



# **Yuri Silva de Souza**

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## **Address**

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São Paulo State University (UNESP)  
Department of Biodiversity,  
Rio Claro, São Paulo, Brazil

## **EDUCATION**

**São Paulo State University (UNESP)**, Rio Claro, SP, Brazil  
Bachelor of Ecology from the Institute of Bioscience

**2013-2016**

**São Paulo State University (UNESP)**, Rio Claro, SP, Brazil  
Master's in Ecology and Biodiversity program, Institute of Biosciences, Department of Biodiversity  
Masters Project Scope: Large mammalian herbivores modulate plant life-form diversity in tropical forests.

**2018-2021**

## **COMPLEMENTARY EDUCATION**

**Easy-R, Brasil** **2020-2021**  
Technical skills on multivariate analysis in R

**University of Helsinki**, Helsinki, Finland **2020**  
Hierarchical Modelling of Species Communities with the R-package Hmsc

**University of São Paulo State**, São Paulo, SP, Brazil **2019**  
Introduction of R: data management, visualization and analysis

**Federal University of Rio Grande do Sul (UFRGS)**, Porto Alegre, RS, Brazil **2019**  
Introduction to hierarchical models in Ecology

**Geoprocessing without borders**, Rio de Janeiro, RJ, Brazil **2017**  
Geographic information system in the analysis of environmental risks using ArcGIS software

**Environmental sanitation technology company**, São Paulo, SP, Brazil **2016**  
Greenhouse gas inventory: Corporate and public sustainability

## **RESEARCH**

- **São Paulo State University (UNESP)**, Rio Claro, SP, Brazil

*Department of Biodiversity - Mauricio Vancine and Prof. Milton Ribeiro*  
(Laboratory of Spatial Ecology and Conservation)

**2013**

- Management assistance of amphibian's database in the Atlantic forest

*Department of Biodiversity - Prof. David Montenegro Lapola*  
(Laboratory of Earth System Sciences)

**2013-2016**

- Management and models updating of climatic data to the project "Amazon-FACE", in Brazilian Amazon basin
- Investigating the effects of elevated CO<sub>2</sub> to water balance in the Amazon forest  
(Received a total of R\$7.960,00 for this research from Fundação de Amparo a Pesquisa do Estado de São Paulo - FAPESP)
- ArcGIS analyses, map elaboration and programming language assistance to the laboratory team

*Department of Biodiversity - Victor Motta and Prof. Antonio Camargo*  
(Laboratory of Aquatic Ecology)

**2016-2017**

- Statistical analyses and mapping support to a project of aquatic macrophytes distribution in the Atlantic forest coast
- Identification of river pollution spots to the water treatment station company in Rio Claro city using Principal Component Analyses (PCA) approach

*Department of Biodiversity - João Salvador and Prof. Marco Aurélio Pizo*  
(Laboratory of Birds Ecology and Behavior)

**2017**

- SIG and fieldwork assistant to mapping and calculate the potential areas to birds' survey in the Atlantic forest fragments

*Department of Biodiversity – Prof. Mauro Galetti*  
(Biology Conservation Laboratory)

**2018 - Current**

- Fieldwork assistance of the BIOTA-FAPESP biodiversity and conservation project, helping to collect soil, seeds, measure plant seedlings, installing cameras-trap and also testing the palms seeds predation rates
- Laboratory assistance of R software language, theoretical and practical statistical analyses as regressions, PCAs, RDAs, ANOVAs, accumulation species and rarefaction curves, GLMs, GLMMs, survival analyses and temporal series analyses
- Assist laboratory students during fieldwork design and execution, as mammals' surveys, landscape ecology using GIS analyses and mapping
- Masters project execution: Investigating the defaunation effects of medium and large-sized mammals to plant life-forms dynamics in the Atlantic forest (Received a total of R\$48.852,54 and US\$11.096,00 for this research from Fundação de Amparo a Pesquisa do Estado de São Paulo - FAPESP)

#### **- Itirapina Ecological Station**

*Protected Area in Itirapina, SP, Brazil*

**2016-2017**

- Statistical analyses collaboration in the investigation of how an exotic tree (*Pinus sp.*) may affect the establishment of native plants in a Brazilian Savanna

#### **- Field assistant of foreign visiting students**

*University of Copenhagen, Copenhagen, Thomas Arkwright (Master student)*

**2017**

- Fieldwork assistance during surveys and camera-trap installation of the Maned-wolf (*Chrysocyon brachyurus*) population in a Brazilian Savanna protected area

*Department of Bioscience, Aarhus University, Denmark - Vincent Fehr (Ph.D. student)*

**2018**

- Fieldwork assistance in the project with exotic palms and its potential to invasion in the Atlantic forest, also installing temperature/humidity data loggers and using mapping equipment as the LiDAR scanner, and camera lenses to calculate canopy cover

## **SKILLS**

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- **Development:** Integrating deprived communities in a University preparation course; improving scientific divulgation skills to the outside community; liaising with financial support agencies
- **Ecology:** Medium and large-sized mammals' surveys using transects, searching for animal tracks and installing cameras-trap; identification of birds through morphology; measurement of canopy cover using camera lenses; collect and analyze soil samples using pH and density rates in a chemistry laboratory; greenhouse gases inventory protocols; parametric and non-parametric statistics analyses; measurement of plants' physiology traits; advanced GIS processing and mapping data using ArcGIS and QGIS software

- **Language:** Portuguese and English (Good)
- **Technical:** Microsoft Office 2019, QGIS, GrADS, ArcGIS, R, basic Python, database management
- Identification of river pollution spots to the water treatment station company in Rio Claro city using Principal Component Analyses (PCA) approach

*Department of Biodiversity - João Salvador and Prof. Marco Aurélio Pizo*

**2017**

(Laboratory of Birds Ecology and Behavior)

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## **SKILLS**

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- **Language:** Portuguese and English (Advanced)
- **Technical:** Microsoft Office 2019, QGIS, GrADS, ArcGIS, R, basic Python, database management

## **ABSTRACTS**

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- **Souza, Yuri**; Villar, Nacho; Ziparro, Valesca; Nazareth, Sérgio; Galetti, Mauro. (*Submitted*) Large mammalian herbivores modulate plant life-form diversity in tropical forests. *Journal of Ecology*, 2021.
- Gonçalves, Fernando; Galetti, Mauro; Vancine, Mauricio H.; **Souza, Yuri**; Sales, Lilian; Pires, Mathias M.; Bello, Carolina; Dirzo, Rodolfo; Balmford Andrew. (*In preparation.*) Extinction-driven changes on mammalian communities in a biodiversity hotspot.
- Galetti, Mauro; Gonçalves, Fernando; Villar, Nacho; Ziparro, Valesca; Paz, Claudia; Mendes, Calebe; Lautenschlager, Lais; **Souza, Yuri**; Akkawi, Paula; Pedrosa, Felipe;; Bulascoschi, Letícia; Bello, Carolina; Sevá, Anaiá P.; Sales, Lilian; Genes, Luísa; Abra, Fernanda; Bovendorp, Ricardo S. 2019. Cause and consequences of large-scale defaunation in the Atlantic forest. In: Marcia C. M. Marques & Carlos Eduardo de V. Grelle (Org.). *Atlantic Forest: biodiversity, threats and solutions of the megadiverse forest*. New York: Springer.
- **Souza, Yuri**; Gonçalves, Fernando; Lautenschlager, Laís; Akkawi, Paula; Mendes, Calebe; Carvalho, Mariana M.; Bovendorp, Ricardo S.; Ferreira, Hugo; Rosa, Cláisse; Graipel, Maurício E.; Peroni, Nivaldo; Cherem, Jorge J.; Bogoni, Juliano A.; Brocardo, Carlos R.; Miranda, J.; Zago da Silva, Luciana; Melo, Geruza; Cáceres, Nilton; Sponchiado, Jonas; Ribeiro, Milton C.; Galetti, Mauro. ATLANTIC MAMMALS: a data set of assemblages of medium and large-sized mammals of the Atlantic Forest of South America. *Ecology*, 2019 (<https://doi.org/10.1002/ecy.2785>)
- Vancine, Maurício H.; Duarte, Kauã da Silva; **De Souza, Yuri S.**; Giovanelli, João G. R.; Martins-sobrinho, Paulo M.; López, Ariel; Bovo, Rafael P.; Maffei, Fábio; Lion, Marília B.; Ribeiro Júnior, José W.; Brassaloti, R.; Da Costa, Carolina O. R.; Sawakuchi, Henrique O.; Forti, Lucas R.; Cacciali, Pier ; Bertoluci, Jaime; Haddad, Célio F. B.; Ribeiro, Milton C. ATLANTIC AMPHIBIANS: a data set of amphibian communities from the Atlantic Forests of South America. *Ecology*, 2018 (<https://doi.org/10.1002/ecy.2392>)
- Conciani, Dhemerson; **De Souza, Yuri S.**; Ruffino, Paulo H. P.; Zanchetta, Denise. Análise Temporal da Invasão Biológica de *Pinus* sp. em Área Úmida do Domínio Cerrado. *Revista Brasileira de Geografia Física*, 2018 (<https://doi.org/10.26848/rbgf.v11.2.p521-531>)
- **Souza, Yuri S.**; Lapola, David M. Uma aplicação de modelagem do ciclo hidrológico e impactos do aumento da concentração de CO<sub>2</sub> atmosférico na Amazônia. *Revista UniVap*, 2016 (<http://dx.doi.org/10.18066/revistaunivap.v22i40.477>)

## **EXPERIENCE**

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### **GIS Analyst**

#### - São Paulo State University (UNESP), Botucatu, SP, Brazil

- QGIS tutorial to select interest areas, arrange point by matrix mesh and export it to a GPS **2017**
- Producing thematic maps to the “Botucatu basin bird Guide” **2017**
- Selecting, mapping and map production to the Ethology Laboratory **2017**

#### - Itirapina Ecological Station, Itirapina, SP, Brazil

- Monitoring daily the removal of the invasive species *Pinus* sp. in a Brazilian Savanna protected area, and elaborating a GIS tutorial to allow the forest managers to using drones’ images during the monitoring **2016**

**- São Paulo State University (UNESP), Rio Claro, SP, Brazil**

- Updating and validation of climate data inputs to the dynamic vegetation model “Carbon and Ecosystem Functional-Trait Evaluation Model” (Laboratory of Earth System Science) **2014-2016**
- Selecting and filtering Atlantic forest patches by attributes to implement in the NDVI – Normalization Differentiate Vegetation Index analyses (Climatology Laboratory) **2016**
- Mapping and calculating matrix proportion of agricultural landscapes and forest cover remains in the Atlantic forest (Biology Conservation Laboratory) **2017**

**Teaching Assistant**

**- Federal University of São Carlos (UFSCar), São Carlos, SP, Brazil**

- Aided Professor Sonia Buck in teaching a course of Savanna fieldwork collect methods **2017**

**- São Paulo State University (UNESP), Rio Claro, SP, Brazil**

- Aided Professor David Montenegro Lapola in a basic course of Fortran and ArcGIS to graduate classes **2014**
- Aided Professor Mauro Galetti in teaching a R-based statistics course, and fieldwork assistances as plant life-forms and habit identification **2018**

**Ecology events organization**

- I, II and III Workshop about implementation of Ecosystem Services in rural properties, Rio Claro, SP, Brazil **2013-2015**
- Commission President of XXV Week Ecology Studies, Rio Claro, SP, Brazil **2014**
- XX Brazilian Congress of Mastozoology, Águas de Lindóia, SP, Brazil **2019**

**Communities engagement**

- Integrating deprived communities in a University preparation course (ATHO, *Ação Transformadora do Homem*) to students (young adults and adults) be able to study in the São Paulo State University (Rio Claro, SP, Brazil), teaching Chemistry classes, also collaborating as class monitor, organizing educational events and member of the responsible committee **2011-2015**
- Member of the main team (Laboratory of Earth System Sciences) that intermediated the deal between the government and rural properties of their services as protecting and maintaining ecosystem services quality in Rio Claro region **2013-2015**
- Scientific divulgator to citizens and Brazilian governors as part of São Paulo State University and Organization of United Nations incentive to conscientize the importance of science and research to a healthy life and country development, promoting the UN Sustainable Development Goals **2019**