

CREATIVE SOLUTIONS TO SAVE HAWAI'I'S CRITICALLY ENDANGERED FOREST BIRDS

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Study Description

In our study, we developed a novel methodology for informing translocation, or the intentional movement of endangered species away from their largest threats. We modeled suitable habitat on east Maui, Hawai'i, for *Oreomystis bairdi* and *Loxops caeruleirostris*, two critically endangered bird species from Kaua'i, based on climate and forest structure metrics. To estimate the potential for competition between candidate translocation species and species already present in the novel habitat we modeled suitable habitat for three endemic and critically endangered bird species in east Maui; *Palmeria dolei*, *Paroreomyza montana*, and *Pseudonestor xanthophrys*.

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Photo 1. An 'akikiki (*Oreomystis bairdi*) individual, previously color banded by the Kaua'i Forest Bird Recovery Project, foraging on an 'ōhi'a (*Metrosideros polymorpha*) branch in its native habitat. Photo credit: Bow Tyler.



Photo 2. An 'akeke'e (*Loxops caeruleirostris*) individual displaying its uniquely specialized bill, with offset tips, perched on a branch in the forests of Kaua'i. Photo credit: Bow Tyler.



Photo 3. An 'ākohekohe (*Palmeria dolei*) individual, unique in form amongst the Hawaiian honey-creeper species, perched on an 'akala (*Rubus hawaiensis*) branch. Photo credit: Robby Kohley.



Photo 4. A kiwikiu (*Pseudonestor xanthophrys*) individual preparing to use its parrot-like bill to extract larvae from surrounding branches in the forests of east Maui. Photo credit: Zach Pezzillo.



Photo 5. A Maui 'alauahio (*Paroreomyza montana*) individual precariously perched between two branches searching for grubs and insects amongst the lichen. Photo credit: Zach Pezzillo.

These photographs illustrate the article “High resolution lidar data shed light on inter-island translocation of endangered bird species in the Hawaiian Islands” by Erica M. Gallerani, Jeff Burgett, Nicholas Vaughn, Lucas Berio Fortini, Geoffrey Andrew Fricker, Hanna Mounce, Thomas W. Gillespie, Lisa Crampton, David Knapp, Justin M. Hite, and Roy Gilb published in *Ecological Applications*. <https://doi.org/10.1002/eap.2889>