

Laura Rocha Prado

Curriculum Vitae

Education

- 2015 **Doctor of Science**, *University of São Paulo (USP)*, Brazil.
Zoology
- 2010 **Specialist (*lato sensu*)**, *State University of Campinas (UNICAMP)*, Brazil.
Scientific Journalism
- 2010 **Master of Science**, *University of São Paulo (USP)*, Brazil.
Zoology
- 2007 **Bachelor of Biological Sciences**, *State University of Campinas (UNICAMP)*, Brazil.
Taxonomy and Systematics of Plants

Professional Experience

- Sep 2016 – present **Museum Research Technician**, *Entomology Section*, Zoology Museum of The University of São Paulo (MZSP), São Paulo, Brazil.
Started as specimen digitizer, and since January I am the supervisor of digitizers, offering training and database cleaning.
- Nov 2016 – present **Web Developer**, *Freelancer, Front-End*, São Paulo, Brazil.
- Mar 2016 – present **Scientific Translator**, *Freelancer, Portuguese-English*, American Journal Experts (AJE), São Paulo, Brazil.
- Mar 2009 – present **Scientific Translator**, *Freelancer, German-Portuguese*, São Paulo, Brazil.

Doctoral Degree

- 2011-2015 **Title:** "Cladistic Analysis of Section Diabroticites (Coleoptera, Chrysomelidae, Galerucinae)"

Supervisor: Dr. Sônia Casari. Additionally, I spent one year (2013) under the co-supervision of Dr. Alexander Konstantinov at the Smithsonian National Museum of Natural History, Washington, DC, USA.

Description: My research focused on one of the largest assemblies of chrysomelids, the diabroticite beetles. With over 960 species in 17 genera, this group is composed largely of species that have been described in a pre-Darwinian era. The study of the morphology was new for most of the taxa included in the matrix. Types had to be studied to determine taxa identity, since descriptions were scarce. All genera and informal subgenera were sampled with at least their type-species. Genital characters, as well as dimorphism-related features, were important to delineate the internal branches in the topologies found.

Specialist's Degree

- 2009-2010 **Title:** "Insect Almanac"

Supervisor: Dr. Marcelo Knobel

Description: Intended as a book for children, the Insect Almanac aimed to depict insects in a friendly, non threatening-way.

Master's Degree

2008-2010 **Title:** "Taxonomy and cladistic analysis of *Cochabamba* Bechyné, 1955 (Coleoptera, Chrysomelidae, Galerucinae)"

Supervisor: Dr. Sônia Casari

Description: This research was a revisionary work of a leaf beetle genus that included ten species. The morphology study provided a number of new characters used in the cladistic analysis, including genital features.

Bachelor's Degree

2007 **Title:** "Evolutionary studies in *Dahlstedtia* Malme (Leguminosae, Papilionoideae)"

Supervisor: Dr. Ana Maria Goulart de Azevedo Tozzi

Description: I studied two species of a legume genus, which had overlapping distribution and distinctive phenotypes, using phenetic, cladistic, and biogeographical analyses.

Internships

2013-2014 **Visiting graduate student at the USNM in Washington, DC, USA.**

During this visit, I performed part of my PhD research in collaboration with Dr. Alexander Konstantinov.

2005-2007 **Undergraduate scientific initiation student, Botany Systematics Lab (UNICAMP, Campinas, Brazil).**

Where I had two years of taxonomic experience in legumes.

2006-2007 **Undergraduate scientific initiation student, Genetics Lab (UNICAMP, Campinas, Brazil).**

Where I had one year of wetlab experience extracting DNA from flies.

2004-2005 **Undergraduate student, Butterfly Vivarium (José Pedro de Oliveira Foundation (Santa Genebra Forest) - FJOP, Campinas, Brazil).**

Where I had one year of insect collecting and rearing experience.

Awards and Grants

2013 Grant for visiting period (one year) at the USNM in Washington, DC, USA, from the Coordination for the Improvement of Higher Education Personnel (CAPES), Federal Agency. (Grant # PDSE-18883/12-5)

2012 Travel Award for Young Scientists, XXIV International Congress of Entomology, Daegu

2011-2015 PhD Student Grant from National Council for Scientific and Technological Development (CNPq), Federal Agency. (Grant # 140250/2011-5)

2008-2010 Master's Student Grant from São Paulo Research Foundation (FAPESP), State Agency. (Grant # 2008/02166-5)

2006-2007 Scientific Initiation Grant from São Paulo Research Foundation (FAPESP), State Agency. (Grant # 06/60904-7)

2004 Literary Award for best admission's test essay from State University of Campinas (UNICAMP).

Other Relevant Experience

Teaching

- 2017 **Introduction to Systematic Phylogenetics.**
Course (8h) given in an extension conference called Academic Biology Week in State University of Ponta Grossa (UEPG), Ponta Grossa, Brazil.
- 2017 **Data refinement: quality of biological information digitized as part of the SiBBr project.**
Training talk offered at the Zoology Museum of The University of São Paulo (MZSP).
- 2016 **Biomimetics: when technology immitates nature.**
Talk given a few times at the Zoology Museum of The University of São Paulo (MZSP), as part of their scientific outreach seminars.
- 2015 **Megadiversity in Coleoptera.**
Seminar given in an extension symposium called Summer Course in Entomology from the University of São Paulo, Ribeirão Preto campus, Brazil.
- 2014 **Taxonomic monographs on galerucine beetles (Chrysomelidae): techniques that save effort and time.**
Seminar presented in the Entomology Seminar sections at the USNM, Washington, DC, USA.
- 2013-2017 **Participated in Theory and practice in Taxonomy and Nomenclature for non-taxonomists.**
Course (8h) given in an extension symposium called Summer Course in Entomology from the University of São Paulo, Ribeirão Preto campus, Brazil.
- 2011 **Insect-Plant Interactions.**
Seminar given as part of a undergraduate course called "Fauna and Flora" at the São Camilo University Center (CUSC), São Paulo, Brazil.
- 2009 **Participated in Topics in Entomology.**
Extension course (36h) given at the Zoology Museum of The University of São Paulo (MZSP), São Paulo, Brazil.

Thesis examination committees

- 2017 COSTA, C.; VANIN, S. A.; IDE, S.; ROSA, S. P.; **PRADO, L.R.**. *Análise filogenética da subfamília Mastinocerinae LeConte, 1881 (Insecta, Coleoptera, Phengodidae)* **Doctoral dissertation (Zoology), candidate Hingrid Yara Quintino de Souza**, University of São Paulo (USP), São Paulo, Brazil
- 2015 CASARI, S. A.; VANIN, S. A.; COSTA, C.; **PRADO, L.R.**; ROSA, S. P. *Taxonomia e análise cladística de Dicrania LePeletier & Audinet-Serville, 1828 (Scarabaeidae, Melolonthinae, Macroductylini)* **Doctoral dissertation (Zoology), candidate Juarez Fuhrmann**, University of São Paulo (USP), São Paulo, Brazil

Dissertation Supervision

- 2017 – SANTOS, M. H. & **PRADO, L.R.**. *Morfologia comparada de espécies do gênero Omophoita (Coleoptera: Chrysomelidae: Galerucinae: Alticini) da região Sul do Brasil.* **Master's thesis (Evolutionary Biology), candidate Camila Alves dos Anjos**, State University of Ponta Grossa (UEPG), Ponta Grossa, Brazil.

Complementary Courses

- 2016 **Web Development Blueprint**, Adda Birnir, online.
Skillcrush

- 2016 **Ruby on Rails: an introduction**, *Prof. Kalman Hazins*, online.
Whiting School of Engineering, Johns Hopkins University, for Coursera
- 2012 **Learn to program: the fundamentals**, *Prof. Jennifer Campbell, Prof. Paul Gries*, online,
Python.
Department of Computer Science, Faculty of Arts and Science, University of Toronto, for Coursera
- 2009 **Willi Hennig Society's II Workshop in Systematic Phylogenetics**, *Dr. John Wenzel, Dr. Fernando Noll, Dr. Dalton Amorim*, 24 hr.
São Paulo State University (UNESP), São José do Rio Preto, Brazil

Public Outreach

- 2017 **"Mulheres na Ciência" [Women in Science]**, Community-driven website, developed in the Genesis Framework (WordPress + PHP), to provide support and promote the research of female scientists in Brazil and South America.
<http://mulheresnaciencia.com.br>
- 2016 **"Taxonomia e o Brasil desconhecido" [Taxonomy and the unknown Brazil]**, Interview given to magazine about the state of art of Taxonomy in Brazil, and the importance of Basic Science and Biodiversity.
<https://goo.gl/U3edJJ>

Skills

Computational

- Basic PYTHON, DJANGO, SQL, RUBY, RAILS, VBA, PHP
- Advanced HTML+CSS, JAVASCRIPT, GIT, L^AT_EX, WORDPRESS
- Software TNT, MESQUITE, WINCLADA, DELTA/OPEN DELTA, PAUP, NONA, LUCID, MS ACCESS, FILEMAKER

Field Work

Extensive experience in insect collecting, in different environments in Brazil (Atlantic Rainforest, Cerrado, Amazonian Forest).

Visited all of the most representative museums and collections for the Taxonomy of Neotropical Galerucinae, checking types and sorting specimens from miscellanea.

Entomological Collection Curatorship

Curated Galerucinae (Coleoptera, Chrysomelidae) collection at MZSP, which to date includes around 40 drawers and over twenty thousand specimens.

Languages

- Portuguese **Mother tongue**
- English **Fluent**
- German **Advanced**
- Spanish **Basic**

Writing intermediate

Reading intermediate

Publications

Manuscripts In Preparation

PRADO, L. R. *Cladistic analysis of section Diabroticites (Coleoptera, Chrysomelidae, Galerucinae, Luperini)*. An evolutionary hypothesis for this group is presented, based on a detailed morphological study.

PRADO, L. R. *Producing taxonomic monographs with less effort: examples using different technologies*. A guide on different shortcuts that can help taxonomists with their daily work (applications, software, etc.).

PRADO, L. R. *Morphological study of Diabroticites (Coleoptera, Chrysomelidae, Galerucinae), with annotated and illustrated glossary of morphological terms*. Results originated from doctoral research, after the study of numerous diabroticites and the overwhelming literature.

PRADO, L. R. *Galerucinae s. s. (Coleoptera, Chrysomelidae) types in the entomological collection, Museu de Zoologia, Universidade de São Paulo, Brazil*. Designates several lectotypes from Jan Bechyné's famous syntypes.

Research Publications

- 201 DERUNKOV, A.; **PRADO, L. R.**; TISHECHKIN, A. K.; KONSTANTINOV, A. S. *New species of Diabrotica Chevrolat (Coleoptera: Chrysomelidae: Galerucinae) and a key to Diabrotica and related genera: results of a synopsis of North and Central American Diabrotica species*. **Journal of Insect Biodiversity**, v. 3, p. 1-55. <http://dx.doi.org/10.12976/jib/2015.3.2>
- 2013 **PRADO, L. R.** *Review on the use of sexually dimorphic characters in the taxonomy of Diabroticites (Galerucinae, Luperini, Diabroticina)*. **ZooKeys**, v. 332, p. 33-54. <https://doi.org/10.3897/zookeys.332.4931>
- 2012 PAPAVERO, N.; TEIXEIRA, D. M.; **PRADO, L. R.** *História da Biogeografia: do gênese à primeira metade do século XIX*. Rio de Janeiro: **Technical Books Editora**, 433pp.
- 2009 CUNHA, P. R.; RAMOS, M. C.; BATALHA, P. S.; **PRADO, L. R.**; OCTAVIANO, C. I.; ELIAS, M. *Percepção Pública a respeito da relação entre Ciência, Tecnologia e Meio Ambiente entre o público jovem*. **Anais do I Foro Ibero-americano de Comunicação e Divulgação Científica**, Online first, Madrid: Organização dos Estados Iberoamericanos. http://www.oei.es/forocampinas/PDF_ACTAS/COMUNICACIONES/grupo4/062.pdf

Thesis and Dissertation

- 2016 The Doctoral dissertation is available here: <http://www.teses.usp.br/teses/disponiveis/41/41133/tde-28072015-151433/en.php>
- 2011 The Masters thesis is available here: <http://www.teses.usp.br/teses/disponiveis/41/41133/tde-15122010-143004/en.php>

Oral Presentations

- 2012 *"Secondary sexual characters in the Diabroticites"* (XXIV International Congress of Entomology)
- 2012 *"Filogenia da seção Diabroticites (Chrysomelidae, Galerucinae, Luperini)"* [Phylogeny of section Diabroticites (Chrysomelidae, Galerucinae, Luperini)] (XXIX Brazilian Congress of Zoology)

Poster Presentations

- 2010 "*Taxonomia e análise cladística de Cochabamba (Coleoptera, Chrysomelidae, Galerucinae)*" [Taxonomy and cladistic analysis of *Cochabamba* (Coleoptera, Chrysomelidae, Galerucinae)] (XVIII Brazilian Congress of Zoology)
- 2010 "*Coleopterón, um banco de dados simples para estudos taxonômicos em entomologia*" [Coleopterón, a simple database for taxonomic studies in entomology] (XVIII Brazilian Congress of Zoology)
- 2007 "*Relações entre atributos morfo-funcionais e estratégias ecológicas em duas comunidades de cerrado em Itirapina, SP*" [Relationships between morpho-functional attributes and ecological strategies in two cerrado communities in Itirapina, SP, Brazil] (VIII UNICAMP Open Congress to Biology Students)
- 2006 "*Flora Fanerogâmica do Estado de São Paulo: Dahsltedtia Malme (Papilionoideae Leguminosae)*" [Phanerogam Flora of São Paulo State: *Dahsltedtia* Malme (Papilionoideae Leguminosae)] (LVII Brazilian Congress of Botany)
- 2005 "*Analysis of the genes involved in the ubiquitin tagging in sugarcane*" (LI Brazilian Congress of Genetics)