

**For Immediate Release**

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**The Kohala Center awards two Hawaiian Scholars Doctoral Fellowships**  
*Native Hawaiian scientist and engineer pursue research to advance  
community and environmental sustainability*

KAMUELA, Hawai‘i—August 28, 2017—Two Native Hawaiian scholars pursuing their doctoral degrees at the [University of Hawai‘i at Mānoa](#) have been awarded fellowships by [The Kohala Center](#), a Hawai‘i Island-based nonprofit focused on research, conservation, and education.

Narrissa P. Spies, who is pursuing a doctorate in zoology, and Lelemia Irvine, a doctoral candidate in civil and environmental engineering, will each receive \$45,000 and mentorship through the fellowship program to enable them to focus on completing and defending their dissertations during the 2017–2018 academic year.

Formerly known as the Mellon-Hawai‘i Doctoral and Postdoctoral Fellowship Program, The Center’s [Hawaiian Scholars Doctoral Fellowship Program](#) supports the work of emerging Native Hawaiian scholars who advance knowledge of Hawai‘i’s natural and cultural landscape and Hawaiian history, politics, and society. The one-year fellowships are funded with support from [Kamehameha Schools](#), the Deviants from the Norm Fund, and Dr. Paul and Elizabeth Nakayama.

“The Kohala Center is committed to cultivating indigenous leadership and increasing the representation and visibility of Kānaka ‘Ōiwi (Native Hawaiian) scholars in academia, research institutions, and publications,” said Cheryl Ka‘uhane Lupenui, president and chief executive officer of The Kohala Center. “We are excited to welcome Narissa and Lelemia to a larger cohort of 35 distinguished alumni who are advancing ‘ike Hawai‘i (Hawaiian knowledge) for generations to follow.”

In the face of declining coral health in Hawai‘i and beyond due to rising ocean temperatures, pollutants, and sediment runoff, Spies’ research investigates, at a molecular level, how certain species of coral are thriving despite stress. After decades of ecosystem degradation in Honolulu Harbor, compounded by a massive molasses spill in 2013, Spies observed two resilient coral species that continue to thrive in the harbor. Her efforts focus on understanding the conditions

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under which these corals continue to adapt to stress and regenerate, in hopes of unlocking clues that could benefit corals struggling to survive in other parts of Hawai‘i and the world.

“While corals continue to face stress as a result of climate change, these two coral species serve as excellent models for studying the resilience of corals to stress, and may provide insights that can help resource managers in other parts of the world,” Spies said. “My work lays the foundation for understanding resilient coral species, which can hopefully give us clues as to why they’re so well adapted to inhospitable habitats such as harbors. If there are still healthy corals in Hawai‘i in 50 years, I hope it will be because we’ve been able to build off the work I’ve done throughout my Ph.D. and applied this to other corals on our reefs.”

Spies was born and raised on Hawai‘i Island and received her bachelor’s and master’s degrees at the University of Hawai‘i at Hilo. Her mentor for the fellowship year is Dr. Robert Richmond, professor and director of the [Kewalo Marine Laboratory](#), which is part of the Pacific Biosciences Research Center at UH Mānoa.

The aim of Irvine’s dissertation is to develop a better understanding of low-impact development and green infrastructure approaches. He uses computational fluid dynamics and 3-D modeling techniques to solve engineering challenges to predict process performance of these engineered systems. Irvine’s research will help find new ways to increase sustainable landscapes, communities, villages, and cities. One particular area of focus examines bioswales technology as a means to improve stormwater management, protect Hawai‘i’s terrestrial and marine ecosystems from non-point source pollutants, and reduce the potential for urban flooding.

“My life’s research work in water has taken me to more than 20 countries to learn how to solve challenges in transforming rain’s tears to clean water,” Irvine said. “My work in sustainability merges engineering and culture in an effort to solve some of the daunting problems Hawai‘i faces. Through the mo‘olelo (written and oral narratives) and active mentorship of my ‘ohana (family) and kumu (teachers), I learned that I am descended from great engineers, and I strive to channel their wisdom from within to help bring long life to my ‘ohana, our island communities, and Hōnua (Earth) itself.”

Irvine is from Wai‘anae, O‘ahu, and received his bachelor’s and two master’s degrees from UH Mānoa. He is being mentored by Dr. Albert S. Kim, an associate professor in the [department of civil and environmental engineering](#) at UH Mānoa.

Since 2008, The Center’s doctoral and postdoctoral fellowship programs have awarded \$1.57 million in support to 37 Native Hawaiian scholars, many of whom have since received tenure in academic institutions and published original research. The Center is seeking new partners so that it may continue to offer fellowships to advance intellectual leadership rooted in Hawai‘i.

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**About The Kohala Center**

Founded in the year 2000, The Kohala Center ([kohalacenter.org](http://kohalacenter.org)) is an independent, community-based center for research, conservation, and education. We turn research and ancestral knowledge into action, so that communities in Hawai‘i and around the world can thrive—ecologically, economically, culturally, and socially.

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