

Pacific Islands Climate Science Center

presents the

Pacific Climate Science Webinar Series



“Understanding the response of native and non-native forests to climate variability and change, to support resource management in Hawai‘i”

with Thomas Giambelluca

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Wednesday, November 16 at 11:00 AM HST [1 PM PST/ 4 PM EST/ 9 PM UTC/ Nov 10, 7:00 AM ChST]

Perhaps the most pressing question facing land managers today is *How will climate change influence terrestrial ecosystems and their ability to produce ecosystem goods and services?* Hawai‘i and the US-Affiliated Pacific Islands are characterized by zones of dramatic transition. Diversity of eco-climate systems, species endemism, and occurrence of extreme conditions (e.g. drought, flooding) prevail across the islands. Montane forest ecosystems across much of the region rely on rainfall and cloudwater interception for freshwater input, and moisture is lost through evapotranspiration by plants – significant climate drivers that are extremely challenging to predict across a range of time and space scales.

On Hawai‘i and other Pacific Islands, this question is complicated by unknown and potentially differential function of native versus widespread non-native invasive species. At the regional scale of climate change impacts, this work aimed to determine how projected changes in temperature, precipitation and other climate variables will influence stand-level growth rates and water use within Hawai‘i’s most prevalent native and non-native wet forest communities: ‘ōhi‘a (*Metrosideros polymorpha*)-dominated forest, and strawberry guava (*Psidium cattleianum*)-dominated forest, respectively.

As global warming continues and other climate variables change in response to warming, how will native and invasive plants respond, and how will the balance between groups shift? As the balance shifts, how will that shift the quality of ecosystem services provided by Pacific Islands forest communities?

Webinar and Call-in information:

Meeting Number: 358 889 398 , (no password required)

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