

# Tyler N. McFadden

## Curriculum Vitae

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104 CEOAS Admin. Building  
College of Earth, Ocean, and Atmospheric Sciences  
Oregon State University  
[tyler.mcfadden@oregonstate.edu](mailto:tyler.mcfadden@oregonstate.edu)

### **A. PROFESSIONAL PREPARATION**

#### **A1. EDUCATION**

Ph.D. in Ecology and Evolutionary Biology, 2021  
Department of Biology, Stanford University, Stanford, CA  
Dissertation: *Can working lands work for conservation? Maintaining biodiversity and ecosystem function in Chilean timber plantations*  
Advisor: Dr. Rodolfo Dirzo

B.S. in Fisheries and Wildlife Science 2014  
Oregon State University, Corvallis, OR  
Thesis: *Effects of nesting waterbirds on nutrient levels in mangroves, Gulf of Fonseca, Honduras.*  
Advisor: Dr. J. Boone Kauffman

#### **A2. ACADEMIC AND PROFESSIONAL APPOINTMENTS**

2025-present *Interim Program Director*, Environmental Sciences Undergraduate Program, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University  
2022-present *Program Coordinator*, Environmental Sciences Undergraduate Program, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University  
2022-present *Instructor*, Environmental Sciences Undergraduate Program, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University  
2021-22 *Lecturer*, Department of Biology, Stanford University  
2021-22 *H&S Dean's Fellow*, Stanford University  
2016-21 *Graduate Research Fellow* (PhD Candidate), Department of Biology, Stanford University  
2020 *Visiting Scholar*, Universidad Austral de Chile  
2015-16 *Crew Leader*, Bird Ecology Lab, Universidad Austral de Chile  
2015 *Avian Biologist*, Harris Environmental Group, Inc., Portland, OR  
2015 *Lab Technician*, Swiss Needle Cast Group, Oregon State University  
2014 *Wildlife Management Intern*, Hancock Forest Management, Independence, OR  
2014 *Research Experience for Undergraduates* (Costa Rica), Matthew Betts Lab, Oregon State University  
2013-14 *Field Technician* (Honduras & Mexico), J. Boone Kauffman Lab, Oregon State University  
2012 *Field Assistant* (Mexico), Villanova University

#### **A3. PROFESSIONAL DEVELOPMENT**

2025	Community of Teaching Beyond OSU, Oregon State University
2023	Community for the Advancement of Antiracist Instruction, Oregon State University
2023	Ecampus Developing an Online Course Workshop, Oregon State University
2022-23	Outreach Community of Practice, CEOAS, Oregon State University
2017-18	Wonderfest Science Envoy Communication Training Program

## **B. TEACHING AND ADVISING**

### **B1. COURSES TAUGHT**

#### **Oregon State University**

<b>Course No.</b>	<b>Title</b>	<b>Credits</b>	<b>No. of Students</b>	<b>Term/Year</b>
eENSC 101	Environmental Science Orientation	1	95	W 25
ENSC 221	Environmental Field Studies	4	37	F 24
eENSC 221	Environmental Field Studies	4	36	F 24
ENSC 221	Environmental Field Studies	3	22	F 23
eENSC 321	Environmental Case Studies	3	25	F 23
ENSC 479 (now 321)	Environmental Case Studies	3	25	Sp 23
eENSC 101	Environmental Sciences Orientation	1	119	W 23
ENSC 452 & GEOG 452/552	Environmental Assessment	3	25	W 23
ENSC 101	Environmental Sciences Orientation	1	225	F 22
eENSC 452 & eGEOG 452/552	Environmental Assessment	3	39	F 22
ENSC 479 (now 321)	Environmental Case Studies	3	23	F 22

#### **Stanford University**

<b>Course No.</b>	<b>Title</b>	<b>Credits</b>	<b>No. of Students</b>	<b>Term/Year</b>
BIO 121/221	Ornithology	3	24	Sp 22
BIO 101	Science for Conservation Policy: Meeting California's Pledge to Protect 30% by 2030	4	13	W 22
BIO 121/221	Ornithology	3	13	Sp 21
BIO 121/221	Ornithology	3	15	Sp 20
BIO 121/221	Ornithology	3	25	Sp 19

### **B2. CURRICULUM DEVELOPMENT**

#### **Courses**

<b>Year</b>	<b>Course No.</b>	<b>New or revisions?</b>	<b>Contributions</b>
2024	eENSC 221	New course	Proposed course and developed all course materials for this asynchronous online field course.
2023	ENSC 221	New course	Proposed course and developed all materials.
2023	eENSC 101	Revisions	Updated course content, revised assignments, and streamlined the Canvas site to increase student engagement

2022-23	eENSC 321 & ENSC 321	Complete re-design	I inherited this course (formerly listed as ENSC 479), which was in need of a complete re-development. I did an on-the-fly redevelopment to teach it in fall 2022 (I started at OSU 3 weeks before the start of the term). I completed the formal Ecampus re-development in Spring-Summer 2023.
2021	BIO 101 (Stanford)	New	Proposed course and developed all materials.
2019	BIO 121/221 (Stanford)	New	Proposed course and co-developed all materials.

### **Other curriculum development**

<b>Year</b>	<b>Item</b>	<b>New or revisions?</b>	<b>Contributions</b>
2022-present	Environmental Sciences Undergraduate Program	Revisions	Monitor and update the curriculum for the B.S. in Environmental Sciences. Major revisions include co-development of new program learning outcomes (2022-23), development of a new core course sequence (2023), and implementation of the new general education requirements (ongoing).
2023-24	Environmental Justice Certificate	New	Led curriculum design and proposed a new 27-credit undergraduate Certificate in Environmental Justice.
2023	Core Ed Transitions LOCR	New	Member of committee that developed the Learning Outcomes, Criteria, and Rationale (LOCR) for the Transitions courses, as part of OSU's general education reform.

### **B3. ADVISING**

<b>Name</b>	<b>Project type</b>	<b>Title</b>	<b>Dates</b>
Kenedi Edmunds	Undergraduate research project	Investigating predictors of access to birds in Oregon	2024-
Abby Luna	B.S honors thesis, Environmental Sciences	The bird gap: Using U.S. state birds as indicators of climate impacts and nature access across racial groups	2023-24
Jules Wyman	B.S thesis, Biology	Gimme shelter: habitat use of lizards in a warming city	2021-22
Julien Wright-Ueda	B.S./M.S. thesis, Biology	Long-term avian responses to climate change and urbanization in the San Francisco Bay Area	2020-22
Martin Freeland	Independent high school project	Pollination patterns in green-backed firecrown hummingbirds	2018-20

## **C. SCHOLARSHIP AND CREATIVE ACTIVITY**

### **C.1 PUBLICATIONS**

The following key is used to denote my role in each paper.

[A] Lead writer of manuscript or worked closely with a student in drafting the manuscript

[B] Contributed to the study's conception, data acquisition, and analysis and manuscript development

[C] Contributed to data analysis and/or data acquisition and manuscript development

[D] Contributed to the final submitted manuscript

### **Manuscripts submitted or in preparation**

Luna A, **McFadden TN**. The bird gap: Using U.S. state birds as indicators of climate impacts and nature access across racial groups. *In preparation*. [A]

Wyman J, Dirzo RD, **McFadden TN**. Gimme Shelter: Habitat use of lizards in a warming city. *In preparation*. [A]

**McFadden TN**, Dirzo RD. Harnessing multilayer networks to predict metacommunity responses to global environmental change. *In revision*. [A]

**McFadden TN**, Navedo JG, Biscarra G, Dirzo R. Current spatiotemporal configuration of tree plantations exacerbates negative impacts on Chilean forest birds. *In revision*. [A]

**McFadden TN**, Navedo JG, Biscarra G, Dirzo R. Widespread occurrence of a generalist hummingbird conceals true cost of native forest conversion to tree plantations. *In preparation*. [A]

### **Peer-reviewed publications**

9. **Wright-Ueda J**, Dirzo RD, **McFadden TN**. 2025. Protected areas have mixed effects on California bird population trends: evidence from long-term community science monitoring. *Ibis* 167:25-40. <https://doi.org/10.1111/ibi.13280> [A]
8. Losapio G\*, Genes L\*, Knight CJ\*, **McFadden TN\***, Pavan L\*. 2023. Monitoring and modelling the effects of ecosystem engineers on ecosystem functioning. *Functional Ecology* [B] \*All authors contributed equally to the work
7. Biscarra G, **McFadden TN**, Donoso P, Ponce DB, Ruiz J, Navedo JG. 2021. Short-term avian responses to experimental variable density thinning: pre-treatment stand structure and composition outweigh effects of management. *Forest Ecology and Management* 502:119711 [C]
6. Freeland M, Navedo JG, **McFadden TN**. 2020. Pollination patterns by Green-backed Firecrown hummingbirds. *Journal of Emerging Investigators* 3:1-7. [A]  
Lead author M. Freeland completed this work in 8<sup>th</sup> and 9<sup>th</sup> grade. JEI is a peer-reviewed journal for papers lead-authored by middle and high school students.
5. **McFadden TN**, Biscarra G, Ruiz J, Navedo JG. 2019. Recommended band sizes and a novel technique for sexing immature Green-backed Firecrown hummingbirds (*Sephanoides sephanioides*). *Ornitología Neotropical* 30:179-184. [A]
4. **McFadden TN**, Dirzo RD. 2018. Opening the silvicultural toolbox: a new framework for conserving biodiversity in Chilean timber plantations. *Forest Ecology and Management* 425:75-84. [A]

3. **McFadden TN**, Herrera AG, Navedo JG. 2017. Waterbird responses to regular passage of a birdwatching tour boat: implications for wetland management. *Journal for Nature Conservation* 40:42-48. [A]
2. **McFadden TN**, Kauffman JB, Bhomia R. 2016. Effects of nesting waterbirds on nutrient levels in mangroves, Gulf of Fonseca, Honduras. *Wetlands Ecology and Management* 24(2):217-229. [A]
1. Bhomia RK, Kauffman JB, **McFadden TN**. 2016. Ecosystem carbon stocks of mangrove forests along the Pacific and Caribbean coasts of Honduras. *Wetlands Ecology and Management* 24(2):187-201. [C]

## C2. INVITED TALKS

**McFadden TN**. Can working lands work for conservation? Assessing biodiversity and ecosystem function in human-dominated landscapes. 2022 March 8, Department of Environmental Studies, San José State University.

**Invited panelist** for panel on Science Outreach. Stanford Biology Surf 'n' Turf Symposium; 2021 Oct 30, Stanford University.

**McFadden TN**. Birds in a Changing Bay Area: Long-term Trends at Jasper Ridge Biological Preserve. Birdy Hour Speaker Series; 2021 May 6, San Francisco Bay Bird Observatory.

**McFadden TN**. Using birds to assess biodiversity change and engage students at Jasper Ridge. Evening Lecture Series; 2020 Oct. 13, Jasper Ridge Biological Preserve.

**McFadden TN**. Harnessing multilayer networks to predict metacommunity-wide responses to global environmental change. Ecology and Evolution Lunch Seminar; 2020 Jan. 14, Stanford University.

**McFadden TN**. Ecological networks under global environmental change: a multilayer approach. Ecology and Evolution Lunch Seminar; 2018 Dec. 4, Stanford University.

**McFadden TN**. Effects of nesting waterbirds on nutrient levels in mangroves, Gulf of Fonseca, Honduras. Avian Ecology Study Group (AVES) Seminar Series, Oregon State University; 2013 Dec. 5, Corvallis, Oregon.

## C3. GRANTS

### For Research

2022 Accelerator Projects in Sustainability, Stanford University (Senior personnel / Co-author), *Accelerating 30x30 Through a Collaborative Regional Prioritization Partnership*. \$100,000

- 2020 Office of International Affairs, Stanford University (Co-PI), *Avian physiological responses to drought within a Northern California nature reserve*. \$12,310
- 2017-20 Field Research Travel Grants, Center for Latin American Studies, Stanford University (PI). \$2,500
- 2018 Graduate Research Opportunities Worldwide (GROW), National Science Foundation (PI). \$5,000
- 2017 NSF Graduate Research Fellowship. \$132,000
- 2013 Miscellaneous internal grants for undergraduate research. ~\$4000

### **For Teaching and Outreach**

- 2020 NSF Research Coordination Networks in Undergraduate Biology Education (Steering Committee / Co-author). *San Francisco Bay RCN for Student Opportunities in Avian Research (SOAR)*. \$74,157
- 2019-20 Planet Granite (PI), *MERO Science Program*. \$2,200
- 2019 Rotary Club of Palo Alto (PI), *MERO Science Program*. \$10,000
- 2018 Community Engagement Grant, Stanford University (Co-PI), *Evaluating the outcomes of local conservation strategies on bird communities through long-term avian monitoring*. \$3,500
- 2017-18 Philanthropic Ventures Foundation (Co-PI), *MERO Science Program*. \$8,500
- 2017 Community Engagement Grant, Stanford University (PI), *MERO Science Program*. \$3,500
- 2017 Hass Center for Community Service, Stanford University (PI), *MERO Science Program*. \$1,000

## **D. SERVICE AND OUTREACH**

### **D1. SERVICE TO CEOAS**

- 2024-present CEOAS Reorganization Implementation Committee
- 2024-present College Leadership Team
- 2023-present Faculty Advisor, Environmental Sciences Club
- 2023-present Scholarship Committee, Environmental Sciences Undergraduate Program Scholarships
- 2023-present Scholarship Committee, Linda Lamb Scholarship
- 2022-present Undergraduate Program Committee
- 2024 Search Committee Member for Assist. Director of Career Development and Instructor
- 2023-24 Commencement Marshall
- 2023 Undergraduate Curriculum Committee, GEM Discipline Group
- 2022 Search Committee Member for CEOAS Academic Advisor

### **D2. SERVICE TO OREGON STATE UNIVERSITY**

- 2023-present Udall Scholarship Nomination Committee, National and Global Scholarships Office
- 2024 Beaver Open House Mock Lecture
- 2023-24 Faculty Mentor, Beaver Connect first-year mentorship program

- 2023 Co-led two FORTE workshop sessions for incoming freshman (topic: student readiness for college)
- 2023 Learning Outcomes, Criteria, and Rational Committee (Transitions category), OSU General Education reform

### D3. SERVICE TO THE PROFESSION

- 2020-21 Invited expert, Workshop series to develop management plan for newly formed Llancahue Nature Reserve, Chile
- 2017-21 Lead organizer, Stanford/UCSC Species Interactions Workshop (annual one-day conference)
- 2013-14 Board Member (student rep.), Oregon Chapter of The Wildlife Society
- 2012-13 President, Oregon Student Chapters of The Wildlife Society and American Fisheries Society
- Ongoing Reviewer
- Peer-reviewed journals: Data in Brief; Journal for Nature Conservation; Landscape and Ecological Engineering; Methods in Ecology and Evolution; Oecologia; PNAS; Science of the Total Environment
- Grants: FONDECYT Research Grants (Chile)

### D4. SERVICE TO THE PUBLIC

#### Outreach

- 2022-present **Spanish-English translations** of CEOAS outreach materials, as needed
- 2024 **College information sessions** for first-generation and low-income students interested in college. Held one-one-one meetings with ~20 students at South Albany High School
- 2023 **Hosted OSU campus visit** from South Albany High School ‘Young Women’s Group’ (support group for at-risk students)
- 2022 **Guest presentations** to ~100 environmental science students, Lebanon High School
- 2017-22 **Founder and Director**, Menlo-Atherton Ecology Research Outdoors (MERO) Award-winning\* year-round afterschool environmental education program that engages high school English Language Learners in hands-on ecological research, outdoor activities, and long-term mentorship. Info at [www.meroscience.org](http://www.meroscience.org)
- \*Awards:
- 2021: recognized by the Organization for Biological Field Stations when awarding its [Human Diversity Award](#) to our partner Jasper Ridge Biological Preserve
  - 2018: [Bay Area Inspire Award](#) for innovation in community service
- 2016-22 **K-12 Presentations**, ~15 guest lessons, primarily to high school classes. Examples lessons included:
- “Environmental Degradation and Social Conflict”

- “Biodiversity Loss in Latin America”
- “World Geography for English Language Learners”
- “Ethical Action and Advocacy in Response to the Amazon Fires”
  - Culminated in visit to Stanford campus where high school students presented their “*Guidelines for Ethical Action, Service, and Outreach*” to Stanford students and faculty.

- 2019      **Trip Leader**, International Educational Trip  
Co-led week-long spring break educational trip to Panama for 15 high school students, with focus on cultural and nature immersion.
- 2018      **Trip Leader**, International Educational Trip  
Co-led week-long spring break educational trip to Ecuador for 15 high school students, with focus on cultural and nature immersion.
- 2018      **Co-PI**, EXPLORA Los Ríos ‘Opening Our Laboratories’ project  
Co-advised two middle school students on a research project investigating hummingbird foraging and territoriality as part of a Chilean initiative to engage young people in science.

### **Public Presentations and Popular Articles**

- 2020      **Blog post**, Blog Endémico. “Tragedia de los animales comunes: no solo los pandas y rinocerontes marchan hacia la extinción” [English translation: “Tragedy of the common animals: pandas and rhinos aren’t the only ones marching towards extinction”]. [Link](#)
- 2019      **Invited panelist**, Family Film Festival of Napa Valley, St. Helena, CA.  
Discussion following screening of *The Serengeti Rules*. [Link](#)
- 2019      **Invited public talk**, Blue River Technology, Sunnyvale, CA. “It’s all connected: network perspectives on ecology, conservation, and education”. [Link](#)
- 2018      **Radio interview**, by DJ Marilyn Fowler. “Scintillating Science.” Poor People's Radio, KPOO-FM 89.5, San Francisco, CA. [Link](#)
- 2017      **Invited public talk**, Ask-a-Scientist, SoMa StrEat Park, San Francisco, CA.  
“Plantations, Pinochet, and a Paradigm Shift: Navigating ecology, history, and politics to solve Chile’s largest environmental conflict”. [Link](#)
- 2017      **Blog post**, Gradhacker Blog, “Communicating science to a general audience: 7 strategies I learned from teaching English Language Learners”. [Link](#)

### **E. AWARDS**



- 2023 Nominee for Ecampus Excellence in Online Teaching and Student Engagement Award, Oregon State University
- 2021 Norman K. Wessells Award (department's highest teaching award), Dept. of Biology, Stanford University
- 2017-21 NSF Graduate Research Fellowship
- 2014 Outstanding Senior, Dept. of Fisheries and Wildlife, Oregon State University
- 2013 Outstanding Undergraduate, Oregon Chapter, The Wildlife Society
- 2013 Chairman's Leadership Award, Dept. of Fisheries and Wildlife, Oregon State University