

Bryan Leonard

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[Website](#)

Employment & Affiliations

Current

Associate Professor & SER Chair, University of Wyoming Haub School of Environment & Natural Resources School of Energy Resources	2024 –
Affiliate, Environmental Markets Lab, UC Santa Barbara	2022 –
Senior Fellow, Property & Environment Research Center	2022 –
External Affiliate, Ostrom Workshop at Indiana University	2020 –

Past

Associate Professor, School of Sustainability, ASU	2022 – 2024
Assistant Professor, School of Sustainability, ASU	2016 – 2022
Faculty Affiliate, Department of Economics, ASU	2017 – 2024
Campbell Visiting Fellow, Hoover Institution at Stanford University	2019 – 2020

Education

<i>Ph.D., Economics</i> University of California, Santa Barbara	2016
<i>M.S., Applied Economics</i> Montana State University	2012
<i>B.A., Economics</i> Hillsdale College	2010

Research

Research Interests

Natural resource economics: water, conventional & renewable energy, wildfire, fisheries, wildlife.

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.

Environmental market design: non-use rights, payments for ecosystem services, contract theory.

Economics Journal Articles

Christian Dippel, Dustin Frye, and **Bryan Leonard**. Property Rights without Transfer Rights: A Study of Indian Land Allotment. *Journal of Political Economy: Microeconomics*, Conditionally Accepted

Bryan Leonard and Andrew Plantinga. Stranded: The Effects of Inaccessible Public Land on Local Economies in the American West. *Land Economics*, Forthcoming 2024

Leslie Sanchez, Eric Edwards, and **Bryan Leonard**. Paper Water, Wet Water, and the Recognition of Indigenous Property Rights. *Journal of the Association of Environmental and Resource Economists*, 10(6), 2023

Douglas W. Allen and **Bryan Leonard**. Property Right Acquisition and Path Dependence: Nineteenth-Century Land Policy and Modern Economic Outcomes. *Economic Journal*, 131(640), 2021

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

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

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

Other Social Science Journal Articles

Douglas W. Allen and **Bryan Leonard**. Late Homesteading: Indigenous Land Dispossession Through Strategic Occupation. *American Political Science Review*, 2024

Temple Stoellinger, Travis Brammer, **Bryan Leonard**, Shawn Regan, and Jonathan Wood. Conservation Use on State Trust Lands. *Utah Law Review*, Forthcoming 2024

Arthur D. Middleton, Temple Stoellinger, Drew E. Bennett, Travis Brammer, Laura Gigliotti, Hillary Byerly Flint, Sam Maher, and **Bryan Leonard**. The Role of Private Lands in Conserving Yellowstone’s Wildlife in the Twenty-First Century. *Wyoming Law Review*, 22(2):237–301, 2022

Brian Kogelmann and **Bryan Leonard**. Does Equality Persist? Evidence from the Homestead Act. *Journal of Political Institutions and Political Economy*, 3(2), 2022

Christian Dippel, Dustin Frye, and **Bryan Leonard**. Bureaucratic Discretion: “Indian Agents” During Dawes-Era Land Allotment. *Public Choice*, 1–19, 2022

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

Interdisciplinary and Natural Science Journal Articles

Dominic Parker, Sarah Johnston, **Bryan Leonard**, Daniel Stewart, and Justin Winikoff. Economic Potential of Wind and Solar in American Indian Communities. *Nature Energy*, Forthcoming 2024

Beatrice L. Gordon, Gabrielle F.S. Boisrame, Rosemary W.H. Carroll, Newsha K. Ajami, **Bryan Leonard**, Christine Albano, Naoki Mizukami, Manuel A. Andrade, Elizabeth Koebele, Mike Taylor, and Adrian A. Harpold. The Essential Role of Local Context in Shaping Risk and Risk Reduction Strategies for Snowmelt-Dependent Irrigated Agriculture. *Earth's Future*, Forthcoming 2024

Samantha ML Maher, Kristin Baker, Kailin Kroetz, Van Bustic, **Bryan Leonard**, and Arthur Middleton. Assessing the Ecosystem Services and Disservices Provided by Mobile Wildlife. *Biological Conservation*, 283, 2023

L.C. Gigliotti, A. Courtemanch S. Dewey J.A. Gude M. Hurley M. Kauffman K. Kroetz **B. Leonard** D. MacNulty E. Maichak D. McWhirter T.W. Mong K. Proffitt B. Scurlock D. Stahler P. Atwood, E.K. Cole, and A.D. Middleton. Multi-Level Thresholds of Residential and Agricultural Land Use for Elk Avoidance Across the Greater Yellowstone Ecosystem. *Journal of Applied Ecology*, 60, 2023

L.C. Gigliotti, W. Xu, G. Zuckerman, P. Atwood, E.K. Cole, A. Courtemanch, S. Dewey, P. Hnilicka J.A. Gude, M. Hurley, M. Kauffman, K. Kroetz, A. Lawson, **B. Leonard**, D. MacNulty, E. Maichak, D. McWhirter, T.W. Mong, K. Proffitt, B. Scurlock, D. Stahler, and A.D. Middleton. Wildlife Migrations Highlight Importance of both Private Lands and Protected Areas in the Greater Yellowstone Ecosystem. *Biological Conservation*, 275, 2022

Josh Abbott, **Bryan Leonard**, and Brian Garber-Yonts. The Distributional Outcomes of Rights-Based Management in Fisheries. *Proceedings of the National Academy of Sciences*, 119(2), 2022

L. Clair Powers, Ashley E. Larsen, **Bryan Leonard**, and Andrew J. Plantinga. Reconnecting Stranded Public Lands is a Win-Win for Conservation and People. *Biological Conservation*, 270, 2022

Bryan Leonard, Shawn Regan, Christopher Costello, Suzi Kerr, Dominic P. Parker, V. Kerry Smith, Andrew Plantinga, James Salzman, and Temple Stoellinger. Allow “Nonuse 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(9), 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

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

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

Manuscripts in Preparation

Why the Rush? The Institutional Economic History of Homesteading.
Under Contract with Cambridge University Press.
Douglas W. Allen and **Bryan Leonard**.

Answering the Call: Can Alternative Transfer Mechanisms Alleviate Water Shortages?
Katherine Wright, **Bryan Leonard**, and Andrew Ayres.

The Economics of Contracting for Conservation.
Bryan Leonard, Christopher Costello, and Kailin Kroetz.

The Value of Remotely-Sensed Data in Terrestrial Habitat Corridor Design for Large Migratory Species.
Kailin Kroetz, **Bryan Leonard**, Arthur D. Middleton, Laura Gigliotti, and Tyler Treakle.

A “Trade-to-Cap” System for Revealing the “Social Carrying Capacity” of Predators.
Jacob Hochard, Temple Stoellinger, Todd Cherry, David Finnoff, Bailey Kirkland, **Bryan Leonard**, Steve Newbold and Jason Shogren.

Coase Meets Pigou: When Does Voluntary Provision On Top Of Regulation Enhance Welfare?
Joshua Abbott, Christopher Costello, and **Bryan Leonard**.

Ongoing Projects

Farm Size and the Economic Impacts of Climate Change.
Bryan Leonard and Olivier Deschênes.

The Owls Are Not What They Seem: The Unintended Ecological Consequences of the Northwest Forest Plan.
Christian Dippel and **Bryan Leonard**.

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

Research Funding

Assessing the Distributional Effects of US Catch Shares.
Role: co-PI (PI: Josh Abbott).
Walton Family Foundation. \$321,000. 2022–2024.

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 Production 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

2024 (incl. scheduled): Advancing Sustainable Water Management Workshop, Stanford Graduate School of Business; Environmental Economics Seminar, UC San Diego.

2023 : Next Generation Water Markets Workshop, Doerr School of Sustainability at Stanford University, TREE/Nicholas Institute Environmental Institutions Seminar at Duke University, emLab PI brownbag, AERE.

2022: University of Wyoming Haub School of Environment and Natural Resources, University of Wisconsin Department of Agricultural and Applied Economics, Vienna University of Economics and Business (WU Wien), Occasional Workshop at UC Santa Barbara, Eastern Economics Association.

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.

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).

Teaching

Courses Taught

SOS 598: Microeconomics of Behavior (graduate: F2018, S2022).

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, S2019, F2019).

SOS 325: Economics of Sustainability (undergraduate, online: F2018, S2020, F2020, S2021, F2021, S2022).

Online Course Development

SOS 325: Economics of Sustainability.

Graduate Student Advising

Current Students

Leah Shaffer, Ph.D., Sustainability, ASU (co-chair).

Topic: Natural Resource Management in the Arctic

Tam Kemabonta, Ph.D., Sustainable Energy, ASU (committee member).

Topic: Institutional Drivers of Energy Poverty in Nigeria.

Joseph Gazing Wolf, Ph.D., Sustainability, ASU (committee member).

Topic: Land tenure and bison management on indigenous lands.

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

Topic: Governance of existential threats to humanity.

Former Students

Katherine Wright, Ph.D., Sustainability, ASU 2023 (chair).

Topic: Water governance in the American West.

Brenna Jungers, Ph.D., Sustainability, ASU 2023 (committee member).

Topic: Sustainable management of recreational resources.

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

Braxton Gibson, 2022 (chair)

Topic: The Pittman-Robertson Act in the 21st Century

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, *Land Economics*

2021 – Present

Editorial Board, *Journal of Historical Political Economy*

2021 – 2023

Program Committee, Mountain West Economic History Conference

2023 – 2024

Referee Service

Proceedings of the National Academy of Sciences; Science Advances; Nature Communications; Environmental Research Letters; Quarterly Journal of Economics; American Economic Journal: Economic Policy; Journal of the Association of Environmental and Resource Economists; Journal of Environmental Economics and Management; Review of Environmental Economics and Policy; Land Economics; Marine Resource Economics; Journal of Forest Policy and Economics; Ecological Economics; Journal of Environmental Management; Journal of Economic History; Explorations in 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; American Sociological Review; Journal of Hydrology; The National Science Foundation Law & Science Program.

Workshop Organization

Understanding Community Opposition to Environmental Markets, PERC	2023
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 – 2024
Center for Environmental Economics and Sustainability Policy, Seminar co-Director	2020 – 2022