

Data and Products Wed Apr 17 03:12:33 HST 2024

Name	Climate Change Research in Support of Hawaiian Ecosystem Management: An Integrated Approach
Capability Area	 - Understanding Climate Variability and Change - Understanding Climate Impacts and Informing Adaptation
Focus Area	 - Fresh Water Resources and Drought - Coastal Inundation/Sea Level Rise, Extreme Weather, and Community Resilience - Marine and Terrestrial Ecosystems
Regions	- Central North Pacific - State Of Hawaii
Products/Phys ical	 Products - Physical Outloooks (monthly to annual) Impacts Drought Spatial Scale Location/Site Time Scale Future Methodology Model/Statistical Projections (intrannual to multi-decadal) Atmospheric (e.g., Air Temperature, Rainfall, Wind Speed and Direction) Terrestrial (e.g., Groundwater, Soil Moisture)
Sectors	- Ecosystems
Description	The key goals of our proposed work are (a) to understand how changes in the future climate system base state of the Hawaiian Islands will affect the frequency and severity of extreme events, (b) to support studies of the ecological impacts of climate change on native Hawaiian flora and fauna and (c) to provide information needed by natural resource managers charged with preserving native biodiversity. We will extend our statistical downscaling methods from the previous PICCC project to the latest CMIP5 climate scenario simulations, focus on potential climate stressors such as recurrence and intensity of heat waves and droughts, and we will collaborate with partners from USGS and UH Hilo to integrate the climate stressors into ecosystem response models. FY 12 start. 2 year timeline.

Url	https://nccwsc.usgs.gov/display- project/4f8c650ae4b0546c0c397b48/50118bd1e4b0d78fd4e5 9ba1
Lead Agencies	IPRC, U of Hawaii, CIRES, USGS, PI-CSC
	Oliver Elison Timm, timm@hawaii.edu Thomas Giambelluca, thomas@hawaii.edu Henry Diaz, henry.f.diaz@noaa.gov