Projects and ActivitiesThu Mar 28 09:24:24 HST 2024

Name	Modeling Climate-driven Changes to Dominant Vegetation in the Hawaiian Islands
Capability Area: Variability/Changes	- Understanding Climate Variability and Change - Research/Development - Projections (modeling and downscaling)
ECV	- Surface (e.g., temp, precip, wind) - (e.g., surface water, glaciers and ice caps, land cover, biomass)
Timeframe	- Intra-annual to Decadal
Status	- Ongoing
Focus Area	- Marine and Terrestrial Ecosystems
Regions	- Central North Pacific - State Of Hawaii
Description	This study will use quantitative vegetation plot data to model dominant vegetation composition. Rather than model probability of occurrence, we aim to generate species-specific models of abundance based on independent variables (rainfall, elevation, substrate age, slope, etc.) using multivariate methods. Species abundance models can then be applied to adjusted climate landscapes in concert with ongoing climate model downscaling efforts. Additional data on growth, reproductive, and dispersal rates of focal species will inform the rates of different species transitions. This will permit us to predict changes to individual dominant species such that the combined models will elucidate potential dominant vegetation even for non-analog climates.
Lead Agencies	UH Hilo, USGS/PIERC
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Partnering Agencies	PI-CSC
Projected Timelines	FY 12 start, 2 year timeline
Url	https://nccwsc.usgs.gov/display-project/4f8c650ae4b0546c0c397b48/501190e1e4b0d78fd4e59ba8