
photo by Sean Marrs


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photo by Keli'i Kotubetey

He`eia

National Estuarine Research Reserve

Location: Southern portion of Kāneʻohe Bay, on the windward shore of Oʻahu, Hawaiʻi

Date Designated: 2017

Area Protected: 1,385 acres

Web Address: *nerra.org/reserves/heeia-national-estuarine-research-reserve*

Management: This reserve is co-managed through an agreement between Indigenous (Native Hawaiian) organizations, the Department of Land and Natural Resources, and the Hawaiʻi Institute of Marine Biology (University of Hawaiʻi at Mānoa). NOAA's Office for Coastal Management provides funding, national guidance, and technical assistance.

Access and Infrastructure

- This reserve comprises Heʻeia State Park to the north, Heʻeia Fishpond in the center, the wetlands of Hoi to the west and south, Moku o Loʻe (Coconut Island) to the east, and a large expanse of marine waters with patch and fringing reefs.
- University of Hawaiʻi Marine Laboratory resides on Moku o Loʻe (Coconut Island).
- Heʻeia State Park is open for visitors to experience a variety of recreational and cultural activities, and educational opportunities.

The Heʻeia National Estuarine Research Reserve stewards its coastal forest, wetlands, stream, estuary waters, and coral reefs using Indigenous (Native Hawaiian) values and practices. Its transdisciplinary research program is designed to understand the ecological foundations of Indigenous resource management, and the results of these studies are leveraged into policy in the realms of conservation and sustainability. Habitats protected through Indigenous stewardship at this reserve support endangered species, including the federally endangered Aeʻo (Hawaiian stilt), ʻAlae ʻula (Hawaiian moorhen), ʻAlae keʻokeʻo (Hawaiian coot), Koloa (Hawaiian duck), ʻŌpeʻapeʻa (Hawaiian hoary bat), and Honu (green sea turtle).

HE`EIA

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Interesting Things to Know

- This is the only reserve in the system to be formally recognized as an Indigenous and community conserved area.
- The Indigenous wetland agro-ecosystems and associated aquaculture infrastructure within the reserve were designed approximately 800 years ago.
- The largest of the Indigenous aquaculture systems within the reserve boundaries, He‘eia Fishpond, is 88 acres (36 hectares).
- Because of the many successes of biocultural restoration efforts in He‘eia, the reserve’s co-management partners were recognized by the Hawai‘i State Legislature as Conservation Heroes in 2019.


photo by Keele Freele


photo by Donald Camvel


photo by Kawika Winter

About the Programs

The nation’s 30 research reserves represent a tremendous asset, protecting over 1.3 million acres and providing habitat where plants and wildlife thrive. Community benefits include recreation, flood protection, and water filtration. Because the following programs are offered at each reserve, the system is able to make an environmental impact at the local level, as well as nationally.

Stewardship. Caring for lands and waters for the benefit of biodiversity and people is part of every research reserve. Activities may include managing land and water resources, restoring habitat, controlling invasive species, maintaining biodiversity, and reducing environmental stressors.

Research. Reserve research is focused on how socio-environmental factors—such as nutrient loading, climate change, invasive species, and storms—impact coastal ecosystems. The monitoring program, known as the System-Wide Monitoring Program, or SWMP, provides long-term data on water quality, weather, biological communities, habitat, and land-use and land-cover characteristics. This combination of research and data provides a strong, science-based foundation for addressing coastal management challenges.

Training. To provide the community with the information and skill needed to integrate coastal science into local decision-making and everyday lives, reserves provide specialized courses and information. Reserve training professionals are active in community planning and improvement initiatives.

Education. Local data generated at the reserve provides students with a firsthand experience of local environmental conditions. Educators lead field trips for students, teachers, and citizens that are life-changing experiences, as participants see, feel, and smell what makes an estuary one of the most remarkable places in the world.

To learn more, visit coast.noaa.gov/nerrs.