Piko Assessments Fri Mar 29 02:35:10 HST 2024

Name	Understanding How Climate Change is Affecting Hawaii's High-elevation Ecosystems: An Assessment of the Long-term Viability of Haleakala Silverswords and Associated Biological Communities
Lead Agencies	U of Hawaii, USGS/PIERC
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Partnering Agencies	PI-CSC
Types	- Risk and Vulnerability or Problem-focused
Area of Applicability	- Regional/Local or Problem-focused
Focus Area	- Marine and Terrestrial Ecosystems
Regions	- Central North Pacific - State Of Hawaii
Status	- Ongoing
Description	The Haleakala silversword plant forms the foundation of a diverse alpine community, and its behavior likely reflects wider ecological responses to climate. This species is already exhibiting patterns of mortality related to climate-driven movement towards higher altitudes. This project aims to understand patterns and causes of recent declines in the Haleakala silversword population that are associated with decreasing precipitation, increasing temperature, and related climate changes in Hawaii's high-elevation ecosystems. Building on extensive research and datasets, this study will collect the demographic and climate data needed to construct a robust population model for the silversword and make future population projections under various climate scenarios. In addition, the project will conduct a range of seedling drought tolerance experiments to clarify causes of recent widespread mortality in the species, and determine methods most likely to lead to restoration success.
Url	https://nccwsc.usgs.gov/display-project/4f8c650ae4b0546c0c397b48/5011925fe4b0d78fd4e59baa