

Conservation News

Laukahi Network completes ex situ gap analysis of Hawaiian plants

The flora of the Hawaiian Islands has a high rate of endemism and yet a high number of recorded extinctions, with over half of all taxa at risk. Laukahi: The Hawai'i Plant Conservation Network coordinates conservation efforts through the Hawai'i Strategy for Plant Conservation (laukahi.org/hawaii-strategy-for-plant-conservation), which is adapted from the Global Strategy for Plant Conservation.

In April 2024, Laukahi completed an ex situ gap analysis of 868 species of conservation importance by examining the inventories of seed banks, nurseries, a micropropagation laboratory and living collections from 50 government agencies, nonprofits, community groups and private individuals. Species present in at least one inventory were considered secured, and those not present in any inventory as unsecured. Each facility received a score for each species based on the representativeness of its extant wild plant collection, on a scale of 1–5 (Weisenberger & Keir, 2014, *Pacific Science*, 68, 525–536).

Ex situ collections secure 85% of species of conservation importance, exceeding previous assessments and the global target of 75%, although only 68% of species are duplicated, slightly short of the global target of 75%. Of the 129 unsecured species, 46 are categorized as threatened on the IUCN Red List, and 33 species have ≤ 50 individuals in the wild and are protected by Hawai'i's Plant Extinction Prevention Program. Since 2020, only 5% of species decreased in score, yet 45% are held in fewer facilities. Of the taxa that decreased in score, 14 are now absent from collections. Of the 386 species that

are now held in fewer facilities, 152 are protected by the Plant Extinction Prevention Program and six are cultivated only at a single facility. However, 24 species protected by the Program have improved in score and are now held in more facilities. Since 2020, seed banks have secured an additional 138 species of conservation importance.

Ex situ conservation prevents extinction and supports recovery, and continued support is needed to secure 129 taxa. Recommended actions include prioritizing resources for the Plant Extinction Prevention Program, collecting, germinating aging seed collections, expanding greenhouse capacity, duplicating collections across facilities, reviewing best practices and sharing information between facilities. If you are interested in more detailed information, or manage Hawaiian collections missed in this assessment, please contact the Laukahi Network Coordinator (coordinator@laukahi.org).

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