# **Bryan Leonard**

School of Sustainability Wrigley Hall, Arizona State University Tempe, AZ 85287	Bryan.Leonard@asu.edu Website
Employment & Affiliations	
Assistant Professor, School of Sustainability, ASU	2016 – Present
Faculty Affiliate, Department of Economics, ASU	2017 - Present
Faculty Affiliate, Center for Behavior, Institutions, and the Environment, ASU	2017 - Present
Faculty Affiliate, Swette Center for Sustainable Food Systems, ASU	2018 - Present
Graduate Faculty, Environmental Social Science, ASU	2018 - Present
Senior Research Fellow, Property & Environment Research Center	2019 – Present
External Affiliate, Ostrom Workshop at Indiana University	2020 – Present
Education	
Ph.D., Economics University of California, Santa Barbara	2016
M.S., Applied Economics Montana State University	2012
B.A., Economics	2010

# Research

#### **Research Interests**

Hillsdale College

Natural resource economics: water, wildfire, fisheries, large-scale migrations.

*The political economy of property rights*: land titling, indigenous property rights, historical persistence. *Public economics*: public good provision, management of public lands, distributional effects of policy.

### **Journal Articles**

#### **Articles in Economics Journals**

Douglas W. Allen and **Bryan Leonard**. Property Right Acquisition and Path Dependence: Nineteenth-Century Land Policy and Modern Economic Outcomes. *Economic Journal*, Forthcoming 2021

**Bryan Leonard** and Dominic P. Parker. Fragmented Ownership and Natural Resource Use: Evidence from the Bakken. *Economic Journal*, 131(635), 2021

Sechindra Vallury and **Bryan Leonard**. Canals, Climate, and Corruption: The Provisioning of Public Infrastructure Under Uncertainty. *Economics and Politics*, Forthcoming 2021

Christian Dippel, Donna Feir, **Bryan Leonard**, and Marc Roark. Secured Transactions Laws and Economic Development on Native American Reservations. *AEA Papers and Proceedings*, 111:248–52, 2021

Christian Dippel and **Bryan Leonard**. Not-So-Natural Experiments in History. *Journal of Historical Political Economy*, 1(1), 2021

**Bryan Leonard**, Dominic P. Parker, and Terry L. Anderson. Land Quality, Land Rights, and Indigenous Poverty. *Journal of Development Economics*, 143, 2020

Douglas W. Allen and **Bryan Leonard**. Rationing by Racing and the Oklahoma Land Rushes. *Journal of Institutional Economics*, 16(2):127–144, 2020

**Bryan Leonard** and Gary D. Libecap. Collective Action by Contract: Prior Appropriation and the Development of Irrigation in the Western United States. *Journal of Law and Economics*, 62(1):67–115, 2019

**Bryan Leonard**, Christopher Costello, and Gary D. Libecap. Expanding Water Markets in the Western United States: Barriers and Lessons from Other Natural Resource Markets. *Review of Environmental Economics and Policy*, 13(1):43–61, 2019

Douglas W. Allen and **Bryan Leonard**. How Many Rushed During the Oklahoma Land Openings? *Cliometrica*, 14:1–20, 2019

#### Articles in General Interest Science Journals

Josh Abbott, **Bryan Leonard**, and Brian Garber-Yonts. Who Gets What from Fisheries Reform? *Proceedings of the National Academy of Science*, Forthcoming, 2021

**Bryan Leonard**, Shawn Regan, Christopher Costello, Suzi Kerr, Dominic P. Parker, V. Kerry Smith, Andrew Plantinga, James Salzman, and Temple Stoellinger. Let Environmentalists Acquire Extraction Rights to Conserve Natural Resources. *Science*, 373(6558), 2021

**Bryan Leonard** and Steven M. Smith. Individualistic Culture Increases Economic Mobility in the United States. *Proceedings of the National Academy of Sciences*, 118(37), 2021

**Bryan Leonard**, Andrew J. Plantinga, and Matthew Wibbenmeyer. Lack of Access Constrains Public Land Management and Results in Larger Fires. *Environmental Research Letters*, 16(11), 2021

Leslie Sanchez, Eric Edwards, and **Bryan Leonard**. The Economics of Indigenous Water Claim Settlements in the American West. *Environmental Research Letters*, 15, 2020

Arthur D. Middleton, Temple Stoellinger, Harshad Karandikar, **Bryan Leonard**, Holly Doremus, and Claire Kremen. Harnessing visitors' enthusiasm for national parks to fund cooperative large-landscape conservation. *Conservation Science and Practice*, 3(2), 2020

#### **Articles in Other Journals**

Karen Bradshaw and Bryan Leonard. Virtual Parceling. International Journal of the Commons, 14(1), 2020

Abigail M. York, Hallie Eakin, Julia C. Bausch, Skaidra Smith-Heisters, John M. Anderies, Rimjhim Aggarwal, **Bryan Leonard**, and Katherine Wright. Agricultural Water Governance in the Desert: Shifting Risks in Central Arizona. *Water Alternatives*, 13(2):418–445, 2020

**Bryan Leonard** and Shawn Regan. Legal and Institutional Barriers to Establishing Non-Use Rights to Natural Resources. *Natural Resources Journal*, 59(1):135–180, 2019

Bryan Leonard and Gary D. Libecap. Endogenous First-possession Property Rights in Open-Access Resources. *Iowa Law Review*, 100(6):2457, 2015

# **Book Chapters**

Eric C Edwards and **Bryan Leonard**. Contracting and the Commons: Linking the Insights of Gary Libecap and Elinor Ostrom. In Megan E. Jenkins, Randy Simmons, and Camille H. Wardle, editors, *The Environmental Optimism of Elinor Ostrom*, pages 149 – 172. The Center for Growth and Opportunity at Utah State University, 2020

**Bryan Leonard**. How the West was Watered: Private Property and Collective Action. In Peter Boettke, Christopher Coyne, and Virgil Storr, editors, *Interdisciplinary Studies of the Market Order*, pages 161 – 182. Rowman and Littlefield, 2018

Terry L Anderson and **Bryan Leonard**. Institutions and the Wealth of Indian Nations. *Unlocking the Wealth of Indian Nations*, pages 3–17, 2016

Terry L. Anderson, **Bryan Leonard**, Dominic P. Parker, and Shawn Regan. Natural Resources on American Indian Reservations. *Unlocking the Wealth of Indian Nations*, pages 18–36, 2016

**Bryan Leonard**. Which Came First, Laws or Lobbyists? An Empirical Investigation of Environmental Regulation and Interest Group Formation. Master's thesis, Montana State University, 2012

# **Manuscripts Under Review**

Does Equality Persist? Evidence from the Homestead Act.

Brian Kogelmann and Bryan Leonard.

Revisions Requested, Journal of Political Institutions and Political Economy.

Stranded: The Effects of Inaccessible Public Land on Local Economies in the American West.

Bryan Leonard and Andrew Plantinga.

Revisions Requested, Land Economics.

Late Homesteading: Indigenous Land Dispossession Through Strategic Occupation.

Douglas W. Allen and Bryan Leonard.

Under Review.

Reconnecting Stranded Public Lands is a Win-Win for Conservation and People.

Claire Powers, Ashley Larsen, Bryan Leonard, and Andrew Plantinga.

Under Review.

### Manuscripts in Preparation (Available Upon Request)

Property Rights without Transfer Rights: A Study of Indian Land Allotment (NBER WP #27479). Christian Dippel, Dustin Frye, and **Bryan Leonard**.

The Long-Term Outcomes of Restoring Indigenous Property Rights to Water. Leslie Sanchez, Eric Edwards, and **Bryan Leonard**.

Farm Size and the Economic Impacts of Climate Change.

Bryan Leonard and Olivier Deschênes.

Ghosted Towns: Weather Shocks and Town Failure in the Development of the American West. Eric Alston and **Bryan Leonard**.

The Owls Are Not What They Seem: The Unintended Ecological Consequences of the Northwest Forest Plan.

Christian Dippel and Bryan Leonard.

The Value of Remotely-Sensed Data in Terrestrial Habitat Corridor Design for Large Migratory Species. Kailin Kroetz and **Bryan Leonard**.

Opportunities and Barriers to Renewable Energy on American Indian Reservations. Dominic Parker, Sarah Johnston, **Bryan Leonard**, and Justin Winikoff.

# **Research Funding**

Property, People, and Progress along Frontiers: How Land Policy Affects Selection and Outcomes.

Role: co-PI (PI: Steven Smith. co-PIs: Eric Alston and Joe Price).

Social and Economic Sciences Division, NSF. \$530,000. 2021–2024.

Leveraging Satellite Data to Design Habitat Corridors in a Working Landscape.

Role: PI (co-PIs: Kailin Kroetz and Arthur D. Middleton).

National Institute of Food and Agriculture, USDA. \$500,000. 2021–2024.

The Value of Satellite Earth Observations in Designing Cost-Effective Terrestrial Habitat Corridors for Migratory Species.

Role: PI (co-PI: Kailin Kroetz. Collaborator: Arthur D. Middleton).

Resources for the Future/NASA. \$35,000. 2020–2021.

Evaluating Alternative Water Institution Performance in Snow-Dominated Basins: Are Food Productions Systems At Risk From Changing Snow Water Availability?

Role: co-PI (PI: Kim Rollins. co-PIs: Abigail York, Loretta Singletary, Adrian Harpold, Michael Taylor, Gi-Eu Lee, Seshadri Rajagopal, Greg Pohll, Dale Manning, Christopher Goemans, and Benjamin Ruddel). National Institute of Food and Agriculture, USDA. \$4,917,465. 2018–2023.

Post-transitional Effects of Rationalization on the Crew Share System and Remuneration in the Alaskan Crab Fishery.

Role: PI (co-PIs: Joshua Abbott and Brian Garber-Yonts).

Alaska Fisheries Science Center, National Marine Fisheries Service, NOAA. \$40,615. 2018–2019.

Sustainable Water Markets Graduate Fellowship.

Bren School of Environmental Science and Management, UC Santa Barbara. \$70,000. 2013-2016.

#### **Presentations**

2021: AEA Annual Meetings (AEA Sponsored Session), Hoover Institution at Stanford University.

**2020**: UC San Diego Environment and Resources Seminar, Ostrom Workshop Colloquium, Indiana University. *Cancelled/Rescheduled due to COVID-19*: Colorado State University, Colorado School of Mines, CU Bolder Economic History Brownbag, Hoover Institution Campbell Fellow Seminar.

**2019:** CU Boulder Environmental & Resource Economics Workshop, Stanford University (Hoover Institution), Mountain West Economic History Conference (Utah State University), Workshop on the Ostrom Workshop (Indiana University), Classical Liberal Institute (New York University), AERE.

**2018:** Stanford University (Hoover Institution), NBER (DAE Summer Institute), Ostrom Workshop at Indiana University, Clemson University, University of Nevada, Reno, Florida State University, UC Santa Barbara (Occasional Workshop), University of Victoria ("Unsettling Economics" Workshop), SIOE, PERC.

**2017:** New York University, Washington State University, UC Riverside, Texas Tech University, Utah State University, Center for Behavior, Institutions, and the Environment (ASU), AERE, PERC.

**2016:** Harvard University (PIEP Working Group), NBER (DAE Summer Institute), SEA, WEAI, AERE, Montana State University, Arizona State University, University of Arizona.

2015: WEAI, ISNIE, Public Choice Society, UC Santa Barbara (Occasional Workshop).

# **Workshop Participation (by invitation)**

Yellowstone: Issues of the Rocky Mountain West, PERC	2021
Institutional Barriers to Non-Use Rights to Natural Resources, PERC	2020
Shifting Environmental Demands: Old West vs. New West, PERC & ASU	2018
Natural Resource Governance Symposium, Ostrom Workshop, Indiana University	2018
Research Workshop on Renewing Indigenous Economies, Hoover Institution, Stanford University	2018
Political Institutions and Economic Policy (PIEP), Ostrom Workshop, Indiana University	2018
Distributional Effects of Environmental Markets, PERC	2018
Property and Political Economy, Smith Institute, Chapman University	2018
The Life and Legacy of Douglas North, Mercatus Center at George Mason University	2018
"Unsettling Economics," University of Victoria	2018
Law of Property in Ecology Workshop, PERC	2017
Economic Issues Facing Indigenous Peoples Workshop, Harvard University	2017
Economic Issues Facing Aboriginal People in Canada and the USA, Simon Fraser University	2015
Annual Meetings of Nobel Laureates, Lindau, Germany	2014

# **Teaching**

# **Courses Taught**

- SOS 598: Microeconomics of Behavior (graduate: F2018).
- SOS 598: Economics of Water, co-taught with Michael Hanemann (graduate: S2018).
- SOS 591: Collective Action and the Commons (graduate: F2017, F2019).
- SOS 325: Economics of Sustainability (undergraduate, in person: S2017, S2018, F2019, S2019).
- SOS 325: Economics of Sustainability (undergraduate, online: F2018, F2020, S2020).

# **Online Course Development**

SOS 325: Economics of Sustainability.

# **Graduate Student Advising**

#### **Current Students**

Katherine Wright, Ph.D., Sustainability, ASU (chair).

Topic: Water governance in the American West.

Joseph Gazing Wolf, Ph.D., Sustainability, ASU (co-chair).

Topic: Land tenure and bison management on indigenous lands.

Brenna Deerburg, Ph.D., Sustainability, ASU (committee member).

Topic: Sustainable management of recreational common-pool resources.

Phillip Arthur, Ph.D., Sustainability, ASU (committee member).

Topic: Governance of existential threats to humanity.

Adrienne Gosnell, M.S., Sustainability, ASU (chair).

Topic: Split estate and land conservation.

#### Former Students

Dane Whittaker, M.S., Sustainability, ASU 2020 (committee member).

Topic: How do goals affect organizational characteristics and outcomes in social-ecological systems?

Phillip Moore, M.A., Sustainability, ASU 2020 (co-chair).

Topic: Trends in US Agriculture and Implications for Sustainability.

Chase Walker, M.S., Applied Economics, Montana State University 2020 (external committee member).

Topic: An Economic Analysis of the Smith River Float Lottery.

Sechindra Vallury, Ph.D., Sustainability, ASU 2019 (committee member).

Topic: Institutions for the Provision of Shared Infrastructure

#### **Undergraduate Honors Theses**

Christopher Wilcox, 2020 (chair)

Topic: Comparing Two Methods of Private Conservation

Jake Damle, 2020 (chair)

Topic: Light Rail Placement and Environmental Justice

#### Service

#### **Professional Service**

Editorial Board, Journal of Historical Political Economy

2021 - Present

Editorial Board, Land Economics

2021 - Present

#### Referee Service

Proceedings of the National Academy of Sciences; Science Advances; Nature Communications; Environmental Research Letters; Journal of the Association of Environmental and Resource Economists; Journal of Environmental Economics and Management; Land Economics; Marine Resource Economics; Journal of Forest Policy and Economics; Journal of Economic History; Journal of Law and Economics; Journal of Empirical Legal Studies; Journal of Economic Behavior and Organization; Energy and Resource Economics; Journal of Institutional Economics; International Journal of the Commons; Journal of Economics, Race, and Policy; World Development; PLOS One; European Journal of Law and Economics; Public Choice.

	November 2021
Workshop Organization	
Non-Use Rights: Overcoming Barriers to Environmental Markets, PERC	2021
Institutional Barriers to Non-Use Rights to Natural Resources, PERC	2020
Shifting Environmental Demands: Old West vs. New West, PERC & ASU	2018
Presidential Session at SEA Annual Conference	2016
University Service	
Global Futures Laboratory, Social Structures, Committee Member	2020 – Present
Center for Environmental Economics and Sustainability Policy, Seminar co-Director	2020 – Present
School of Sustainability Service	
School of Sustainability Research Seminar Committee Chair	2019 – Present
School of Sustainability Faculty Hiring Search Committee Member	2018 – 2019
School of Sustainability Master of Sustainability Solutions Committee Member	2017 – 2019
School of Sustainability Undergraduate Committee Member	2016 – 2017