



Ua'u at Hawai'i Volcanoes National Park

- Monitoring began early 1990's
- A total of 268 Ua'u nests have been documented in the core monitoring areas (Area 1, Area 2, Area 3, and Kahuku)
- In recent years (2018 to 2020), between 101 to 111 nests were monitored annually within the core areas. With 55-79 of these nests being active in any given year.

2020 Monitoring Methods

- **Known nests monitored using indirect signs: whitewash, feathers, footprints, smell, adult and chick down.**
- **Wildlife Cameras**
- **Grid surveys** :using NPS Inventory& Monitoring Hawaiian petrel monitoring protocol - (under review)
- **FLIR monitoring with DOFAW staff at our Kahuku site.**
- **Cat proof fence check/ monitoring (Area 2)**
- **Trapping (Tomahawk live traps on Mauna Loa Road and A24's at Area 2)**



2020 Reproductive Monitoring Results: HAVO



Location	Nest Sites Checked	Active Nests	Fledged	Failed	Early Failure or Non Breeder	Unknown Outcome	New Nests
Area 1	17	11	4	1	2	4	1
Area 2	73	53	28	0	3	22	2
Area 3	15	11	3	0	3	5	2
Kahuku	6	4	2	1	1	0	2
Totals	111	79	37	2	9	31	7

2020 Monitoring with wildlife cameras



Location	#Nests w/camera	Active nests	Fledged	Failed	Early failure or Non-Breeder	Unknown outcome
Area 1	11	10	4	1	2	3
Area 2	21	21	15	0	3	3
Area 3	6	6	2	0	3	1
Kahuku	3	3	2	0	1	0
Totals	41	40	23	1	9	7





ULTRAFIRE XR6





45°F 7°C

10-15-2020 23:10:13

2020 Predation and Trapping Results

Location	Adult `Ua`u killed by cats	Cats on cameras	A24'S
Kahuku	1	0	NA
Area 1	1	1 CAT @ 2 NESTS	NA
Area 2	0	0	18 RATS, 18 MICE
Area 3	0	1 CAT @ 6 NESTS	NA
1 CAT AND 12 MONGOOSES WERE CAPTURED ON MAUNA LOA ROAD			

CAT PROOF FENCE UPDATE

- The fence is now five years old.
- 2020 No cats were detected on 24 cameras set throughout the enclosure.
- No cat sign (scat, tracks) was detected within the enclosure during routine field work.
- Based on this monitoring we believe the Area 2 enclosure to be cat free at this time.



5 YEARS OF MONITORING SINCE COMPLETION OF THE CAT PROOF FENCE, MAUNA LOA, AREA 2

AREA	YEAR	# NESTS MONITORED	KNOWN ACTIVE NESTS	FLEDGED	FAILED	EARLY FAILURE/ NON BREEDER	UNKNOWN	REPRO SUCCESS RATE
A2	2016	50	44	12	0	16	16	27%
A2	2017	50	38	13	0	9	16	34%
A2	2018	87	45	28	0	6	11	62%
A2	2019	68	42	19	0	6	17	45%
A2	2020	73	53	28	0	3	22	53%

Total of 16 new nest have been found within the fenced area since completion.

SOCIAL ATTRACTION: VOCALIZATION PLAYBACK UNIT 2020



New Zealand playback unit, Area 2 cat proof fence area



SONGMETER MONITORING

2019 AREA 1,2,3
MAUNA LOA

RESULTS

- PRESENCE OF BOTH `UA`U AND `AKE `AKE AT ALL AREAS
- BURROW CALLS OF `AKE `AKE WERE HEARD AT MAUNA LOA AREAS 1, 2, 3.



Mahalo!

2020 season field crew!



Jessica Eden



KUPU Ashley Romero



Fred
Aiona



Jill Lippert
Aaron Okimoto
Dexter Pacheco



Tamar Elias
(USGS-HVO)



Charlotte Forbes Perry



Cam Loebel-Fried



Karin Schlappa
(I & M -HAWO)



Lyman Perry
(DOFAW)



Jan Cole
(DOFAW)