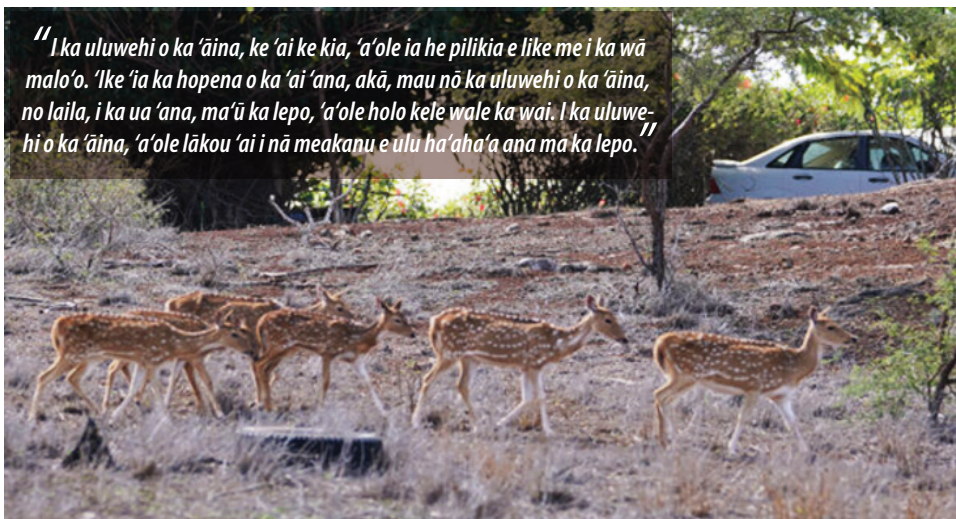




# Ka Wā Malo’o a me nā Māmela Malihini ma Hawai’i Nei

## Ka Mana’o o nā Luna Mālama Kumuwaiwai Kūlohelohe

E nui a’ē ka ho’opilikia ‘ia ‘ana o nā meaola ‘ōiwi a me ke kaiaola holo’oko’a i ka hana a nā māmela malihini i ka wā malo’o. I ka wā malo’o, e emi ana ka ‘ai a me ka wai a nā holoholona, a no laila, e loli ana kā lākou ‘imi ‘ana i mea ‘ai hou, a me kā lākou ‘ai nui ‘ana i mea ‘ai ma’amau. Ma kēia palapala, hō’ike ‘ia ka mana’o o nā luna ‘āina a puni ka Pae ‘Āina ‘o Hawai’i, i mea e kōkua a alaka’i ai i ka ho’omalulu ‘ana i nā māmela malihini ma mua a ma hope o ka wā malo’o.



“I ka uluwehi o ka ‘āina, ke ‘ai ke kia, ‘a’ole ia he pilikia e like me i ka wā malo’o. ‘Ike ‘ia ka hopena o ka ‘ai ‘ana, akā, mau nō ka uluwehi o ka ‘āina, no laila, i ka ua ‘ana, mā’ū ka lepo, ‘a’ole holo kele wale ka wai. I ka uluwehi o ka ‘āina, ‘a’ole lākou ‘ai i nā meakanu e ulu ha’aha’a ana ma ka lepo.”

“I ka wā malo’o loa, ‘o ke kao, ka hipa, ka pua’a, ke kia, a me ka pipi, ka i ho’ololi i ko lākou mau wahi e noho ai. Ho’opilikia lākou i nā ‘oihana mahi’ai, nā holoholona hānai, nā māla’ai, nā ululā’au, a me nā ahupua’a.”

**Ki’i 1:** ‘O nā kia ma Moloka’i, he mau holoholona hilahila lākou e ‘ai ana i ka pō. Akā, i ka wā malo’o, ‘ike ‘ia nā kia i ka lā, ma nā wahi e kokoke ana i nā kānaka. ‘Ai ‘ia ke kia e kekahi po’ē hahai holoholona. Na: Cory Lum/ Honolulu Civil Beat.

## Nā Holoholona Mai’ao ‘Ōhuka

I ka wā malo’o, loli ka hana a nā holoholona mai’ao ‘ōhuka, ‘o ia ho’i, ke kao ‘āhiu, ke kia, ka hipa, ka pua’a, a me ka pipi. Eia kekahi o kā lākou hana i ‘ike ‘ia:

- Ka ‘ākoakoa nui ‘ana
- Ka ne’e ‘ana i waho o nā wahi ma’amau
- Ka ihi nui ‘ana i ka ‘ili lā’au
- Ka ho’opilikia ‘ana i ke kūlana pa’a o nā pā palena
- Ka ho’opilikia ‘ana i nā ‘āina kula mau’u, nā mahi’ai, a me nā māla kaiāulu
- Ka ‘ai ‘ana i lā’au ‘awa’awa a me ka pilikia i nā ma’i like ‘ole
- Ka ‘ai ‘ana i kekahi lā’au malihini ma mua o kekahi lā’au malihini ‘ē a’ē, a e loli ana paha ka heluna o nā lā’au malihini
- Ka ho’opilikia ‘ana i ke olakino o ka lehulehu ke make nui nā holoholona

## Nā Hana Ho’omalulu

- E ho’onu i ka nānā a mālama ‘ana i nā pā palena i ka wā malo’o
- E ho’omākaukau i nā kumuwaiwai a me nā wahi kūpono no ke kanu ‘ana i nā kino make o nā holoholona, inā make nui lākou
- E ho’olālā no ka loli ‘ana o nā wahi e noho ai nā holoholona i ka ho’ohuli aniau
- E nānā pono i ka nui o nā holoholona no nā kaiāulu e kauka’i ana i ka hahai holoholona.

“‘O aku ka ihi ‘ana o nā kao a me nā hipa i ka ‘ili lā’au i ka wā malo’o no ka mea ‘imi lākou i ka wai. Loli kā lākou lawena, a loli ho’i ka ululā’au i kūlana ‘oko’a mai ke kūlana i ka ua ma’amau.”

# Ka 'Iole

Eia kekahi hana a ka 'iole e nui ana i ka wā malo'o:

- Ka ho'opilikia 'ana i nā paipu hanawai ma nā wahi ho'ulu hou meakanu
- Ka 'ai nui 'ana i nā 'ano'ano a me nā hua'ai
- Ka nanali 'ana i nā hā o ka lā'au no ka wai

I ke kau ua mua ma hope o ka wā malo'o, nui a'e ka heluna 'iole ma muli o:

- Ka nui o ka 'ai (e like me nā 'ano'ano mau'u)
- Ke emi 'ana o ka heluna nui o nā holoholona 'ai 'iole i ka wā malo'o

## Nā Hana Ho'omalu

- E ho'emi i ka heluna o nā 'iole kokoke i nā meakanu kāka'ikahi
- E ho'omākaukau no ka nui a'e o ka heluna 'iole ma hope o ka wā malo'o
- E ho'olaha aku i ka 'ike no ke olakino kaiāulu i mea e emi ai ka pilikia i nā ma'i laha 'iole

“ I ka wā malo'o loa, i ka ho'i 'ana mai o ka ua, e maka'ala i ka heluna 'iole. I ka wā malo'o, emi iho ka heluna o ka 'iole li'ili'i, pēlā pū ka pōpoki 'ohuka, ka pueo, a me ka 'iole manakuke.

Ke ua ka ua, kupu koke ka 'ano'ano mau'u, 'o ia ho'i ka 'ai a ka 'iole li'ili'i. Pi'i koke ho'i ka heluna nui o ia 'iole li'ili'i, 'a'ole na'e pi'i koke ka heluna o nā holoholona 'ai 'iole.”

Mahalo nui i nā luna mālama kumuwaiwai kūlohelohe he 24 ma Hawai'i nona ka hapanui o ka 'ike ma kēia palapala.



**Ki'i 2:** Ka 'iole Polenekia ma kahi ho'okū ka'a o ka Pāka Aupuni 'o Haleakalā, Maui. Na: Forest & Kim Starr.



**Ki'i 3:** . Pilikia ka 'ili lā'au o ka *Dubautia arborea*, he meakanu 'oiwi ma Hawai'i mukupuni. Na: Charles Lamoreux ma *Rat-Feeding Injury to Plants in Hawaii* na Scot Neslon.

“ I ka wā malo'o lō'ihī, 'ai ka 'iole i nā meakanu kāka'ikahi. Make wai lākou, no laila, nanali lākou i nā meakanu 'ane make. 'A'ole 'ono ia meakanu, akā, 'imi nā 'iole i ka wai.”

## Nā Kūmole 'Ē A'e:

Honoure (January, 2021). *Molokai's Fabled Axis Deer Are Starving To Death In Droves*. [Honolulu Civil Beat](#).

Nelson, S. (2012). [Rat-Feeding Injury to Plants in Hawaii](#)

Na ka Pacific Islands Climate Adaptation Science Center a me ka Hau'oli Mau Loa Foundation i kākō'o i kēia papahana.