

Bryan Leonard

University of Wyoming
Laramie, WY 82072

bryan.leonard@uwyo.edu
Website

Employment & Affiliations

Current

SER Associate Professor, 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.

Journal Articles

36. Christian Dippel, Dustin Frye, and **Bryan Leonard**. Property Rights without Transfer Rights: A Study of Indian Land Allotment. *Journal of Political Economy: Microeconomics*, Forthcoming 2025
35. **Bryan Leonard** and Steven M. Smith. Water is the True Wealth in a Dry Land: Prior Appropriation and the Settlement of the Arid West. *Journal of Historical Political Economy*, 2025
34. Sam Johnson, Temple Stoellinger, **Bryan Leonard**, and Eric Atkinson. Public Playgrounds or Private Trusts? The Future of Recreation on State Trust Lands. *Environmental Law Reporter*, 55, 2025
33. Temple Stoellinger, **Bryan Leonard**, Travis Brammer, Shawn Regan, and Jonathan Wood. State Trust Land Revenue Diversification Through Conservation. *Utah Law Review*, 2025(1), 2025
32. Douglas W. Allen and **Bryan Leonard**. Late Homesteading: Indigenous Land Dispossession Through Strategic Occupation. *American Political Science Review*, 119(1), 2025
31. Dominic Parker, Sarah Johnston, **Bryan Leonard**, Daniel Stewart, and Justin Winikoff. Economic Potential of Wind and Solar in American Indian Communities. *Nature Energy*, 9, 2024
30. 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*, 12(6), 2024
29. **Bryan Leonard** and Andrew Plantinga. Stranded: The Effects of Inaccessible Public Land on Local Economies in the American West. *Land Economics*, 100(4), 2024
28. 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
27. Samantha ML Maher, Kristin Baker, Kailin Kroetz, Van Busic, **Bryan Leonard**, and Arthur Middleton. Assessing the Ecosystem Services and Disservices Provided by Mobile Wildlife. *Biological Conservation*, 283, 2023
26. L.C. Gigliotti, P. Atwood, E.K. Cole, 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, 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
25. L.C. Gigliotti, W. Xu, G. Zuckerman, P. Atwood, E.K. Cole, A. Courtemanch, S. Dewey, J.A. Gude, P. Hnilicka, 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
24. 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
23. 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

22. 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
21. Brian Kogelmann and **Bryan Leonard**. Does Equality Persist? Evidence from the Homestead Act. *Journal of Political Institutions and Political Economy*, 3(2), 2022
20. Christian Dippel, Dustin Frye, and **Bryan Leonard**. Bureaucratic Discretion: “Indian Agents” During Dawes-Era Land Allotment. *Public Choice*, 199:1–19, 2022
19. 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
18. **Bryan Leonard** and Dominic P. Parker. Fragmented Ownership and Natural Resource Use: Evidence from the Bakken. *Economic Journal*, 131(635), 2021
17. **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
16. **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
15. **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
14. 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
13. Sechindra Vallury and **Bryan Leonard**. Canals, Climate, and Corruption: The Provisioning of Public Infrastructure Under Uncertainty. *Economics and Politics*, 34(1), 2021
12. Christian Dippel and **Bryan Leonard**. Not-So-Natural Experiments in History. *Journal of Historical Political Economy*, 1(1), 2021
11. **Bryan Leonard**, Dominic P. Parker, and Terry L. Anderson. Land Quality, Land Rights, and Indigenous Poverty. *Journal of Development Economics*, 143, 2020
10. Douglas W. Allen and **Bryan Leonard**. Rationing by Racing and the Oklahoma Land Rushes. *Journal of Institutional Economics*, 16(2):127–144, 2020
9. Leslie Sanchez, Eric Edwards, and **Bryan Leonard**. The Economics of Indigenous Water Claim Settlements in the American West. *Environmental Research Letters*, 15(9), 2020
8. 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
7. 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

6. Karen Bradshaw and **Bryan Leonard**. Virtual Parceling. *International Journal of the Commons*, 14(1), 2020
5. **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
4. **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
3. Douglas W. Allen and **Bryan Leonard**. How Many Rushed During the Oklahoma Land Openings? *Cliometrica*, 14:1–20, 2019
2. **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
1. **Bryan Leonard** and Gary D. Libecap. Endogenous First-possession Property Rights in Open-Access Resources. *Iowa Law Review*, 100(6):2457, 2015

Books

Douglas W Allen and **Bryan Leonard**. *Why the Rush? An Institutional Economic Analysis of Homesteading and the Settlement of the West*. Cambridge University Press, 2026

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 Under Review

Warming and Snow Loss Threaten the Economic Viability of Irrigated Agriculture
Beatrice Gordon, Joey Blumberg, Dale T. Manning, **Bryan Leonard**, Gabrielle Boisrame, Christine Albano, and Rosemary Carroll.
Revisions requested, *Nature Water*

Fine-scale Mobility and Land-use Data Facilitate Cost-effective Migratory Corridor Design.
Kailin Kroetz, **Bryan Leonard**, Arthur D. Middleton, Laura Gigliotti, and Tyler Treakle.

A Coexistence Market for Revealing the “Social Carrying Capacity” of Predators.
Jacob Hochard, Temple Stoellinger, **Bryan Leonard**, Todd Cherry, David Finnoff, Bailey Kirkland, Katherine Lee, Steve Newbold, Jennifer Raynor, and Jason Shogren.

Manuscripts in Preparation

Establishing the Land of Opportunity: Land Transfers and Economic Mobility in American History
Steven M. Smith, **Bryan Leonard**, Eric Alston, and Joe Price.

Mind the Gap: Improving Water Markets with Field-Level Remote Sensing
Katherine Wright, **Bryan Leonard**, and Andrew Ayres.

The Community Impacts of Catch Shares in U.S. Fisheries
Bryan Leonard, Joshua Abbott, and Leah Shaffer

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

The Political Economy of “Non-Use” Rights for Conserving Natural Resources
Joshua Abbott, Christopher Costello, and **Bryan Leonard**.

Ongoing Projects

Designing Environmental Markets to Address Community Impacts.
Danae Hernandez-Cortes, **Bryan Leonard**, and Sara Sutherland.

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

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

Research Funding

Examining Recency of 2024 Wildfire Season Exposures as an Antidote to the Intangibility of Public Policy
Role: co-PI (PI: Todd Cherry. co-PI Jacob Hochard)
Social and Economic Sciences Division, NSF (Rapid Proposal). \$181,696. 2025.

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.

Presentations

2026 (including scheduled): Food and Resource Economics Department Seminar, University of British Columbia; Agricultural and Resource Economics Seminar, UC Davis; WildCru Research Seminar, Oxford University; Society for Environmental Law and Economics; World Congress of Environment and Resource Economists.

2025: Yale Environmental Economics Seminar; Workshop on the Historical Political Economy of Water, Stanford University (Bill Lane Center for the American West); Land, Environment, Economics, and Policy Institute, University of Exeter; Economics Department Seminar, University of Victoria; Economics Department Seminar, Simon Fraser University; EAERE.

2024: Advancing Sustainable Water Management Workshop, Stanford Graduate School of Business; Environmental Economics Seminar, UC San Diego; Bren Seminar, UC Santa Barbara; Economic History Seminar, CU Boulder; Economics Department Seminar, Colorado School of Mines; 1st Annual Historical Political Economy Conference, University of Southern California.

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

University of Wyoming

ERS 4120: Federal Public Land Law (S2025).

ENR 4750: Environmental Law and Policy (S2025).

ASU

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

Peri Brimley, Ph.D., Economics, University of Wyoming (committee member)

Connor Lubsen, Ph.D., Economics, University of Wyoming (committee member)

Katie Tenney, Ph.D., Economics, University of Wyoming (committee member)

Dayana Jones, Ph.D., Economics, University of Wyoming (committee member)

Machel Thomas, M.S., Economics, University of Wyoming (chair)

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

Former Students

Tam Kemabonta, Ph.D., Sustainable Energy, ASU 2025 (committee member)

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

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

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

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

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

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

Undergraduate Honors Theses

Braxton Gibson, 2022 (chair)

Christopher Wilcox, 2020 (chair)

Jake Damle, 2020 (chair)

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; American Journal of Agricultural 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

Using Satellites to Enable Water Markets for the 21st Century, UW 2025

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