

Emma A. Gjerdseth

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EDUCATION

Oregon State University

Expected
June 2024

Ph.D., Applied Economics

- Dissertation: *Essays on Environmental Policy and Conservation Incentives*.
- Committee: Jennifer Alix-Garcia (Chair), Steven Dundas, Christian Langpap, and David Lewis.
- Fields: Environmental Economics, Applied Microeconomics, Econometrics, Development Economics.

University of California, Davis

2017 – 2019

Master of Science, Agriculture and Resource Economics

- Thesis: *Do Deforestation Monitoring Programs Work? Evidence from the Environmental Property Registry and Satellite Data in Brazil*
- Thesis committee: Katrina K. Jessoe (Chair), Kevin Novan, Steve Vosti

University of Oregon

2013 – 2016

Bachelor of Science, Economics and Environmental Studies

- *Cum laude*
- Dual Major
- Dean's list for Academic Achievements

PUBLICATIONS

“No peace for the forest: Rapid, widespread land changes in the Andes-Amazon region following the Colombian civil war.” Paulo J. Murillo-Sandoval, **Emma Gjerdseth**, Camilo Correa-Ayram, David Wrathall, Jamon Van Den Hoek, Liliana M. Dávalos, Robert Kennedy. *Global Environmental Change*, Vol (69), 2021. DOI: <https://doi.org/10.1016/j.gloenvcha.2021.102283>.

“Heterogeneous Benefits of Virus Screening for Grapevines in California.” Ji Yeon Cheon, Marieke Fenton, **Emma Gjerdseth**, Qian Wang, Siwei Gao, Hannah Krovetz, Lucy Lu, Lee Shim, Nicholas Williams, Travis J. Lybbert. *American Journal of Enology and Viticulture*. ajev.2020.19047, 2020. DOI: 10.5344/ajev.2020.19047

“Quantitative Analysis of Debris and Plastic Pollution on Beaches in Northern Madagascar.” **Emma Gjerdseth**. *Oregon Undergraduate Research Journal*, Vol 10(1), 2017. DOI: 10.5399/uo/ourj.10.1.5

WORKING PAPERS AND WORKS IN PROGRESS

"When Disaster Strikes: The Impact of Tropical Cyclones and Mangrove Protection on Economic Activity in Coastal Communities" with Paulo J. Murillo-Sandoval. *Job Market Paper*.

Abstract: Climate change is expected to increase the intensity and spatial extent of storms. Research suggests mangroves can serve as natural defensive structures and protect against cyclones and storm surges. We estimate the impacts of high- and low-intensity tropical cyclones on economic activity between 2014 and 2019 across communities the global tropics. We use detailed measurements of distance to and size of nearby mangroves to study their protective role at a global scale. We find that places struck by high-intensity (113+ knots) cyclones experience large negative shocks in the month of the storm, with important differences in recovery between mainland and island communities. The estimates suggest mangroves can protect from tropical cyclones, with protection increasing in mangrove area and decreasing in mangrove distance. Importantly, we find heterogeneous effects by income, suggesting mangrove protection from storms plays an important role in low and low-middle income nations.

"Crush and Burn: How the Destruction of Ivory Fails to Save Elephants" (*new draft available upon request*)

Abstract: Since 1979 elephant populations have declined by half. Advocates have called for the destruction of confiscated ivory to denounce elephant poaching and the illicit trade. As a result, more than 280 tons have been destroyed between 1989 and 2017, despite concerns of unintended consequences. This paper investigates the causal effect of destroying ivory on elephant poaching rates across African and Asian countries with elephants. The main finding is that these destructions do not reduce poaching rates. In Africa ivory destructions increase poaching rates with large negative spillover effects from in-country events on the rest of the continent. Theory and evidence suggest the supply shock effect dominates and increases poaching incentives. In Asia there is no evidence that poaching rates respond to ivory destructions.

"Coastal Erosion Protection on the Oregon Coast" with Steven J. Dundas (*work in-progress*)

Abstract: We investigate the questions of what landscape features and climate risks matter, and why, in a single housing market in the U.S. Pacific Northwest. We use parcel-level measurements derived from high-resolution

remote sensing data and develop risk and safety metrics from a probabilistic climate emulator based on total water level observations and predictions. A key advantage of our rich data is more temporally and spatially precise measurements of various landscape features and risk, which may translate to both new and improved hedonic estimates.

SEMINARS AND PRESENTATIONS

- 2023 Seminar, Economics Department, Portland State University (*Invited*).
Scheduled November 2023.
- Applied Economics Working Group (Seminar), Oregon State University.
Scheduled November 2023.
- Heartland Environmental and Resource Economics Workshop. Short
Research Presentation. *Scheduled October 2023.*
- Association of Environmental and Resource Economists (AERE) 2023
Summer Conference. Session: Flood Impacts.
- The Convening for the Pacific Northwest Framework for Atmospheric
Recovery, Blue Carbon Working Group (*Invited*).
- Applied Economics Working Group (Seminar), Oregon State University
- 2022 Western Economics Association International (WEAI) Conference, AERE
session “*Endangered species/Biodiversity*”.
- “State of the Dunes” Mini-Conference and Dune Management Workshop.
- 2021 Applied Economics Working Group (Seminar), Oregon State University
Agricultural & Applied Economics Association (AAEA) Joint Annual
Meeting, AERE-ENV track session “*GHG emissions from Agriculture,
Forestry and Other Land Use: Impact, mitigation strategies, incentives, and
regulation*” (*Virtual*).

RESEARCH EXPERIENCE

2020-Present Department of Applied Economics, Oregon State University

Research assistant for Dr. Steven Dundas.

Summer 2020 Department of Applied Economics, Oregon State University
Research assistant for Dr. Jen Alix-Garcia.

TEACHING EXPERIENCE

Fall 2023 Department of Applied Economics, Oregon State University
Instructor of Record
AEC 534: Environmental and Resource Economics (*Graduate, e-campus*).

Spring 2023 Department of Applied Economics, Oregon State University
Teaching assistant for Dr. William Jaeger.
AEC 534: Environmental and Resource Economics (*Graduate, e-campus*).

Winter 2018 –
Spring 2019 Department of Agriculture and Resource Economics, UC Davis
Teaching assistant for Professors Douglas Larson (*ARE 100B*),
Rachael Goodhue (*ARE 100B*), and Michael Springborn (*ESP 162*).
ARE 100B: Intermediate Microeconomics: Imperfect Competition,
Markets & Welfare Economics (*Undergraduate, 4 quarters*);
ESP 162: Environmental Policy (*Undergraduate, 1 quarter*).

AWARDS & SCHOLARSHIPS

2023 Scholarly Presentation Award, Oregon State University.

2020-21 Best Second Year Paper, Oregon State University, Department of Applied
Economics.
The Emery Castle Scholarship.

2020	Outstanding Master's Thesis Awards, Honorable Mention, Agricultural and Applied Economics Association (AAEA).
2019-20	Robert Johnson Fellowship. Oregon State University Provost's Distinguished Graduate Scholarship. Oregon State University Foundation Fellowship.
2019	Best M.S. Thesis of the Agriculture and Resource Economics Department, UC Davis.

SERVICE AND MEMBERSHIPS

Referee:	Journal of the Association of Environmental and Resource Economists (JAERE), 2021
Member:	Agricultural and Applied Economics Association (AAEA), American Economic Association (AEA), Association of Environmental and Resource Economists (AERE), European Association of Environmental and Resource Economists (EAERE), Western Economic Association International (WEAI), Royal Economic Society (RES).
Steward:	Coalition of Graduate Employees Union (2020-2022)
Service:	Co-organizer of 10 th Annual Giannini Foundation of Agricultural and Resource Economics Student Conference (2019).

SKILLS

Programming	Stata (Advanced), Latex (Advanced), R (Advanced), ArcGIS (Basic)
Languages	English (Fluent), Norwegian (Native), French (Intermediate), Spanish (Basic)
Citizenship	Norwegian