

LARISSA SAYURI MOREIRA **SUGAI**



Cornell University

K. Lisa Yang Center for Conservation Bioacoustics

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EMPLOYMENT

K. Lisa Yang Center for Conservation Bioacoustics, Cornell Lab of Ornithology, Cornell University

2024 Interim Assistant Director

2022 Extension Associate

Universidad Autónoma de Madrid, Madrid Spain

2020-21 Postdoctoral Research Fellow, Departamento De Ecología

EDUCATION

Universidade Estadual Paulista – Unesp, Rio Claro, SP, Brazil

12/2019 Ph.D. in Ecology and Biodiversity

Universidade Federal de Mato Grosso do Sul – UFMS, Campo Grande, MS, Brazil

03/2014 M.S., Ecology and Conservation

12/2010 B.A., Biological Sciences

PEER-REVIEWED PUBLICATIONS

Total citations: 1739; h-index: 14

28. D Martínez-Medina, L Symes, M Retamosa-Izaguirre, **LSM Sugai** (2025). Tuning into nature: the sonic boost transforming tropical biodiversity research. *Philosophical Transactions of the Royal Society B*, 38020240044.
27. G Guo, M Rao, K Emeliano, **LSM Sugai**. Acoustic surveying for the Hawaiian Hoary Bat (*Lasirus semotus*) in in Māhukona Reserve, Hawai 'I (2025). *Cornell Undergraduate Research Journal* 4 (1), 24-31.
26. K Williams, **LSM Sugai** (2025). Altitudinal effects on Bioacoustics and Body size allometry on the invasive Coquí Frogs in Hawai'i. *Cornell Undergraduate Research Journal* 4 (1), 14-23.
25. T Tobin, **LSM Sugai** (2025). The Ecotourism Snorkeling Industry and Hawai'i Reef Soundscapes: An exploratory study. *Cornell Undergraduate Research Journal* 4 (1), 5-13.
24. RFF Lourival, FO Roque, FP Bolzan, A Guerra, ... **LSM Sugai**, ...WM Tomas (2025). Ten relevant questions for applying biodiversity offsetting in the Pantanal wetland. *Conservation Science and Practice*, e13274.

23. S Challéat, N Farrugia, JSP Froidevaux, A Gasc, ..., **LSMS Sugai** ,..., N Pajusco (2024). A dataset of acoustic measurements from soundscapes collected worldwide during the COVID-19 pandemic. *Scientific Data* 11, 928.
22. MCR Manzano, DA Felippi, **LSM Sugai**, R Sawaya, ML Silva, GC Rezende (2023). Calling for the future of conservation: a protocol for passive acoustic monitoring of small arboreal primates. *Brazilian Journal of Mammalogy*, e92, e922023122-e922023122.
21. JS Cañas, MP Toro-Gómez, **LSM Sugai**, HDB Restrepo, J Rudas, BP Bautista, LF Toledo, S Dena, AHR Domingos, FL Souza, S Neckel-Oliveira, A Rosa, V Carvalho-Rocha, JV Bernardy, JLMM Sugai, CE Santos, RP Bastos, D Llusia, JS Ulloa. (2023) A dataset for benchmarking Neotropical anuran calls identification in passive acoustic monitoring. *Scientific Data* 10, 771.
20. V Tonetti, JC Pena, MDA Scarpelli, **LSM Sugai**, FM Barros, PR Anunciação, PM Santos, ALB Tavares, MC Ribeiro (2023). Landscape heterogeneity: concepts, quantification, challenges and future perspectives. *Environmental Conservation* 50:83-92.
19. I Alcozer, H Lima, **LSM Sugai**, D Llusia (2022). Acoustic indices as proxies for biodiversity: a meta-analysis. *Biological Reviews* 97:2209-2236.
18. P Anunciação, **LSM Sugai**, F Martello, LMT Carvalho, MC Ribeiro (2022). Estimating the diversity of tropical anurans in fragmented landscapes with acoustic monitoring: lessons from a sampling sufficiency perspective. *Biodiversity and Conservation* 31:3055-3074.
17. **LSM Sugai**, D Llusia, T Siqueira, TSF Silva (2021). Revisiting the drivers of acoustic similarities in tropical anuran assemblages. *Ecology* 102: e03380
16. **LSM Sugai**, TSF Silva, D Llusia, T Siqueira (2021). Drivers of assemblage-wide calling activity in tropical anurans and the role of temporal resolution. *Journal of Animal Ecology* 90:673-684.
15. B Anäis, C Elodie, S Jerome, **LSM Sugai**, D Llusia (2020). Climatic breadth of calling behaviour in widespread tropical anurans: insights from hydric extremes. *Global Change Biology* 26:5431-5446.
14. AL Regolin, MC Ribeiro, F Martello, GL Melo, J Sponchiado, LFC Campanha, **LSM Sugai**, TSF Silva (2020). Spatial heterogeneity and habitat configuration overcome habitat composition influences on alpha and beta mammal diversity. *Biotropica* 52:969:980.
13. **LSM Sugai** (2020). Pandemics and the need for automated systems for biodiversity monitoring. *Journal of Wildlife Management* 84:1424-1426.
12. **LSM Sugai**, C Desjonquères, TSF Silva, D Llusia (2020). A roadmap for survey designs in terrestrial acoustic monitoring. *Remote Sensing in Ecology and Conservation* 6:220-235.
11. **LSM Sugai**, JLMM Sugai, VL Ferreira, TSF Silva (2019). Satellite image texture for the assessment of tropical anuran communities. *Biotropica* 51:581-590.
10. **LSM Sugai**, D Llusia (2019). Bioacoustic time capsules: Using acoustic monitoring to document biodiversity. *Ecological Indicators* 99:149-152.
9. **LSM Sugai**, TSF Silva, JW Ribeiro Jr, D Llusia (2019). Terrestrial Passive Acoustic Monitoring: Review and Perspectives. *BioScience* 69:15-25.

8. WM Tomas, FO Roque, ... **LSM Sugai**, ... WJ Junk (2019). Sustainability Agenda for the Pantanal Wetland: Perspectives on a Collaborative Interface for Science, Policy, and Decision-Making. *Tropical Conservation Science*, doi: 10.1177/1940082919872634.
7. CA Martins, M Silveira, VS Saito, R Costa-Pereira, **LSM Sugai**, O Pays, FO Roque (2018). Phylogenetic structure of communities between temperate and tropical regions: Exploring patterns through literature datasets. *Acta Oecologica* 91:30-34.
6. JW Ribeiro, **LSM Sugai**, M Campos-Cerqueira (2017). Passive acoustic monitoring as a complementary strategy to assess biodiversity in the Brazilian Amazonia. *Biodiversity and Conservation* 26:2999-3002.
5. **LSM Sugai**, G Nakamura, JLMM Sugai, TSF Silva (2017). *Scinax nasicus* (Lesser Snouted Treefrog). Predation by *Trachycephalus typhonius*. *Herpetological Review* 48:613-614.
4. M Stefanos, JM Ochoa-Quintero, FO Roque, **LSM Sugai**, LR Tambosi, R Lourival, S Laurance (2016). Incorporating resilience and cost in ecological restoration strategies at landscape scale. *Ecology and Society* 21:54.
3. FO Roque, J Ochoa-Quintero, DB Ribeiro, **LSM Sugai**, R Costa-Pereira, R Lourival, G Bino (2016). Upland habitat loss as a threat to Pantanal wetlands. *Conservation Biology* 30:1131-1134.
2. **LSM Sugai**, JM Ochoa-Quintero, R Costa-Pereira, FO Roque (2015). Beyond aboveground. *Biodiversity and Conservation* 24:2109-2112.
1. R Costa-Pereira, JLM Sugai, S Duleba, **LSM Sugai**, J Terra, FL de Souza (2014). Predation on *Physalaemus centralis* by *Leptodactylus chaquensis*. *Herpetology Notes* 8:345-346.

BOOKS

2017 FO Roque, S Torrecilha, J Ochoa-Quintero, F Valente-Neto, **LSM Sugai**, R Costa-Pereira, P Medina-Junior, G Fernandes, J Onofre, N Kaminski, J Sabino, R Lourival. *Capital Natural de Mato Grosso do Sul*. 1. ed. Bonito (MS): Fundação Neotrópica do Brasil. 60p.

TECHNICAL SKILLS

Language: Portuguese (native language), English (fluent), Spanish (intermediate).

Coding: R (experienced) and Python (basic).

FUNDED GRANTS

- 2025-27 National Council for Scientific and Technological Development of Brazil. Tecnologias para o Monitoramento Automatizado da Biodiversidade no Pantanal. Co-PI. R\$ 597,020.
- 2024-27 National Council for Scientific and Technological Development of Brazil. Capital Natural: Biodiversidade e Serviços Ecosistêmicos nas paisagens do Pantanal. Bioacoustics Component. Co-PI. R\$ 1,998,590.
- 2023-24 Innovative Teaching and Learning Awards, Cornell University. Sound to Science: Applied Methods in Bioacoustics. Co-PI. U\$ 20,000.

- 2022-24 Fundação de Apoio ao Desenvolvimento do Ensino, Ciência e Tecnologia do Estado de Mato Grosso do Sul. Ecoacústica aplicada ao monitoramento de anuros no Pantanal Sul e entorno. Co-PI. R\$81,560.02
- 2021-23 GEO-Microsoft Planetary Computer Programme. *Machine listening to monitor climate change impacts on neotropical amphibians*. Project co-leader. US\$ 59 919 plus computational credit of US\$ 55,620.
- 2019 Coordenação de Aperfeiçoamento de Pessoal de Nível Superior PROAP (817737/2015). PI. R\$ 1,000.
- 2018-22 Ministerio de Economía, Industria y Competitividad (España). *“El sonido de la biogeografía: Estimando los impactos del cambio climático en anfibios mediante nuevas tecnologías de seguimiento acústico”* (CGL2017-88764-R). Project co-leader. €74.173
- 2018-19 Fundação de Amparo à Pesquisa do Estado de São Paulo, FAPESP. PI. \$26,218.2.
- 2016-20 Instituto Nacional de Ciência e Tecnologia EECBio. Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq, Brazil). *“Monitoramento acústico automatizado em larga escala de anfíbios anuros”*. Project co-leader. €120,000.
- 2016-19 Fundação de Amparo à Pesquisa do Estado de São Paulo, FAPESP. R\$30,925.8.
- 2016 Rufford Foundation Small Grant. PI. £5,000.
- 2016 Coordenação de Aperfeiçoamento de Pessoal de Nível Superior PROAP (817737/2015). PI. R\$ 2,655.
- 2016 Coordenação de Aperfeiçoamento de Pessoal de Nível Superior Procad 071/2013. PI. R\$ 1,100.

SCHOLARSHIPS

- 2020-21 Ministerio de Economía, Industria y Competitividad (Gobierno de España / Fondo Social Europeo).
- 2016-19 Fundação de Amparo à Pesquisa do Estado de São Paulo, FAPESP.
- 2015-16 Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES.
- 2012-14 Conselho Nacional de Desenvolvimento Científico e Tecnológico, CNPq.
- 2010 Programa Institucional de Bolsas de Iniciação Científica – PIBIC/CNPq/UFMS.
- 2008-09 Programa Institucional de Bolsas de Iniciação Científica – PIBIC/CNPq/UFMS.

TEACHING EXPERIENCE

Instructor

- 2025 Introduction to Conservation Bioacoustics for WCS Southeast Asia
- 2025 Field methods in Conservation Bioacoustics, Island of Hawai'i. Cornell University.
- 2024 Wildlife monitoring using passive acoustic sensors: graduate level course at Universidade Federal de Mato Grosso do Sul, Brazil.
- 2024 Introduction to Conservation Bioacoustics Fall Course– Cornell University.
- 2023 Introduction to Conservation Bioacoustics Fall Course – Cornell University.
- 2024 TEMABio Pantanal: Training, Equipment and Mentoring in Biodiversity Acoustic Monitoring (*In-person*), Corumbá, Brazil.
- 2022-23 Indonesia-Malaysia Bioacoustics Equipment & Mentorship Award Program.

- 2017 Biogeography, Universidade Estadual Paulista Júlio de Mesquita Filho.
- 2014 Landscape Ecology course, Universidade Federal de Mato Grosso do Sul, Brazil.
- 2010 Pantanal Herpetology field course, Universidade Federal de Mato Grosso do Sul, Brazil.

SEMINARS AND WORKSHOPS

- 2024 Innovations in biodiversity monitoring. 10th anniversary of the National Biodiversity Monitoring Program (MONITORA). ICMBio, Brasília, Brazil.
- 2024 Introduction to Raven and BirdNET (*Virtual*)– 4th African Bioacoustics Community Conference, Cape Town, South Africa.
- 2024 Introduction to BirdNET – 5th World Ecoacoustics Conference (*In-person*), Madrid, Spain.
- 2023 Ecological Society of America Annual Meeting - Organized Oral session “All Ears In: Advancing Ecology and Conservation with Bioacoustics.” Portland, Oregon, USA.
- 2023 The XXVIII International Bioacoustics Congress – IBAC. Organizer of symposium “*Community ecoacoustics: from patterns to mechanisms of assemblages*”.
- 2023 Introduction to Passive Acoustic Monitoring. 2023 Waterbird Society Annual Meeting, in-person. Fort Lauderdale, FL, US.
- 2023 Invited talk, University of Kyoto. (*In-person*) *Insights into terrestrial ecological communities enabled by acoustic monitoring*.
- 2022 Ecolunch seminars, Ecology and Evolutionary Biology, Purdue University. “*Acoustic sensing for biodiversity and ecological research*”.
- 2021 On-line seminar, Projeto Bromeligenous: “*Bases do Monitoramento Acústico da Biodiversidade: Planejamento e Análises*”.
- 2020 II workshop INCT/EECBio “Monitoramento acústico automatizado em larga escala de anfíbios anuros”.
- 2019 I workshop INCT/EECBio “Monitoramento acústico automatizado em larga escala de anfíbios anuros”.
- 2019 IX Congresso Brasileiro de Herpetologia. “*O Monitoramento Acústico Passivo como ferramenta para estudos com anuros*”. Campinas, SP, Brazil.
- 2019 Universidad Autónoma de Madrid. “*Biodiversity remote sensing: from satellite images to acoustics for the assessment of tropical assemblages*”.
- 2019 Ontario Ecology, Ethology & Evolution Conference 2019.
- 2017 18th Annual Texas A&M University Ecological Integration Symposium.
- 2016 Landscape Metrics in Practice. Universidade Estadual Paulista, Rio Claro, SP, Brazil.
- 2015 5^o BioIndex Conference - Bioindicadores para Tomadas de Decisão. Campo Grande, MS, Brazil.
- 2014 II workshop Project “Estudos de Biodiversidade do Zoneamento Ecológico Econômico do Mato Grosso do Sul” (Campo Grande, Brazil).
- 2014 I workshop Project “Estudos de Biodiversidade do Zoneamento Ecológico Econômico do Mato Grosso do Sul” (Campo Grande, Brazil).

CONFERENCE PRESENTATIONS

- 2024 Ecoacoustics World Conference. Keynote speaker.

- 2023 The XXVIII International Bioacoustics Congress – IBAC. Oral presentation. *“Insights into the temporality of anuran communities enabled by a collaborative network of acoustic monitoring”*. Oral presentation.
- 2023 Ecological Society of America Annual Meeting “New insights into the ecology of species activity with bioacoustics research”. Portland, Oregon, USA.
- 2022 Annual meeting of the Animal Behavior Society, Symposium Bioacoustics in Tropical Forests *“Amphibian calling behavior under contrasting climates: lessons from a collaborative network in Brazil”*. San José, Costa Rica. Oral presentation.
- 2021 I Congresso Brasileiro de Bioacústica. *“Um bê-a-bá do Monitoramento da biodiversidade através da Bioacústica”* (online). Oral presentation.
- 2021 ISE Ecoacoustics Congress 2021. *“The rise and fall of biophony and the drivers of the acoustic space”*. Virtual meeting. Oral presentation
- 2019 1st Meeting of the Iberian Ecological Society & XIV AEET Meeting. *“Are community-wide signaling patterns driven by acoustic interactions?”*. Barcelona, Spain. Oral presentation.
- 2014 5º Simpósio de Geotecnologias no Pantanal-Geopantanal. *“Incorporating biodiversity expert knowledge in landscape conservation planning: a case study involving the Pantanal”*. Campo Grande, MS, Brazil. Oral presentation.
- 2009 IX Congresso de Ecologia do Brasil. Effects of Fig seeds ingestion by *Alouatta caraya*: does passage through the gut affects germination?
- 2009 XXVII Encontro Anual de Etologia. Is Folivory responsible for levels of inactivity for *Alouatta caraya*? A test of a Hypothesis. 2009. (Encontro).
- 2008 III Jornada Acadêmica Integrada de Biologia e IV Encontro Estadual de Biologia de Mato Grosso do Sul.
- 2008 XXVII Congresso Brasileiro de Zoologia. Artrópodos associados às bainhas foliares de *Attalea phalerata* (Arecaceae) em trechos de mata ciliar do rio Miranda. 2008. (Congresso).

EDITORIAL RESPONSABILITIES

2021- Remote Sensing in Ecology and Conservation

2024-25 Special Edition Editor on ‘Tropical Bioacoustics’ - Philosophical Transactions of the Royal Society B: Biological Sciences

REFeree

Total peer reviews: 60

Methods in Ecology and Evolution (4)
Ecology (1)
Functional Ecology (1)
Journal of Animal Ecology (1)
Ecological Indicators (4)
Conservation Biology (2)
Ecography (2)

Proceedings of the Royal Society B: Biological Sciences (1)
Global Ecology and Biogeography (1)
Remote Sensing in Ecology and Conservation (2)
Philosophical Transactions of the Royal Society B: Biological Sciences (2)
Biodiversity and Conservation (2)
Plos One (6)

Ecological Informatics (2)
Bioacoustics (2)
Nature Communications (1)
Biotropica (2)
Austral Ecology (1)
Ecosphere (1)
Ecology and Evolution (2)
Ibis (2)
Ardea (2)
Biota Colombiana (1)
PeerJ (2)

Frontiers in Ecology and Evolution (2)
Environmental Monitoring and Assessment (1)
Journal of Ecoacoustics (1)
Herpetological Conservation and Biology (3)
Wildlife Research (1)
Zootaxa (1)
Biodiversitas Journal of Biological Diversity (1)
Conservation Science and Practice (1)
Journal of Herpetology (1)
Basic and Applied Herpetology (1)

REVIEW FOR FUNDING/RESEARCH AGENCIES

(2025) 7ª Edição do Prêmio MapBiomias (Mapeamento Anual da Cobertura e Uso da Terra no Brasil)
(2025) Chamada Pública nº 08, Instituto Serrapilheira
(2023) Regular Fondecyt National Projects Competition, Agencia Nacional de Investigación y Desarrollo, Gobierno de Chile
(2019, 2020) German Federal Ministry of Education and Research (BMBF)

AWARD

(2025) Alumni Order of Merit, Universidade Federal de Mato Grosso do Sul

DEPARTMENT COMMITTEES

Research, Teaching, and Extension faculty search committee, Cornell Lab of Ornithology, Cornell University (2025)
Chris W. Clark Postdoctoral Fellowship search committee, Cornell Lab of Ornithology, Cornell University (2023)
Research, Teaching, and Extension faculty search committee, Cornell Lab of Ornithology, Cornell University (2024)
Katharine B. Payne Fellowship for Conservation Bioacoustics search committee, Cornell Lab of Ornithology, Cornell University (2023)
Research Engineer search committee, Cornell Lab of Ornithology, Cornell University (2023)
Software developer search committee, Cornell Lab of Ornithology, Cornell University (2023)

MENTORSHIP

Co-supervisor

- 2024-28 (**Ph.D.**) Griselda Inés Zárate Betzel. Monitoreo Acústico De Ensamblajes De Anuros De Los Humedales De Ñeembucú. Universidad Autónoma de Madrid, Madrid, Spain.
- 2022-26 (**Ph.D.**) Daiene Louveira Hokama de Sousa. Dinâmica temporal e ecoacústica de metacomunidades de anuros e aves. Supervisor: Diogo Borges Provete. Universidade Federal de Mato Grosso do Sul, Brazil.
- 2021-25 (**Ph.D.**) Francisco Pérciles Branco Bahiense Guimarães. Ph.D. Análise de índices acústicos na paisagem sonora ecológica de restinga no litoral norte da Bahia. Supervisor: Geraldo Jorge Moura. Universidade Federal Rural de Pernambuco, Brazil.

- 2024-25 (**Ph.D.**) Bruna Teixeira. Acessando a qualidade de ambientes de Mata Atlântica com diferentes ações antrópicas através da Ecoacústica. Supervisor: Bruna Bezerra. Universidade Federal de Pernambuco, Brazil.
- 2024-25 (**Ph.D.**) Safira Núbia Dias de Melo. Impactos da paisagem acústica e da iluminação artificial sobre filhotes de tartarugas marinhas, em Ipojuca, litoral de sul de Pernambuco, Brasil. Supervisor: Bruna Bezerra. Universidade Federal de Pernambuco, Brazil.
- 2023-24 (**Ph.D.**) Maria Carolina R. Manzano. Ph.D. Black Lion Tamarin Conservation Program. Supervisor: Ricardo Sawaya. Universidade de São Paulo, Brazil.
- 2023-24 (**Ph.D.**) Rafael Barboza. Vocal structure of neonates crocodilians (*Caiman latirostris*). Supervisor: Nicola Schiel. Universidade Federal Rural de Pernambuco, Brazil.
- 2023-24 (**M. Sc.**) Jenifer dos Santos Ribeiro. Análise dos impactos do fogo nas redes de co-ocorrência acústica de aves do Cerrado. Pontifícia Universidade Católica de Minas Gerais, Brazil.
- 2022-24 (**M.Sc.**) Ana Clara Balata Siqueira. Resposta de *Leptodactylus fuscus* (Anura: Leptodactylidae) a ruídos acústicos em paisagens antropizadas na amazônia oriental. Supervisor: Gleomar Fabiano Maschio. Universidade Federal do Pará, Brazil.
- 2022-23 (**M.Sc.**) Ana Paul Borges. Efeito do ruído do tráfego no comportamento de vocalização de *Physalaemus cuvieri* (Anura, Leptodactylidae). Supervisor: Levi Carina Terribile, Instituto Federal Goiano, Brazil.
- 2020-22 (**M. Sc.**) Anderson da Rosa. Variação espacial e temporal na fenologia reprodutiva e no padrão de vocalização de comunidade de anfíbios anuros em lagoas na Serra Catarinense. Supervisor: Selvino Nêsciockel de Oliveira. Universidade Federal de Santa Catarina, Brazil.
- 2023-24 (**Bachelor degree**) Enrico Lopes Breviglieri. 'Aplicação de métodos de machine learning para detecção do dimorfismo sexual vocal em espécies de aves da família Thamnophilidae'. Supervisor: Reginaldo José Donatelli. Universidade Estadual Paulista – UNESP, Brazil.
- 2024 (**Bachelor degree**) Lucas Fink. Pantanal Insect Sound Library. Cornell University, USA.
- 2024 (**Bachelor degree**) Advay Mishra. Automatic identification of Frog vocalizations. New York University, USA.

Thesis committee

- 2024-28 Ph.D. Committee of Isabela Alavarces Reis. Ecologia térmica e acústica de um anuro criticamente em perigo, *Nyctimantis pomba*. Universidade de São Paulo, SP, Brazil.
- 2022 Ph.D. Committee of Lidiane Gomes, Ecology and Biodiversity Conservation, Universidade Estadual de Santa Cruz, BA, Brazil.
- 2020 Master Thesis Committee of Isabella Rodrigues de Melo, Ecology and Evolution, Universidade Federal de Goiás, GO, Brazil.
- 2020 Master Thesis Committee of Helena Matsushige. Atropelamento De Fauna: Divulgando a Ciência, Universidade Federal de São Carlos.

Bachelor dissertation committee

- 2016 Bruna Pereira de Azevedo. B.A. degree in Biological Sciences, Universidade de São Paulo).
- 2016 Cezar Gonçalves Inácio. (B.A. degree in Ecology, Universidade Estadual Paulista Júlio de Mesquita Filho).

MEDIA CONTRIBUTIONS

- [Night fever at the Pantanal wetlands: night activity of anuran assemblages](#). 2020. (Journal of Animal Ecology blog).
- [Getting a PhD in Brazil?](#) 2019. (Functional Ecology blog).