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CURRENT POSITION

2012-2015 National Science Foundation (NSF) Postdoctoral Research Fellow in Biology (PRFB).
Adjunct Researcher at Argonne National Laboratory, Chicago.
Project title: Effects of nutrient availability and warming on greenhouse gas fluxes from lowland tropical forest soils: An integrated approach.
Advisors: Dr. Cory C. Cleveland (University of Montana) and Dr. Edward J. O'Loughlin (Argonne National Laboratory)

EDUCATION

Ph.D. 2012 Interdisciplinary Ecology. School of Natural Resources and the Environment, University of Florida, Gainesville.
Concentration: Water and soil science
Dissertation title: Biological processes influencing nutrient limitation in a tropical wet forest.
Advisor: Dr. Michelle C. Mack (Department of Biology)

M.S. 2005 Botany, University of Florida, Gainesville.
Minor: Statistics
Thesis title: Biomechanical properties of tropical tree seedlings as a functional basis for shade tolerance.
Advisor: Dr. Kaoru Kitajima

B.S. 2001 Biology, Universidad de Costa Rica, San José.

AWARDS

2012 Postdoctoral Research Fellowship in Biology (PRFB). National Science Foundation, \$180,000.

2009 Doctoral Dissertation Enhancement Project (DDEP). National Science Foundation, \$20,000.

2008 Outstanding Academic Achievement Award for International Students (during PhD). College of Liberal Arts and Sciences, University of Florida.

- 2007 Tropical Conservation and Development Research Fellowship, University of Florida, \$2,000.
- 2006 Marilyn Little Scholarship for Female International Students. Altrusa Foundation, Gainesville, Florida, \$500.
- 2004 Outstanding Academic Achievement Award for International Students (during M.S.). College of Liberal Arts and Sciences, University of Florida.
- 2003 Supplementary Research Award. Smithsonian Tropical Research Institute (STRI), Panamá, \$500.
- 2003 Tropical Conservation and Development Research Fellowship, University of Florida, \$2,000.

PUBLICATIONS

Cleveland, C. C, A. R. Townsend, P. Taylor, **S. Alvarez-Clare**, M. M. C. Bustamante, G. Chuyong, P. Grierson, K. Harms, B. Z. Houlton, A. Marklein, W. Parton, S. Porder, S. C. Reed, C. A. Sierra, W. L. Silver, , E. J. R. Tanner & W. R. Wieder (2011). Relationships among net primary productivity, nutrients and climate in tropical rain forest: a pan-tropical analysis. *Ecology Letters* 14: 939-947.

Alvarez-Clare, S. & M. C. Mack (2011). Influence of precipitation on soil and foliar nutrients across nine Costa Rican forests. *Biotropica* 43: 433 –441.

Knapp, C. R., **S. Alvarez-Clare** & C. Perez-Heydrich (2010). The influence of landscape heterogeneity and dispersal on survival of neonate insular iguanas. *Copeia*: 62 –70.

Alvarez-Clare, S. & K. Kitajima (2009). Susceptibility of tree seedlings to biotic and abiotic hazards in the understory of a moist tropical forest. *Biotropica* 41: 47–56.

Alvarez-Clare, S. & K. Kitajima (2007). Physical defense traits enhance seedling survival of neotropical tree species. *Functional Ecology* 21: 1044–1054.

Alvarez-Clare, S. & G. Avalos (2007). Light interception efficiency of the understory palm *Calyptrogyne ghiesbreghtiana*. *Ecotropica* 13: 57–65.

MANUSCRIPTS IN PREPARATION

Alvarez-Clare, S., M. C. Mack & M. Brooks. A Direct test of nitrogen and phosphorus limitation to net primary productivity in a lowland tropical wet forest. *Ecology* (in review).

Alvarez-Clare, S. & M. C. Mack. Do foliar, litter, and root nitrogen and phosphorus concentrations reflect nutrient limitation in a lowland tropical wet forest? *New Phytologist* (in review).

Knapp, C. R. & S. Alvarez-Clare. Influence of nutritional and physical leaf traits on food selection of an herbivorous lizard. *Journal of Tropical Ecology* (in review).

PRESENTATIONS

- 2012 Ecological Society of America (ESA), Portland, Oregon. Biological processes influencing nutrient limitation in a lowland tropical forest. Oral presentation.
- 2010 Ecological Society of America (ESA), Pittsburgh, Pennsylvania. *Do P or N limit tree growth in a tropical wet forest?*, Oral presentation.
- 2010 Undergraduate Research Symposium, Department of Biology, University of Florida. *Spatial and temporal variation of light reaching the understory in a wet tropical forest in Costa Rica*, Poster presentation with mentored undergraduate student.
- 2009 South Eastern Ecology and Evolution Conference (SEEC), Gainesville, Florida. *Effects of fertilization on survival, growth, and nutrient concentrations of seedlings from two tropical trees*, Poster presentation with mentored undergraduate student.
- 2007 Association of Tropical Biology and Conservation (ATBC), Morelia, Mexico. *Environmental controls over foliar nutrient concentrations in tropical rainforests*, Poster presentation.
- 2005 Ecological Society of America (ESA), Portland, Oregon. *Biomechanical properties of tropical tree seedlings as a functional basis for shade tolerance*, Poster presentation.
- 2005 Department of Botany, University of Florida, Botany Seminar Series. *Biomechanical properties of tropical tree seedlings as a functional basis for shade tolerance*, Oral presentation.

TEACHING EXPERIENCE

Lecturer, *Introductory Ecology* (PCB 4043), University of Florida, Gainesville, 2010

Teaching assistant, *Plant Ecology* (PCB 3601L), University of Florida, Gainesville, 2009

Teaching assistant, *Methods in Ecosystems Ecology* (BOT 6935), University of Florida, Gainesville, 2007

Teaching assistant, *Plant Ecology* (PCB 3601L), University of Florida, Gainesville, 2004

Teaching assistant, *Introductory Ecology* (PCB 3034L), University of Florida, Gainesville, 2003

Teaching assistant, *Introductory Biology* (BSC 2010L), University of Florida, Gainesville, 2003

Teaching assistant, *Introductory Botany* (BOT 2010L), University of Florida, Gainesville, 2002

High school teacher, *International Baccalaureate (IB) Biology Program* and "*Bachillerato Nacional*," Biology Program, Senior level, Lincoln High School, San José, Costa Rica, 2001

Teaching assistant, *Introductory Biology*, Universidad de Costa Rica, San José, 2000

Teaching assistant, *Introductory Biology for Non-majors*, Universidad de Costa Rica, San José, 1999

GUEST LECTURER

Universidad de Costa Rica, San José, *Natural History of Costa Rica*. Profesor Gerardo Avalos, 2009

Escuela de Agricultura de la Región Tropical Húmeda (Universidad EARTH), Pocora, Costa Rica, *Economic and Ecologic Valuation of Natural Resources*. Profesor Edmundo Castro, 2008

University of Florida, Gainesville, *Plant Ecology*. Profesor Morgan Varne, 2004

University of Florida, Gainesville, *Introductory Ecology*. Profesor Edward Schuur, 2003

MENTORING EXPERIENCE

2008-2011 Mentoring of two undergraduate students who developed projects in Costa Rica as part of a South Eastern Alliance for the Graduate Education and Professoriate (SEAGEP) / Research Experience for Undergraduates (REU) scholarship. Mentoring of four other undergraduate students from University of Florida who served as field assistants in Costa Rica and took research credits under my supervision.

2007 Mentoring of two Mexican students from the Universidad Nacional Autónoma de México (UNAM), who assisted me at my Costa Rican field site during summer 2007.

2007- 2009 Mentoring of two Costa Rican students from Universidad EARTH and Universidad de Costa Rica in individual projects related to my PhD dissertation research in Costa Rica.

RESEARCH EXPERIENCE

2006- Present Biological processes influencing nutrient limitation in a tropical rainforest. EARTH University Forest Reserve, Pocora, Costa Rica.

2008-Present Demography, population stability, and food selection of an endangered, herbivorous Bahamian iguana. Exuma Islands, Bahamas. Collaboration with Dr. Charles Knapp, John G. Shedd Aquarium, Chicago.

2005 Functional ecology of the gametophytes and sporophytes of tropical ferns. Dissertation research for E.J. Watkins, Department of Botany, University of Florida. Research at La Selva Biological Station, Sarapiquí, Costa Rica.

2003- 2005 Biomechanical Properties of Tropical tree seedlings as a functional basis for shade tolerance. Barro Colorado Island, Smithsonian Tropical Research Institute (STRI), Panama.

2002 Trade-offs in tropical tree seedlings. Barro Colorado Island, Smithsonian Tropical Research Institute (STRI), Panama. PI: Dr. Kaoru Kitajima.

2001 Genetic characterization of *Bactris gasipae* populations in Costa Rica. Centro de Investigación en Biología Celular y Molecular (CIBCM), Universidad de Costa Rica, Costa Rica. PI: M.S. Elena Castillo.

2000-2001 Light interception efficiency of the understory palm *Calyptrogyne ghiesbreghtiana*. Quebrada Gonzalez, Costa Rica.

OTHER RELEVANT EXPERIENCE

2010 NSF-funded Pan American Advanced Studies Institute (PASI) course. "Expanding the frontier in tropical ecology through embedded sensors" La Selva Biological Station, Costa Rica.

2001-2002 Assistant curator, Herbarium USJ, Universidad de Costa Rica, Costa Rica

INTERNATIONAL WORKGROUPS

2008-2010 Invited participant in an international working group at NCEAS (National Center for Ecological Analysis and Synthesis), Santa Barbara, California. The workshop was titled "Revisiting Nutrient Limitation in Tropical Forests", and was organized by Dr. A. Townsend & Dr. C. Cleveland (NCEAS project #12147).

2008-2009 In collaboration with Dr. Wesley Ingwersen (EPA) and students from the Environmental Law Program at University of Florida, I conducted a workshop in Costa Rica concerning the possibility of developing an Environmental Product Declaration (EPD) for pineapple production in the country. I facilitated the workshop and co-authored a report to the government concerning the industry.

PROFESSIONAL SOCIETIES

Ecological Society of America
Association for Tropical Biology and Conservation

SERVICE

2012 Oral session presider at ESA annual meeting, Portland, Oregon.

2010 Coordinator of the Undergraduate Research Symposium in the Department of Biology, University of Florida.

2008 Graduate Student Liaison for the Department of Botany, University of Florida

2005-2011 Member of the International Student Speaker Bureau, University of Florida. As part of ISSB I gave lectures about Costa Rica to children from elementary and middle schools in Alachua County.

2003-2011 Volunteer for Alachua County Elementary School Voluntary Program, Gainesville, Florida. I gave multiple lectures on Botany, Cultural Diversity, and Costa Rica.

2003-2010 Judge for Scientific Fairs at Alachua County middle schools, Florida

2004 & 2008 Graduate student coordinator of the invited-seminar-speaker. Department of Botany, University of Florida

2003 & 2004 Secretary of the Society of Plant Biology (SPB). Department of Botany, University of Florida

2000 Secretary of the Association of Biology Students, Universidad de Costa Rica

2000 Created bird-list for the Barra Honda National Park, Guanacaste, Costa Rica.
Student Community Work Program (TCU), Universidad de Costa Rica

Manuscript reviewer: American Journal of Botany, Archivos de Medicina Veterinaria (in spanish), Atmospheric Environment, Biotropica, Ecotropica, Journal of Geophysical Research, Oecologia, Plant Ecology, Plant Ecology & Diversity.

LANGUAGES

English, Spanish, French (read)