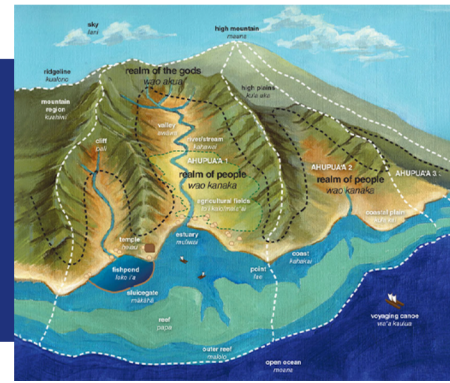


# The importance of wetlands in an 'ahupua'a



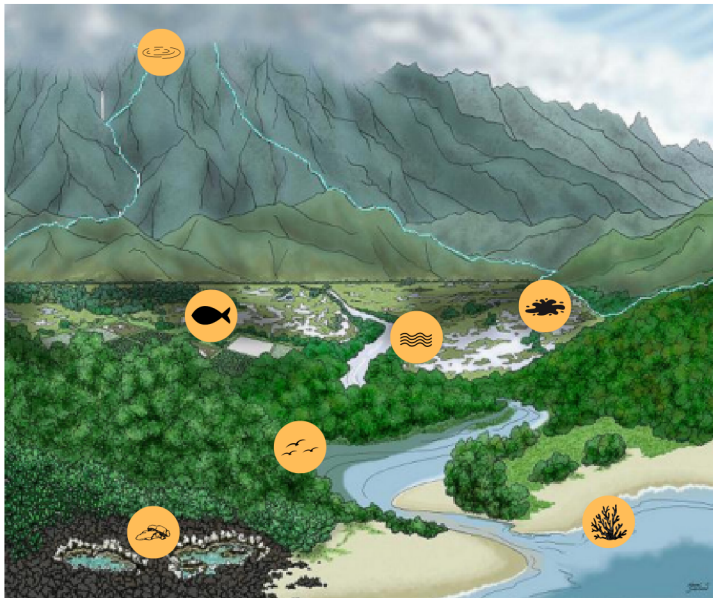
## WHAT IS AN 'AHUPUA'A?

A land division that typically runs from the mountain to the sea following the natural valleys of an area and including a kahawai (river) that runs through the valley. Native Hawaiians lived according to this land division which was intended as a resource management system to sustain the communities that lived within it.



## WHAT IS A WETLAND?

A land area covered by fresh or salt water typically found in depressions of land, near coastal shorelines and along running or standing water. Wetlands can occur seasonally or permanently and provides life and balance to many areas within the ecosystem.



## MOST COMMON TYPES OF WETLANDS IN HAWAII'I

### Montane Bog

A type of palustrine wetland. Areas where water collects within depressions of land and becomes bogs. Hawai'i has unique montane bogs that take millions of years to form.  
 Pictured: Montane bog atop Haleakala



### Estuarine

Areas along coastlines such as swamps and mudflats where streams and mudflats where streams occasionally empty into the ocean. Typically brackish water & an excellent habitat for fish and birds.  
 Pictured: Waipuilani wetland in Kihei



### Marine

Saltwater systems such as intertidal shorelines, seagrass beds or tidepools that provide a habitat for many species ideal for food.  
 Pictured: Tidepool in La Perouse Bay



### Riverine

Surface water systems found along the edge of rivers and streams.  
 Pictured: La'ie wetland in Kihei



### Palustrine

Areas where water collects within depressions of land and becomes bogs or marsh land.  
 Pictured: Pi'ikea wetland in Kihei



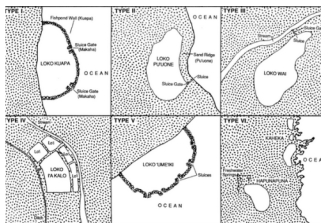
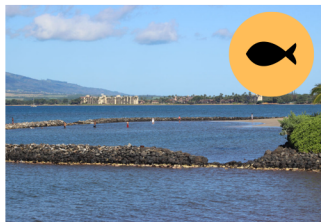
### Anchialine

Land locked areas in lava or limestone near coastal shorelines. It is a system connected to underground fresh and salt water making it brackish.  
 Pictured: La Perouse in Kihei



### Aquaculture

Agricultural innovations modified by native Hawaiians based on the study of the natural features of the 'ahupua'a. Water was used for growing food and returned to its hydrological system to flow through the valleys and eventually to the ocean. This included lo'i (taro patches) and loko i'a (fishponds). There are a variety of loko i'a that were engineered as primary food sources and worked in unison with the natural features of the wetlands.



# ROOTED'S FOCUS ON WETLANDS ON MAUI

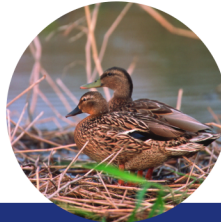
## Kula Kai

We are currently focused on the wetlands located within the Kula moku. A moku is a large land division that includes smaller land divisions called 'ahupua'a. Kai represents the ocean area within the moku of Kula.

We offer a wetlands treasure hunt at the Waipuilani Beach Reserve within the Kula Kai moku and Waiohuli 'ahupua'a. This is available for the public to participate in from their own mobile device. The treasure hunt prompts participants to kilo (observe) their surroundings on an independent walk around the beach reserve to identify plants and animals typically found in a wetland environment. Participants can expect to learn more about the unique flora and fauna that exists in the current state of the Waiohuli wetlands.



**Nēnē**



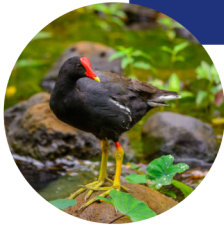
**Kōloa**



**'Alae Ke'oke'o**

## NATIVE WETLAND SPECIES

There are many native species that exist within saltwater, freshwater and brackish water systems of the wetlands. However, much of those are at risk. In fact, one third of the world's endangered species are wetland species due to factors that include: development, climate change, pollution and invasive species. Here are 6 native wetland birds to Hawai'i that are federally endangered.



**'Alae 'Ula**



**Laysan Duck**



**Ae'o**



## VISIT OUR WEBSITE

Learn more about us, sign our Mālama Pledge, sign up for a cultural experience with us, and donate to support our mission

