

'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

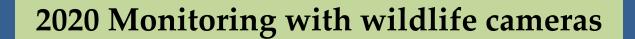
- Known nests monitored using indirect signs: whitewash, feathers, footprints, smell, adult and chick down.
- Wildlife Cameras
- **Grid surveys**: using NPS Inventory& Monitoring Hawaiian petrel monitoring protocol (under review)
- FLIR monitoring with DOFAW staff at our Kahuku site.
- Cat proof fence 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





	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
X	Kahuku	3	3	2	0	1	0
	Totals	41	40	23	1	9	7







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 exclosure.
- No cat sign (scat, tracks) was detected within the exclosure during routine field work.
- Based on this monitoring we believe the Area 2 exclosure to be cat free at this time.



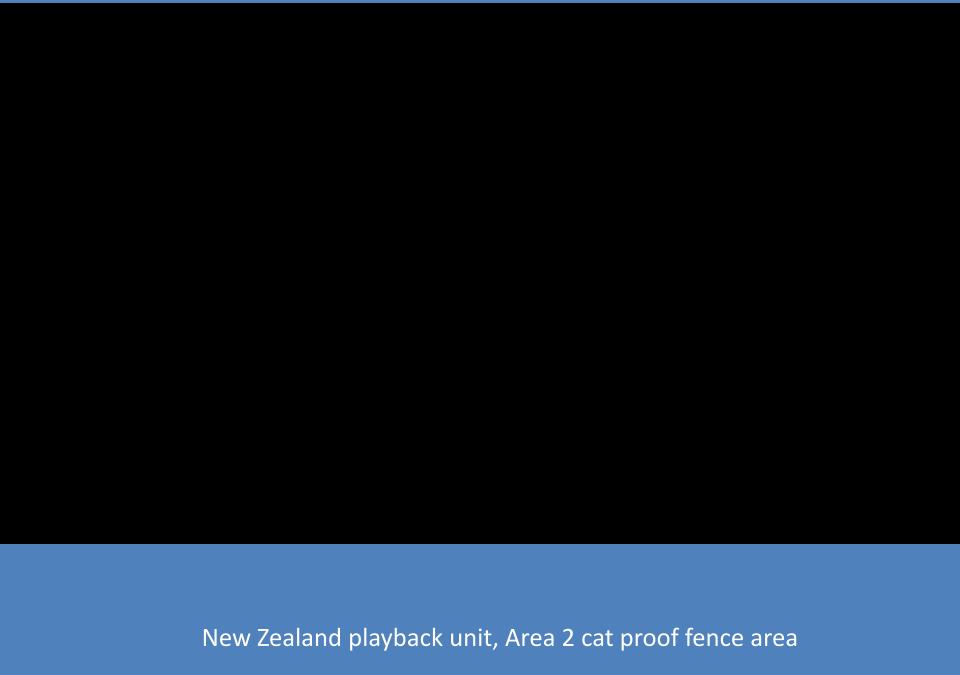
5 YEARS OF MONITORING SINCE COMPLETION OF THE CAT PROOF FENCE, MAUNA LOA, AREA 2

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%



SOCIAL ATTRACTION: VOCALIZATION PLAYBACK UNIT 2020







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.



