

CURRICULUM VITAE

LUIS ESTEBAN VARGAS-CASTRO

Ph.D. Candidate, Department of Biology
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Research Interests

Behavioral ecology, acoustic communication, bioacoustics, biodiversity conservation, static allometry

Education

University of Miami, FL, USA. Ph.D. Student. Advisor: W. Searcy	2011–present
University of Costa Rica, San José, Costa Rica. Lic. in Zoology. Advisor: G. Barrantes	2013
University of Costa Rica, San José, Costa Rica. B.Sc. in Biology.	2008

Professional Training

Bioacoustics Summer School (SeaBASS). Syracuse University, Syracuse, NY, USA (June 5-10, 2016)
Evolutionary Quantitative Genetics Tutorial. National Institute for Mathematical and Biological Synthesis, University of Tennessee, Knoxville, TN, USA (August 10-15, 2015).
R Software Carpentry Bootcamp. University of Miami, Coral Gables, FL, USA (January 27-28, 2014)
Phylogenetic Approaches to the Study of Acoustic Signals Workshop, XXIV IBAC, Pirenópolis, Brazil (September 9-10, 2013)
Sound Analysis Workshop. Cornell Lab of Ornithology, Ithaca, NY, USA (September 20-24, 2010)
Pan-American Advanced Studies Institute: “Expanding the Frontier in Tropical Ecology through Embedded Sensors”. National Science Foundation & Organization for Tropical Studies, Costa Rica (August 16 – September 1, 2010)
Natural Sounds Recording Workshop. Cornell Lab of Ornithology, Ithaca, NY, USA (June 6-13, 2009)
Research Internship: “Allometry of fiddler crab gonopods”. Smithsonian Tropical Research Institute, Panama (October, 2008 – February, 2009). Advisor: J. Christy.

Publications

Peer-reviewed papers

Troyo, A, RD Moreira-Soto, O Calderón-Arguedas, C Mata-Somarribas, J Ortiz-Tello, ARM Barbieri, A Avendaño, **LE Vargas-Castro**, MB Labruna, L Hun and L Taylor. 2016. Detection of rickettsiae in fleas and ticks from areas of Costa Rica with history of spotted fever group rickettsioses. *Ticks and Tick-Borne Diseases* 7: 1128-1134.

Vargas-Castro, LE, NV Sánchez and G Barrantes. 2015. Song plasticity over time and vocal learning in clay-colored thrushes. 2015. *Animal Cognition* 18: 1113-1123.

Uy, JAC and **LE Vargas-Castro**. 2015. Island size predicts the frequency of melanistic birds in the color-polymorphic *Monarcha castaneiventris* flycatcher of the Solomon Islands. *The Auk: Ornithological Advances* 132: 787-794.

Vargas-Castro, LE. 2015. Spatial pattern of syllable sharing in white-throated thrushes: implications for song learning and dispersal behaviours. *Behaviour* 152: 775-795.

Sánchez, NV, **LE Vargas-Castro**, G Avalos and F Paniagua. 2014. Effect of prey availability on the abundance of White-breasted Wood-Wrens, insectivorous birds of tropical lowland forests. *Journal of Field Ornithology* 85: 347-354.

Sánchez, NV, **LE Vargas-Castro**, A Sánchez and M Amador. 2013. Richness and abundance of diurnal butterflies, dung beetles and plants in organic and conventional crops of three Costa Rican regions. *Research Journal of the Costa Rican Distance Education University* 5: 249-259.

Vargas-Castro, LE, NV Sánchez and G Barrantes. 2012. Repertoire size and syllable sharing in the song of the Clay-colored Thrush (*Turdus grayi*). *The Wilson Journal of Ornithology*. 124: 446-453.

Troyo, A, O Calderón-Arguedas, G Alvarado, **LE Vargas-Castro** and A Avendaño. 2012. Ectoparasites of dogs in the home environment of the Caribbean slope, Costa Rica. *Revista Brasileira de Parasitologia Veterinária*. 21: 179-183.

Vargas, LE, NV Sánchez and G. Avalos. 2011. Forest structure and territory size relationship in the neotropical understory insectivore *Henicorhina leucosticta*. *Journal of Tropical Ecology* 27: 65–72.

Dissertation & Theses

- Vargas-Castro, LE.** *In prep.* Ecology and evolution of soft song, a complex behavior, in *Turdus* thrushes. PhD Dissertation, University of Miami, Coral Gables, FL.
- Vargas-Castro, LE.** 2013. Song plasticity in the Clay-colored Thrush *Turdus grayi* within and between breeding seasons. Licenciatura in Zoology Thesis (Hon.), University of Costa Rica, San José, Costa Rica.

Popular Articles

- Vargas-Castro, LE.** 2015. Skillful voices in the garden: what is their similarity telling us about juvenile dispersal and bird song learning? Amigos Newsletter (Organization for Tropical Studies) N83, May 2015.
- Vargas Castro, LE.** 2010. Cantando a la lluvia. Costa Rica: sus Símbolos Nacionales (ed. Pacheco Ureña, AP), p 124. [in Spanish]

Invited Research Seminars / Workshops

- Workshop “R for beginners – how to get started?”. Department of Biology, University of Miami, Coral Gables, FL, USA. (December 2, 2016)
- Seminar “From Natural History to Local Conservation: a case of an endangered bird in the Osa, Costa Rica”. Department of Biology, University of Miami, Coral Gables, FL, USA. (April 29, 2016)
- Science Forum “Animals use syllables”. Natural Sciences Department, Miami Dade College Wolfson Campus, Miami, FL, USA. (March 26, 2013)
- Seminar “Arthropod genitalia allometry: testing if *One-size-fits-all* in fiddler crabs”. Department of Biology, University of Miami, Coral Gables, FL, USA. (November 22, 2013)

Poster Presentations

- Acoustic structure of soft syllables in White-throated thrushes.* 51st Annual Conference of the Animal Behavior Society. Princeton, NJ, USA (August 9-14, 2014)
- Spatial variation of syllable repertoires in loud songs of White-throated Thrushes.* XXIV International Bioacoustics Congress, Pirenópolis, Brazil (September 8-13, 2013)
- Whistles and soft elements in the song of Clay-colored Thrushes.* 3rd Annual Biology Graduate Student Symposium, University of Miami, Coral Gables, FL, USA (January 13, 2012)
- Changing the song: vocal plasticity in the Clay-colored Thrush *Turdus grayi* through time.* Behavior 2011: Joint meeting of the Animal Behavior Society and the International Ethological Conference. Indiana University, Bloomington, Indiana, USA (July 25-30, 2011)
- Forest structure and territory size relationship in the neotropical understory insectivore White-breasted Wood-wren.* Association of Field Ornithologists Annual Meeting. Weber State University, Ogden, Utah, USA (August 12-14, 2010)

Oral Presentations

- Eavesdropping avoidance and sound propagation: the acoustic structure of soft song.* 53rd Annual Conference of the Animal Behavior Society. University of Missouri, Columbia, MO, USA (July 30-August 3, 2016)
- Sound propagation, eavesdropping and structural characteristics of soft song.* V Congreso Costarricense de Ornitología, UOCR, San José, Costa Rica (July 18-22, 2016) [in Spanish]
- Spatial pattern of syllable sharing in White-throated Thrushes: implications for song learning and dispersal behaviors.* XV Congress of the International Society for Behavioral Ecology, New York, NY, USA (July 31-August 6, 2014)
- Spatial pattern of song syllable sharing in White-throated Thrushes, *Turdus assimilis*: implications for song learning and dispersal behaviors.* IV Congreso Costarricense de Ornitología, UOCR, San José, Costa Rica (July 22-24, 2014) [in Spanish]
- Spatial pattern of song syllable sharing in White-throated Thrushes, *Turdus assimilis*: implications for song learning and dispersal behaviors.* 5th Annual Biology Graduate Student Symposium, University of Miami, FL, USA (January 10, 2014)
- Song plasticity of the Clay-colored Thrush throughout the years.* III Congreso Costarricense de Ornitología. UOCR, San José, Costa Rica (July 16-19, 2012) [in Spanish]
- He sings for her: sexy elements in the song of the Clay-colored Thrush *Turdus grayi*.* II Congreso Costarricense de Ornitología, UOCR, San José, Costa Rica (July 26-30, 2010) [in Spanish]

Allometry of male fiddler crab genitalia varies with size relationships in mating pairs: a test of the one-size-fits-all hypothesis. Annual meeting of The Society for Integrative & Comparative Biology, Seattle, Washington (January 3-7, 2010). Co-author

Positions

University of Miami College of Arts and Sciences Dissertation Fellow, 2016-2017

Gifford Arboretum Curator, University of Miami, 2015-2016

Teaching Assistant, University of Miami, 2011-2015

Research Consultant, Osa Conservation (NGO), 2011

Capture and radio-tracking of yellow-billed cotingas for spatial and temporal distribution analysis

Research Assistant, Department of Microbiology, University of Costa Rica, 2009-2010

Field sampling and lab identification of mammal ectoparasites, spotted fever (rickettsiosis) vectors

Teaching Experience

Invited Professor, Tropical Biology Winter Course, Danta: Association for Conservation of the Tropics, 2016

Invited Professor, Tropical Biology Summer Course, Organization for Tropical Studies, 2015

Teaching Assistant, Ecology Laboratory BIL 331 (Writing Intensive), University of Miami, 2011-2015

Teaching Assistant, Animal Behavior Laboratory, University of Costa Rica, 2010

Laboratory Instructor, General Biology Laboratory, University of Costa Rica, 2008

Student Research Mentoring (University of Miami)

Giacomo Delgado, Undergraduate research, 2015-present

Herberson Saint-Eloi, Undergraduate research, 2015

Ashley Tarduno, Undergraduate research, 2015

Jennifer Velasquez, Undergraduate research and letters of recommendation, 2014

Victoria Mercier, Undergraduate research, 2014

Katherine Anne Naugle, Undergraduate research and letters of recommendation, 2012

Justine Fenner, Undergraduate research, 2012

Awards

Dean's Academic Year Dissertation Award, College of Arts & Sciences, University of Miami, 2016

Academic Excellence, Leadership and Service Award, GSA, University of Miami, 2016

Honorable Mention Oral Presentation Award, V Congreso Costarricense de Ornitología, UOCR, Costa Rica, 2016

Outstanding Teaching Assistant, Department of Biology, University of Miami, 2015

Honorable Mention Poster Award, 3rd Annual Biology Graduate Symposium, University of Miami, 2012

Best Poster Presentation, Undergraduate, Association of Field Ornithologists Annual Meeting, 2010

Grants and Funding

Research funding

Collection Study Grant, Department of Ornithology, American Museum of Natural History, 2016

Kushlan Graduate Research Fund, Department of Biology, University of Miami; 2016, 2015, 2014, 2013, 2012

Organization for Tropical Studies Research Fellowship, 2014

Savage Graduate Research Fund, Department of Biology, University of Miami, 2014

REU Program Scholarship, CRUSA Foundation - Organization for Tropical Studies, 2009

Smithsonian Tropical Research Institute Internship, 2008

Conferences/Workshops/Travel funding

Animal Behavior Society Diversity Travel Award, 2016

Graduate Activity Fee Allocations Committee travel grant, University of Miami, 2014

Max and Peggy Kriloff Student Travel Scholarship, College of Arts and Sciences, University of Miami; 2014, 2013

Animal Behavior Society Emergent Nations Award, 2011

NSF - Organization for Tropical Studies, PASI Scholarship, 2010

Organization for Tropical Studies. Scientific Promotion Fund, 2010

Association of Field Ornithologists Student Travel Award, 2010
CONICIT, Costa Rica, Incentive Fund, 2010
VVE, University of Costa Rica, Student Travel Fund, 2009

Journal Reviewer

Animal Behaviour, 2016
Revista de Biología Tropical / International Journal of Tropical Biology and Conservation, 2016

Professional Society Membership

Animal Behavior Society, 2010–present
Unión de Ornitólogos de Costa Rica, 2012–present
American Society of Naturalists, 2014–2016
American Ornithologists Union, 2013–2015
Association of Field Ornithologists (Award/Sponsored), 2011–2013

Departmental Service (University of Miami)

Biology Photo Contest, University of Miami. Organizer, 2014, 2016
University of Miami Palmetum Map. Designer, 2015
Public outreach event, Alumni week, University of Miami. Presenter, 2013

Other Professional Activities

WVUM 90.5 FM Radio. The Voice of the University of Miami. DJ & Science Show Collaborator, 2014–present
Audio CD “A day in the Osa: soundscapes from a Costa Rican rainforest”. Co-Producer, 2012

Languages

Spanish (native), English (advanced), Portuguese (basic-intermediate)