Jhan Carlos Salazar Salazar

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Research interest

Experienced Data Scientist with a strong background in data analysis, visualization, and predictive modeling. Proficient in handling large datasets and uncovering trends and insights. Proven ability to collaborate with interdisciplinary teams and develop data-driven solutions. Committed to continuous learning in data science, regularly attending workshops and conferences to stay updated on the latest trends and technologies in data analysis and machine learning.

Appointments

2019 – present **Ph.D. Candidate;** Ecology, Evolution, and Population Biology. **Advisor**: Dr. Jonathan B. Losos.

2023 **Research Data Support Specialist II;** School of Information – The University of Arizona. **Advisor**: Dr. Cristian Roman-Palacios.

2019 **Lecturer in Zoology Laboratory;** Departamento de Ciencias Biológicas; Universidad Icesi.

2018 – 2019 **Research assistant;** Departamento de Ciencias Biológicas; Universidad Icesi.

Education

2019 – Present **Ph.D. Candidate, School of Medicine, Washington University in St. Louis** Ecology and Evolutionary Biology (Expected graduation May, 2025).
Thesis title: *Exploring the thermal physiology evolution on mountain slopes*

2013 – 2018 **B.Sc., Universidad Icesi, Cali, Colombia** in Biology/Conservation Biology with honor thesis.
Thesis title: *Intra and interspecific variation in critical thermal minimum and maximum of four species of anole lizards (Reptilia: Squamata: Dactyloidae: Anolis).*

Research Publications (Metrics: 87 citations; H-index = 2; i10-index = 2)

Journal Articles

11 K. Basava, H. A. Fattah, H. D. Garcia-Verdugo, S.-H. Lo, T. Lohchab, K. M. Martinet, C. Román-Palacios, **J. C. Salazar**, and D. Van Boxel. (**2024**). "Machine learning applications in Biology **(* In prep)**". In.

10 M. Bustos Hernandez and **J. C. Salazar**. (**2024**). "Nocturnal heat dynamics: Exploring thermal adaptation in Andean *Anolis* lizards **(* In prep)**". In.

9 C. A. Estupiñán O., V. Echeverry Soto, G. A. Londoño, **J. C. Salazar**, and M. del Rosario Castañeda. (**2024**). "The effect of morphological traits and performance on the survival rates of *Anolis ventrimaculatus* **(* In prep)**". In.

8 **J. C. Salazar**, A. C. Algar, S. Poe, J. B. Losos, and J. A. Velasco. (**2024**). "Repeated evolution of high elevation specialization in tropical lizards **(* In review)**". In: *Evolution*.

7 **J. C. Salazar**, C. A. Estupiñán O., A. F. Tigreros-Andrade, M. A. Cardona Lopez, G. A. Londoño, M. del Rosario Castañeda, and D. B. Miles. (**2024**). "In the heights: The thermal dynamics of Andean *Anolis* species **(* In prep)**". In.

6. **J. C. Salazar**, G. A. Londoño, M. M. Muñoz, D. B. Miles, and M. del Rosario Castañeda. (**2024**). "The Andes are a driver of physiological diversity in *Anolis* lizards **(* Accepted)**". In: *Evolutionary Journal of the Linnean Society*.

5. **J. C. Salazar** and D. B. Miles. (**2024**). "The shape of water: physiological adaptations to habitat aridity in the ornate tree lizard (*Urosaurus ornatus*)". In: *Integrative and Comparative Biology* 64, pp. 390–401. DOI: https://doi.org/10.1093/icb/icae061.

4. J. A. Jacobs, **J. C. Salazar**, and K. M. Winchell. (**2023**). "A picture is worth a thousand dollars: a photographic approach to studying colour in anoles". In: *Biological Journal of the Linnean Society* 142, pp. 319–330. DOI: https://doi.org/10.1093/biolinnean/blad143.

3. L. Soares, K. Cockle, E. Ruelas Inzunza, J. Ibarrra, C. Miño, S. Zuluaga, E. Bonaccorso, C. Ríos-Orjuela, ..., **J. C. Salazar**, et al. (**2023**). "Neotropical ornithology: Reckoning with historical assumptions, removing systemic barriers, and reimagining the future". In: *Ornithological Applications* 125, duac046. DOI: https://doi.org/10.1093/ornithapp/duac046.

2. **J. C. Salazar** and G. A. Londoño. (**2022**). "Nesting biology of the Golden-Winged Manakin (*Masius chrysopterus*), with a review of nesting traits for lowland and highland species of Pipridae". In: *Neotropical Ornithology* 33, pp. 58–65. DOI: https://doi.org/10.58843/ornneo.v33i1.473.

1. **J. C. Salazar**, M. del Rosario Castañeda, G. A. Londoño, B. L. Bodensteiner, and M. M. Muñoz. (**2019**). "Physiological evolution during adaptive radiation: A test of the island effect in *Anolis* lizards". In: *Evolution* 73, pp. 1241–1252. DOI: https://doi.org/10.1111/evo.13741.

Teaching Experience

2024 — **Teaching Assistant; Behavioral Ecology (Biology 372)**, Washington University in St Louis. Dr. Joan E. Strassmann.

2023 — **Teaching Assistant; Introduction to Ecology (Environmental Studies 381)**, Washington University in St Louis. Dr. Mark Manteuffel.

2021 — **Teaching Assistant; Behavioral Ecology (Biology 372)**, Washington University in St Louis. Dr. Joan E. Strassmann.

2020 — **Teaching Assistant; Introduction to Ecology (Environmental Studies 381)**, Washington University in St Louis. Dr. Swanne Gordon.

2019 — **Lecturer; Zoology Laboratory (Ciencias Biológicas 21008)**, Departamento de Ciencias Biológicas; Universidad Icesi. Dr. Leonardo Herrera.

2017 — **Undergrad Teaching Assistant; Cell Biology Laboratory (Ciencias Biológicas 21008)**, Departamento de Ciencias Biológicas; Universidad Icesi. Dr. Juliana Rengifo.

2016 — **Undergrad Teaching Assistant; Biotechnology Laboratory (Ciencias Biológicas 21006)**, Departamento de Ciencias Biológicas; Universidad Icesi. Dr. Edgar Barrera.

Undergrad Teaching Assistant; Vertebrate Biology Laboratory (Ciencias Biológicas 21123), Departamento de Ciencias Biológicas; Universidad Icesi. Dr. Gustavo A. Londoño.

2014 – 2015 — **Undergrad Teaching Assistant; Zoology Laboratory (Ciencias Biológicas 21008)**, Departamento de Ciencias Biológicas; Universidad Icesi. Dr. Leonardo Herrera.

Research Experience

2018 — **The impact of climate change on the ecological functionality and the restoration of the tropical dry forest**. Research Assistant: Departamento de Ciencias Biológicas; Universidad Icesi. Dr. María Camila Pizano.

Research Experience (continued)

2016 – 2017 **Intra and interspecific variation in Critical Thermal Minimum and Maximum of mainland anole lizards (Reptilia: Squamata: Dactyloidae: Anolis)**. Undergraduate Thesis: Departamento de Ciencias Biológicas; Universidad Icesi. Dr. María del Rosario Castañeda and Dr. Gustavo A. Londoño.

2015 – 2016 **Avian Nesting Ecology along an Elevational Andean Gradient**. Undergraduate Research Assistant: Departamento de Ciencias Biológicas; Universidad Icesi. Dr. Gustavo A. Londoño.

Public Presentation

Oral Presentations

2023
- "**Ecología y evolución de la fisiología térmica en los trópicos**", public presentation at the Seminario del Laboratorio de Herpetología at Universidad Autónoma Nacional de México.
- "**Ain't no mountain high enough: Repeated evolution of high elevation specialization in tropical lizards**", public presentation at the U'23: Celebrating 100 years of Charles L. Cap's Classification of the Lizards at the American Museum of Natural History.
- "**Ain't no mountain high enough: Repeated evolution of high elevation specialization in tropical lizards**", public presentationat the IMSD (Initiative to Maximizing Student Development) retreat at Washington University in St. Louis 2023.
- "**Ain't no mountain high enough: Repeated evolution of high elevation specialization in tropical lizards**", public presentation at the Ernst Mayr Symposium at Evolution Conference 2023.
- "**Ain't no mountain high enough: Repeated evolution of high elevation specialization in tropical lizards**", public presentation at the INSPIRE (Interdisciplinary Conference for Networking, Supporting, and Promoting Inclusive Research Endeavors) conference.
- "**Once upon a time in Colombia: Evolution and ecology of thermal physiology in the Andes**", public presentation at the LEC (Living Earth Collaborative) seminar series.
- "**Once upon a time in Colombia: Evolution and ecology of thermal physiology in the Andes**", public presentation for the ABBGS (Association for Black Biomedical Graduate Students) Black history month showcase.

2022
- "**Exploring the ecology and evolution of the thermal physiology in the tropicss**" Invited speaker at University of South Florida for the Integrative Biology Seminar series.
- "**Past, present and future: Evolution and ecology of thermal physiology in the Andes**" Public presentation at Universidad Icesi. (Delivered in Spanish).

2021
- "**Ecología y evolución de la fisiología térmica en los trópicos**" Public presentation at Congreso Latinoamericano de Evolución (CLEVOL). (Delivered in Spanish).
- "**Exploring the ecology and evolution of the thermal physiology in the tropics**" Public presentation at Virtual Evolution 2021 Conference.

2018
- "**Intra and interspecific variation in Critical Thermal Minimum and Maximum of mainland anole lizards (Reptilia: Squamata: Dactyloidae: Anolis) (Undergrad thesis)**" Public presentation at Institute of Biology Lunch Talk at VirginiaTech.

2017
- "**¿Está la eficiencia en el uso del agua asociada con las características de los estomas en el maíz?**" Poster Presentation Session at Universidad Icesi. (Delivered in Spanish).

2016
- "**Is water-use efficiency associated with stomatal traits in maize? (Summer research)**" Poster Presentation Session at Purdue University.

Public Presentation (continued)

Panels

2022 **"Herpetología Diversa; Conversatorio sobre diversidad e inclusión en la herpetología colombiana"** Colectivo Mujeres en la Ciencia Colombiana (Delivered in Spanish).

2021 **"Diversidad, Equidad e Inclusión en Eco-Evo en Latinoamérica"** Club Eco-Evo Latinoamerica. (Delivered in Spanish).

Herramientas generales de apoyo a la investigación" Universidad Militar Nueva Granada. Ecología y evolución de la fisiología térmica en los trópicos. (Delivered in Spanish).

Explorando la ecología y evolución de la fisiología térmica en los trópicos" Semana de Divulgación Científica Universidad Icesi (Delivered in Spanish).

2020 **"Lagartijas del valle, venid; La ruta de la ciencia – Todo es ciencia"** Club Eco-Evo Latinoamerica. : Ministerio de Ciencias de Colombia. (Delivered in Spanish).

Grants, Awards and Certifications

Grants

2023 **Travel grant given by Gans Collection and Charitable Fund, Inc.** for the Camp '23: Celebrating 100 years of Charles L. Cap's Classification of the Lizards at the American Museum of Natural History [$900].

Awards

2024 **Finalist for the Dean's Award for Graduate Research Excellence**, Washington University in St. Louis.

Commitment to Diversity and Inclusion award in the Division of Biology and Biomedical Science, Washington University in St. Louis.

Excellence in Research award in the Division of Biology and Biomedical Science, Washington University in St. Louis.

Nominee for the Edward A. Bouchet Graduate Honor Society for the Washington University in St. Louis chapter.

2023 **3rd place at best Oral Presentation at the IMSD (Initiative to Maximizing Student Development) retreat**, Washington University in St. Louis.

2019 **Afro-Colombian of the Year 2019 – Youth Category** , Awarded by Fundación Color de Colombia and El Espectador.

2018 **Meritorious Undergrad Thesis**, Universidad Icesi.

2013 **Undergrad Icesos Scholarship**, Universidad Icesi.

Certifications

2024 **Molecular Evolution Course**. At Marine Biological Laboratory, Woods Hole, USA.

Leadership and Management in Action Program (L-MAP). At Washington University in St. Louis, USA.

2019 **Colombian University Level Teaching - Teaching Certificate**. At Universidad Icesi, Cali, Colombia.

Selected Media Coverage

2023 **"Icesi, una plataforma para el éxito"**, by El País – Icesi 2023. [Link]

Selected Media Coverage (continued)

- "**Jhan Salazar on The Wonder of Nature & Importance of Representation**", by Frank Harris, British Ecological Society Journals – Black History Month 2023. [Link]
- "**Life Can't Get Much Hotter Than This**", by Katherine J. Wu, The Atlantic – Science. [Link]

2020
- "**Jhan Salazar: Journeys of an Afro-Colombian Ecologist**", by Dr. Anna Doty, Functional Ecologists - A Blog for the People Behind the Research. [Link]
- "**Temperaturas Críticas**", by Dr. Carlos Guarnizo, Ciencia Café Pa' Sumercé (Delivered in Spanish). [Link]
- "**For This Colombian Scientist, Lizards Led to A Life of Science!**", by Andrew Wight, Forbes. [Link]

2019
- "**EEPB graduate student wins Afro-Colombian of the year award in the Youth category**", by Marta Wegorzewska, WashU News, 12/2019. [Link]
- "**Biólogo Icesista Publica Artículo en Importante Revista Científica**", (Delivered in Spanish). [Link]
- "**Island lizards are expert sunbathers, and researchers find it's slowing their evolution**", by B. Bodensteiner, Virginia Tech News. [Link]

Professional and Organizational Service

2024 – present
- **Social Media Coordinator**, BGSA (Black Graduate Students Association) at Washington University in St. Louis.

2023 – present
- **Communication Committee Assistant**, Society of Systematic Biology.

2021 – present
- **Graduate Student Representative at the DEI in the Department of Biology** at Washington University in St. Louis.

2023 – 2024
- **Secretary**, ABBGS (Association for Black Biomedical Graduate Students) at Washington University in St. Louis.
- **Programming Coordinator**, SACNAS and GALNACS (Society for Advancement of Chicanos/Hispanics & Native Americans in Science/ Graduate Association of Latinx, Native American and Caribbean Students) at Washington University in St. Louis.

2021 – 2023
- **Graduate Student Representative** at the Society of Systematic Biology.

2016 – 2017
- **President** Herpetology Student Club. Universidad Icesi, Cali, Colombia. Dr. Gustavo A. Londoño.

Students Advised and Student Committees

Master Student Committees

2021 – present
- Estefany Acosta Lugo (Universidad Militar Nueva Granada, Bogotá - Colombia).

Undergraduate mentees

2024 – present
- Marsha Bustos Hernández (Universidad de Córdoba, Montería - Colombia).

2022 – 2024
- Pablo Ortega (Universidad Icesi, Cali - Colombia).

2023
- Jake Jacobs (Washington University in St. Louis).

2020 – 2021
- Camilo Andrés Estupiñán Orozco (Universidad Icesi, Cali - Colombia).

Workshops and Internships

2024 — **Inclusive Research Mentoring**, Teaching Orientation Workshop at Washington University in St. Louis.

2022 — **Fostering an Inclusive Classroom Climate**, Teaching Orientation Workshop at Washington University in St. Louis.

2021 — **Facilitating Challenging Conversations**, Teaching Orientation Workshop at Washington University in St. Louis.

Who's In Charge, Teaching Orientation Workshop at Washington University in St. Louis.

2020 — **Providing Verbal Feedback**, Teaching Orientation Workshop at Washington University in St. Louis.

Asking Questions to Improve Learning, Teaching Orientation Workshop at Washington University in St. Louis.

2017 – 2018 — **Winter Internship**, Ecology and Evolutionary Biology. Dr. Martha M. Muñoz. Virginia Polytechnic Institute and State University, Blacksburg, VA, at Muñoz Lab. Now at Yale University.

2017 — **Advance Comparative Phylogenetic Methods in R**, Dr. Liam J. Revell (University of Massachusetts Boston). At Universidad del Valle.

2016 — **Comparative Phylogenetic Methods in R**, Dr. Julie M. Allen (University of Nevada, Reno - now in VirginiaTech). At Universidad Icesi.

Summer Internship, Botany and Plant Pathology. Dr. Michael V. Mickelbart. Purdue University, West Lafayette, IN, at Mickelbart Lab

2015 — **Basics in R**, Dr. Julie M. Allen (University of Illinois - now in VirginiaTech). At Universidad Icesi

Peer Review

Reviewer for: Oikos, Herpetological Conservation and Biology, Oecologia, Functional Ecology, Food Webs, Neotropical Ornithology, Journal of Thermalbiology, Physiological and Biochemical Zoology

Society Membership

2021 – present — Herpetologists' League, student member.

2020 – present — Society of Systematic Biologists, student member.

2019 – present — Society for the Study of Evolution, student member.

Skills

Languages — Strong reading, writing and speaking competencies for English and Spanish.

Coding — R (advance), LaTeX(beginner), Python (beginner).

Statistics — Linear models, classical statistics (e.g., t-tests, ANOVAs).

Machine Learning — Decision trees, cross-validation, random forest.

Misc. — Academic research, teaching

References

Prof. Jonathan B. Losos
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Washington University in St. Louis,
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losos@wustl.edu

Prof. Martha M. Muñoz
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Yale University,
165 Prospect Street, New Haven, CT 06511.
martha.munoz@yale.edu

Prof. Cristian Román-Palacios
Assistant Professor
The University of Arizona,
1200 E University Blvd, Tucson, AZ 8572.
cromanpa@arizona.edu

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Last updated September 18^{th}*, 2024.*