

EDGAR (TJ) FRANCISCO

Stanford, California, United States

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EDUCATION

Stanford University

Stanford, California, USA

PhD Candidate: Earth System Science

GPA: 4.173/4.000

Planned Thesis Title: Consequences of Tropical Land-Use Decisions on Biodiversity and Species Interactions

Primary Advisor: Dr. Rodolfo Dirzo

Expected Thesis Defense: June 2028

MS: Earth Systems – Conservation Biology

GPA: 4.096/4.000 | Class of 2022

Thesis: “[Contrasting Herpetofauna Diversity in Monoculture and Polyculture Oil Palm Farms in Costa Rica](#)”

Advisors: Dr. Rodolfo Dirzo and Dr. Gretchen C. Daily

BSH: Earth Systems – Land Systems

GPA: 3.898/4.000 | Class of 2020

Honors Thesis: “[Lizards as a Lens for Understanding the Effects of Land Use Change](#)”

Advisors: Dr. Rodolfo Dirzo and Dr. Gretchen C. Daily

RESEARCH EXPERIENCE

Conservation Ecologist

Jan. 2020 – Present

Stanford Doerr School of Sustainability

Osa, Costa Rica, Vichada, Colombia, and Stanford, CA

Conducting interdisciplinary research alongside community partners in Osa, Costa Rica and Vichada, Colombia. Investigating the consequences of tropical land-use decisions on biodiversity, species interactions, and biological invasions for my PhD dissertation. [Academic Bio.](#)

Costa Rica: Determining the socioecological consequences of expanding oil palm cultivation in Costa Rica. Hired and currently mentoring Costa Rican field assistants and Stanford undergraduates. Thirteen months of field surveys, collecting data on reptiles and amphibians, climate, and habitat structure in oil palm plantations, strategically diversified farms, and lowland tropical rainforests.

Colombia: Undertaking novel investigations evaluating reptile, amphibian, bird, and mammal diversity and patterns of habitat selection in Reserva AKAE in Orinoquía, Vichada, Colombia. Leading our team of collaborators in strategically placing camera traps based on evidence of mammalian habitat use. Leading visual encounter surveys for wildlife in the savannas and forests of Orinoquía.

Lizard Biologist

Nov. 2024 – Present

Fairchild Tropical Botanic Garden

Miami, FL

Conducting field and laboratory research with Dr. James Stroud and the “Lizard Lab”, running an eco-evolutionary experiment, researching survivorship, fitness, and rapid morphological evolution in a novel community of one native and four non-native *Anolis* lizards, the most species-rich genera of vertebrates.

Conservation Technician

Oct. 2022 – Dec. 2022

Stanford Conservation Program

Stanford, CA

Biodiversity monitoring, evaluation, and restoration across Stanford’s lands and conservation easements. Planning and orchestrating strategic experimental release of vulnerable California Tiger Salamanders.

Research Ecologist

May 2019 – Sept. 2019; Part-time – June 2021

Instituto Socioambiental

Altamira and Terra do Meio, PA, Brazil

Evaluating use, composition, and regeneration of capoeiras (community agricultural plots) and investigating their influence on plant diversity. Translating grants and articles between English and Portuguese. Months in the field conducting ecological research, training and working alongside local ribeirinho researchers, and holding community meetings focused on reciprocal teaching and learning.

- Lab Assistant** Oct. 2018 – Dec. 2018
Stanford School of Earth (Rob Jackson Lab) Stanford, CA
 Pulverizing soil and plant material and weighing samples for analyses. Investigating the resilience of carbon sequestration and productivity of forests to changes in fire regime in the California Sierras.
- Conservation Ecology Intern** May 2018 – Sept. 2018
Santa Lucia Conservancy Carmel Valley, CA
 Investigating effects of strategic “conservation cattle” grazing on rangeland arthropod diversity. Collecting and identifying 4,000 invertebrates under microscope. Crafting and presenting posters for local community and two Stanford symposia of undergraduate research and public service, SURPS and ASURPS. Surveying vulnerable amphibian, bird, and invertebrate species.
- Research Intern** March 2017 – Sept. 2017
Stanford Biology Department (Gretchen C. Daily Lab) Stanford, CA
 Project 1: Conducting research on historical trends in multi-national biodiversity policies and treaties. Creating a comprehensive dataset of multi-national conservation treaties. Using R to discern patterns to explain historical motives influencing conservation-policy creation, implementation, and efficacy. Project 2: Investigating Costa Rican arthropod diversity dynamics. Identifying invertebrate species. Capturing high resolution photos with microscope, weighing, and preserving thousands of specimens.
- Biology Field Assistant** Nov. 2016 – Mar. 2017
Manú Learning Center Parque Nacional Manú, Madre de Dios, Peru
 Investigating vertebrate community responses to differing forest disturbance and land use histories in the Amazon. Conducting 700 hours of field surveys: pitfalls, mist netting, visual encounter transects, point counts, clay-lick monitoring, quadrats. Processing, handling, monitoring, and identifying reptiles, amphibians, insects, mammals, and birds. Hosting English lessons for local staff members.

TEACHING EXPERIENCE – Stanford Doerr School of Sustainability

- Teaching Assistant for Ecology and Ethics of Conserving Megafauna** Jan. 2024 – April 2024
 Taught a course with 83 master’s and undergraduate students. I led a weekly discussion section with 20 students. I coordinated and managed grading and logistics for the course. We engaged with a range of interdisciplinary scholarship on how humans seek to study, understand, exploit, protect, and empathize with charismatic megafauna. Received excellent student feedback, sharable upon request.
- Course Coordinator for Introduction to Earth Systems (Earthsys10)** Mar. 2021 – Jan. 2022
 Handled logistics and planning for the largest course in the Stanford Doerr School of Sustainability with 309 undergraduate students and 10 teaching assistants. Solicited and organized 30 lectures, each from a different Stanford faculty member. Hired and trained new teaching staff. Managed Canvas and Gradescope websites.
- Teaching Assistant for Biology and Global Change (Earthsys111/Bio217)** Dec. 2020 – Mar. 2021
 Taught, managed logistics, and arranged accommodations for student accessibility for 94 undergraduate and graduate students. Created and evaluated five essay prompts and four major homework assignments. Hosted two course-wide student question sessions weekly and a multitude of one-on-one tutoring appointments.
- Teaching Assistant for Introduction to Earth Systems (Earthsys10)** June 2020 – Dec. 2020
 Led three hours weekly instruction for 32 of 204 students. Planned, created, taught, and graded original lessons, mock town halls, and homework assignments. Organized 17 virtual tour experiences among six California Bay Area locations as the course field trip coordinator. Hosted three course-wide student question sessions weekly. Fantastic student reviews, sharable upon request.

PUBLICATIONS

Francisco, E., Ortíz García, A., Herrera, H., Guzman, A., & Dirzo, R. (2026). Wildlife recovery in strategically diversified farms. In prep for *Biological Conservation*.

Francisco, E., Ortíz García, A., Herrera, H., & Dirzo, R. (2026). The first documented population of the Grass Anole, *Anolis aeneus*, Daudin 1802 (Squamata: Dactyloidae), in Costa Rica. In prep for *Reptiles & Amphibians*.

Stroud, J., **Francisco, E.**, Cooper, T., & Suh, J. (2026). Predation by a non-native Cuban Knight Anole (*Anolis equestris*) of a native Corn Snake (*Pantherophis guttatus*) in Miami, Florida, USA. *Reptiles & Amphibians*, 33(1), e23091. <https://doi.org/10.17161/randa.v33i1.23091>

PRESENTATIONS

- 2026 Invited talk for The Wildlife Society's Interdisciplinary Biodiversity Conservation Symposium. "Winners and losers of land-use decisions: Wildlife responses to contrasting farming strategies in Costa Rica". **E. Francisco**, A. Ortíz García, H. Herrera, A. Guzman, & R. Dirzo. (2026) The Wildlife Society's Annual Conference. Des Moines, Iowa. *Talk*. (Upcoming in November 2026)
- 2026 "Strategically Diversifying Farms Benefits Wildlife and Smallholders in Costa Rica". **E. Francisco**, A. Ortíz García, H. Herrera, A. Guzman, & R. Dirzo. (2026) Center for Latin American Studies Graduate Research Symposium. Stanford University. *Poster*.
- 2026 "AKAE: Analyzing patterns of faunal habitat use in Orinoquía, Colombia". **E. Francisco** & L. Isaza. (2026) Department of Biology. Stanford University. *Talk*.
- 2025 "Strategically diversified oil palm farms benefit wildlife and smallholders". **E. Francisco**, H. Herrera, A. Ortíz García, & R. Dirzo. (2025) Association for Tropical Biology and Conservation. Oaxaca de Juárez, Oaxaca, México. *Talk*.
- 2025 Invited presentation for Dr. Aidee Guzman's Lab. "Preparing for your PhD Qualifying Examination". **E. Francisco**. (2025) Department of Biology. Stanford University. *Talk*.
- 2025 "Investigating the consequences of land-use decisions on biodiversity and species interactions". **E. Francisco**. (2025) ESSCapades. Stanford Doerr School of Sustainability. Stanford, CA. *Talk*.
- 2024 "Understanding indicator species and their capacities to adapt to land use change within a forest-agriculture mosaic in Costa Rica". **E. Francisco**, R. Dirzo. (2024) The Wildlife Society. Baltimore, MD. *Talk*.
- 2023 Invited talk for The Wildlife Society's Collaborative Conservation Symposium. "Diversifying oil palm farms supports smallholders and wildlife in Costa Rica: Successes and challenges". **E. Francisco**, R. Dirzo. (2023) The Wildlife Society's Annual Conference. Louisville, KY. *Talk*.
- 2023 "Anolis lizards reveal conservation benefits of transforming oil palm monocultures into diversified polycultures". **E. Francisco**, R. Dirzo. (2023) The Ecological Society of America. Portland, OR. *Talk*.
- 2023 "Diversifying oil palm farms supports smallholders and wildlife in Costa Rica" **E. Francisco**. (2023) ESSCapades. Stanford Doerr School of Sustainability. Stanford, CA. *Talk*
- 2022 "Diversifying oil palm plantations restores key microhabitats for forest dependent herpetofauna whereas monocultures favor disturbance specialists". **E. Francisco**, R. Dirzo. (2022) The Ecological Society of America. Montréal, Canada. *Talk*.

- 2022 “Oil Palm Polycultures Support More Forest-Dependent Herpetofauna Compared to Paired Monocultures, Which Favor Disturbance or Open-Habitat Specialists”. **E. Francisco**, R. Dirzo. (2022) The Wildlife Society Annual Conference. Spokane, WA. *Talk*.
- 2022 “Lizards as a Lens for Understanding the Effects of Land Use Change”. **E. Francisco**. (2022) Stanford School of Earth, Energy and Environmental Sciences Research Review. *Talk*.
- 2022 “Lizards as a Lens for Understanding the Effects of Land Use Change”. **E. Francisco**. (2022) Stanford Earth Systems Honors Symposium. *Talk*.
- 2021 “Reptile and Amphibian Responses to the Biological Enrichment of Palm Farms”. **E. Francisco**. (2021) 19th Annual UCSC-Stanford Species Interactions Workshop. *Talk*.
- 2019 “Effects of Conservation Cattle on Rangeland Arthropod Diversity”. **E. Francisco**, C. Wyckoff. (2019) Stanford April Symposium of Undergraduate Research and Public Service. *Poster*.
- 2018 “Cattle to the rescue? Investigating the Effects of Conservation Grazing on Arthropod Diversity”. **E. Francisco**, C. Wyckoff. (2018) Stanford Symposium of Undergraduate Research and Public Service. *Poster*.

GRANTS

2026	Emerging Environmental Scholar Research Award, Woods Institute for the Environment	\$4,000
2026	Center for Latin American Studies, Field Research Travel Grant	\$1,000
2026	American Philosophical Society, Lewis and Clark Fund Grant	\$5,400
2025	Center for Latin American Studies, Field Research Travel Grant	\$1,000
2025	Center for Latin American Studies, Tinker Graduate Field Research Grant	\$3,500
2025	Stanford Doerr School of Sustainability (SDSS) Graduate Research Grant	\$1,800
2024	Levorsen Fellowship Award, Stanford Doerr School of Sustainability (SDSS)	\$2,500
2024	Sustainability, Engineering, Science Undergraduate Research Program (Won for Mentee)	\$7,500
2023	The Wildlife Society, Biological Diversity Working Group Student Travel Grant	\$500
2022	The Wildlife Society, Biological Diversity Working Group Student Travel Grant	\$500
2022	Earth Systems Award for Outstanding Research (Master’s Thesis)	\$250
2022	The Ecological Society of America, Southeastern Chapter Travel Grant	\$400
2021	Stanford Woods Institute for the Environment: Iniciativa Osa y Golfito Research Fund	\$1,250
2021	Stanford Earth Systems Department, Research Travel Grant	\$1,000
2020	Stanford Earth Systems Scholars Award	\$8,000
2020	School of Earth Dean’s Award for Outstanding Undergraduate Academic Achievement	\$250
2019	Stanford’s Center for Latin American Studies, Pessoa-Trejos Grant	\$6,000
2018	Stanford’s ‘Bill Lane Center for the American West’ Grant	\$5,500
2017	Stanford Vice Provost for Undergraduate Education, Research Grant	\$7,000
Total Grants Awarded		\$57,350

AWARDS & HONORS

- 2026 Stanford Global Studies Photo Contest, Honorable Mention for “[Man and Tree](#)”.
- 2025 SDSS Annual Photo Contest. [Third Place – Action and Impact on Campus](#). Selected for display at the Stanford Sustainability Forum in April 2026.
- 2022 Earth Systems Award for Outstanding Research (Master’s Thesis).
- 2022 Stanford Global Studies Student Photo Contest. [Two Honorable Mentions in the Animal category](#).
- 2021 SDSS Annual Photo Contest. [Runner Up in Field Work category](#).
- 2021 Earth Systems Award for Outstanding Contributions as a Teaching Assistant.
- 2020 School of Earth, Energy and Environmental Sciences Dean’s Award for Outstanding Academic Achievement.

RESEARCH SKILLS

Communication: Full professional proficiency in Spanish, working proficiency in Brazilian Portuguese, advanced training in public speaking, science communication, teaching and mentorship.

Field: Biological surveys, species identification/handling/measuring, 4x4, wilderness first aid, CPR.

Technical: R, Excel, PowerPoint, ImageJ, ArcGIS, QGIS, photography, statistics, microscopy.

SERVICE

Academic

The Wildlife Society – Chair of the [Biological Diversity Working Group](#) with 268 members (Chair 2025-2027, Chair-Elect 2023-2025). As Chair, I lead our student research and travel grants initiative, run our monthly board meetings, and oversee all Working Group operations. For the 2026 Annual Conference, I am organizing a symposium, *Interdisciplinary Biodiversity Conservation: Building a Socio-ecological Future* and I am co-organizing the workshop, *multiScaleR: approachable and generalizable multiscale ecological modeling in R*. Member of TWS's Coalition of Working Groups for the UN Decade on Ecosystem Restoration (2025-2026). Led resume and CV review workshops for professionals and students in Edmonton, Canada at The Wildlife Society Annual Conference (October 2025). Organized a symposium, *Common Ground for Biodiversity: Collaborative Conservation Looking Back and Moving Forward*, at the annual TWS conference in Louisville, KY (November 2023). Reviewed 46 abstract submissions to annual meeting (2023). Volunteered as events greeter at annual conference in Spokane, WA. (2022) Oversaw information table for the Biological Diversity Working Group (2022 and 2023).

Ecological Society of America – Serving on ESA’s Annual Meeting Abstract Review Committee (2023-2026). Reviewed 117 (2026), 95 (2025), 105 (2024), and 70 (2023) abstract submissions to the annual meeting. Volunteered at annual conference in Montréal, Canada. Moderator and audio-visual coordinator for 30 oral presentations. (2022)

Graduate Student Advisory Council – Representative for the Stanford Doerr School of Sustainability. Serving as an interlocutor between graduate student workers and Stanford University administration to remedy graduates’ concerns and address program-related requests. (2024-2027 and 2020-2021)

Undergraduate Transcript Notation – Cardinal Service, Integrating Academic Learning with Public Service (2020)

Natural Capital Symposium – Volunteered at annual symposium in Stanford, CA. Moderator for oral sessions and audio-visual assistance. (2018)

Mentorship

Albin Ortíz García – Biologist field researcher. For five years, Albin has been invaluable to our field research initiatives in Osa and Golfito, Costa Rica. Albin has leveraged the skills he has acquired through our research to become a licensed ecotourism guide in Osa, Costa Rica. (2021-2026)

Bryan Diaz – Undergraduate researcher at Stanford University. Analyzing camera trap & habitat data. (2026)

Undergraduates at University of Vienna – Rainforest Herpetology at La Gamba Tropenstation. Taught a field course on reptile and amphibian conservation and ecology. Led a night walk through the rainforest of Piedras Blancas National Park for undergraduates from the University of Vienna. (2024)

Angelina Schapiro – Undergraduate researcher at Stanford University. Won \$7,500 for field research in Costa Rica. (2023-2024)

Attended the Stanford Neurodiversity Summit in Oct. 2022, diligently learning how to more inclusively and effectively teach and mentor a broader audience. (2022)

Vanessa Yarelli Rodriguez – Undergraduate researcher. Stanford University. (2021-2022)

Instituto Socioambiental – Taught environmental education courses in Portuguese to community partners working and living in Terra do Meio's Extractive Reserves, Riozinho do Anfrísio and Iriri. (2019)

Manú Learning Center – Upon request, hosted English lessons for local Peruvian staff. (2016-2017)

Outreach & Education

Wildlife photography selected for display at the Stanford Sustainability Forum. (April 2026)

Featured in the [Tinker Field Research Grant Recipient Interview](#) for work in Orinoquía, Colombia. (2025)

The Kampong, National Tropical Botanical Garden. Taught class of 50 middle school students a course on reptile conservation and ecology. (October 2025)

Fairchild Tropical Botanic Garden. Taught a class of 25 10th graders a course on reptile biology and conservation. Introduced students to wildlife and ecology studies. (October 2025)

Fairchild Tropical Botanic Garden. Taught a class of 50 10th graders a course on reptile biology and conservation. Introduced students to wildlife and ecology studies. (October 2025)

Fairchild Tropical Botanic Garden. Taught two K-12 courses to 25 students each on reptile biology and conservation. (November 2024)

Featured in The Wildlife Society's Biological Diversity Working Group Newsletters. (2022-2026)

Featured photographer in *Anole Annals* annual photo contest and [calendar](#). (2022)

Laboratorio Experimental de Palma Africana (LAPA) – Crafted presentation, “Cómo responden los reptiles y anfibios a la diversificación de fincas de palma aceitera?” to share with farming families and all involved for the annual LAPA summit, part of Stanford’s Iniciativa Osa y Golfito, in Costa Rica. (2021)

Instituto Socioambiental – Led four community meetings in Portuguese, teaching, learning, and discussing, “Ecologia e biodiversidade na Terra do Meio”. Wrote blog posts for Stanford Global Studies. (2019-2020)

Santa Lucia Conservancy – Designed community education posterboard, “Keeping it Wild. Snakes of the Preserve”. Wrote blog posts for Stanford’s Bill Lane Center for the American West: “[Keeping it Wild at the Santa Lucia Conservancy](#)” and “[The Little Things that Run the World](#)”. (2018)

Professional Memberships & Affiliations

American Philosophical Society, Lewis and Clark Field Scholar (since 2026)

Association for Tropical Biology and Conservation (since 2024)

Association of Southeastern Biologists (since 2022)

The Wildlife Society, Biological Diversity Working Group (since 2021)

Iniciativa Osa-Golfito, Stanford Woods Institute for the Environment (since 2020)

Center for Latin American Studies, Stanford University (since 2019)

Ecological Society of America, Southeastern Chapter (since 2019)

Bay Area Herpetological Society (since 2015)

PROFESSIONAL REFERENCES

Rodolfo Dirzo, PhD
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Doctoral Dissertation Primary Advisor

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Research Collaborator and Mentor

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Doctoral Dissertation Advisor