

Kāwika B. Winter, Ph.D.

Education

Doctorate degree – University of Hawai'i, Botany

Master's degree – University of Hawai'i, Botany

Bachelor's degree – University of Hawai'i, Botany

Professional and Leadership Experience

Reserve Manager, He'eia National Estuarine Research Reserve 2018 – present

Office for Coastal Management

National Atmospheric and Oceanic Association

- Inaugural Manager of the He'eia NERR
- Collaborative research into restoration using Indigenous resource management

Assistant Specialist 2018 – present

Hawai'i Institute of Marine Biology

University of Hawai'i at Mānoa

- Multi-disciplinary ecology within human-in-nature systems

Research Associate 2018 – present

National Tropical Botanical Garden

- Research focus: social-ecological systems

Collaborative Faculty 2018 – present

Biocultural Initiative of the Pacific

- Mentoring graduate students in biocultural research

Cooperating Graduate Faculty 2015 – present

Natural Resources and Environmental Management

University of Hawai'i at Mānoa

- Currently advising both doctoral and master's candidates

Director **2005 – 2018**

Limahuli Garden and Preserve
National Tropical Botanical Garden

- Doubled the operating budget to \$1.3 million
- Refined operations by creating essential management plans and strategies
- Advanced research initiatives and conservation programs

Senior Management Team **2005 – 2018**

National Tropical Botanical Garden (NTBG)

- Provided philosophical and programmatic perspectives to the President/CEO
- Problem-solved institutional challenges
- Collaborated on the development of three consecutive strategic plans

Makai Watch Coordinator **2009 – 2016**

Hui Maka'āinana o Makana

- Makai Watch is a collaborative, statewide program where citizens and NGOs become directly involved with the Department of Land and Natural Resources (DLNR), in the management of marine resources through promoting compliance to rules, education, and monitoring.
- Major achievements: This leadership position played a key role in the adoption of an administrative rules package for the Hā'ena Community-based Subsistence Fishing Area (CBSFA), and also collaborated on the creation of the Hā'ena CBSFA management plan.

Graduate Research Assistant **2002 – 2005**

Harold L. Lyon Arboretum, University of Hawai'i at Mānoa

- Research project: Common Garden experiment with *Piper methysticum*
- Caretaker of Beatrice Krauss Ethnobotanical Garden

Associated Students of the University of Hawai'i **1997 – 1999**

University of Hawai'i at Mānoa

- Two-term Senator, College of Arts and Sciences

Boards, Councils, and Committees

Endangered Species Recovery Committee **2018 – present**

State of Hawai'i

- Service as a consultant to the Board of Land and Natural Resources and the Department on matters relating to endangered, threatened, proposed, and candidate species
- Appointed by Governor David Ige, confirmed by the State Senate

Steering Committee

2014 – present

Hawai'i Conservation Alliance (HCA)

- HCA is a collaboration of conservation leaders representing government, cultural, educational, and non-profit organizations from across the state. The Steering Committee provides unified leadership and advocacy for Hawai'i's most critical conservation issues.
- Supported the World Conservation Congress 2016
- Subcommittee assignments: Community Engagement, Effective Conservation

Cesspool Conversion Working Group

2018 – present

Hawai'i State Department of Health

- Appointed representative for Hawai'i Institute of Marine Biology
- The purpose of this work group is to develop a long-range, comprehensive plan for cesspool conversion statewide of all cesspools by 2050

Board of Directors

National Estuarine Research Reserve Association

2018 – present

- A national non-profit organization which works to support the National Estuarine Research Reserve System

Advisory Council Representative – Kaua'i

2015 – 2019

E Alu Pū Network

- The network is comprised of more than 30 communities from around Hawai'i. The network's overall vision is to nurture community *kuleana* — both the responsibility and the privilege — for the *'āina* where they live in order to ensure the vitality of resources for use by present and future generations.
- The Advisory Council provides navigational support for executive leadership

Kīlauea Point Natural History Association

2014 – 2016

- A local non-profit organization which works closely with the U.S. Fish and Wildlife Service team to support conservation, education, and preservation efforts for the precious wildlife of Kaua'i.

Hō'ola Lāhui Hawai'i

2008 – 2010

- A native Hawaiian health care system with a specific focus on serving the needs of Native Hawaiians and their families

Charter Member

2015 – 2016

Joint Fact Finding Group

- Convened at the request of the Hawai'i State Department of Agriculture and Kaua'i Mayor Carvalho to conduct an analytic deliberation process that was designed to gather and interpret facts pertinent to concerns surrounding pesticide use on Kaua'i.

Community Advisory Committees

2009 – 2018

Division of State Parks, Department of Land and Natural Resources

- Hā'ena State Park Master Plan (2010 – 2018)
- Kalalau Trail Rehabilitation (2009 – 2013)

Selected Individual and Organizational Awards

MVP Award

2017

Hawai'i Invasive Species Council

- Awarded to Kāwika Winter for his efforts to protect priority watershed areas and control the spread of invasive species on the island of Kaua'i

EcoLeaders Top 50

2016

National Wildlife Federation

- In celebration of the career accomplishments of young professionals making their names in the sustainability movement

Conservation Innovation Award

2015

Hawai'i Conservation Alliance, group award

- Awarded to the E Alu Pū Network for new techniques used in conservation activities in the islands

Cooperator of the Year Award

2014

Soil and Water Conservation District (East Kaua'i)

- Awarded to Kāwika Winter for his commitment to creating and managing wildlife habitat

Ho'okanaka Leadership Award

2013

Leadership Kaua'i

- Awarded to Kāwika Winter for exemplifying leadership principles

Koa Award

2007

Hawai'i Tourism Authority

- Awarded to Limahuli Garden to recognize an exemplary commitment to perpetuating and preserving Hawai'i's host culture

Selected Grants and Contracts

National Oceanic and Atmospheric Organization

Grants received for operations in the He`eia National Estuarine Research Reserve

- He`eia NERR Operations Award (\$770,800) 2019
- Bay Watershed Education and Training (\$117,401) 2019

Hawai'i Sea Grant

Research grants

- Restoration of coastal agroforestry 2020

Kaua'i Island Utility Commission

A contract to implement a Habitat Conservation Program to mitigate against the "take" of two federally-listed endangered ground-nesting seabirds

- Endangered Seabird Mitigation (\$420,785) 2018
- Endangered Seabird Mitigation (\$417,291) 2017
- Endangered Seabird Mitigation (\$344,231) 2016
- Endangered Seabird Mitigation (\$308,000) 2015
- Endangered Seabird Mitigation (\$381,083) 2013 – 2014

Silicon Valley Community Foundation

A grant from the Chan-Zuckerberg Initiative 2018

- Hā'ena Recovery Project (\$250,000)

U.S. Fish and Wildlife Service Partners Program

A grant to construct an ungulate fence and conduct applied conservation of T&E species

- Limahuli Preserve Rare Plant Restoration Project (\$146,000) 2013-2018

Hawai'i Fish Habitat Partnership Program

A grant to restore native fish and invertebrate habitat in Limahuli Stream

- Hā'ena 'O'opu Restoration Project (\$125,000) 2018 – 2019

Hawai'i Community Foundation

Grants to facilitate the fulfillment of NTBG's mission at Limahuli Garden and Preserve

- Kō'ani'ani Foundation (\$60,000) 2015
- Rapozo Foundation (\$2,500) 2013

Office of Hawaiian Affairs

Grants to assist in the creation of Limahuli as a kīpuka for native Hawaiian practices

- Traditional Hale (\$90,000) 2012
- Nā Pua o Kaua'i (\$62,500) 2010

Hawai'i Tourism Authority

Grants to refine interpretation in the botanical garden

- Riparian Restoration and Interpretation (\$25,000) 2008
- Interpretive Signage (\$25,000) 2007

Waimakua Foundation (last 4 years of NTBG tenure only)

Grants from a family foundation in support of Limahuli Garden

- Infrastructure Improvements (\$50,000) 2018
- Garden Aesthetic Improvements (\$32,000) 2017
- Trail Safety Improvements (\$20,000) 2016
- All-Terrain Vehicle and Garage Repairs (\$23,500) 2015

Lannan Foundation

Grant in support of the Hā'ena Ahupua'a Project

- Indigenous Mapping Project (\$300,000) 2005 – 2007

Professional Societies and Selected Organizations**Biocultural Initiative of the Pacific****2018 – present**

- A knowledge center and network within the University of Hawai'i system that links scholars, instructors and students who share the common goal of thinking holistically to enhance understanding of biocultural systems.

Hawai'i Conservation Alliance**2005 – present**

- Leadership member: Steering Committee (2014 – present)
 - Subcommittee assignment: Community Engagement

E Alu Pū Network**2005 – present**

- Leadership member: Council Representative (2015 – present)

American Public Gardens Association 2005 – 2018

- Director of Member Garden

Hui Maka‘ānana o Makana 2005 – 2018

- General member

Kaua‘i Conservation Alliance 2008 – 2018

- General member

The Society for Economic Botany 2005 – 2009

- General member

Professional Training and Development

Socio-economic Monitoring Guidelines for Coastal Managers 2015

National Oceanic and Atmospheric Administration

- To provide opportunities for sharing information, expertise, practices, and experiences in order to develop and strengthen management capacity amongst site-based marine protected area managers throughout the Pacific Islands.

Management Development Certificate Series 2008

Hawai‘i Employers Council

- A series of workshops on supervisory development and on human resource administration.

Agricultural Leadership Program 2006 – 2007

Agricultural Leadership Foundation of Hawai‘i

- A multi-disciplinary program which provides strong leadership content to develop innovative problem-solvers and leaders for Hawai‘i.

Fellow 2004 – 2005

National Wildlife Federation

- Research project: Restoring traditional flooded-field agriculture in riparian areas to expand habitat for native water fowl on Kaua‘i
- Congressional engagement in Washington D.C.

Hawaiian Language and Culture

<i>Hālau Hula ‘o Kukunaokalā</i> <i>Kumu Hula</i> , John Ka‘imikaua	1997 – 2005
<i>Kūpuna Mānaleo (Native-Speaking Elder) Training</i> Eddie Kamakani Kaanaana (Miloli‘i) 1925 – 2006 Lilia Wahinemaika‘i Hale (Molokai) 1913 – 2003 Elia “Kawika” Kapahulehua (Ni‘ihau) 1928 – 2007	1997 – 2005
<i>Lā‘au Lapa‘au (Hawaiian Herbal Medicine) Training</i> <i>Kumu</i> , Levon Ohai (Kaua‘i) 1942 – 2012	2002 – 2005
<i>Olanāiwi – Hawaiian Language Field School</i>	1997, 2001, 2002

Selected Publications: Hawaiian Language

Winter K. 2005. *He Makahiki Hou, E Kāpae I Ka Ino*. “Kauakūalahale” column of the *Honolulu Star Bulletin* (in Hawaiian), January 1, 2005.

Winter K. 2003. *No Ka ‘Awa*. “Kauakūalahale” column of the *Honolulu Star Bulletin* (in Hawaiian), September 28, 2003.

Winter K. 2002. *A Hua A Pane!* “Kauakūalahale” column of the *Honolulu Star Bulletin* (in Hawaiian), December 15, 2002.

Winter K. 2002. *He Kanikau no Ku‘u Koko‘olua*. “Kauakūalahale” column of the *Honolulu Star Bulletin* (in Hawaiian), December 1, 2002.

RESEARCH

Current Research

- Indigenous Resource Management (IRM)
- Social-ecological system resilience
- Biocultural richness and abundance on a landscape scale
- Estuary ecology

Book Chapters

Winter, K.B. and P. Vitousek. 2020. Polynesian Islands as model human-environment systems. *Land and Culture in Polynesia*. Eds. T.M. Tau, P. Vitousek, and K. Beamer. [drafting phase]

Chang, K., C. Young, B. Asuncion, W. Ito, and **K.B. Winter**. 2019. Kua'āina Ulu 'Auamo: Grassroots Growing Through Shared Responsibility. *Indigenous Food Sovereignty: Restoring Cultural Knowledge, Protecting Environments, and Regaining Health*. University of Oklahoma Press, Norman.

Guest Editing

Pacific Conservation Biology. 2019 – 2020. Special Issue on Transforming Conservation through Indigenous Perspectives. Guest Editors: Melissa Price, Kawika Winter, and Anne-Marie Jackson

Sustainability. 2018 – 2019. Special Issue on Biocultural Restoration in Hawai'i. Guest Editors: **K.B. Winter**, K. Chang, and N.K. Lincoln.
[https://www.mdpi.com/journal/sustainability/special issues/Biocultural Restoration](https://www.mdpi.com/journal/sustainability/special%20issues/Biocultural%20Restoration)

Selected Publications: Peer Reviewed

Harmon, K.C., **K.B. Winter**, N. Kurashima, C.H. Fletcher, H.H. Kane, and M.R. Price. 2020. Indigenous Practices Expand Waterbird Habitat under Rising Seas. *Nature Climate Change* (submitted, February 23, 2020).

Frank, K.L., **K.B. Winter**, B. McNaughton, R. Keliikipikaneokaloaka. 2020. Unlocking another piece of the puzzle: Microbial insights into biocultural restoration in Hawai'i. Submitted to *Pacific Science* (submitted September 9, 2019).

Winter, K.B., N.K. Lincoln, F. Berkes, N. Kurashima, K. Frank, P. Pascua, W. McClatchey, T. Ticktin, C. Smith, E.C. Franklin, K. Oleson, M. Price, M.A. McManus, M.J. Donahue, K. Rodgers, C.E. Nelson, B. Neilson, B. Thomas, B.W. Bowen, E. Madin, F. Reppun, Y. Rii, M.A.J. Rivera, K.A. Falinski, L.L. Bremer, J. Deenik, S.M. Gon III, J.A. Leong, I.S.S. Knapp, R. Okano, A. Olegario, and R.J. Toonen. 2020. Eco-mimicry in Indigenous resource management: Optimizing ecosystem services to obtain resource abundance in Hawai'i. Submitted to *Ecology and Society* (Accepted, January 31, 2020).

Winter, K.B., R.A. Alegado, B.W. Bowen, L.L. Bremer, M. Coffman, M. Cypher, J. Deenik, M. Donahue, K.A. Falinski, K. Frank, E.C. Franklin, A. Hewitt, K. Hintzen, R. Kaluhiwa, A.H. Kawelo, K. Kekuewa, K. Kotubetey, J.K. Kukea-Shultz, N. Kurashima, T. Lee, J.A. Leong, N.K. Lincoln, E. Madin, M.A. McManus, B. Neilson, C.E. Nelson, R. Okano, A. Olegario, K. Oleson, P. Pascua, M. Price, F. Reppun, Y. Rii, M.A. Rivera, K. Rodgers, C. Sabine, C. Smith, B. Thomas, T. Ticktin, R.J. Toonen. 2020. Resolving pathways towards a future of sustainable resource abundance: A research framework for the He'eia National Estuarine Research Reserve. Submitting to *Ecology and Society* (Accepted, January 31, 2020).

Winter, K.B., T. Ticktin, and S. Quazi. 2020. Biocultural restoration in Hawai'i also achieves core conservation goals. *Ecology and Society* (in press).

Delevaux, J.M., K.A. Stamoulis, R. Whittier, S.D. Jupiter, L.L. Bremer, A. Friedlander, N. Kurashima, J. Giddens, **K.B. Winter**, M. Blaich-Vaughan, and K.M. Burnett. 2019. Place-based management can reduce human impacts on coral reefs in a changing climate. *Ecological Applications*, 29(4), p.e01891.

Chang, K., **K.B. Winter**, and N.K. Lincoln. 2019. Hawai'i in focus: navigating pathways in global biocultural leadership. *Sustainability*, special issue on Biocultural Restoration in Hawai'i (eds. K.B. Winter, K. Chang, N.K. Lincoln). *Sustainability* 11(1):283

Winter, K.B., K. Beamer, M. Vaughan, A.M. Friedlander, M.H. Kido, M.K.H. Akutagawa, N. Kurashima, M.P. Lucas, and B. Nyberg. 2018. The Moku System: Managing biocultural resources for abundance within social-ecological regions in Hawai'i. *Sustainability*, special issue on Biocultural Restoration in Hawai'i (eds. K.B. Winter, K. Chang, N.K. Lincoln) 10(10), 3554; doi:10.3390/su10103554.

Winter, K.B., N.K. Lincoln, F. Berkes 2018. The Social-Ecological Keystone Concept: A metaphor for understanding the structure and function of a biocultural system. *Sustainability*, special issue on Biocultural Restoration in Hawai'i (eds. K.B. Winter, K. Chang, N.K. Lincoln) 10(9):3294; doi:10.3390/su10093294

Delevaux, J.M.S., **K.B. Winter**, S. Jupiter, M.B. Vaughan, K. Stamoulis, L.L. Bremer, K. Burnett, P. Garrod, J.L. Troller, and T. Ticktin. 2018. Linking land and sea through collaborative research to inform contemporary applications of traditional resource management in Hawai'i. *Sustainability*, special issue on Biocultural Restoration in Hawai'i (eds. K.B. Winter, K. Chang, N.K. Lincoln) 10(9):3149.

Burnett, K., T. Ticktin, Leah Bremer, S. Quazi, C. Geslani, C. Wada, N. Kurashima, L. Mandle, P. Pascua, T. Depraetere, D. Wolkis, M. Edmonds, T. Giambelluca, K. Falinski, **K.B. Winter***. 2018. Restoring to the Future: Environmental, Cultural, and Management Tradeoffs in Historical versus Hybrid Restoration of a Highly Modified Ecosystem. *Conservation Letters*. 2018;e12606. <https://doi.org/10.1111/conl.12606> [*Anchor author]

Delevaux, J.M.S., R. Whittier, K.A. Stamoulis, L.L. Bremer, A.M. Friedlander, S. Jupiter, 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. Falinski, K.L.L. Oleson, T. Wiegner, and T. Ticktin. 2018. A linked land-sea modeling framework to inform ridge-to-reef management in high oceanic islands. *Plos One* 13(3): e0193230

Winter, K.B., and M. Lucas. 2017. Spatial modeling of social-ecological management zones of the *ali'i* era on the island of Kaua'i with implications for large-scale biocultural conservation and forest restoration efforts in Hawai'i. *Pacific Science* 71:4(457-477), Special Issue: Scaling Up Restoration Efforts in the Pacific Regions. Eds. R. Toonen and M. Price.

Sterling, E.J., C. Filardi, J. Newell, S. Albert, D. Alvira, N. Bergamini, E. Betley, M. Blair, D. Boseto, K. Burrows, N. Bynum, S. Caillon, J.E. Caselle, J. Claudet, G. Cullman, R. Dacks, P.B. Eyzaguirre, N. Gazit, S. Gray, J. Herrera, P. Kenilorea, K. Kinney, N. Kurashima, S. Macey, S. Mauli, J. McCarter, H. McMillen, P. Pascua, P. Pikacha, A.L. Porzecanski, P. de Robert, M. Salpeteur, A. Sigouin, M. Sirikolo, M.H. Stege, K. Stege, T. Ticktin, A. Toomey, R. Vave, A. Wali, P. West, **K.B. Winter**, and S. Jupiter. 2017. Biocultural approaches to sustainability indicators: bridging local and global scales to foster human adaptive capacity and ecological resilience. *Nature, Ecology, and Evolution*. (October 2017)

Pascua, P., H. McMillen, T. Ticktin, M. Vaughan, and **K.B. Winter**. 2017. Beyond Services: A Process and Framework for Incorporating Cultural, Genealogical, and Place-Based Relationships into Ecosystem Service Assessments. *Ecosystem Services* 26(2017):465-475.

Winter K.B. 2012. Kalo [Hawaiian Taro: *Colocasia esculenta* (L.) Schott] Varieties: An assessment of nomenclatural synonymy and biodiversity. *Ethnobotany Research and Applications* 10, 403-422.

Winter K.B. and W. McClatchey W. 2009. The Quantum Co-evolution Unit: An Example of 'Awa (*Piper methysticum* G. Foster) in Hawai'i. *Economic Botany* 63:4, 353-362.

Winter, K.B. and McClatchey W. 2008. Quantifying Evolution of Cultural Interactions with Plants: Implications for Managing Diversity for Resilience in Social-Ecological Systems. *Functional Ecosystems and Communities* 2:1-10.

Prance GT, Aiona K, Balick MJ, Bennett BC, Bridges K, Burney DA, Pigott Burney L, Bye RA, Dunn L, Emshwiller E, Eubanks M, Flaster T, Kauka S, Lentz DL, Linares E, Lorence DH, McClatchey W, McMillen H, Merlin M, Miller JS, Moerman DE, Prance AE, Ragone D, Rashford JH, Raven P, Raven PH, Reedy D, Stepp JR, Tavana NG, Thaman R, Thomas MB, Ticktin T, Urban T, Van Dyke P, Wagner W, Whistler WA, Wichman CR Jr., Wichman H, **Winter K**, Wiseman J, Wysong M, Yamamoto B. 2007. Ethnobotany, the Science of survival: A declaration from Kaua'i. *Economic Botany*, 61:1-2.

McClatchey W. and **Winter K.** 2005. Publication of Ethnobotany Research in Local Languages. Editorial: *Ethnobotany Research and Applications* 3: 272-282.

Presented Papers: International/Regional Conferences

Winter, K., H. Kawelo, K. Kotubetey, Y. Rii, and R. Alegado. 2020. The ecological context for Indigenous aquaculture systems in Hawai'i. World Aquaculture Conference, Honolulu Convention Center, February 10, 2020.

Mejia, M., **K. Winter**, L. Noori, C. Giardina, E. Anders, K. Chang. 2019. Watershed Snapshots: A biocultural approach to understanding and promoting healthy communities through place-based conservation and management. Hawai'i Conservation Conference, Honolulu Convention Center, July 11, 2019.

Winter, K. 2019. The restoration of an urban ahupua`a in Ko`olaupoko, O`ahu. Hawai'i Conservation Conference, Honolulu Convention Center, July 10, 2019.

Winter, K. and N.K. Lincoln. 2019. Eco-mimicry: Maximizing ecosystem services and resource abundance in Hawai'i. Hawai'i Conservation Conference, Honolulu Convention Center, July 10, 2019.

Burnett K., T. Ticktin, **K. Winter**, L. Bremer, S. Quazi, C. Geslani, C. Wada, N. Kurashima, L. Mandle, P. Pascua, T. Depraetere, D. Wolkis, M. Edmonds, T. Giambelluca, K. Falinski. 2019. Restoring to the Future: Ecological, Cultural, and Economic Trade-Offs of Hybrid Restoration in Limahuli, Kaua'i. Kona Dryland Forest Symposium, Hilo, March 27, 2019.

Nyberg, B. and **K. Winter**. 2018. Skytruthing predictive models of rare plant populations. Hawai'i Conservation Conference, Honolulu Convention Center, July 25, 2018.

- Winter, K. C.** Wichman, M. DeMotta, and M. Opgenorth. Moana's Garden: A legacy of voyaging and resilience. American Public Gardens Association, Annual Conference. Anaheim, California. June 6, 2018.
- Winter, K.** and T. Ticktin. 2017. Maximizing the connections between a community and a hybrid forest: Building off an assessment of contemporary relationships with forest plants. Hawai'i Conservation Conference, Honolulu Convention Center, July 18, 2017.
- Winter, K.** and B. Nyberg. Cohort senescence and shifting distribution patterns of Kukui (*Aleurites moluccana*): Mapping the transition between agroforestry and naturalizations. Hawai'i Conservation Conference, Honolulu Convention Center, July 18, 2017.
- Winter, K.,** K. Enos, and C. Wichman. 2016. Conservation of traditional crop varieties in evolving food systems on Pacific Islands: a nexus of cultural resilience, and ecosystem, community, and economic health. Knowledge Café, IUCN World Conservation Congress. Honolulu, HI. September 4, 2016.
- Gon, S., T. Menard, **K. Winter**, D. Sischo, K. Kotubetey, D. Eisenberg, J. Carpio, J. Gaudioso-Levita, and H. Springer. 2016. Ignite Conservation: Bright Spots Across the Hawaiian Islands. Opening Session of the Hawai'i-Pacific Pavilion, IUCN World Conservation Congress. Honolulu, HI. September 2, 2016.
- Winter, K.** 2016. The Shifting Narrative: Understanding and Interpreting Climate Change in Hawai'i. American Public Gardens Association, Annual Conference. Miami, Florida. June 10, 2016.
- Winter, K.,** and M. Clark. 2015. Biocultural Resource Conservation: Installation of a hunter-supported ungulate fence for endangered species protection in a traditionally-accessed forest on Kaua'i. Hawai'i Conservation Conference. University of Hawai'i at Hilo, August 6, 2015.
- Winter, K.** 2015. Reassembling a Native Forest in the 21st Century. Kona Dryland Forest Symposium. King Kamehameha Hotel, February 27, 2015.
- Winter, K.,** and M. Lucas. 2014. A Model of Biocultural Zones on Kaua'i. Hawai'i Conservation Conference. Hawai'i Convention Center, July 16, 2014.
- Winter, K.** 2012. The past, present, and future of the native plant movement in Hawai'i. Plenary presentation at the annual meeting of the Landscape Industry Council of Hawai'i in Honolulu, HI. October 25, 2012.
- Winter, K.** 2011. Socio-ecological Restoration in Island Ecosystems: Creating a Scalable Model of Sustainability. Annual meeting of the Ecological Society of America. Austin Convention Center, Austin, TX. August 9, 2011.

Winter, K. 2011. Culturally-based Forest Restoration in Hawai'i. Hawai'i Conservation Conference: Island Ecosystems – Year of the Forest. Hawai'i Convention Center, Honolulu. August 2, 2011.

Winter, K. 2010. Limahuli Garden and Preserve: Using Science and Tradition to Restore a Valley. Hawai'i Conservation Conference: Pacific Ecosystem Management and Restoration. Hawai'i Convention Center, Honolulu. August 3, 2010.

Winter, K. 2009. Seeing the *Waonāhele* from Amongst the Trees: A Culturally-Based, Whole-System View of Plant Biology. Annual meeting of the American Society of Plant Biologists. Hawai'i Convention Center, Honolulu, HI. July 20, 2009.

Winter, K. 2009. Culturally-Based Solutions for a Multiplicity of Issues in a Changing Climate: Ahupua'a Lessons for Ecological, Agricultural, Fishery and Community Restoration. Hawai'i Conservation Conference: Hawai'i in a Changing Climate. Hawai'i Convention Center, Honolulu. July 28, 2009.

Winter K., McClatchey W., Bridges K. 2009. The Role of Linguistics in Determining Social-Ecological Keystones. Supporting Small Languages Together: The First International Conference on Language Documentation and Conservation. University of Hawai'i at Mānoa, Hawai'i. March 14, 2009.

Winter K. and McClatchey W. 2008. Ethnobotany as the Science of Survival: Lessons from Paradigms of Limited Resources. The Society for Economic Botany annual meeting, Duke University, North Carolina. June 3, 2008.

Winter K. 2008. Culturally-Based Ecological Restoration. 2nd Kaua'i Conservation Conference: Community-Based Conservation. Kaua'i Community College, April 11, 2008.

Winter K. 2007. Ahupua'a Restoration: Rebuilding Sustainable Communities in Hawai'i. Hō'ea Ea: Hands Turned the Soil Conference 2007. Hilo, Hawai'i. June 15, 2007.

Winter K. and McClatchey W. 2007. Tourism and Twisting of Ethnobotanical Concepts in Polynesia. The Society for Economic Botany annual meeting, Chicago, Illinois. June 6, 2007.

Winter K. 2007. Ahupua'a Restoration in Hā'ena, Kaua'i. IGERT Marine Conservation and Health Conference. University of Hawai'i at Mānoa. March 8, 2007.

Winter K. 2007. Limahuli Garden and Preserve: A Place of Refuge for the Living Hawaiian Culture. Ethnobotany Summit, National Tropical Botanical Garden, Kaua'i, Hawai'i. January 29, 2007.

Winter K. 2006. The Hā'ena Ahupua'a Project: Using Ancient Concepts to Solve Contemporary Problems in Hawai'i. Western Chapter International Erosion Control Association's Ahupua'a Conference. Waikiki, Hawai'i. December 14, 2006.

Winter K. 2006. Ethnobotanical Gardens: Beneficial or Detrimental to Indigenous Communities? The Society for Economic Botany annual meeting, Chiang Mai, Thailand. June 7, 2006.

Winter K. 2005. Hawaiian 'Awa (*Piper methysticum*): A Look into Re-evolving Traditions and Quantum Ethnobotany Theory. The Society for Economic Botany annual meeting, Fort Worth, Texas. June 5, 2005.

Austin S, **Winter K**, and Chinn P. 2005. Place-based Education: A Hawaiian Perspective. The Society for Economic Botany annual meeting, Fort Worth, Texas. June 6, 2005.

Winter K. 2004. Hawaiian *Limu*: Developing Culturally Relevant Science Curriculum. The Role of Indigenous Knowledge in Schools: Science and Mathematics in Pacific Island and Pacific Rim Nations Conference. College of Education, University of Hawai'i at Mānoa. October 14, 2004.

PUBLIC INTERFACE

Selected Panels and Invited Guest Lectures

Winter, K. 2020. Exploring models for implementing *ahupua'a* management in the 21st century. Guest lecture in the Institute for Sustainable Research's Sustainable Cities Seminar Series. University of Hawai'i at Mānoa. February 25, 2020.

Winter, K. 2019. *Mauka-to-makai* management for marine conservation. Guest lecture in MARS 4060, Marine Ecology. Hawai'i Pacific University, Hawai'iloa Campus, September 5, 2019.

Winter, K. 2019. Biocultural resource management in Hawai'i. Guest lecture in NREM 450, Wildlife Ecology and Management. University of Hawai'i at Mānoa. August 26, 2019.

Winter, K. 2019. Building from the `āina up: A tale of two ahupua`a. From the panel Local-to-Global: Preparing for the World Conservation Conference 2020. July 10, 2019. Hawai'i Convention Center, Honolulu.

Winter, K. 2019. Perspectives in Hawaiian Science: Biocultural restoration of ahupua`a. Bishop Museum's Hawaiian Science Lecture series. B.K.P. Bishop Museum, Honolulu. March 21, 2019.

Winter, K. 2018-19. Restoring to the future: Reviving ahupua`a in the 21st century.

- Natural Resources and Environmental Management, Seminal Series. University of Hawai'i at Mānoa. February 27, 2019.

- Pacific Biosciences Research Center, Seminar Series, University of Hawai'i at Mānoa. February 6, 2019.
- Water Resources Research Center, 'Ike Wai Fall Seminar Series. University of Hawai'i at Mānoa. October 23, 2018.

Toonen R., and Winter, K. 2018. He'eia NERR: The science behind ahupua'a restoration in the 21st Century. Honolulu Aquarium Seminar Series. Honolulu Aquarium. October 17, 2018.

Winter, K. 2018. Indigenous agriculture systems in Hawai'i. Guest lecture, Indigenous Cropping Systems: A special seminar series. University of Hawai'i at Mānoa. October 4, 2018.

Winter, K. 2017. Limahuli: A Model for Biocultural Conservation on a System Level. Guest lecture, Botany 350: Resource Management and Conservation Biology in Hawai'i, University of Hawai'i at Mānoa. October 26, 2017.

Winter, K. 2017. The System Behind the System: Kalo Diversity in the Context of Ahupua'a Management. Guest lecture, Indigenous Crops Seminar, University of Hawai'i at Mānoa. October 25, 2017.

Winter, K. 2016. *Ho'okulāiwi*: The process of indigenization. Convocation Keynote, Kaua'i Community College. Puhī, HI. August 15, 2016.

Anders, A., B. Asuncion, K. Mossman, K. Wallace, **K. Winter**, C. Young, and E. Zanre. 2015. Huliāmahi: Uniting Communities to Seek Nearshore Marine Abundance through Community-based Subsistence Fishing Areas and Fishpond Revitalization. Hawai'i Conservation Conference. University of Hawai'i at Hilo, August 5, 2015.

Winter, K. 2015. Another look at *Ahupua'a*: Past, present, and future. Balance of Nature Lecture Series. Kaua'i Community College. March 5, 2015.

Winter, K. 2015. Abundance in Hawaiian Forests: Traditions of the past as solutions for the present. Hawaiian Historical Society. February 19, 2015.

Winter, K. 2014. Applying Traditional Resource Management Philosophies to Contemporary Conservation Efforts on Kaua'i. Faculty Seminar, Department of Natural Resource Management, University of Hawai'i at Mānoa.

Winter, K., W. McClatchey, and A. Touwaide. Biocultural Conservation: Interpreting the Richness of the Human Experience. At the international symposium, "Agents of Change: Botanical Gardens in the 21st Century." United States Museum of Natural History, Washington D.C. October 3, 2014.

Orr D, Raymond L, Aiona K, **Winter K**, Hoffman N, Van Dyke P. 2011. "Botanical Gardens: A Panel Discussion," panel discussion. 7th Annual Grow Hawaiian Festival. Any Greenwell Ethnobotanical Garden, Kealahou. February 26, 2011.

Sproat-Beck S., **Winter K**, Kagawa A., Quitevis K., Enos K. 2010. "Conservation, Land and Culture: Creating Conservation and Cultural Alliances," panel discussion. Hawai'i Conservation Conference: Pacific Ecosystem Management and Restoration. Hawai'i Convention Center, Honolulu. August 4, 2010.

Winter K. Introductions to the Hawaiian World View: Culture, Language and Environment. St. Regis Princeville staff training session. July 30, 2010.

Au L, Ihara Jr. L, Love N, Shim P., Sproat K, **Winter K**. 2009. "The Ethics of Change: A Moral Compass in a Rapidly Changing Environment," panel discussion. 5th Annual Envision Hawai'i Conference: Creating Connections for Change. State Capitol, Honolulu, Hawai'i. November 14, 2009.

Winter K. 2009. Honoring Halele'a: Culture, History and Place. St. Regis Princeville grand opening employee training. Princeville, Hawai'i. September 25, 2009.

Winter K. 2009. Traditional Resource Management of Ancient Hawai'i and its Application in a Modern Context. Guest lecture in the Department of Botany, University of Hawai'i at Mānoa (Botany 444 Ecological Ethnobotany, Dr. Tamara Ticktin). April 3, 2009.

Winter K and DeMotta M. 2008. Native Plants: Cornerstones for Cultural and Ecological Restoration. Princeville Library Speakers Program. September 10, 2008.

Winter K and Aiona M. 2008. *Ahupua'a: People, Land and Water*. National Tropical Botanical Garden's monthly lecture series. August 11, 2008.

Winter K. 2008. Coastal Ecosystems in Hawai'i. Kīlauea Point National Wildlife Refuge's annual seminar series. March 13, 2008.

Winter K. 2008. *'Iole: The Rat in Hawaiian Culture*. Kaua'i Museum's "Year of the Rat Chinese New Year Celebration." February 2, 2008.

Winter K. 2007. Teaching Through Culture. Hawai'i Tourism Authority's annual Industry Holiday Breakfast. December 7, 2007.

McClatchey W, **Winter K**, and Bridges K. 2007. Ethnobotanical Basis of Plant Classification Systems in Polynesia. Jean Andrews Visiting Faculty Fellow of Tropical and Economic Botany, invited speaker, University of Texas, Austin. March 20, 2007

Winter K. 2007. Impacts of Invasive Species on Hawaiian Culture. Hanalei, Hawai'i. March 15, 2007. Sponsored by the Kaua'i Invasive Species Council.

Winter K. 2005. Hawaiian Taro (*Colocasia esculenta*) Varieties and How to Distinguish Them. Kaua'i Taro Festival, College of Tropical Agriculture and Human Resources (CTAHR) Agriculture Extension Station. Wailua, Kaua'i, Hawai'i.

Winter K. 2005. 'Awa Traditions in an Era of 'Awa Bars. Guest lecture for the Hawai'i and Pacific Islands 'Awa Festival. University of Hawai'i at Mānoa. October 9, 2005.

Winter K. 2005. Traditional Ecological Knowledge and Traditional Resource Management in Ancient Hawai'i with Specific Examples from Pre-*ali'i* Moloka'i. Guest lecture in the Department of Botany, University of Hawai'i at Mānoa (Botany 444 Ecological Ethnobotany, Dr. Tamara Ticktin), April 17, 2003. The same talk was also given in the Spring 2003 and Fall 2003.

Winter K. 2005. Ethnographic Research Methodologies in Hawai'i. Guest lecture in the Department of Urban and Regional Planning, University of Hawai'i at Mānoa (Plan 751 Planning Practicum, Dr. Luciano Minerbi) February 14, 2005.

Winter K. 2003. The Binomial Nomenclature and Classification Systems of Pre-contact Hawai'i. Seminar in the Department of Botany, University of Hawai'i at Mānoa, April 2003.

Winter K. 2003. 'Awa: A Gift to the Descendants. Hilton Hawaiian Village, Hawaiian Cultural Exhibit from Bishop Museum, June 27, 2003.

Winter K. 2002. Cultural Restoration for Biodiversity Conservation in Hawai'i. Seminar in the Department of Botany, University of Hawai'i at Mānoa, December 2, 2002.

Selected Publications: Non-Peer Reviewed

Gon, S. and **Winter, K.** 2019. A Hawaiian Renaissance That Could Save the World. *American Scientist*, Vol. 107:232-239.

Winter, K. 2018. Communities are moving the needle of restoration in Hawai'i. *Green: Hawai'i's Sustainable Living Magazine*. Fall 2018. Vol. 10(3).

Winter, K. 2017. Ahupua'a System Created Abundance [Opinion Editorial]. *Honolulu Star-Advertiser*, July 12, 2017.

Winter K. 2017. Building a Model of Systems-based, Biocultural Conservation. *The Bulletin of the National Tropical Botanical Garden*, Spring 2017.

Winter K. 2014. Restoring to the Future: Reassembling a Native Forest for the 21st Century. *The Bulletin of the National Tropical Botanical Garden*, 50th Anniversary Edition, 2014.

Winter K. 2012. Limahuli Garden and Preserve: Modeling Sustainability Solutions. *Edible Hawaiian Islands*. No. 19, Winter 2012.

Brower A. and **Winter K.** 2009. Ahupua'a Management Offers Lessons. *The Garden Island*, Līhu'e, Hawai'i. February 22, 2009.

Winter K. 2008. Walking a Hawaiian Forest. *The Bulletin of the National Tropical Botanical Garden* 25(3): 22-25.

Winter K. 2006. In the Days When Everything was Sacred. In S. Little and P. Ruthenberg (Eds), *Life in the Pacific of the 1700s* 3:46-47. Honolulu Academy of Arts, Honolulu.

Selected Popular Media and Interviews

A. Lampard and F. Family. 2018. The Steward of a Valley. *Great Big Story*. Turner Broadcasting Network. <https://www.greatbigstory.com/stories/hawaii-limahuli-valley>

Dussaully, J. 2017. Is culture missing from conservation? Scientists take cues from indigenous peoples. *The Christian Science Monitor*. November 24, 2017.

Ozawa R. And B. Lum. 2017. *Bytemarks Café*. Hawai'i Public Radio. July 19, 2017.

Herman, D. 2016. Finding Lessons on Culture and Conservation at the End of the Road in Kaua'i: In the remote, tropical paradise called Ha'ena, the community is reasserting Native Hawaiian stewardship of the land and sea. *Smithsonian Magazine*. June 1, 2016.

Winter, K. 2016. The significance of kalo. *Aloha 'Āina Series*, Episode 11. Hawai'i Public Radio. February 5, 2016

Winter, K. 2016. Lo'i systems. *Aloha 'Āina Series*, Episode 10. Hawai'i Public Radio. February 5, 2016

Thome, J. 2015. *'Āina: That Which Feeds Us*. Living Ancestors and Sherpas Cinemas.

Tico, T., and M. Lambert 2013. *Fishing Pono: Living in Harmony with the Sea*. Featured speaker. Kauai Girl Productions LLC and Pacific Islanders in Communication.

Wallace G., G. Shire, and R. Johns. 2012. *Endangered Hawai'i: A film by American Bird Conservancy*. Featured speaker.

Bracken S. 2010. Island Issues: Public Affairs Broadcast. Interview on the contemporary relevance of the *ahupua'a* system of resource management. Lava 105.3FM, January 2, 2011.

Wall S. 2009. Preserving Land and Tradition: Young Professional Kawika Winter. *Pacific Edge Magazine: Hawai'i's Trends in business, culture, lifestyle and art*. April/May/June 2009, pp. 72-73.

Zak J.C.K. 2006. *Pule Waialele*. DVD. Zakwest Productions Inc.

TEACHING

Graduate Student Mentoring

Mentoring students in both my professional and academic roles is an important aspect of my work. This happens both formally and informally. Formal graduate student mentees are listed here.

Natural Resources and Environment Management, University of Hawai'i at Mānoa

- Doctorate
 - Jade Delevaux 2017
 - Cheryl Geslani Scarton 2017
- Masters of Science
 - Kalani Quioco Current
 - Kūpa'a Luat-Hū'eu Current
 - Eryn Opie Current
 - Emily Cadiz 2017

Heritage Management Program (Anthropology), University of Hawai'i at Hilo

- Masters of Science
 - Serena Massrey Current

Course Instruction

Co-instructor

2005 – 2018

National Tropical Botanical Garden

- Environmental Journalist Course
 - Lead instructor: Jan TenBruggencate
 - Designed to provide a deep background in tropical ecology, earth sciences, and conservation, and is intended to enhance informed, accurate reporting on environmental issues.

- Science Teacher Enrichment Course
 - Lead instructor: Brian Yamamoto
 - Designed to enhance teachers' knowledge of current information about tropical biology, and equip them with innovative techniques using an inquiry-based approach, thus inspiring greater student interest in science education.

Co-instructor

2003 – 2010

University of Hawai'i at Mānoa

- Ethnobiology Field School
 - Lead instructors: Will McClatchey, Kim Bridges, Tamara Ticktin
 - Designed to give practical, multidisciplinary field experiences in various aspects of ethnobiology.

- Botany 446: Advanced Hawaiian Ethnobotany
 - Lead instructor: Will McClatchey
 - Designed to provide a deep examination of a broad spectrum of aspects in Hawaiian ethnobotany.

- Hawaiian Studies 640: Hawaiian Resources Internship
 - Lead instructor: Carlos Andrade
 - Designed within the Hui Konohiki program to give students an opportunity to gain practical field experience in various aspects of culturally-based resource management.

- Botany 444: Ecological Ethnobotany
 - Lead instructor: Tamara Ticktin
 - Designed to explore a broad spectrum of examples in the manners in which indigenous cultures around the globe manage resources in a systems context.

- Botany 105: Introduction to Ethnobotany
 - Lead instructor: Will McClatchey
 - Designed to give a basic overview of the discipline of ethnobotany.

- Education and Curriculum Studies 433: *Mālama i Ka 'Āina*, Sustainability
 - Lead Instructor: Pauline Chinn
 - Designed to develop standards-based curriculum that is dually founded in both science and culture.

Student Mentorship Programs

Biocultural Initiative of the Pacific University of Hawai'i at Mānoa <ul style="list-style-type: none">• Collaborative Faculty	2018 – present
Pacific Internship Program Exploring Science (PIPES) University of Hawai'i at Hilo <ul style="list-style-type: none">• Primary Mentor	2014 – present
Horticulture Internship National Tropical Botanical Garden <ul style="list-style-type: none">• Lead Mentor	2005 – 2018
Hawai'i Youth Conservation Corps Kupu Hawai'i <ul style="list-style-type: none">• Lead Mentor	2007 – 2018
Practicum Internship University of Montpellier <ul style="list-style-type: none">• Primary Mentor	2015

BOTANIC GARDEN MANAGEMENT

I served for 13 years (2005 – 2018) as the second-ever director of Limahuli Garden and Preserve (Hā'ena, Halele'a, Kaua'i), a 1,000 acre botanic garden and nature preserve that is a part of the National Tropical Botanical Garden. Some highlights of my tenure are listed below.

Selected Achievements

Guiding documents

Improving the management of staff and resources has been achieved by the creation and adoption of several guiding documents. This work supported by general operations.

- Limahuli Comprehensive Conservation Strategy 2016
- Limahuli Vision Statement 2015
- Limahuli Master Landscaping Plan 2007

Conservation projects

Limahuli is a cutting-edge leader in field of conservation in Hawai'i for the many projects that we manage in our 1,000 acre nature preserve. This work has been supported by grants, contracts, philanthropic foundations, and general operations.

- Resilient Forest Project 2015 – 2018
- Remnant Forest Management 2014 – 2018
- Seabird Habitat Conservation and Predator Control 2010 – 2018
- Incipient Invasive Control 2010 – 2018
- Mesic Forest Restoration 2005 – 2018
- Conservation fences
 - Lower Limahuli Preserve (0.8 miles, 66 acres) 2015
 - Upper Limahuli Preserve (3.4 miles, 300 acres) 2009

Interpretive sections and features

Garden improvements have increased the quality of the visitor experience and raised our profile as a botanic garden. This work was supported by grants, philanthropic foundations, and general operations.

- Dream Trail 2017
- Traditional *hale* (house) 2012
- Whale Trail 2008
- Redesigned front entrance 2007
- Native Forest Walk 2007
- Plantation Era Garden 2006