

Amy K. Langston

Curriculum Vitae

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EDUCATION

Ph.D., Environmental Engineering Sciences, University of Florida, Florida Expected 2017
M.S., Biology, San Francisco State University, California 2008
B.S., Ecology & Systematic Biology, California Polytechnic State University,
San Luis Obispo, California 2002

PUBLICATIONS

Langston, A., D. Kaplan, and F. Putz. *In press*. A casualty of climate change? Loss of freshwater forest islands on Florida's Gulf Coast. *Global Change Biology* (accepted 8 Jun 2017). DOI: 10.1111/gcb.13805.

Langston, A., D. Kaplan, and C. Angelini. 2017. Predation restricts black mangrove (*Avicennia germinans*) colonization at its northern range limit along Florida's Gulf Coast. *Hydrobiologia* DOI: 10.1007/s10750-017-3197-0.

AWARDS AND FELLOWSHIPS

2017 Student Travel Grant Award, UF Wetlands Club
2016 Best Student Oral Presentation, National Conference on Ecosystem Restoration
2016 Student Travel Grant Award, Society of Wetland Scientists
2016 Student Travel Grant Award, UF Wetlands Club
2015 H.T. Odum Fellowship, Engineering School of Sustainable Infrastructure and Environment, University of Florida
2015 Student Travel Grant Award, Society of Wetland Scientists
2015 First Place Student Poster Competition, American Water Resources Association
2013 Academic Scholarship, Engineering School of Sustainable Infrastructure and Environment, University of Florida
2013 University of Florida Graduate School 4-Year Fellowship

CONFERENCE PRESENTATIONS

Langston, A. and D. Kaplan. 2017. Propagule density threshold for overcoming predation pressure in areas of black mangrove (*Avicennia germinans*) expansion. Society of Wetland Scientists, June 5-8, Puerto Rico.

Langston, A., T. Ankersen, and D. Kaplan. 2017. Natural Resource Adaptation Action Areas: Incorporating sea level rise adaptation into rural coastal community comprehensive planning. UF Levin College of Law 23rd Annual Public Interest Environmental Conference, February 9-11, Gainesville, FL.

Langston, A., D. Kaplan, and C. Angelini. 2017. Biotic and abiotic controls on the northern range expansion of black mangroves (*Avicennia germinans*). UF/IFAS Nature Coast Biological Station Big Bend Science Symposium, February 1-3, Cedar Key, FL.

- Langston, A., T. Ankersen, and D. Kaplan. 2017. Preparing For the Future: Integrating Science into Rural Coastal Community Comprehensive Planning. Poster at the UF/IFAS Nature Coast Biological Station Big Bend Science Symposium, February 1-3, Cedar Key, FL.
- Langston, A. and D. Kaplan. 2016. Planning for the future: climate change-induced reassembly trajectories along the Big Bend coast of Florida. Society of Ecological Restoration, Southeast Chapter Annual Symposium October 18-21, Quincy, FL.
- Langston, A. and D. Kaplan. 2016. Investigating Top-down and Bottom-up Influences on Black Mangrove (*Avicennia germinans*) Encroachment in Forested Freshwater Islands Along the Big Bend Coast of Florida. Poster at the Association of Environmental Engineering & Science Professors Distinguished Lecture & Poster Session, September 30, 2016, Gainesville, FL.
- Langston, A. and D. Kaplan. 2016. Top-down ecological controls limit climate change induced expansion of black mangroves (*Avicennia germinans*). Ecological Society of America Annual Meeting, August 7-12, Fort Lauderdale, FL.
- Langston, A. and D. Kaplan. 2016. Investigating top-down and bottom-up influences on black mangrove (*Avicennia germinans*) encroachment in forested freshwater islands along the Big Bend coast of Florida. Talk and poster at the 4th Mangrove & Macrobenthos Meeting, July 18-22, St. Augustine, FL.
- Langston, A. and D. Kaplan. 2016. Patterns of coastal forest decline and expansion along the Big Bend coast of Florida. Society of Wetland Scientists Annual Meeting, May 31-June 4, Corpus Christi, TX.
- Langston, A., T. Ankersen, and D. Kaplan. 2016. Natural Resource Adaptation Action Areas: A planning framework for restoration. National Conference on Ecosystem Restoration, April 18-22, Coral Springs, FL.
- Langston, A. and D. Kaplan. 2016. Sea Level Rise and the Future of Florida's Forested Freshwater Islands. Poster at the 5th UF Water Institute Symposium, February 16-17, Gainesville, FL.
- Langston, A. and D. Kaplan. 2016. Investigating top-down and bottom-up influences on black mangrove (*Avicennia germinans*) encroachment in forested freshwater islands along the Big Bend coast of Florida. UF/IFAS Nature Coast Biological Station Big Bend Science Symposium, January 28-29, Cedar Key, FL.
- Langston, A. and D. Kaplan. 2015. A Casualty of Climate Change: Long-term Vegetation Trends in a Patchy Coastal Wetland. Poster at the Society of Wetland Scientists South Atlantic Chapter Meeting, October 26-27, Athens, GA.
- Langston, A. and D. Kaplan. 2015. A casualty of climate change: long-term vegetation trends in a patchy coastal wetland. Society of Wetland Scientists Annual Meeting, May 31-June 4, Providence, RI.
- Langston, A. and D. Kaplan. 2015. A Casualty of Climate Change: Long-term Vegetation Trends in a Patchy Coastal Wetland. Poster at the UF Engineering School of Sustainable Infrastructure and Environment Annual Research Symposium, March 19, Gainesville, FL.
- Langston, A. and D. Kaplan. 2015. A Casualty of Climate Change: Long-term Vegetation Trends in a Patchy Coastal Wetland. Poster at the American Water Resources Association: Annual Southwest Florida Water Resources Conference, February 6, Fort Myers, FL.
- Langston, A., D. Kaplan, T. Ankersen, N. Barshel, S. Fida, and G. Davidson. 2014. Integrating science into comprehensive planning for sea level rise adaptation in rural coastal

communities. Florida Society of Social Sciences Annual Conference of the Social Sciences, March 29, Gainesville, FL.

Langston, A., D. Kaplan, T. Ankersen, N. Barshel, and Saira Fida. 2014. Integrating science into comprehensive planning for sea level rise adaptation in rural coastal communities. Poster at the 4th UF Water Institute Symposium, February 27, Gainesville, FL.

Langston, A., D. Kaplan, T. Ankersen, N. Barshel, S. Fida, and G. Davidson. 2014. Using blue infrastructure, adaptation science, and education-based tourism to drive a sustainable economy in a rural coastal community. National Oceanic and Atmospheric Administration Coastal Services Center Social Coast Forum, February 18-20, Charleston, SC.

Langston, A. and T. Fraser. 2009. Effects of restoration and monitoring activities on Santa Clara Valley dudleya (*Dudleya setchellii*). California Native Plant Society Conservation Conference, January 17-19, Sacramento, CA.

Langston, A. and E. F. Connor. 2005. Effects of host-plant quality and microenvironment on *Cameraria sempervirensella*, a leafmining moth on *Chrysolepis sempervirens* and *Quercus vaccinifolia* in the Sierra Nevada. California Botanical Society Graduate Student Meeting, February 19, Tiburon, CA.

TEACHING EXPERIENCE

University of Florida

Ecological Engineering Lecture (Graduate Teaching Assistant, Spring Terms 2016-2017)

Ecological Engineering Lab (Graduate Teaching Assistant, Spring 2015)

Applied Ecology (Graduate Teaching Assistant, Spring 2014)

Holy Names University

Fundamentals of Physiology (Adjunct Professor, Spring & Fall 2005)

San Francisco State University

Plant Taxonomy (Graduate Teaching Assistant, Spring 2005)

Introductory Biology II Lab (Graduate Teaching Assistant, Fall 2003 & 2004, Spring 2004)

Human Biology Lab (Graduate Teaching Assistant, Spring 2003)

General Microbiology Lab (Graduate Teaching Assistant, Fall 2002, Spring 2003)

RESEARCH EXPERIENCE

2017-Present Effects of snail grazing on red and black mangrove encroachment into cordgrass-dominated marshes

2016-Present Dissertation research: Black mangrove propagule density and relative influences of predation and abiotic controls on range expansion

2015-Present Dissertation research: Predation pressure on black mangrove range expansion

2014-Present Dissertation research: Coastal freshwater forest reassembly trajectories

2014-Present Mangrove Migration Network: Network of research sites investigating effects of freeze events on mangroves (Collaboration with USGS, National Wetlands Research Center, Dauphin Island Sea Lab, Northeastern University, Texas A&M, UF Watershed Ecology Lab)

2013-2014 Yankeetown Adaptation Action Plan: Sea level rise adaptation plan for Yankeetown, FL (Collaboration with UF Levin College of Law Conservation Clinic and UF Watershed Ecology Lab)

- 2004-2008 Master's thesis: "Population dynamics of *Cameraria sempervirensella* (Lepidoptera: Gracillariidae) in the Sierra Nevada"
- 2003-2005 CALFED Integrated Regional Wetland Monitoring Pilot Project in San Francisco Bay-Delta (Collaboration with SFSU, University of San Francisco, UC Berkeley)
- 2002-2003 Environmental Monitoring and Assessment Program (EMAP) for San Francisco Bay Area wetlands (Collaboration with SFSU and San Francisco Estuary Institute)

DEPARTMENT SERVICE

- UF Engineering School of Sustainable Infrastructure and Environment (ESSIE) Mentoring Program for Undergraduates: Event Panelist, 2016
- UF College of Engineering Search for Associate Dean for Academic Affairs: Student Interviewer, 2014

EXTRACURRICULAR UNIVERSITY SERVICE

- 2017 UF/IFAS Nature Coast Biological Station, Mentor to undergraduate intern
- 2017 UF *Journal of Undergraduate Research*, Member of the Editorial Board
- 2014-2015 UF Engineering Graduate Student Council, Member
- 2014-2015 UF ESSIE ENVOYS (Graduate Student Advisory Group), Member

COMMUNITY INVOLVEMENT

- 2017 Volunteer for WiSE Girls Spring Science Camp for 6th and 7th grade girls
- 2017 Speaker at the Friends of the Withlacoochee Gulf Preserve Talk Series: Effects of Climate Change and Crabs on Mangrove Colonization Along the Nature Coast. March 17, Yankeetown, FL.
- 2016 Field Trip Leader for Florida Fish & Wildlife Conservation Commission Climate Change Workshop, Withlacoochee Gulf Preserve, Yankeetown, FL.
- 2015 Speaker at the Alachua Conservation Trust Fall Speaker Series: A Casualty of Climate Change: Long-Term Vegetation Trends in a Patchy Coastal Wetland. October 15, Gainesville, FL.
- 2014 Organizer for Bioblitz citizen-science event at the Withlacoochee Gulf Preserve, March 15-16, Yankeetown, FL.

MEDIA COVERAGE

- 2016 UF Explore Magazine feature "Big Bend Laboratory"
- 2015-2016 Florida Museum of Natural History featured exhibit "Our Changing Climate: Sea Level Rise"

RELATED PROFESSIONAL TRAINING

- 2017 NEON Data Institute: Remote Sensing with Reproducible Workflows workshop, Boulder, CO (Attendee)
- 2017 MARSFest 2017: Introduction to the Multi Agent Research and Simulation (MARS) Platform for Large Scale Agent Simulation, Gainesville, FL (Attendee)

RELATED PROFESSIONAL SKILLS

Experienced in ArcGIS (including experience with Spatial Analyst tools), R, MINITAB, PC-ORD, SAS, SPSS, and Sigma Plot.

Limited experience using Python, Jupyter Notebooks, GitHub and reproducible workflows, MARS, NETLOGO, hyperspectral and LiDAR remote sensing data

NON-ACADEMIC WORK

2011-2013 URS Corporation, Oakland, CA: Senior Wetland Scientist

2005-2010 WRA, Inc., San Rafael, CA: Senior Biological Technician

2003-2004 National Park Service, Pt. Reyes National Seashore, CA: Seasonal Biological Technician

2001-2002 U.S. Forest Service, Modoc National Forest, CA: Seasonal Biological Technician

PROFESSIONAL MEMBERSHIPS

Ecological Society of America

Society of Wetland Scientists

Association for Women in Science

Florida Native Plant Society

California Native Plant Society