

# CANDICE M. STEFANIC

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## EDUCATION

- 2017–(expected 2023) **Stony Brook University**  
Ph.D. Anatomical Sciences, Primary Advisor: Dr. Alan Turner  
Dissertation Committee: A. Turner, N. Kley, A. Moore, K. Jones
- 2015–2017 **Virginia Tech**  
M.S. Geosciences, Primary Advisor: Dr. Sterling Nesbitt  
Thesis Committee: S. Nesbitt, M. Stocker, J. Socha
- 2011–2015 **Washington and Lee University**  
B.S. Geology with Honors, Primary Advisors: Dr. Lisa Greer,  
Dr. Jill Leonard-Pingel

## RESEARCH GRANTS

- 2022 Fellowship of Graduate Student Travel (Society for Integrative and Comparative Biology)
- 2019 Grants in Aid of Research (Sigma Xi: Scientific Research Honor Society)
- 2017 Welles Fund (University of California Berkeley)
- 2016 Free-Use Fund at the Research Triangle Nanotechnology Network (RTTN, NSF award ECCS-1542015)
- 2016 Aubrey and Eula Orange Research Scholarship (Virginia Tech)
- 2015 GRDP Research Grant (Virginia Tech)
- 2015 Welles Fund (University of California Berkeley)
- 2012, 2013 Summer Scholars Research Grant (Washington & Lee)
- 2012, 2013, 2014 Kozak, McGuire, Spencer, Schwab Award (Washington & Lee)
- 2012 R. Preston Hawkins IV Geology Award (Washington & Lee)

## AWARDS

- 2022 Distinguished Travel Award (Stony Brook Grad. Student Organization)
- 2019 Winifred Goldring Award (Association for Women Geoscientists)  
Runner-up
- 2017 Piper Merit Award (Stony Brook)
- 2016 Outstanding Research Presentation, Geosciences Student Research Symposium (Virginia Tech)
- 2012 Geology Departmental Award (Washington & Lee)

## PEER-REVIEWED PUBLICATIONS

Greer, L., Curran, H.A., Wirth, K., Humston, R., Johnson, G., McManus, L., **Stefanic, C.**, Clark, T., Lescinsky, H., Forman-Castillo, K. (in review) Coral Gardens Reef, Belize: An *Acropora* spp. refugium under threat in a warming world. PLOS ONE.

Griffin, C.T., Stocker, M.R., Colleary, C., **Stefanic, C.M.**, Lessner, E.J., Riegler, M., Formoso, K., Koeller, K., Nesbitt, S.J. (2020) Assessing ontogenetic maturity in extinct saurian reptiles. Biological Reviews. doi 10.1111/brv.12666

**Stefanic, C.M.**, Nestler, J.H., Seiffert, E.R., Turner, A.H. (2020) New Crocodylomorph Material from the Fayum Depression, Egypt, Including the First Occurrence of a Sebecosuchian in African Late Eocene Deposits. *Journal of Vertebrate Paleontology*. doi 10.1080/02724634.2019.1729781.

**Stefanic, C.M.**, Nesbitt, S.J. (2019) The Evolution and Role of the Hyposphene-hypantrum Articulation in Archosauria: Phylogeny, Size and/or Mechanics? *Royal Society Open Science*. 6:190258. doi 10.1098/rsos.190258.

**Stefanic, C.M.**, Nesbitt, S.J. (2018) The axial skeleton of *Poposaurus langstoni* (Pseudosuchia: Poposauroidae) and its implications for accessory intervertebral articulation evolution in pseudosuchian archosaurs. *PeerJ*. 6:e4235. doi 10.7717/peerj.4235.

Griffin, C.T., **Stefanic, C.M.**, Parker, W.G., Hungerbühler, A., Stocker, M.S. (2017) Sacral anatomy of the phytosaur *Smilosuchus adamanensis*, with implications for pelvic girdle evolution among Archosauriformes, *Journal of Anatomy*. doi 10.1111/joa.12681.

## CONFERENCE PRESENTATIONS

\* indicates advised undergraduate researcher

Mehkri, A.\*, **Stefanic, C.M.** (2022) The evolution and distribution of the zygosphene-zygantrum articulation in Squamata. Undergraduate Research & Creative Activities (URECA) Celebration Symposium, 3 May. Poster Presentation.

Oliver, H.\*, **Stefanic, C.M.** (2022) Trabecular bone density in the vertebrae of extant lizards as a model for understanding the ancestral archosaurian condition. Undergraduate Research & Creative Activities (URECA) Celebration Symposium, 3 May. Poster Presentation.

**Stefanic, C.M.**, Jones, K.E., Turner, A.H. (2022) Regionalization in the lizard axial column. Society for Integrative and Comparative Biology Annual Meeting (SICB), Phoenix, Ariz., 3-7 Jan. Poster Presentation (DVM Best Student Poster Session).

**Stefanic, C.M.**, Nesbitt, S.J. (2018) The presence of intervertebral structures track body size in Archosauria not phylogeny and the loss of the structures in living members of the clade. Society of Vertebrate Paleontology 78<sup>th</sup> Annual Meeting (SVP), 17-20 Oct. Poster Presentation.

**Stefanic, C.M.** (2017) Form and Function in the Fossil Record: The Evolution of Vertebral Morphology in Living and Extinct Archosaurs. 22<sup>nd</sup> Annual Geosciences Student Research Symposium (GSRS), 23-24 Feb. Platform Presentation.

**Stefanic, C.M.**, Nesbitt, S.J. (2016) The Evolution of Archosaurian Body Size: An Analysis of the Intervertebral Articulations of Stem Crocodylians from the Triassic. Society of Vertebrate Paleontology 76<sup>th</sup> Annual Meeting (SVP), 26-29 Oct. Poster Presentation.

**Stefanic, C.M.**, Nesbitt, S.J. (2016) Implications of Additional Intervertebral Articulations for the Evolution of Large Body Size in Archosaurs. 9<sup>th</sup> Annual Meeting of the Southeastern Association of Vertebrate Paleontology (SeAVP), 15-17 May. Poster Presentation.

**Stefanic, C.M.**, Nesbitt, S.J. (2016) The Evolution of Archosaurian Locomotion and Body Size: An Analysis of the Vertebrae of a Relative of Crocodylians from the Triassic (~230 Ma). 21<sup>st</sup> Annual Geosciences Student Research Symposium (GSRS), 26-27 Feb. Platform Presentation.

Leonard-Pingel, J., Todd, J., **Stefanic, C.M.** (2015) Functional shift in gastropod assemblages reflects changing habitats in the Caribbean Neogene. 2015 GSA Annual Meeting in Baltimore, Maryland, 1-4 Nov. Platform Presentation.

**Stefanic, C.M.**, Leonard-Pingel, J. (2014) Did Caribbean Gastropod Assemblages Functionality Shift as a Response to Ecological Change in the Late Neogene? (p. 434) 2014 GSA Annual Meeting in Vancouver, British Columbia, 19-22 Oct. Platform Presentation.

**Stefanic, C.M.**, Greer, L., Stier, A., Elium, E.M., Irwin, A.E., Norvell, D., Benson, W.M., Curran, H.A. (2013) Is Coral Gardens, Belize a Refugium for the coral *Acropora cervicornis*? (p. 211) 2013 GSA Annual Meeting in Denver: 125th Anniversary of GSA, 27-30 Oct. Platform Presentation.

Elium, E.M., Greer, L., **Stefanic, C.M.**, Stier, A., Irwin, A.E., Curran, H.A. (2013) Spatial Variation and the Survivability of an *Acropora cervicornis* Patch Reef in Belize. (p. 539) 2013 GSA Annual Meeting in Denver: 125th Anniversary of GSA, 27-30 Oct. Poster Presentation.

Stier, A., Greer, L., Humston, R., Elium, E.M., **Stefanic, C.M.**, Curran, H.A. (2013) How Does Parrotfish and Urchin Bioerosion Impact Live Staghorn Coral Cover on a Patch Reef in Belize? (p. 539) 2013 GSA Annual Meeting in Denver: 125th Anniversary of GSA, 27-30 Oct. Poster Presentation.

**Stefanic, C.M.**, Greer, L., Norvell, D., Benson, W.M., Curran, H.A. (2012) Is *Echinometra viridis* facilitating a phase shift on an *Acropora cervicornis* patch reef in Belize? Abstract B31A-0408 presented at AGU 2012 Fall Meeting, San Francisco, Calif., 3-7 Dec. Poster Presentation.

## INVITED PRESENTATIONS

**Stefanic, C.M.** (2019) Comparative Vertebral Morphology and Implications for Ecology and Locomotion. Research lecture presented to the Paleolab at the University of São Paulo, Ribeirão Preto, Brazil. Platform Presentation.

## FORMAL MANUSCRIPT REVIEWS

*Number of times as a reviewer in parentheses*

The Anatomical Record (1)

## FIELDWORK EXPERIENCE

Ghost Ranch, New Mexico

Summer 2017 (2 weeks) – excavation of Triassic age reptiles in the Chinle Formation with Stony Brook University paleontologists and researchers from other institutions

Petrified Forest National Park, Arizona

Summer 2016 (11 weeks) – paleontology internship, prospecting and excavation of Triassic age reptiles on newly acquired expansion lands of Petrified Forest NP

Ghost Ranch, New Mexico

Summer 2015 (2 weeks) – excavation of Triassic age reptiles in the Chinle Formation with the Virginia Tech paleontology lab and researchers from various other institutions

## New Zealand

Spring 2014 (4 weeks, “Spring Term”) – regional geology field-based class driving across the country with 2 professors and 13 other students from Washington & Lee

## Ambergris Cay, Belize

Summer 2012, Summer 2013 (8 days each year) – analysis of the health of an endangered coral species with my research advisor and 2-3 other students from Washington & Lee

Spring 2012 (10 days, “Spring Term”) – field trip centered class about coral reef biology and conservation with 14 other students from Washington & Lee

## TEACHING

- 2022 (Fall) Teaching Assistant (Stony Brook University School of Dental Medicine)  
Gross Anatomy of the Head, Neck, and Trunk, HBA 521, 45 students, Course Director: Dr. John Fleagle  
Guided lab groups of 4-5 students through cadaver dissection (4 groups/ lab day)  
Gave three hour-long lectures on topics within the Head and Neck module
- 2022 (Spring) Course Director (Stony Brook University School of Dental Medicine)  
Core Course for Advanced Education Programs in Dentistry, HD 903  
Lectures and cadaver dissections of head and neck anatomy for dental residents in Orthodontics, Endodontics, Periodontics, Pediatrics, and Radiology programs
- 2021 (Fall) Teaching Assistant (Stony Brook University School of Dental Medicine)  
Gross Anatomy of the Head, Neck, and Trunk, HBA 521, 45 students, Course Director: Dr. John Fleagle  
Guided lab groups of 4-5 students through cadaver dissection (4 groups/ lab day)  
Gave three hour-long lectures on topics within the Head and Neck module
- 2021 (Spring) Course Director (Stony Brook University School of Dental Medicine) (virtual)  
Core Course for Advanced Education Programs in Dentistry, HD 903, 12 students  
Recorded lectures and led Zoom labs where participants identified anatomical structures of the head and neck from images of cadaver dissections. Participants were dental residents in Orthodontics, Endodontics, Periodontics, Pediatrics, and Radiology programs
- 2020 (Fall) Teaching Assistant (Stony Brook University School of Dental Medicine) (virtual)  
Gross Anatomy of the Head, Neck, and Trunk, HBA 521, 46 students, Course Director: Dr. John Fleagle  
Guided lab groups of 11-12 students through virtual cadaver dissection via Zoom  
Recorded two hour-long lectures on topics within the Head and Neck module
- 2020 (Spring) Course Director (Stony Brook University School of Dental Medicine)  
Core Course for Advanced Education Programs in Dentistry, HD 903, 15 students  
Lectures and cadaver dissections of head and neck anatomy for dental residents in Orthodontics, Endodontics, Periodontics, Pediatrics, and Radiology programs, Implemented distance-learning format during COVID-19 pandemic
- 2018 (Fall) Teaching Assistant (Stony Brook University School of Medicine)  
The Body (Medical Human Gross Anatomy), HBA 560, 130 students, Course Director: Dr. Susan Larson  
Guided lab groups of 4-5 students through cadaver dissection (4 groups/ lab day)
- 2017 (Spring) Graduate Teaching Assistant (Virginia Tech)  
Paleontology, GEOS 3604, 30 students, Professor: Dr. Shuhai Xiao  
Set up weekly labs, gave lab-intro lectures, guided students through lab exercises

- 2016 (Fall) Graduate Teaching Assistant (Virginia Tech)  
Physical Geology, GEOS 1104, 15 students, Professor: Dr. John Chermak  
Set up weekly labs, gave lab-intro lectures, guided students through lab exercises
- 2016 (Spring) Invited Alumni Teaching Assistant (Washington & Lee)  
Dinosaurs (“Spring Term”), 13 students, Professor: Dr. Jill Leonard-Pingel  
Assisted with month long course that included a daytrip to the Virginia Tech  
Paleobiology lab and an overnight visit to George Washington University  
Paleontology lab, and Smithsonian collections and exhibits in Washington, DC.
- 2016 (Spring) Graduate Teaching Assistant (Virginia Tech)  
Earth & Life Through Time, GEOS 1014, 11 students, Professor: Dr. Sterling  
Nesbitt  
Assisted with weekly lab set up and guided students through lab exercises

## **OUTREACH & SERVICE**

- 2021-present Undergraduate Research Mentor (URECA)  
Guide Stony Brook University undergraduates through research projects from  
data collection stage to poster presentation
- 2018–present Senator for the Graduate Student Organization (GSO) at Stony Brook University  
Act as liaison between GSO and students in my department, attend GSO  
meetings, serve on the Rules and Constitutions Committee
- 2018–2020 Evolutionary Biology Discussion Group Coordinator  
Chose and disseminated papers for weekly interdepartmental discussion group
- 2017 Kindergarten to College aka. “K2C” (Virginia Tech, April 7)  
Helped organize and give a paleobiology lab tour to elementary school students
- 2016 Museum and Department of Geosciences “GeoFair” (Virginia Tech, October 15)  
Showed and explained fossils, casts, and current research at a public event
- 2016 PEFO Field Institute “Day Dig” (Petrified Forest National Park, AZ, August 6)  
Invited the public to dig in a quarry on the expansion land of the Petrified Forest  
with the park’s paleontology crew
- 2016 “Dino Day” Event (Petrified Forest National Park, AZ, June 6)  
Invited the public to the Petrified Forest community room for hands-on  
paleontology, educational videos, and science talks
- 2016 “Movies in the Market” Event (Downtown Roanoke, VA, May 13)  
Showed and explained fossils and casts to the public at an outdoor showing of  
Pixar’s “The Good Dinosaur”
- 2016–2017 Museum of Geosciences part-time staff and K-12 tour leader (Virginia Tech)
- 2015–2017 Women in Geosciences Mentorship Program (Virginia Tech)  
Mentor to undergraduate student; offered advice on applying to graduate school
- 2015 “Tech or Treat: Creatures from the Cube” (Virginia Tech, October 29)  
Showed and explained various extant skeletons and fossil material of archosaurs
- 2015 Virginia Science Festival (Virginia Tech, September 26)  
Showed and explained fossils from summer fieldwork to the public
- 2015 Fossil Unwrapping Event (Virginia Tech, August 26)  
Invited the public to assist in unpacking fossils from summer excavations
- 2014–2015 Geology chair, Women in Technology and Science (Washington & Lee)  
Monthly labs with girls from Rockbridge County elementary and middle schools

## **PREP LAB & MUSEUM EXPERIENCE**

- 2019 Mali Paleontology Curation (Stony Brook/ Amer. Museum of Nat. Hist.)  
Reconciled curatorial catalogue with specimen tags, updating each accordingly when needed, for transfer from one institution to another  
Publication: O'Leary et al. (2019) Stratigraphy and Paleobiology of the Upper Cretaceous-Lower Paleogene Sediments from the Trans-Saharan Seaway in Mali. Bulletin of the American Museum of Natural History
- 2018 Department of Anatomical Sciences Museum (Stony Brook)  
Organized, catalogued, cleaned, and repaired specimens, including human and non-human vertebrate fossil and modern skeletal elements
- 2016–2017 Museum of Geosciences (Virginia Tech)  
Design and construction of “Fossils of Virginia”, “Tree of Life”, and “Paleobiology Lab Research Topics” exhibits
- 2016 Petrified Forest National Park (National Park Service)  
Prepped fossils found during excavation using air scribe and microscope  
Molded and casted loan material from Univ. of Cal. Museum of Paleo.
- 2015–2017 Paleobiology Prep Lab (Virginia Tech)  
Prepped fossils from Tanzania, New Mexico, and Wyoming
- 2010–2011 Academy of Natural Sciences of Philadelphia (Drexel University)  
Volunteered in the museum’s prep lab working on preparing fossils of the titanosaur *Dreadnoughtous scanii* for study  
Led school and camp groups in the “Dino Dig” experience

## **SOCIETY MEMBERSHIPS**

- Society of Integrative and Comparative Biology  
2021-present
- American Association for the Advancement of Science  
2020-present
- Sigma Xi (Full Member)  
2019-present
- The Society for the Study of Evolution  
2019-present
- The Society of Vertebrate Paleontology  
2015-present

## **COMPUTATIONAL SKILLS**

R (statistical computing, geometric morphometrics), tpsUtil and tspDig (geometric morphometrics), Landmark Editor (geometric morphometrics), MorphoJ (geometric morphometrics), Avizo (CT scan segmentation software), MeshLab (3D mesh viewing and editing software), Blender (3D modeling and animation software), ArTec (3D spider surface scanning: handheld scanner and shape file creation software), Mesquite (phylogenetics), PAUP (phylogenetics), FigTree (phylogenetics), MrBayes (phylogenetics), ArcGIS, Python, Microsoft Office (Word, Excel, PowerPoint), Adobe Suite (Illustrator, Photoshop)

## **ADDITIONAL RELEVANT SKILLS**

Fossil Prep Skills (i.e. air scribe, pin vice, etc.), Fieldwork Skills (i.e. excavating, plaster jacketing, prospecting, etc.), Molding and Casting