

Kure Atoll

Summer 2016

March 31 - October 5, 2016 (189 Days)

Presented by Matthew Saunter and Naomi Worcester



Management Objectives

A serene sunset scene over the ocean. The sun is low on the horizon, casting a warm orange glow across the sky and reflecting on the water. A small boat is visible in the middle ground, and two birds are flying in the sky.

- Habitat Restoration
- Native Plant Nursery
- Wildlife Monitoring
- Pest Management
- Cultural Practices
- Outreach & Education
- Facilities Maintenance
- Marine Debris Removal & Coastal Monitoring
- USCG Soil Remediation Project

Habitat Restoration

April 15th – September 28th



- Completed 3 full-island treatments and began a 4th (610 acres)
 - Each full-island treatment takes 5-8 weeks
- Removed 71,283 *Verbesina*
 - 158,814 in Summer 2015

Native Plant Nursery



Propagated: 709 plants

Outplanted: 1,444 plants

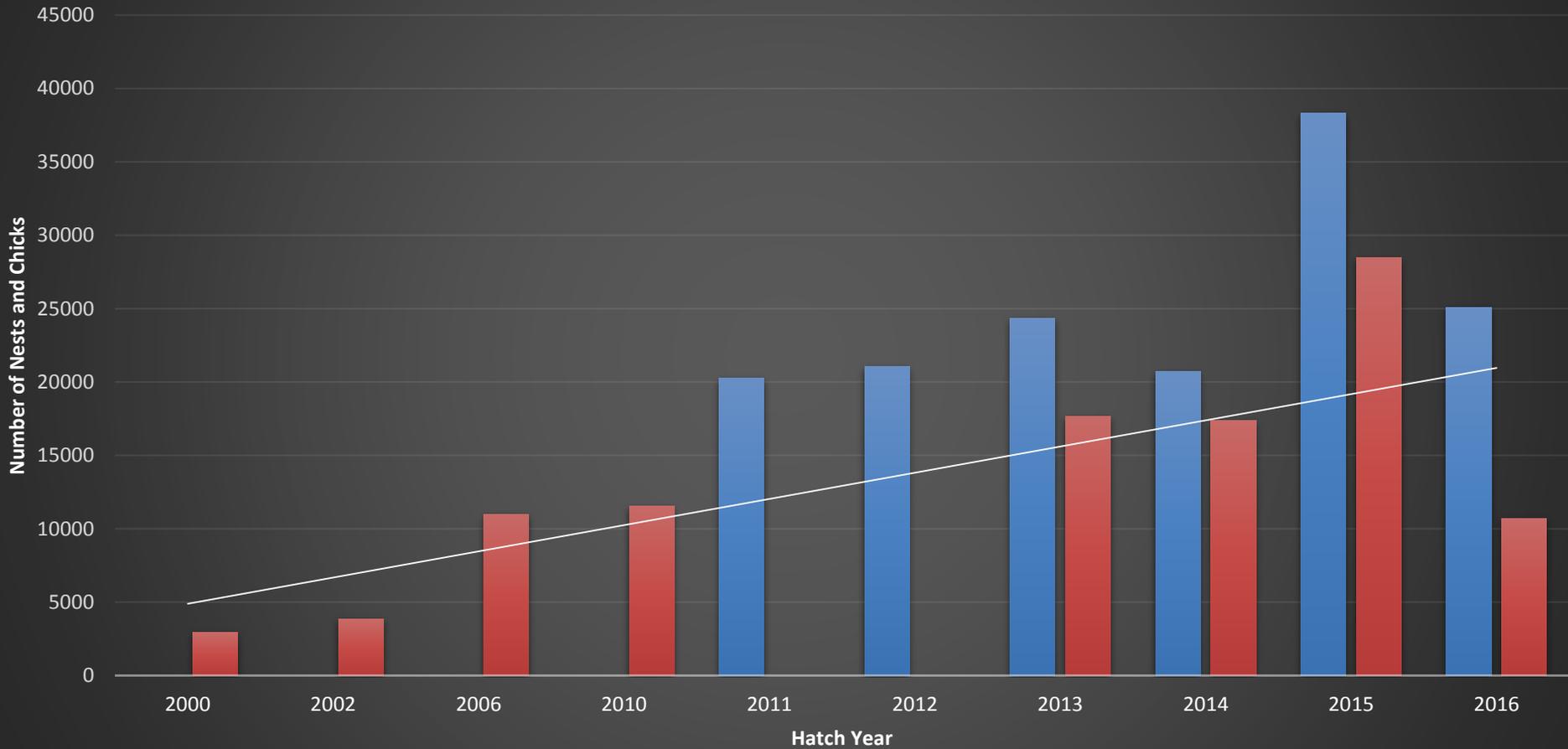
Species:

- 'Anunu, *Sicyos maximowiczii*
- *Eragrostis paupera*
- Kāwelu, *Eragrostis variabilis*
- Mau'ū 'aki'aki, *Fimbristylis cymosa*
- Koali 'awa , *Ipomoea indica*
- Pōhuehue, *Ipomoea pes-caprae*
- *Lepturus repens*
- Naupaka, *Scaevola taccada*
- Ākulikuli, *Sesuvium portulacastrum*
- Pōpolo, *Solanum nelsonii*
- Nehe, *Melanthera integrifolia*
- 'Ena'ena, *Pseudognaphalium sandwicense sandwicense*
- Koali 'Awa, *Ipomoea indica*

Seabird & Shorebird Monitoring



Laysan Albatross Breeding Census 2000-2016

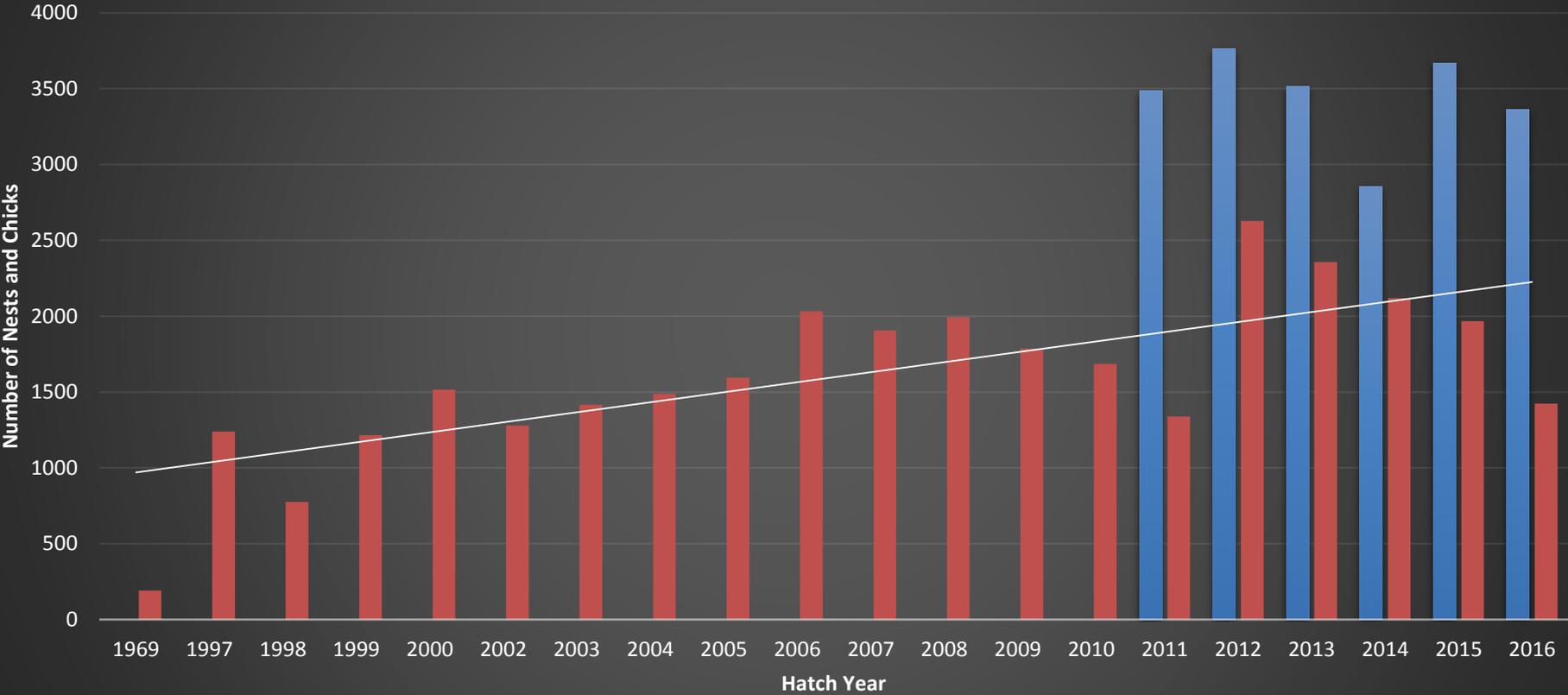


■ Laysan Albatross Nest

■ Laysan Albatross Chick

— Linear (Laysan Albatross Chick)

Black-footed Albatross Breeding Census 1969-2016

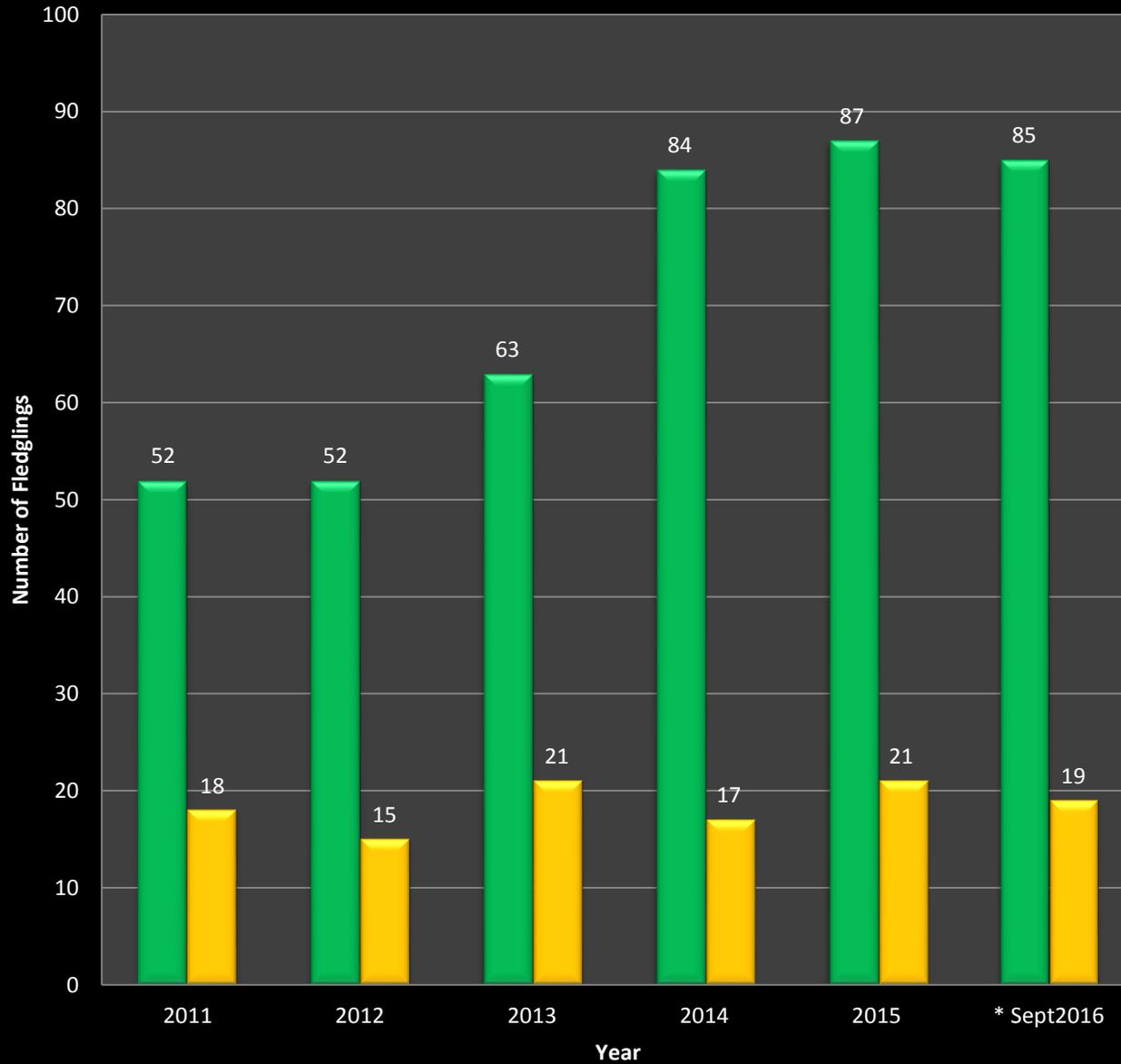


Black-footed Albatross Nest

Black-footed Albatross Chick

Linear (Black-footed Albatross Chick)

Brown & Masked Booby Fledgling Success 2011-2016



-  Brown Booby
-  Masked Booby

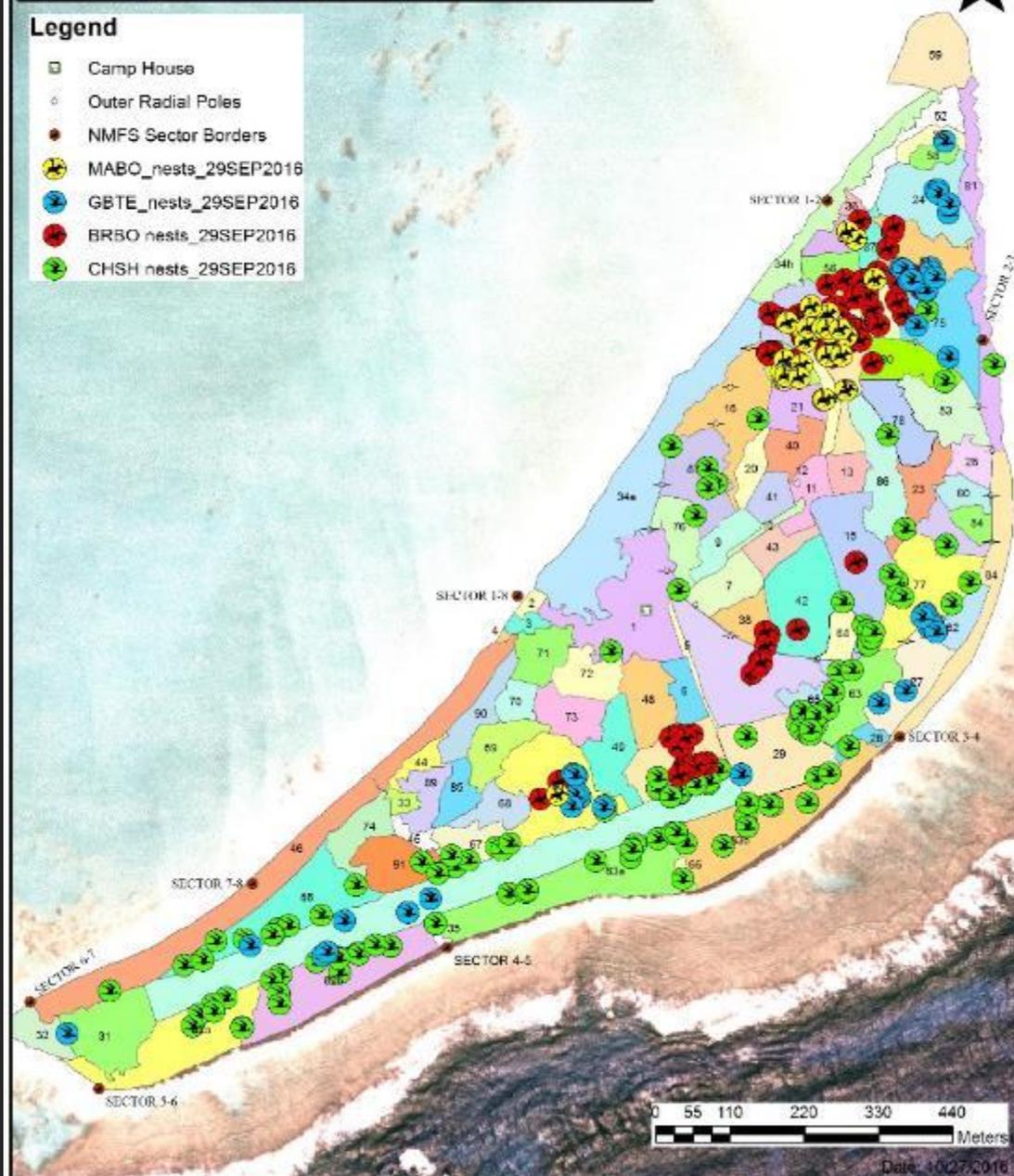


- Waypoints taken for active nests
- Created Distribution Map
 - Christmas shearwater
 - Grey-backed tern
 - Masked & Brown Boobies
- Shorebird Surveys
 - Conducted 3 surveys

Summer 2016 Seabird Distribution Green Island, Kure Atoll

Legend

- Camp House
- ◇ Outer Radial Poles
- NMFS Sector Borders
- ☼ MABO_nests_29SEP2016
- ☼ GBTE_nests_29SEP2016
- BRBO_nests_29SEP2016
- ☼ CHSH_nests_29SEP2016



Koloa Pōhaka - Laysan Teal



March 8–April 3, 2016

- 25 LADU confirmed dead & 3 missing
 - 6 tested positive for Botulism C
- 3 LADU were successfully treated and released

March 23-25, 2016

- Received captive care training and supplies from HWC
 - Additional supplies & support received from HNL Zoo and USGS

No sick or dead ducks were documented in Summer 2016 season

2016 Broods



- 10 Broods documented (June 26 – July 16)
- 30 ducklings documented
 - No ducklings survived
 - Poor survival due to environmental factors and interactions with other wildlife
- Current population estimate is 32 individuals
 - 18 founders
 - 14 Second Year
- Hopeful for 2017!

Hawaiian Monk Seal Monitoring

KG56 'Ena'ena



Arrived to Kure via Hi'ialakai on April 28 & DLNR released on April 29
All 3 rehabbed seals at Kure were sighted this season

Moms & Pups



- 18 pups born in 2016
 - 12 in 2015
- 18 pups weaned
 - 9 females
 - 9 males
- 2 died/disappeared
 - Pre-weaned male & female
- 1 collected for rehabilitation at Ke Kai Ola
 - VH24 PW/F
 - Weighed 24kg at intake

VH24 Lele aka



Assisted with capture and hourly monitoring August 12-14, 2016

Pest Management

Mosquitoes



- Confirmed in camp on August 22
- Mosquito larvicide BTI (aka “Dunk”) received from Midway
- All freshwater sources checked and treated on September 1st
- Continued monitoring in place

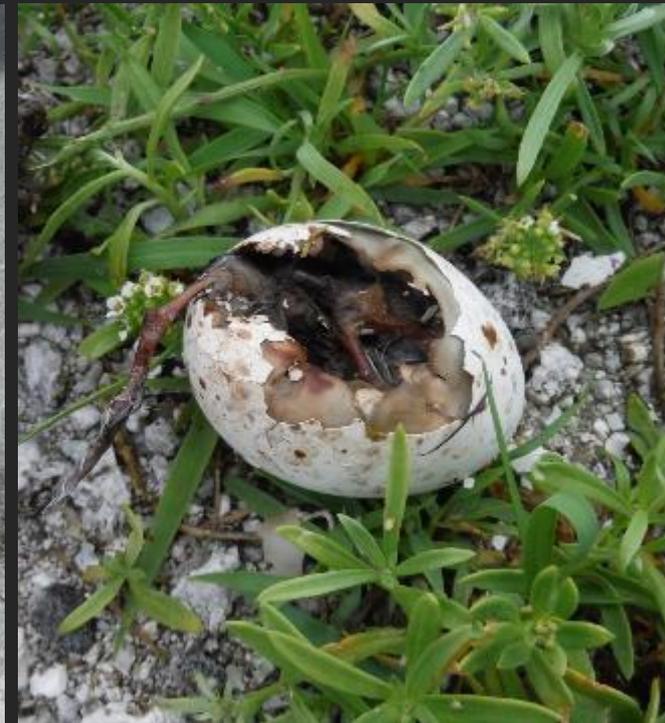


Dump it or DUNK it!

Rattus rattus



- Seen in DLNR camp on August 30
- Caught in live trap on August 31



- Possible damage to BRNO egg near USCG camp
- *Rattus exulans* eradicated in 1995

Rat traps received & deployed



Good Nature Trap (GNT)

- Mahalo Midway for providing rat traps!
- Traps deployed around camps, work sites, and along Runway on Sept 4th
- DLNR crew completed full-island ant/rat survey
 - BHA are still being documented in trace amounts
- No more rats have been detected

Cultural Practices



- Oli Komo and Oli Kāhea
- Cultural Observations: Huli I ka lani! Huli I ka honua! Huli I ke kai!
- Feather Collection

Feather Collection



- Collected feathers found during restoration efforts
 - ‘Iwa, Greater Frigatebird
 - 2 complete specimens
 - Ka‘upu, Black-footed Albatross
 - 2 complete specimens
 - Koa‘e ‘ula, Red-tailed Tropicbird
 - ~100 tail feathers



Outreach & Education

- 2016 PSG Presentation
 - Habitat Restoration at Kure Atoll State Wildlife Sanctuary
- Q & A with Kapa`a Highschool
- Hanahou magazine article “The Far Atolls,” by Ken Weiss
- Collected plastic stomach contents from 8 deceased LAAL chicks
- Collected 186 boluses
 - 100 BFAL
 - 83 LAAL
 - 3 Unkown
- Collected plastic bottle caps & toys for educational art

Maintenance Projects



- Installed new nursery structure
- Painted NE room in main camp house
- Constructed and installed new long drop
- Maintained PV systems
- Maintained RO & Water catchment systems
- Installed new 24V battery bank in main house. Mahalo OHA!

Marine Debris & Coastal Monitoring



- Collected 3,000+ lbs of entanglement hazards from beaches and reef
- Assisted with NOAA marine debris monitoring plots



Spring 2017 SOH funded Marine Debris cruise in the works

USCG Soil Remediation Project

August 19 – September 2, 2016



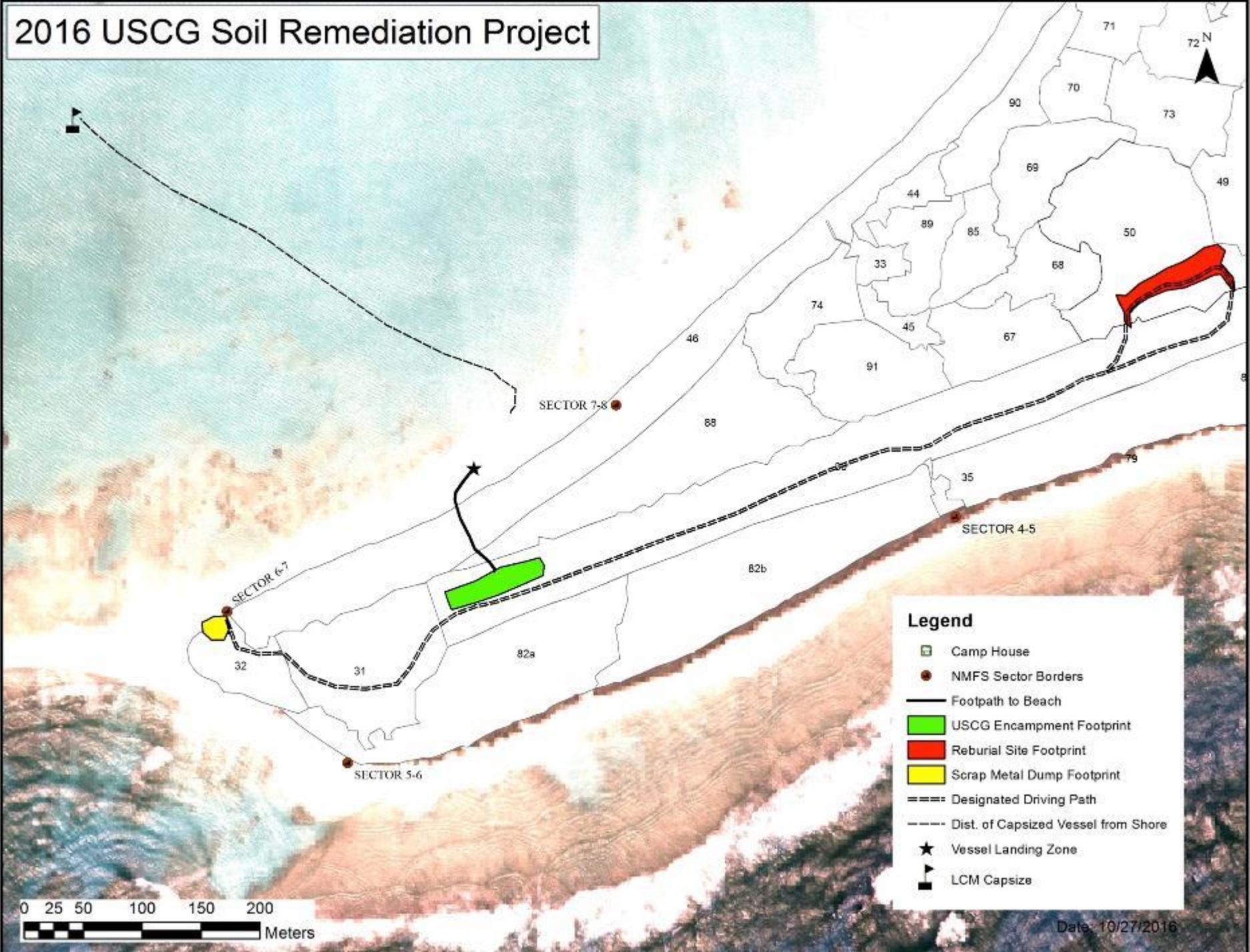
Arrived via M/V Kahana

12 personnel

9 vehicles & 1 vessel

Supplies and equipment

2016 USCG Soil Remediation Project







- Wildlife was monitored at work sites, camp, and beach access
- DLNR advised project personnel on ways to minimize impacts to wildlife
- Successfully relocated 4 seabird chicks from work sites to new locations
- No confirmed mortalities

Scrap Metal Dump (SMD)





SMD - Revegetation



Reburial Pit

~100m x 20m x 2m



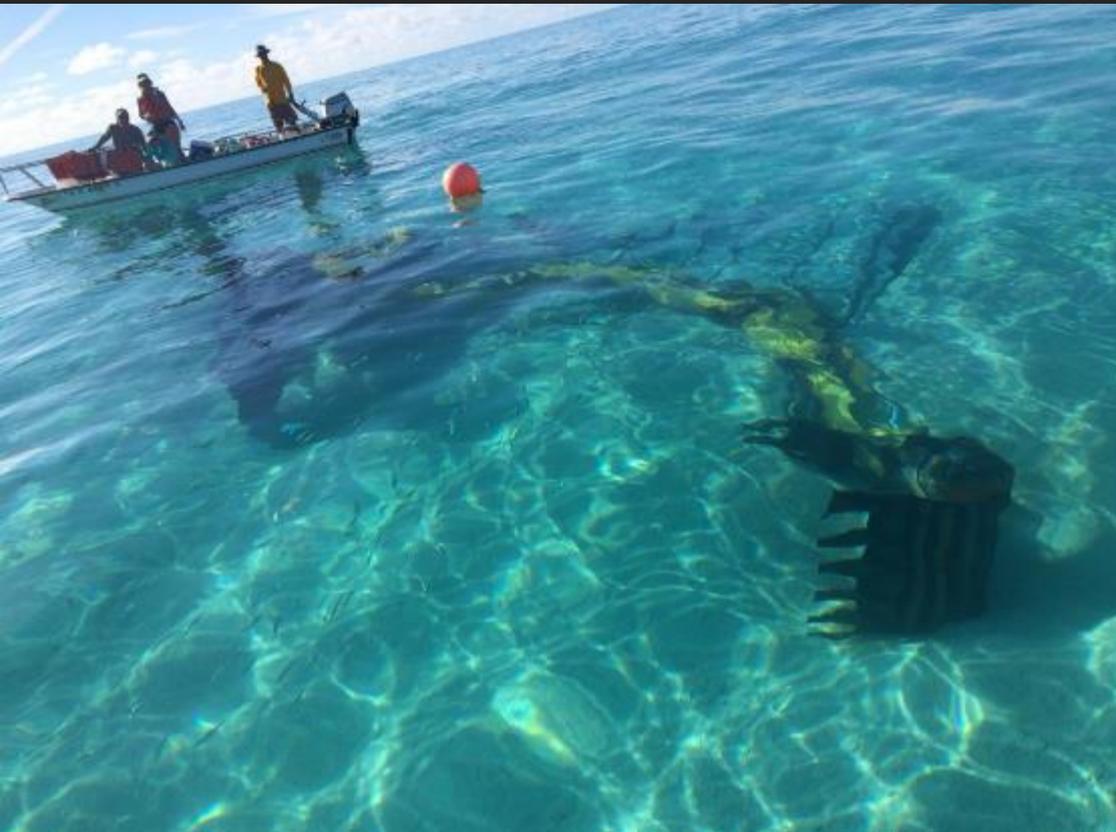
Reburial Site - Revegetation



Vessel Capsize and Excavator



- September 2 – on last load to ship the LCM capsized 440m offshore in ~3m of water
- DLNR and Kahana crews responded to Mayday call
- After several failed attempts to right the vessel Kahana departed for Midway with all USCG personnel.



- September 3 - Kahana successfully recovers vessel, excavator remains in place
- October 15 - Salvage mission cancelled due to poor weather
- 2017 - Tentative salvage planned
- All loose debris was removed from surrounding waters
- No longer appears to be leaking fluids
- Regular monitoring will be continued until removal

MAHALO!

