
Carolina Prauchner Silva – Curriculum Vitae

Contact Information

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Summary

Currently, I'm a double PhD candidate in the Postgraduate Program in Ecology at the Federal University of Rio Grande do Sul (UFRGS - Brazil) and at the Groningen Institute for Evolutionary Life Sciences at the University of Groningen (RUG - Netherlands). In my thesis, I'm studying patterns and evolutionary consequences of galling insects and its host plants interactions. In addition, I also work as a project ecologist at the company AEROGEO Aerofotogrametria, Geoprocessamento e Engenharia LTDA., where I have already identified more than 8 thousand plants for the formulation of a water piping project in the city where I live, evaluating possible environmental impacts to reduce them. I hold a master's in ecology and a bachelor's in biological sciences from UFRGS. During my undergraduate course, I participated in an exchange program where I studied at the University of Aberdeen for a year as part of the Science without Borders program, receiving a scholarship from CNPq.

Main Skills

- **Languages:** Portuguese (Brasil - Native), English (Advanced), Spanish (Intermediate).
- **Field work & Laboratory:** Insect sampling (sweep nets, pitfall traps, beat sheet), Insect and plant identification key, Light microscopy.
- **Programming and Statistics:** R environment (*lm4*, *ape*, *bipartite*, *igraph*, *phytools*, *tydiverse*, *vegan*, *raster*, *letsR*, *ggplot2*), Bash, BEAST, html.
- **Others:** Interpersonal skills; Multicultural environments; Presentation and review of scientific papers; Organizational skills; Scientific writing.

Education

- **Double degree PhD in Science and Ecology (2020 – ongoing)**
Federal University of Rio Grande do Sul (UFRGS), Porto Alegre/RS, Brazil.
University of Groningen (RUG), Groningen, Netherlands
Thesis: *Patterns and Evolutionary Consequences of Galling Insects and its Host Plants Interactions.*
Advisors: Prof. Dr. Renan Maestri (UFRGS) & Prof. Dr. Rampal S. Etienne (RUG)
Co-advisor: Prof. Dr. Milton de Souza Mendonça Jr. (UFRGS)

- **Master degree in Ecology (2016 – 2019)**

Federal University of Rio Grande do Sul (UFRGS), Porto Alegre/RS, Brazil.

Dissertation: *Interaction networks of galler insect-parasitoid in closely related host plants: effects of galler oligophagy.*

Advisor: Milton de Souza Mendonça Jr.

- **Bacharel em Ciências Biológicas (2010 – 2015)**

Federal University of Rio Grande do Sul (UFRGS), Porto Alegre/RS, Brazil.

Exchange period at the University of Aberdeen, UK (Tutor: Iain Gibson) as part of Science without Borders program. Sponsored by: Conselho Nacional de Desenvolvimento Científico e Tecnológico, CNPq, Brazil.

Professional Experience

Project Ecologist

- **AEROGEO - Aerofotogrametria, Geoprocessamento e Engenharia LTDA / Brazil (02/2024 – ongoing)**
 - At least 50,000 meters of projected pipeline had a survey and environmental impact analysis carried out;
 - More than 8,000 plants identified;
- **Zoobotanical Foundation of Rio Grande do Sul / Brazil (08/2018 – 03/2019)**
 - Part of a team of 3 biologists that lead 30 interns in digitising over 150,000 scientific collection records from various departments (Arthropods, Paleontology, Herbarium, Mammals, etc.);
 - Prioritised collections based on researcher needs, ensured data quality control and motivated the team to achieve project goals;

Undergraduate Research:

- **Federal University of Rio Grande do Sul, UFRGS, Brazil**
 - Laboratório de Ecologia de Interações (05/2015-12/2015)
Departamento de Ecologia, Instituto de Biociências.
Supervisor: Prof. Milton de Souza Mendonça Jr.
Scientific initiation, Voluntary, 20h/week.
 - Laboratório de Conservação e Manejo de Vida Silvestre (11/2014-05/2015)
Departamento de Ecologia, Instituto de Biociências.
Supervisor: Prof. Demétrio Guadagnin
Scientific initiation, Voluntary, 20h/week.
 - Tutorial Education Program (04/2012-09/2013)
Instituto de Biociências
Tutor: Prof. Andreas Kindel
Tutoring Student, Sponsored by MEC – Ministério da Educação e Cultura, 20h/week.
 - Laboratório de Ictiologia (03/2011-11/2011)
Departamento de zoologia, Instituto de Biociências.

Supervisor: Prof. Clarice Bernhardt Fialho
Scientific initiation, Sponsored by CNPq, 20h/week.

- Laboratório de Ictiologia (08/2010-02/2011)
Departamento de Zoologia, Instituto de Biociências.
Supervisor: Prof. Luiz Roberto Malabarba
Scientific initiation, Voluntary, 20h/week.

○ **State Foundation for Agricultural Research, FEPAGRO, Brazil**

- Laboratório e Museu de Entomologia (06/2015-11/2015)
Supervisor: Dr. Vera Regina dos Santos Wolff
Internship, Trainee, 20h/week.

○ **University of Aberdeen, UoA, UK**

- Oceanlab (06/2014-09/2014)
School of Biological Science, Institute of Biological & Environmental Sciences.
Supervisor: Prof. Graham Pierce
Trainee as part of Science Without Borders program, Sponsored by CNPq 20h/week.

○ **Federal University of Rio Grande do Sul, UFRGS, Brazil**

- Laboratório de Ecologia de Interações (05/2015-12/2015)
Departamento de Ecologia, Instituto de Biociências.
Supervisor: Prof. Milton de Souza Mendonça Jr.
Scientific initiation, Voluntary, 20h/week.

Previous experience:

○ **Junior Achievement/RS, Brazil**

- Núcleo de Ex-Achievers, NEXA-RS (07/2007 – 12/2007)
Human Resources Manager, Voluntary, 12h/week.

Work presentation:

- **Prauchner, C.;** Armellini, P.S.; Oliz, C.B.; da Silva, D.C.; Wolff, V.R.S. IV Salão de Iniciação Científica e Inovação Tecnológica da FEPAGRO. *Preliminary study of insects occurring in an olive plantation, Barra do Ribeiro, Rio Grande do Sul.* 2015.
- **Prauchner, C.;** XXVI Salão de Iniciação Científica da UFRGS. *Comparing assessments.* 2014.
- **Prauchner, C.;** Fialho, C.B. XXIII Salão de Iniciação Científica da UFRGS. *Analysis of skeletal anomalies and histology of the fish community of the Papagaio River, Mato Grosso, Brazil.* 2011.

Workshop and Talks:

- **Prauchner, C.** *Macroevolution and Ecology: How interactions can shape clade evolution.* X Curso de Biologia Evolutiva da UFRGS. Promotion: Graduate Program in Animal Biology, UFRGS. 2024.
- **Prauchner, C.** Gallling insects and their host plants: Interaction patterns and evolutionary consequences. BIO-W2023. Promotion: Graduate Program in Animal Biology, UFRGS. 2023.
- **Prauchner, C.** *Ecological concepts: applicability in activities in nature.* Federal Institute of Rio Grande do Sul (IFRS) – Campus Restinga, Porto Alegre/RS, Brazil. 3h. 2019.

- **Prauchner, C.** *Ecology focused on Tourism*. Federal Institute of Rio Grande do Sul (IFRS) – Campus Restinga, Porto Alegre/RS, Brazil. 6h. 2019.

Event Organization:

- Etges, M.F.; **Prauchner, C.** *II Semana Acadêmica da Biologia da UFRGS*. 2013.
- Etges, M.F.; **Prauchner, C.** *I Semana Acadêmica da Biologia da UFRGS*. 2012.

Teaching:

- **Projeto Educacional Alternativa Cidadã (PEAC)**. Volunteer Biology Teacher. (2016 – 2017 and 2019 –2023)

Participation in Bachelor's Final Work Committee:

- Romanowski, H.P.; **Prauchner, C.**; Mendonça JR, M.S. Participation as a member of Sabrina Maria Becker's committee. 2021. Course Completion Work (Bachelor Degree in Biological Sciences). Federal University do Rio Grande do Sul (UFRGS), Brazil.

Student Representation:

- Postgraduate Program in Ecology (2021/2022 & 2023/2024)
Instituto de Biociências, UFRGS.

Publications

Peer-reviewed articles:

- **Prauchner, C.**; De Souza Mendonça, Milton. *What shapes galling insect-parasitoid interaction networks on closely related host plants?* ECOLOGICAL ENTOMOLOGY, 2023. DOI: <https://doi.org/10.1111/een.13300>

Book Chapters:

- Almeida, T.S.; Nietschke, P.P.; **Prauchner-Silva, C.**; Fiedler, M.S. *Impactos antrópicos e efeitos ecoevolutivos sobre a biodiversidade*. In: Leonardo Augusto Luvison Araújo; Gilberto Cavalheiro Vieira. (Org.). Ensino de Biologia: Uma perspectiva evolutiva VOLUME II: BIODIVERSIDADE & EVOLUÇÃO. 1eded. São Carlos/SP: Diagrama Editorial, 2021, v. 2, p. 351-396.
- Fiedler, M.S.; Nietschke, P.P.; **Prauchner-Silva, C.**; Almeida, T.S. *Ecologia I: Explorando as inter-relações da vida sob a ótica evolutiva*. In: Gilberto Cavalheiro Vieira; Leonardo Augusto Luvison Araújo. (Org.). Ensino de Biologia: Uma perspectiva evolutiva VOLUME I: INTERDISCIPLINARIDADE & EVOLUÇÃO. 1eded. São Carlos/SP: Diagrama Editorial, 2021, v. 1, p. 233-268.

Abstracts published in congress annals:

- Mendonça Jr., M. de S. **Prauchner, C.**; Luz, F.A. *Building networks out of galls: complex tritrophic interactions*. In: 2nd Symposium on the Biology of Galls, 2021, Rio de Janeiro. Annals of the 2nd Symposium on the Biology of Galls, 2021. v. 1. p. 41-43
- **Prauchner, C.** XXV International Congress of Entomology. *Network of monophagous and oligophagous galling insects (Diptera: Cecidomyiidae) and associated parasitoids*. Orlando. 2016.

Magazine articles:

- Thomas, A.; Winkler, B.; **Prauchner, C.**; Raguse-Quadros, M.; De Souza Mendonça, M. *O caminho natural das águas e o nosso caminho natural*. UFRGS: Jornal da Universidade, Porto Alegre, 03 jun. 2024.

Awards

- Featured presentation at Special Session: Science Without Borders. XXVI Salão de Iniciação Científica da UFRGS. 2014.
- Community merit, Junior Achievement Brazil. 2007.

Skills

- **Languages:** Portuguese (Brazil - Native), English (Advanced), Spanish (Intermediate).
- **Field work & Laboratory:** Insect sampling (sweep nets, pitfall traps, beat sheet), Insect and plant identification key, Light microscopy.
- **Programming and Statistics:** R environment (*lm4*, *ape*, *bipartite*, *igraph*, *phytools*, *tydiverse*, *vegan*, *raster*, *letsR*, *ggplot2*), Bash, BEAST, html.
- **Others:** Interpersonal skills; Multicultural environments; Presentation and review of scientific papers; Organizational skills; Scientific writing.

References

- Prof. **Renan Maestri**, UFRGS. - renanmaestri@gmail.com
- Prof. **Rampal S. Etienne**, RUG. - r.s.etienne@rug.nl
- Prof. **Milton de S. Mendonça Jr.**, UFRGS. - milton.mendonca@ufrgs.br
- Dr. **Matheus F. Etges**, UFRGS. – matheus.etges@gmail.com