# VINICIUS AUGUSTO GALVÃO BASTAZINI

#### Summary

I have a broad (and when I say broad, I mean broad!) interest in Ecology, Evolutionary Biology and Conservation Biology, but my main interest lies in understanding the interplay between ecological and evolutionary dynamics and its consequences to patterns of biological diversity and species interactions. I address these kinds of questions by combining aspects of phylogenetics, network and functional ecology, using species traits as a biological building block to understand eco-evolutionary dynamics and their consequences to ecological communities and ecosystems services.



## **EDUCATION**

2011 | 2015 Doctor of Science

Federal University of Rio Grande do Sul\*

Porto Alegre, Brazil

Dissertation: Integrating Evolutionary and Ecological Processes in the Study of Interaction Networks.

\*Title recognized by the University of Lisbon 2019

2009 | 2011 M.S. Ecology

Federal University of Rio Grande do Sul

Porto Alegre, Brazil

Thesis: Effects of Habitat and Spatial Structure on Mammalian Diversity in Northern Pantanal: A Fine Grain Approach

2004 | 2007 BSc Ecology

Catholic University of Pelotas

Pelotas, Brazil

Undergraduate Thesis: Spatial Analysis of the Trophic Ecology of the Neotropical Otter (Lontra Longicaudis) (Olfers, 1818) (Mustelidae: Lutrinae)

## I PROFESSIONAL EXPERIENCE

2021 | present Researcher

University of Évora

♀Évora, Portugal

2020

Research Fellow

Federal University of Rio Grande do Sul - Road and Railroad Ecology Center

Porto Alegre, Brazil

2017 | 2019 Post-doctoral Researcher

French National Center for Scientific Research

Moulis, France

## CONTACT INFO

■ bastazini.vinicius@gmail.com

S vinicius.bastazini

github.com/bastazini

Research Gate

**G** Google Scholar

0000-0001-5270-0621

### **EXPERTISE**

Bigeography
Community Ecology
Evolutionary Ecology
Complex Networks
Conservation Biology

| 2016                 | • | Research Fellow Federal University of Rio Grande do Sul - Laboratory of Quantitative Ecology   |
|----------------------|---|--|
|                      |   | Porto Alegre, Brazil   |
| 2013                 | • | Professor Biostatistcs Catholic University of Pelotas - Specialization in Conservation Biology   |
|                      |   | ◆ Pelotas, Brazil  |
| 2008<br> <br>2009    |   | Research Fellow Catholic University of Pelotas  ◆ Pelotas, Brazil  |
| 2008<br> <br>2009    |   | Research Fellow Federal University of Rio Grande do Sul   ♥ Porto Alegre, Brazil   |
| 2006<br> <br>present | • | Co-founder and Member of the Executive Committee Pró-Pampa Institute   Pelotas, Brazil   |
|                      |   | PUBLICATIONS   |
|                      |   | PEER-REVIEWED ARTICLES   |
| In press             |   | Ecological network complexity scales with area Nature Ecology and Evolution  Galiana, N., Lurgi M., Bastazini, V.A.G., Bosch, J., Cagnolo, L., Cazelles, K., Claramunt-López, B., Emer, C., Fortin, M., Grass, I., Hernández-Castellano, C., Jauker, F., Leroux, S.J., McCann, K., McLeod, A.M., Montoya, D., Mulder, C., Osorio-Canadas, S., Reverté, S., Rodrigo, A., Steffan-Dewenter, I., Traveset, A., Valverde, S., Vázquez, D.P, Wood, S.A., Gravel, D., Roslin, T., Thuiller, W. & Montoya, J.M. |
| 2021                 |   | Phylogenetic uncertainty and the inference of patterns in community ecology and comparative studies  Oecologia 196: 633–647  Debastiani, V., Bastazini, V.A.G. & Pillar, V.P.  |
| 2021                 |   | Using phylogenetic information to impute missing functional trait values in ecological databases  Ecological Informatics 63: 101315  Debastiani, V., Bastazini, V.A.G. & Pillar, V.P.  |
| 2021                 |   | The impact of climate warming on species diversity across scales: Lessons from experimental meta-ecosystems <i>Global Ecology and Biogeography</i> 30 (7): 1545-1554  Bastazini, V.A.G. Galiana, N., Hillebrandt, H., Estiartes, M., Ogayas, R., Peñuelas, J., Sommer, U. & Montoya, J. M.   |

Species richness and patterns of overdispersion, clustering 2020 and randomness shape phylogenetic and functional diversity-area relationships in habitat islands. Journal of Biogeography 47 (8): 1638-1648 Dias, R. A., Bastazini, V.A.G., Kock, B., Bonow, F. C., Sanyvan, M. S. & Gianuca, A. T. 2020. Including rewiring in the estimation of the robustness of 2020 mutualistic networks Methods in Ecology and Evolution 11 (1): 106-116 Vizentin-Bugoni, J., Debastiani, V.J., Bastazini, V.A.G., Maruyama, P.K. & Sperry J.H **NEOTROPICAL CARNIVORES:** a dataset of occurrence of 2020 carnivores in the Neotropics. Ecology 101 (11): e03128 Nagy-Reis, M.B., [...], Bastazini, V. A. G., et al. **NEOTROPICAL ALIEN MAMMALS: a dataset of occurrence** 2020 and abundance of alien mammals in the Neotropics Ecology 101 (11): e03115. Rosas, C., [...], Bastazini, V. A. G., et al. Loss of generalist plant species and functional diversity 2019 decreases the robustness of a seed dispersal network Environmental Conservation 46 (1): 52-58. Bastazini, V. A. G., Debastiani, V., Azambuja, B., Guimarães, P., & Pillar, **NEOTROPICAL XENARTHRANS:** a data set of occurrence of 2019 xenarthran species in the Neotropics Ecology 100(7): e02663 Santos, P.,[...], Bastazini, V. A. G., et al. 2018 Assessing sampling sufficiency of network metrics using bootstrap Ecological Complexity 36: 268-275 Casas, G., Bastazini, V. A. G., Debastiani, V. J., & Pillar, V. D. P. 2018. Environmental predictors of demography in the tuco-tuco of 2018 the dunes (Ctenomys flamarioni) Mastozoología Neotropical 25 (2): 293-304 Garcias, F. M., Stolz J., Fernández G. P, Kubiak B. B, Bastazini, V. A. G. & Freitas T. R. O. Reptile road-kills in Southern Brazil: Composition, hot 2018 moments and hotspots

Science of the Total Environment 615: 1438-1445

Gonçalves, L. O., Alvares, D. J., Teixeira, F. Z., Schuck, G., Coelho, I. P., Esperandio, I. B., Anza, J., Beduschi, J., **Bastazini, V. A. G.** & Kindel, A.

# Untangling the tangled bank: A novel method for partitioning the effects of phylogenies and traits on ecological networks

Evolutionary Biology 44: 312-324

**Bastazini, V. A. G.**, Abreu, P. M., Azambujo, B., Casas, G., Debastiani, V., Guimarães Jr, P. R. & Pillar, V. P.

# Livestock disturbance in southern Brazilian grasslands influences avian species diversity via turnover

Biodiversity and Conservation 26: 2473-2490

Dias, R. D., Gianuca, A., Vizentin-Bugoni, J., Bencke, G. A. & **Bastazini,** V. A. G.

## Linking beta diversity patterns to protected areas: Lessons from the Brazilian Atlantic Forest

Biodiversity & Conservation 26: 1557-1568.

Bergamin, R. S., **Bastazini, V.A.G.**, Vélez-Martin, E., Debastiani, V., Zanini, K. J., Loyola, R. & Müller, S.C.

# Implications of climatic seasonality on activity patterns and resource use by sympatric peccaries in northern Pantanal

International Journal of Biometeorology 60: 421-433

Hofmann, G. S., Coelho, I. P., **Bastazini, V. A. G.**, Cordeiro, J. L. P. & Oliveira, L.F. B.

#### 2015 • Choosing and using traits in functional diversity research

Environmental Conservation 42: 104-107

Lefcheck, J., Bastazini, V. A. G. & Griffin, J. N.

# Taxonomic and functional diversity of woody plant communities on opposing slopes of inselbergs in southern Brazil

Plant Ecology and Diversity 8: 187-197

Carlucci, M. B., **Bastazini, V. A. G.**, Hofmann, G. S., Macedo, J.H., Iob, G., Duarte, L. D. S., Hartz, S.M. & Müller S.C.

# Climate effects on amphibian distribution depend on phylogenetic scale and biogeography

Global Ecology and Biogeography 23: 213-222

Duarte, L. S., Both, C., Carlucci, M., Debastiani, V., Cappelatti, L., Seger, G., Salengue, E., **Bastazini, V. A. G.**, Gonçalves, L. O., Brum, F. T. & Bernardo-Silva, J.

## Bird-habitat associations in coastal rangelands of southern Brazil

Iheringia - Série Zoologia 104: 200-208

Dias, R. A., Gianuca, A. T. & Bastazini, V. A. G.

Independent and shared effects of environmental features and space driving avian community beta-diversity across a coastal gradient in southern Brazil

Austral Ecology 38: 864-873

Gianuca, A. T., Bastazini, V. A. G., Dias, R. A. & Hernández, M. 2013.

Shifts in composition of avian communities related to temperate-grassland afforestation in southeastern South America

Iheringia - Série Zoologia 103: 12-19

Dias, R. A., **Bastazini, V. A. G.**, Gonçalves, M. S. S., Bonow, F. C. & Müller, S.

Feeding ecology of Lontra longicaudis in the lower Arroio Grande, southernmost Brazil

Anais da Academia Brasileira de Ciências 85: 285-294 Sousa, K. S., **Bastazini, V. A. G.** & Colares, E. P.

Abundance of Conepatus chinga (Carnivora: Mephitidae) and other medium-sized mammals in grasslands of southern Brazil

Iheringia - Série Zoologia 102: 303-310

Kasper, C. B., Bastazini, V. A. G., Soares, J. B. G. & Freitas, T. R. O.

First breeding record of the bay-capped wren-spinetail (Spartonoica maluroides) in Brazil, with nest and nestling descriptions and nesting behavior notes

Iheringia - Série Zoologia 99: 449-455. 2009

Dias, R. A., Gonçalves, M. S. S. & Bastazini, V. A. G.

Trophic ecology and the use of shelters and latrines by the Neotropical otter (Lontra longicaudis) in the Taquari Valley, Rio Grande do Sul, Brazil

*Iheringia - Série Zoologia* 98: 1-6

Kasper, C. B., Bastazini, V. A. G., Salvi, J. & Grillo, H. C. Z.

BOOKS AND BOOK CHAPTERS

In prep. • Road effects on ecological networks

2013

In: Road Ecology: Synthesis and Perspectives. eds.: D'Amico, M., Barrientos, R., Ascensão, F. Elsevier Science Publishing Co.

Germany

Mestre, F., Quiles, P., Bastazini, V. A. G., Ascensão, F.

Fauna da Reserva Particular do Patrimônio Natural SESC
 Pantanal: uma perspectiva através de armadilhas fotográficas

Hoffman, G. S., Bastazini, V. A. G., Coelho, I. P., Oliveira, L. F. B.

#### **PREPRINTS**

The role of evolutionary modes for trait-based cascades in mutualistic networks

BioRxiv: 1-22

**Bastazini, V. A. G.**, Debastiani, V., Cappelatti, L., Guimarães, P., & Pillar, V.P.

 Habitat fragmentation compromises the population dynamic of the globally near-threatened Straight-billed Reedhaunter (Limnoctites rectirostris).

BioRxiv: 1-18

Gonçalves M. S., Pons, P., Bonow, F., **Bastazini, V. A. G.**, Gil-Delgado, J. & Iborra, G.L.

## **TEACHING EXPERIENCE AS AN INSTRUCTOR**

Dep. Botany - Federal University of Rio Grande do Sul

Porto Alegre, Brazil

Introduction to Quantitative Ecology
Federal University of Pelotas

Pelotas, Brazil

2011- Theoretical Ecology
2013 Federal University of Rio Grande do Sul

Porto Alegre, Brazil

2013 • Introduction to Quantitative Ecology

Zoo-botanic Foundation of Rio Grande do Sul Porto Alegre, Brazil

2013 • Introduction to R

Pontifical Catholic University of Rio Grande do Sul

Porto Alegre, Brazil

2012 • Introduction to Quantitative Ecology

Federal University of Pelotas

Pelotas, Brazil

2011 • Quantitative Methods Applied to Ecology

2009 Statics Applied to Ecology and Conservation Biology

Federal University of Pelotas Pelotas, Brazil

2008 Sampling and Analysis Techniques in Bird Ecology

2008 Sampling and Analysis Techniques in Animal Ecology

Catholic University of Pelotas Pelotas, Brazil

2007 • Biodiversity Management and Conservation

## **ACADEMIC ADVISORY**

#### 2018 • Bruna de Castro Knopp

Thesis - Master's Degree in Animal Biology, Federal University of Pelotas. (Co-advisor). Relationship Between Wetland Area and Taxonomic, Functional and Phylogenetic Diversity of Birds in Southern Brazil.

Pelotas, Brazil

### 2014 • Timóteo Matthias Rico

Monograph - Specialization in Conservation Biology, Catholic University of Pelotas, Brazil. Data Mining Applied to Conservation Biology: A case study on the extinction risk of mammals from Rio Grande do Sul

Pelotas, Brazil

## 2012 • Diogo Maia Gräbin

Monograph – Bachelor's Degree in Biology, Federal University of Rio Grande do Sul, Brazil. Density and Spatial Distribution of Rhea americana in Different Physiognomies of the Pantanal of Nhecolândia

Porto Alegre, Brazil

## ■ INVITED TALKS

2020 • Ecological networks

2020

2020

Dep. of Ecology – Federal University of Rio Grande do Sul

Porto Alegre, Brazil

Trait redundancy and the Structure and Stability of

Mutualistic Networks: An Evolutionary approach
Emílio Goeldi Museum 

♥ Belém do Pará, Brazil

Climate Change: Re-shuffling the tangled bank

Biology Program. Federal Institute Farroupilha Santa-Maria, Brazil

Climate-driven phenological shifts and the future of mutualist networks

Graduate Program in Animal Biology – Federal University of Pelotas

Climate-driven phenological shifts and the eco-evolutionary dynamics of mutualistic networks

Dep. of Animal Biology – Federal University of Rio Grande do Sul

Porto Alegre, Brazil

2018 • Trait redundancy and the Structure and Stability of

Mutualistic Networks
University of Valencia

♥ Valencia, Spain

Pelotas, Brazil

Untangling the Tangled Bank: Phylogenetic- and Trait-based approaches in Network ecology

University of Lisbon 

♥ Lisbon, Portugal

Untangling the Tangled Bank: Phylogenetic- and Trait-based approaches in Network ecology

Higher Institute of Agronomy 

♥ Lisbon, Portugal

| 2017              | • | Merging phylogenetic- and trait-based approaches into<br>Network Ecology  |
|-------------------|---|---|
|                   |   | Swansea University   ♥ Swansea, Wales   |
| 2016              | • | Coextinction and robustness in mutualistic networks: eco-<br>evolutionary dynamics and patterns<br>Dep. of Ecology – Federal University of Rio Grande do Sul                    |
|                   |   | <b>♀</b> Porto Alegre, Brazil   |
| 2016              |   | Coextinction and robustness in mutualistic networks: eco-<br>evolutionary dynamics and patterns<br>Dep. of Ecology – University of Vale dos Sinos <b>Q</b> São Leopoldo, Brazil |
|                   | • | Untangling the tangled bank: a novel method for partitioning the effects of phylogenies and traits on ecological networks University of São Paulo ♥ São Paulo, Brazil           |
| 2015              |   | Coextinction and robustness in mutualistic networks  Dep. of Animal Biology − Federal University of Rio Grande do Sul  Porto Alegre, Brazil                                     |
| 2012              | • | Untangling the tangled bank: evolutionary and ecological components in interaction networks I International Seminar of Ecological Research and Education                        |
|                   |   | <b>Q</b> Pelotas, Brazil  |
| 2011              |   | Species Detectability in Mammalogy Studies: Implications and Analytical Solutions  Econsciência Institute  Viamão, Brazil   |
|                   |   |   |
| 2011              |   | Considerations on the Use of Camera Traps in Conservation Biology Federal University of Rio Grande do Sul/ Curicaca Institute  ♥ Porto Alegre, Brazil                           |
| 2010              | • | Independent and shared effects of area and habitat driving  |
|                   |   | avian community structure in the São Gonçalo Channel Catholic University of Pelotas  ◆ Pelotas, Brazil  |
|                   | Ö | GRANTS, AWARDS AND FUNDING  |
| 2011<br> <br>2015 | • | Coordination of Superior Level Staff Improvement  Doctoral fellowship (R\$105,600)  |
| 2014              | • | International Association for Vegetation Science Travel Grant (€1,700)  |
| 2009<br> <br>2011 |   | Coordination of Superior Level Staff Improvement MSc fellowship (R\$36,000)   |
| 2009              | • | Helmut Sick Award<br>XVII Brazilian Congress of Ornithology   |

## **Q** REVIWER

#### Journals

- · Agriculture, Ecosystems and Environment
  - Iheringia Série Zoologia
- Annals of the Brazilian Academy of Journal of Biogeography Sciences
  - Oikos

• Iheringia - Série Botânica

- Arthropod-Plant Interactions
- Methods in Ecology and Evolution
- Biological Conservation
- Perspectives in Plant Ecology **Evolution and Systematics**

Ecography

- Ecology Letters
- The Science of Nature

#### **Books**

## Ecologia I: Explorando as inter-relações da vida sob a ótica evolutiva.

In: Ensino de Biologia: uma perspectiva evolutiva - Volume I: Biodiversidade & Evolução.

#### Ecologia II: Impactos antrópicos e efeitos eco-evolutivos 2020 sobre a biodiversidade.

In: Ensino de Biologia: uma perspectiva evolutiva - Volume II: Biodiversidade & Evolução.

## As interações planta - polinizador e a estrutura de comunidades.

In: Ecologia de Interações Planta-Polinizador.

## OUTREACH

2021 present

2019

2013

2020

Geekcologist

Chairman

Writer

Portugal

## 2013

**Biodiverse Perspectives** Co-founder, Writer and International Communications and Outreach

**Q** USA