

CURRICULUM VITAE

Anna E. Braswell

Earth Lab, CIRES, University of Colorado Boulder
anna.braswell@colorado.edu, 404.372.0555, <http://annabraswell.weebly.com/>
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EDUCATION

Duke University, Durham, NC 2012-2017
Ph.D. Environmental Science, Nicholas School of the Environment
University of Alabama, Tuscaloosa, AL 2008-2010
M.S. Biology, Department of Biological Sciences
Washington University in St. Louis, MO 2002-2006
B.A. Environmental Studies, College of Arts and Sciences

PROFESSIONAL APPOINTMENTS

Postdoctoral Research Associate 2018-Present
Earth Lab, CIRES, University of Colorado Boulder
Using Zillow data to investigate the interactions between coastal wetlands and settlement of coastal communities. Collaborating with a team of geographers, demographers and data analytics experts.

Graduate Research Assistant 2012-2017
Nicholas School of the Environment, Duke University
Completed interdisciplinary work on understanding the drivers of wetland persistence, including geospatial analysis of estuarine morphology, watershed characteristics and vegetation/erosion feedbacks. Led a field project collecting sediment cores to elucidate the varied drivers of wetland formation.

Graduate Research Assistant 2008-2010
Department of Biological Sciences, University of Alabama
Investigated the effects of multiple disturbances (fire and hurricanes) on coastal wetland soil building and biogeochemistry in a Gulf Coast marsh. Completed field and lab work to analyze nutrients, plant recovery and accretion.

PUBLICATIONS

Braswell, A.E., and J. Heffernan. (in press). Macroscale morphology and land-ocean interactions control continental-scale coastal wetland distributions through local feedbacks. *Ecosystems*.

Heffernan, J.A., X. Dong, and **A.E. Braswell**. (2018). Multiple Stable States and Regime Shifts. *Oxford Bibliographies in Environmental Science*. Eds. E. Wohl. New York: Oxford University Press, March 28, 2018. <http://www.oxfordbibliographies.com/view/document/obo-9780199363445/obo-9780199363445-0095.xml#firstMatch>.

Ratliff, K., **A.E. Braswell**, and M. Marani. (2015). Spatial response of coastal marshes to increased atmospheric CO₂. *Proceedings of the National Academy of Sciences* 112: 15580-15584.

Braswell, A.E., and B. Slusar. (2006). Effects of vegetation structure on diversity and abundance of bats in Northern Kruger National Park, South Africa. *Apex Journal* (Washington University in St. Louis).

MANUSCRIPTS IN REVIEW OR PREPARATION

Braswell, A.E., J. Cherry, and C. May. (in review). Spatially-dependent patterns of plant recovery and sediment accretion following disturbances in a Gulf Coast tidal marsh. *Wetlands Ecology and Management*.

Braswell, A.E., D. Connor and S. Leyk. (in prep). Historical development of the coastal United States: Expansion and densification of areas vulnerable to sea level rise. *Global Environmental Change*.

Braswell, A.E., M. Kirwan, and J. Heffernan. (in prep). How old are marshes on the East Coast, USA? Location and landform affect temporal drivers of wetland formation. *Journal of Geophysical Research*.

Braswell, A.E., X. Dong, and J. Heffernan. (in prep). Biogeophysical and anthropogenic drivers of regional coastal wetland extent. *Global Ecology and Biogeography*.

Braswell, A.E., M. Ross, and J. Mallard. (in prep). Novel Geomorphology: Anthropogenic change to geomorphic structures. *Earth's Future*.

AWARDS

Current

Linking terrestrial pollution to estuarine water quality in Elkhorn Slough, CA. NOAA CA Sea Grant. \$250,000 (December 2018 – November 2021). Zimmer (PI), Braswell and Seybold.

Completed

Understanding broadscale drivers of coastal wetland extent. NOAA NC Sea Grant. Project # R/MG-1504. \$40,000 (2015). Heffernan (PI). Co-authored this state-wide NOAA grant with my advisor.

Watershed, estuarine, and local drivers of coastal marsh establishments and resilience. NSF Geomorphology and Landuse Dynamics Grant. Project #1530233. \$350,000 (2015). Heffernan (PI), Kirwan, Marani, Murray. Collaborated and contributed to a proposal with my adviser and dissertation committee.

Wetland Center Student Grant, Duke University. \$5,000 (2015). Braswell (PI).

HONORS

Postdoctoral Association of Colorado Boulder Travel Award	2018
Best Student Poster Presentation Award, Society of Wetland Scientists	2017
Graduate Summer Research Fellowship, Duke Graduate School	2017
Dean's Award for Outstanding Ph.D. Student Paper, Nicholas School of the Environment	2016
Garden Club of America Coastal Wetland Scholarship	2013
Graham Prize for Outstanding Achievement in Biology, University of Alabama	2010
Chimes Honorary Society, Washington University in St. Louis	2004

INVITED SEMINARS AND PRESENTATIONS

Braswell, A.E. Conceptualizing coastal wetlands as biogeomorphic macrosystems. Regis University, 2018.

CONTRIBUTED PRESENTATIONS (*denotes poster presentation)

Braswell, A.E. and S. Leyk. 2018. Historic trajectories of Human Settlement in the 100-year floodplains of the United States. National Socio-Environmental Synthesis Center, Annapolis, MD.

Braswell, A.E. and J. Heffernan. 2017. How old are marshes along the East Coast, USA? Understanding the temporal drivers of marsh formation. Society of Wetland Scientists, San Juan, PR.*

Braswell, A.E. and J. Heffernan. 2016. Understanding scale: Local biogeomorphic feedbacks and macro-scale drivers shape coastal wetland distributions. American Geophysical Union, San Francisco, CA.

Braswell, A.E. and J. Heffernan. 2016. North Carolina Wetland Resilience Symposium, Durham, NC.

Braswell, A.E. and J. Heffernan. 2015. Where do coastal wetlands form?: Understanding the broadscale drivers of coastal wetland extent. Coastal and Estuarine Research Federation, Portland, OR.

Braswell, A.E. and J. Heffernan. 2014. Understanding broadscale drivers of coastal wetland extent. American Geophysical Union, San Francisco, CA.*

Marani, M., R.M. Ratliff, and A.E. Braswell. 2014. Climate change impacts on coastal marsh survival mediated by vegetation-geomorphology feedbacks. American Geophysical Union, San Francisco, CA.*

Braswell, A.E. and J. Heffernan. 2014. Understanding the broad-scale and local drivers of coastal wetland extent and persistence: A macroscale GIS study. Joint Aquatics Sciences Meeting, Portland, OR.*

Braswell, A.E. and J. Cherry. 2012. Spatial variation of resilience along an elevation gradient in a coastal wetland. American Geophysical Union - Chapman Meeting, Reston, VA.*

Braswell, A.E., J. Cherry and C. May. 2010. Interactive effects of hurricanes and fire along an elevation gradient in a *Juncus roemerianus* marsh. Society of Wetland Scientists, Salt Lake City, UT.

Braswell, A.E., J. Cherry and C. May. 2009. The role of hurricane and fire disturbance on plant productivity and accretion in a saltwater marsh in Grand Bay National Estuarine Research Reserve, MS. Society of Wetland Scientists, Denton, TX.

SYNERGISTIC ACTIVITIES

Co-Chair and Creator, Earth Lab Incubator	Ongoing
Contributing Scientist, Skype a Scientist	Ongoing
Group Leader, Earth Lab Extremes Collider and Extremes Codefest	2018
NSF Scoping Workshop – Coasts and People	2018
Invited Presenter, Society of Wetland Scientists Twitter Conference	2018
Contributing Scientist, Letters to a Pre-Scientist	2017
Assistant Stage Manager, March for Science – Denver	2018
Invited Panelist, Women in Science and Engineering	2016
Chair and Organizer, North Carolina Wetland Resilience Symposium	2015-2016

Faculty-Student Liaison, Nicholas Ph.D. Advocacy Council, Duke University	2015-2016
Special Events Coordinator, SWS, Duke University - Student Chapter	2015-2016
Mentor and Volunteer, MEDMentors, Duke University	2014-2015
Treasurer, SWS, Duke University - Student Chapter	2013-2015
Co-Chair and organizer, Graduate Afternoon Seminar, Duke University	2013-2014
Founder, SWS, Alabama - Student Chapter	2009-2011

Member: Women in Wetlands - SWS

Manuscript Review: *Ecosystems; Hydrology and Earth System Sciences; Wetlands*

Member: Society of Wetland Scientists (SWS), American Geophysical Union

TEACHING

Regis University

BL664A: Wetland Delineation Spring 2019

BL668/691: Environmental Biology Externship Spring 2019

Duke University (as Teaching Assistant)

ENV 102: Introduction to Environmental Science and Policy Spring 2014, Spring 2015

ENV 621: Water Resources, Finance and Planning Fall 2013

ENV 823: Ecosystem Resilience and Ecosystem Management Spring 2013, Fall 2014

ENV 823: Ecosystem Resilience and Ecosystem Management Fall 2016

Substitute lecturer while advisor was on paternity leave

University of Alabama (as Teaching Assistant)

BSC 115: (Instructor of two lab sections) Biology I Laboratory Fall 2009

BSC 117: (Instructor of two lab sections) Biology II Laboratory Spring 2010

MENTORING

Master Student Research Assistants:

Kelley Robbins-Thompson (MEM; Duke University)

Diego Calderon-Arrieta (MEM; Duke University)

Sara Cleaver (MEM; Duke University)

Alaurah Moss (MEM; Duke University)

Rebecca Cope (MEM; Duke University)

Sarah Ludwig-Monty (MEM; Duke University)

Undergraduate Research Assistants:

Danilo Meyer-Arrivillaga (B.S.; Juanita College)

Sarah Masterson (B.S.; University of Alabama)

Diana Schneider (B.S.; University of Alabama)

Ryan Cooper (B.S.; University of Alabama)

Mason Overstreet (B.S.; University of Alabama)

High School Research Assistants:

Natalie Sherman-Jollis (North Carolina School of Science and Math)

OTHER COURSES TAKEN

Leadership Skills for Success, Earth Science Women's Network 2018

Data Carpentry, Durham, NC 2014

PALEON Pollen Analysis Short Course, University of Maine 2014

Organization of Tropical Studies, South Africa 2005

NONACADEMIC WORK

Biologist

2010-2012

U.S. Fish and Wildlife Service, Recovery Branch, CA

Worked with stakeholders to recover species and restore habitat in southern California.

Negotiated with US Navy to come to consensus on protection of endangered species on Navy land.

Biologist

2008

U.S. Fish and Wildlife Service, Listing Branch, CA

Synthesized and distilled research to determine species listings as threatened or endangered.

Wrote technical listing documents for the federal register.