Hawaiian Hoary Bat

*Thermal IR and Acoustic Monitoring Project for Trimming of Trees at Leilehua Golf Course on 27 June 2016*

**Survey Goals**

Establish whether or not Hawaiian Hoary bats (*Lasiurus cinereus semotus*) are roosting with pups in multiple trees species along the HV power line corridor located at the Leilehua Golf Course. The utility lines run along the fairway from Tee #1 to Tee #2. If bats present, discuss with regulatory agency possible mitigation measures to continue project or postpone removal of trees until pupping season is completed.

**Survey Map**

![Map of the Leilehua project site which Hawaiian Hoary bat surveys were conducted. Red dot indicates location of the site.](image-url)
Figure 2. Map 1 of project site with tree locations
Figure 3. Map 2 of project site with tree locations
Figure 4. Map 3 of project site with tree locations

Survey

Methods

Visual and acoustic surveys for bats were conducted on 27 June 2016, the day of the scheduled tree trimming. A Fluke Ti400 thermal imager was employed to scan the trees for any roosting bats to confirm no presence. OANRP also employed the hand held Wildlife Acoustics Echo Meter Touch attached to an IPad as a way to scan the area for any possible bats returning to a roost within close proximity. This tool has the ability to listen to bats in real time, GPS tracks and tags all recordings with location information and has full color spectrograms. Scanning commenced from 04:30-07:30 from the ground from different angles and locations.

Results and Discussion

The visual thermal IR and acoustic surveys detected no bats at all. Multiple species of birds were observed with the thermal IR, with visual confirmation, in and around the area. It was determined that there would be No Effect to bats if the trees were removed and the corridor cleared.

Recommendations

Work with DPW to better monitor the contractors work so that trees that need trimming are not missed prior to the pupping season.