

# KARLA SAMANTA ORELLANA ARÉVALO

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## RESEARCH INTERESTS

- Taxonomy, systematics, ecology and biogeography of fungus weevils (Coleoptera: Anthribidae).
- Entomological collection management and digitization.

## EDUCATION

- **PhD. Student**, Evolutionary Biology Program, School of Life Sciences, Arizona State University. Tempe, Arizona, United States of America, August 2019-present.
- **M.Sc. in Entomology**, Central American Program of M.Sc. in Entomology, Faculty of Exact Sciences and Technology, University of Panama. Panama City, Panama, 2018.
- **Postgraduate Diploma in Entomology**, Central American Program of M.Sc. in Entomology, Vice-Rectorate of Research and Postgraduate Studies, University of Panama. Panama City, Panama. Panama City, Panama, 2017.
- **B.Sc. in Biology**, School of Biology, Faculty of Chemical Sciences and Pharmacy, University of San Carlos of Guatemala. Guatemala City, Guatemala, 2014.

## RESEARCH AND TEACHING EXPERIENCE

- 2019- **Research Assistant.** Weevils of Sonora Project, Franz Lab, Insect Systematics and Evolution, School of Life Sciences, Arizona State University. Tempe, Arizona, USA.
- 2015 **Interim Assistant Professor.** BIGU Herbarium Research Unit, School of Biology, Faculty of Chemical Sciences and Pharmacy, University of San Carlos of Guatemala, Guatemala.
- 2011-2013 **Undergraduate Teaching Assistant.** Department of Zoology, Genetics and Wildlife, School of Biology, Faculty of Chemical Sciences and Pharmacy, University of San Carlos of Guatemala, Guatemala. Zoology, Evolution and Geology courses.
- 2009 **Student Participant and Field Crew Member.** Leaf Litter Arthropods of Mesoamerica - LLAMA-: Guatemala Expedition. The Evergreen State College and The Canadian Museum of Nature. Guatemala Expedition. Guatemala.
- 2008-2012 **Undergraduate Research Assistant.** Center for Conservationist Studies, University of San Carlos of Guatemala and The National Science and Technology Fund (FODECYT). Guatemala City, Guatemala.

## ADDITIONAL PROFESIONAL EXPERIENCE

- 2014-2016 **Private Environmental Consultant.** Environmental and Biological Studies of Guatemala, National Association of Private Natural Reserves in Guatemala, National Association of Coffee-Farmers, among others. Guatemala City, Guatemala.

## PUBLICATIONS

- 2021 **Orellana, S.** & Barrios, H. (2021). Catalogue of the Anthribidae (Coleoptera: Curculionoidea) of Panama, including new country records and a key to genera. *Zootaxa* 4904 (1), 1-71.
- 2018 **Orellana, S.** & Barrios, H. (2018). Abundancia de Coleópteros (Insecta: Coleoptera) en dos órdenes de macrohongos (Basidiomycota) de un bosque tropical de Panamá. *Scientia Panamá* 28(1): 45-59.
- Yoshimoto, J., Cano, E.B. & **S. Orellana** (Editors) "Insectos de Guatemala: Guía de Identificación (*Insects of Guatemala: Identification Guide*)". Second Edition. Guatemala: University Del Valle of Guatemala, The Museum of Natural History and the Biology School of San Carlos of Guatemala University. (Book).
- 2015 **Orellana, S.** & M. Quezada. "Efecto de la conformación del paisaje en coleópteros (Insecta: Coleoptera) asociados a macrohongos de la Ecorregión Lachuá, Alta Verapaz, Guatemala (*Effect of landscape conformation on the coleopterans (Insecta: Coleoptera) associated with fungi of the Eco-region Lachua, Alta Verapaz, Guatemala*)". *Revista Científica* 25(1): 37-48.
- 2015 Yoshimoto, J., Cano, E.B. & **S. Orellana** (Editors). "Insectos de Guatemala: Guía de Identificación (*Insects of Guatemala: Identification Guide*)". Guatemala: University Del Valle of Guatemala and The Museum of Natural History of San Carlos of Guatemala University. (Book).

## CONFERENCE PRESENTATIONS

- 2020 **Orellana, S.** "Current studies on Central American Anthribidae (Coleoptera: Curculionoidea): The impressive diversity of fungus weevils in Panama". Entomological Society of America Annual Meeting (virtual).
- Orellana, S.** "Promoting the digitization of Latin American entomological collections using Symbiota portals". Equity, Justice and Inclusion in Ento: Making Entomological Collections Research More Accessible Mini Symposium. Entomological Collections Network Annual Meeting (virtual).
- Orellana, S.** "Digitization of Mesoamerican Biological Collections using Symbiota portals" (In Spanish). Mesoamerican Society of Biology and Conservation, I Virtual Meeting (virtual).
- Orellana, S.** "Collection-based research: Discovering the Neotropical Anthribidae". II Symposium of Evolutionary Biology, School of Life Sciences, Arizona State University, Arizona (virtual).
- 2019 **Orellana, S.** "Research experiences in Central America: Tropical forests, beetles and collections". II Symposium of Evolutionary Biology, School of Life Sciences, Arizona State University, Arizona.

- 2018 **Orellana, S.** "New country records and range extensions for the Anthribidae (Coleoptera: Curculionoidea) of Panama" (In Spanish). III Colloquium of Biology. University of The Valley of Guatemala, Guatemala City, Guatemala.
- 2015 **Orellana, S.** "Effect of landscape conformation on the coleopterans (Insecta: Coleoptera) associated with fungi of the Eco-region Lachua, Alta Verapaz, Guatemala" (In Spanish). Annual Scientific Meeting of the Chemical and Biological Research Institute. Faculty of Pharmacy and Chemical Sciences, University of San Carlos of Guatemala, Guatemala City, Guatemala.

### POSTER PRESENTATIONS

- 2014 Quezada, M., Perez-Silva, E & **S. Orellana.** "Coleoptera associated to Marasmiaceae and Polyporaceae fungi in the Lachua rainforest in Guatemala" (In Spanish). International Mycological Association, Medellín, Colombia. VIII Latin American Congress of Mycology (Poster).

### SCIENTIFIC OUTREACH PRESENTATIONS AND WORKSHOPS

- 2021 **"Digitization of biological collections with the Guatemala Biodiversity Portal"**. (In Spanish). Virtual conference for the undergrad students of the Collections Management course of the School of Biology, University of San Carlos of Guatemala, Guatemala City. February 2, 2021.
- 2020 **"Introduction to Coleoptera"**. (In Spanish) Virtual conference for the undergrad students of Agricultural Sciences of the University of Costa Rica, campus Guanacaste, Costa Rica. November 5, 2020.
- "Taxonomy of Anthribidae"**. (In Spanish) Virtual conference for the undergrad students of the Taxonomy course of the School of Biology, University of San Carlos of Guatemala, Guatemala City. August 13, 2020.
- "Introduction to Symbiota databases platform: Consortium of Small Vertebrate Collection"**. Virtual workshop for the curators and students of the Biological Collections System of the School of Biology, University of San Carlos of Guatemala, Guatemala City. August 4, 2020.
- "Introduction to Symbiota databases platform: ecdysis"**. (In Spanish) Virtual workshop for the curators and students of the Arthropod Systematics Laboratory, University of the Valley of Guatemala, Guatemala City, Guatemala. July 28, 2020.
- Orellana, S.** "Importance of entomological collections in the study of biodiversity: Research experiences in North and Central America" (In Spanish). Guest lecturer, School of Biology, University of San Carlos of Guatemala, Guatemala City, Guatemala.
- 2019 **"Scientific Fair, Insects Exhibition"**. National Secretariat of Science and Technology, Guatemala.

- 2016 **“Botanical Garden’s Nocturnal Friends”**. Exhibition Co-Organizer. The Botanical Garden and The Museum of Natural History, University of San Carlos of Guatemala. Guatemala City, Guatemala.
- 2015 **“Entomological Collections Preservation”**. Workshop Co-Organizer and Instructor. The Museum of Natural History, University of San Carlos of Guatemala. Guatemala City, Guatemala.
- 2014 **“Diversity of pollinator beetles”**. Guest Speaker. III Seminar of Pollinators: Conservation and Management. Faculty of Agricultural Sciences and Faculty of Chemical Sciences and Pharmacy, University of San Carlos of Guatemala, Guatemala City, Guatemala.
- 2013 **“Importance of Insects in Productive and Touristic Activities in the Private Natural Reserves”**. Guest Speaker. Association of the Private Natural Reserves of Guatemala. Guatemala City, Guatemala.
- “Pollinator beetles”**. Guest speaker. The Museum of Natural History and Botanical Garden University of San Carlos of Guatemala. Guatemala City, Guatemala
- “The Wonderful World of Insects”**. Exhibition Co-Organizer. The Museum of Natural History, University of San Carlos of Guatemala. Guatemala City, Guatemala.
- 2011 **“Introduction to the Collection, Preservation and Identification of Fungi and Fungivorous Insects”**. Workshop Co-Organizer and Instructor. BIGU Herbarium Research Unit and The Museum of Natural History, University of San Carlos of Guatemala. Guatemala City, Guatemala

#### **RELEVANT SCIENTIFIC TRAINING**

- 2020 **I Meeting of Systematics, Biogeography and Biology**, a Joining Effort in the Coronavirtual Era. Center for Computational Evolution, The University of Auckland. Attendee (virtual).
- 2018 **Introduction to Molecular Biology Techniques** (Workshop). University of San Carlos of Guatemala.
- Use of Leica M205A Stereomicroscope and Imaging Software** (Workshop). University of Panama, Panama City, Panama.
- 2015 **Identification of the Main Species of Scale Insects (Hemiptera: Coccoidea) of Agricultural Relevance** (Course-Workshop). University of The Valley of Guatemala and United States Department of Agriculture (USDA). Guatemala City, Guatemala.
- Zoological Nomenclature** (Course). Biological Sciences Graduate Program, Autonomous National University of Mexico, University of San Carlos of Guatemala and the International Commission of Zoological Nomenclature. Guatemala City, Guatemala.
- Contributions and Recommendations for the Preparation of Scientific Papers** (Workshop). Laboratory of Applied Entomology and Parasitology and the Chemical and Biological Research Institute, University of San Carlos of Guatemala and University of Queensland, Australia. Guatemala City, Guatemala.

- 2013      **Morphology and Identification of Hymenoptera, with emphasis on parasitoid wasps** (Course). University of The Valley of Guatemala, United States Department of Agriculture (USDA) and University of Costa Rica. Guatemala City, Guatemala.
- Spatial Analysis of Biodiversity, with Geographical Information Systems** (Course). BIGU Herbarium Research Unit, University of San Carlos of Guatemala. Guatemala City, Guatemala.
- 2010      **Introduction to Chrysomelidae (Coleoptera) Taxonomy** (Course). Multidisciplinary Academic Unit of Agriculture and Sciences, Autonomous University of Tamaulipas. Victoria City, Tamaulipas, México.
- Statistical Linear Models Applied to Biological Studies** (Course)., University of San Carlos of Guatemala. Guatemala City, Guatemala.

#### AWARDS

- Full Scholarship for Master's Degree Studies, German Academic Exchange Service -DAAD- (2016-2018).
- Best Biology B.S. Thesis 2014-2015. Faculty of Pharmacy and Chemical Sciences, University of San Carlos of Guatemala, Guatemala City, Guatemala (2015).

#### PROFESSIONAL ORGANIZATIONS

- Entomological Society of America- Systematics, Evolution and Biology Section
- The Coleopterist Society
- Organization for Women in Science for the Developing World
- College of Professional Pharmacists and Chemists of Guatemala

#### WEBSITES

- **Portal de Biodiversidad de Guatemala.** Virtual portal for the management of Guatemalan biological collections. <https://serv.biokic.asu.edu/guatemala/>. Created by Edward Gilbert, co-managed by S. Orellana and Z. López. September, 14, 2020.
- **Insectos de Guatemala.** Website in Spanish designed to share information about the groups of insects in Guatemala. [www.insectosdeguatemala.org](http://www.insectosdeguatemala.org). January 1, 2020.

#### LANGUAGES

- Spanish (Native Language)
- English (Advanced)