

Nest site limitation in the Puaiohi (*Myadestes palmeri*): Using nest boxes to expand the range and improve nest success of an endangered species



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Puaiohi (Small Kaua'i Thrush)

- Kaua'i Endemic
- Endangered
- Population Estimate
 - ~500 individuals
- Current Habitat
 - Streams in high elevation rain forests
- Nest Substrate
 - Cliff walls along streams
- Frugivorous



Nesting specialist

- Nest along deeply incised stream corridors, mainly on recessed ledges on cliffs
- Use other substrate types occasionally, but rarely



Threats

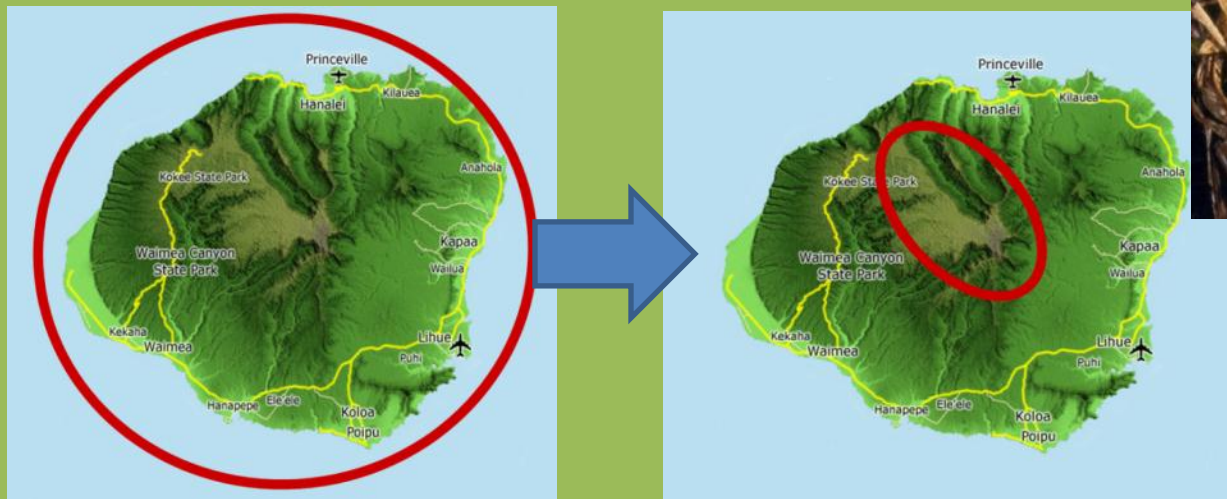
Habitat loss and destruction

Non-native plants/ animals

Introduced diseases- range contraction

Introduced Predators- Rats, Cats

→ Safe nest site limitation?



Why nest boxes?

- Successfully used with other species
 - Eastern Bluebirds, Wood Ducks, Purple Martin
- Expand range
- Provide safe nest locations/escape rat predation
- Potentially allow relocation



History- 2002

- Telfer boxes:
- 33 put up along 2 different streams in 2002
- Used a flower pot and mounted to trees/cliff walls
- One nest box used once and was successful
- Not tested for rat resistance



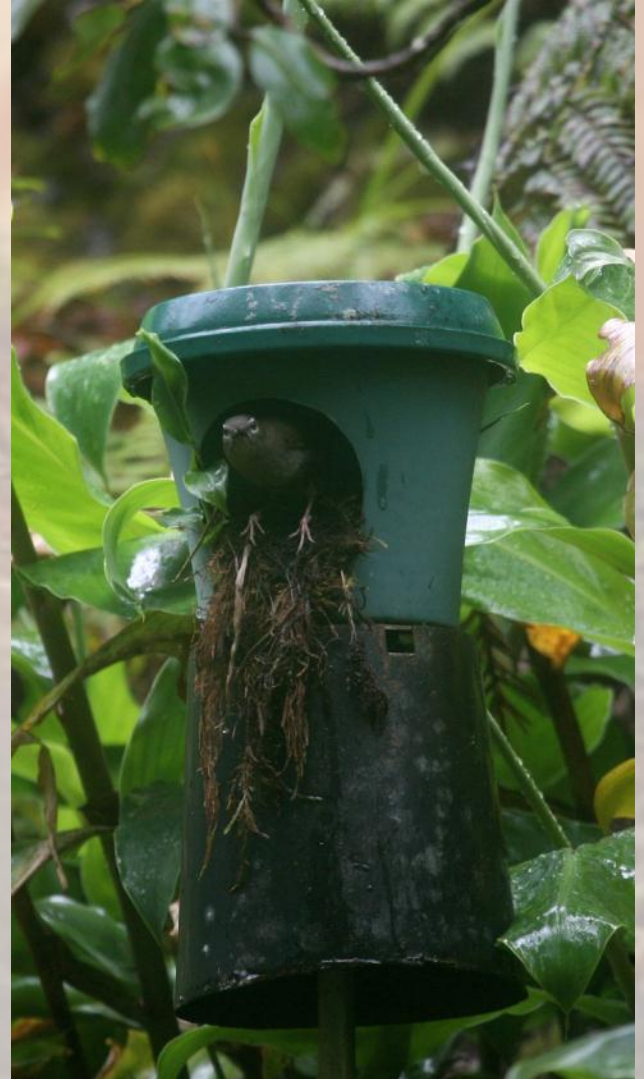
2006-7

- 4 new designs
- USDA caged trials
- Only one design proven rat resistant



2011 – Year of the Nestbox

- Sign of use/
investigation in 5 boxes
- Two monitored nests in
boxes



- Trials of most used designs
- Monitored with motion-triggered cameras
- Modified based on findings
- 3 new roofs
- 3 new skirts

2011-12



Rats - Crafty



New Directions

- 2 new roof and 3 base designs
- Metal stop plates and mesh
- Ibuttons



2012 breeding season

- 32 boxes in Kawaikoi drainage
 - Cluster of 3
- Motion-sensor camera
- Ibuttons
- Checked once a week
- One new box used by a WRTSH



The Future

- Further rat trials/
bird preference
trials – Winter
2012
- Ibuttons
- Nickels/ track
plates
- Put up boxes in
new locations
– Early 2013
- Social attraction



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- A small brown bird with its beak open, perched on a mossy branch. The bird is facing right, and its beak is wide open as if it is singing or calling. The background is a soft, out-of-focus green, suggesting a forest or jungle setting. The bird's feathers are a mix of brown and grey, and its legs are visible as it grips the branch.
- Numerous KFBRRP Staff and Technicians
 - Dr. David and Lida Burney & Makawehi Reserve
 - Will Pitt, USDA
 - Pauline Roberts
 - KISC, & Volunteers
 - ABC
 - Tom Telfer, Al Silva, Tom Savre
 - Kaua'i Conservation Alliance

THANKS!

Photo Credits:

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