# KAILIN KROETZ

Assistant Professor School of Sustainability Arizona State University

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## Education

## University of California, Davis

- Ph.D., Agricultural and Resource Economics, September 2014
  - Committee: James Sanchirico (chair), Douglas Larson, Daniel Lew, and James Wilen
  - Fields: Natural Resource and Environmental Economics, Econometrics
- M.A., Agricultural and Resource Economics, September 2011
- M.A. equivalent coursework in Population Biology

## Dartmouth College

- B.A., with honors, 2005
  - Majors: Mathematics, Environmental Studies

# Professional Experience

#### Current

- Assistant Professor, School of Sustainability, Arizona State University, August 2019-present
- Faculty Affiliate, Department of Economics and Center for Environmental Economics and Sustainability Policy W.P. Carey School of Business, Arizona State University, August 2019-present
- Faculty Affiliate and Program Lead for Economics and Biodiversity, Center for Biodiversity Outcomes, Arizona State University
- Senior Global Futures Scientist, Julie Ann Wrigley Global Futures Laboratory, Arizona State University, August 2021-present
- Senior Sustainability Scientist, Global Institute of Sustainability and Innovation, Arizona State University, August 2019-August 2021
- University Fellow, Resources for the Future, October 2019-present
- Senior Research Fellow, Environment for Development, May 2015-present

### Previous

- Fellow, Resources for the Future, September 2014 August 2019
- Senior Research Analyst, Industrial Economics, Incorporated, 2005-2008

## Academic Publications

#### Peer-Reviewed (PR) Journal Articles and Book Chapters

Symbols indicate co-authors in the following roles when most of the work on the paper was completed: intern or research assistant\*; postdoc+; graduate student<sup>G</sup>; undergraduate student<sup>U</sup>

#### Accepted Articles

PR28 Harding, E.<sup>U</sup>, **Kroetz, K.**, Breetz, H.L., Lee, K.<sup>G</sup>, Thompson\*, A.L., Jackson, H.B., Armsworth, P.R., and G.D. Iacona+. Partnerships between organizations that manage protected land in California are associated with groups with environmentally oriented missions. *Accepted, Conservation Science and Practice*.

- PR27 Maher, S.M.L<sup>G</sup>, Barker, K., **Kroetz, K.**, Van Butsic, V., Leonard, B. & Middleton, A.D. Assessing the ecosystem services and disservices provided by migratory wildlife across the Greater Yellowstone Ecosystem. *Accepted, Biological Conservation*.
- PR26 Gigliotti, L.C.+, Atwood, M.P., Cole, E.K., Courtemanch, A., Dewey, S., Gude, J.A., Hurley, M., Kauffman, M., Kroetz, K., Lawson, A., Leonard, B., MacNulty, D., Maichak, E., McWhirter, D., Mong, T.W., Proffitt, K., Scurlock, B., Stahler, D., & Middleton, A.D. 2022. Multi-level avoidance thresholds for residential and agricultural land use of elk across the Greater Yellowstone Ecosystem. *Accepted, Journal of Applied Ecology*.

### Published Articles

- PR25 Albers, H.J., Kroetz, K., Sims, C., Ando, A.W., Finnoff, D., Horan, R.D., Liu, R., Nelson, E., Merkle, J. Where, when, what, and which? Using characteristics of migratory species to inform conservation policy questions. *Review of Environmental Economics and Policy*: 17(1): 91-110.
- PR24 Ashander, J.+, Kroetz, K., Epanchin-Niell, R., Phelps, N. B. D., Haight, R. G., & Dee, L. E. 2022. Guiding large-scale management of invasive species using network metrics. *Nature Sustainability*: 5: 762–769.
  - $\rightarrow$  Associated Nature Sustainability News & Views article here.
  - $\rightarrow$  Associated publicly available preprint here.
- PR23 Kroetz, K., Nøstbakken, L., & Quaas, M. 2022. The future of wild-caught fisheries: expanding the scope of management. Review of Environmental Economics and Policy: 16(2), 241-261.
- PR22 Gigliotti, L.C.+, Xu, W., Zuckerman, G., Atwood, M.P., Cole, E.K., Courtemanch, A., Dewey, S., Gude, J.A., Hnilicka, P., Hurley, M., Kauffman, M., **Kroetz, K.**, Lawson, A., Leonard, B., MacNulty, D., Maichak, E., McWhirter, D., Mong, T.W., Proffitt, K., Scurlock, B., Stahler, D., & Middleton, A.D. 2022. Wildlife migrations highlight importance of both private lands and protected areas in the Greater Yellowstone Ecosystem. *Biological Conservation*: 275 (2022): 109752.
- PR21 Stachowiak, C.<sup>G</sup>, Crain, B. J.<sup>G</sup>, **Kroetz, K.**, Sanchirico, J. N., and Armsworth, P. R. 2022. The Impact Of Recreational Use And Access On Biotic And Abiotic Disturbances On Areas Protected By Local Communities And A State Conservation Agency. *Journal for Nature Conservation*, 126216.
- PR20 Felipe-Lucia, M.R.+, Guerrero, A.M., Alexander, S., Ashander, J.+, Baggio, J.A., Barnes, M., Bodin, O., Bonn, A., Fortin, M., Friedman, R.S., Gephart, J., Helmstedt, K.J., Keyes, A., Kroetz, K., Massol, F., Pocock, M.J.O., Sayles, J., Thompson, R., Wood, S.A., and L.E. Dee. 2021. Conceptualizing ecosystem services as social-ecological networks. *Trends in Ecology & Evolution*: 37(3): 211-222.
- PR19 Gammans, M.<sup>G</sup>, Sanchirico, J.N., **Kroetz, K.**, Armsworth, P.R. and E. Swiedler\*. 2021. Are simultaneously-decided referenda substitutable? Evidence from municipal land use ballot measures. *Land Economics*: 97(3), 577-587.
- PR18 Jackson, H, Kroetz, K., Sanchirico, J.N., Thompson\*, A and Armsworth, P. 2021. Protected Area, Easement, and Rental Contract Data Reveal Five Communities of Land Protection in the United States. *Ecological Applications*: 35(1).
  - $\rightarrow$  Associated The Bulletin of the Ecological Society of America Photo Gallery here.
- PR17 Crain, B.J.<sup>G</sup>, Stachowiak, C.M.<sup>G</sup>, McKenzie, P.F., Sanchirico, J.N., **Kroetz, K.**, and P.R. Armsworth. 2021. Citizens of Local Jurisdictions Enhance Plant Community Preservation through Ballot Initiatives and Voter-Driven Conservation Efforts. *Ambio*: 50 (6), 1237-1247.
- PR16 Stachowiak, C.M.<sup>G</sup>, Crain, B.<sup>G</sup>, **Kroetz, K.**, Sanchirico, J.N. and P.R. Armsworth. 2021. Protected areas established by local communities through direct democracy encompass habitat for species as effectively as protected areas planned over large spatial scales. *Environmental Management*: 67 (2), 242-250.
- PR15 Kroetz, K., Luque, G.M., Gephart, J.A., Jardine, S.L., Lee\*, P., Chicojay\*, K., Steinkruger\*, A., and C.J. Donlan. 2020. Consequences of Seafood Mislabeling for Fish Populations and

- Fisheries Management. Proceedings of the National Academy of Sciences (PNAS): 117 (48) 30318-30323.
- $\rightarrow$  Associated ASU Now article available here.
- PR14 Kroetz, K., Yusuke Kuwayama, Caroline Vexler\*. 2020. The Economics of the Joint Management of Water Resources and Aquatic Species in the United States. Review of Environmental Economics and Policy, 14(2): 194-215.
  - $\rightarrow$  Associated RFF Working Paper available here.
- PR13 Crain, B.<sup>G</sup>, Sanchirico, J.N., Kroetz, K., Benefield, A.<sup>G</sup>, and P.R. Armsworth. 2020. Species Protection on Areas Conserved through Community-Driven Direct Democracy as Compared with a Large Private Land Trust A Case Study of California. *Environmental Conservation* 47 (1), 30-38.
- PR12 Kroetz, K., Shih, J., Siikamäki, J., Marianov, V., Krupnick, A., and Z. Chu\*. 2019. Systematically Incorporating Environmental Objectives into Shale Gas Pipeline Development: A Binary Integer, Multi-Objective Spatial Optimization Model. *Environmental Science & Technology* 53: 7155-7162.
- PR11 Kroetz, K., Reimer, M. N., Sanchirico, J. N., Lew, D. K., and J. Huetteman\*. 2019. Defining the Economic Scope for Ecosystem-Based Fishery Management. *Proceedings of the National Academy of Sciences (PNAS)* 116 (10): 4188-4193.

  → RFF press release available here.
- PR10 Kroetz, K., Sanchirico, J.N., Galarza, E., Corderi Novoa, D., Collado Duran, M., and E. Swiedler\*. 2019. Examination of the Peruvian Anchovy Individual Vessel Quota (IVQ) System. *Marine Policy* 101: 15-24.
  - → Inter-American Development Bank Working Paper Series (IDB-WP-749) available here.
  - PR9 Kroetz, K., Sanchirico, J.N., Lew, D.K., and P. Donovan<sup>G</sup>. 2019. Recreational Leasing of Alaska Commercial Halibut Quota: The First Two Years of the Guided Angler Fish Provision. *Coastal Management* 47(2): 207-226.
    - $\rightarrow$  RFF Discussion Paper (DP 16-39) available here.
  - PR8 Addicott\*, E. T., **Kroetz, K.**, Reimer, M. N., Sanchirico, J. N., Lew, D. K., and J. Huetteman\*. 2018. Identifying the Potential for Cross-Fishery Spillovers: A Network Analysis of Alaskan Permitting Patterns. *Canadian Journal of Fisheries and Aquatic Sciences* 76 (1): 56-68.
    - $\rightarrow$  RFF Working Paper (WP 17-23) available here.
  - PR7 Kroetz, K., Sanchirico, J.N., Peña-Torres, J., and D. Corderi Novoa. 2016. Economic Impacts of the Chilean Jack Mackerel ITQ System. *Marine Resource Economics* 32 (2): 217-241.
    - → Inter-American Development Bank Working Paper Series (DB-WP-672) available here.
  - PR6 Beaudrot, L. et al. 2016. Limited Carbon and Biodiversity Co—Benefits for Tropical Forest Mammals and Birds. *Ecological Applications* 16.4: 1098-1111.
  - PR5 Kroetz, K., Sanchirico, J.N., and D.K. Lew. 2015. Efficiency Costs of Social Objectives in Tradable Permit Programs. *Journal of the Association of Environmental and Resource Economists* 2(3): 339-366.
    - $\rightarrow$  Associated RFF Discussion Paper available here.
  - PR4 Kroetz, K. and J.N. Sanchirico. 2015. The Bioeconomics of Spatial-Dynamic Systems in Natural Resource Management. Annual Review of Resource Economics 7(1).
    - $\rightarrow$  Associated RFF Discussion Paper available here.
  - PR3 Kroetz, K., Sanchirico, J.N., Armsworth, P.R., and H.S. Banzhaf. 2014. Benefits of the Ballot Box for Species Conservation. *Ecology Letters* 17 (3): 294-302.

    → Full-text available here.
  - PR2 Kroetz, K.M. and A.J. Friedland. 2008. Comparing Costs and Emissions of Northern New England Space Heating Fuel Options. *Biomass and Bioenergy* 32:1359-1366.

PR1 Fuller, K., Kling, D., **Kroetz, K.**, Ross, N. and J.N. Sanchirico. 2013. Economics and Ecology of Open-Access Fisheries. In: Shogren, J.F., (ed.) Encyclopedia of Energy, Natural Resource, and Environmental Economics, Vol. 2, pp. 39-49 Amsterdam: Elsevier.

→ To request a copy of the paper via email click here.

# Practitioner Articles, Reports, and Other Products

- PA14 Podcast guest: Something's Fishy: A Deep Dive into Seafood Mislabeling, with Kailin Kroetz, Resources Radio, *March* 29, 2022.
- PA13 Kroetz, K. 2021. Saving the World's Fisheries, Milken Institute Review, July 29, 2021.
- PA12 Kroetz, K. 2020. The Environmental Threat Posed by Mislabeled Seafood, Resources for the Future, Common Resources, *November 24, 2020*.
- PA11 Visualizing Economic Connections among Fisheries: A New Tool for Ecosystem-Based Fisheries Management, Institute of Social and Economic Research (ISER), Blog Post, *November* 15, 2019.
- PA10 Tradeoffs between Gas Pipeline Development Costs and Habitat Impacts. We Run the Numbers, Resources for the Future, Common Resources Blog Post, May 29, 2019.
- PA9 Kroetz, K. 2019. Fishery Catch Shares and Leakage of Impacts, PERC Policy Report, February 2019.
- PA8 Kroetz, K., Donlan, C.J., Cole\*, C. E., Gephart, J.A., and P. Lee\*. 2018. Examining Seafood Fraud Through the Lens of Production and Trade: How Much Mislabeled Seafood do Consumers Buy?, Resources for the Future, Report, *December 2018*.
- PA7 Kroetz, K., Sanchirico, J.N., Reimer, M.N. and D.K. Lew. 2018. Understanding Linkages across Fisheries Can Inform More Effective Policy Design, Resources for the Future, Resources Magazine, *July 11*, 2018.
- PA6 Kroetz, K., Sanchirico, J.N., Reimer, M.N. and D.K. Lew. 2018. Network Analysis Reveals Hidden Patterns in Fishing Enterprises, Resources for the Future, Common Resources Blog Post, *May 23, 2018*.
- PA5 Kroetz, K., Sanchirico, J.N., Peña-Torres, J., and D. Corderi Novoa. 2016. Evaluating Fishery Catch Share Programs in a Developing Country Context, Resources for the Future, Common Resources Blog Post, April 26, 2016.
- PA4 The Costs of Competing Goals in Fishery Management, Resources for the Future, Resources Magazine, September 24, 2015.
- PA3 Competing Goals in Fishery Management: A Case Study in Alaska, Resources for the Future, Common Resources Blog Post, March 25, 2015.
- PA2 Kroetz, K. and J.N. Sanchirico. 2010. Economic Insights into the Costs of Design Restrictions in ITQ Programs. Resources for the Future Report.
- PA1 Breetz, H., Fisher-Vanden, K., Garzon, L., Jacobs, H., **Kroetz, K.**, and R. Terry. 2004. Water Quality Trading and Offset Initiatives in the U.S.: A Comprehensive Survey. Prepared for the U.S. EPA, National Center for Environmental Economics, Washington, D.C.

# Presentations (P)

Invited Talks

- P51 (Scheduled) United States Department of Agriculture (USDA) Economic Research (ERS) Brownbag Series, June 2023
- P50 Managing for Resilient Fishing Communities, John & Mary Louise Riley Seminar Series, Bodega Marine Laboratory, UC Davis, June 29, 2022
- P49 Distributional Impacts of Fishery Disasters and Implications for Aid Program Design, *University of Connecticut, IO, Environmental, and Law Economics workshop*, November 8, 2021
- P48 Landscape-Scale Migratory Species Corridor Planning Models to Support Voluntary Conservation Program Design, *Property and Environment Research Center (PERC)*, July 29, 2021
- P47 Lessons from Fisheries Catch Shares for Water Markets, Agricultural and Resource Economics (ARE) Discussions, February 9, 2021

- P46 Human and Ecological System Characteristics Influence Gains from Ecosystem-Based Fisheries Management, University of Michigan Complex Systems Seminar, February 2020
- P45 Applications of Network Analysis to Fisheries Management, *Universitetet i Stavanger*, September 25, 2019
- P44 Resilient Ecosystem-Based Fishery Management Policy Design Requires Reconciliation of Micro- and Macro- Scale Measures, NatuRE Policy Lab, UC Davis, June 4, 2019
- P43 Broadening the Scope of Common Pool Resource Management, Boston University, Earth & Environment, February 2019
- P42 Networks and Policy-Induced Spillovers: Defining the Scope for Ecosystem-Based Fishery Management, University of Rhode Island, Department of Environmental and Natural Resource Economics, January 2019
- P41 Local-Scale Contributions in Dynamic Top-Down Conservation Planning, *Pennsylvania State University*, November 28, 2018
- P40 Costs and Benefits of Trading Restrictions in Individual Transferrable Quota Programs, Las cuotas individuales de pesca en la gestion pesquera a nivel mundial: Aportes a la discusion para el sector pesquero peruano, organized by The Nature Conservancy (TNC), Lima, Peru, October 11 12, 2018
- P39 Economic Connectivity of Fisheries: Defining the Policy Scope for Ecosystem-Based Management, Gulf of Maine Research Institute, August, 2018
- P38 Fisheries Leakage, Distributional Effects of Environmental Market Design PERC Conference, Bozeman, Montana, July 8-11, 2018
- P37 Broadening fishery management policy scope to account for economic connectivity and leakage, Yale University, April 2018
- P36 Broadening Fishery Management Policy Scope to Account for Economic Connectivity and Leakage, *University of Maine*, April 2018
- P35 Economic Connectivity of Fisheries and Leakage: Defining the Policy Scope for Ecosystem Based Fishery Management, Economics of Property Rights and the Environment Seminar Series, Center for Growth and Opportunity, Utah State University, April 18, 2018
- P34 Using Economics to Study Socio-Environmental Systems: Research Examples, SESYNC Postdoc Immersion Program, February 2018
- P33 Broadening fishery management policy scope to account for economic connectivity and leakage, *Institute of the Gulf*, November 2017
- P32 Examination of the Peruvian Anchovy Individual Vessel Quota (IVQ) System, World Bank, November 27, 2017
- P31 Dynamic Efficiency Costs versus Benefits of Non-Efficiency Objectives in Tradable Permit Programs, *Triangle Resources and Environmental Economics Seminar Series (TREE)*, April 7, 2016
- P30 Dynamic Efficiency Costs versus Benefits of Non-Efficiency Objectives in Tradable Permit Programs, *Montana State University*, October 12, 2015
- P29 The Tradeoff between Economic Efficiency and Non-Efficiency Objectives in Tradable Permit Program Design, Seminars in Environmental and Resource Economics at Virginia Tech, April 24, 2015
- P28 Dynamic Efficiency Costs of Non-Efficiency Objectives in Tradable Permit Programs, NMFS-Sea Grant College Graduate Fellowship Program in Population Dynamics and Marine Resource Economics Annual Meeting, June 16 - 18, 2014
- P27 Dynamic Efficiency Costs of Non-Efficiency Objectives in Tradable Permit Programs, Resources for the Future, October 31, 2013

## Conference Presentations

P26 Distributional impacts of fishery disasters and implications for aid program design, International Institute of Fisheries Economics Trade (IIFET) Conference, Vigo Spain, July 2022

- P25 Landscape-Scale Migratory Species Corridor Planning Models to Support Voluntary Conservation Program Design, *INFORMS*, September 2021
- P24 Panelist, North American Association of Fisheries Economists (NAAFE) Panel: Fishing communities at a crossroads: Can they survive future crises?, May 4, 2021
- P23 Discussant, American Economic Association Annual Meeting, January 2020
- P22 Economic Connectivity of Fisheries: Defining the Policy Scope for Ecosystem-Based Management, 2019 Association of Environmental and Resource Economists (AERE) Summer Conference, sponsored session, June 2019
- P21 Resilient Ecosystem-Based Fishery Management Policy Design Requires Reconciliation of Micro- and Macro- Scale Measures, North American Association of Fisheries Economists (NAAFE) Forum 2019, May 2019
- P20 Biological Impacts of Seafood Mislabeling, North American Association of Fisheries Economists (NAAFE) Forum 2019, May 2019
- P19 Forecasting Human Behavior and Outcomes in Socio-Environmental Systems, 2019 Ecological Forecasting Initiative Conference, May 13, 2019
- P18 Broadening Fishery Management Policy Scope to Account for Economic Connectivity and Leakage, *International Institute for Fisheries Economics and Trade*, July 2018
- P17 Broadening Fishery Management Policy Scope to Account for Economic Connectivity and Leakage, World Congress of Environmental and Resource Economists, June 2018
- P16 Competing Impacts of Local Actors on Large Scale Conservation Outcomes, Northeastern Agricultural and Resource Economics Association (NAREA) meetings, June 11-13, 2017
- P15 Evaluation of the Chilean Jack Mackerel Individual Transferable Quota (ITQ) System, Environment for Development Annual Meeting, Pucón, Chile, November 10-13, 2016
- P14 Implications of Catch Share Design on Community Vulnerability and Fishery Participation, International Institute of Fisheries Economics and Trade (IIFET), July 12 - 15, 2016
- P13 Dynamic Efficiency Costs versus Benefits of Non-Efficiency Objectives in Tradable Permit Programs, 2015 Occasional Workshop, October 2 3, 2015
- P12 Potential Benefits of Ecosystem-Based Forage Fish Management, 2015 American Fisheries Society Meeting, August 16 20, 2015
- P11 Optimal Management of Spatial-Dynamical Natural Resource Systems: The Addition of Dispersal Controls to Traditional Metapopulation Models, 2015 Annual ESA Meeting, August 9 15, 2015
- P10 Optimal Management of Spatial-Dynamical Natural Resource Systems: The Addition of Dispersal Controls to Traditional Metapopulation Models, 4th Annual AERE Summer Conference, June 3 5, 2015
- P9 Dynamic Efficiency Costs of Non-Efficiency Objectives in Tradable Permit Programs, North American Association of Fisheries Economists (NAAFE) Forum 2015, May 19 - 22, 2015
- P8 Dynamic Efficiency Costs of Non-Efficiency Objectives in Tradable Permit Programs, Camp Resources XX, August 4 - 6, 2013
- P7 Dynamic Efficiency Costs of Non-Efficiency Objectives in Tradable Permit Programs, 3rd Annual AERE Summer Conference, sponsored session for graduate student research, June 6 8, 2013
- P6 Efficiency Costs of Social Objectives in Tradable Permit Programs, North American Association of Fisheries Economists (NAAFE) Forum 2013, May 21 24, 2013
- P5 Dynamic Efficiency Costs of Non-Efficiency Objectives in Tradable Permit Programs, NMFS-Sea Grant College Graduate Fellowship Program in Population Dynamics and Marine Resource Economics Annual Meeting, April 30, 2013
- P4 Costs of Restrictions in Tradable Permit Programs, Giannini Foundation of Agricultural and Resource Economics, Student Conference, May 26, 2012
- P3 Efficiency Costs of Social Objectives in Tradable Permit Programs, *PERC*, July 26 29, 2011
- P2 The Efficiency Costs of Restrictions on Quota Trading: The Case of the Alaskan Halibut Individual Transferable Quota (ITQ) Program, AERE Summer Conference, June 10, 2011

P1 Insights into the Economic Costs of Restrictions in Tradable Permit Programs, UC Davis 2011 Interdisciplinary Graduate and Professional Student Symposium, April 22, 2011

# Research Funding (F)

- F19 "A Comprehensive Evaluation of the Causes and Impacts of Retail Food Price Inflation: U.S. Fish Markets," United States Department of Agriculture: Economic Research Service (ERS), \$75,000, Role: Principle Investigator, 2022-2025
- F18 "Leveraging Satellite Data to Design Habitat Corridors in a Working Landscape," United States Department of Agriculture: National Institute of Food and Agriculture (NIFA), \$500,000, Role: Co-Investigator with Arthur Middleton and Lead Investigator Bryan Leonard, 2020-2023
- F17 "Network Analysis to Support Management of Alaska Fisheries: The Case of GOA Pacific Cod," National Marine Fisheries Service, Role: PI, \$27,200, 2020-2021
- F16 "The Value of Satellite Earth Observations in Designing Cost-Effective Terrestrial Habitat Corridors for Migratory Species," Resources for the Future, VALUABLES program, Role: co-PI with PI Bryan Leonard, \$35,000, 2020-2021
- F15 "Advanced Economics and Ecological Systems Models and Data: An Expanded Partnership with RFF," Socio-Environmental Synthesis Center (SESYNC), Role: co-PI, with Becky Epanchin-Niell, Yusuke Kuwayama, Margaret Walls, Ann Bartuska, and PI James Boyd, \$2,100,000, 2018-2020
- F14 "Socioeconomic Impacts of Fisheries Management Changes: Connecting Fishery Policies to Fishery Portfolios," North Pacific Research Board (NPRB), Role: co-PI, with Daniel K. Lew and James N. Sanchirico and PI Matthew N. Reimer, \$300,000, 2017-2020
- F13 "Toward a Systematic Understanding of the Impacts of Seafood Fraud," Angell Foundation, Role: PI with Josh Donlan, \$250,000, 2017-2019
- F12 "Gains from Synchronizing Top-Down and Bottom-up Conservation Activities within Agricultural Landscapes," USDA AFRI, Role: PD with co-PDs Paul R. Armsworth and James N. Sanchirico, \$500,000, 2017-2019
- F11 "Network Analysis of the Dynamic Evolution of Alaska Fishing Portfolios," National Marine Fisheries Service, Role: PI with co-PIs Matthew N. Reimer and James N. Sanchirico, \$45,000, 2016-2017
- F10 "The Economic Effects of the Guided Angler Fish Leasing Program on the Halibut IFQ Program," National Marine Fisheries Service, Role: PI with James N. Sanchirico, \$42,000, 2015-2016
- F9 "Economic Evaluation of Market-Based Fisheries Policies in Latin America (2)," Inter-American Development Bank, Role: PI with co-PI James N. Sanchirico, \$30,000, 2015
- F8 "Implications of Catch Share Design on Community Vulnerability and Fishery Participation," National Marine Fisheries Service, Role: PI with co-PI James N. Sanchirico, \$50,000, 2015-2016
- F7 "Evaluation of Market-Based Fisheries Policies in Latin America," Inter-American Development Bank, Role: Role: co-PI with PI James N. Sanchirico, \$32,359, 2014-2015
- F6 Association of Environmental and Resource Economists (AERE) Graduate Student Travel Award, \$500, June 2013
- F5 University of California, Davis, College of Agricultural and Environmental Sciences, Henry A. Jastro Research Award, \$1,900, June 2013
- F4 National Institute for Mathematical and Biological Synthesis (NIMBioS), Short-term Visitor, January 2013
- F3 University of California, Davis, College of Agricultural and Environmental Sciences, Henry A. Jastro Research Award, \$1,000, June 2012
- F2 "Evaluating the Effectiveness of Stock Rebuilding Plans Required by the MSA," National Academy of Sciences, \$3,000, 2012
- F1 "Efficiency Costs of Restrictions in Tradable Permit Programs: Analysis of the Alaskan Halibut and Sablefish Individual Fishing Quota System," National Marine Fisheries Service Seagrant Marine Resource Economics Fellowship, \$77,000, July 2012-June 2014

# Awards and Fellowships

- Nominee: 2024 Pew Fellowship in Marine Conservation
- Global Futures Diversity, Equity, and Inclusion (DEI): Inclusive Teaching Fellow (2023)
- Property and Environment Research Center (PERC) Lone Mountain Fellowship (2021)
- School of Sustainability Research & Discovery Award (2020)
- Association of Environmental and Resource Economists Dissertation Award (2015)
- National Marine Fisheries Service (NMFS) Sea Grant Marine Resource Economics Graduate Fellowship (2012-2014)
- University of California, Davis, Outstanding Graduate Student Teaching Assistant Award (June 2012)
- University of California, Davis, Graduate Scholars Fellowship (2008-2009)
- Dartmouth College Presidential Scholarship (2004)

# ASU Teaching and Mentoring

## Courses Taught

- SOS 325: Economics of Sustainability (*in-person*): Spring 2020, Spring 2021, Spring 2022, Fall 2022
- SOS 325: Economics of Sustainability (online): Fall 2020, Spring 2021, Fall 2021, Spring 2023
- SOS 598: Quantitative Tools for Sustainability Research: Fall 2021; Fall 2022

#### **Guest Lectures**

- University of Wyoming, Econ 5310: Research Methods (2023)
- SOS 598: Should I Eat Fish? (2021)
- SOS 525: Social-Ecological-Technical Systems (2020 and 2021)
- SOS 510: Perspectives on Sustainability (2019)

#### **Graduate Student Mentoring**

- Kaitlyn Lee, ASU School of Sustainability, Ph.D. Committee Chair, ongoing
- Tyler Treakle, ASU School of Sustainability, Ph.D. Co-Adviser, ongoing
- Rebecca Snyder, ASU School of Life Sciences: Environmental Life Sciences Program, Ph.D. committee co-Chair with Leah Gerber and Nancy Grimm, ongoing
- Adrienne Gosnell, ASU School of Sustainability, M.S. committee member, ongoing
- Camila Guerrero Pineda, ASU School of Life Sciences, Ph.D. committee member, ongoing
- Samantha Maher, University of California, Berkeley, Environmental Science, Policy, and Management, Ph.D. committee member, ongoing
- Francesca Federico, ASU School of Sustainability, Ph.D. committee member, ongoing
- Tessa DeConcini, ASU School of Sustainability, M.S. committee member, ongoing

## **Undergraduate Student Mentoring**

- Neha Karanjia, Supervisor, The Sustainability Undergraduate Research Experience (SURE) Program at Arizona State University (Spring 2021), Project title: Climate Resilient Island Livelihoods. SURE Outstanding Presentation Awards, Second Place.
- Andrew Wilsey, Supervisor, The Sustainability Undergraduate Research Experience (SURE) Program at Arizona State University (Spring 2021), Project title: Climate Resilient Island Livelihoods.
- Ciera Parkhurst, Internship supervisor and Honors thesis committee director (Fall 2022), Thesis title: A Multi-Objective Approach to Community Park siting in Maricopa County.
- Elisa Olofsson, Honors thesis second committee member (Expected Fall 2022), Thesis title: Protecting Natural Biodiversity With National Biodiversity Strategies and Action Plans.
- Breanna Fulton, Research Assistant supervisor and Honors thesis committee director (Spring 2022), Thesis title: Climate Vulnerability of Alaskan Fishing Communities.
- Emily Harding, Internship and Research Assistant supervisor and honors thesis committee director (2020 2022), Thesis title: Mission Statement Alignment for Partnering

- and Non-Partnering Land-Managing Organizations. School of Sustainability, Outstanding Undergraduate Award.
- Caitlyn Finnegan, Supervisor, The Sustainability Undergraduate Research Experience (SURE) Program at Arizona State University (Spring 2021), Project title: *Economic and Equity Impacts of Fisheries Disasters and Federal Disaster Aid.* SURE Outstanding Presentation Awards, Runner-up.
- Erin Azuma, Internship and Research Assistant supervisor and honors thesis committee director (2020-2021), Thesis title: *Identifying the extent of spatial alignment between social and environmental systems that drive fire management decisions and outcomes.* Associated storymap here.
- Saterra Gibbons, Supervisor, The Sustainability Undergraduate Research Experience (SURE) Program at Arizona State University (Spring 2020), Project title: Impact of Seafood Mislabeling on Sustainability.
- Ashley Cole, ASU 484 Internship Supervisor, Organization Cooperation to Further Biodiversity Objectives, 2021
- Hunter Stephens, ASU 484 Internship Supervisor, Organization Cooperation to Further Biodiversity Objectives, 2021
- Samantha St. John, ASU 484 Internship Supervisor, Organization Cooperation to Further Biodiversity Objectives, 2021
- Eden Gustin, ASU 484 Internship Supervisor, Organization Cooperation to Further Biodiversity Objectives, 2021
- Deyanira Romero, ASU 484 Internship Supervisor, Organization Cooperation to Further Biodiversity Objectives, 2021
- Phillip Moore, ASU 484 Internship Supervisor, Organization Cooperation to Further Biodiversity Objectives, 2020
- Jordan Cisco, ASU 484 Internship Supervisor, Organization Cooperation to Further Biodiversity Objectives, 2020
- Caitlin Boyce, ASU 484 Internship Supervisor, Economic and Equity Impacts of Fisheries Disasters and Federal Disaster Aid, 2020

## Professional Service

### Non-Academic Community Service

Member, Scientific and Statistical Committee (SSC) of the North Pacific Fishery Management Council 2022-present. SSC committee membership entails three-day meetings five times per year to review technical analyses conducted by NOAA Fisheries Scientists and Council staff.

### Committee Participation

• National Academy of Sciences, Engineering and Medicine. Assessing Equity in the Distribution of Fisheries Management Benefits: Data and Information Availability. Winter 2023—present.

### Interdisciplinary Working Group and Workshop Organization and Participation

- Workshop on Migratory Ungulates and Private Lands, the Property and Environment Research Center (PERC), September 2020 (Participant)
- Working Group on Using Integrated Socio-Environmental Networks to Model Common Pool Natural Resource Use and Improve the Management of Environmental Systems, National Socio-Environmental Synthesis Center (co-PI with Laura Dee)
- Working Group on Advancing Integrated Process-Based Modeling of Complex Socio-Environmental Systems, National Socio-Environmental Synthesis Center, February 2019 - present (Participant)
- Workshop on the Economics of Seasonal Wildlife Migrations, University of Wyoming, October 2019 (*Participant*)

- Workshop on Advancing Interdisciplinary Research on Social-Ecological Networks to Understand Ecosystem Services Across Scales, National Socio-Environmental Synthesis Center, September 2019 (*Participant*)
- Working Group on Hierarchies in Conservation Planning, National Institute for Mathematical and Biological Synthesis (NIMbioS), November 2017 January 2019 (co-PI with Paul Armsworth and Christoph Nolte)

## Symposium and Conference Organization

- Applications of Network Analysis to Fisheries Management, North American Association of Fisheries Economists: 2019 Forum (co-organizer with Yutaro Sakai)
- Implications of Seafood Supply Chain Certification on Social Outcomes, Resource for the Future public event (Organizer)
- Giannini Foundation of Agricultural and Resource Economics Student Conference, May 2013 (co-organizer)

#### **Editorial Activities**

- Frontiers in Marine Science, Review Editor, 2021-present
- Fisheries Research, Editorial Board, 2022-present

#### **Review Contributions**

- Scientific Committee, North American Association of Fisheries Economists 2023 Forum
- Program Committee Member: 2016, 2017, 2019, 2020, and 2023 Annual Summer Conference of the Association of Environmental and Resource Economists (AERE)
- Program Committee Member: 6th World Congress of Environmental and Resource Economists
- Scientific Review Committee: National Socio-Environmental Synthesis Center (SESYNC), December 2015-Summer 2019
- Referee: American Journal of Agricultural and Resource Economics (3), Annals of the New York Academy of Sciences, Conservation Biology, Conservation Letters, Ecological Economics (3), Environmental Science & Technology, Ecosystem Services, Fisheries Research, Frontiers in Marine Science, Journal of Economic Behavior & Organization, Journal of Environmental Economics and Management (4), Journal of the Agricultural and Applied Economics Association (2), Journal of the Association of Environmental and Resource Economists (4), Marine Resource Economics (4), Nature Sustainability, PNAS (3), Resource and Energy Economics (2), Review of Environmental Economics and Policy (REEP), Science (2)
- Other review activities: Alaska Sea Grant proposal review, California Sea Grant Delta Science Awards reviewer, Delaware Sea Grant proposal review, IUCN (International Union for Conservation of Nature) World Conservation Congress 2020 session proposal review, North American Congress for Conservation Biology 2020 abstract review, Sea Grant Marine Resource Economics Grad Fellowship Technical Review Panel (2), 2023 Agricultural & Applied Economics Association (AAEA) Annual Meeting abstract review

#### **ASU Service**

School of Sustainability

- Arizona State University, School of Sustainability, Undergraduate Academic Program Committee, August 2022 present
- Arizona State University, School of Sustainability, Graduate Academic Program Committee, August 2019-Spring 2022
- Arizona State University, School of Sustainability, Director Search Committee, Fall 2020 -Spring 2021

#### University

- ASU Center for Environmental Economics and Sustainability Policy (CEESP), Seminar co-Director 2022-2023 academic year
- Arizona State University, Graduate College Completion Fellowship Faculty Review Committee, 2022

## Other Mentoring

- Supporting Mentor, Graduate Fellowship program at the Property and Environment Research Center (PERC), Summer 2021
- Mentor, Northeastern Agricultural and Resource Economics Association (NAREA) Career Advancement and Mentorship (CAM) Program, 2021-2022
- Graduate Academic Achievement and Advocacy Program Mentor, University of California, Davis, Fall 2011-Spring 2014

## Other Organization Service

- SESYNC Distinguished Scholar, SESYNC Immersion Program in Economics, 2018
- Co-Organizer, Resources for the Future Academic Seminar Series (2017-2018)
- Distinguished and Life Member Awards and Outstanding Public Service through Economics Committee, Northeastern Agricultural and Resource Economics Association (NAREA), 2017-2018
- Co-Organizer Environmental & Resource Economics Workshop, University of California, Davis, Fall 2010-Fall 2013

Updated 05/11/2023