

Ethan G. Hyland

Associate Professor

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RESEARCH INTERESTS

- 1) *Sedimentology and stratigraphy*, including modern and paleo-critical zone processes, chemostratigraphy, magnetostratigraphy, and basin-scale macrostratigraphy;
- 2) *Paleoclimatology and paleoenvironmental records*, including developing and integrating terrestrial paleosol and paleobotanical (phytoliths) records to describe past conditions, and using proxy records for developing comparative models of major climate events;
- 3) *Geochemistry*, including soil and paleosol bulk geochemistry and magnetic mineralogy, organic and carbonate stable isotope chemistry ($\delta^{13}\text{C}$ and $\delta^{18}\text{O}$), and clumped isotope (Δ_{47}) methodology and applied thermometry.

EDUCATION

- 2014 Ph.D.**, Geological Sciences, University of Michigan Ann Arbor, MI
Specialization: Paleoclimate and Paleoenvironmental Records; Sedimentology
Thesis: "Multiproxy terrestrial records of climatic and ecological change during the Early Eocene Climatic Optimum"
Advisor: Nathan D. Sheldon
- 2014 Graduate Certificate**, Teaching, University of Michigan Ann Arbor, MI
Specialization: Undergraduate Science Curriculum
Advisor: Megan Bakewell
- 2013 Graduate Certificate**, Public Policy, University of Michigan Ann Arbor, MI
Specialization: Science and Technology Policy
Advisor: Shobita Parthasarathy
- 2012 M.S.**, Earth & Environmental Sciences, University of Michigan Ann Arbor, MI
Specialization: Paleobotany
Thesis: "Representational bias in phytoliths from modern soils of central North America"
Advisor: Selena Y. Smith
- 2008 B.A.**, Geology, Carleton College, Northfield, MN
Honors with Departmental Distinction
Thesis: "Paleomagnetic stratigraphy across the Eocene-Oligocene Boundary at Monte Cagnero, Italy"
Advisor: Cameron Davidson, Bereket Haileab, David Evans (Yale University)

PROFESSIONAL EXPERIENCE

- 2022 – pres. Associate Professor (with Tenure)**, Department of Marine, Earth & Atmospheric Sciences, North Carolina State University, Raleigh (NC)
- 2020 – pres. Affiliate Professor**, Southeast Climate Adaptation Science Center (SECASC)
- 2020 – pres. Affiliate Professor**, Department of Earth Sciences (Paleontology), National Museums of Kenya, Nairobi (Kenya)
- 2019 – pres. Affiliate Professor**, Department of Geological and Environmental Sciences, Appalachian State University, Boone (NC)
- 2017 – 2022 Assistant Professor**, Department of Marine, Earth & Atmospheric Sciences, North Carolina State University, Raleigh (NC)
- 2016 Visiting Scientist**, Division of Earth & Environmental Sciences, Los Alamos National Laboratory, Los Alamos (NM)
- 2015 – 2016 Instructor**, Department of Earth & Space Sciences, University of Washington
- 2014 – 2016 “Future of Ice” Postdoctoral Fellow/Research Associate**, Quaternary Research Center (Department of Earth & Space Sciences/Department of Biology), University of Washington, Seattle (WA)
Supervisors: Katharine W. Huntington, Caroline A.E. Strömberg
- 2012 – 2014 Research Assistant**, Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor (MI)
Supervisor: Catherine Badgley
- 2011 – 2014 Graduate Student Mentor**, Department of Earth and Environmental Sciences, University of Michigan, Ann Arbor (MI)
- 2009 – 2014 Research Assistant**, Department of Earth and Environmental Sciences, University of Michigan, Ann Arbor (MI)
Supervisors: Nathan D. Sheldon, Selena Y. Smith
- 2009 – 2013 Graduate Student Instructor**, Department of Earth and Environmental Sciences, University of Michigan, Ann Arbor (MI)
- 2007 – 2008 Teaching Assistant**, Geology Department, Carleton College, Northfield (MN)

AWARDS

2022 – 2025	Goodnight Early Career Innovator , North Carolina State University (25 awards per year, university)
2015	Quaternary Research Center Research Award , University of Washington Seattle, WA (5 awards per year, national)
2014	John Dorr Graduate Achievement Award , Department of Earth and Environmental Sciences, University of Michigan Ann Arbor, MI (1 award per year, department)
2014	Proquest Distinguished Dissertation Award (Honorable Mention) , University of Michigan Ann Arbor, MI (10 awards per year, university)
2013	Outstanding Graduate Instructor Award , Department of Earth and Environmental Sciences, University of Michigan Ann Arbor, MI (1 award per year, department)
2012	Farouk El-Baz Student Research Award , Geological Society of America (1 award per year, national)
2011	Rackham International Research Award , Rackham Graduate School, University of Michigan Ann Arbor, MI (3 awards per year, university)
2010, 2011	Rackham Graduate Research Award , Rackham Graduate School, University of Michigan Ann Arbor, MI (10 awards per year, university)
2010, 2011, 2012	Scott Turner Award in Earth Sciences , Department of Geological Sciences, University of Michigan Ann Arbor, MI (10 awards per year, department)
2010, 2012, 2013	Graduate Research Award , Geological Society of America (~300 awards per year, national)
2010	Raymond C. Moore Award in Paleontology , American Association of Petroleum Geologists (1 award per year, national)

GRANTS

In-Progress Proposals:

3) National Science Foundation (OPP-ANT): Characterizing microbial environments and metabolisms in Lake Vanda and Lake Joyce (Antarctica) using novel isotope systems. Co-PI Tyler Mackey (UNM). 2023–2026; \$400,000 (total), \$250,000 (NCSU).

2) National Science Foundation (EAR-TEC): Fracturing, diagenesis, and fluid flow in fault zones: Examining seismicity and slip on low-angle normal faults in the Apennines (Italy). Co-PIs Hannah Riegel (App State), John Hooker (UIW). 2022–2025; \$375,000 (total), \$150,000 (NCSU).

1) National Science Foundation (EAR-SGP): Collaborative Research: Comparing lacustrine and pedogenic carbonate archives in the Great Basin: Implications for terrestrial paleoclimate reconstructions in continental interior regions. Co-PI Landon Burgener (BYU). 2022–2025; \$400,000 (total), \$200,000 (NCSU).

Pending Proposals:

4) National Science Foundation (EAR-SGP): Collaborative Research: Reconstructing warm vs. cold climate states in deep time using a new bivalve carbonate clumped isotope paleotemperature calibration. Co-PI Donna Surge (UNC-Chapel Hill). 2025–2028; \$985,340 (total), \$450,427 (NCSU).

3) National Science Foundation (EAR-GG): Collaborative Research: Improving soil carbonate paleoclimate reconstructions by constraining seasonal carbonate formation biases in neighboring coarse- and fine-grained soils. Co-PI Landon Burgener (BYU). 2025–2028; \$427,550 (NCSU).

2) National Science Foundation (BA-SR): Collaborative Research: Ecological context of middle Miocene catarrhine evolution in eastern Africa. Co-PIs Lauren Gonzales (UNT), Rutger Jansma (UA), Irisa Arney (WU), Ellis Locke (ICOM). 2025-2028; \$225,706 (total/NCSU).

1) National Science Foundation (BIO-DEB/ES): The lost “grand savanna” of the Southeast: Records of Holocene vegetation and landscapes in the Carolina Piedmont derived from phytoliths, carbon isotopes, and dating of soil/sediment cores. Co-PIs Alexander Krings, Lewis Owen (NCSU). 2025–2028; \$442,841 (total/NCSU).

Funded Proposals:

Total proposal funding: \$11,375,013

Total proposal funding to NCSU: \$4,353,732

- 12) National Science Foundation (BIO-BoCP):** Collaborative Research: BoCP-Implementation: US-South Africa: Surviving A Super Greenhouse: Terrestrial Biodiversity Dynamics During The Cretaceous Thermal Maximum. Co-PIs Lindsay Zanno, Bucky Gates, Elizabeth Jones, Lisa Herzog. 2025–2030; \$3,945,019 (total), \$1,663,730 (NCSU). *Award #2448142.*
- 11) National Science Foundation (EAR-IF):** TS: A clumped isotope technician for the Paleo Isotope Laboratory at NC State University. 2025–2030; \$759,752 (total/NCSU). *Award #2451847.*
- 10) NCSU-OUIP Opportunity Grant:** Modeling climate change and ecosystem structure across the Cretaceous Thermal Maximum. Co-PIs Lindsay Zanno (NCSU Biology), Thomas Cullen (Auburn). 2024–2025; \$49,820.
- 9) CONICET Research Award:** Paleoclimates from the Paleogene-early Neogene in the south of the Golfo San Jorge Basin. Co-PIs Maria Raigemborn (UNLP), Jennifer Cotton (CSUN). 2023–2025; \$100,000 (total). *Award # PIP 11220210100391CO.*
- 8) North Carolina State University DELTA Exploratory Grant:** Enhancing Student Learning with the MEAS Em4 Geosystem Stream Table. Co-PI Karl Wegmann. 2021–2022; \$8,000 (total/MEAS).
- 7) Triangle Center for Evolutionary Medicine (TriCEM):** A new approach for identifying pathologic bone in living and extinct species. Co-PIs Lindsay Zanno, Christopher Walker (NCSU). 2020–2021; \$12,000 (total/NCSU), \$4,000 (MEAS).
- 6) National Science Foundation (BIO-GCR):** Microbial response to a changing planet: The role of microbes in mineral precipitation resulting in exceptional fossil preservation and CO₂ sequestration. Co-PIs Mary Schweitzer, Amy Grunden, Manuel Kleiner, Brina Montoya, Elena Schroeter (NCSU). 2019–2024; \$638,751 (total/NCSU), \$127,225 (MEAS). *Award # 1934844.*
- 5) National Science Foundation (EAR-FRES):** Collaborative Research: Time of Transformation: integrating the dynamic geologic, climatic and biotic systems of North America during the Early to Late Cretaceous transition. Co-PIs Lindsay Zanno (NCMNS); Marina Suarez (UKS); Celina Suarez, Glenn Sharman (UAR); Richard Lupia, Richard Cifelli (UOK); Peter Makovicky (UMN). 2019–2024; \$2.5 million (total), \$654,719 (NCSU), \$200,072 (MEAS). *Award # 1925973.*
- 4) Academic Consortium for the 21st Century (AC21):** Advancing Paleontological Research and Specimen Conservation in Southeast Asia. Co-PIs Lindsay Zanno (NCNMNS), Ryan Tucker (SU), Rattanaphorn Hanta (KU). 2019; \$10,000 (NCSU), \$2,500 (MEAS).
- 3) Leakey Foundation:** Reconstructing the paleoecology of the middle Miocene (>14.7 Mya) site of Maboko Island, western Kenya. Co-PI Lauren Gonzales (USC). 2019–2021; \$25,000 (total), \$10,000 (NCSU/MEAS).

2) National Science Foundation (EAR-SGP): RUI/Collaborative Research: C₄ grasses in South America: Linking grassland transitions to the South American monsoon. Co-PIs Jennifer Cotton (CSUN) and Nadja Insel (NEIU). 2019–2024; \$626,671 (total), \$283,406 (NCSU/MEAS). *Award # 1854209.*

1) National Science Foundation (EAR-IES): Collaborative Research: Anatomy of a greenhouse world: The Early Eocene in the Green River Basin, Wyoming. Co-PIs Alan Carroll, Brad Singer, Steve Meyers (UWI); Mark Schmitz (BSU); Michael Smith (NAU); Nathan Sheldon, Ben Passey (UMI); Josh Feinberg, Amy Myrbo (UMN); Jessica Tierney (UAZ); Tim Lowenstein (SUNY). 2018–2024; \$2.7 million (total), \$263,554 (NCSU/MEAS). *Award # 1813703.*

SERVICE AND SYNERGISTIC ACTIVITIES

Scientific Community:

2024	<i>Co-Convener</i> , Paleoclimatology/Paleoceanography Session T115, Geological Society of America Annual Meeting in Anaheim, CA
2021 – pres	<i>Panel Member</i> : U.S. National Science Foundation (Sedimentary Geology and Paleobiology, 2021; CAREER, 2022)
2021 – 2024	<i>Member-at-Large (Paleontology, Paleoecology)</i> : Research Grants Committee, Geological Society of America
2021	<i>Co-Convener</i> , Tectonics Session T16, Geological Society of America Annual Meeting in Portland, OR
2017 – 2019	<i>Editorial Board Member</i> : Geology
2016	<i>Co-Convener</i> , Cryosphere Session C31B, American Geophysical Union Annual Meeting in San Francisco, CA
2014 – pres.	<i>Proposal Reviewer</i> : U.S. National Science Foundation (Sedimentary Geology and Paleobiology, 2018, 2020; Low-Temperature Geochemistry, 2016; Paleo Perspectives on Present and Projected Climate, 2023); Netherlands Organization for Scientific Research (Earth and Life Sciences, 2014)
2012	<i>Co-Convener</i> , Paleoclimatology/Paleoceanography Session T127, Geological Society of America Annual Meeting in Charlotte, NC
2012 – pres.	<i>Workshop Participant</i> : AC-21: Advancing Paleontology in Southeast Asia (2019), EarthRates Community Planning (2017, 2020), NAGT Course Building (2015), SGS Sedimentology Priorities (2012, 2013)
2011 – pres.	<i>Manuscript Reviewer</i> : Nature Geoscience; Nature Communications; Geology; Earth and Planetary Science Letters; GSA Bulletin; Journal of Geology; Sedimentology; Palaeogeography, Palaeoclimatology, Palaeoecology; Geochemistry, Geophysics, Geosystems; Geoderma; Sedimentary Geology; Bulletin of Geosciences; International Journal of Plant Sciences; Geomorphology; Journal of African Earth Sciences; Boreas; Holocene; Quaternary Research; Quaternary International; Journal of Vertebrate Paleontology; Quaternary Science Reviews; Proceedings of the National Academy of Sciences; Geochimica et Cosmochimica Acta; Rapid Communications in Mass Spectrometry; Catena; Climate of the Past
2010 – 2013	<i>Coordinator/Conference Convener</i> , Michigan Geophysical Union

Department/University Service:

2025 – pres.	<i>Graduate Academic Advisory Committee, COS</i>
2024 – pres.	<i>Administrative Advisory Committee (Goodnight Early Career Innovators Program), NC State</i>
2024 – pres.	<i>Director of Graduate Programs, MEAS</i>
2023 – pres.	<i>Department Affairs Committee, MEAS</i>
2023	<i>Annual Symposium Coordinator, MEAS</i>
2022 – 2023	<i>Search Committee Member (Paleontology), Biological Sciences</i>
2022	<i>Assistant Professor Workshop Coordinator, MEAS</i>
2022	<i>Graduate School Representative (Biology), COS</i>
2021 – 2022	<i>Search Committee Member (Laboratory Specialist), MEAS</i>
2021 – 2022	<i>Search Committee Member (Climate Cluster), MEAS</i>
2021	<i>Graduate School Representative (Physics), COS</i>
2021	<i>Hiring Planning Committee, MEAS</i>
2020 – pres.	<i>Faculty Co-coordinator, Paleosciences Peer Mentoring Program, COS</i>
2020 – pres.	<i>Faculty Affairs Committee, COS</i>
2020 – pres.	<i>GLBT Advocate, COS</i>
2020 – 2021	<i>Search Committee Member (Chemical Oceanography), MEAS</i>
2019 – 2023	<i>Community Climate Committee, MEAS</i>
2019 – 2020	<i>Development Committee, Paleontology Minor (BIO/COS)</i>
2018 – 2019	<i>Search Committee Member (Department Head), MEAS</i>
2018	<i>Graduate School Representative (History), CHASS</i>
2018 – 2024	<i>Seminar Committee (Chair), MEAS</i>
2017 – 2024	<i>Awards Committee, MEAS</i>
2017	<i>Development Committee, Climate Change Minor (MEAS)</i>
2017	<i>Guidance Committee, MEAS Professional Science Masters</i>

Outreach:

2024	<i>Coordinator/Presenter, Exploring the Paleo, Wake County Libraries (Oberlin Branch)</i>
2022	<i>Presenter, Skype a Scientist Program, Presumpscot Elementary School (Portland, ME)</i>
2021 – 2022	<i>Presenter, Skype a Scientist Program, Northland Preparatory Academy (Flagstaff, AZ)</i>
2020 – 2023	<i>Presenter, Scientists in the Classroom Program, Wake County Public Schools (NC)</i>
2018 – 2021	<i>Student/Teacher Workshop, NSF GEOPATHS-Impact Program</i>
2018 – 2022	<i>Division Judge, North Carolina State Science and Engineering Fair</i>
2019	<i>Workshop Leader, Advancing Paleontological Research and Specimen Conservation in Southeast Asia (AC-21 Foundation)</i>
2017	<i>Expert Judge, Paradigm Challenge STEM Competition, Project Paradigm Foundation</i>

TEACHING AND STUDENT SUPERVISION

Courses Taught:

2025 – pres.	<i>First Year Graduate Seminar</i> (611/612/613; North Carolina State), introductory graduate seminar on career development
2023 – pres.	<i>Field Geology</i> (465; North Carolina State), capstone majors course featuring field projects in stratigraphy, structural geology, mapping
2022 – 2023	<i>Data Science Academy</i> (ST542; North Carolina State), data science applications course featuring research-based modules (contributor)
2021 – pres.	<i>Wicked Problems, Wolfpack Solutions: Global Change</i> (IPGE 295; North Carolina State), interdisciplinary perspectives course (contributor)
2020 – pres.	<i>Principles in Paleontology</i> (369; North Carolina State), majors course in paleontological methods, history of life on Earth, field sampling
2019	<i>Field Geology in Italy</i> (4835; Appalachian State), capstone majors course featuring field projects in stratigraphy, structural geology, mapping
2019 – pres.	<i>Isotope Geochemistry</i> (763; North Carolina State), graduate course in isotope methods and applications, technical training
2018 – pres.	<i>Paleoclimate and Paleoecology</i> (493/592; North Carolina State), graduate seminar in paleoclimate/paleoecology methods and major records
2017 – pres.	<i>Sedimentology and Stratigraphy</i> (450; North Carolina State), majors course in sedimentology and stratigraphy basics and field/lab methods
2017 – pres.	<i>Regional Geology of the United States</i> (599; North Carolina State), graduate field course in unique geological settings (rotating regions)
2017	<i>Physical Geology</i> (101; North Carolina State), introductory course in geology, Earth systems science, and Earth history
2016	<i>Stratigraphy</i> (455; University of Washington), majors course in stratigraphy basics and field/lab methods
2015	<i>Paleoclimate Methods</i> (554; University of Washington), graduate seminar in paleoclimate proxy methods and applications
2015	<i>Terrestrial Paleoclimate</i> (555; University of Washington), graduate seminar in terrestrial paleoclimate records and major events
2009 – 2012	<i>Introductory Physical Geography; Introduction to Rocky Mountain Field Geology; Environmental Geology; Economic Geology; Geology Field Mapping; Introduction to Environmental Science; Ecosystem Science in the Rockies; Stratigraphy and Basin Analysis</i> (Teaching Assistant, University of Michigan)
2007 – 2008	<i>Mineralogy; Paleobiology</i> (Teaching Assistant, Carleton College).

Postdoctoral Fellows:

- 2023 – pres. *Sabrina Lizzoli*, Centro de Investigaciones Geológicas, CONICET/UNLP Argentina: Co-Supervisor (M.S. Raigemborn)
- 2018 – 2021 *Landon Burgener*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Supervisor
*Assistant Professor, Brigham Young University

Graduate Students (Ph.D.):

- 2024 – pres. *Lucia Maldonado Cruzado*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (C. Davis)
- 2024 – pres. *Rachel Alcorn*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (C. Davis)
- 2023 – pres. *Sarah Gelman*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (M. Curry)
- 2022 – 2025 *Nicole Long*, Department of Biology, NCSU: Committee Member (A. Ross)
*Visiting Professor, Campbell University
- 2022 – pres. *Garrett Braniecki*, Department of Geology, UNC Chapel Hill: Committee Member (D. Surge)
- 2022 – 2023 *Lillian Minnebo*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Primary Advisor
* Science Teacher, Grand Rapids School District
- 2022 – 2024 *Daria Khashchevskaya*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (L. Owen)
- 2021 – 2025 *Emma Heitmann*, Department of Earth and Space Sciences, University of Washington Seattle, WA: Committee Member (K.W. Huntington)
- 2021 – 2022 *Charl Cilliers*, Department of Earth Sciences, Stellenbosch University: Committee Member (R. Tucker)
- 2021 – 2023 *Sailaja Pappala*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (C. Arendt)
*Postdoctoral Fellow, Baylor University
- 2021 – 2024 *Josh Hedge*, Department of Biology, NCSU: Committee Member (L. Zanno)
*Visiting Assistant Professor, Lake Forest College
- 2021 – 2025 *Ian Grace*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (D. Eggleston)
- 2020 – pres. *Iffat Azmi*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Primary Advisor
- 2019 – pres. *Kyla Beguesse*, Department of Biology, NCSU: Committee Member (L. Zanno)
- 2017 – 2023 *Rebekah Rhodes*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Primary Advisor
* Postdoctoral Fellow, UC Davis

2017 – 2018	<i>Gantulga Bayasgalan</i> , Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (K. Wegmann) *Instructor, National University of Mongolia
2015 – 2019	<i>Julia Kelson</i> , Department of Earth and Space Sciences, University of Washington Seattle, WA: Committee Member (K.W. Huntington) * Assistant Professor, Indiana University
2015 – 2018	<i>Landon Burgener</i> , Department of Earth and Space Sciences, University of Washington Seattle, WA: Committee Member (K.W. Huntington) * See above

Graduate Students (M.S.):

2025 – pres.	<i>Olivia Schladt</i> , Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (K. Wegmann)
2024 – 2025	<i>Kris Symanski</i> , Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (M. Curry)
2023 – pres.	<i>Adam Moore</i> , Department of Marine, Earth & Atmospheric Sciences, NCSU: Primary Advisor
2023 – 2024	<i>Daniela Trujillo</i> , Department of Anthropology, NCSU: Committee Member (J. Wesp) * PhDc, Duke University
2023 – 2024	<i>Nathan McCuen</i> , Department of Biology, NCSU: Committee Member (L. Zanno)
2023 – 2024	<i>Emily Havard</i> , Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (C. Davis) * Lab Technician, MEAS
2022 – 2023	<i>Kay Jackson</i> , Department of Statistics, NCSU: Committee Member (E. Griffith) * Biostatistician, RTI International
2022 – 2023	<i>Shelby Littleton</i> , Department of Earth & Environmental Sciences, California State University Northridge: Committee Member (J. Cotton) *Geologist, Arcadis
2022 – 2024	<i>Muhammad Risha</i> , Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (P. Liu)
2021 – 2024	<i>Katie Berry</i> , Department of Marine, Earth & Atmospheric Sciences, NCSU: Primary Advisor *Staff Scientist, North Carolina Department of Environmental Quality
2020 – 2023	<i>Marlene Jensen/Violette</i> , Department of Plant and Microbial Biology, NCSU: Committee Member (M. Kleiner) *Technician/Analyst, Duke University GCB Proteomics Core Facility
2020 – 2022	<i>Ray Renaut</i> , Department of Earth Sciences, Stellenbosch University: Committee Member (R. Tucker) * Instructor, Somerset College
2020 – 2022	<i>Garrett Braniecki</i> , Department of Geology, UNC Chapel Hill: Committee Member (D. Surge)

- * See above
- 2017 – 2020 *Ashly Padgett*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Primary Advisor
- * Learning Technologist, University of Washington Continuum College
- 2018 – 2020 *Elizabeth Cardenal*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Primary Advisor
- * Staff Geologist, AECOM
- 2017 – 2019 *Allison Vo*, Department of Marine, Earth & Atmospheric Sciences, NCSU: Committee Member (E. Leithold)
- * Staff Geologist, Geosyntec Consultants

Undergraduate Research Students (B.S.):

- 2025 – pres. *Jenna Holt*, MEAS, NCSU
- 2024 – pres. *Emily Heiges*, Biology, NCSU
- 2023 – 2024 *Evan Williams*, MEAS, NCSU
- 2022 – 2025 *Luke Jones*, MEAS, NCSU
- *Geologist, NC Geological Survey
- 2022 – 2023 *Andrea Benz*, MEAS, NCSU
- 2022 – 2023 *Jaydon Desaulniers*, MEAS, NCSU
- * Navy OCS
- 2021 – 2022 *Elizabeth Baron*, MEAS, NCSU
- * Science Teacher, Franklin School of Innovation
- 2021 – 2022 *Edgar Lopez Roldan*, GES, UNC Pembroke
- 2021 – 2022 *Lindsey Davis*, Biology, Meredith College
- 2021 *Shadi Jabbour*, CALS, NCSU
- 2020 *Emily Wichman*, CNR, NCSU
- 2019 – 2020 *Matthew Poovey*, MEAS, NCSU
- 2017 – 2018 *Katia Lezine*, Environmental Sciences, UNC Chapel Hill
- * PhD, Brown University
- 2017 – 2018 *Aidan Burdick*, Geology, Carleton College: co-advised by D. Maxbauer
- * MS, Western Washington University
- 2013 – 2014 *Symone Bawol*, Earth and Environmental Sciences, University of Michigan Ann Arbor, MI: co-advised by S.Y. Smith
- 2011 – 2012 *Brigid Lynch*, Earth and Environmental Sciences, University of Michigan Ann Arbor, MI: co-advised by N.D. Sheldon
- * PhD, Indiana University
- 2010 – 2012 *Tess Nugent*, Earth and Environmental Sciences, University of Michigan Ann Arbor, MI: co-advised by N.D. Sheldon
- * Staff Geologist, Arcadis NV
- 2010 – 2011 *Sul-gi Yi Park*, Earth and Environmental Sciences, University of Michigan Ann Arbor, MI: co-advised by S.Y. Smith
- * PhD, University of Michigan

INVITED ADDRESSES, SEMINARS

- 2023 Reunión Argentina de Sedimentología/Congreso Latinoamericano de Sedimentología, *Invited Address/Keynote*
- 2022 University of Connecticut, *Department Seminar*
- 2020 New Mexico Institute of Mining and Technology, *Department Seminar*
- 2019 Thailand Department of Mineral Resources, *Invited Lecture*
- 2018 Appalachian State University, *Department Seminar*
- 2017 University of North Carolina, *Invited Lecture*
University of North Carolina, *Department Seminar*
Lehigh University, *Department Seminar*
- 2016 Los Alamos National Laboratory, *Invited Lecture*
University of Nevada Las Vegas, *Department Seminar*
San Francisco State University, *Department Seminar*
North Carolina State University, *Department Seminar*
Occidental College, *Invited Lecture*
- 2015 Western Washington University, *Department Seminar*
University of Idaho, *Department Seminar*
Pacific Science Center, *Invited Lecture*
Seattle University, *Invited Lecture*
- 2014 University of Washington, *Department Seminar*
Colorado College, *Department Seminar*
- 2013 College of the Atlantic, *Department Seminar*
Saudi Geological Survey, *Invited Lecture*
- 2012 Jeddah Museum of Paleontology, *Invited Lecture*

OTHER MEDIA, INTERVIEWS

- 2023 *Teaching Highlight*, DELTA News (NCSU)
- 2021 *Research Highlight*, American Geophysical Union Eos (v. 102)
- 2019 *Media Interview*, Duke University
- 2017 *Media Interview*, The Atlantic
Cover Story/Image, Geological Society of America Bulletin (January)
Media Interview, Scientific American
Media Interview, Geological Society of America Today
- 2016 *Cover Story*, Burke Museum Science Blog (December)
Media Interview, Burke Museum of Natural History and Culture
Media Interview, Science News
- 2015 *Media Interview*, KEXP Seattle Science Café

BIBLIOGRAPHY

Citation record and indices: <http://scholar.google.com/citations?user=yKoBHIIAAAAJ&hl=en>
 PDFs of papers available at: https://www.researchgate.net/profile/Ethan_Hyland

Bold = PI author

Underlined = Student/postdoc author

IN-PROGRESS PUBLICATIONS:

- 17) **Hyland, E.G.**, Huntington, K.W., Strömberg, C.A.E., Lechler, A., *in preparation*, Palouse loess sequence records glacial-interglacial ecological change.
- 16) **Hyland, E.**, Zalmout, I.S., Gingerich, P.D., Alsobhi, S.A., Al-Masari, A.M., and Nadrah, A.O., Al-Mufareeh, Y.A., *in preparation*, Characteristics of Afro-Arabian primate habitats during the Oligocene: New evidence from the Shumaysi Formation (Kingdom of Saudi Arabia).
- 15) Ward, P., Mitchell, R., **Hyland, E.G.**, *in preparation*, Oldest known Nautilus, Allonautilus fossils resolve “Baja-BC” translation.
- 14) **Hyland, E.**, Sheldon, N., Smith, S., Azmi, I., *in preparation*, Late Cretaceous–Paleogene paleobarometry, paleoclimate, and paleovegetation of Montana (Renova Fm.).
- 13) Long, N., Ross, A., **Hyland, E.**, *in preparation*, Taphonomic effects on oxygen and carbon isotopes in bone carbonate: Biology Special Issue.
- 12) Raigemborn, M.S., Zucol, A., **Hyland, E.**, *in preparation*, Early Eocene paleosols from the Cañadon Vaca: Paleoclimates and paleoenvironments of Patagonia.
- 11) Rhodes, R.L., Burgener, L.K., Reich, B., Scotese, C., **Hyland, E.G.**, *in preparation*, Climate zone maps for key paleoclimate events: Quantitative compilations and Köppen-style interpolation improve Paleogene predictions.
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- 34) Azmi, I., **Hyland, E.**, Cotton, J., Ghosh, A., Raigemborn, M.S., Tineo, D., Hauswirth, S.C., Insel, N., 2025, Late Miocene expansion of grasslands in northwest Argentina linked to shifting hydroclimate: a complex interaction of tectonics, climate, and ecology: Geological Society of America Bulletin: <https://doi.org/10.1130/B37868.1>.
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