

# Postdoc Researcher





## BIO

I am a Uruguayan biologist (PhD) doing research in Macroecology and Biodiversity Informatics. I currently work as a postdoc researcher at the Czech University of Life Sciences (MOBI Lab), focused on studying spatial and temporal patterns of biodiversity. I am also the founder of Biodiversidata (Uruguayan Consortium of Biodiversity Data), a member of the JULANA NGO, the administrator of NaturalistaUY (the iNaturalist site for Uruguay), and a NatGeoExplorer. I co-chair the RDA Sharing Rewards and Credit Interest Group (SHARC) and I am a GBIF Open Data Ambassador. I am a The Carpentries Instructor. Recently, I also joined the IUCN SSC Species Monitoring Specialist Group.

## **EDUCATION**

| 2017 - 2021 | <b>Ph.D., Life Sciences</b> Evolution and Ecology Research Group, School of Life Sciences. Dissertation: Biodiversity informatics and macroecological patterns of biodiversity: Uruguay as a model region. Advisor: Daniel Pincheira-Donoso   |
|-------------|---|
| 2013 - 2015 | M.Sc., Biological Sciences (Genetics)  Universidad de la República, Uruguay Department of Biodiversity and Genetics, Clemente Estable Biological Research Institute. Dissertation: Contributions of molecular ecology to the study of mammals in Uruguay. Advisors: Susana González and Mariana Cosse |
| 2006 – 2012 | B.Sc. (Hons), Biological Sciences  Universidad de la República, Uruguay  Department of Biodiversity and Genetics, Clemente Estable Biological Research Institute.  Project: Development of molecular tools for the taxonomic identification of different carnivore species. Advisor: Mariana Cosse    |

# PROFESSIONAL EXPERIENCE

| 05/2023 - 08/2023              | Consultant Open Research Data Incenti                                       | Agencia Nacional de Investigación e Innovación (Uruguay)<br>ve Programme   |
|--------------------------------|---|--|
| 04/2021 - present              | <b>Postdoc</b> Range dynamics of Neotrop                                    | Czech University of Life Sciences (Czech Republic) cal carnivores in the MOBI Lab, Department of Spatial Sciences.               |
| 01/2021 - 04/2021              |   | ironmental Programme - World Conservation Monitoring Centre (Cambridge, UK)<br>ernship in the Conserving Land and Seascapes Team |
| 08/2018 - 12/2020<br>part time | <b>Demonstrator</b><br>Demonstrating for courses<br>School of Life Sciences | University of Lincoln (Lincoln, United Kingdom) of Zoology, Paleontology, and Biological Anthropology at the                     |
| 01/2017 - 07/2017<br>part time | <b>Project Manager</b> Co-coordination of the project                       | Vida Silvestre NGO (Montevideo, Uruguay) ct 'Conservation in private protected areas of Uruguay'                                 |
| 11/2016 - 03/2017              | Research Assistant Bioinformatics and genomic                               | Universidad de la República (Montevideo, Uruguay)<br>s at the Department of Animal Genetics, School of Veterinary                |
| 10/2016 - 11/2016              | <b>Field Assistant</b> Sampling plots of vascular p                         | Technische Universität Berlin (Uruguay)<br>lants for the project 'Rural Futures'   |
| 11/2015 - 10/2016<br>part time | <b>Technician</b><br>Livestock pedigree data ma                             | Rural Association of Uruguay (Montevideo, Uruguay)<br>nagement   |
| 11/2015 - 10/2016<br>part time | Research Assistant Bioinformatics and compara Medicine                      | Universidad de la República (Montevideo, Uruguay)<br>tive genomics of Salmonella at the Institute of Hygiene, School of          |
| 01/2012 - 12/2015              | Research Assistant Research and teaching at th                              | Clemente Estable Biological Research Institute (Montevideo, Uruguay)  Department of Biodiversity and Genetics                    |

#### PEER-REVIEWED ARTICLES

- 17. Finn C., <u>Grattarola F.</u> & Pincheira-Donoso D. (2023) More losers than winners: investigating Anthropocene defaunation through the diversity of population trends. *Biological Reviews*. [link]
- 16. <u>Grattarola F.</u>, Bowler D.E. & Keil P. (2023) Integrating presence-only and presence-absence data to model changes in species geographic ranges: An example in the Neotropics. *Journal of Biogeography*. [link]
- 15. Moudrý V., Keil P., Cord A.F., Gábor L., Lecours V., Zarzo-Arias A., Barták V., Malavasi M., Rocchini D., Torresani M., Gdulová K., <u>Grattarola F.</u>, Leroy F., Marchetto E., Prošek J., Thouverai E., Wild J. & Šímová P. (2023) Scale mismatches between predictor and response variables in species distribution modelling: a review of practices for appropriate grain selection. *Progress in Physical Geography*. [link]
- 14. Zarzo-Arias A., Penteriani V., Gábor L., Šímová P., <u>Grattarola F.</u>, & Moudrý V. (2022) Importance of Data Selection and Filtering in Species Distribution Models: A Case Study on the Cantabrian Brown Bear. *Ecosphere*, 13(12): e4284. [link]
- 13. Callaghan C.T., Mesaglio T., Ascher J.S, Brooks T.M., Cabras A.A., Chandler M., Cornwell W.K., Ríos-Málaver I.C., Dankowicz E., Dhiya'ulhaq N.U., Fuller R.A., Galindo-Leal C., <u>Grattarola F.</u>, [...], & Young A.N. (2022) The Benefits of Contributing to the Citizen Science Platform INaturalist as an Identifier. *PLOS Biology*, 20(11): e3001843. [link]
- 12. Pincheira-Donoso D., Harvey L.P., <u>Grattarola F.</u>, Jara M., Cotter S.C., Tregenza T. & Hodgson D.J. (2021) The multiple origins of sexual size dimorphism in global amphibians. *Global Ecology and Biogeography*, 30(2): 443-458. [link]
- 11. <u>Grattarola F.</u>, Martínez-Lanfranco, J.A., [...], & Pincheira-Donoso D. (2020) Multiple forms of hotspots of tetrapod biodiversity and the challenges of open-access data scarcity. *Scientific Reports*, 10(1): 1-15. [link]
- 10. <u>Grattarola F.</u>, Mai, P., [...], & Pincheira-Donoso D. (2020) Biodiversidata: A novel dataset for the vascular plant species diversity in Uruguay. *Biodiversity Data Journal*, 8: e56850. [link]
- 9. <u>Grattarola F.</u> & Rodríguez-Tricot L. (2020) Mammals of Paso Centurión, an area with relicts of Atlantic Forest in Uruguay. *Neotropical Biology and Conservation*, 15(3): 267–283. [link]
- 8. D'Alessandro B., Pérez Escanda V., Balestrazzi V., <u>Grattarola F.</u>, [...], & Betancor L. (2020) Comparative genomics of Salmonella enterica serovar Enteritidis ST-11 isolated in Uruguay reveals lineages associated with particular epidemiological traits. *Scientific Reports*, 10: 3638. [link]
- 7. <u>Grattarola F.</u>, Botto, G., [...], & Pincheira-Donoso D. (2019) Biodiversidata: an open-access biodiversity database for Uruguay. *Biodiversity Data Journal*, 7: e36226. [link]
- 6. <u>Grattarola F.</u> & Pincheira-Donoso D. (2019) Data-sharing in Uruguay, the vision of collectors and data users. **Boletín de la Sociedad Zoológica del Uruguay**, 28(1): 1-14. [link]
- 5. Bergós L., <u>Grattarola F.</u>, Barreneche J.M., Herández D., & González S. (2018) Fogones de Fauna: an experience of participatory monitoring of wildlife in rural Uruguay. *Society & Animals*, 26(2), 171-185. [link]
- 4. Chouhy M., Santos C., Gaucher L., <u>Grattarola F.</u>, [...], & Perazza, G. (2017) At the frontiers of knowledge: the quest for an integral training course on society-nature. *Integralidad Sobre Ruedas*, 4(1): 62–77. [link]
- 3. Cosse M., <u>Grattarola F.</u> & Mannise N. (2017) A novel real-time TaqMan™PCR assay for simultaneous detection of Neotropical fox species using noninvasive samples based on cytochrome C oxidase subunit II. *Mammal Research*, 62(4): 405-411. [link]
- 2. <u>Grattarola F.</u>, Hernández D., [...], & Rodríguez-Tricot R. (2016) First record of jaguarundi (Puma yagouaroundi) (Mammalia: Carnivora: Felidae) in Uruguay, with comments about participatory monitoring. *Boletín de la Sociedad Zoológica del Uruguay*, 25(1): 85–91. [link]
- 1. <u>Grattarola F.</u>, Cosse M. & González S. (2015) A novel primer set for mammal species identification from feces samples. *Conservation Genetic Resources*, 7: 57–59. [link]

#### PRE-PRINT ARTICLES

4. <u>Grattarola F.</u>, Rodríguez-Tricot L., Zarucki M. & Laufer G. (2023) Status of the invasion of Carpobrotus edulis in Uruguay based on community science records. *Research Square PREPRINT*. [link]

- 3. Tschernosterová K., Trávníčková E., <u>Grattarola F.</u> & Keil P. (2023) SPARSE 1.0: a template for databases of species inventories, with an open example of Czech birds. *ARPHA Preprints*. [link]
- 2. <u>Grattarola F.</u>, Bowler D.E. & Keil P. (2022) Integrating presence-only and presence-absence data to model changes in species geographic ranges: An example of yaguarundí in Latin America. *EcoEvoRxiv*. [link]
- 1. Pincheira-Donoso D., Harvey L.P., Guirguis J., Goodyear L.E.B., Finn C., Johnson J.V., <u>Grattarola F.</u> (2022) Temporal and spatial patterns of vertebrate extinctions during the Anthropocene. *bioRxiv*. [link]

## **BOOKS**

1. Chouhy M., Bergós L., Garay A., <u>Grattarola F.</u>, Perazza G., Santos C. & Taks J. (2022) Relaciones Sociedad-Naturaleza en Paso Centurión. Aportes desde una trayectoria integral universitaria en la frontera noreste de Uruguay. *Servicio Central de Extensión y Actividades en el Medio Universidad de la República*. [link]

# GRANTS, FUNDING

| 2022        | Capacity Enhancement Support Programme Global Biodiversity Information Facility (GBIF) £14,000   Project 'Extending knowledge on biodiversity data quality and publication in the Spanish-speaking community' CESP2021-007 [link]                                    |
|-------------|--|
| 2021 - 2022 | Citizen Science for Species Discovery Grant National Geographic Society £25,000   Project 'Naturalista UY – The iNaturalist community for Uruguay' (Uruguay)   |
| 2019        | <b>College of Science Grant for Postgraduate Students</b> 2750   Attend the conference 'Biodiversity Next' (Leiden, The Netherlands)  University of Lincoln  |
| 2019        | <b>Travel Grant for Postgraduate Students</b> £500   Attend the course 'Advancing in statistical modelling for evolutionary biologists and ecologists using R' (Glasgow, Scotland)   |
| 2018        | Mobility Fund for Postgraduate Research StudentsSantander - University of Lincoln£500   Deliver the 'First meeting of the members of Biodiversidata' (Montevideo, Uruguay)   |
| 2018        | Travel Grant for Early Career European Researchers & Scientists £1,500   Attend the '11th RDA Plenary Meeting' (Berlin, Germany)   |
| 2017 - 2020 | <b>Ph.D. International Fellowship</b> September 1,2016_1_136663 (Lincoln, United Kingdom)  National Agency for Research and Innovation (ANII)  |
| 2017        | <b>Travel Grant for Postgraduate Students</b> Centro Brasileiro-Argentino de Biotecnologia (CBAB/CABBIO)  £1,800   Attend the Course 'Bioinformatics Tools for RNA-Sequence Data Analysis' at Laboratório Nacional de Computação Científica (Petrópolis, RJ, Brasil) |
| 2015        | Internship Grant for Postgraduate Students Association of Universities of the Montevideo Group (AUGM) £1,500   Internship stay at the Laboratório de Biodados, Universidade Federal de Minas Gerais (UFMG) (Belo Horizonte, Brazil)                                  |
| 2013        | Internship Grant for Postgraduate Students Program for the Development of Basic Sciences (PEDECIBA) £1,500   Internship stay at Bioinformatics at the Department of Biochemistry and Molecular Biology, University of Mississippi (Starkville, United States)        |
| 2013 - 2015 | Posgraduate National Fellowship National Agency for Research and Innovation (ANII) £8,500   Postgraduate Fellowship POS_NAC_2012_1_8976 (Montevideo, Uruguay)  |
| 2012        | Travel Grant  £1,500   Attend the 'VIII Genetic Workshop for Conservation: new tools and new concepts' (Chillán, Chile)  |
| 2012        | Mobility Grant Association of Universities of the Montevideo Group (AUGM) £2,000   A semester at Universidade Estadual de Jaboticabal (UNESP) (Jaboticabal, SP, Brazil)  |
| 2011 - 2012 | Undergraduate National Fellowship National Agency for Research and Innovation (ANII)   |

£2,000 | Initiation in Research Fellowship BE\_INI\_2010\_1961 (Montevideo, Uruguay)

#### **STUDENTS**

**Enzo Cavalli**, BSc (Honours) in Biological Sciences, School of Science, **Universidad de la República**. Project: 'Effects of livestock on the mammal community of Paso Centurión, Cerro Largo'. Advisor, finished in 2019. [thesis]

**Rodrigo Montiel**, BSc (Honours) in Biological Sciences, School of Science, **Universidad de la República**. Project: 'NaturalistaUY as a community science tool to improve biodiversity knowledge in Uruguay'. Advisor, ongoing. [github repo]

# **LECTURING**

| 2022                         | Spatial Ecology and Macroecology Practical classes in the posgraduate course for 6-8 students. Taught together with François Leroy and led by Dr. Petr Keil [syllabus]   |
|------------------------------|--|
| 2017 – 2019<br>two editions  | Modern Mammals School of Science, Universidad de la República (Uruguay) Lecture in the graduate course of Palaeontology, for 15-20 students. Invited by Dr. Richard Fariña [slides]  |
| 2018                         | Management and analysis of camera trap records using R Ministry of Environment (Uruguay) Course for NGOs, researchers and government people. Taught together with Juan M. Barreneche and Gabriel Perazza [syllabus]  |
| 2016 – 2017<br>two editions  | Introduction to Python  Lecture at posgraduate course 'Introduction to command line and programming for bioinformatic analysis', for 25-30 students in Biological Sciences. Invited by Dr. Andrés Iriarte [syllabus]   |
| 2013 – 2017<br>four editions | Relationships between Society and Nature  Graduate course for 10-20 students of Anthropology, Biology, Geography and Social Sciences.  Taught together with Carlos Santos, Javier Taks, Magdalena Chouhy, Andrea Garay, Lucía Bergós and Gabriel Perazza [link to S&N Group] |
| 2014                         | <b>Environmental education and community involvement</b> Lecture at posgraduate course 'Conservation biology' for 15-20 students in Biological Sciences. Invited by Dr. Susana González.   |
| 2014                         | Introduction to Biology  Discussion group for the course Introduction to Biology School or 15-20 undergraduate students of Biological Sciences. Taught together with Dr. Juan Cristina.  |

### SERVICE FOR JOURNALS ACADEMIC MEMBERSHIPS

Frontiers of Biogeography
Biodiversity Data Journal

Global Ecology and Biogeography

Journal of Biogeography

Journal of Biogeography

CITATION METRICS

2023 – Ecological Society of America.
2021 – International Biogeography Society.
2020 – GBIF Biodiversity Open Data Ambassador.
2019 – Organization for Women in Science for the Developing World (OWSD).
2018 – British Ecological Society (BES).
2018 – Research Data Alliance (RDA) – SHARC Interest Group.
2013 – Interdisciplinary Group on Society-Nature Relationships (RETEMA).
2012 – Latin American Network for Conservation Genetics (REGENEC).

2010 - Zoological Society of Uruguay (SZU).

## TRAINING

152 citations, h-index = 7

2023 Instructor Training: Data Carpentry, Library Carpentry, and Software Carpentry
The Carpentries

2023 NIMBLE course Virtual

University of California, Berkeley

2022 **Joint Species Distribution Modelling with Hierarchical Modelling of Species Communities**Jyväskylä, Finland
Jyväskylä University

2022 Research Data Science Summer School Trieste, Italy CODATA-RDA

| 2022            | <b>Taller Avanzado de Formación en Comunicación Científica</b> Bardo Científico & Academia de Ciencias de América Latina   | Virtual   |  |
|-----------------|--|---|--|
| 2020            | Using Python to Access Web Data<br>Coursera  | Virtual   |  |
| 2019            | Species Distribution Modelling: Fundamentals and the Future University of Nottingham, British Ecological Society   | Nottingham, UK  |  |
| 2019            | Advancing in statistical modelling for evolutionary biologists and ecologists using R PR Statistics  | Glasgow, Scotland                                       |  |
| 2017            | Bioinformatics Tools for RNA-Sequence Data Analysis<br>Laboratório Nacional de Computação Científica   | Petrópolis, Brazil                                      |  |
| 2017            | From Complex Networks to Social Networks: Introduction to the Use of Big Data Espacio Interdisciplinario, Universidad de la República  | Montevideo, Uruguay                                     |  |
| 2016            | <b>WGCAC Human and Vertebrate Genomics: Bioinformatics Tools and Resources</b> Wellcome Trust, UK  | Montevideo, Uruguay                                     |  |
| 2015            | Next Generation Sequencing Strtegies Universidad Federal de Minas Gerais   | Belo Horizonte, Brazil                                  |  |
| CONF            | FERENCE TALKS  |   |  |
| 2023            | Assessing hotspots of geographic range changes for charismatic carnivores in the Ne grated Species Distribution Models (ISDM) <u>Grattarola F.*</u> , Bowler E. D. & Keil P. / Ecological Society of America Annual Meeting (ESA)      | Portland, USA   |  |
| 2023            | Towards implementable recommendations (SHARC) Shmagun H., Grattarola F.*, Erdmann C., Cambon-Thomsen A., Thomsen M. & Mabile L. / Research Data Alliance (RDA) [session notes]   | Gothenburg, Sweden<br>20th Plenary of the               |  |
| 2022            | Data integration to model species geographic range dynamics. The yaguarundi (Herpai in Latin America as a case study <u>Grattarola F.*</u> , Bowler E. D. & Keil P. / British Ecological Society Annual Meeting 2022 <u>[slide</u> ]   | Edinburgh, Scotland                                     |  |
| 2022<br>Invited | Biodiversidata: el Consorcio de Datos de Biodiversidad  Grattarola F.* / Jornada sobre Estrategia Latino Americana, Caribeña e Iberoamericana pa Biodiversidad (GBIF, LifeWatch ERIC) [slides]   | <b>Sevilla, España</b><br>ara la Información de         |  |
| 2022<br>Invited | Open data, community science and environmental education in Uruguay  Grattarola F.* / I Encuentro Internacional sobre Educación Abierta Ambiental: enseñanza gación [slides]   | osario, Argentina - Online<br>, activismo e investi-    |  |
| 2022            | How Open Science activities are perceived and recognised in Research and the Research career Seoul, Korea Grattarola F.*, Shmagun H., Mabile L. & Cambon-Thomsen A. / International Data Week 2022 - RDA Plenary Breakout [conference] |   |  |
| 2021            | As a naturalist in my country, where are there more opportunities to fill in information grattarola $F$ .* & Barreneche J.M. / LatinR Conference [code repo]   | aps? Online   |  |
| 2021            | Roundtable: Activism through digital media <u>Grattarola F.</u> * / 4th Conference on Digital Citizenship [video]  | Montevideo, Uruguay                                     |  |
| 2021            | The value of open education policies to promote environmental education<br>Grattarola F.* / CILAC Latin American Open Science Forum [video]  | Online  |  |
| 2019            | Biodiversity hotspots in Uruguay: real or fabricated? <u>Grattarola F.</u> * & D. Pincheira-Donoso / British Ecological Society Annual Meeting <u>[slides]</u>   | Belfast, Northern Ireland                               |  |
| 2019            | Biodiversidata: a collaborative initiative towards open data availability in Uruguay<br>Grattarola F.* & D. Pincheira-Donoso / Biodiversity Next Conference [abstract]   | Leiden, The Netherlands                                 |  |
| 2019<br>Invited | Biodiversity data in Uruguay: a long way to go  Grattarola F.* / Biodiversity Informatics 101 Workshop at Biodiversity Next Conference   | Leiden, The Netherlands                                 |  |
| 2019<br>Invited | <b>Biodiversity hotspots in Uruguay</b> Grattarola F.* & D. Pincheira-Donoso / School of Life Sciences Postgraduate Symposium, Uruguay   | <b>Lincoln, United Kingdom</b><br>Jniversity of Lincoln |  |

- 2019 iNaturalist as a tool to enhance the conservation of biodiversity in Uruguay

  Grattarola F.\* / Rufford Conference Uruguay [video]

  Maldonado, Uruguay (online)
- 2017 Landscape genetics of the crab-eating fox Cerdocyon thous (Carnivora: Canidae) Montevideo, Uruguay Grattarola F.\*, Bartesaghi L., Hernández D., Soutullo A., Mannise N., González S. & Cosse M. / IV Uruguayan Zoology Congress
- 2016 **Humans and fauna in Paso Centurión (Cerro Largo) from an interdisciplinary perspective** La Paloma, Uruguay Chouhy M.\*, Garay A., Bergós L., Gaucher L., Perazza G., <u>Grattarola F.</u> & Santos C. / III Interdisciplinary Conference on Biodiversity and Ecology
- 2016 **Democratization of information in the context of territorial management**Gaucher L.\*, Hernández D., <u>Grattarola F.</u>, Rodriguez-Tricot L., Duarte A., Perazza G. & González, S. / III Interdisciplinary Conference on Biodiversity and Ecology
- 2016 **Molecular detection of species and sex determination in road killed foxes in Uruguay**Mannise N.\*, Cosse M., <u>Grattarola F.</u>, Repetto L. & González S. / First Ibero-American Congress on Biodiversity and Road Infrastructure

## SCI COMM

2023 Ciencia participativa: Naturalista Uruguay

Presentation at the Foro Mujeres NaturaListas en México y Latinoamérica [slides] [video]

- 2023 **iNaturalist the app with which anyone can provide information on flora and fauna in Uruguay**Radio interview by Gastón González for En Perspectiva, Radiomundo 1170 AM [video] [soundcloud]
- 2022 Workshop in preparation for the Greatern Southern Bioblitz 2022 in NaturalistaUY Live talk streamed on YouTube for NaturalistaUY users [video]
- 2022 **Community science outreach with JULANA and NaturalistaUY**Radio interview by Diego Varela and Fernanda Cabrera for Radio Fénix [video]
- 2022 Scientific Pokemon Go

Podcast episode by Soledad Machado for Medios Públicos [episode]

- 2020 **Biodiversidata began to digitize the herbarium of the National Museum of Natural History**Press note by Leo Lagos for La Diaria [article]
- 2021 **iNaturalist What is it and what can it do for our project?**Talk with students of the Polo Educativo Tecnológico Arrayanes (Park Rangers) [slides]
- 2020 **Getting started with iNaturalist Project RACATÚ**Online talk with primary school students from rural school N102 of Berachi (Cerro Largo, Uruguay) [slides]
- 2020 **Uruguayans are wanted to participate in a platform that helps scientists**Press note by Analía Filosi for Diario El País [press article]
- 2019 iNaturalist: a bet on citizen science

Talk at Museum of Natural History Torres de la Llosa [slides]

- 2019 **iNaturalist a citizen science tool to improve biodiversity knowledge in Uruguay** Radio interview by Juan Vique in Radio Uruguay [audio clip]
- 2019 The Uruguayan Consortium of Biodiversity Data, Biodiversidata, published the first open data set Press note by Leo Lagos for La Diaria [press article]
- 2019 Series 'Gender and IT' Pan Ceibal

Online talk with students from Canelones, Paysandú, Tacuarembó and Treinta y Tres' primary schools in Uruguay

2019 Biodiversidata: Biodiversity Open Data

Online talk at the Third Edition of 'Datos y Cogollos: Open Data in Uruguay'. La Diaria Media Lab (Montevideo, Uruguay) [slides]

2019 Exhibition 'A Computer of One's Own'

Art exhibition about pioneer women in Computer Science at CSSconf and JSConf (Berlin, Germany) [project's website]

# 2018 Big data in biodiversity

Radio interview with Federico Weinstein in the science segment of the program Justicia Infinita, Radio Océano (93.9 FM) (Montevideo, Uruguay)

#### 2017 The Marsh Seedeater

Video production for PROBIDES organization [video]

# 2016 **Drawn news: First record of a jaguarundi in Uruguay**Video production for JULANA NGO [video]