

# Jennifer A. Brennan

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**Objective:** PhD candidate with 15 years teaching experience and over 10 years of museum fossil preparation, seeking access to collections and materials in vertebrate paleontology for the purposes of dissertation research.

## Education:

**PhD in Biological Science** expected May 2025  
The George Washington University, Washington D.C.

- Dissertation Title: "Pachycephalosaurian Systematics and Cranial Anatomy"
- Dr. Catherine Forster, advisor

**Coursework in Geological Science**  
San Diego State University, San Diego, California 2017-2018  
Palomar College, San Marcos, California 2016-2018

**Professional Clear Single Subject Teaching Credential in Life Science** June 1995  
University of California, Davis, Davis, California

- Supplementary Authorization in Introductory Science.
- Cross Cultural, Language & Academic Development Emphasis

**Bachelor of Arts in Biological Science** June 1994  
University of California, Santa Barbara, Santa Barbara, California

## Research Experience:

**Doctoral Researcher** 2022-present  
Phylogenetics & Comparative Anatomy emphasis

- Reviewed primary sources to assemble phylogenetic character list encompassing all major clades of ornithischian dinosaurs
- Analyzed published synapomorphies of Marginocephalia, Ornithopoda, and Pachycephalosauria and identified areas in need of new phylogenetic characters
- Developed dissertation research topics, emphasizing the phylogenetic relationship of pachycephalosaurian dinosaurs within Ornithischia, and their cranial anatomy
- Conducted anatomical and phylogenetic research at numerous fossil repositories as a visiting researcher, observing, measuring, and analyzing specimens
- Digitized specimens utilizing 3D scanning and photogrammetry

### Collections Visitations

- National Museum of Natural History, Smithsonian, Washington, D.C. 2022-present
- Royal Ontario Museum, Toronto, Canada Nov. 2022
- American Museum of Natural History, New York, New York Oct. 2022
- University of California Museum of Paleontology, Berkeley, California Sept. 2022

**Paleontology Fieldwork**, Tate Geological Museum 2022, 2017  
Field site locations: Lusk, Wyoming (2022), Medicine Bow, Wyoming (2017)

- Prepared, strengthened, and consolidated fossils prior to removal from site
- Constructed field jackets for large areas consisting of multiple bone assemblies
- Removed jackets from the field using chain block and tackle
- Prospected surrounding areas for new excavation localities and expanded existing fossil quarry
- Collected micro specimens from quarry sites
- Mapped new specimen locations in main quarry and recorded stratigraphy and sedimentology

**Fossil Preparator**, San Diego Natural History Museum 2005-2019

- Prepared invertebrate and vertebrate fossils for curation including removal of field jackets and matrix, repair and strengthen specimens, create storage cradles, mount vertebrate microfossils
- Processed matrix from variety of localities for curation, including screen washing, sorting, and picking microfossils to establish site biodiversity
- Conducted STEM outreach in paleontology demonstration lab and at museum events
- Co-authored NSF grant with museum staff to fund post-doctoral research using museum specimens

**Geology Fieldwork**, San Diego State University 2017

- Collected soil samples and assessed composition using X-ray diffraction
- Mapped localities and identified stratigraphy, sedimentology, and fossil beds in Rainbow Basin, Mojave Desert, California and Grand Canyon, Arizona

## Teaching Experience:

**Guest Lecturer**, The George Washington University, Washington D.C. 2022-present

- “Marginocephalia and Pachycephalosauria.” Evolution and Extinction of Dinosaurs, Bisc 2333, Biological Sciences Department, 3/2/23.
- “Biodiversity Hotspots and Conservation.” Dean’s Seminar on Global Biodiversity, Bisc 1000, Biological Sciences Department, 11/22/22.
- “What Can Fossils Tell Us?” Introduction to Paleontology, Geol 2151, Geological Sciences Department, 10/12/22.
- “Arthropods.” Introduction to Paleontology, Geol 2151, Geological Sciences Department, 10/10/22.
- “The Cambrian Explosion.” Historical Geology, Geol 1002, Geological Sciences Department, 4/6/22, 3/29/23 scheduled.
- “Evolution and Extinction.” Historical Geology, Geol 1002, Geological Sciences Department, 3/2/22, 4/5/23 scheduled.

**Seminar Instructor**, The George Washington University, Washington D.C. 2021-present

- “Introduction to Microscopy.” Harlan Undergraduate Research Program, Biological Sciences Department, (Summer 2021, 2022).

**Graduate Teaching Assistant**, The George Washington University, Washington D.C.

Biology of Nutrition and Health, Bisc 1005  
Ecology and Evolution of Organisms, Bisc 1006

Fall 2019, 2020  
Spring 2020, 2021

- Created curriculum and assessments for undergraduate students in introductory biology laboratory courses
- Modified existing curriculum designed for in-person education to a format for on-line learning
- Developed new laboratory experiences for undergraduate students to be conducted independently, with asynchronous timing
- Facilitated weekly student laboratory experiences for in-person, on-line and asynchronous courses
- Mentored international graduate teaching assistants during in-person classroom teaching as Student Success Graduate Teaching Assistant
- Managed course undergraduate teaching assistants

**Science Teacher**, San Dieguito Union High School District  
Carmel Valley Middle School, San Diego, California

1999-2010

- Emphasized state and national standards in physics, chemistry, astronomy, and earth science utilizing a variety of teaching strategies to reach multiple learning modalities
- Connected students' classroom experiences to real world applications of science and scientific skills in a diverse student population
- Designed lessons and assessment tools that fully included special education students, and secondary English speakers into a mainstreamed classroom
- Coordinated with science and other curricular area educators to create district wide assessments and supporting curriculum
- Mentored newly hired educators in a variety of curricular areas over a two-year period, as a Beginning Teacher Support Provider, 2004-2006
- Created content for and lead New Teacher Orientation Week workshops and monthly seminars for new hires, tenured teachers, and department chairs

**Master Teacher**, San Dieguito Union High School District  
San Diego, California

2001-2002, 2004-2005

- Supervised and coached student teachers for San Diego State University and National University
- Evaluated candidates' progress in mastery of teaching skills, curricular design, and student assessment

## Presentations:

Brennan, J., (12/2022). *Pachycephalosaurian Dinosaurs: a new look at systematics & their anatomy*. Invited Speaker, George Washington University, Biological Sciences Seminar Series, Washington, D.C.

Brennan, J., (10/2022). *Capturing Anatomical Data from Fossils Using Digital Methods*. Poster presentation at Harlan Poster Session, George Washington University, Washington, D.C.

Brennan, J., (10/2021). *Evolutionary Relationships of Ornithischian Dinosaurs: Re-examining the Systematics of Pachycephalosauria and Related Taxa*. Poster presentation at Harlan Poster Session, George Washington University, Washington, D.C.

## Community Outreach:

**Faculty Liaison**, Biology Graduate Student Council (BGSC) 2022-2023  
The George Washington University, Washington D.C.

- Founding Board Member, Fall 2022
- Authored by laws and governing charter
- Represented graduate students during monthly department faculty meetings
- Engaged biology graduate student body in multiple events during new faculty hiring process, prospective graduate student welcome days and BGSC social events

**STEM Outreach Volunteer**, San Diego State University 2017-2019  
Geological Sciences Department

- Created curriculum and visual aids to utilize the new stream table with K-12 students
- Facilitated student group explorations in geological science
- Trained incoming geological sciences undergraduates to lead future outreach

**Education Advocate**, National Aeronautics and Space Administration 2004-2008  
Network of Educator Astronaut Teachers (NEAT), founding member

- Selected as one of 197 highly qualified individuals by a national blue-ribbon panel from candidate pool of 18,000 applicants during the 2003 call for educators to the astronaut program
- Coordinated public outreach events in Southern California to increase aerospace and astronomy awareness
- Authored aerospace and physics curriculum to increase utilization of NASA's educational resources by public, private and home educators
- Created and conducted educator workshops in rocketry, physics and best science education practices using student generated data and NASA resources

## Awards & Fellowships:

Weintraub Fellowship	2021, 2022, 2023
Harlan Graduate Research Fellowship	2020, 2021, 2022
Graduate Assistantship and University Fellowship	2020, 2021
George Washington Graduate Assistantship	2020
Student Success Graduate Teaching Assistantship	2019, 2020

## Professional Memberships:

Association of Women Geoscientists  
National Science Teachers Association  
Paleontological Society

San Diego Association of Geologists  
Society of Vertebrate Paleontology