at the Arlington Archosaur Site, TX. Geological Society of America South-Central Regional Meeting, Alpine, TX. [poster presentation]
- Bennett, G.E., Main, D.J., Noto, C.R., Anderson, B. and Van Vranken, N. 2012. Microvertebrate paleocology, wildfires and biodiversity of coastal Appalachia in the Cretaceous (Cenomanian) Woodbine Formation at the Arlington Archosaur Site, North Texas. Society of Vertebrate Paleontology Annual Meeting, Raleigh, NC. [poster presentation]

Miscellaneous Professional Consulting & Public Outreach

Facebook group administrator for 'Paleontology' (2017-present)

The group has an average international membership of 33,547 users.

Scientific advisor for the video game Saurian. (2017)

Helped develop the *Mosasaurus* boss in the video game. I worked with the games development staff using paleontological data I have collected along with modern concepts on mosasaur ecology and paleobiology to develop one of the most scientifically accurate computer generated models.

Scientific advisor for paleoartists (2016-present)

Helped in the reconstruction of various Mesozoic marine life, mostly mosasaurs. Notable paleoartists I have helped are Henry Sharpe (University of Toronto), Gareth Monger, Christopher DiPiazza, Jesse Pruitt (Buzzsaw Studios)

Editor for the Dallas paleontological society occasional paper volume 10 (2015)

Was the lead editor for a volume of the local fossil collecting club's annual volume of papers. I edited five articles on Pleistocene megafauna.

Manuscript Reviewer (2015-recent)

Reviewed various manuscripts on an assortment of topics and journals. Most have been published at the time of the vitae was written.

National Fossil Day Organizer (2014)

Single handily organized a National Fossil Day event at the University of Texas of the Permian Basin and used it as a way for graduate students to practice their thesis defenses and upcoming professional conferences. I moderated the sessions.

Field trip leader for various organizations (2013-recent)

I led field trips into various geological formations for avid, amateur rock and fossil collecting groups such as the Dallas Paleontological Society.

Fossil preparator (2014-recent)

I have been preparing fossils for both personal research and for institutions. Several of these specimens were collected from fossil collectors and have been accessioned into formal collections after I prepare them and help contribute to the body of paleontological knowledge of the state. I have prepared invertebrates, mammalian fossils, marine reptiles, fish, and dinosaur.

PALEONTOLOGICAL AND GEOLOGICAL FIELD EXPERIENCE

Upper Cretaceous Ozan Formation, Texas, USA (2017-present)

A field project I am working on as the on-site paleontologist. The focus of this project is to excavate a

large *Tylosaurus* mosasaur fossil from private land. My colleagues on this project are Roger Fry and Thomas Vance (Navarro College). This specimen is would be then mapped and placed within SMU's regional mosasaur collection. An eventual publication will be released in the form of a field guide.

Middle Cretaceous Del Rio, Grayson, and Main Street Formations, Texas, USA (2017-2018)

Field studies to examine the formation and attempt to collect more ichthyosaurian remains. The information on the stratigraphic succession became helpful in my 2018 paper detailing the group in Texas.

Lower Cretaceous Duck Creek, Fort Worth, Fort Tarrett, and Kiamichi Formations, Texas, USA (2017-2018)

Field studies to examine the formation and attempt to collect more ichthyosaurian remains. The information on the stratigraphic succession became helpful in my 2018 paper detailing the group in Texas. The Fort Tarrett Formation locality produced the first known ichthyosaur remains in western Texas, outside of Big Bend National Park.

Lower Cretaceous Glen Rose Formation, USA (2017)

This was a one day field expedition to catalog a new fossil trackway found 20 minutes outside of the state park. I was able to measure around 30 individual tracks during low tide around the lake. I later then rendered the tracks into 3d models for sharing.

Middle Cretaceous, Woodbine Formation, Texas, USA (2010-2018)

In collaboration with the late Dr. Derek Main along with the Arlington Archosaur Site organization, now currently under the ownership of the Perot Museum. I was tasked with collecting and documenting all of the marine invertebrate and vertebrate fossils, public outreach events such as Earthwatch, and promoting research within the area. Over this time I assisted in excavating a new genus of crocodyliform, *Deltasuchus* along with hadrosaur remains identified as *Protohadros* and several turtle and fish species.

Upper Cretaceous Hell Creek Formation, Montana, USA (2015)

I was a field assistant and fossil laboratory manager working for Nathan Carroll (LACM) and the Carter County Museum. We collected fossil amber along with several dinosaurs including a subadult *Triceratops*, *Tyrannosaurus rex*, and *Thescelosaurus*. I also even assisted paleontologist, Robert DePalma in some of his dromaeosaurid research.

Late Pleistocene, Texas, USA (2013-2015)

Helped in the excavation of two Colombian mammoths from the Lily MacArthur fossil locality in Dickens County. I helped fellow graduate students excavate and map the specimens in collaboration with Dr. Lori Manship from the University of Texas of the Permian Basin.

Lower Cretaceous, Edwards Formation, Texas (2014)

Worked on a class assignment looking at the sequence stratigraphy of the base of the Edwards formation. I was in charge of fossil identification within the subtidal flats and collecting evaporite deposits. Our field instructor was Dr. Emily Stout from the University of Texas of the Permian Basin

Lower Permian, Delaware Mountain Group, Texas and New Mexico (2013)

This was a class trip to study the succession of the Guadalupe Mountains and their formation within the Delaware and Permian Basin. Our field instructor was Dr. Emily Stout from the University of Texas of the Permian Basin.

RESEARCH GRANTS & AWARDS

Emory and Henry College education travel grant (2016)

\$200.00

Experiment One campaign to help with the North Dakota Geological Survey mosasaur project

800.00

University of Texas of the Permian Basin Master's Incentive (2013, 2014, 2015)

\$500.00

GoFundMe Campaign to finish masters research (2015)

\$424.98

GoFundMe Campaign to fund SVP attendance (2015)

\$196.25

Geological Society of America: On to the Future grant (2014, 2015)

195.00

Collin College Distinguished Scholar (2014)

University of Texas at Arlington Dean's List (2013).

PROFESSIONAL MEMBERSHIPS

Society of Vertebrate Paleontology (SVP), 2012-present.

Geological Society of America (GSA), 2012-2018.

Dallas Paleontological Society (DPS), 2009-2018