

HAWAI‘I CONSERVATION ALLIANCE

Conservation of Our Native Biocultural Legacy in Hawai‘i: 2022 Status Report

EXECUTIVE SUMMARY



HAWAI‘I CONSERVATION ALLIANCE

HAWAI‘I CONSERVATION ALLIANCE FOUNDATION





“He ali‘i ka ‘āina, he kauwā ke kanaka”

[The land is a chief, and man its servant]

— ‘Olelo no‘eau

Hawai'i's Land and Waters

The Hawaiian archipelago spans 1,500 km [~930 mi] across the north Pacific from the geologically youngest island of Hawai'i in the southeast to Kure Atoll in the northwest, the geologically oldest of the still emerged islands in the chain. Located nearly 4,000 km [~2,500 mi] from any continent, the main islands of Hawai'i are the most isolated group of islands in the world. This isolation has led to the radiation of nearly 10,000 endemic species from an estimated 700 founder species, and exemplifies extremely high biological endemism— one of the highest rates of endemic species of any area in the world.

The main Hawaiian Islands consist of eight islands and a number of smaller uninhabited islets. Some harbor an extreme diversity of habitat ranging from the ancient glacial Lake Waiau to the barren Ka'ū desert, with mesic rainforests, streams, lava tubes, and grasslands in between. Extreme terrestrial elevations range from Mauna Kea, one of the the highest peaks in the United States (4,207 m [~13,800 ft]), to small atoll islets in the Northwestern Hawaiian Islands (NWHI) exposed only at low tide. Marine depths range from shallow tidepools to the deep Hawai'i Trough (-5,500 m depth [~3.5 mi]).

The NWHI stretch northwesterly from southernmost Nihoa Island to northernmost Kure Atoll in and include dozens of tiny islands, atolls shoals, and coral reefs spanning 1,200 nautical miles. Many rare and endemic species can be found among the thousands of species of marine plants and animals that inhabit an area of over 360,000 km² [~224,000 mi²] This area has been designated as the Papahānaumokuākea Marine National Monument and has been widely recognized for its unique biological, cultural, and historic value.

The land and waters of Hawai'i provide pure drinking water, healthy food, clean air, and places to live, reflect, and recreate. Protecting and conserving these areas is critical to the life, well-being, and continued survival of all the plants, animals, and peoples living here.

Yet, we face a number of challenges as we strive to protect and conserve. Human perturbations, invasive pests, and climate change have led to extreme reductions in some populations and even extinctions of Hawai'i's native species. Losing any critical component to an ecosystem can have profound near- and long-term effects on the health and survival of our plants and animals.

Working together in a cohesive manner, under a unifying voice, with a consistent and coherent message and best practices, empowers and fosters collaborative and community-driven solutions toward effective conservation.

Hawai‘i Conservation Alliance

The Hawai‘i Conservation Alliance (Alliance) is a partnership of organizations, landowners and agencies working together to provide leadership, a unified voice toward conservation efforts, and collaborative action to conserve and restore native ecosystems and the unique biodiversity of our islands.

The Alliance helps ensure that Native Hawaiian cultural values and practices are integrated into contemporary conservation strategies. The Alliance incorporates Native Hawaiian perspectives in planning its conservation programs and events, and fosters increased participation of Native Hawaiian community groups and organizations in local conservation initiatives.



Strategic Approach

Capacity Building

The Alliance builds capacity through educational offerings, workshops, scholarships, and training via its Nāhululehiwakuipapa Subcommittee.

Promoting Conservation

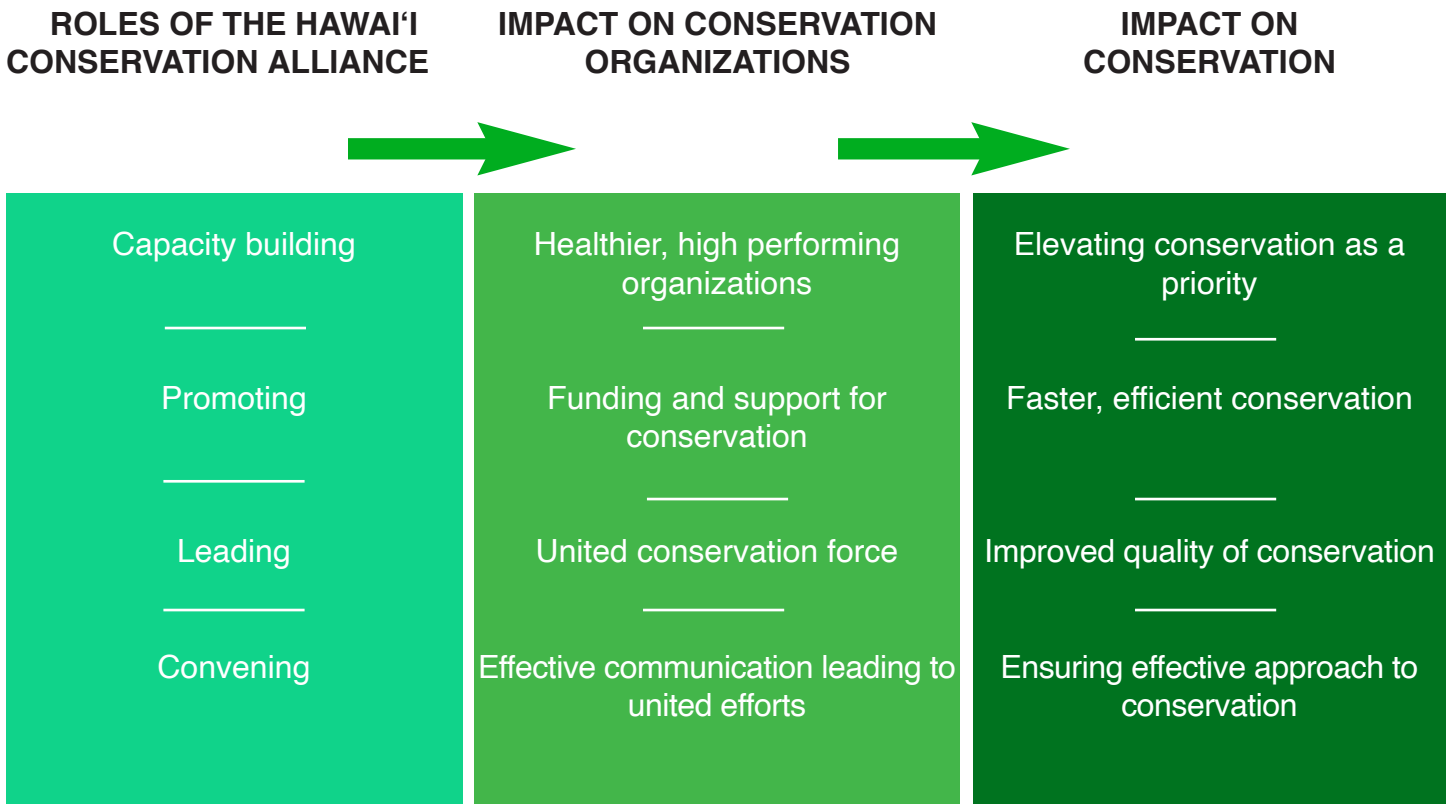
The Alliance promotes conservation-friendly public policies and programs in Hawai'i, defending against challenges in the court of public opinion and promoting the value of conservation to a variety of audiences.

Collaborative Leadership

The Alliance provides collaborative leadership to conservationists by interacting with scientists, managers and the community to identify emerging threats, provide practical solutions, and to set the agenda for local and statewide conservation efforts.

Convening

The Alliance serves as the organizer for not only the annual Hawai'i Conservation Conference, but networks with members in strategic response to moments of crisis and opportunity.



Assessing Effective Conservation

Since its inception in 1988 the Hawai'i Conservation Alliance has been monitoring conservation efforts throughout the State. In doing so, four indicators are used:

Biological Information

Native and introduced species are tracked as well as condition of ecosystems. The information analyzed includes field data as well as spatial models.

Protection Status

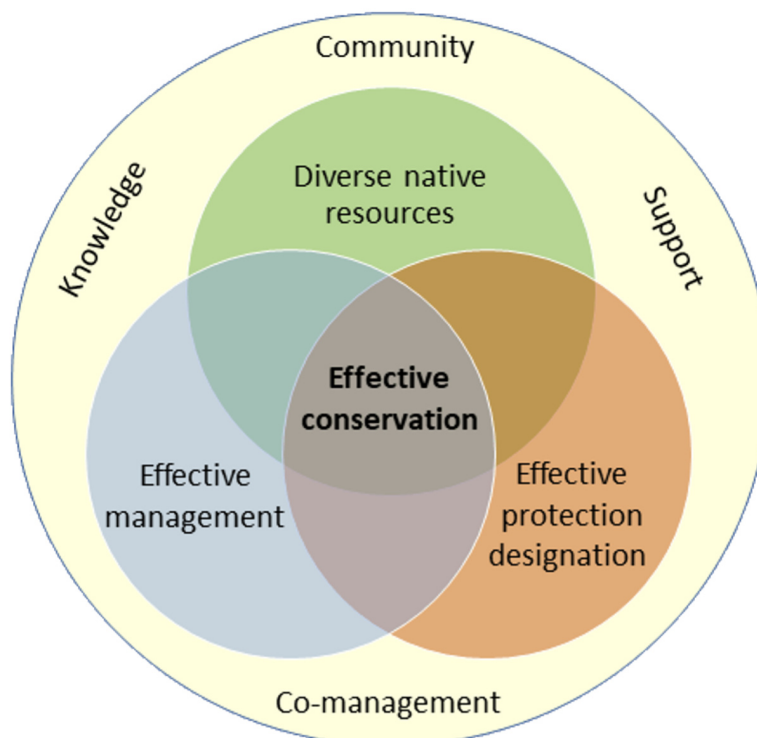
Biologically important lands and water benefit from protective designations that 1) recognize biological/ecological/cultural values of the living species and ecosystems within them, and 2) mandate or facilitate active management to mitigate threats or increase the viability of those resources.

Conservation Management

Management of areas for conservation values involves many types of activities such as control or exclusion of harmful invasive species, managing occurrence and impacts from wildfire, restoration of native plant communities, reducing downslope erosion, and removing marine debris.

Community Management Using Cultural Values

Community and stakeholder involvement and support are critical to achieving effective conservation. Hawaiian cultural values and practices that are strongly protective of natural resources provide a solid foundation to help navigate the challenges of conservation today and into the future.





Biological Information

Although an extremely isolated archipelago, Hawai'i is unique worldwide in possessing a rich diversity of fauna and flora found in a dazzling array of landscapes and ecosystems. However, over time, human intervention, introductions of unwanted pests, and climate change have had an adverse affect on its fragile biota. More than 25,000 different species of plants and animals are found in the islands, with almost two-thirds being native and almost 10,000 found only in Hawai'i. Ironically, Hawai'i's isolation and unique geophysical make-up with high islands and hundreds of different ecosystems make it not only a living laboratory of evolution, but it also has the dubious distinction of being the endangered species capital of the world, and it is further tainted with more than 200 known extinctions.

Efforts are continually underway to conserve natural ecosystems and their native plants and animals and a triage effort seeks to prevent the extinction of species on the brink. These efforts are detailed in the Report and include the following:

Plant Extinction Prevention Program (PEPP)

This program focuses on more than 270 taxa of plants with 50 or fewer individuals remaining in the wild. These are believed to be in imminent risk of extinction and a heightened need to protect the remaining individuals in the wild through seed collection, propagation, and exclosures—and continued monitoring and surveys for other populations.





Hawai'i Endangered Bird Conservation Program (HEBCP)

Through activities coordinated with the San Diego Zoo, U.S. Fish and Wildlife Service, Hawaii Division of Forestry and Wildlife (DOFAW), and partner organizations, this program works to prevent extinctions and promote recovery of threatened wild bird populations. The program is currently focused on the 'Alalā (which was saved from extinction through captive breeding, resulting in more than 140 individuals) and the 'Akikiki, in which a conservation breeding program was recently initiated. Its successes of those released back into the wild include the Puaiohi, 'Akiapola'au, and Nēnē.

Snail Extinction Prevention Program (SEPP)

This program, coordinated with activities from DOFAW, Bishop Museum, the University of Hawai'i, and other organizations, serves to monitor, provide predator control, and habitat protection for snail species currently facing extinction. It currently maintains and propagates 36 species of land snails and has successfully reintroduced seven species back into the wild.

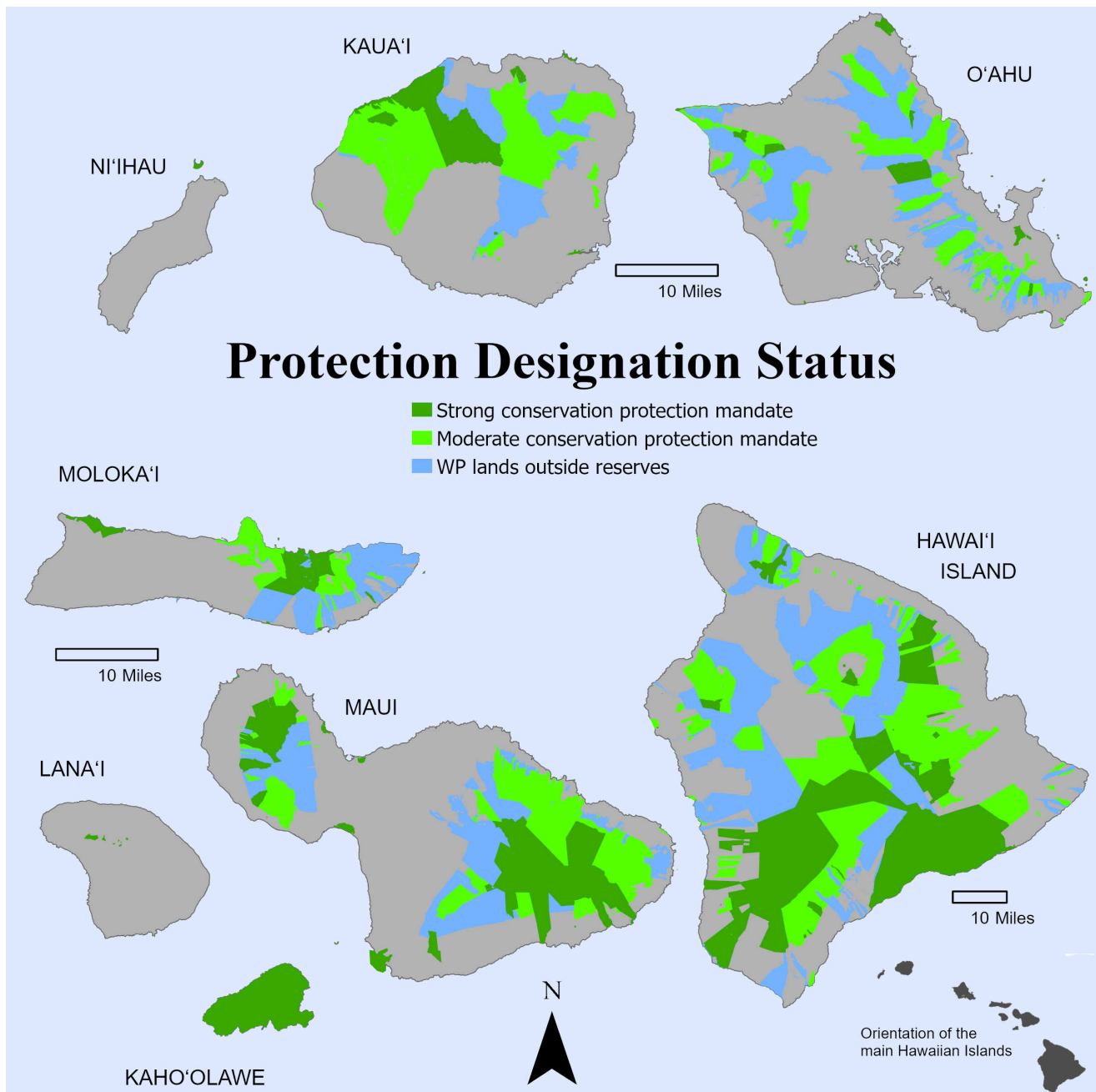
Hawai'i Invertebrate Program (HIP)

This program of the Hawaii Department of Land and Natural Resources, works in conjunction with U.S. Fish & Wildlife Service and the University of Hawai'i to increase populations of target species including the Kamehameha butterfly, the orange-black damselfly, yellow-faced bees, and picture-winged flies.

Protection Status and Conservation Management

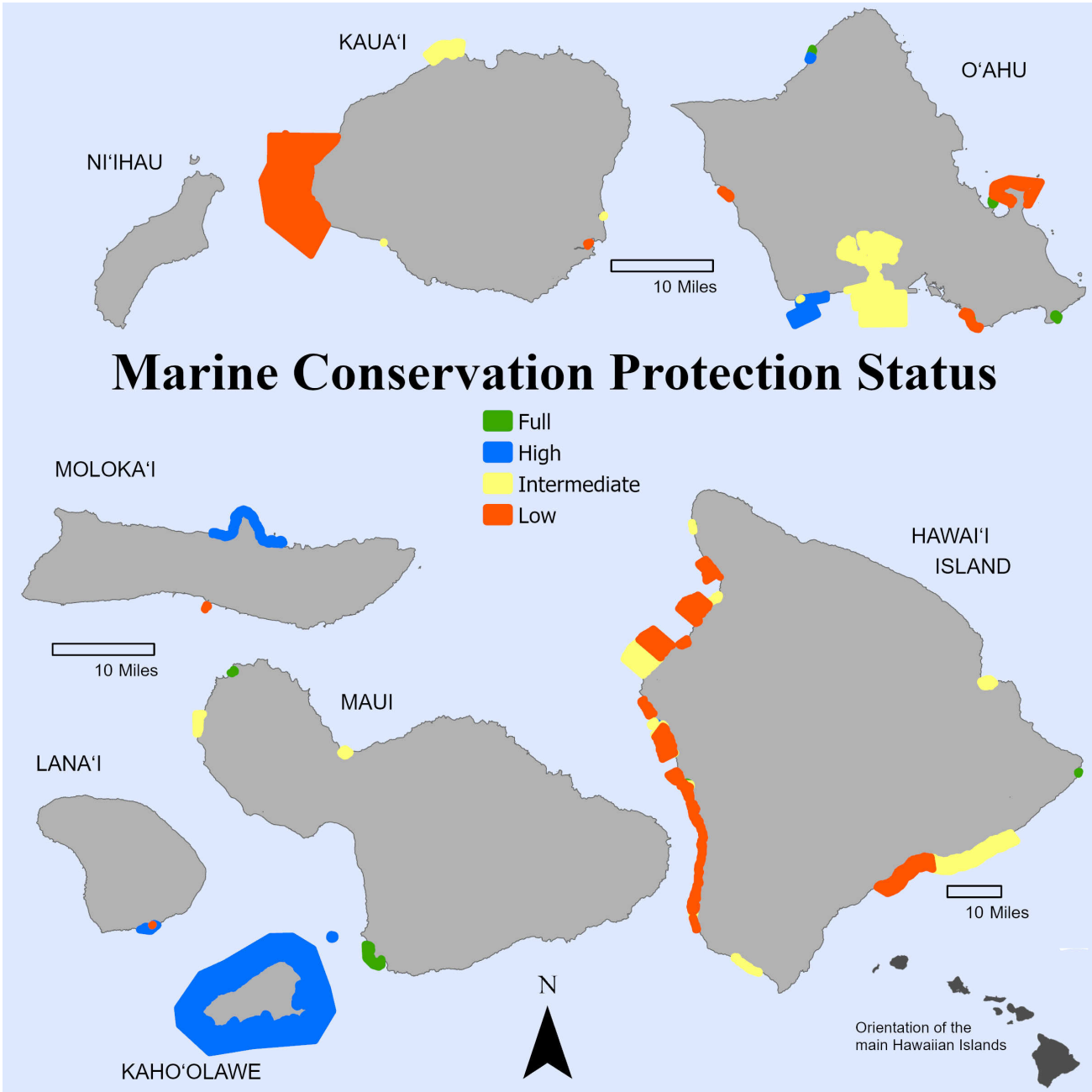
Terrestrial

Before humans first came to Hawai'i, it is estimated that nearly 85% of these islands were covered with native vegetation—ranging from lush mossy rainforests to coastal shrublands and wetlands. Severe degradation of habitats over time has resulted in extreme loss of native biota. In order to assess the health of these ecosystems, a number of factors are monitored including vegetation, wildlife, and stream flow. Other factors are used to assess and designate areas in need of protection and/or restoration. With co-ordinated efforts by State and Federal agencies and Watershed Partnerships (WP), 816,471 hectares [~2,000,000 acres], amounting to about 50% of the land, is being protected.



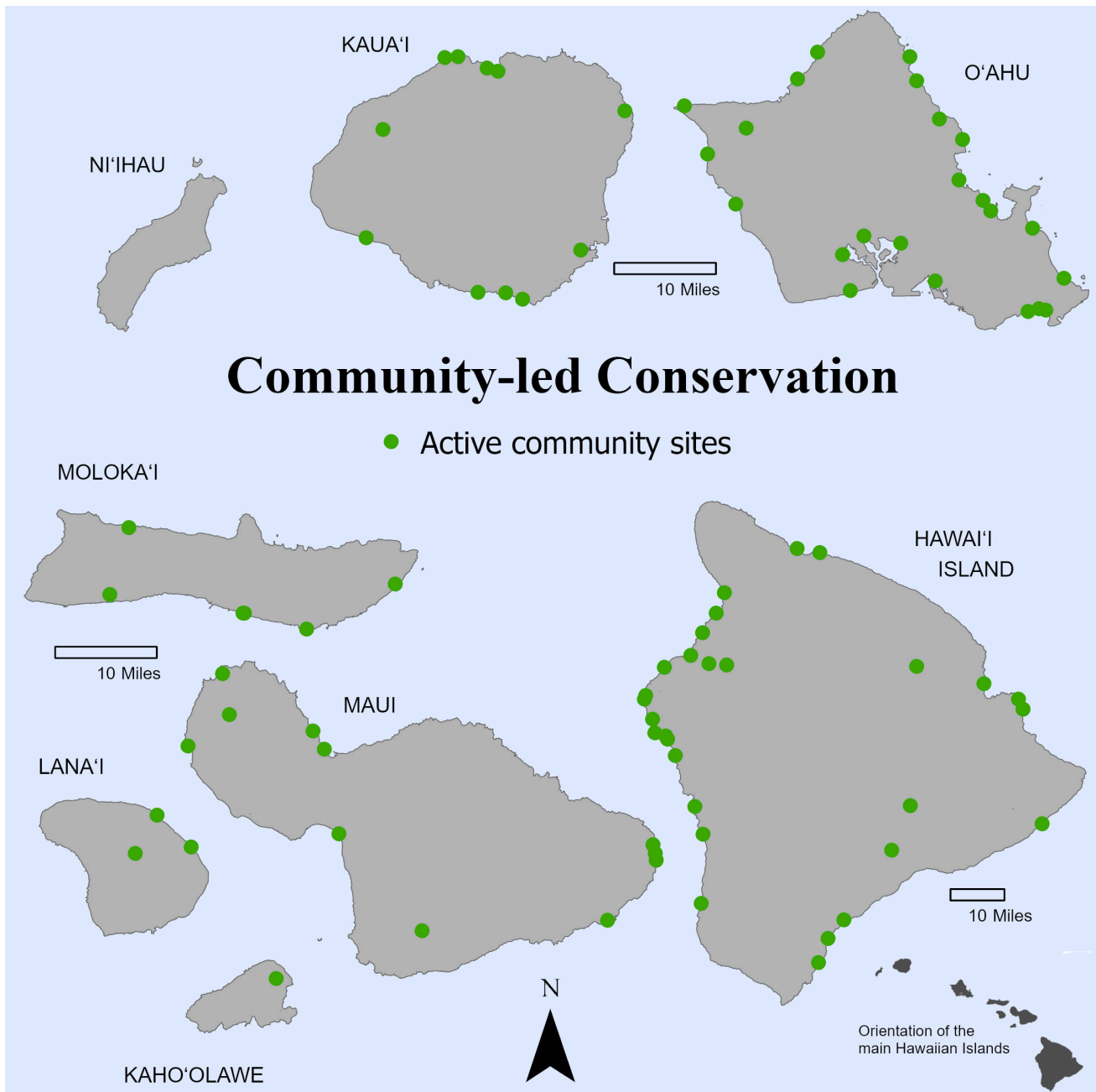
Marine

Marine resource management in the Hawaiian Islands over the past 250 years has seen a transition from a traditional, decentralized system overseen by local entities, or konohiki, to a Western, centralized approach by the state government. Community-led marine conservation programs are also being established and implemented with agency support. These have been developed in a number of localities where the resource management programs are based on strong traditional cultural foundations. Coral reefs are critical to healthy near-shore ecosystems and marine biota. Marine Management Areas throughout the state, as well as the recent federally designated Papahānaumokuākea Marine National Monument are helping to monitor, conserve, and protect Hawai'i's valuable marine resources.



Cultural Values and Community

The values and ethics of aloha ‘āina and the practice of mālama ‘āina are lauded in principle but still greatly underappreciated in practice. However, this situation is changing. Actions and interests in collaborative community-based terrestrial and marine conservation in Hawai‘i are growing in ways that elevate the care of Hawai‘i once again as a cultural imperative. Indeed, there is a growing global movement for indigenous people and local community empowerment in conservation. Initially, in Hawai‘i, most community-led conservation efforts were focused on managing coastal resources. However, in recent years emphasis has been expanded to include upland sites, such as at Pu‘u Wa‘awa‘a on Hawai‘i Island.





Challenges Ahead and Actions Needed

Much progress has been achieved with conservation of biocultural resources in Hawai'i over the past 50 years. However, we continue to face many existing problems, and new challenges in managing and reducing the threats to maintaining Hawai'i's unique biodiversity.

Biosecurity

Hawai'i is fortunate to have a detailed biosecurity plan to respond to and control incipient populations of new invasive species. However, in addition to needing more funding and new tools to deal with these problems more effectively, it is also necessary to integrate social science and conservation to achieve success.

Protection of Terrestrial and Marine Habitats

A combination of conservation efforts will be required to protect our land and sea from threats. These include rare species conservation and propagation, habitat restoration and maintenance, invasive species identification and early detection, and enhanced interaction of communities.

Climate Change

As climate change continues to adversely affect our biota and ecosystems, the challenges will be great. Positive outcomes will require being pro-active, and will include long-term planning, experimentation, and collaboration. Among other things, we will need to build an expanded vision of what futures are possible in a changing climate. Enhanced climate impact models, vulnerability assessments, scenario planning, and the RAD (Resist-Accept-Direct) framework are all useful for elucidating the drivers of ecosystem change.

Increasing Capacity

Investing in emerging conservation professionals and programs (short-, medium- and long-term) are critical to integrate our past, present and future to support our next generation of leaders, managers, practitioners and educators, who play key roles in the sustainability of biocultural resources.





Concluding Remarks

The full 2022 report on the Conservation of our Biocultural Legacy in Hawai'i identifies the need for management actions that address potential impacts of key habitats, degrading conditions of some living resources, and a general need to increase capacity to meet these needs. Although the Hawaiian Islands are thought by many as being a tropical paradise, the reality is an archipelago rich with biodiversity but threatened by many seen and unseen forces. Factors contributing to these threats suggest areas of focus for management actions, including protecting, restoring and maintaining the health of threatened and endangered species, researching impacts of climate change, and increasing funding to implement actions.

A critical component to the success of Hawai'i conservation is to continue to recognize and perpetuate the unique relationship of Native Hawaiians that link them inexorably to the lands and waters and their cultural traditions. The Hawaiian proverb “He ali'i ka 'āina, he kauwā ke kanaka [The land is a chief, and man its servant.]” epitomizes the core understanding of the importance of keeping the land healthy and our role in conserving it. When the state motto of Hawai'i “Ua ma uke ea o ka 'āina i ka pono [The life of the land is perpetuated in righteousness]” was coined by King Kamehameha III, it was a re-assertion of Hawai'i's sovereignty after it had been deposed by foreigners. However, the phrase can also hold a conservation meaning, because Hawaiians understood that properly caring for the life of the land ensures that future generations will thrive. This report emphasizes that it is our kuleana [responsibility] to take care of the land and ocean so it can take care of us.



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