

LÉO LABORIEUX

PHD STUDENT

UNIVERSITY OF MICHIGAN EEB

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ANN ARBOR, MICHIGAN, USA
ENGLISH PROFICIENCY: C2

1. EDUCATION

2025 – Present

PhD Student

University of Michigan, Ann Arbor, USA
PI: Pr. Anshuman Swain

2022 – 2024

Mobility European Master's in Evolution (MEME Program)

Consortium Program (multiple universities), Europe

2019 – 2022

Bachelor of Science (BSc) in Biodiversity & Ecology

Aix-Marseille Université

2. AWARDS, GRANTS & FELLOWSHIPS

2026

ES George Reserve Graduate Student Scholarship

Awarded \$2,500 for field-based research

2024

First place Poster Award

34th European Congress of Arachnology, Rennes, France (2024)

Second place – Macrophotography Category

34th European Congress of Arachnology, Rennes, France (2024)

Photograph: *Buthus occitanus* in the heat of a French summer

3. RESEARCH EXPERIENCE (ABRIDGED)

August 2025 – Present

University of Michigan – Department of Ecology & Evolutionary Biology
Swain Lab

Research themes: Ecological stoichiometry, global patterns of bee biodiversity, biogeography of ant-myrmecophyte mutualisms, ecoacoustics

May 2024 – Sep. 2024	Harvard University – Department of Organismic & Evolutionary Biology <i>Ortega-Hernández Lab</i> Project: Deciphering euarthropod enrollment with micro-CT
March 2024 – Present	Harvard University – Department of Organismic & Evolutionary Biology <i>Ortega-Hernández Lab</i> Project: Gill function in Paleozoic arthropods
Dec. 2023 – April 2024	Universidad del Rosario, Colombia <i>Independent research</i> Project: South America's first toxungen-spraying scorpion and two new buthid species
Sep. 2023 – March 2024	LMU Munich, Germany <i>Behaviour and Speciation Research Group</i> Project: Visual acuity and divergence in <i>Heliconius</i> butterflies
April 2023 – June 2023	Centre pour la Biologie et la Gestion des Populations (CBGP), France Project: Speciation genomics in a complex of phytophagous weevils
June 2021 – Nov. 2022	<i>Independent research</i> Project: Taxonomy of French buthid scorpions, with the description of a new <i>Buthus</i> species

4. PUBLICATIONS

In press/Published

In press, PNAS | **Laborieux, L.**, Heinrich, L., Januario, M., Sanders, N. J., Vasconcelos, T. & Swain, A. (2026). Global bee bioregions mirror those of other taxa despite a uniquely bimodal latitudinal diversity gradient.

In press, PNAS | **Laborieux, L.**, Knecht, R. J., Fagan, W. F., Sanders, N. J., & Swain, A. (2026). Ecological, physiological, and evolutionary drivers of stoichiometry in insects.

Losso, S. R., Vallefucio, F., Foglia, I., **Laborieux, L.**, Belén Muñoz-García, A., & Ortega-Hernández, J. (2026). Lamellar surface area calculations support respiratory function of trilobite exopodites. *Biology Letters*, (4), 20260071.

Laborieux, L. (2024). Biomechanics of venom delivery in South America's first toxungen-spraying scorpion. *Zoological Journal of the Linnean Society*, 202(4), zlae161.

Laborieux, L. (2024). A new species of *Tityus* Koch, 1836 (Scorpiones: Buthidae), from the Cordillera Oriental (Colombia). *Faunitaxys*, 12(41), 1–9.

Ythier, E., & **Laborieux, L.** (2022). The genus *Buthus* Leach, 1815 (Scorpiones: Buthidae) in France with description of a new species. *Faunitaxys*, 10(47), 1–13

Under review

Evolution Letters | Borerro, J., Alcalde-Anton, A., **Laborieux, L.**, Wright, D.S., Lozano-Urrego, D., Rueda-Muñoz, G., Pardo-Díaz, C., Salazar, C., Montgomery, S.H., & Merrill, R.M. (2026). Ecological divergence and post-eclosion brain development shape visual performance during *Heliconius* speciation.

Perspectives in Plant Ecology, Evolution and Systematics. | Swain, A. , Knecht, R.J., **Laborieux, L.**, Currano, H. (2026). Wood as a Stoichiometric Defense: Reframing the Evolutionary Success of Secondary Xylem.

In preparation

Laborieux, L., Rubin D., Hazra, D.K., Choubey, S., Rappaport, D. I., Fagan, W. F., & Swain, A. (202X). Recurrent fire erodes the temporal organization of acoustic communities

Laborieux, L., Rubin D., Sanders, N. J., Weber, M., & Swain, A. (202X). A Pan-American view of ant-extrafloral nectary mutualism: climate-structured, phylogenetically unconstrained.

Hoffman, T., Januario, M., Zou, H., **Laborieux, L.**, Rubin, D., & Swain, A. (202X). Evolution outweighs ecology in the global organization of bird foraging.

Laborieux, L., Losso, S. R., & Ortega-Hernández, J. (202X). The trunk musculature of conglobating arthropods reflects convergent solutions to a common biomechanical challenge.

5. TEACHING EXPERIENCE

Courses

FA2026	General Ecology – BIO 281 – University of Michigan Graduate Student Instructor. Principal Instructor: Pr. Natalia Umaña
WI2026	General Ecology – BIO 281 – University of Michigan Graduate Student Instructor. Principal Instructor: Pr. Nathan Sanders
FA2025	Evolution – EEB 390 – University of Michigan Graduate Student Instructor. Principal Instructor: Pr. Stephen Smith

6. RESEARCH PRESENTATIONS

2026	Ant-myrmecophile interactions: a Pan-American analysis. Research seminar. Salt Lake City, UH, United States
2024	Biomechanics of venom delivery in South America's first spitting scorpion. Poster presentation. Groningen, The Netherlands.
2024	Biomechanics of venom delivery in South America's first spitting scorpion. Research seminar. Groningen, The Netherlands.
2024	Micro-CT imaging reveals the euarthropod enrolment musculature. Online seminar.
2024	Investigating the ecological basis of divergent visual evolution between two <i>Heliconius</i> butterflies. Online seminar.
2023	Species delimitation should not be about species. Colloquium. Uppsala, Sweden
2022 – 2023	Additional presentations on topics including epigenetics, pangenomics, and ecological analyses of animal behaviour.

7. SERVICE AND OUTREACH

Scientific peer-review

Zootaxa, Zoology, Systematic Entomology

Media outreach

2025	How Michigan Rebuilt its Forests Documentary short film. Written and directed.
2025	A New Toxungenous Scorpion with Léo Laborieux New Species Podcast (featured guest)
2023	L'écologie en action: <i>Buthus balmensis</i> TV documentary – TV5 Monde (featured guest)
2022	Radio interviews discussing the discovery and description of <i>Buthus balmensis</i> (featured guest)

Volunteering

2017	Taxonomy and maintenance work on the entomological collections at Château-Musée des Papillons (Alpes Maritimes department, France).
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