

ACADEMIC CURRICULUM VITAE

 Full name and date Name: Daniel de Paiva Silva Gender: Male Date of writing the CV: 13-January-2020

2. Date and place of birth, nationality, current residence

Date of birth: 09-August-1984 Place of birth: Varginha, state of Minas Gerais, Brazil Citizenship: Brazilian Current residence: Av. Perimetral Norte Sul, 243, Cond. Gemini, Zipcode: 75094-705, Jardim Europa, Anápolis, Goiás, Brazil; daniel.paivasilva@gmail.com. Cell phone: +55 62 99129-9924

3. Education and degrees awarded

Degree title: Doctorate Ecology and Evolution; **Educational Institution:** Universidade Federal de Goiás (Federal University of Goiás); **Major subject**: Ecology and Evolution; **Graduation date**: 28-February-2014. **Contact details to facilitate verification of highest degree:** Av. Esperança, s/n, Chácaraas de Recreio Samambaia, Goiânia, Goiás – GO, Brazil. ZipCode: 74690-900. Phone: +55 62 3521-1000.

Title of docent: Ecology and Evolution, Universidade Federal de Goiás, 28-February-2014. I became a full-professor from Universidade Federal do Pará in February-2014, and become a full-professor from Instituto Federal Goiano in May-2015.

4. Other education and training, qualifications and skills

- Master's degree in Ecology from State University of Campinas (Universidade Estadual de Campinas), Campinas, São Paulo, Brazil.
- Bachelor in Biological Sciences from Federal University of Viçosa (Universidade Federal de Viçosa), Viçosa, Minas Gerais, Brazil

5. Linguistic skills

Mother tongue: Portuguese Other languages: English

6. Current position

Current Position: Full-professor from Federal Institute of Education, Science, Technology, Urutaí, Goiás, Brazil. 2015-present. In this institution, I am a full professor and I am responsible for the subjects of General Ecology (for Biological Sciences, Veterinarian Medicine and Agronomy majors), Population and Community Ecology, Evolutionary Biology, and Management and Conservation of Biodiversity (all of them for Biological Sciences major). I also teach the subject Population and Community Ecology and Conservation for graduate students (master's degree) in this position. In this Federal Institute, I also teach Biology to senior year high school students. I am also accredited to teach in other Brazilian institutions. Currently, I have already taught the subjects "Biology and Ecology of Biotic Interaction" in the institution I obtained my doctorate, Federal University of Goiás, and "Climate Change and Related Effects upon Biodiversity" in the State University of Goiás.

7. Previous work experience

Earlier employment relations: Full-professor from Federal University of Pará (UFPA), campus Belém, Pará, Brazil, 2014-2015. I taught Ecosystem Ecology and Population Ecology for Biological Sciences undergraduate students and Introduction to Ecology for Geography undergraduate students in this institution. For graduate students in Zoology and Ecology, I taught Field Practice courses in Zoology, Special Topics in Zoology: Macroecology, Theoretical Ecology, and Macroecology, Community Ecology, and Statistics and Experimental Design.

8. Research funding as well as leadership and supervision <u>Major research funding as a P.I.:</u>

Title: Exotic invasive plants in Brazil: Detection of favorable areas and the effects of climate change. **Source of funding**: National Council of Scientific and Technological Development (Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq)

Period: 2016-present

Amount of funding: R\$ 55,000.00 (fifty-five thousand Brazilian reais).

Parallel research funding as a co-PI

Title: Functional connectivity and landscape anthropization: A case study in the National Forest of Silvânia and Rio Vermelho river micro basin

Source of funding: National Council of Scientific and Technological Development (Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq) and State of Goiás Foundation in Support of Research (Fundação de Amparo à Pesquisa do Estado de Goiás).

Period: 2016-present

Amount of funding: R\$ 200,000.00 (two hundred thousand Brazilian reais)

Name of Principal Investigator: Dr. Rosane Garcia Collevatti (Federal University of Goiás)

Researcher role in this project: I was the researcher in charge of sampling Euglossini bees.

Title: National institute of science and technology – Ecology, Evolution, and biodiversity conservation **Source of funding**: National Council of Scientific and Technological Development (Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq) and State of Goiás Foundation in Support of Research (Fundação de Amparo à Pesquisa do Estado de Goiás).

Period: 2016-present

Amount of funding: R\$ 7,000,000.00 (seven million Brazilian reais)

Name of Principal Investigator: Dr. José Alexandre Felizola Diniz-Filho (Federal University of Goiás) **Researcher role in this project**: I was one of the researchers in charge of producing species distribution modelling group of this project.

Title: Biodiversity and socio-economic impacts of palm oil bioenergy development in the Brazilian Amazon

Source of funding: United States Agency for International Development.

Period: 2014-2016

Amount of funding: R\$ 300,000.00 (three hundred thousand Brazilian reais)

Name of Principal Investigator: Drs. Leandro Juen and Luciano Montag (Federal University of Pará) and Drs. David J. Flaspohler and Christopher R. Webster (Michigan Technological University)

Researcher role in this project: I was one of the researchers involved with the species distribution modelling group of this project.

Title: Biodiversity, endemism, and conservation in the private reserve of sustainable development "Legado Verdes do Cerrado", Niquelândia, Goiás, Brazil

Source of funding: State of Goiás Foundation in Support of Research (Fundação de Amparo à Pesquisa do Estado de Goiás).

Period: 2018-present

Amount of funding: R\$ 85,803.00 (eighty-five thousand, eighty hundred and three Brazilian reais) Name of Principal Investigator: Dr. Marcos José da Silva (Federal University of Goiás) Researcher role in this project: I was the researcher in charge of sampling Euglossini bees. **Title**: Cross-pollinating knowledge systems: exploring the Indigenous Local Knowledge of native bee diversity and ecology

Source of funding: University of Colorado, United States

Period: 2017-2018

Amount of funding: US\$ 140,000.00 (one hundred and forty thousand dollars)

Name of Principal Investigator: Dr. Wendy R. Townsend (researcher from University of Florida living in Bolivia)

Researcher role in this project: I was the researcher in charge of sampling Euglossini bees.

Title: Impact of climate change and conservation of species from the threatened and data-deficient species from the fauna and flora from the Cerrado

Source of funding: State of Goiás Foundation in Support of Research (Fundação de Amparo à Pesquisa do Estado de Goiás).

Period: 2017-present

Amount of funding: R\$ 143,000.00 (one hundred and forty three thousand Brazilian reais)

Name of Principal Investigator: Dr. Levi Carina Terribile (Federal University of Goiás)

Researcher role in this project: I was one of the researchers involved with the species distribution modelling group of this project.

Experience as officially appointed supervisor to undergraduate and post-graduate students/doctoral students:

PhD students:

Finished advisory: Dorinny Lisboa de Carvalho (2014-2018) (as co-advisor) **Current advisory**: Ariane Guimarães (2018-present); Phillip Teles Soares (2018-present)

M.Sc. students:

Finished advisory: Fagner Correia D'arc (2016-2018); Luiza Gabriela Fulgêncio de Lima (2016-2018); Indiara Nunes Mesquita Ferreira (2015-2017) (as co-advisor); Paulo Henrique Santos Trindade (2014-2016) (as co-advisor)

Current advisory: Temístocles Pacheco Lima (2018-present); Marcos Vinícius Rezende de Ataíde (2018-present); Gabriela Souza Cristino (2018-present); Fernanda Gonçalves de Souza (2017-present); Karyne Martins Ales (2017-present); Érika Pereira Cordeiro de Melo (2017-present); Milton Ferreira Alves júnior (2017-present); Rafael Martins Valadão (2017-present); Ricardo Ribeiro da Silva (2017-present) (as co-advisor);

Undergraduate students:

Finished advisory: Jéssica Guinato (2011-203); Ana Carolina Barreto de Abreu Macêdo (2011-2013); Ualefe Cesar Vaz Costa (2016-2018)

Current advisory: Marconey Correia da Silva (2018-present); Lucas Peres Saavedra (2017-present); Tainá Maria Hanauer (2018-present); Luiz Fernando Moreira Peixoto (2018-present); Wanderson Siqueira Teles (2018-present); Letícia Martins Rabelo (2017-present); Thaís Silva de Souza (2016present); João Pedro Justiniano Oliveira (2016-present)

9. **Merits in teaching and pedagogical competence** (if required, complement by submitting a teaching portfolio)

Graduate Program in Zoology, Federal University of Para, Belém, Brazil *Courses taught*

- Field Practice Ecology, 2014-2014 (~ 20 students)
- Special Topics in Zoology: Macroecology, 2014-2014 (~10 students)
- Community Ecology, 2014-2014 (~15 students)
- Experimental Design, 2015-2015 (~20 students)

Graduate Program in Ecology, Federal University of Pará, Belém, Brazil (as visiting professor) *Courses taught*

• Theoretical Ecology and Macroecology, 2016-2016 (~ 15 students)

Graduate Program in Animal Biodiversity, Federal University of Goiás, Goiânia, Brazil Courses taught

• Biology and Ecology of Biotic Interactions, 2016-present (~10 students)

Graduate Program in Natural Resources of the Brazilian Cerrado Savanna, State University of Goiás, Anápolis, Brazil

Courses taught

• Climate Change and Related Effects upon Biodiversity, 2018-present (~15 students)

Professional graduate Program in the Conservation of the Natureal Resources of the Brailian Cerrado Savanna, Federal Institute of Education, Science, and Technology, Urutaí, Goiás, Brazil Courses taught

• Population and Community Ecology for Conservation Biology, 2016-present (~10 students)

Undergratuate courses from the Federal Institute of Education, Science, and Technology, Urutaí, Goiás, Brazil (majors in Veterinary Medicine, Agronomy, and Biological Sciences)

Courses taught

- General Ecology to the Veterinary Medicine, Agronomy, and Biological Sciences courses, 2016-present (~ 40 students)
- Population and Community Ecology to the Biological Sciences course (~ 25 students), 2015present
- Biological Evolution to the Biological Sciences (~ 25 students), 2016-present
- Biodiversity Conservation and Management to the Biological Sciences course (~25 students), 2015-present
- Animal Behavior to the Biological Sciences course ('40 students)

High School classes from the Federal Institute of Education, Science, and Technology, Urutaí, Goiás, Brazil

Courses taught

Biology (Basic genetics, Evolution, Ecology), in general 3 classes of ~30 students per semester, 2015-present

10. Other academic merits

<u>Service as a pre-examiner or as an opponent of a doctoral dissertation, as a member in dissertation committees (abroad)</u>

Master's degree and doctorate qualifying exams

- 1. Érika Pereira Cordeiro de Melo. Perception of exotic and native species by high school and undergraduation students from the stae of Goiás, Brazil. 2018. (Master's degree in Natural Resources from Cerrado State University of Goiás).
- 2. Wander Gomes de Souza. Eusocial insects in agroforest systems from Cerrado. 2018. (Master's degree in natural Resources from Cerrado State University of Goiás).
- **3.** Thatyane Caetano de Almeida. Spatial biases analyses from Brazilian freshwater fishes. 2018. (Master's degree in natural Resources from Cerrado State University of Goiás).
- **4.** Morgana Oliveira Andrade. Evaluation of the predictive capacitu of species distribution models using different data sources. 2018. (Master's degree in Animal Biodiversity Federal University of Goiás).
- **5.** Milton Ferreira Alves Júnior. Integrating biotic predicotrs in niche models: Responses of an exotic species to future scenarios of climate change. 2018. (Master's degree in Conservation of Natural Resources from Cerrado Federal Institute of Education, Science, and Technology).

- 6. Micael Rosa Parreira. Distribution modeling of the potential geographic distribution of species with economic importance. 2017. (Master's degree in Natural Resources from Cerrado State University of Goiás).
- 7. Victor Rennan Santos Ferreira. Testing ecophysiological hypothesis for the distribution of Odonata in natural environments. 2017. (Master's degree in Animal Biodiversity Federal University of Goiás).
- **8.** Alessandro Dias Pio. Structure and diveristy of forests from the Brazilian Cerrado Savanna. 2017. (Master's degree in Conservation of Natural Resources from Cerrado Federal Institute of Education, Science, and Technology).
- **9.** Fagner Correia D'arc. Do small hydroelectric dams alter the bat communities (Mammalia: Chiroptera) from Cerrado? 2017. (Master's degree in Conservation of Natural Resources from Cerrado Federal Institute of Education, Science, and Technology).
- **10.** Jhefferson Silva. The effects of the habitat reduction in richness and composition of medium and large mammals species from a Cerrado forest fragment. 2017. (Master's degree in Conservation of Natural Resources from Cerrado Federal Institute of Education, Science, and Technology).
- Luiza Gabriela Fulgêncio de Lima. Predictive distribution of exotic invasive plant species in Brazil. 2017. (Master's degree in Conservation of Natural Resources from Cerrado – Federal Institute of Education, Science, and Technology).
- Karline Alves Holanada Sales. Do changes in the life expectancy alter the behavior of Melipona fasciculata Smith, 1854 (Apidae, Meliponini)?. 2015. (Master's degree in Zoology – Federal University of Pará).
- **13.** Lêda Mayara Souza da Costa. The effect of micro-climate and micro-habitat upon the assemblage of frugivore butterlies in the endemism area of Belem. 2015. Exame de qualificação (Master's degree in Zoology Federal University of Pará).
- 14. Cláudio da Silva Monteiro. Estructuring patterns of adult dragon- and damselflies in a protected area and its surrounding in the eastern Amazon. 2015. (Doctorate in Zoology Federal University of Pará).

Master's degree and doctorate defense committees

- 1. Micael Rosa Parreira. How niche models predictions in aquatic environments are affected by methodological uncertainties. 2018. (Master's degree in Natural Resources from Cerrado State University of Goiás).
- 2. Fagner Correia D'arc. Do small hydroelectric dams alter the bat communities (Mammalia: Chiroptera) from Cerrado? 2018. (Master's degree in Conservation of Natural Resources from Cerrado Federal Institute of Education, Science, and Technology).
- **3.** Letícia Braga Gomes. Impacts of climate change and deforestation in the geographic distribution of Cebus kaapori (Primates: Cebidae) in the Amazon. 2018. (Master's degree in Zoology Federal University of Pará).
- **4.** Victor Rennan Santos Ferreira Cardoso. Testing ecophysiological hypothesis for the distribution of Odonata in natural environments. 2018. (Master's degree in Animal Biodiversity Federal University of Goiás).
- 5. Letícia Braga da Silva. Spatial prioritization for the conservation of endemic primates of eastern Amazon. 2018(Master's degree in Zoology Federal University of Pará).
- **6.** Daniele Cipriano de Souza. Endemism analysis and conservation gaps for bird conservation from Cerrado. 2018. (Master's degree in Animal Biodiversity Federal University of Goiás).
- 7. Luiza gabriela Fulgêncio de Lima. Invasive plants in brazil: Effects of future climate change and detection of favorable areas in conservation units. 2018. (Master's degree in Conservation of Natural Resources from Cerrado –Federal Institute of Education, Science, and Technology).
- João Paulo Raimundo Borges. Flux of heterospecific pollen from sympatric species of Psychotrias L. (Rubiaceae). 2017 (Master's in vegetal Biodiversity – Federal university of Goiás).

- **9.** Lêda Mayara Sousa da Costa. The impact of forest degradation upon the richness and diveristy of frugivore butterflies in forest remnants from the endemis area of belem. 2017. (Master's degree in Zoology Federal University of Pará).
- **10.** Ivo Gabriel Barros Mineiro. Effect of monoculture of oil palm (Elaeis guineensis Jacq.) upon primate fauna in eastern Amazon. 2016. (Master's degree in Zoology Federal University of Pará).
- **11.** Caio Azevedo Marques. Potential distribution of albatrosses and petrels (Diomedeidae: Procellariformes): A tool to guide public policies and conservation. 2015. (Master's degree in Ecology and Conservation State University of Santa Cruz).
- 12. Danúbia Moura de Barros. Bee fauna (Hymnoptera Apidae) in the conservation units mosaic from the Carajás Mountain Ranges, Pará, Brazil. 2015. (Master's degree in Health and Animal Production in the Amazon – Federal Rural University from Amazon)
- **13.** Iara Maíra Jaloretto Barreiro. Using potential distribution modelling as a tool to find low sampled species. 2014. (Master's degree in Ecology and Conservation State University of Santa Cruz).
- Sylvia Torrecilha. Threatened species in priority areas for biodiversity conservation: data systematization, influence of choice of methods and applications, in Mato Grosso do Sul, Brazil. 2018. Tese (Doctorate in Ecologia e Conservação – Federal University of Mato grosso do Sul).
- **15.** Lucas Lacerda Caldas Zanini Jardim. Phylogenetic imputation: A macroecological perspective. 2018. (Doctorate in Ecology and Evolution Federal University of Goiás).
- **16.** Tainá Carreira da Rocha. Compared phylogeography and niche modelling of four Suboscine species with a disjunct distribution between the Amazon and Atlantic forests. 2017. (Doctorate in Zoology Federal University of Pará).
- **17.** Frederico Augusto Martins Valtuille Faleiro. Modelling climage change: From fundamental niche to biodiversity conservation. 2016. (Doctorate in Ecology and Conservation Federal university of Goiás).
- **18.** Bruno Vilela de Moraes e Silva. From emmergence up to description: How time and extinction are related. 2016. (Doctorate in Ecology and Evolution Federal University of Goiás).

Academic editor for scientific and scholarly journals

PLoS One (2018-present) PeerJ (2020-present) Biodiversity Data Journal (2021-present) Journal of Nature Conservation (2021-present)

Referee for scientific and scholarly journals

- Acta Zoologica Bulgarica
- African Entomology
- Animal Biodiversity and Conservation
- Apidologie
- Austral Ecology
- Biodiversity and Conservation
- Biological Conservation
- Biological Invasions
- Biology Open
- Biota Neotropica
- Biotropica
- Chiroptera Neotropical
- Current Opinion in Insect Science
- Diversity and Distributions
- Environmental Entomology
- Folia Geobotanica

- Freshwater Science
- Global Change Biology
- Global Ecology and Biogeography
- Hydrobiologia
- Insect Conservation and Diversity
- Journal of Apicultural Research
- Journal of Applied Ecology
- Journal of Applied Entomology
- Journal of Ecology and the Natural Environment
- Journal of Insect Conservation
- Lundiana
- Multi-Science Journal
- Natureza & Conservação
- Neotropical Entomology
- North-Western Journal of Zoology
- Pacific Conservation Biology
- PeerJ
- PLoS One
- Psyche: A Journal of Entomology
- Revista de Biologia Neotropical
- Scientific Reports
- Sociobiology
- The Canadian Entomologist
- The Extractive Industries and Society
- Tropical Conservation Science

11. Administrative responsibilities at higher education institutions

2016-present – Vice-coordinator of the bachelor major of Biological Sciences from the Federal Institute of Education, Science, and Technology; Member of the academic collegiate from the undergraduate major in Biological Sciences from the Federal Institute of Education, Science, and Technology.

2017-present – Member of the academic collegiate from the graduate course (master's degree) of Conservation of the Natural Resources from the Brazilian Cerrado Savanna.

12. Scientific and societal impact of research

- total number of publications: 49 research papers
- 11 most important and/or most cited publications according to Google Scholar (**profile at** <u>https://scholar.google.com.br/citations?user=uK_b6pMAAAJ&hl=pt-BR</u>):</u>

SILVA, D.P. et al. 2010. Adult odonate abundance and community assemblage measures as indicators of stream ecological integrity: a case study. Ecological Indicators, 10: 744-752 doi: 10.1016/j.ecolind.2009.12.004. Number of citations (13th January 2020): 167.

OLIVEIRA, U.; PAGLIA, A. P.; BRESCOVIT, A. D.; CARVALHO, C. J. B.; SILVA, D. P. et al. 2016. The strong influence of collection bias on biodiversity knowledge shortfalls of Brazilian terrestrial biodiversity. Diversity and Distributions, 22: 1232-1244 doi: 10.1111/ddi.12489. Number of citations (13th January 2020): 128.

OLIVEIRA, U.; SOARES-FILHO, BS; PAGLIA, A. P.; BRESCOVIT, A. D.; CARVALHO, C. J. B.; **SILVA, D. P.** et al. 2017. Biodiversity conservation gaps in the Brazilian protected areas. Scientific Reports, 7: 9141 doi: 10.1038/s41598-017-08707-2. **Number of citations (13th January 2020): 128**.

SILVA, D. P. et al. 2014a. Seeking the flowers for the bees: Integrating biotic interactions into niche models to assess the distribution of the exotic bee species *Lithurgus huberi* in South America. Ecological Modelling, 273: 200-209 doi: 10.1016/j.ecolmodel.2013.11.016. Number of citations (13th January 2020): 55.

SILVA, D. P. et al. 2013a. Amazonian species within the Cerrado Savanna: New records and potential distribution for *Aglae cearulea* (Apidae: Euglossini). Apidologie, 44: 673-683 doi: 10.1007/s13592-013-0216-7. Number of citations (13th January 2020): 43.

MARTINS, ALINE C.; **SILVA, DANIEL P.**; et al. 2015. Species conservation under future climate change: the case of *Bombus bellicosus*, a potentially threatened South American bumblebee species. Journal of Insect Conservation, 19: 33-43 doi: 10.1007/s10841-014-9740-7. **Number of citations (13th January 2020): 38**.

PERES, E. A.; SOUZA, T. S.; PEREZ, M. F.; BONATELLI, I. A. S.; SILVA, D. P.; et al. 20115. Pleistocene niche stability and lineages diversification in the subtropical spider *Araneus omnicolor* (Araneidae). PLoS One, 10: e0121543 doi: 10.1371/journal.pone.0121543. Number of citations (13th January 2020): 37.

SILVA, D. P. et al. 2014b. Using Ecological Niche Models and Niche Analyses to Understand Speciation Patterns: The Case of Sister Neotropical Orchid Bees. PLoS One, 9: e113246 doi: 10.1371/journal.pone.0113246. **Number of citations (13th January 2020): 34**.

SILVA, D. P. et al. 2016. Contextualized niche shifts upon independent invasions by the dung beetle Onthophagus taurus. Biological Invasions, 18: 3137-3148 doi: 10.1007/s10530-016-1204-4. Number of citations (13th January 2020): 31.

NEMÉSIO, A.; SILVA, D. P.; et al. 2016. Effects of climate change and habitat loss on a forest-dependent bee species in a tropical fragmented landscape. Insect Conservation and Diversity, 9: 149-160 doi: 10.1111/icad.12154. Number of citations (13th January 2020): 27.

SILVA, D. P.; OLIVEIRA, P. S. 2010. Field biology of *Edessa rufomarginata* (Hemiptera: Pentatomidae): Phenology, behavior, and patterns of host plant use. Environmental Entomology, 39: 1903-1910 doi: 10.1603/EN10129. Number of citations (13th January 2020): 27.

The information available in this CV is also available in my Brazilian Lattes CV and my Publons profile in the following addresses:

http://lattes.cnpq.br/1409353191899248 https://publons.com/author/1292114/silva-dp#profile