

Kirsten L.L. Oleson
College of Tropical Agriculture and Human Resources
Dept. of Natural Resources and Environmental Management
FTE Distribution: 50% I; 50% R; 0% E

Education

<u>Degree</u>	<u>University</u>	<u>Major</u>
Ph.D.	Stanford University, Stanford, California	Interdisciplinary Program in Environment and Resources (IPER)
M.Sc.	University of London, Imperial College, U.K.	Applied Environmental Economics
Ir.	Technische Universiteit Delft, the Netherlands	Civil and Environmental Engineering
B.S.	University of Virginia, Charlottesville, Virginia	Civil and Environmental Engineering

Professional Appointments

<u>Title</u>	<u>Employer</u>	<u>Dates Employed</u>
Professor of Ecological Economics	Department of Natural Resources and Environmental Management, University of Hawai'i Mānoa (UH)	2021-Present
Associate Professor of Ecological Economics	Department of Natural Resources and Environmental Management, University of Hawai'i Mānoa (UH)	2017-2021
Assistant Professor of Ecological Economics	Department of Natural Resources and Environmental Management, University of Hawai'i Mānoa (UH)	2012-2017
Graduate Program Chair	Department of Natural Resources and Environmental Management, University of Hawai'i Mānoa (UH)	2018-2021
Fellow	University of Hawai'i Economic Research Organization (UHERO), University of Hawai'i Mānoa (UH)	2015-Present
Affiliated Faculty	Water Resources Research Center, University of Hawai'i Mānoa (UH)	2015-Present
Senior Adjunct	East West Center	2021-Present

Courses Taught

Course Number and Title (credits)

NREM 499 Directed Research (variable)
NREM 600 Foundations of NREM and Policy (4)
NREM 601 Social-Ecological Systems Analysis of NREM (4)
NREM 611 Resource and Environmental Policy Analysis (3)
NREM 691 Advanced Topics in NREM: Valuing Nature (3)
NREM 695 Capstone Preparation in NREM (1)
NREM 696 Capstone Experience in NREM (3)
NREM 699 Directed Research (variable)

Publications (reverse chronological order)

Refereed Journal Publications

- Innes-Gold, A. A., P. Carvalho, L. McManus, S. Correa-Garcia, S. Marcoux, **K.L.L. Oleson**, K. Stokes, E. P. Madin (2024). Modeling the interactive effects of sea surface temperature, fishing effort, and spatial closures on fish populations. *Theoretical Ecology* 17(4), 289-300.
- Cleveland, R., C. Trauernicht, L. Bremer, E. Pickett, **K.L.L. Oleson** (2024). Guiding Fuzzy Cognitive Mapping with Structured Decision Making to Inform Complex Natural Resource Management Problems in Waiʻanae Hawaiʻi. *Community Science*, 3(2), e2023CSJ000060.
- Dugstad, A., A. Ceria, M. Comeros, **K.L.L. Oleson** (2024). Exploring the influence of activity participation on the economic value of nature-based recreation in the Sierra Nevada. *Journal of Environmental Management*, 360, 121081.
- Perng, L. Y., K. M. Leong, M. Weijerman, **K.L.L. Oleson** (2024). A multi-decadal assessment of social thresholds and outcomes in marine social-ecological systems in Hawaiʻi. *Marine Policy*, 163, 106141.
- Fezzi, C., D. Ford, **K.L.L. Oleson** (2022). The economic value of coral reefs: climate change impacts and spatial targeting of restoration measures. *Ecological Economics* 203(2023):107628
- Wilmot, E., J. Wong, Y. Tsang, A.J. Lynch, D. Infante, **K.L.L. Oleson**, A. Strauch, H. Cliverd (2022). Characterizing mauka-to-makai connections for aquatic ecosystem conservation on Maui, Hawaiʻi. *Ecological Informatics*. 70:101704.
- Bagstad, K.J., J.C. Ingram, C.D. Shapiro, A. La Notte, J. Maes, S. Vallecillo, C.F. Casey, P.D. Glynn, M.P. Heris, J.A. Johnson, C. Lauer, J. Matuszak, **K.L.L. Oleson**, S.M. Posner, C. Rhodes, B. Voigt (2021). Lessons learned from development of natural capital accounts in the United States and European Union. *Ecosystem Services*. 52: 101359.
- Hume, A., J. Leape, **K.L.L. Oleson**, E. Polk, K. Chand, R. Dunbar (2021). Towards an ocean-based large ocean states country classification. *Marine Policy*. 134:104766.
- Iwane, M.A., K.L. Leong, M. Vaughan, **K.L.L. Oleson** (2021). When a shark is more than a shark: A socio-political problem-solving approach to fisher-shark interactions. *Frontiers in Marine Science*.
- Suan, A., K.L. Leong, **K.L.L. Oleson** (2021). Automated content analysis of the Hawaiʻi small boat fishery survey reveals nuanced, evolving conflicts. *Ecology and Society* 26(4):9.
- Dacks, R., S.A. Lewis, P.A.S. James, L. Marino, **K.L.L. Oleson** (2020). Documenting baseline value chains of Palau's nearshore and offshore fisheries prior to implementing a large-scale marine protected area. *Marine Policy* 117:103754.
- Gruby, R., N. Gray, L. Fairbanks, E. Havice, L. Campbell, A. Friedlander, **K.L.L. Oleson**, K. Sam, L. Mitchell, Q. Hanich (2020). Large-scale marine protected areas meet fisheries management: Policy interactions in ocean governance. *Conservation Letters* e12753. DOI: 10.1111/conl.12753
- Lewis, S.A., C. Fezzi, R. Dacks, S. Ferrini, P.A.S. James, L.L. Marino, Y. Golbuu, **K.L.L. Oleson** (2020). Mitigating unintended consequences of conservation policies requires understanding tourists' socio-economic behavior and preferences. *Nature Food* 1:783-786.
- Oleson, K.L.L.**, K.J. Bagstad, C. Fezzi, M.D. Barnes, M.K. Donovan, K.A. Falinski, K.D. Gorospe, H. Htun, J. Lecky, F. Villa, T. Wong (2020). Linking land and sea through an ecological-economic model of coral reef recreation. *Ecological Economics* 177:106788.
- Warnell, K.J.D., M. Russell, C. Rhodes, K.J. Bagstad, L.P. Olander, D.J. Nowak, R. Poudel, P.D. Glynn, J.L. Hass, S. Hirabayashi, J.C. Ingram, J. Matuszak, **K.L.L. Oleson**, S.M. Posner, F. Villa (2020). Testing ecosystem accounting in the United States: A case study for the Southeast. *Ecosystem Services* 43:101099.

- Weijerman, M., Z. Oyafuso, K. Leong, **K.L.L. Oleson**, M. Winston (2020). Supporting EBFM in meeting multiple objectives for sustainable use of coral reef ecosystems. *ICES Journal of Marine Science* fsaa194.
- Winter, K.B., N.K. Lincoln, F. Berkes, R.A. Alegado, N. Kurashima, K.L. Frank, P. Pascua, Y.M. Rii, F. Reppun, I.S.S. Knapp, W.C. McClatchey, T. Ticktin, C. Smith, E.C. Franklin, **K.L.L. Oleson**, M.R. Price, M.A. McManus, M.J. Donahue, K.S. Rodgers, B.W. Bowen, C.E. Nelson, B. Thomas, J.-A. Leong, E.M.P. Madin, M.J. Rivera, K.A. Falinski, L.L. Bremer, J.L. Deenik, S.M. Gon III, B. Neilson, R. Okano, A. Olegario, B. Nyberg, A. Kawelo, K. Kotubetey, J. Kukea-Shultz, R.J. Toonen (2020). Ecomimicry in Indigenous resource management: optimizing ecosystem services to achieve resource abundance, with examples from Hawai'i. *Ecology and Society* 25(2):26.
- Winter, K.B., Y. M. Rii, F. A.W.L. Reppun, K. DeLaforge Hintzen, R.A. Alegado, B.W. Bowen, L.L. Bremer, M. Coffman, J.L. Deenik, M.J. Donahue, K.A. Falinski, K. Frank, E.C. Franklin, N. Kurashima, N. Kekuewa Lincoln, E.M.P. Madin, M.A. McManus, C.E. Nelson, R. Okano, A. Olegario, P. Pascua, **K.L.L. Oleson**, M.R. Price, M.J. Rivera, K.S. Rodgers, T. Ticktin, C.L. Sabine, C.M. Smith, A. Hewett, R. Kaluhiwa, M. Cypher, B. Thomas, J.-A. Leong, K. Kekuewa, J. Tanimoto, K. Kukea-Shultz, A. Kawelo, K. Kotubetey, B.J. Neilson, T.S. Lee, R.J. Toonen (2020). Collaborative research to inform adaptive comanagement: a framework for the He'eia National Estuarine Research Reserve. *Ecology and Society* 25(4):15.
- Barnes, M.D., W. Goodell, R. Whittier, R., K.A. Falinski, T. Callender, H. Htun, C. Leviol, H. Slay, **K.L.L. Oleson** (2019). Decision analysis to support wastewater management in coral reef priority area. *Marine Pollution Bulletin* 148:16-29.
- Jouffray, J.B., L. Wedding, A. Norström, M. Donovan, G. Williams, L. Crowder, A. Erickson, A. Friedlander, N. Graham, J. Gove, C. Kappel, J. Kittinger, J. Lecky, **K.L.L. Oleson**, K. Selkoe, C. White, I. Williams, M. Nystrom (2019). Parsing human and biophysical drivers of coral reef regimes. *Proceedings of the Royal Society B* 286(1896):20182544.
- Boyd, J.W., K.J. Bagstad, J.C. Ingram, C.D. Shapiro, J.E. Adkins, C.F. Casey, C.S. Duke, P.D. Glynn, E. Goldman, M. Grasso, J.L. Hass, J.A. Johnson, G. Lange, J. Matusak, A. Miller, **K.L.L. Oleson**, S.M. Posner, C. Rhodes, F. Soular, M. Vardon, F. Villa, B. Voigt, S. Wentland (2018). The natural capital accounting opportunity: let's really do the numbers. *BioScience* 68(12):940-943.
- Bremer, L.L., K. Falinski, C. Ching, C.A. Wada, K.M. Burnett, K. Kukea-Shultz, N. Reppun, G. Chun, **K.L.L. Oleson**, T. Ticktin (2018). Biocultural restoration of traditional agriculture: cultural, environmental, and economic outcomes of lo'i kalo restoration in He'eia, O'ahu. *Sustainability* 10(12):4502.
- Bryant, B.P., M.E. Borsuk, P. Hamel, **K.L.L. Oleson**, C.J.E. Schulp, S. Wilcock (2018). Transparent and feasible uncertainty assessment adds value to applied ecosystem services modeling. *Ecosystem Services* 33:103-109.
- Delevaux, J.M., R. Whittier, K.A. Stamoulis, L.L. Bremer, S. Jupiter, A.M. Friedlander, M. Poti, G. Guannel, N. Kurashima, K.B. Winter, R. Toonen, E. Conklin, C. Wiggins, A. Knudby, W. Goodell, K. Burnett, S. Yee, H. Htun, **K.L.L. Oleson**, T. Wiegner, T. Ticktin (2018). A linked land-sea modeling framework to inform ridge-to-reef management in high oceanic islands. *PLoS One* 13(3): e0193230.
- Donovan, M., A. Friedlander, J. Lecky, J. Jouffray, G. Williams, L. Wedding, L. Crowder, A. Erickson, N. Graham, J. Gove, C. Kappel, K. Karr, J. Kittinger, A. Norström, M. Nyström, **K.L.L. Oleson**, K. Stamoulis, C. White, I. Williams, K. Selkoe (2018). Combining fish and benthic communities into multiple regimes reveals complex reef dynamics. *Scientific Reports* 8(1):16943.

- Ingram, R., **K.L.L. Oleson**, J. Gove (2018). Revealing complex social-ecological interactions through participatory modeling to support ecosystem-based management in Hawai'i. *Marine Policy* 94:180-188.
- Oleson, K.L.L.**, S. Grafeld, P. van Beukering, L. Brander, P.A.S. James, E. Wolfs (2018). Charting progress towards system-scale ecosystem service valuation in islands. *Environmental Conservation*.
Doi:10.107/S0376892918000140
- Wedding, L.M., J. Lecky, J.M. Gove, H.R. Walecka, M.K. Donovan, G.J. Williams, J. Jouffray, L.B. Crowder, A. Erickson, K. Falinski, A.M. Friedlander, C.V. Kappel, J.N. Kittinger, K. McCoy, A. Norström, M. Nyström, **K.L.L. Oleson**, K.A. Stamoulis, C. White, K.A. Selkoe (2018). Advancing the integration of spatial data to map human and natural drivers on coral reefs. *PLoS One* 13(3): e0189792.
- Weijerman, M., L. Veazey, S. Yee, K. Vaché, J.D. Delevaux, M. Donovan, K. Falinski, J. Lecky, **K.L.L. Oleson** (2018). Managing local stressors for coral reef condition and ecosystem services delivery under climate scenarios. *Frontiers in Marine Science* 5(2018):425.
- Grafeld, S., **K.L.L. Oleson**, L. Teneva, J.N. Kittinger (2017). Follow that fish: Uncovering the hidden blue economy in coral reef fisheries. *PLoS One* 12(8): e0182104.
- Oleson, K.L.L.**, K.A. Falinski, J. Lecky, C. Rowe, C.V. Kappel, K.A. Selkoe, C. White (2017). Upstream solutions to coral reef conservation: smart and cooperative decision-making pays off. *Journal of Environmental Management* 191:8-18.
- Peng, M., **K.L.L. Oleson** (2017). Beach recreationalists' preferences for environmental quality on Oahu. *Ecological Economics* 136:41-52.
- Powell, K.B., L.M. Ellsworth, C.M. Litton, **K.L.L. Oleson**, S.A. Ammond (2017). Toward cost-effective restoration: Scaling up restoration in ecosystems degraded by nonnative invasive grass and ungulates. *Pacific Science* 71(4):479-493.
- Grafeld, S., **K.L.L. Oleson**, M. Barnes, M. Peng, C. Chan, M. Weijerman (2016). Divers willingness to pay for improved coral reef conditions in Guam: An untapped source of funding for management and conservation? *Ecological Economics* 128:202-213.
- Ratsimbazafy, H., **K.L.L. Oleson**, R. Roy, A. Harris (2016). Fishing site mapping using local knowledge provides accurate and satisfactory results: Case study of octopus fisheries in Madagascar. *Western Indian Ocean Journal of Marine Science* 15(2):1-7.
- Weijerman, M., C. Grace-McCaskey, S. Grafeld, D. Kotowicz, **K.L.L. Oleson**, I. van Putten (2016). Towards an ecosystem-based approach of Guam's coral reefs: the human dimension. *Marine Policy* 63:8-17.
- Barnes-Mauthe*, M., **K.L.L. Oleson***, L.M. Brander, B. Zafindrasilivonona, T.A. Oliver, P. van Beukering (2015). Social capital as an ecosystem service: Evidence from a locally managed area. *Ecosystem Services* 16:283-293.
- Bremer, L. L., J.M.S. Delevaux, J.J.K. Leary, L.J. Cox, **K.L.L. Oleson** (2015). Opportunities and strategies to incorporate ecosystem services knowledge and decision support tools into planning and decision making in Hawai'i. *Environmental Management* 55(4):884-899.
- Kittinger, J.N., L. Teneva, H. Koike, K. Stamoulis, D.S. Kittinger, **K.L.L. Oleson**, E. Conklin, M. Gomes, B. Wilcox, A. Friedlander (2015). From reef to table: social and ecological factors affecting coral reef fisheries, artisanal seafood supply chains, and seafood security. *PLoS One* 10(8):e0123856.
- McKeon, C.S., M.X. Weber, S.E. Alter, N.E. Seavy, E.D. Crandall, D. Barshis, E. Fletcher-Leggett, **K.L.L. Oleson** (2015). Melting barriers to faunal exchange across ocean basins. *Global Change Biology* 22(2):465-473.

- Oleson, K.L.L.***, M. Barnes-Mauthe*, L. M. Brander, T. A. Oliver, I. van Beek, B. Zafindrasilivonona, P. van Beukering (2015). Cultural bequest values for ecosystem service flows among indigenous fishers: A discrete choice experiment validated with mixed methods. *Ecological Economics* 114:104-116.
- Oliver, T.A.*, **K.L.L. Oleson***, H. Ratsimbazafy, D. Raberinary, S. Benbow, A. Harris (2015). Positive catch and economic benefits of periodic octopus fishery closures: Do effective, narrowly targeted actions 'catalyze' broader management? *PLoS One* 10(6):e0129075.
- Benbow, S., F. Humber, T. Oliver, **K.L.L. Oleson**, D. Raberinary, M. Nadon, H. Ratsimbazafy, A. Harris (2014). Lessons learnt from experimental temporary octopus fishing closures in southwest Madagascar: benefits of concurrent closures. *African Journal of Marine Science* 36(1):31-37.
- Ostergaard-Klem*, R., **K.L.L. Oleson*** (2014). GPI island style: Localizing the Genuine Progress Indicator to Hawai'i. *Environmental Practice* (16)3:1-11.
- Tallis, H., J. Lubchenco, ..., **K.L.L. Oleson**, et al. (2014). A call for inclusive conservation. *Nature* 514:27-28.
- Arrow, K., P. Dasgupta, L. Goulder, K. Mumford, **K.L.L. Oleson** (2013). Sustainability and the measurement of wealth: Further reflections. *Environment and Development Economics* 18:504-516.
- Barnes-Mauthe*, M., **K.L.L. Oleson***, B. Zafindrasilivonona (2013). A total economic valuation of small-scale fisheries and characterization of post-landings trends. *Fisheries Research* 147:175-185.
- Gardner, C., M.E. Nicholl, T. Mbohoahy, **K.L.L. Oleson**, A.N. Ratsifandrihamanana, J. Ratsirarson, L.R. de Roland, M. Virah-Sawmy, B. Zafindrasilivonona, Z.G. Davies (2013). Protected areas for conservation and poverty alleviation: experiences from Madagascar. *Journal of Applied Ecology* 50(6):1289-1294.
- Westerman, K., **K.L.L. Oleson**, A. Harris (2013). **Building socio-ecological resilience to climate change through community-based coastal conservation and development: Experiences in southern Madagascar**. *Western Indian Ocean Journal of Marine Science* 11(1): 87-97.
- Arrow, K., P. Dasgupta, L. Goulder, K. Mumford, **K.L.L. Oleson** (2012). Sustainability and the measurement of wealth. *Environment and Development Economics* 17(3): 317-353.
- Oleson, K.L.L.** (2011). Shaky foundations and sustainable exploiters: Problems with using national sustainability measures in a transnational era. *Journal of Environment and Development* 20(3): 329-349.
- Khagram, S., K. Cahill, D. MacMynowski, J. Warren, E. Richards, **K.L.L. Oleson**, J. Kitzes, R. Katz, R. Hwang, R. Goldman, J. Funk, K. Brauman (2010). Thinking about knowing: Intellectual foundations for interdisciplinary research. *Environmental Conservation* 37(4):388.
- Burke, M., **K.L.L. Oleson**, E. McCullough, J. Gaskell (2009). A global model tracking water, nitrogen, and land inputs and virtual transfers from industrialized meat production and trade. *Environmental Modeling and Assessment*, 14(2):179.
- Oleson, K.L.L.**, L. Hartzell, M. Mastrandrea (2009). The baker's dozen: Key nations can and should act together to prevent further dangerous climate change. *Intergenerational Justice Review*, 9(3):106.
- Galloway, J., M. Burke, E. Bradford, W. Falcon, J. Gaskell, E. McCullough, H. Mooney, R. Naylor, **K.L.L. Oleson**, V. Smil, H. Steinfeld, T. Wassenaar (2007). International trade in meat. *Ambio*, 36(8).

Book chapters

- Finkbeiner, E.M., **K.L.L. Oleson**, J.T. Kittinger (2017). Social resilience in the Anthropocene ocean. In *Conservation for the Anthropocene ocean*. P. Levin and M. Poe (Eds.). Amsterdam:Elsevier.
- Oleson, K.L.L.**, K. Falinski, L. Teneva, S.J. Pittman (2017). Linking landscape and seascape conditions: Science, tools, and management. In *Seascape Ecology: Taking landscape ecology into the sea*, S.J. Pittman (Ed.). West Sussex:Wiley.
- Munoz, P., E. Darkey, L. Pearson, **K.L.L. Oleson**, K. Mumford (2012). Chapter 4: Key findings. In *Inclusive Wealth Report 2012*. P. Dasgupta, A. Duraiappah, P. Munoz (Eds.). Cambridge UK: Cambridge University Press. This report was submitted to RIO+20 Conference on Sustainable Development.
- Arrow, K.J., P. Dasgupta, L. Goulder, K.J. Mumford, **K.L.L. Oleson** (2010). China, the U.S., and Sustainability: Perspectives Based on Comprehensive Wealth. In G. Heal (Ed.), *Is Economic Growth Sustainable?* International Economics Association, Volume 148, London:Palgrave Macmillan.
- Oleson, K.L.L.** (2008). Integrating the environment into economics in China – A focus on exports. In E. Au, K. Lam, T. Zhu, M. Partidario (Eds.), *International Experience on Strategic Environmental Assessment*, Dept. Geog. and Resource Mgmt., The Chinese University of Hong Kong, Hong Kong:China.

Refereed technical reports

- Gove J.M., J.A. Maynard, J. Lecky, D. Tracey, M. Allen, G.P. Asner, C. Conklin, C. Couch, K. Hum, R. Ingram, T. Kidinger, K. Leong, K.L.L. Oleson, E. Towle, R. van Hooidek, G.J. Williams, and J. Hospital (2022). Integrated Ecosystem Assessment Ecosystem Status Report for Hawaii. Pacific Islands Fisheries Science Center, PIFSC Special Publication, SP-2X-XXXX, XXp. doi:xx
- Iwane M.A., K. Leong, M. Vaughan, **K.L.L. Oleson** (2019). Engaging Hawai'i small boat fishers to mitigate pelagic shark mortality. NOAA Admin Rep. H-20-10, 113 p. doi:10.25923/54tf-kh65. Available at: <https://repository.library.noaa.gov/view/noaa/27821>
- Brainard, R., E. Conklin, D. Delaney, W. Duke, K. Falinski, E. Geiger, T. Grabowski, R. Hall, A. Heenan, E. Heinen De Carlo, J. Kimball, H. Koike, M. Lameier, A. Levine, P. Maurin, R. Minato, **K. Oleson**, T. Oliver, F. Parrish, B. Richmond, E. Schemmel, B. Schroeder, D. Swanson, L. Teneva, M. Timmers, R. Uchimura, B. Vargas-Angel, I. Williams, & C. Young (2018). Coral reef condition: A status report for the Hawaiian archipelago. NOAA. Available at: https://www.coris.noaa.gov/monitoring/status_report/docs/Hawaii_status_report_forweb.pdf
- Gove, J., J. Polovina, W. Walsh, A. Heenan, I.D. Williams, L. Wedding, R.J. Ingram, J. Lecky, **K.L.L. Oleson**, H. Walecka, S. Heron, C.S. Couch, E.J. Howell (2016). West Hawai'i Integrated Ecosystem Assessment: Ecosystem Trends and Status Report 2016. NOAA Technical Memorandum
- Grafeld, S., **K.L.L. Oleson** (2016). A value chain analysis for Hawai'i's commercial nearshore fishery. Report to Conservation International Hawai'i Program
- Maynard, J., B. Parker, R. Beeden, J. Tamelander, P. McGowan, L. Gramer, S. Heron, M. Kendall, S. McKagan, E. McLeod, **K.L.L. Oleson**, S. Pittman (2015). Coral Reef Resilience Research and Management – Past, Present and Future: Workshop Report. NOAA Technical Memorandum CRCP 20. 47pp. doi:10.7289/V5VQ30M9
- Ostergaard-Klem, R., **K.L.L. Oleson** (2015). The tie between invasive species and the economy. Hawai'i State Environmental Council's Annual Report
- Oleson, K.L.L.**, K. Falinski, M. Peng (2014). Managing for multiple ecosystem services with changing land use in West Maui. Water Resources Research Center, Honolulu, HI
http://water.usgs.gov/wrri/AnnualReports/2014/FY2014_HI_Annual_Report.pdf.
- Ostergaard-Klem, R., **K.L.L. Oleson** (2014). Presenting the genuine progress indicator baseline. Hawai'i State Environmental Council's Annual Report

- Le Manach, F., C. Andrianajivojaona, **K.L.L. Oleson**, A. Clausen, G.-M. Lange (2013). Natural capital accounting and management of the Malagasy fisheries sector: A technical case study for the WAVES global partnership in Madagascar. World Bank
- Oleson, K.L.L.** (2013). Cost-benefit analysis of freshwater security options for Republic of the Marshall Islands being considered under Pacific Adaptation to Climate Change project. Report submitted to Secretariat of the Pacific Regional Environmental Program
- Ostergaard-Klem, R., **K.L.L. Oleson** (2013). Introducing the Genuine Progress Indicator to Hawaii. Hawai'i State Environmental Council's Annual Report.
- Oleson, K.L.L.** (2011). Taking an ecosystem service perspective in Velondriake Locally Managed Marine Area. Case study for The Economics of Ecosystems and Biodiversity (TEEB) Global Atlas.

Technical reports, manager reports, working papers

- PICRC, Stanford Center for Ocean Solutions, Expert Working Group (2019). Palau's National Marine Sanctuary: Managing ocean change and supporting food security. Expert working group report. <https://oceansolutions.stanford.edu/pnms-report>
- Babcock, R., **K.L.L. Oleson**, M. Barnes, A. Fung, J.W. Goodell (2019). Upcountry Maui Cesspool Upgrade Investigation Report. Report submitted to the Hawai'i Department of Health.
- Oleson K.L.L.**, R. Dacks, S. Lewis (2019). *Final Report Palau National Marine Sanctuary – Socioeconomic baseline project*. PICRC Technical Report 19-07 Palau International Coral Reef Center. Koror, Palau. <http://picrc.org/picrcpage/wp-content/uploads/2019/05/Oleson-PNMS-Socioeconomic-2019-2.pdf>
- Palau International Coral Reef Center and the Stanford Center for Ocean Solutions (2019). Palau's National Marine Sanctuary: Managing ocean change and supporting food security." Expert working group report submitted to PICRC. Available at: <http://picrc.org/picrcpage/palau-nationalmarine-sanctuary> and <https://oceansolutions.stanford.edu/pnms-report>
- Selkoe, K., **K.L.L. Oleson**, J.W. Goodell (2018). Ocean Tipping Points Hawai'i project internal report to managers
- Koike, H., A. Friedlander, **K. Oleson**, S. Koshiba, K. Polloi (2014). Final Report on Diver's Perception Survey for Palau's Kemedukl and Maml: Stock Assessment for Humphead Wrasse and Bumphead Parrotfish. Koror, Palau. PICRC Technical Report 14–02. Palau International Coral Reef Center. http://picrc.org/picrcpage/wp-content/uploads/2016/01/WTP_Survey_For_Maml_Kemedukl_FINAL.pdf
- Barnes-Mauthe, M., **K.L.L. Oleson** (2013). Economically Valuable. SAMUDRA Report, Issue No. 66: International Collective in Support of Fishworkers. <http://www.icsf.net/es/samudra/detail/EN/3940.html>

Data releases

- Oleson, K.L.L.**, K.J. Bagstad, C. Fezzi, M.D. Barnes, M.K. Donovan, K.A. Falinski, K.D. Gorospe, H. Htun, J. Lecky, F. Villa, T. Wong (2020). Data release for Linking land and sea through an ecological-economic model of coral reef recreation: U.S. Geological Survey data release, <https://doi.org/10.5066/P9RO57E8>

Leadership

- 5th National Climate Assessment, Pacific region chapter, Co-Author (2021-2023)
- Pew Marine Fellow (2021-2024)
- United Nations Global Coral Reef Fund, Advisory Board member (2022-present); Science and Technical Advisory Board member (2022-present)

Global Ocean Accounting Partnership, Technical Advisory Board member (2023-present)
 United Nations System of Economic and Environmental Accounts (SEEA) Working Group on Ocean Accounts member (2023-present)
 Palau National Marine Sanctuary, Scientific Monitoring Advisory Board (2021-2023)
 Expert Working Group: Natural Capital Accounting, USGS Powell Center (2016-present)
 Expert Working Group: Managing ocean change and food security, National Center for Ecological Analysis and Synthesis/Palau International Coral Reef Center/Stanford University/Future Earth (2019-2021)

Graduate students

<u>Category</u>	<u>Current number of students</u>	<u>Number graduated (career)</u>
Chair of Master committees	5	15
Chair of PhD committees	1	4
Member of Master committees	1	13
Member of PhD committees	8	18

Grant Support

Notes: NOAA = National Oceanic and Atmospheric Administration; USGS = US Geological Survey; DBEDT = Dept of Business, Economic Development and Tourism; DLNR = Department of Land and Natural Resources; DAR = Division of Aquatic Resources; NIFA = National Institute of Food and Agriculture; DoH = Department of Health

As PI

Structured Decision-Making Framework for Coral Reef Restoration
 Hawaii Department of Land and Natural Resources
 \$107,920
 2025-2026

InEvalTool: An integrative evaluation toolkit for Hawaiian Nature-Based Solutions
 Cooperative Institute for Research to Operations in Hydrology (CIROH)
 \$419,995
 2024 – 2027

Ecosystem accounting for Kalaupapa National Historic Park
 National Park Service
 \$25,229
 2024 – 2025

Using natural capital accounting to embed climate impacts into routine decision-making
 NOAA Sea Grant College Program
 \$142,202
 2022 – 2024

The Hawaiian model: Valuing and integrating nature's services for conservation choices
 Pew Charitable Trusts (2021 Pew Marine Fellow)
 \$150,000
 2021 – 2024

Economic analysis of climate bridging organizations
NOAA Climate Program
\$18,078
2021 – 2022

Updating the Genuine Progress Indicator for the state of Hawai'i
State of Hawai'i Department of Business, Economic Development, and Tourism
\$148,958
2021

Water natural capital accounts for Hawai'i
Ulu pono Initiative
\$43,804
2019

Examining how ridge-to-reef governance in Palau can enhance coastal food security
Pacific Islands Climate Adaptation Science Center
\$49,392
2021 – 2022

Exploring water natural capital accounts as a climate adaptation planning tool
NOAA Climate Program
\$70,000
2020 - 2021

Preferences for local seafood
Conservation International
\$30,000
2019

Sport fisher survey
Palau National Marine Sanctuary
\$25,000
2018 - 2020

Assessing nearshore management strategies for coral resilience
NOAA Coral Reef Conservation Program
\$79,739
2017-2019

Ecosystem service trade-offs from alternative fire management strategies in Hawai'i's forests
US Department of Agriculture – National Institute for Food and Agriculture (McIntire Stennis)
\$125,000
2017 – 2022

Socio-economic baseline of Palau's fisheries sector
National Geographic Society Pristine Seas

\$216,846
2016 – 2018

Socio-economic assessment of marine water quality threats in West Maui and Kona, Hawai'i
NOAA Coral Reef Conservation Program
\$79,994
2016 – 2017

Evaluating the economic impacts of climate variability and change on Maui's freshwater resources and ecosystem services
Department of Interior – Pacific Island Climate Science Center
\$68,490
2016 – 2017

Evaluating potential solutions to West Maui's coral reef declines
Department of Defense – US Army Corps of Engineers
\$99,970
2015 – 2016

Mapping and environmental science to support clean reefs of West Maui, Hawai'i
Department of Interior – Pacific Island Climate Science Center
\$21,867
2015 – 2016

Participatory Driver-Pressure-State-Impact-Response modeling
NOAA Kona Integrated Ecosystem Assessment
\$48,000
2014 – 2016

Evaluating management effectiveness for land-based sources of pollutants
NOAA Coral Reef Conservation Program
\$77,561
2014 – 2016

Managing multiple ecosystem services with changing land use in west Maui
USGS Water Resources Research Center
\$20,208
2014 – 2015

Value and supply chain mapping
Conservation International
\$87,305
2014 – 2015

Ecosystem service modeling and mapping
NOAA Coral Reef Conservation Program
\$68,552
2013 – 2015

Climate change impact assessment for coral reef ecosystem services
Department of Interior – Pacific Island Climate Science Center
\$249,718
2013 – 2015

Spatial trade-off analysis
NOAA Hawaiian Islands Humpback Whale National Marine Sanctuary
\$56,135
2013 – 2015

Cost-benefit analysis of climate adaptation options for freshwater security
Secretariat of the Pacific Regional Environment Program
\$20,000
2012

As co-PI/co-I

What Does It Take to Build and Maintain a Sustainable Recreational Trails System in the Hawaiian Islands?
Hawaii Department of Land and Natural Resources
\$1,100,000
2022-2026
Co-PI

Hawai'i Climate Smart Commodities: A Portfolio Approach to Equitably Scaling the Agriculture Sector
USDA
\$10,823,670
2022 – 2027
Co-I

He pūko'a kani 'āina: Safeguarding cultural connections to coral reefs in Hawai'i and the Pacific Islands Region
NOAA Climate Program Office
\$425,000
2024-2027
Co-PI

Supporting equitable nature-based solutions for flood mitigation
NOAA Cooperative Institute for Research to Operations in Hydrology
\$450,000
2023-2027
Co-PI

The Pacific RISA Phase IV: Building equitable and just climate solutions for Pacific Island resilience to compound disasters and extreme events
NOAA Climate Program Office
\$7,010,693 (\$504,455)

2021 - 2026

co-PI

Assessing current and future ocean acidification and climate vulnerabilities along the Hawaiian Archipelago

NOAA Ocean Acidification Program

\$1,039,492 (\$375,888)

2021 - 2014

co-PI

Assessing the impact of future climate on Hawai'i's aquatic ecosystems

National Fish and Wildlife Foundation

\$150,000

2020 – 2022

co-I

NSF/NIFA INFEWS: Sustaining California's food production through integrated water and energy management

USDA National Institute for Food and Agriculture

\$2,500,000 (\$194,849)

2017 – 2022

co-PI

Updating Hawai'i's cesspool prioritization and timeline strategy

State of Hawai'i Department of Health

\$209,388

2020 – 2021

co-I

Decision science for cesspool upgrading prioritization

State of Hawai'i Department of Health

\$99,000

2018 – 2019

co-PI

Working towards sustainability of Hawai'i's nearshore fisheries through characterizing and modeling fisheries regulation effects

NOAA Sea Grant College Program

\$231,291 (\$0)

2022 – 2024

co-I

Assessing the value and supply chain for coastal fisheries in the main Hawaiian Islands

NOAA Saltonstall Kennedy Grant

\$249,498

2015 – 2017

co-I

Ocean Tipping Points
Moore Foundation
\$838,500
2014 – 2017
Co-PI

Economic tourism value of Guam's fisheries
NOAA Coral Reef Conservation Program
\$37,485
2012 – 2013
co-I

Organized symposia

Breckwoldt, A., S. Ferse, J. Jackson, **K.L.L. Oleson**, R. Thurstan, et al. (2016). Session 65: Improving the understanding and management of coral reef social-ecological systems through community and stakeholder engagement. International Coral Reef Symposium, Honolulu, HI
Ostergaard-Klem, R., C. Klimas, **K.L.L. Oleson** (2016). Ecological economics curricula roundtable. International Society for Ecological Economics Conference, Washington, D.C.
Ostergaard-Klem, R., **K.L.L. Oleson** (2015). Green accounting in theory and practice: Lessons from using the Genuine Progress Indicator and other green accounting measures in the states and beyond. Canadian and US Societies for Ecological Economics Joint Biennial Meeting, Vancouver, Canada.
Oleson, K.L.L., L. Bremer (2014). Ecosystem service modeling and valuation to support ridge-to-reef management. Hawai'i Conservation Conference, Honolulu, HI
Kittinger, J., **K.L.L. Oleson**, C. Kappel (2014). Ocean tipping points in Hawaiian coral reefs: Developing science to support marine ecosystem-based management. Hawai'i Conservation Conference, Honolulu, HI

Invited conference presentations

Oleson, K.L.L. (2018). The risk of doing nothing: The value of coral reefs and active intervention. National Academy of Sciences Workshop: Interventions to increase the resilience of coral reefs, Honolulu, HI
Oleson, K.L.L. (2018). Community engagement in environmental decision making. Hawai'i Conservation Conference, Honolulu, HI
Pre-tenure
Oleson, K.L.L. (2016). Building a ridge-to-reef ecosystem service tool to support ridge-to-reef management in Maui. Source to sea session, International Union for the Conservation of Nature World Conservation Conference, Honolulu, HI
Oleson, K.L.L. (2016). Smart decisions to sustain coral reefs expert panel. Moderated by H. Possingham. Panel members included: P. Kareiva, O. Hoegh-Guldberg, B. Halpern, D. Wachenfeld, L. Mcleod, D. Obura, J. Pandolfi, and B. Anderson. International Coral Reef Symposium, Honolulu, HI
Ostergaard-Klem, R. *, **K.L.L. Oleson** * (2015). Hawai'i Green Growth: Smart, sustainable communities meeting. Pacific Club, Honolulu, HI
Oleson, K.L.L. (2015). Genuine Progress Indicator island style. Hawai'i Economic Association Annual Meeting. Halekulani Hotel, Honolulu, HI

Oleson, K.L.L.*, T. Callender, J. Delevaux, K. Falinski, H. Htun, G. Jin (2014). An ecosystem service evaluation tool to support ridge-to-reef management in Hawai'i. NOAA Kona Integrated Ecosystem Assessment Scientific Symposium, Kailua-Kona, HI

Ostergaard-Klem*, R., **K.L.L. Oleson*** (2013). Introducing the Genuine Savings Indicator to Hawai'i. Presentation to the Hawai'i Department of Planning

Oleson, K.L.L.*, T.A. Oliver, A. Harris (2013). Starting small but starting loud: Catalyzing community-based management of small-scale fisheries in Madagascar. UH Manoa Geography Department Seminar; UH Manoa Zoology Department Seminar; Hanauma Bay Community Outreach; The Nature Conservancy

Refereed conferences

Oleson, K.L.L.*, L. Chua, E. Ural, A. Ceria (2022). Coastal Ecosystem accounting for Hawai'i (2022). A Community on Ecosystem Services. Washington, D.C. December 13, 2022

Oleson, K.L.L.*, E. Von Saltza, A. Olivier, M. Barizien, W. Goodell (2022). Experiences from state-level natural capital accounting in Hawai'i (2022). A Community on Ecosystem Services. Washington, D.C. December 14, 2022.

Oleson, K.L.L.*, M. Barnes, A. Fung, W. Goodell, R. Whittier, R. Babcock (2021). Decision analysis to support water quality management in Upcountry Maui. International Tropical Water in Islands Conference, online

Oleson, K.L.L.*, E. Von Saltza, A. Olivier, M. Barizien (2020). State water accounting: Hawai'i. American Water Works Pacific Water Conference, Honolulu HI

Oleson, K.L.L.*, K. J. Bagstad, M. Barizien, E. Von Saltza, A. Olivier, C. Duke, M. Heris, S. Posner, C. Phodes, M. Russell, F. Soulard, K. Warnell, S. Wentland, C. Ingram, C. Shapiro, Z. Ancona, J. Boyd, F. Casey, P. Glynn, J. Haas, J. Honson, G. Lange, J. Matuszak, L. Olander, A. Troy, M. Vardon, F. Villa, B. Voigt (2019). Natural capital accounting for Hawaii: A focus on water. Joint US Society of Ecological Economics - Ecological Society of America Conference, Louisville KY

Oleson, K.L.L.*, R. Babcock, M. Barnes, W. Goodell, A. Fung (2018). Cost-benefit decision-making for cesspool replacement alternatives. American Water Works Pacific Water Conference, Honolulu HI

Oleson, K.L.L.*, S. Grafeld, P. Van Beukering, L. Brander, P.A.S. James, E. Wolffs (2018). Charting progress towards system-scale ecosystem service valuation in islands. International Conference on Environmental Futures, Honolulu, HI

Fezzi, C., **K.L.L. Oleson*** (2018). Integrated economic-hydrological modelling of brown water events in Maui. Hawai'i Conservation Conference, Honolulu, HI

Donovan, M., **Oleson, K.L.L.***, J. Lecky, A. Friedlander, S. Yee (2017). Management options for balancing coral reef ecosystem service supply and demand. US Society of Ecological Economics Annual Meeting, Minneapolis, MN

Oleson, K.L.L.*, K. Falinski, J. Lecky, C. Rowe, C. White (2017). Upstream solutions to coral reef conservation: The payoffs of smart and cooperative decision-making. US Society of Ecological Economics Annual Meeting, Minneapolis, MN

Oleson, K.L.L.*, K. Falinski, J. Lecky, C. Rowe, C. White (2016). Predictive models and trade-off analysis for guiding cost-effective land-based management actions for conserving coral reefs. International Coral Reef Symposium, Honolulu, HI

Oleson, K.L.L.*, M. Barnes, B. Zafindrasilivonono, L. Brander, P. van Beukering (2016). Using ecosystem service valuations to inform management and adaptation: A case study of the Velondriake Locally Managed Marine Area in Madagascar. International Society for Ecological Economics, Washington, D.C.

Oleson, K.L.L.*, M. Barnes, K. Falinski, H. Htun, J. Lecky, L. Veazey (2016). From the mountains to the ocean: Using InVEST to advance land-sea management in Hawai'i. Natural Capital Symposium, Stanford, CA

Peng, M. and **K.L.L. Oleson*** (2015). What's a clean beach worth: Recreationalist willingness to pay for coastal water quality. Canadian and US Societies for Ecological Economics Joint Biennial Meeting, Vancouver, Canada

Wong, T., **K.L.L. Oleson***, K. Bagstad, M. Barnes, J. Delevaux, K. Falinski (2015). Linking land and sea through an ecological-economic recreation model. Canadian and US Societies for Ecological Economics Joint Biennial Meeting, Vancouver, Canada

Oleson, K.L.L.*, T. Callender, J. Delevaux, K. Falinski, H. Htun, G. Jin (2014). An ecosystem service evaluation tool to support ridge-to-reef management in Hawai'i. American Geophysical Union Annual Meeting, San Francisco, CA

Oleson, K.L.L.*, J. Delevaux, K. Falinski, H. Htun, G. Jin (2014). Using modeling approaches to understand and respond to land-based source pollution impacts on coral reef ecosystems. A Community on Ecosystem Services (ACES), Washington, D.C. (poster)

Oleson, K.L.L.*, J. Delevaux, K. Falinski, H. Htun, G. Jin (2014). Using modeling approaches to understand and respond to land-based source pollution impacts on coral reef ecosystems. Hawai'i Conservation Conference, Honolulu, HI (poster)

Oleson, K.L.L.*, J. Delevaux, K. Falinski, H. Htun, L. Bremer (2014). Building an ecosystem service tool to support ridge-to-reef management in Hawai'i. Ocean Sciences Meeting, Honolulu, HI; Hawai'i Conservation Conference, Honolulu, HI

Bagstad, K., **K.L.L. Oleson***, G. Jin, K. Falinski (2014). Using ARIES to map ecosystem service flows for coral reef conservation and management. Hawai'i Conservation Conference, Honolulu HI

Oleson, K.L.L.*, M. Barnes-Mauthe, L. Brander, T.A. Oliver, B. Zafindrasilivonona, P. van Beukering (2014). Cultural bequest values for ecosystem service flows among indigenous fishers: A discrete choice experiment validated with mixed methods. International Marine Conservation Congress, Glasgow, Scotland; International Institute for Fisheries Economics and Trade, Brisbane, Australia

Oleson, K.L.L.* (2014). Implications of local management on ecosystem service flows and distributions: A case study of a locally managed marine area, Madagascar. International Marine Conservation Congress, Glasgow, Scotland

Ostergaard-Klem, R.*, **K.L.L. Oleson*** (2013). Genuine Progress Indicator island style. DEMOS Beyond GDP conference: Baltimore, MD