



Ke Ahi Lalapa ma Pu'uwa'awa'a

Hō'ā 'ia ka 98% o nā ahi ma Hawai'i e nā kānaka, a he ulia ka 75% o nā ahi, no laila, hiki ke pale aku i ka pilikia

Ke Ahi ma Hawai'i

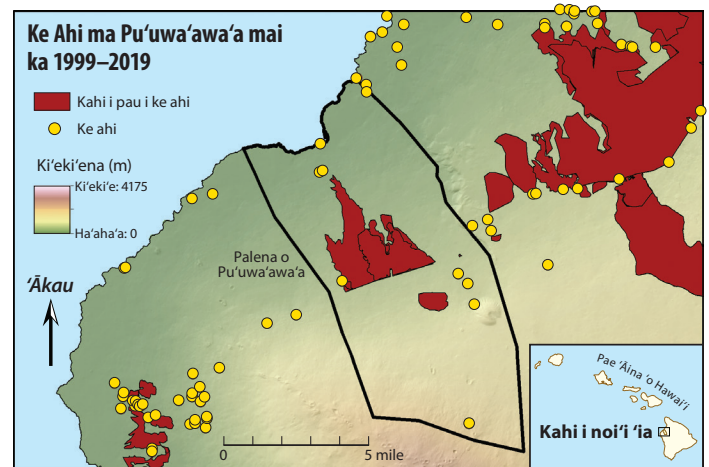
He mea pō'ino loa ke ahi lalapa wale ma Hawai'i i nā kumuwaiwai kūlohelohe a mo'omeheu, a me nā kaiāulu ma nā 'āina e 'ā koke i ke ahi. 'O ka mau'u malihini a me nā meakanu malo'o 'ē a'e i hiki ke ulu hou ma hope o ke ahi, 'o ia kekahi mau mea nāna e ho'omau i ke ahi no ka makahiki holo'oko'a. Ua 'ā pinepine ke ahi ma nā wahi 'oi'enehana, akā, aia ka nui o nā pau ahi nunui ma nā kula mau'u malo'o, a 'o kēia mau pau ahi kekahi kumu o ka pō'ino o ke kaianoho a me ke emi 'ana o nā meaola 'oiwi¹. Ma mua o ka hiki 'ana mai o kānaka, ua mana'o 'ia, 'o ka hana a Pele a me ka 'anapa kākā'ikahi o ka uila nā mea wale nō i hō'ā i ke ahi. No laila, 'a'ole i hiki i ka hapanui o nā lā'au 'oiwi ke ulu hou ma hope o ke ahi¹. Na nā kānaka i ho'ohuli i ka heluna nui o nā ahi ma nā mokupuni ma o ka lawe 'ana mai i nā meakanu i hiki ke ulu hou ma hope o ke ahi, a me ka ho'omaka 'ana i ke ahi. I loko o ka 'umi makahiki i hala (2002–2012), ma ka heluna 'awelika he 1,100 o nā ahi lalapa, ua pau ma kahi o 17,000 'eka ma ka Moku'āina².

Ka Pō'ino o ke Ahi Lalapa ma Pu'uwa'awa'a

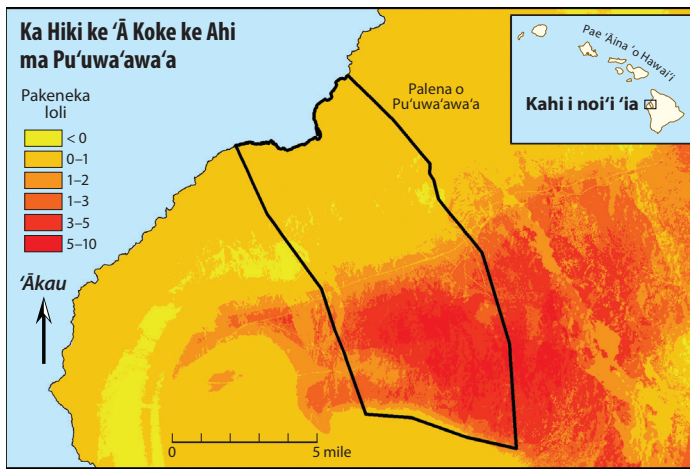
Ma Pu'uwa'awa'a, ua laulaha nā ululā'au 'oiwi o ka 'āina i ka wā kahiko, a wahi a ka po'e kālailau nahele, 'o kēia kahi o nā ululā'au momona nui loa ma ka Pae 'Āina 'o Hawai'i. 'O ka mea 'āpiki, i loko o nā makahiki 100 i hala, ua nalowale aku nei nā lā'au 'oiwi o ia wahi ma muli o ke ahi lalapa a me ka 'ai 'ana o nā holoholona hānai³. 'O ka uluāhewa 'ana o nā mau'u malihini 'o fountain a me Kikuyu ke kumu o ka nui 'ana o nā meakanu i 'ā koke i ke ahi, a ua lilo ke ahi i mea ho'oneoneo i nā ululā'au 'oiwi ma Pu'uwa'awa'a. Ma waena o ka makahiki 2004 a me ka makahiki 2011, ua palapala 'ia he 'ewalu ahi, a ma waena o ka makahiki 1999 a me ka makahiki 2018, he 'elima ahi nui (i 'oi aku 50 'eka) ma Pu'uwa'awa'a, e 'ā 'ia ana ma kahi o 6,000 'eka (Ki'i 1). 'O kekahi o nā pau ahi nui, 'o ia ke Ahi Uila o ka makahiki 2016, ua 'ā ke ahi ma lalo iho o ke Alanui 190, a ua pau he 1,600 'eka. Ma mua o ka

makahiki 2000, ua palapala 'ia kekahi mau ahi nui 'ē a'e ma Pu'uwa'awa'a. I ka makahiki 1995, ua pau he 1,300 'eka i ke ahi. Ua ho'olilo 'ia he \$369,000 e ka 'Oihana Ululā'au me Holoholona Lōhiu (Division of Forestry and Wildlife, DOFAW) no ke kinai 'ana i ke ahi, a ma kahi o \$1,755,000 ke pohō o nā kumuwaiwai kūlohelohe. I ka makahiki 1999, ua pau he 3,800 'eka i ke ahi nui loa i palapala 'ia ma Pu'uwa'awa'a. Ua ho'olilo 'ia he \$109,000 e ka hui 'o DOFAW no ke kinai 'ana i ke ahi, a ma kahi o \$20,500,000 ke pohō o nā kumuwaiwai kūlohelohe⁴.

I kēia mau lā, 'o nā wahi ha'aha'a o ka 'āina (ma lalo o 200 kapua'i), kahi e uluāhewa ai nā mau'u malihini, 'o kēia mau wahi ke pō'ino nui i ke ahi. Akā, i ka wā e hiki mai ana, e nui ana paha ka heluna o nā ahi lalapa ma ka 'āina ('o ia ho'i, ka hikiwale o ka 'ā 'ana) ma muli o ka loli 'ana o ke aniau⁵. I ke emi 'ana o ka ua a me ka pi'i 'ana o ka wela, e pō'ino paha nā wahi ki'eki'e o ka 'āina i loko o ka hapalua o kēia kenekulia ma muli o ke ahi (Ki'i 2)⁶. Ua koho 'ia, e nui ana ka 'awelika o ka hiki ke pō'ino i ke ahi ma Pu'uwa'awa'a, ma kahi o 2%. Akā, e pi'i ana ka hiki ke pō'ino ma kahi o 10% ma nā wahi ki'eki'e (ma luna o 200 kapua'i) a ma ka 'ao'ao hikina o ke Alaloa 190, i ka makahiki 2050.



Ki'i 1: Nā 'eka he 50 a 'oi aku i pau i ke ahi ('ula'ula) mai ka makahiki 1999–2019, a me nā ahi mai ka makahiki 2004–2011 (kiko melemele).



Ki'i 2: Pakeneka loli o ka hiki ke 'ā koke ke ahi mai ka makahiki 2020–2050.

Nā Hana Ho'omalū

He māhele ka ho'olālā ho'omalū ahi o nā papahana nui o ka ho'olālā ho'omalū Pu'uwa'awa'a. 'O kekahi papahana nui, 'o ia ka 'ai 'ana o nā holoholona hānai i ka mau'u i mea e ho'emi ai i nā meakanu i 'ā koke i ke ahi. Mālama 'ia ho'i he 63 mile o nā pale ahi (*fire breaks*) a me nā ala komo ma nā 'ao'ao 'elua o ke Alaloa 190. He mea ko'iko'i kēia no ka mea, 'o ke ahi ma ka'e o ke alanui ke kumu o 90% o nā ahi lalapa wale a pau ma Pu'uwa'awa'a. Ke 'ā ke ahi, na nā pale ahi e alaka'i i ke ahi ma nā 'ao'ao o ke alanui, me ka mana'o e pale aku i ke ahi mai ka ululā'au aku. E ho'emi ana nā hana e ho'oulu ana i nā lā'au hou, i ka hiki ke pō'ino i ke ahi ma nā wahi i ho'omalū 'ia, 'o ia ho'i nā wahi ha'aha'a, kahi e hiki ai ke pō'ino nui i ke ahi.

I nā wā pilikia loa i ke ahi, ho'one'e 'ia nā lako kinai ahi i Pu'uwa'awa'a, a mākaukau ke kia'i DOFAW ke kupu mai kekahi ulia pilikia ahi. E pāpā 'ia ke komo 'ana o ka lehulehu i nā wahi i hiki ke 'ā koke i ke ahi i mea e emi ai ka 'ā o ke ahi. Aia i ka 'Oihana Kinai Ahi ke kuleana o ke kōkua koke 'ana, ke kinai 'ana i ke ahi, ke ka'ana'ike 'ana, a me nā papahana ho'olālā me ka hui 'o DOFAW. Aia ke kahua o DOFAW ma Kamuela, kahi e mālama 'ia ai nā lako kinai ahi, ma kahi o 22 mile (30 minuke ke kalaiwa 'ana) mai Pu'uwa'awa'a aku, a mākaukau lākou e kōkua aku. 'Ā pinepine ke ahi ma nā 'āina like 'ole, a hana pū nā hui kinai ahi like 'ole (HFD, DOFAW, NPS, a me PTA) e kinai i ke ahi ma ka mokupuni 'o Hawai'i. Ho'olālā ka Hawai'i Wildfire Management Organization (hawaiiwildfire.org) no ka pale a ho'emi 'ana i ke ahi ma nā kaiāulu ma ka mokupuni 'o Hawai'i a me ka Moku'āina.

He Mea Nui Kēia i ke Aha?

Ka Pale 'Ana i ke Ahi

Inā 'a'ole waele 'ia nā meakanu malihini, e mau ana nā pau ahi nui ma Hawai'i nei. Me ka 'ole o nā hana pale ahi a me nā hana ho'omākaukau kinai ahi, 'o ia ho'i ka ho'emi 'ana i ka wahie, ka ho'omākaukau 'ana i nā pale ahi, a me ka mālama 'ana i nā lako kinai ahi, hiki i ke ahi lalapa ke laha aku i 'ō a i 'ane'i ma Pu'uwa'awa'a, a pau he mau kaukani 'eka i ke ahi (Ki'i 3). Hiki i ka lehulehu ke kōkua i ka pale 'ana aku i ke ahi, no ka mea, ho'omaka 'ia ka 98% o nā ahi ma Hawai'i e nā kānaka. Aia ka pono 'o ka ho'omaopopo o ka lehulehu i ka pō'ino a me ka hopena o ke ahi. A he pono nō ho'i ka hā'awi 'ia 'ana o nā lako a me ka 'ike e pale aku ai i ke ahi ma nā kaiāulu.



Ki'i 3: He limahana o ka Nāpu'u Conservation Project e nānā ana i ke ahu pōhaku ma kahi i pau i ke ahi uila i ka makahiki 2016 ma Pu'uwa'awa'a.

- 1 LaRosa et. al. 2008 <https://www.fs.usda.gov/treesearch/pubs/32678>
- 2 Trauernicht 2014 Wildfire in Hawaii Pacific Fire Exchange Factsheet
- 3 Blackmore and Vistousek 2000 <https://doi.org/10.1111/j.1744-7429.2000.tb00509.x>
- 4 PWW Management Plan (2003) <https://dlnr.hawaii.gov/forestry/files/2014/06/PuuWaaWaaplanv6.pdf>
- 5 Wada et al., 2017 <https://doi.org/10.2984/71.4.2>
- 6 Trauernicht et al., 2019 <https://doi.org/10.1016/j.scitotenv.2018.08.347>

Na ka Pacific Islands Climate Adaptation Science Center i kākō'o i kēia papahana