# STEVEN J. DUNDAS

**CURRICULUM VITAE** 

Department of Applied Economics

Oregon State University

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### **APPOINTMENT**

Associate Professor – Oregon State University, September 2021 – present Department of Applied Economics – Corvallis, OR Coastal Oregon Marine Experiment Station – Newport, OR

Assistant Professor - Oregon State University, September 2015 - August 2021

#### **EDUCATION**

Ph.D. Economics - North Carolina State University, 2015

M.S. Agricultural and Resource Economics - University of Delaware, 2011

B.S. Natural Resource Management *cum laude* – University of Delaware, 2003 Minors: Resource Economics, Biology, Photography

### **ELECTED POSITIONS & ADVISORY BOARDS**

President, USDA-NIFA W4133 Multistate Hatch Research Group (2021-2022) Vice President (2020 – 2021); Secretary (2019 – 2020)

Science Panel, Puget Sound Partnership (2021 – present)

Sea Otter Social Science Advisory Panel, California Ocean Science Trust (2021)

Science Advisory Council, Cooperative Institute for Marine Resource Studies (2019 - present)

Social Science Advisory Committee, Puget Sound Partnership (2017 – 2021)

Advisory Council for Statewide Planning Goal 18: Beaches and Dunes, Oregon Department of Land Conservation and Development (2019)

### **AWARDS & FELLOWSHIPS**

Marine Resource Economics Outstanding Article Award, 2018 Link

Distinguished New Professor of the Year, College of Agricultural Sciences, OSU, 2016

Gerald A. Carlson Outstanding Ph.D. Dissertation Award, NCSU, 2016

Pre-Doctoral Fellowship in Environmental & Resource Economics, Arizona State University, 2014 Jenkins Fellowship, NCSU, 2014-2015

 $Outstanding\ Master's\ Thesis\ Award,\ Northeastern\ Agric.\ \&\ Resource\ Economics\ Assoc.,\ 2012$ 

University Fellowship, NCSU, 2011-2012

Outstanding Senior Award in Natural Resource Management, University of Delaware, 2003

#### **PUBLICATIONS**

- (\* work from graduate student thesis/dissertation; ^ Senior authorship shared; 🔓 Open Access)
- Dundas, S. J., and R. H. von Haefen. 2021. The Importance of Data Structure and Non-linearities in Estimating Climate Impacts on Outdoor Recreation. *Natural Hazards* 107(3): 2053 2075. doi: <a href="https://doi.org/10.1007/s11069-020-04484-w">https://doi.org/10.1007/s11069-020-04484-w</a>
- Beasley, W. J.\* and S. J. Dundas. 2021. Hold the Line: Modeling Private Coastal Adaptation through Shoreline Armoring Decisions. *Journal of Environmental Economics and Management* 105: 102397. doi: 10.1016/j.jeem.2020.102397
- Parton, L C.\* and S. J. Dundas. 2020. Fall in the Sea, Eventually? A Green Paradox in Climate Adaptation for Coastal Housing Markets. *Journal of Environmental Economics and Management* 104: 102381. doi: 10.1016/j.jeem.2020.102381
- Dundas, S. J., A. S. Levine, R. L. Lewison, A. N. Doerr, C. White, A. W. E. Galloway, C. Garza, E. L. Hazen, J. Padilla-Gamino, J. F. Samhouri, A. Spalding, A. Stier and J. W. White. 2020. Integrating Oceans into Climate Policy: Any Green New Deal Needs a Splash of Blue. *Conservation Letters* 13(5): e12716. doi: 10.1111/conl.12716
- Dundas, S. J. and D. J. Lewis. 2020. Estimating Option Values and Spillover Damages for Coastal Protection: Evidence from Oregon's Planning Goal 18. *Journal of the Association of Environmental and Resource Economists* 7(3): 519 554. doi: 10.1086/708092
- Dundas, S. J. and R. H. von Haefen. 2020. The Effects of Weather on Recreational Fishing Demand and Adaptation: Implications for a Changing Climate. *Journal of the Association of Environmental and Resource Economists* 7(2): 209 242. doi: 10.1086/706343
- Darr, K. D.\*, J. L. East, S. Seabrook, S. J. Dundas, and A. R. Thurber. 2020. The Deep Sea and Me: Using a Science Center Exhibit to Promote Lasting Public Literacy and Elucidate Public Perception of the Deep Sea. *Frontiers in Marine Science* 7:159. doi: 10.3389/fmars.2020.00159 6
- Lewis, D. J., S. J. Dundas, D. M. Kling, D. K. Lew, and S. D. Hacker. 2019. The Non-market Benefits of Early and Partial Gains in Managing Threatened Salmon. *PLOS ONE* 14(8): e0220260. doi: 10.1371/journal.pone.0220260 &
- Dundas, S. J., R. H. von Haefen, and C. Mansfield. 2018. Recreation Costs of Endangered Species Protection: Evidence from Cape Hatteras National Seashore, *Marine Resource Economics* 33(1): 1 25. doi: 10.1086/694752
  - **≥** 2018 MRE Outstanding Article Award
- Dundas, S. J. 2017. Benefits and Ancillary Costs of Natural Infrastructure: Evidence from the New Jersey Coast. *Journal of Environmental Economics and Management* 85: 62 80. doi: 10.1016/j.jeem.2017.04.008
- Duke, J. M., S. J. Dundas, R. J. Johnston, and K. D. Messer. 2015. The Effect of Spatial Interdependencies on Prioritization and Payments for Environmental Services. *Land Use Policy*, 48: 341 350. doi: 10.1016/j.landusepol.2015.05.023

- Duke, J. M., S. J. Dundas, R. J. Johnston, and K. D. Messer. 2014. Prioritizing Payment for Environmental Services: A Land Preservation Application Using Nonmarket Benefits and Costs for Optimal Selection. *Ecological Economics*, 105: 319 329. doi: 10.1016/j.ecolecon.2014.06.014
- Duke, J. M., S. J. Dundas, and K. D. Messer. 2013. Cost-effective Conservation Planning: Lessons from Economics. *Journal of Environmental Management*, 125: 126 133. doi: 10.1016/j.jenvman.2013.03.048
- Fooks, J. R., S. J. Dundas, and T. O. Awokuse. 2013. Are there Efficiency Gains from the Removal of Natural Resource Export Restrictions? Evidence from British Columbia. *The World Economy* 36: 1098 1114. doi: 10.1111/twec.12041

#### **EXTENSION PUBLICATIONS**

Dundas, S.J. and R.H. von Haefen. 2018. Conflict on Public Lands: The Case of ORV Restrictions in Cape Hatteras National Seashore. *NC State Economist*, Summer 2018. PDF

### **WORKING PAPERS**

- Jensen, A. J.\*, S. J. Dundas, and J. T. Peterson. Phenomenological and Mechanistic Modeling of Recreational Angling Behavior Using Creel Data. Revisions requested *Fisheries Research*
- Lowe Mackenzie, A.\*, S. J. Dundas and B. Zhao. The Instagram Effect: Is Social Media Impacting Visitation to Public Land? Revisions requested *Land Economics*
- Nguyen, T.\*, D. M. Kling, S. J. Dundas, S. D. Hacker, D. K. Lew, P. Ruggiero, and K. Roy. Quality over Quantity: Non-market Values of Restoring Coastal Dunes in the US Pacific Northwest. Revisions requested *Land Economics*
- Hashida, Y. and S. J. Dundas. Managed Retreat and Local Government. *Under Review*
- Lewis, D. J., D. M. Kling, S. J. Dundas, and D. K. Lew. Estimating the Value of Threatened Species Abundance Dynamics. *Under Review*
- Beasley, W. J.\* and S. J. Dundas. Access to Recreational Cannabis Reduces Demand for Prescription Opioids with Limited Mortality Impacts.
- Lew, D. K., D. J. Lewis, S. J. Dundas, and D. M. Kling. Caution Ahead: Do Respondents Ignore Future Payments in Stated Preference Questions?

## **WORK IN PROGRESS**

Balancing the tradeoffs and optimizing the social benefits of coastal dunes and their ecosystem services (with S. D. Hacker, P. Hovenga, K. Jay, R. Mostow, and P. Ruggiero)

The Green Rush: Cannabis Legal Status and Agricultural Land Values (with W. J. Beasley)

#### **OTHER WRITING**

Levine, A. S., Lewison, R. L., and S. J. Dundas. Op-ed, *Capitol Weekly*. Teal Deal: Add Blue to the Green New Deal. May 26<sup>th</sup>, 2020. Link

- Dundas, S. J. 2012. Public Goods and Spatial Location: Stated Preference Prioritization with Spatial Interdependencies. *Agricultural and Resource Economics Review*, 41(3): 391. (abstract)
- Dundas, S. J., J. R. Fooks, and T. O. Awokuse. 2010. Welfare Gains from the Removal of Natural Resource Export Restrictions: The Case of British Columbia. *Agricultural and Resource Economics Review*, 39(3): 586. (abstract)

#### **GRANTS**

- The Cascadia Coastlines and People Hazards Research Hub. National Science Foundation, 2021 2026. \$18,896,138. **co-I** with P. Ruggiero (lead PI), A. Bostrom, A. R. Duvall, D. E. Plaza, & H. J. Tobin.
- US Highway 101 Coastal Hazard Vulnerability and Risk Assessment for Mitigation Prioritization. Oregon Department of Transportation. 2020-2022. \$289,500. co-PI with M. Olson (lead PI), B. Leshchinsky, C. Parrish, & J. Allan.
- Optimizing the Ecosystem Services of US Pacific Northwest Coastal Beaches and Dunes through Adaptation Planning. NOAA National Centers for Coastal Ocean Science (NCCOS) Ecological Effects of Sea Level Rise (EESLR) Program, 2019 2022. \$748,536. co-PI with P. Ruggiero (lead PI) & S.D. Hacker.
- Assessing Climate-Related Risk and Adaptation Options for Water Suppliers along the Oregon Coast. NOAA Coastal and Ocean Climate Applications (COCA) Program, 2019 2021. \$299,449. co-PI with D. Rupp (lead PI).
- Envisioning a Resilient Oregon Coast: Co-developing Alternative Futures for Adaptation Planning and Decision-Making. Oregon Sea Grant LEAF, 2018-2022. \$873,628. **co-PI** with P. Ruggiero (lead PI), J. Bolte, D.T. Cox, & J. Tilt.
- Assessing the Benefits of Natural Infrastructure for Shoreline Stabilization: Ecosystem Service Valuation for Decision-making in Coastal Communities. NOAA NCCOS 2015-2021. \$1,399,960. Lead PI with S.D. Hacker, D.J. Lewis, D.M. Kling, P. Ruggiero, C. Parrish, & D.T. Cox.
- Engineering Research Center for Adaptive and Resilient Coastal Infrastructure (CARCI).

  National Science Foundation, Engineering Research Center Planning Grant. 2018-19.

  \$100,000. co-I with D.T. Cox (lead PI), (PIs) S.D. Brody, R.R. Lopez, J.E. Padgett, P. Ruggiero, (co-Is) A. Barbosa, P. Bedient, E. Cotilla-Sanchez, L. Duenas-Osorio, P. Lynett, I. Pagan-Trinidad, & C. Parrish.
- The Value of Oregon's Deep Sea Habitat to Oregonians. Oregon Sea Grant SEED, 2017-18. \$47,323. **co-PI** with A. Thurber (lead PI).
- Envisioning a Resilient Oregon Coast: Co-developing Alternative Futures for Adaptation Planning and Decision-Making. Oregon Sea Grant SEED, 2017-18. \$49,822. **co-PI** with P. Ruggiero (lead PI), J. Bolte, D.T. Cox, & J. Tilt.

## **INVITED SEMINARS & CONFERENCE PRESENTATIONS**

2021: Puget Sound Nearshore Restoration Summit (Virtual)

2020: USDA/NIFA W-4133 Multistate Project Annual Meeting (Athens, GA)

AERE Summer Conference (Virtual)

NOAA Northwest Fisheries Science Center (Seattle, WA) \*cancelled COVID-19

2019: USDA/NIFA W-4133 Multistate Project Annual Meeting (Santa Fe, NM)

AERE Summer Conference (Incline Village, NV)

Estuary Science Symposium (Tillamook, OR)

Hatfield Marine Science Center (Newport, OR)

2018: USDA/NIFA W-4133 Multistate Project Annual Meeting (*Austin, TX*)

Western Economic Association International (Vancouver, BC)

World Congress of Environmental and Resource Economists (Gothenburg, Sweden)

Boise State University (Dept. of Economics, Boise, ID)

2017: USDA/NIFA W-3133 Multistate Project Annual Meeting (Carlsbad, CA)

AERE Summer Conference (Pittsburgh, PA)

Ecological Society of America Annual Meeting (Portland, OR)

Oregon Resource and Environmental Economics Workshop (Salem, OR)

2016: USDA/NIFA W-3133 Multistate Project Annual Meeting (*Portland, OR*)

5th National Forum on Socioeconomic Research in Coastal Systems (New Orleans, LA)

AERE Summer Conference (Breckenridge, CO)

AAEA Annual Meeting (AERE Sessions, Boston, MA)

OneNOAA Science Seminar (Silver Spring, MD)

2015: American Economic Assoc. (AEA) Annual Meeting (AERE Sessions, Boston, MA)

Louisiana State University (*Dept. of Economics, Baton Rouge, LA*)

East Carolina University (Economics/ICSP, Greenville, NC)

OSU (Dept. of Applied Economics, Corvallis, OR)

Coastal Oregon Marine Experiment Station (Newport, OR)

The College of New Jersey (*Dept. of Economics, Ewing, NJ*)

University of Delaware (School of Marine Science and Policy, Newark, DE)

2010 - 2014: NBER Summer Institute (Environ. and Energy Economics, Cambridge, MA; 2014)

ASU (Center for Environmental Economics & Sustainability Policy, Tempe, AZ; 2014)

Camp Resources (Wrightsville Beach, NC; 2013, 2014)

NCSU (Center for Environmental & Resource Economic Policy; 2011, 2013)

AAEA and NAREA Joint Annual Meeting (Pittsburgh, PA; 2011)

Annual Meeting of the Society for Benefit-Cost Analysis (Washington, DC; 2011)

NAREA Annual Meeting (Atlantic City, NJ; 2010)

## **TEACHING**

COURSE TITLE (Terms, Total # of Students)	UNIV.	LEVEL	MEDIAN RATING
Environmental Economics & Policy (6, 405)	OSU	Undergrad.	5.4 / 6.0
Environ. & Natural Resource Economics (6, 45)	OSU	Masters	5.9 / 6.0
Empirical Environ. & Resource Economics (3, 29)	OSU	Ph.D.	6.0 / 6.0
Environmental Economics & Policy <i>Ecampus</i> (1, 25)	) OSU	Undergrad.	5.6 / 6.0
Resource and Environmental Economics (2, 108)	NCSU	Undergrad.	4.6 / 5.0
Environmental Economics (1, 25)	Meredith	ı Undergrad.	3.7 / 4.0

#### NEW COURSE DEVELOPMENT

Introduction to Climate Change Economics & Policy (AEC 122; 2021)

Introduction to Climate Change Economics & Policy *Ecampus* (AEC 122; 2021)

Environmental Economics & Policy *Ecampus* (AEC 352; 2020)

Empirical Environmental & Resource Economics (AEC 653; 2017)

GUEST LECTURES (OSU, unless otherwise noted)

*Ecosystem Services in Coastal & Marine Environments* – MRM 530: Principles and Practice of Marine Resource Management, Winter 2020, Winter 2021.

*Economics of Marine Reserves* – AGRI 438: Exploring World Agriculture, Winter 2018 *Economics and Climate Change* – SUS 103: Introduction to Climate Change, Fall 2017

### **STUDENT ADVISING** (OSU, unless otherwise noted)

#### **CHAIR**

## Completed (5)

W. Jason Beasley, Ph.D. Applied Economics (2019)

*Dissertation:* Beaches, Wine, and Weed: Economic Implications of Land Use Changes in Oregon *Initial Placement:* Assistant Professor, Dept. of Economics, Western Michigan University

Amila Hadziomerspahic, M.S. Applied Economics (2020)

Project: Tsunami risk & information shocks: Evidence from the Oregon housing market

Ashley Lowe Mackenzie, M.S. Applied Economics (2020)

Project: The Instagram Effect: Is social media changing our demand for public land?

Graham Shaw, M.S. Marine Resource Management (2021)

Project: Understanding the Economic Benefits of Tidal Wetlands Restoration

Mya Juliet Kyaw, M.S. Applied Economics (2021)

Project: Federal Disaster Aid Impact on the Composition of Mortgage Types in Louisiana

## Current (2)

Amila Hadziomerspahic, Ph.D. Applied Economics (exp. 2022)

Ashley Lowe Mackenzie, Ph.D. Applied Economics (exp. 2023)

#### **COMMITTEES**

### Completed (13)

Ph.D. Applied Economics: Jian Shi (2021), Tu Nguyen (2020), Cassie Finer (2019), Chris Mihiar (2018)

Ph.D. Fisheries Science: Alexander Jensen (2021)

M.S. Applied Economics: Lima Hossain (2020), Grant Zimmerman (2020), Elaine Jordan (2018), Matthew Lundgren (2017)

M.S. Marine Resource Management: Keiko Nomura (2020), Katherine D. Darr (2019)

M.S. Fisheries Science: Kerrick Robinson (2018)

M.S. Geography: Stefan Rose (2021)

Graduate Council Representative (GCR) for 10 students: Marine Resource Management (4), Forest Ecosystems & Society (2), Fisheries Science (2), Integrative Biology (1), Water Resources Policy & Management (1).

## Current (9)

Ph.D. Applied Economics: Kelsey Johnson (exp. 2022), Nathanial Trull (exp. 2022), Nadeeka Weerasekara (exp. 2022), Rusty Dame (exp. 2023), Yuhan Wang (exp. 2023), Zichu Zhao (exp. 2023), Emma Gjerdseth (exp. 2024), Amod Sugiyama (exp. 2024)

M.S. Applied Economics: Erin Bush (exp. 2021)

Current GCR for 1 student in Forest Engineering, Resources & Management.

#### UNDERGRADUATE RESEARCH

## **Experiential Learning Mentor**

Alexander Wilson, *Water Farming: Filling the Risk Gap Between Reservoirs and Wetlands with Managed Agricultural Flood Plains* (2019 – 2020)

Jack Hobbs, Estimating the Effect of Fare-less Bus Systems on Housing Prices (2018 – 2019) Lauryn J. Moore, Native Oyster Restoration for Healthy Estuaries and a Resilient Oregon Coast (2018 – 2019)

## **Internship Mentor**

Eric Didion (2016; U of Florida) Geospatial Data Generation for Economic Analyses of the Oregon Coast

## **Independent Study Advisor**

Melissa Carson (2019), Joshua Fuller (2018)

## **PROFESSIONAL SERVICE**

#### Reviewer

Journals (45 reviews)

*Journal of Environmental Economics and Management* (11)

Environmental and Resource Economics (6)

Journal of the Association of Environmental and Resource Economists (4)

Marine Resource Economics (4)

Land Economics (3)

American Journal of Agricultural Economics (2)

Ecological Economics (2)

Resource and Energy Economics (2)

Agricultural and Resource Economics Review

Canadian Journal of Agricultural Economics

Coastal Management

**Economic Inquiry** 

**Environmental Conservation** 

Global Environmental Change

Land Use Policy

Journal of Agricultural and Resource Economics

Journal of Environmental Management

Nature Communications Nature Sustainability

## **Book Chapters**

Elsevier Science – Coastal Wetlands: An Integrated Ecosystem Approach, 2<sup>nd</sup> Edition

#### Grants

National Science Foundation Science of Science: Discovery, Communication, and Impact

NOAA Effects of Sea Level Rise Program

NOAA Ocean Acidification Program

Oregon Sea Grant

Woods Hole Sea Grant

## **Professional Associations**

AERE Scholars Program, Mentor (2021 – present)

AAEA Quality of Communication Award Committee (2019 - 2021)

AAEA Annual Meeting Topic Leader: Environmental & Nonmarket Valuation (2018 – 2020)

AAEA Annual Meeting – Reviewer of Abstract Submissions (Boston 2016, Chicago 2017, Washington D.C. 2018, Atlanta 2019, Kansas City 2020)

### **UNIVERSITY SERVICE**

## <u>University</u>

Faculty Student Mentor Program (2018 – 2020)

Marine Studies Initiative (MSI) Research Development Committee (2016 – 2017)

MSI Planning Retreat (April 2017)

MSI Academic Development Roundtable (March 2017)

OSU 2030 Vision Focus Group (March 2017)

## College of Agricultural Sciences

CAS Graduate Programs Advisory Committee (2016 – present)

## **Department of Applied Economics**

AEC Working Group workshop coordinator (2018 – present)

AEC Graduate Committee (2016 – present)

Search Committee, Executive Director - IIFET and NAAFE (2018 – 2019)

Invited Speaker "Research in Environmental and Resource Economics" – Law, Economics, Environment, Agriculture, and Policy (LEAP) Club, OSU (April 2018)

### **OUTREACH & PUBLIC SERVICE**

Public lecture, Oregon Coastal Management Program, Oregon Shores Conservation Coalition, & Oregon King Tide Photo Project (Virtual – Jan. 7<sup>th</sup>, 2021; Newport, OR – Dec. 14<sup>th</sup>, 2018) Invited Panelist, *Hazard Happenings!*, Oregon Department of Land Conservation and

Development (Virtual – October 29th, 2020)

Invited Panelist, *Best Practices in Ecosystem Services Valuation*, Puget Sound Partnership (Virtual – August 31st, 2017)

Invited Panelist, *Goal 18 Solutions: Does It Provide Flexibility to Deal with Climate Change?* 5<sup>th</sup> Annual Oregon Coast Economic Summit (North Bend, OR – August 9<sup>th</sup>, 2016) Invited Participant, Oregon Ocean Science Trust Summit, (Newport, OR – May 11-12, 2016)

### PROFESSIONAL DEVELOPMENT

Social Justice Education Initiative Tier 1 Training – OSU Professional Development (July 2020) Developing an Online Course – OSU Ecampus Course Development & Training (Summer 2019) COMPASS Science Communication Workshop: Navigating West Coast Ocean Change – Pacific Grove, CA (January 16-18, 2019)

People & Nature (Environmental Social Science) Peer Group – OSU (2015 – 2017)

Certificate of Accomplishment in Teaching – NCSU Graduate School (2013 – 2015)

Graduate Teaching Assistant Training Program – NCSU (2012)

Professional Development Award – University of Delaware (2010)

Volunteer – PRETOMA sea turtle conservation project, Costa Rica (2002)

U. of Delaware Study Abroad Program – Studied behavior of African wildlife under Richard Despard Estes, *Tanzania* (2001).

#### PROFESSIONAL ASSOCIATION MEMBERSHIPS

AERE, AAEA

### **CONSULTING**

Tillamook Estuaries Partnership – Garibaldi, Oregon (2019 – 2021)

#### OTHER PROFESSIONAL EXPERIENCE

Graduate Research Assistant

NCSU, 2012 – 2013, for Roger von Haefen; U. of Delaware, 2009 – 2011, for Joshua Duke Graduate Teaching Assistant

Resource & Environmental Economics (ARE 336 – NCSU); Introduction to Agricultural & Resource Economics (ARE 201 – NCSU); Environmental Law & Economic Policy (ARE 309

- NCSU); Agricultural Law (ARE 306 - NCSU); Environmental Economics (APEC/ECON 343

- U. of Delaware)

Photojournalist

NJBIZ and Journal Publications, Inc. – New Brunswick, NJ, 2006 – 2009

Sr. Environmental Scientist

JMC Environmental Consultants - Bay Head, NJ, 2006

**Environmental Scientist** 

Brennan Environmental Inc. - Summit, NJ, 2004-2006

GIS Research Associate

U.S. Environmental Protection Agency Region 2 – New York, NY, 2003