

# SERGIO L. AVILA CALERO

\* Dr. rer. nat. in Biology by the University of Münster, Germany, funded by a scholarship by the German Academic Exchange Service (DAAD).

\* Experience in laboratory tasks such as optical microscopy, microbiology and molecular biology.

\* Experience in various methods for collecting arthropods in the field as well as acquired training in the management of biological collections of insects and arachnids.

\* Interested in biodiversity research with an emphasis on arthropods using integrative (i.e. traditional and molecular) taxonomy.

\* Good knowledge of statistical analysis using the R software.



## EDUCATION

2020  
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2015



### Dr. rer. nat. in Biology

Institute for Evolution and Biodiversity – University of Münster  
📍 Münster, Germany

- Thesis: Immunogenic mating: the link between mating and immunity in *Drosophila melanogaster*.
- Supervisors: Dr. Claudia Fricke & Dr. Sophie A.O. Armitage

2014  
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2007



### Diplom in Biology (Licenciatura)

Institute for Ecology – University Mayor de San Andrés  
📍 La Paz, Bolivia

- Thesis: Methylene blue as a preventive of schizophrenia-like symptoms in mice.
- Supervisor: Prof. Dr. Álvaro Garitano-Zavala



## RESEARCH EXPERIENCE

2020



### Postdoctoral researcher

Zoological Research Museum Alexander Koenig  
📍 Bonn, Germany

- Development and optimisation of DNA barcoding protocols for poor-quality samples.
- Optimisation of DNA barcoding methods for uncharacterised subgroups of Hymenoptera and Diptera of Germany.



View this CV online with links at  
<https://dravila-sl.github.io/cv/cv.html>

## CONTACT

🇸🇵 Bolivian

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## LANGUAGE SKILLS

Spanish

English

German

Portuguese

2015  
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2014

### ● Internship

Institute for Molecular Biology and Biotechnology – University Mayor de San Andrés

📍 La Paz, Bolivia

- General management of *D. melanogaster*.
- Application of *D. melanogaster* in studies of toxicity and genotoxicity.
- Support in the project “Genotoxicity of tomatoes exposed to pesticides”.

2013  
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2013

### ● Internship

University of São Paulo

📍 Ribeirão Preto, Brazil

- Quantification of cellular density on a hemiparkinsonian mouse model.
- Predictive behavioral tests to identify antipsychotic effect on experimental models of catalepsy and pre-pulse inhibition.

2013  
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2011

### ● Research Assistant

Institute for Pharmacy and Biochemistry Research – University Mayor de San Andrés

📍 La Paz, Bolivia

- Study of the fruit fly *Anastrepha fraterculus* as a pest of mango orchards.
- Evaluation of pest control strategies against *A. fraterculus*.
- Mass rearing of *A. fraterculus* under controlled conditions.

2011  
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2011

### ● Internship

Ministry for Environment and Water from Bolivia

📍 La Paz, Bolivia

- Design of a management plan for the sustainable use of beetles as economical income in Pacallo (North Yungas, Bolivia).

2011  
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2009

### ● Student Research Assistant

Bolivian Fauna Collection (CBF) – University Mayor de San Andrés

📍 La Paz, Bolivia

- Establishment of a baseline collection of pollinator species (Diptera and Hymenoptera) at the experimental station El Ceibo in Sara Ana (Alto Beni, Bolivia).
- Collection of insects (mainly Hymenoptera, Diptera, Lepidoptera) and arachnids at Yabaré experimental station (Santa Cruz, Bolivia) as part of the international Barcode of Life (iBOL) project.

2009  
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2008

### ● Student Research Assistant *ad honorem*




Bolivian Fauna Collection (CBF) – University Mayor de San Andrés

📍 La Paz, Bolivia

- Basic taxonomy of spiders and insects (Coleoptera, Hymenoptera and Diptera) from old collection samples of the CBF.
- Preservation of insects in “dry” (mainly Hymenoptera, Coleoptera, Orthoptera) and in “wet” (mainly Arachnida, Diptera) collections.




## COURSES AND SEMINARS

- 2017  
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2017
- **PhD Summer Course: Host-microbe symbioses: from functional to ecological perspectives**  
Instituto Gulbenkian de Ciencia  Oeiras, Portugal
    - Two-week course with seminars by expert researchers from the United States, Germany and Portugal in the field of host-microbe symbioses.
- 2017  
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2017
- **22nd DZG Graduate meeting in Evolutionary Biology**  
Max Planck Institute for Evolutionary Biology  Plön, Germany
    - Three-day meeting with seminars by researchers working in Evolutionary Biology.
    - I was awarded the prize for Best Poster Presentation.
- 2017  
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2017
- **Writing Readable Scientific Papers**  
CiM-IMPRS Graduate Program  Münster, Germany
    - Two days of hands-on training on scientific writing.
- 2017  
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2017
- **Training in assisted fertilization procedures using human gametes**  
Center for Reproductive Medicine and Andrology  Münster, Germany
    - Two-day training on in-vitro fertilisation (IVF) and intracytoplasmic sperm injection (ICSI) techniques.
- 2016  
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2016
- **Model systems in biomedical research**  
Max Planck Institute for Molecular Biomedicine  Münster, Germany
    - Four weeks of training in yeast, fly, planarian, zebrafish, mouse and human pluripotent stem cells as research models.
- 2016  
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2016
- **Grundlagen und Klinik der menschlichen Reproduktion - Ein interdisziplinärer Ansatz**  
Center for Reproduction Medicine and Andrology  Münster, Germany
    - Seminars on biology and clinics of human reproduction, including current status of assisted reproduction techniques.
- 2016  
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2016
- **Applied biostatistics using R: the practice of experimental design and inference**  
Institute for Evolution and Biodiversity  Münster, Germany
    - Training in biostatistics using the programming language R.




## TEACHING EXPERIENCE

2017  
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2017

- **Workshop – Statistics using R**  
University of Münster  Münster, Germany
  - Introduction to programming in R.
  - Statistics using Generalized Linear Models.

2011  
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2010

- **Teaching Assistant for Invertebrate Zoology (Zoology I)**  
University Mayor de San Andrés  La Paz, Bolivia
  - Organisation of laboratory practica and mentoring for third-semester students in anatomy, physiology and biodiversity of invertebrates.
  - Organisation of field practica for third-semester students in sampling methods of aquatic and terrestrial invertebrates.



## LIST OF PUBLICATIONS

2020

- **Genotypes and their interaction effects on reproduction and mating-induced immune activation in *Drosophila melanogaster*<sup>1</sup>**  
Claudia Fricke<sup>†</sup>, Sergio Ávila-Calero<sup>†</sup> & Sophie A.O. Armitage
  - Shared first-authorship<sup>†</sup>.
  - Published in *Journal of Evolutionary Biology* 33:930-941.

2014

- **Principales cultivos y principales problemas fitosanitarios según los agricultores de la comunidad La Plazuela, Municipio de Iru-pana, Provincia Sud Yungas, Departamento de La Paz<sup>2</sup>**  
Vania Barrientos Vera, Sergio Ávila-Calero, Krystal Begregal Flores & Sergio Moreira Ascarrunz
  - Published in *Revista Científica de Investigación Info-INIAF*.

2014

- **Alternativas de control de los principales problemas fitosanitarios del cultivo de mango [*Mangifera indica* L.] en la comunidad La Plazuela, Municipio de Irupana, Provincia Sud Yungas, Departamento de La Paz<sup>3</sup>**  
Evelyn Villanueva Gutiérrez, Sergio Ávila-Calero & Sergio Moreira Ascarrunz
  - Published in *Revista Científica de Investigación Info-INIAF*.

2013

- **The first palpimanid spiders from Bolivia: two new species of the genus *Otiothops* MacLeay, and the female of *Fernandezina pulchra* Birabén [Araneae: Palpimanidae: Otiothopinae]<sup>4</sup>**  
Luis N. Piacentini, Sergio L. Ávila-Calero, Marianela E. Pérez, Cristian J. Grismado
  - Published in *Zootaxa* 3619:491-500.

CV made with RStudio and [pagedown](#).

Last updated on 2020-12-18.



- 1: <https://doi.org/10.1111/jeb.13625>
- 2: [http://www.revistasbolivianas.org.bo/scielo.php?script=sci\\_abstract&pid=S2308-250X2014000100006&lng=es&nrm=iso](http://www.revistasbolivianas.org.bo/scielo.php?script=sci_abstract&pid=S2308-250X2014000100006&lng=es&nrm=iso)
- 3: [http://www.revistasbolivianas.org.bo/scielo.php?script=sci\\_arttext&pid=S2308-250X2014000100004&lng=es&nrm=iso](http://www.revistasbolivianas.org.bo/scielo.php?script=sci_arttext&pid=S2308-250X2014000100004&lng=es&nrm=iso)
- 4: <https://doi.org/10.11646/zootaxa.3619.4.6>