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University of Hawai'i Economics Research Organization (UHERO)
Water Resources Research Center
University of Hawai'i at Mānoa
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EDUCATION

PhD Geography, 2012

University of California at Santa Barbara–San Diego State University

Fulbright grant recipient for dissertation research

M.S. Conservation Biology, 2004

Victoria University of Wellington, New Zealand–Macquarie University, Australia

Rotary Ambassadorial Scholarship

B.A. Psychology (Spanish minor), 2001

Northwestern University, Chicago, Illinois

PROFESSIONAL ACADEMIC EXPERIENCE

Associate Specialist

University of Hawai'i Economic Research Organization (UHERO) and Water Resources Research Center (WRRC), University of Hawai'i at Mānoa, Honolulu, HI (8/2021–present)

Assistant Specialist

University of Hawai'i Economic Research Organization (UHERO) and Water Resources Research Center (WRRC), University of Hawai'i at Mānoa, Honolulu, HI (7/2017–08/2021)

Cooperating Faculty

Biocultural Initiative of the Pacific (7/2018–present), Department of Natural Resources and Environmental Management (2/2019–present), Department of Geography and Environment (9/2019–present), University of Hawai'i at Mānoa, Honolulu, HI

Affiliate Researcher

Gund Institute for Environment, University of Vermont (9/2019–present)

Postdoctoral Research Associate and Conservation Scientist

The Natural Capital Project, Stanford University, Stanford, CA (9/2012–5/2017)

University of Hawai'i at Mānoa, Honolulu, HI (9/2012–9/2013; 10/2014–6/2016)

PEER-REVIEWED PUBLICATIONS

Okuhata, B.K., A.I. El-Kadi, H. Dulai, J. Lee, C.A. Wada, **L.L. Bremer**, K.M. Burnett, J.M.S. Delevaux, C.K. Shuler (In Press). A density-dependent multi-species model to assess groundwater flow and nutrient transport in the coastal Keauhou aquifer, Hawai'i, USA. *Hydrogeology Journal*.

- Wada, C. A., Burnett, K. M., Okuhata, B. K., Delevaux, J. M., Dulai, H., El-Kadi, A. I., Gibson, V., Smith, C., & **Bremer, L. L.** (2021). Identifying wastewater management tradeoffs: Costs, nearshore water quality, and implications for marine coastal ecosystems in Kona, Hawai'i. *Plos One*, 16(9), e0257125. <https://doi.org/10.1371/journal.pone.0257125>
- Brauman, K. A., **Bremer, L.L.**, Hamel, P., Tocachi, B. F. O., Roman-Dañobeytia, F., Bonnesoeur, V., Arapa, E., & Gammie, G. (2021). Producing Valuable Information from Hydrologic Models of Nature-Based Solutions for Water. *Integrated Environmental Assessment and Management*. <https://doi.org/10.1002/ieam.4511>
- Bremer, L.L.**, Nathan, N., Trauernicht, C., Pascua, P. A., Krueger, N., Jokiel, J., Barton, J. & Daily, G. C. (2021). Maintaining the Many Societal Benefits of Rangelands: The Case of Hawai'i. *Land*, 10(7), 764. <https://doi.org/10.3390/land10070764>
- Bremer, L.L.**, DeMaagd, N., Wada, C. A., & Burnett, K. M. (2021). Priority watershed management areas for groundwater recharge and drinking water protection: A case study from Hawai'i Island. *Journal of Environmental Management*, 286, 111622. <https://doi.org/10.1016/j.jenvman.2020.111622>
- Bremer, L.L.**, Elshall, A.S., Wada, C.A., Brewington, L., Delevaux, J.M.S., El-Kadi, A.I., Voss, C.I., & Burnett, K.M. (2021). Effects of land cover and watershed protection futures on sustainable groundwater management in Hawai'i. *Hydrogeology Journal*, 1-17. <https://doi.org/10.1007/s10040-021-02310-6>
- Melone, A., **Bremer, L. L.**, Crow, S. E., Hastings, Z., Winter, K. B., Ticktin, T., Rii, Y.M., Wong, M., Kukea-Shultz, K., Watson, S.J., & Trauernicht, C. (2021). Assessing Baseline Carbon Stocks for Forest Transitions: A Case Study of Agroforestry Restoration from Hawai'i. *Agriculture*, 11(3), 189. <https://doi.org/10.3390/agriculture11030189>
- Mandle, L., Estrada-Shields, A., Chaplin-Kramer, C., Mitchell, G.E.M., **Bremer, L.L.**, Gourevitch, J.D., Hawthorne, P., Johnson, J., Robinson, B.E., Smith, J.R., Sonter, L.J., Verutes, G.M., Vogls, A.L., Daily, G.C., & Ricketts, J.H. (2021). Increasing decision relevance of ecosystem service science. *Nature Sustainability*, 4(2), 161-169. <https://doi.org/10.1038/s41893-020-00625-y>
- Gould, R., **Bremer, L.L.**, Pascua, P., & Meza Prado, K. (2020). Frontiers in cultural ecosystem services: Toward greater equity and justice in ecosystem services research and practice. *Bioscience*, 70(12), 1093-1107. <https://doi.org/10.1093/biosci/biaa112>
- Winter, K.B., Rii, Y.M., Reppun, F., Hintzen, K.D., Alegado, R.A., Bowen, B.W., **Bremer, L.L.** et al. (2020). Collaborative research to inform adaptive co-management: a framework for the He'eia National Estuarine Research Reserve, *Ecology and Society*. 25(4):15. <https://doi.org/10.5751/ES-11895-250415>
- Elshall, A.S., Arik, A.D, El-Kadi, A.I., Pierce, S., Burnett, K.M, Wada, C.A., **Bremer, L.L.** & Chun, G. (2020). Groundwater sustainability: a review of the interactions between science and policy. *Environmental Research Letters*, 15(9), 093004. <https://iopscience.iop.org/article/10.1088/1748-9326/ab8e8c>
- Engels, J.L., Watson, S., Dulai, H., Burnett, K.M., Aga, A., DeMaagd, N., Wada, C.A., McHugh, Sumida, B., & **Bremer, L.L.** (2020). Collaborative research to support urban agriculture in the face of change: the case of Sumida watercress farm. *Plos One*. 15(7): e0235661. <https://doi.org/10.1371/journal.pone.0235661>
- Hastings, Z., Ticktin, T., Botelho, M., Reppun, N., Kukea-Shultz, K., Wong, M., Melone, A., & **Bremer, L.L.** (2020). Integrating co-production and functional trait approaches for inclusive and scalable restoration solutions. *Conservation Science and Practice*, 2(9): e250. <https://doi.org/10.1111/csp2.250>
- Winter, K.B., Lincoln, N.K., Berkes, F., Alegado, R.A., Kurashima, N., Frank, K.L., Pascua, P., Rii, Y.M., Reppun, F., Knapp, I.S.S., McClatchey, W.C., Ticktin, T., Smith, C., Franklin, E.C., Oleson, K., Price, M.R., McManus, M.A., Donahue, M.J., Rodgers, K.S., Bowen, B.W., Nelson, C.E., Thomas, B., Leong, J.-A., Madin, E.M.P., Rivera, M.A.J., Falinski, K.A.,

- Bremer, L.L.**, Deenik, J.L., Gon III, S.M., Neilson, B., Okano, R., Olegario, A., Nyberg, B., Kawelo, A.H., Kotubetey, K., Kukea-Shultz, J.K. & Toonen, R.J. (2020). Ecomimicry in Indigenous resource management: optimizing ecosystem services to achieve resource abundance, with examples from Hawai‘i. *Ecology and Society*, 25(2).
<https://doi.org/10.5751/es-11539-250226>
- Burnett, K.M, Elshall, A.S., Wada, C.A., Arik, A., El-Kadi, A.I., Delevaux, J.M.S, & **Bremer, L.L.** (2020). Incorporating spring discharge protection into sustainable groundwater management: A case study from Pearl Harbor Aquifer, Hawai‘i. *Frontiers Water*, 2(14).
<https://doi.org/10.3389/frwa.2020.00014>
- Bremer L.L**, Hamel P, Ponette-González A.G., Pompeu P.V., Saad S.I., & Brauman, K.A. (2020). Who Are we Measuring and Modeling for? Supporting Multilevel Decision-Making in Watershed Management. *Water Resources Research*, 56, e2019WR026011.
<https://doi.org/10.1029/2019WR026011>
- Hamel P, **Bremer L.L**, Ponette-González A.G., Acosta E, Fisher J.R.B., Steele B, Cavassani A.T., Klemz C., Blainski E., & Brauman, K.A. (2020). The value of hydrologic information for watershed management programs: The case of Camboriú, Brazil. *Science of the Total Environment*, 705 (135871). <https://doi.org/10.1016/j.scitotenv.2019.135871>
- Nelson S.H., **Bremer L.L**, Meza Prado, K. & Brauman, K.A. (2020). The Political Life of Natural Infrastructure: Water Funds and Alternative Histories of Payments for Ecosystem Services in Valle del Cauca, Colombia *Development and Change*, 51(1), 26–50.
<https://doi.org/10.1111/dech.12544>
- Hayes, T., Grillos, T., **Bremer, L.L.**, Murtinho, F. and Shapiro, E. (2019). Collective PES: More than the sum of individual incentives. *Environmental Science & Policy*, 102, 1-8.
<https://doi.org/10.1016/j.envsci.2019.09.010>
- Bremer, L.L.**, Wada, C.A., Medoff, S., Falinski, K., & Burnett, K.M. (2019). Contributions of native forest protection to water supplies in East Maui. *Science of the Total Environment*, 688, 1422-1432. <https://doi.org/10.1016/j.scitotenv.2019.06.220>
- Delevaux, J.M.S., Stamoulis, K.A., Whittier, R., Jupiter, S.D., **Bremer, L.L**, Friedlander, A., Kurashima, N., Giddens, J., Winter, K., Blach-Vaughan, M., Burnett, K., Geslani, C., & Ticktin T. (2019). Local place-based management can reduce human impacts on coral reefs. *Ecological Applications*, 29(4), e01891. <https://doi.org/10.1002/eap.1891>
- Bremer, L.L.**, Farley, K.A., Demaagd, N., Suárez, E., Tandalla, D.C., Vasco, S., Patricio, T., & Vásconez, M. (2019). Biodiversity outcomes of payment for ecosystem services: lessons from páramo grasslands. *Biodiversity and Conservation*, 28, 885-898.
<https://doi.org/10.1007/s10531-019-01700-3>
- Burnett, K., Ticktin, T., **Bremer, L.L.**, Quazi, S.A., Geslani, C., Wada, C.A., Kurashima, N., Mandle, L., Pascua, P., Depraetere, T., Wolkis, D., Edmonds, M., Giambelluca, T.W., Falinski, K., & Winter, K.B. (2019). Restoring to the future: environmental, cultural, and management tradeoffs in historical versus hybrid restoration of a highly modified ecosystem. *Conservation Letters*, 12 (1), e12606. <https://doi.org/10.1111/conl.12606>
- Bremer, L.L.**, Falinski, K., Ching, C., Wada, C.A, Burnett, K.M, Kukea-Shultz, K., Reppun, N., Chun, G., Oleson, K., & Ticktin, T. (2018). Biocultural restoration of traditional agriculture: cultural, environmental, and economic outcomes of lo‘i restoration in He‘eia, O‘ahu. *Sustainability*, 10 (12), 4502. <https://doi.org/10.3390/su10124502> (Part of a special issue on biocultural restoration in Hawai‘i).
- Bremer, L.L.**, Brauman, K.A., Nelson, S., Meza Prado, K., Wilburn, E., & Fiorini, A.C. (2018). Relational values in evaluations of social outcomes of payment for watershed services: a review. *Current Opinions in Environmental Sustainability*, 35, 116-123.
<https://doi.org/10.1016/j.cosust.2018.10.024>
- Delevaux, J.M.S., Winter, K., Jupiter, S., Blach-Vaughan, M., Stamoulis, K., **Bremer, L.L**, Burnett, K., Garrod, P., Troller, J. & Ticktin, T. (2018). Linking Land and Sea through Collaborative

- Research to Inform Contemporary applications of Traditional Resource Management in Hawai'i. *Sustainability*, 10(9), 3147. <https://doi.org/10.3390/su10093147> (Part of a special issue on biocultural restoration in Hawai'i).
- Delevaux, J.M.S., Jupiter, S.D., Stamoulis, K.A., **Bremer, L.L.**, Wenger, A.S., Dacks, R., Garrod, P., Falinski, K.A., & Ticktin, T. (2018). Scenario planning with linked land-sea models inform where forest conservation actions will promote coral reef resilience. *Scientific Reports*, 8, 12465. <https://doi.org/10.1002/eap.1891>
- Bremer, L. L.**, L. Mandle, C. Trauernicht, P. Pascua, H. L. McMillen, K. Burnett, C. A. Wada, N. Kurashima, S. Quazi, T. Giambelluca, P. Chock, & Ticktin, T. (2018). Bringing multiple values to the table: assessing future land-use and climate change in North Kona, Hawai'i. *Ecology and Society*, 23(1), 33. <https://doi.org/10.5751/ES-09936-230133>
- Delevaux, J.M.S., Whittier, R, Stamoulis, K.A., **Bremer, L.L.**, Jupiter, S., Friedlander, A.M., et al. (2018). A linked land-sea modeling framework to inform ridge-to-reef management in high oceanic islands. *PLoS ONE*, 13(3). e0193230. <https://doi.org/10.1371/journal.pone.0193230>
- Game, E. T., **Bremer, L.L.**, Calvache, A., Moreno, P.H. Vargas, A., Rivera, B., & Rodriguez, L.M. (2018). Fuzzy models to inform social and environmental indicator selection for conservation impact monitoring. *Conservation Letters*, 11(1), e12338. <https://doi.org/10.1111/conl.12338>
- Wada, C., **Bremer, L.L.**, Burnett, K., Trauernicht, C., Giambelluca, T., Mandle, L., Parsons, E., Weil, C., Kurashima, N., & Ticktin, T. (2017) Estimating cost-effectiveness of dry forest restoration using spatial changes in water yield and landscape flammability under climate change. *Pacific Science*. 71(4), 401-424. <https://doi.org/10.2984/71.4.2>
- Farley, K. A., & **Bremer, L.L.** (2017). "Water Is Life": Local Perceptions of Páramo Grasslands and Land Management Strategies Associated with Payment for Ecosystem Services. *Annals of the American Association of Geographers*, 4452, 1–11. <https://doi.org/10.1080/24694452.2016.1254020>
- Vogl, A.L., Goldstein, J.H., Daily, G.C., Vira, B., **Bremer, L.L.**, McDonald, R.I., Shemie, D. Tellman, B., & Cassin, J. (2017). Mainstreaming investments in watershed services to enhance water security: Barriers and opportunities. *Environmental Science and Policy*, 75, 19–27. <https://doi.org/10.1016/j.envsci.2017.05.007>
- Bremer, L.L.**, Farley, K.A., Chadwick, O.A., & Harden, C.P. (2016). Changes in carbon storage with land management promoted by payment for ecosystem services. *Environmental Conservation*, 43, 397–406. <https://doi.org/10.1017/S0376892916000199>
- Bremer, L.L.**, Auerbach, D.A., Goldstein, J.H., Vogl, A.L., Shemie, D., Kroeger, T., Nelson, J.L., Benítez, S.P., Calvache, A., Guimarães, J., Herron, C., Higgins, J., Klemz, C., León, J., Sebastián, J., Moreno, P.H., Nuñez, F., Veiga, F., & Tiepolo, G. (2016). One size does not fit all: Natural infrastructure investments within the Latin American Water Funds Partnership. *Ecosystem Services*, 17, 217–236. <https://doi.org/10.1016/j.ecoser.2015.12.006>
- Naeem, S. Ingram, J.C., Varga, A., Agardy, T., Barten, P., Bennett, G., Bloomgarden, E., **Bremer, L.L.** et al. (2015). Getting the science right when paying for nature's Services. *Science*. 347 (6227), 1206-1207. <https://doi.org/10.1126/science.aaa1403>
- Bremer, L.L.**, Delevaux, J., Leary, J.K., Cox, L.J., & Oleson, K.L. (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. <https://doi.org/10.1007/s00267-014-0426-4>
- Tallis, H., J. Lubchenco + 238 co-signatories (including **L.L. Bremer**). (2014). Working together: A call for inclusive conservation. *Nature*. 515, 27-28. <https://doi.org/10.1038/515027a>
- Rosenthal, A., Verutes, G., McKenzie, E., Arkema, K.K., Nirmal, B., **Bremer, L.L.**, Olwero, N., & Vogl, A.L. (2014). Process matters: a framework for conducting decision-relevant

- assessments of ecosystem services. *International Journal of Biodiversity Science, Ecosystem Services, and Management*. <https://doi.org/10.1080/21513732.2014.966149>
- Bremer, L.L.**, Farley, K.A., & Lopéz-Carr, D. (2014). Conservation and livelihood outcomes of payment for ecosystem services in the Ecuadorian Andes: what is the potential for win-win? *Ecosystem Services* 8, 148-165. <https://doi.org/10.1016/j.ecoser.2014.03.007>
- Bremer, L.L.**, Farley K.A., & Lopéz-Carr, D. (2014). What factors influence participation in Payment for Ecosystem Services programs? An evaluation of Ecuador's SocioPáramo program. *Land Use Policy*, 36, 122-133. <https://doi.org/10.1016/j.landusepol.2013.08.002>
- Harden, C.P., Hartsig, J., Farley, K.A., Lee, J, & **Bremer, L.L.** (2013). Effects of land-use change on water in Andean páramo grassland soils. *Annals of the Association of American Geographers*, 103(2), 375-384. <https://doi.org/10.1080/00045608.2013.754655>
- Farley K.A., **Bremer L.L.**, & Harden C.P. (2012). Changes in carbon storage under alternative land uses in biodiverse Andean grasslands: implications for payment for ecosystem services. *Conservation Letters*, 6(1), 21-27. <https://doi.org/10.1111/j.1755-263X.2012.00267.x>
- Farley K.A., Anderson W.G, **Bremer L.L.**, and Harden C.P. (2011). Compensation for ecosystem services: an evaluation of efforts to achieve conservation and development in Ecuadorian páramo grasslands. *Environmental Conservation*, 38(4), 1-13. <https://doi.org/10.1017/S037689291100049X>
- Bremer L.L.** & Farley K.A. (2010). Does plantation forestry restore biodiversity or create green deserts? A synthesis of the effects of land-use transitions on plant species richness. *Biodiversity and Conservation*, 19(14), 3893-3915. <https://doi.org/10.1007/s10531-010-9936-4>

TECHNICAL REPORTS, BOOK CHAPTERS, AND OUTREACH PUBLICATIONS

- Cassin, J. Matthews, J.H. Lopez-Gunn, E., **Bremer, L.L.**, Coxon, C., Dominique, K., Echavarria, M., Gammie, G., Marchal, R., Mauroner, A., Ofosu-Amaah, N., Perry, D.M., Sterling, E., Timboe, I., Vandergert, P., Vigerstol, K. & Trémolet, S. (In Press). Nature-based solutions: action for the 21st century. In: Cassin, J., Lopez-Gunn, E., & Matthews, J. Nature-Based Solutions and Water Security: An agenda for the 21st century. Elsevier.
- Bremer, L.L.**, Keeler, B., Walker, R., Sterling, S., & Pascua, P. (In Press). *Nature-based solutions, sustainable development, and equity*. In: Cassin, J., Lopez-Gunn, E., & Matthews, J. Nature-Based Solutions and Water Security: An agenda for the 21st century. Elsevier.
- Bremer, L.L.**, Elshall, A., Wada, C., Brewington, L., Delevaux, J., El-Kadi, A., Voss, C., & Burnett, K. *Groundwater management for people and ecosystems under a changing climate: Insights from the Pu'uloa aquifer*. UHERO blog, 26 July 2021.
- Bremer, L.L.**, Burnett, K.M., & Wada, C.A. (2020). *Economic benefits of hydrologic services from watershed protection and restoration*. UHERO brief.
- Bremer, L.L.** & Brauman K.A. (2020). *Who are we measuring and modeling for? Supporting real-world watershed management*. Global Water Forum, August 14, 2020.
- Oleson, K.L.L., Ostergaard-Klem, R., Lynch, M.K., & **Bremer, L.L.** (2020). *Transforming the Economy through Ocean, Oha and Ohana: a holistic understanding of economic progress can help guide Hawaii past COVID-19*. Civil Beat, Honolulu, HI, June 10, 2020.
- Hastings, Z., Botelho, M., & **Bremer, L.L.** (2019). *Biocultural restoration workday draws community together to plant an agroforest*. UHERO blog, 5 March, 2019.
- Bremer, L.L.**, DeMaagd, N., Wada, C.A., & Burnett, K.M. (2019). *Identifying priority watershed management areas for groundwater recharge protection on Hawai'i Island*. Prepared for the Hawai'i County Department of Water Supply. UHERO Report for the Hawai'i County Department of Water Supply.
- Brauman, K, Benner, R., Benitez, S., **Bremer, L.L.** & Vigerstol, K. (2019). *Water Funds*. In: Mandle, L., Ouyang, Z., Salzman, J., Daily, G. (2019). *Green Growth That Works: Natural Capital Policy and Finance Mechanisms Around the World*. Island Press.

- Wada, C.A., **Bremer, L.L.**, DeMaagd, N., Medoff, S., Cloudwatcher, S., & Burnett, K. (2018). [*Identifying areas of cost-effective watershed management for groundwater recharge protection on Hawai'i Island*](#). UHERO Report for the Hawai'i Community Foundation.
- Bremer, L.L.** (2018). [*Water Funds Toolbox online training: Social Impact Assessment*](#). The Nature Conservancy's Water Fund Toolbox, 2018.
- Zyla, C., Apse, C., Barreto, S.R., Benitez, S., Bradely, A., **Bremer, L.L.** et al. (2018). [*Water Funds: Field Guide 2018*](#). The Nature Conservancy.
- Bremer, L.L.**, Wada, C., Burnett, K., Medoff, S., Page, J., Lee, S., Allen, S., & Falinki, K. (2018). [*Economic Valuation of The Nature Conservancy's Watershed Conservation Activities in Waikamoi Preserve, Maui*](#). UHERO report for The Nature Conservancy of Hawai'i.
- Bremer, L.L.** (2017). [*Bringing multiple values to the table in local decision making – NSF Coastal SEES.*](#) UHERO blog 14 December 2017.
- Hamel, P. & **L.L. Bremer**. (2017). [*How to reach a mature anthropocene*](#). Future Earth 4, October 2017.
- Abell, R., Asquith, N., Boccaletti, G., **Bremer, L.** et al. (2017). [*Beyond the Source: The environmental, economic and community benefits of source water protection*](#). The Nature Conservancy, Arlington, VA.
- Bremer, L.L.** & Meza Prado, K. (2017). [*Seven Things We Learned By Listening To Those Who Make Water Funds Happen*](#). Cool Green Science 4 August 2017
- Bremer, L.L.**, Vogl, A., Petry, P., & Debievre, B (eds). (2016). [*Bridging Theory and Practice in Hydrological Monitoring in Water Funds*](#). The Nature Conservancy, CONDESAN, and The Natural Capital Project Practitioner guidance document. Spanish and English versions.
- Brauman, K.A. & **Bremer, L.L.** (2017). [*Creating ClimateWise*](#). Mountain Research Forum 23 May 2017.
- Bremer, L.L.**, Gammie, G, & Maldonado, O. 2016. [*Designing and Assessing Water Fund Projects: Participatory Social Impact Assessment for AquaFondo, the Water Fund for Lima*](#). Forest Trends & The Natural Capital Project case study. Spanish and English versions.
- Bremer, L.L.**, Ricketts, T., Manning, R., & Trevino, K. New Park Resources. (2016). In: Manning, R., Diamant, R., Mitchell, N., Harmond, D. (eds.). *A Thinking Person's Guide to National Parks*. George Braziller Publishers, New York.
- Bremer, L.** (2015). [*Six Things I've Learned About Water Funds*](#). Natural Capital Project Blog. 1 November 2015.
- Bremer, L.L.** & Farley, K.A. (2015). [*Livelihood outcomes of payment for ecosystem services in Ecuadorian highland Andean grasslands*](#). Landscapes for people, food, and nature blog. 16 February, 2015.
- Harden, C.P., Farley, K.A., & **Bremer, L.L.** (2015). [*Servicios ambientales ecosistémicos y cambio en el uso de suelo en el páramo*](#). Report for Fundación Cordillera Tropical. 78 pages.
- Auerbach, D. & **Bremer, L.L.** (2014). [*Mosquitoes, heat, and floods: the challenges of monitoring in water funds*](#). Cool Green Science. 18 September 2014.
- Higgins, J.V. and Zimmerling, A. (Eds). (2013). With contributions from: **Bremer, L.**, Boucher, T., Higgins, J., Kroeger, T., Leisher, J., and Petry, P. [*A Primer for Monitoring Water Funds*](#). Arlington, VA: The Nature Conservancy.
- Bremer L.L.** and Farley K.A. (2011). *Carbon trading*. In: Schiffman, H., & Robbins, P. (Eds), Green Issues and Debates, Sage Green Series Volume 12. Sage Publications: Thousand Oaks, CA.
- Farley, K.A., **Bremer L.** (2010). *Timber plantations*. In: Warf, B (Ed), *Encyclopedia of Geography*. Sage Publications: Thousand Oaks, CA, pp. 2834-2836.
- Bremer L.**, Carr, D.L., Farley, K.A. (2010). *Afforestation*. In: Mulvaney, D., Robbins, P. (Eds), Green Politics: An A to Z Guide. Sage Publications: Thousand Oaks, CA.
- Carr, D.L., **Bremer, L.** (2010). *Entropy in Agriculture*. In: Mulvaney D (Ed), Green Politics. Sage Publications: Thousand Oaks, CA.

RESEARCH FUNDING & FELLOWSHIPS

2022-2024	University of Hawai'i Sea Grant College Program. Building capacity for community-based agroforestry under climate change. Principal Investigator.
2021-2023	Pacific Islands Climate Adaptation Center. Linking models to outcomes: how to Hawai'i stakeholders use and contribute to land-to-sea ecosystem service analyses. Co-Investigator.
2020-2021	U.S. Climate Alliance Grant Program. On the path to carbon neutrality: a Hawai'i carbon land use opportunity assessment. Co-Investigator.
2020-2021	Conéctate-A+ small grants program. Synthesis of the physical and socio-political aspects of hydrological research in Andean paramo grasslands, Co-Investigator.
2020-2021	National Institute of Food and Agriculture, capacity grants. Land-based solutions: activating landscapes for climate change mitigation and soil health. Co-Investigator. \$Co-Investigator.
2020-2022	University of Hawai'i Seagrant College Program. Enhancing social-ecological resilience and ecosystem services through restoration of coastal agroforestry systems. Principal Investigator.
2020-2022	United States Geological Survey Water Resources Research Institutes Program. Linking watershed and groundwater management to groundwater dependent ecosystems and their linked ecological, cultural, and socio-economic values. Principal Investigator.
2019-2021	National Science Foundation (Eager), Coastlines and People. Identifying multiple values for beaches and coastlines unders sea level rise. \$Co-Principal Investigator.
2018-2020	U.S. Department of Agriculture - Natural Resources Conservation Service (NRCS), Conservation Innovation Grant: Restoring ecosystem services and biodiversity through cost-effective and resilient agroforestry systems. Principal Investigator.
2018-2019	College of Social Sciences Research Support Award: Restoring biodiversity and ecosystem services through cost-effective and resilient agroforestry systems. Principal Investigator.
2018 - 2019	Department of Water Supply, Hawai'i Island: Spatial prioritization of investments in watershed protection for cost-effective groundwater recharge benefits. Principal Investigator.
2016-2019	Belmont Forum Mountains as Sentinels of Change "ClimateWise: Climate-Smart Watershed Investments in the Montane Tropics of South America." Senior Personnel.
2013-2014	Woods Institute of the Environment, Rising Environmental Leaders Program, Stanford University.
2009-2010	Fulbright Student Fellowship to Ecuador
2003-2004	Rotary Ambassadorial Scholarship to New Zealand

SELECTED INVITED PRESENTATIONS

State of Hawai‘i Commission on Water Resources Management. Groundwater management for people and ecosystems under a changing climate: Insights from the Pu‘uloa aquifer. Invited presentation, 17 August 2021.

Hawai‘i News Now. Featured in: UH Study: [O‘ahu’s primary aquifer in need of additional protections](#), 4 August 2021.

American Geophysical Union Conference. Who are we measuring and modeling for? Supporting multilevel decision-making in watershed management. Virtual conference. 15 December 2020.

Hawai‘i Conservation Conference. Benefits of watershed conservation for groundwater recharge in the Pu‘uloa (Pearl Harbor) aquifer. Honolulu, HI, 1 September 2020.

Pacific Water Conference. Targeting investments in source watershed protection and restoration. Honolulu, HI, 5 February 2020.

Pacific Water Conference. Exploring recharge changes with the web-based Hawai‘i groundwater recharge tool (joint presentation with T. Hylton of USGS). Honolulu, HI, 6 February 2020.

Honolulu Sunrise Rotary Club. From Aotearoa to Hawai‘i: environmental Management for Multiple Benefits. Honolulu, HI, 26 November 2019.

Gund Institute for the Environment Seminar Series. Bringing multiple values to the table in water and watershed management: insights from Hawai‘i and the Andes. University of Vermont, Burlington, VT, 16 August 2019.

Hawai‘i Conservation Conference. Biocultural restoration of traditional agriculture: ecological, cultural, and economic outcomes of lo‘i restoration in He‘eia, O‘ahu (joint presentation with K. Falinski, C. Ching, and N. Reppun). Honolulu, HI, 9 July 2019.

Hawai‘i Ecosystems Meeting. ‘Ike Wai: connecting water and ecosystem management in two aquifers in Hawai‘i. Hilo, HI, 31 June 2019.

Annual Meeting of the Association of American Geographers. Who are we measuring and modeling for? Opportunities and strategies to inform decision making in real-world payment for ecosystem services programs. Washington D.C., 6 April 2019.

Natural Capital Symposium. Biocultural approaches to the conservation of ecosystem services: insights from Hawai‘i. Stanford University, Stanford, CA, 19 March 2019.

Hawai‘i Community Foundation. Spatially targeting investments in cost-effective watershed conservation. Honolulu, HI, 5 December 2018.

Department of Geography and Environment Seminar Series. Integrating diverse values into watershed management and policy: insights from the Andes and Hawai‘i. University of Hawai‘i at Mānoa, Honolulu, HI, 17 January 2019.

Pacific Bioscience Research Center Seminar Series. Bringing multiple values to the table in land and water management in Hawai‘i. University of Hawai‘i at Mānoa, Honolulu, HI, 31 October 2018.

Department of Natural Resources and Environmental Management Seminar Series. Managing watersheds for multiple benefits: insights from the Andes and Hawai‘i. University of Hawai‘i at Mānoa, Honolulu, HI, 26 October 2018.

American Samoa WRRC Advisory Committee Meeting. Managing water and watersheds for multiple benefits. American Samoa, 16 October 2018.

7th Annual Conference on Environmental Futures: Human and Island Environments. Groundwater benefits of watershed conservation in Waikamoi Preserve, Maui. Honolulu, HI, 19 April 2018.

Natural Capital Symposium. Frontiers in Cultural Ecosystem Services: Setting the Stage. Stanford University, Stanford, CA, 21 March 2018.

- UHERO Workshop on Energy and Environmental Research Seminar Series.** Watershed management as a Strategic Health Care Partner. University of Hawai‘i at Mānoa, Honolulu, HI, 13 November 2017.
- World Water Week.** Setting the stage – water, ecosystems and health. Stockholm, Sweden. 31 August 2017.
- Global Water Summit.** Moving towards coherence: Connecting public health, food security, and healthy watersheds. The Nature Conservancy, New York City, NY, 8 December 2016 (session keynote speaker).
- IUCN World Conservation Congress.** The Natural Capital Approach – a Hawai‘i Perspective (joint presentation with U. Woodside and A. Guerry). Honolulu, HI, 3 September 2016.
- Association of American Geographers Annual Meeting.** Managing land for ecosystem services and social-ecological resilience: a case study from Kona, Hawai‘i. San Francisco, CA, 31 March 2016.
- Interdisciplinary Approaches to Addressing Environmental Change Symposium.** Social and ecological dimensions of watershed conservation: insights from Hawai‘i and the Andes. San Diego State University, San Diego, CA, 25 February 2016.
- Ecosystem Services Partnership World Conference.** Ecosystem services and social-ecological resilience under land use and climate change in Kona, Hawai‘i. Stellenbosch, South Africa, 10 November 2015.
- American Geophysical Union.** Selecting Indicators for socio-economic monitoring in water funds. American Geophysical Union. San Francisco, CA, 15 December 2014.
- Ecosystem Services Partnership Conference.** Linking Conservation and Human Well-Being: the Promise of Water Funds. San José, Costa Rica, 9 September 2014.
- Proyecto ValueES: Programa de Encuentro Regional América Latina.** Valuación de los servicios ecosistémicos: el enfoque del Natural Capital Project. Mexico City, Mexico, 18-19 October 2013.
- The Nature Conservancy All Science Meeting.** Making the Business Case for Water Funds: Data Needs. San Jose, CA, 10 December 2013.
- Latin American Water Fund Partnership Congress.** RIOS como una herramienta para los Fondos de Agua.. Panama City, Panama, 18-19 June 2013.
- Planet Under Pressure: New Knowledge Towards Solutions.** Land-use change, ecosystem services, and local livelihoods: an evaluation of compensation for ecosystem services programs in Ecuadorian páramo grasslands (poster presentation). London, England, 27 March 2012.
- Ecological Society of America, Emerging Issues Conference.** Tradeoffs in biodiversity and ecosystem services under land-use changes promoted by compensation for ecosystem services (CES) programs targeting highland Andean grasslands (páramos) in Ecuador (poster presentation). Shepardstown, WV, 27 February 2012.
- Seminario de Proyecto REDD, Fundación Marco.** Desde Copenhague hasta los páramos ecuatorianos: Efectos del Calentamiento Global y Alternativas de Cambio. Riobamba, Ecuador, 29-30, April, 2010.

SELECTED ORGANIZED AND INVITED WORKSHOPS AND EVENTS

- International Tropical Islands Water Conference: Water for Ecosystems and People in the Face of Change. Virtual conference. 15-18 April 2020 (conference organizer).
- Equity and Ecosystem Services. Online workshop organized by the National Ecosystem Services Partnership, Duke University. 23 September 2020 (invited speaker and panelist).
- Retos y oportunidades en las evaluaciones transdisciplinarias de los programas de Pagos por Servicios Hidrológicos (PSH) en América Latina: perspectivas de académicos y actores locales

Ecosystem Services Partnership Latin American and Caribbean Regional Conference. Mexico City, Mexico (online), 25 November 2020 (invited panelist).

Sharing Moololo and Community Virtually through Storymaps: Sumida Farm as a Case Study. Center for Teaching Excellence, University of Hawai‘i at Mānoa (online), 18 November 2020.

Water, ecosystems, and people: insights from the ‘Ike Wai project. Hawai‘i Conservation Conference. Honolulu, HI, 3 September 2020 (panel organizer).

He‘eia Conservation Action Planning. The Nature Conservancy and Kāko‘o ‘Ōiwi, He‘eia, Hawai‘i, 26-28 February 2020 (invited participant).

‘Ike Wai-Water Resources Research Center Stakeholder Workshop. University of Hawai‘i Mānoa, Honolulu, HI, 20 February 2020 (workshop co-organizer and invited participant).

Honuaiākea and loko i‘a (fish ponds) research needs. Hui Mālama Loko I‘a (fish pond network). Kāneohe, Hawai‘i, 13-14 November 2019 (invited participant).

Rangeland ecosystem services in Hawai‘i. Researcher-rancher collaborative workshop in partnership with Hāleakala Ranch and the Hawai‘i Rangeland Stewardship Council. Makawao, Maui, 7-8 August 2019 (workshop co-organizer).

Biocultural indicators and social-ecological modeling. National Estuarine Research Reserve organized workshop. University of Hawai‘i at Mānoa, Honolulu, HI, 8 July 2019 (invited participant).

Gender equality and water security. Forum organized by Forest Trends, Perú Ministry of the Environment, and others. Lima, Perú. 19-20, June 2019 (invited participant).

Equity in Sustainable Development. Natural Capital Symposium. Stanford, California, 20 March 2019 (invited panelist).

Adaptive Management Symposium on Groundwater Dependent Ecosystems. Hawai‘i Commission on Water Resources Management and ‘Ike Wai sponsored symposium. Kaloko Honokōhau National Park, Kona, Hawai‘i, 8-9 November, 2018 (invited participant).

National Science Foundation Coastlines and People Scoping Workshop. San Diego, CA, 26-28 September 2018 (invited participant).

Aloha ‘Āina Connections for Research. Researcher workshop on envisioning Kanaloa Kaho‘olawe as a foci for novel research. Kaho‘olawe, HI, 31 July – 3 August 2018 (invited participant).

US Forestry and Wildlife and US Geological Survey Structured Decision Making in Hawai‘i. University of Hawai‘i at Mānoa, Honolulu, HI, 11-15 June 2018 (invited participant).

Frontiers in Cultural Ecosystem Services. Natural Capital Symposium. Stanford, California, 21 March 2018 (session co-organizer).

Social Outcomes of Payment for Ecosystem Services. International Association for the Study of the Commons. Tempe, Arizona, 9 March 2018 (invited speaker and participant).

Climate Smart Investments in Watershed Services 2nd annual meeting for Belmont Forum funded project. Quito, Ecuador, 19-23 February 2018 (workshop co-organizer).

Carbon Neutral Landscapes working group meeting to discuss pathways to carbon neutrality in Hawai‘i, University of Hawai‘i at Mānoa, Honolulu, HI, 21-22 November 2017 (invited participant).

Ecosystems, Water, and Human Health: the multiple dimensions of natural infrastructure solutions. World Water Week. Stockholm, Sweden, 31 August 2017 (invited panelist).

Alternative Discourses in Payment for Ecosystem Services in the Global South. Duke University, Durham, North Carolina, 10-11 April 2017 (invited workshop participant).

Governance of Natural Capital. The Natural Capital Project, WWF, University of Cambridge Conservation Institute, Evian, France, 11-12 July 2016 (invited participant).

Social-ecological systems, resilience, and stakeholder engagement. Natural Capital Symposium. Stanford, CA, 22 March 2016 (panel co-organizer).

Interdisciplinary approaches to addressing environmental change symposium. San Diego State University Supporting Women in Geography. San Diego, CA, 25-26 February 2016 (invited

panelist and speaker).

Monitoreo hidrológico y socioeconómico en los fondos de agua. The Nature Conservancy and the Natural Capital Project. Camboriú, Brazil, 24-26 August 2014. (workshop co-organizer).

Taller, evaluación del impacto social en Huamantanga. The Natural Capital Project, Forest Trends, and AquaFondo. Lima, Perú, 15-19 May 2014. (workshop co-organizer).

Establishing Open Access Global Science Standards for Payment for Ecosystem Services. Earth Institute Center for Environmental Sustainability, Columbia University, New York, New York, 15-17 January 2013 (invited participant).

Taller impactos del cambio de uso del suelo en la producción de servicios ambientales en los páramos [Workshop on the impacts of land-use change on the production of ecosystem service in páramo grasslands]. Quito, Ecuador, 14 July, 2011 (workshop co-organizer).

15th Conference of the Parties (COP 15) to the UN Framework Convention on Climate Change. Delegate with the Tropical Forest Group. Copenhagen, Denmark, 7-18 December, 2009.

TEACHING EXPERIENCE

- 2017-2021 **University of Hawai‘i, Mānoa**
- Instructor for Water Resources Research Center undergraduate course, Transformative Research Experiences for Undergraduates (Fall 2021)
 - Instructor for Department of Natural Resources and Environmental Management (NREM) core graduate course, NREM 601, social-ecological systems (Spring 2021)
 - Guest lecturer in the Department of Natural Resources and Environmental Management, Department of Geography and Environment, Department of Botany, and Political Science.
- 2018 **The Nature Conservancy**
- Created on-line training for evaluation of social outcomes of water funds.
- 2012-2016 **The Natural Capital Project**
- **Instructor** for NGO, government, and academic trainings on natural capital approach and software (InVEST (Integrated Evaluation of Ecosystem Services and Tradeoff) RIOS (Resource Investment Optimization System) Theory and Practice (Stellenbosch, South Africa; Stanford, CA; Panama City; Mexico City).
- 2007-2012 **San Diego State University**
- **Full lecturer** for three semesters of undergraduate course, Environmental and Natural Resource Conservation (Spring 2011, Fall 2011; Fall 2012)
 - **Teaching assistant** (Fall 2007 and Fall 2009)

ADVISING

Postdoctoral Researchers

- Alex Moore (NSF Postdoctoral Fellow at the Center for Biodiversity, American Museum of Natural History, current postdoctoral co-advisor)
- Nate DeMaagd (‘Ike Wai Postdoctoral Scholar, current postdoctoral co-advisor).

PhD students

- Alohi Nakachi (Natural Resources and Environmental Management (NREM) PhD student, current committee member)

- Elaine Vizka (NREM PhD student, current committee member)
- Gina McGuire (Geography PhD student, current GA advisor)
- Veronica Gibson (Botany PhD student, current GA advisor)
- Pierre Mokondoko Delgadillo (Instituto de Ecología, Mexico, thesis jury member, 2019)
- Nate DeMaagd (Economics PhD student, GA co-advisor, 2018-2019)
- Sarah Medoff (Economics PhD student, GA advisor 2017-2018)

Masters students

- Matthew Kaho‘ ohanohano (Botany, current committee member)
- Rachael Cleveland (NREM, current committee member)
- Angelica Melone (NREM, committee co-chair and GA advisor (2018-2020)
- Alisha Summers (Urban and Regional Planning, GA co-advisor (2019-2021)
- Eric Wilburn (Stanford University, Natural Capital Project research advisor, 2016-2018)

Undergraduate students

- Rita Lifoifoī (undergraduate student, current thesis co-advisor)
- Maile Wong (undergraduate student, current research assistant advisor)
- Puanani de la Cruz (undergraduate student, current research assistant advisor)
- Uli‘i Miyajima (undergraduate student, internship co-advisor, 2018)

SELECTED SERVICE

University

- Co-Director, UHERO Environmental Policy and Planning Group, strategic planning and coordination of UHERO’s environmental research program
- Committee Member, WRRC and UHERO hiring and departmental committees
- Conference organizer, International Tropical Islands Water Conference: water for people and ecosystems (2021).
- Planning Committee and Instructor, early undergraduate course in transformational research experience (TRE-x) aimed at increasing retention of undergraduate students through engagement in applied and interdisciplinary ridge-to-reef research
- Coordinator, WRRC - ‘Ike Wai seminar series hosting local, national, and international speakers (2018-2019)
- Steering Committee Member, National Science Foundation (NSF) EPSCoR workshop grant, “Gatherings to Transcend Barriers to Success: For This Generation and Those to Come”
- Working Group Member, NSF Active Societal Participation in Research and Education collaborative research, “Groundwater sustainability for small farmers on O‘ahu”
- Research Team Representative, NSF EPSCoR site and reverse site visits

Community

- Committee Member, Hawai‘i Rangeland Ecosystem Services Committee, coordinated assessment of the evidence linking well-managed rangelands to a suite of ecosystem services
- Working Group Member, He‘eia Uli Conservation Action Planning
- Research Associate, Fundación Cordillera Tropical, Cuenca, Ecuador
- STEMulate Upward Bound high school student science presentations judge (2019)
- Guest speaker at Honolulu Sunrise Rotary Club (2019)
- Provide grant writing support for partner community-based organizations
- Frequent outreach, discussions, and working groups with policy, NGO, and community

- stakeholders on the multiple values of conservation and sustainable watershed management
- Frequently attend and organize community workdays and research outreach around agroforestry and biocultural restoration in collaboration with Kāko‘o ‘Ōiwi, He‘eia, O‘ahu

Professional

- Board of Directors, Society for Conservation Biology, Hawai‘i chapter
- Board of Directors, United States Society for Ecological Economics
- Contributing Author, United Nations Intergovernmental Panel on Biodiversity and Ecosystem Services values assessment (case study on payments for ecosystem services)
- Grant Review Panel Member, United States Geological Survey, Water Resources Research Center National Competitive Grants 104g program
- Journal Reviewer for Ecological Economics, World Development, Landscape Ecology, Ecosystem Services, Land-use Policy, Ecology and Society, Journal of Applied Ecology, Agriculture, Ecosystems, and Environment, Current Opinions in Environmental Sustainability, Society and Natural Resources, Ecology and Society, Forest Ecology and Management, Carbon Balance and Management, IUCN Parks, among others.