

Feral Free-ranging Cats on the Hawaiian Islands: Addressing Global Conflicts of Cats with Wildlife on the Local Scale



Hawaiian Stilt Chicks



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Maui District



My background:

- Grew up in Michigan
- Undergraduate degree: University of Michigan (Biological Science)
- Graduate degrees: Freiburg im Breisgau, (Diplom- Molecular Genetics) & Dr. rer.Nat. Freie Universitaet Berlin (Zoology and Ecology)
- State of Hawaii Wildlife Biologist – Maui District 1984-Present.
- Responsibility for Native Species Management Maui, Moloka'i, Lana'i

...What I want you to remember

HAWAI'I IS THE EXTINCTION CAPITOL OF THE WORLD

Facts: Only NATIVE mammals are a small bat, and the Monk Seal

More than 50% of US Endangered Birds are Hawaiian Birds

Once 129 bird species – 95 have now disappeared;
70% (24 species) are federally listed as **ENDANGERED SPECIES**

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Image © 2007 NASA

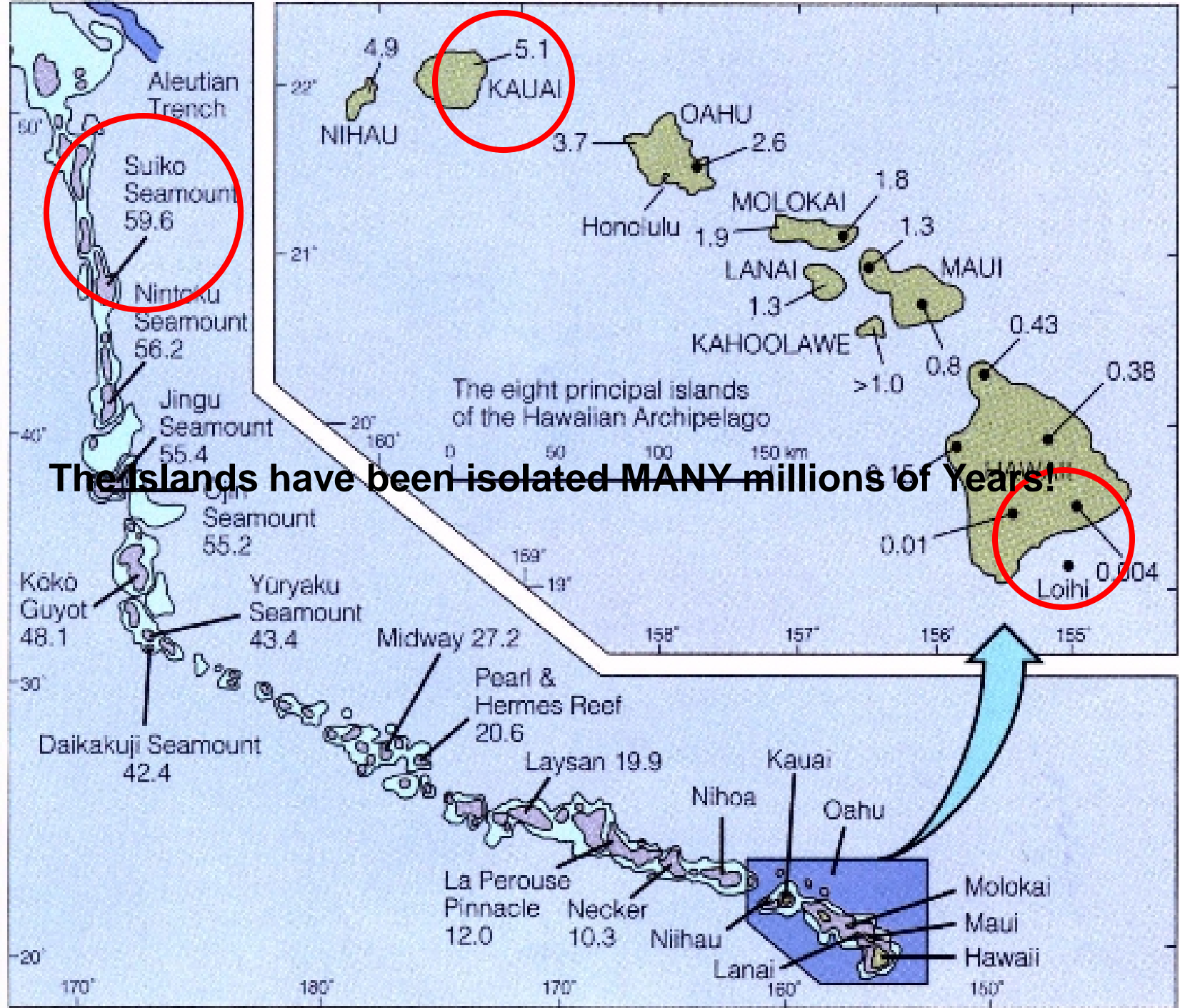
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Pointer 21°23'25.98" N 157°55'09.04" W

Streaming ||||| 100%

Eye alt 3428.00 mi

Hawaii is the most isolated land mass on Earth

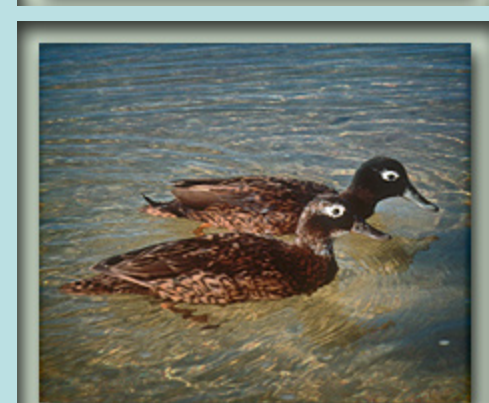
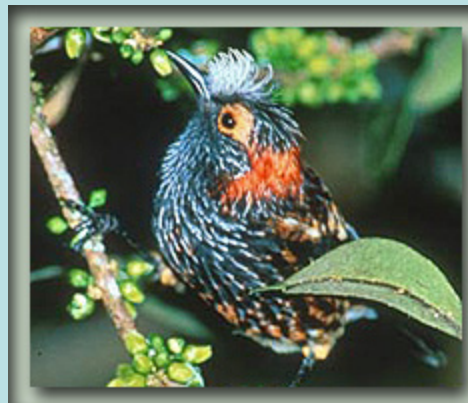
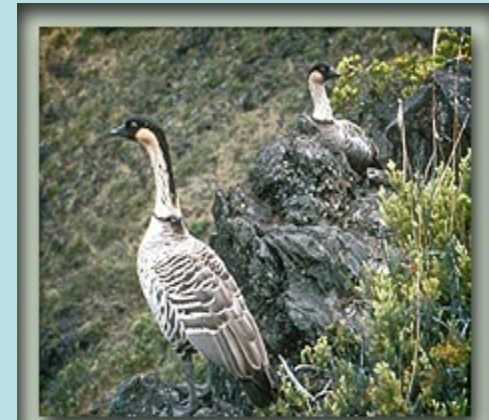


The islands have been isolated ~~MANY~~ millions of Years!

Hawaii: Best Known for it's Overall Beauty,
Ocean, Beaches, and Mountains



The species of flora and fauna that evolved here are unique and can be found nowhere else in the world!



Remember:

Only NATIVE mammals are a small bat, and the Monk Seal
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My Primary Goal:

A black cat is standing on a pile of dark, porous volcanic rocks. The cat is looking towards the right of the frame. The background is filled with more rocks and some sparse, dry vegetation.

Inform you about feral free-ranging cats on Maui and The Hawaiian Islands and the threat they pose to Hawaii's native birds, and especially the remaining Endangered Species.

Department of Land and Natural Resources Division of Forestry and Wildlife

Role and Responsibilities with regard to domestic cats

Land and Wildlife Management – on approx. 1,000,000 acres of wildlife habitat

- Forest Reserves, Natural Area Reserves, Wildlife and Plant Sanctuaries, Game Management Areas, Partnership Areas
- consisting of montane forests, coastal areas and offshore islets, wetlands, alpine areas, etc.

Regulatory and Enforcement - Wildlife

- Chapters 183D and 195D, Hawaii Revised Statutes prohibit take of birds and native species
- Hawaii Administrative Rules for management of Division lands and protection of native species
- Responsible to protect and recover all native and T&E species statewide

Feral and Free Ranging Cats and Conflict with Maui Island Wildlife



Maui Provides a Local, Island-based Look at the
Hawaiian, National, and Global Issue of Impacts of
Free-Ranging Cats

MORE NUMEROUS THAN STRAY CATS – FERAL CATS RANGE THE WHOLE ISLAND



Feral cats are unowned , free-ranging, untamed cats separated from domestication. Feral cats may be born in the wild and never socialized, or may –rarely near habitation- be abandoned or lost pets that have become wild.

Cats are excellent hunters.






As Excellent Hunters,

•Feral and free-ranging cats are one of the greatest threats to our native Hawaiian birds.

•At the National Level more than 500 MILLION birds may be killed by cats annually



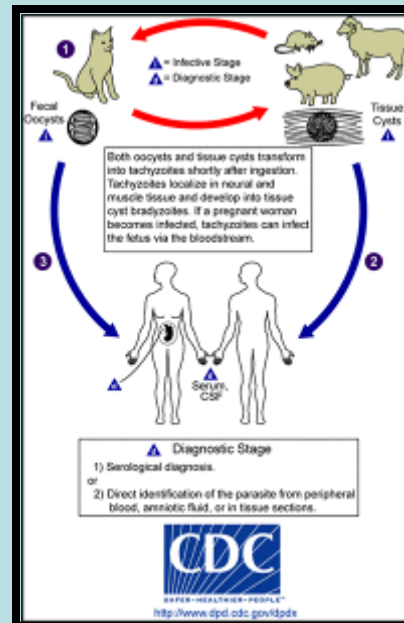
**SOMETHING MUST DIE –
WE GET TO DECIDE
WHAT DIES!**



**And cats kill even when well
fed as pets, or
spayed/neutered and re-
released!**

So the problem with feral and free-ranging cats?

- **Skilled hunters**
 - Obligate Carnivores
 - Opportunistic Killers
- **High reproductive rates**
 - Capacity for exponential population growth
- **Introduced predators**
 - Native species are often unaccustomed to cats and do not avoid them
- **Spread diseases**
 - Toxoplasmosis
 - Feline Aids & Leukemia
 - Cat Scratch Fever
- **Public Nuisance**
 - Loud Nocturnal Mating Calls
 - Scent Marking
 - Feces



Warning: Graphic Pictures Ahead



Feral cats have decimated wild species in places like the Galapagos, Pacific Mexico, and **also here in Hawaii – it is not unique or new issue!**

Palila adult



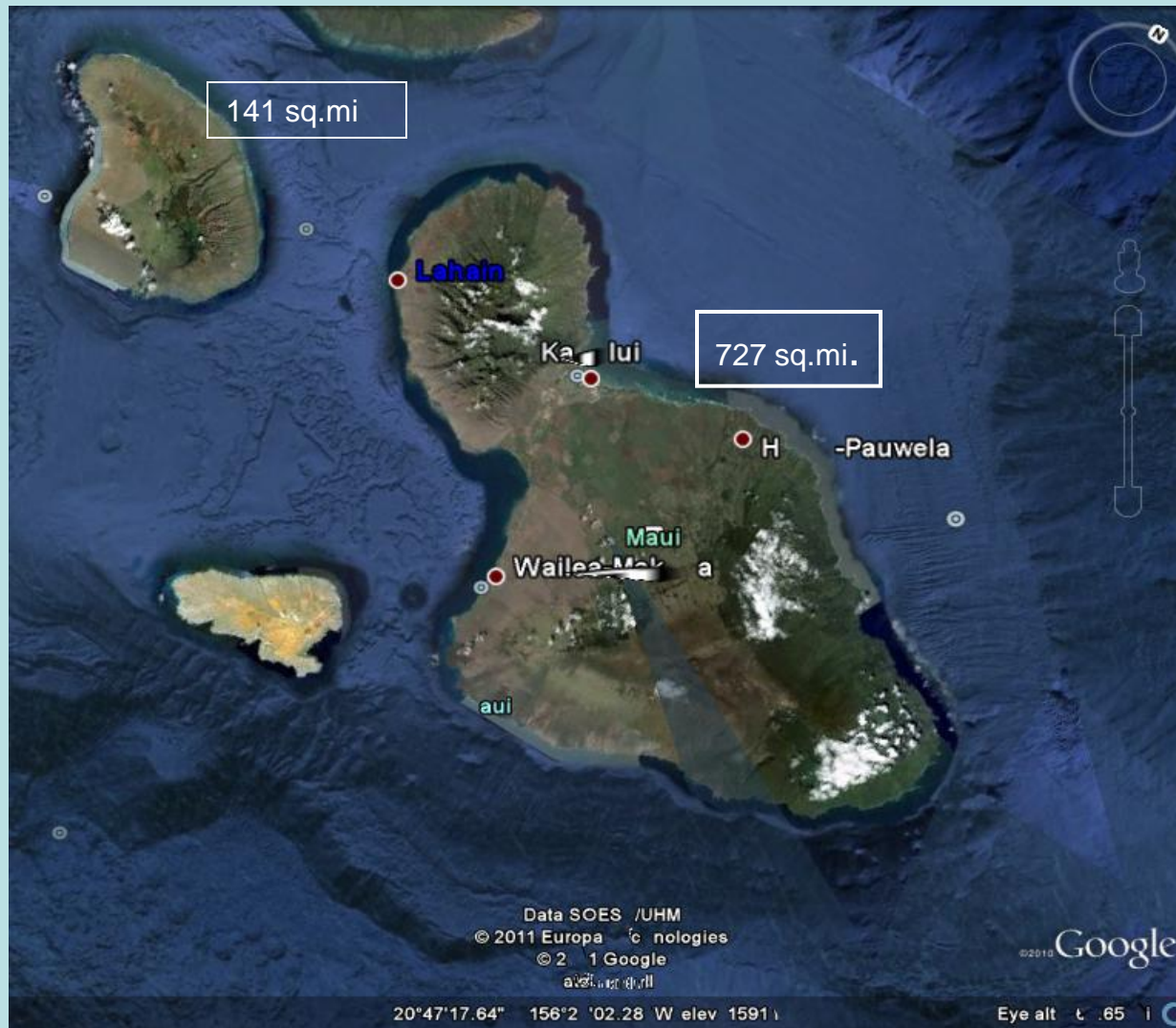
Endangered Hawaiian Palila nest with remains of young birds killed by a feral cat, Big Island It is NOT only a new problem...

year 1903

“On Lanai in walking up a single ravine, I counted the remains of no less than twenty-two native birds killed by cats, and these must all have been destroyed within two days as previously the whole gulch had been washed out by a heavy flood.”

“...owing to the fact that they [cats] are extremely shy and mostly nocturnal in habits, few people who have not lived much in the woods have any idea of their numbers.” -R.C.L. Perkins





On Maui Island alone, feral free-ranging cats are now estimated to number approximately **300,000-400,000** animals! That is 413 to 550 cats per square mile!

That means that for every 1 resident on Maui Island there are more than 2 feral free-ranging cats



AND the number of cats getting neutered/spayed, is less than 1 percent annually! This rate of sterilization DOES NOT affect the population growth of free-ranging cats!

Take a moment to think
about that.

Kanaha Pond Wildlife Sanctuary

- Current trap management ongoing for 10 years

Based on research :

- Long-term Trapping Program for Removal of Predators at Kanaha Pond Wildlife Sanctuary, Maui.
- Assessment of Significance of Predator Removal on the Endangered Waterbird Population at Kanaha Pond Wildlife Sanctuary, Kahului, Maui. (Gassmann-Duvall 1994)



Percent Predator Stomachs with Prey Item

% with Rodents Birds ES Bait

Predator:

CATS (22)

100

50

12

13

RATS*

R. exulans (33)

88

12

nd**

100

R. rattus (45)

100

18

nd

94

R. norvegicus (3)

100

1 of 3

nd

100

MONGOOSE (28)

16

24

6

53

* Rodents eaten mostly *Mus musculus*

Reproductive success increased > 300%

** Not determined: Down observed may have been HAST or gamebird chick in origin

Kanaha Pond Wildlife Sanctuary

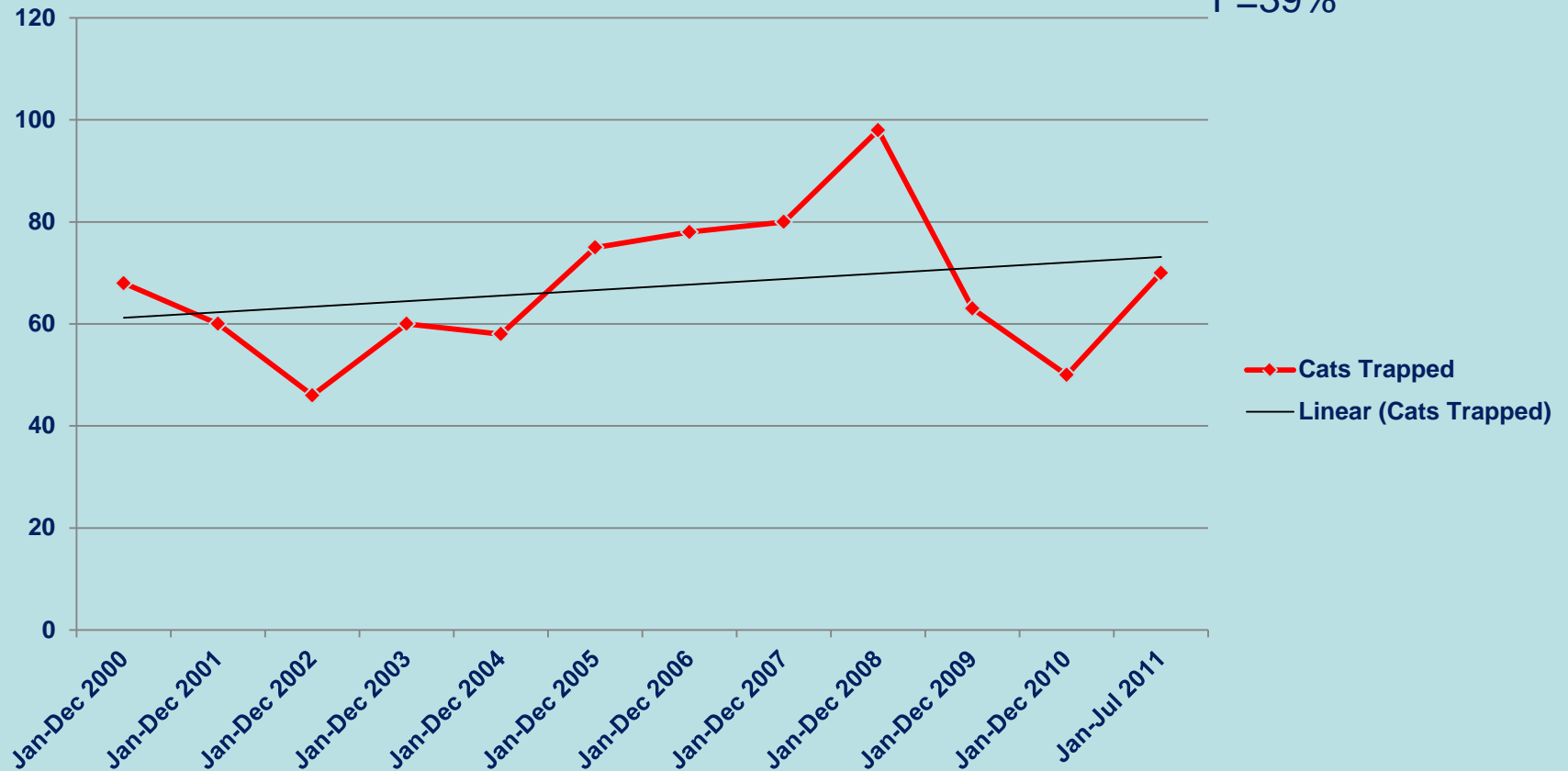
Traps with 10-60 Cats & Colony Locations



Kanaha Pond Wildlife Sanctuary

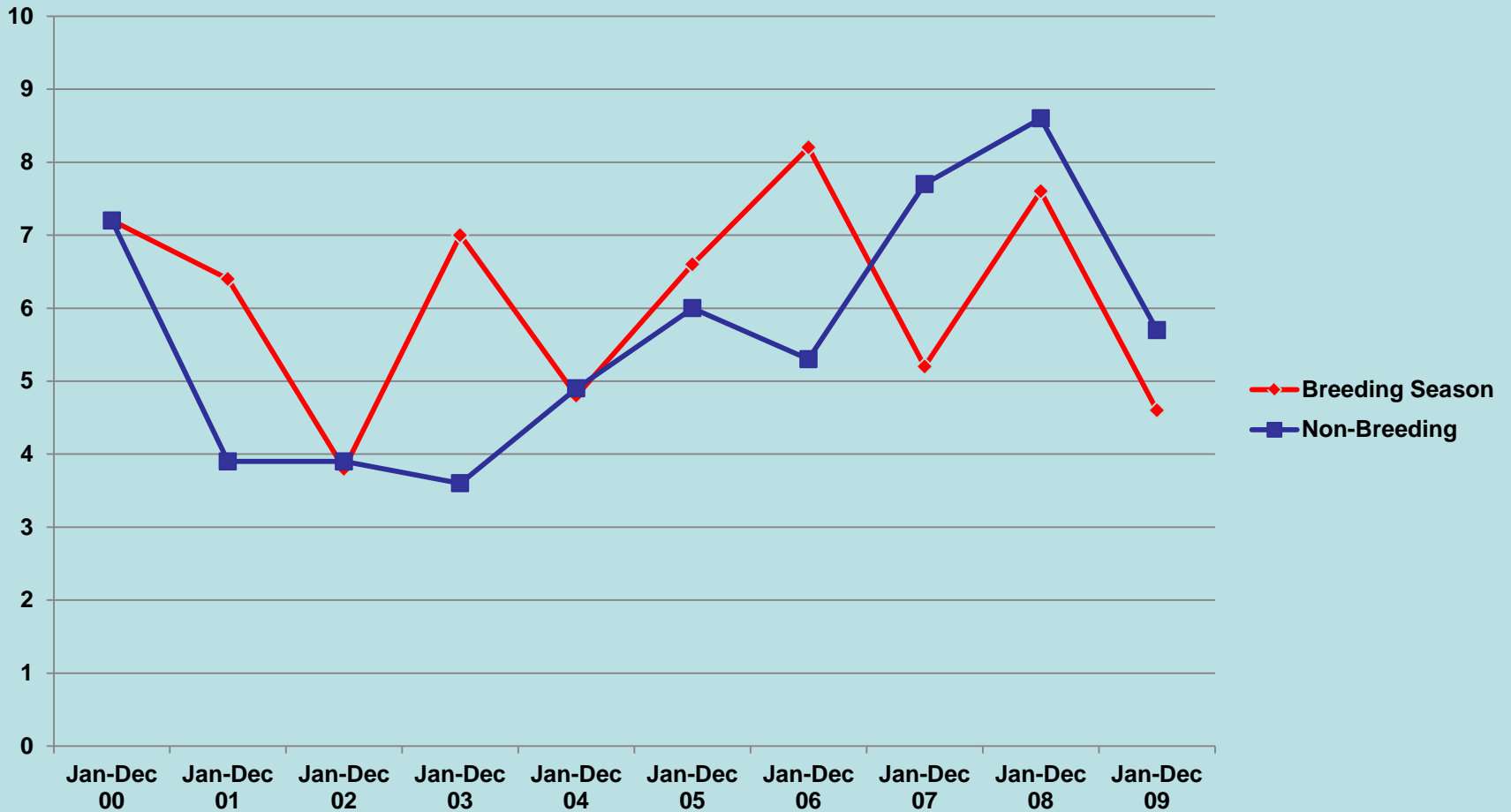
Cats Trapped 2000-2011

N=806 M=61%,
F=39%

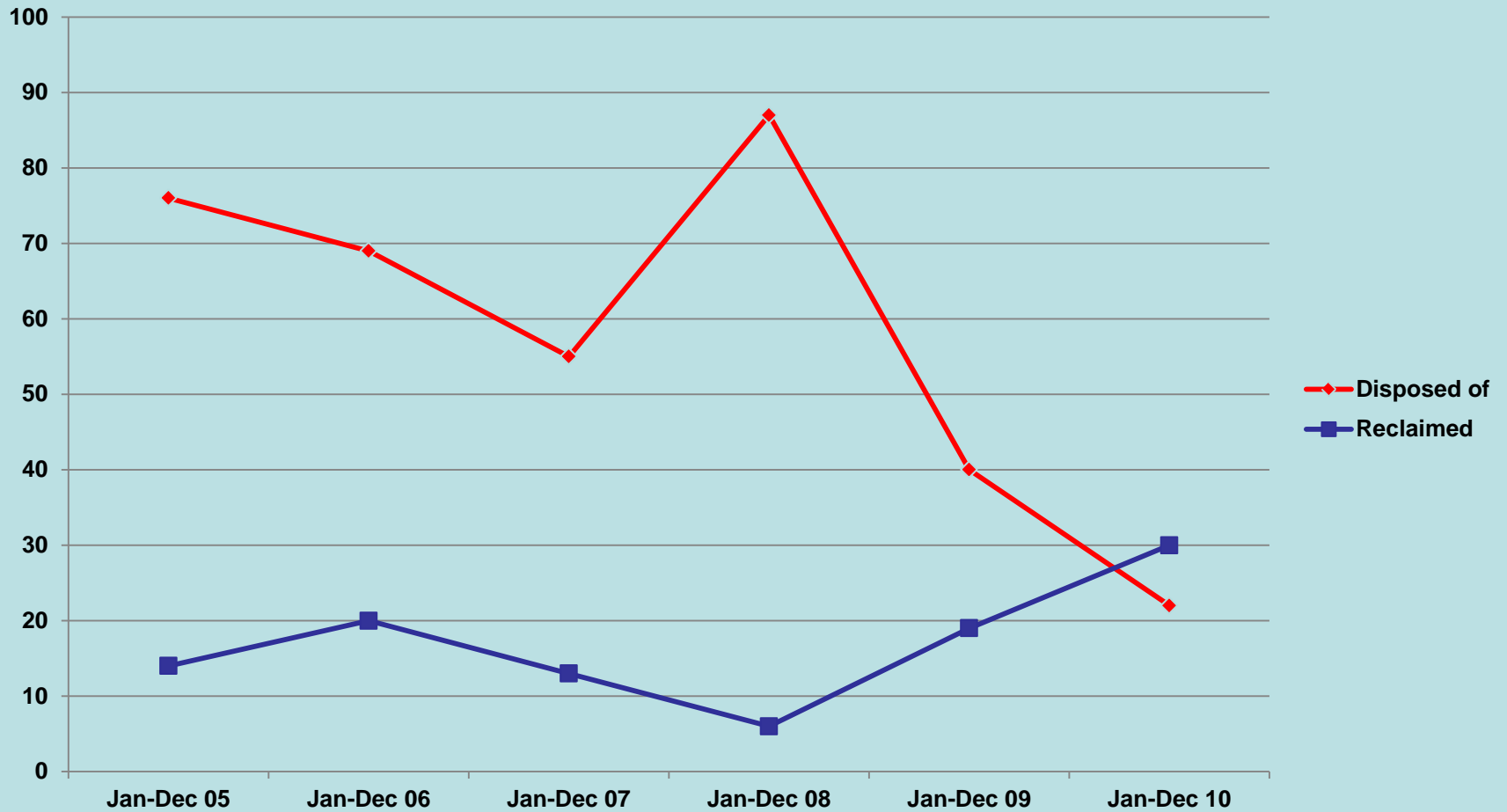


Kanaha Pond Wildlife Sanctuary

CATS TRAPPED & SEASONS



Kanaha Pond Wildlife Sanctuary Disposition of Cats 2005-



BACK TO THE SITUATION:

- Maui Island is not alone
- Feral and free ranging cats are quickly becoming a problem Statewide
- Cat colonies have become the norm in most areas causing cat populations to skyrocket



“Hundreds of thousands of feral cats could be roaming the Big Island, from beaches to higher elevations, and as many as 10 percent of those animals could be carrying infectious diseases like feline leukemia and feline AIDS”

**- Josi Morgan, director of the Hawaii Island Humane Society
West Hawaii Today, Sunday, March 23, 2008**



Feral cat feeding station, Borders Book Store, Kona, Hawaii

THE PROBLEM WITH CATS IS SEVERE and OBVIOUS...

“We have a terrible feral cat problem,” said Kona Councilwoman Brenda Ford, who spent more than \$10,000 of county money last year to help control the feral cat population. “You have all these scrawny, sickly cats around commercial areas and hotels. It's just a bad situation.”

-Honolulu Star Bulletin, Tuesday-March 25, 2008

“Feral cats are everywhere on Maui,” said MHS CEO Jocelyn Bouchard. “We all need to realize the choice is no longer whether or not to have cats in your neighborhood; the choice is whether the cats residing around your business or home are managed or unmanaged”. ... “According to Bouchard, there are hundreds of feral cat colonies located across the island, and population sizes vary according to the size of the area they inhabit”. - *Maui Weekly 9/3/2009*

Most feral cat colony caretakers are well meaning people who think they are doing the right thing.

Common Goals?

YES!

- Humane treatment of cats
- Reduce or eliminate the need to control cats





Although well meaning, most cat colony caretakers may misunderstand, minimize, or choose to ignore the documented concerns regarding the ecological, domestic animal, public health, humane, and social nuisance impacts of feral free-ranging cats.



Feeding of feral and free ranging cats not only bolsters cat numbers, but also attracts mongoose and other introduced predators to an area. It often concentrates cats near native wildlife habitat at very high densities.



Feral and even Pet free-ranging cats pose an enormous threat to our native species!

Wedge-tailed Shearwaters

- Long-lived seabird(40+yrs)
- Come to land once a year to breed nesting along the coasts of the Main Hawaiian Islands
- Monogamous species that form long-term pair bonds
- Lay only **one egg** and raise **one chick** per year, it takes **SEVEN** years for the birds to mature and start to breed!
- It takes both parents to raise the chick – loss of one is often fatal to the chick.



Wedge-tailed
Shearwater colonies
on all islands are
facing tremendous
pressure from feral
and free ranging
cats



Entire seabird breeding colonies on Oahu, Maui, Molokai, and Lanai have been decimated by these introduced non-native predators.



Especially ones near Cat Colonies...



Wedge-tailed Shearwaters killed by feral cats on the island of Maui

Warning: Graphic Pictures





Feral and free ranging cats are EATING our seabirds!

Remains of 2 wedge-tailed shearwater
chicks in feral cat stomach.

Kilauea Point NWR, Kauai, HI

Brenda Zaun, USFWS



AUG 23 200

IT HAPPENS TO NATIVE BIRDS EVEN IN OUR YARDS

“Last night, around 1 in the morning, I was woken up by a lot of strange noises coming from downstairs. I couldn't quite place the noises, but there were definitely animals involved. I scraped myself out of bed and went to take a look. It turns out that my cat had brought home a playmate - a Golden Plover.”

Posted on September 13, 2006 at 5:03 PM by Mike Dunford, a Zoology graduate student, on his blog



Also Happens in Our Wettest Mountains

Feral Cat in Waikamoi Rainforest (300" rain/year)



Our seabirds, waterbirds, shorebirds and forest birds are all in danger!



Forest Bird leg bands in cat feces

**Our Endangered Species are also
at Risk.**

The Lana`ihale Project

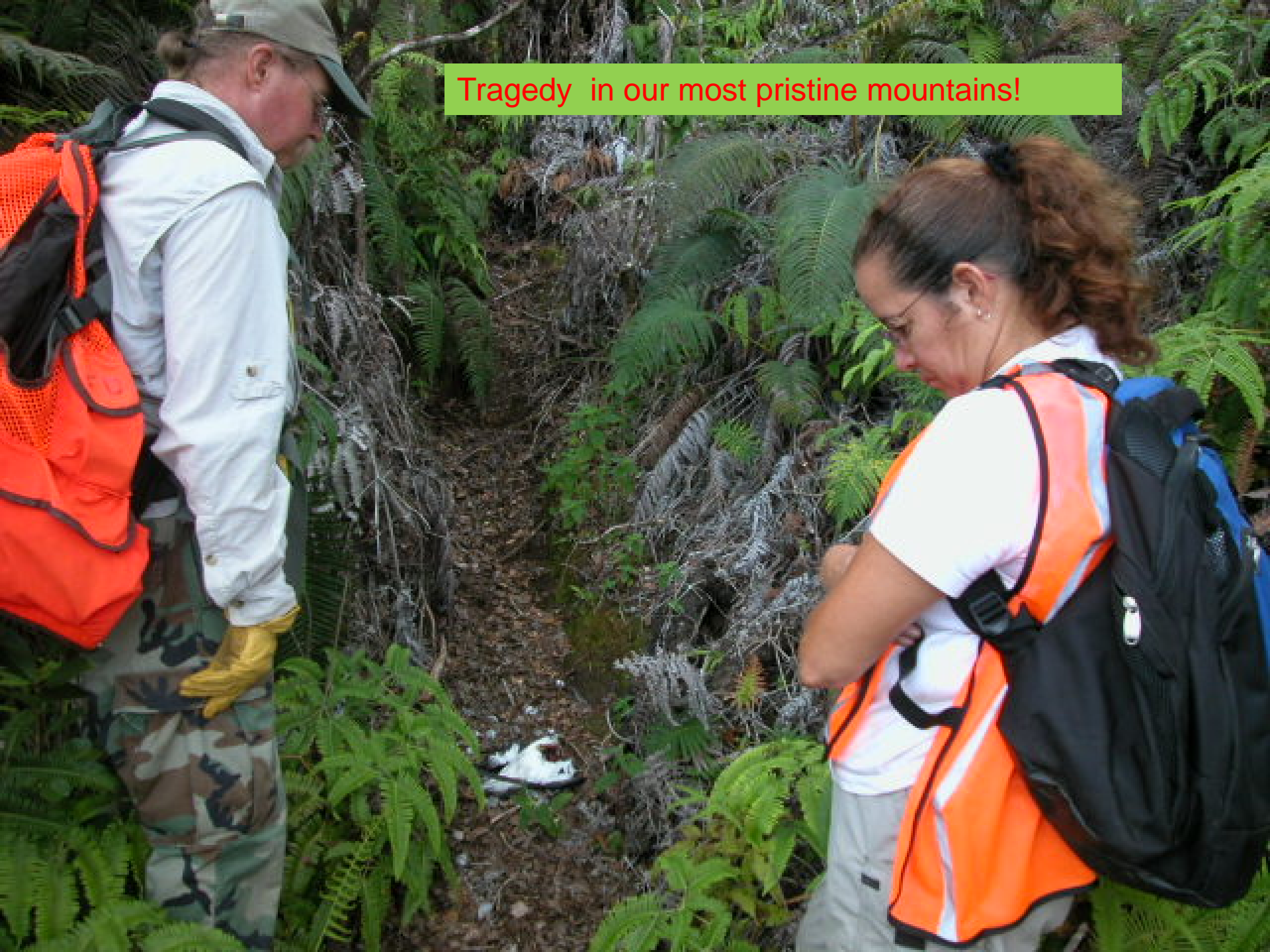
- Staff work to protect one of the largest known colonies of Endangered Hawaiian Petrels or `Ua`u in the State (World)
- Staff Monitor individual Petrel burrows during the breeding season to determine success of egg laying, hatching and chick fledging
- Have SADLY documented repeated feral cat predation at the colony



Cat feces with Hawaiian petrel feathers



Tragedy in our most pristine mountains!





Hawaiian Petrel adult – Cat killed bird

An `Ua`u (Hawaiian Petrel) that was depredated by a feral cat on remotest Mauna Loa, Hawai`i.

It is possible that all Hawai`i Island `Ua`u will soon be extirpated if the predation continues at the present levels



Credit: Fredrick R. Warshauer



A complete mandible of a young `U`au (Hawaiian Petrel) found in feral cat stomach from Mauna Loa in Hawaii Volcanoes National Park

All it takes is one cat

At the right place

At the right time...

To cause irreparable harm.



**Fledgling Hawaiian Petrel at its burrow
in Haleakala National Park, Maui Island**







Your's and the World's
Hawaiian birds
are
in danger!



**Cat at Newell's shearwater burrow
Female incubating egg in burrow
6/2/2007 at 0301
Photo taken by Trailmaster camera
Kilauea Point NWR, Kauai, HI**

These introduced non-native killers are at their door

If you don't want to **have to go** to the Bishop Museum on Oahu to look at Hawaii's native birds, then you must **act** now!





Before it's too late!

Extinct Species of Hawaiian Birds

We can't keep looking the other way.



CHALLENGES

- Continuous Ingress and Cat Trapping
- Increasing Return to Colonies (MORE Free-ranging cats)
- Locations of Colonies near Wildlife
- Anonymous Colony “Owners” (no responsible party for actions of cats)
- Contention over Disposition of Cats
- No Benefits to Bird Management/Recovery

The Politics are often Tricky, but the Facts are Straightforward!

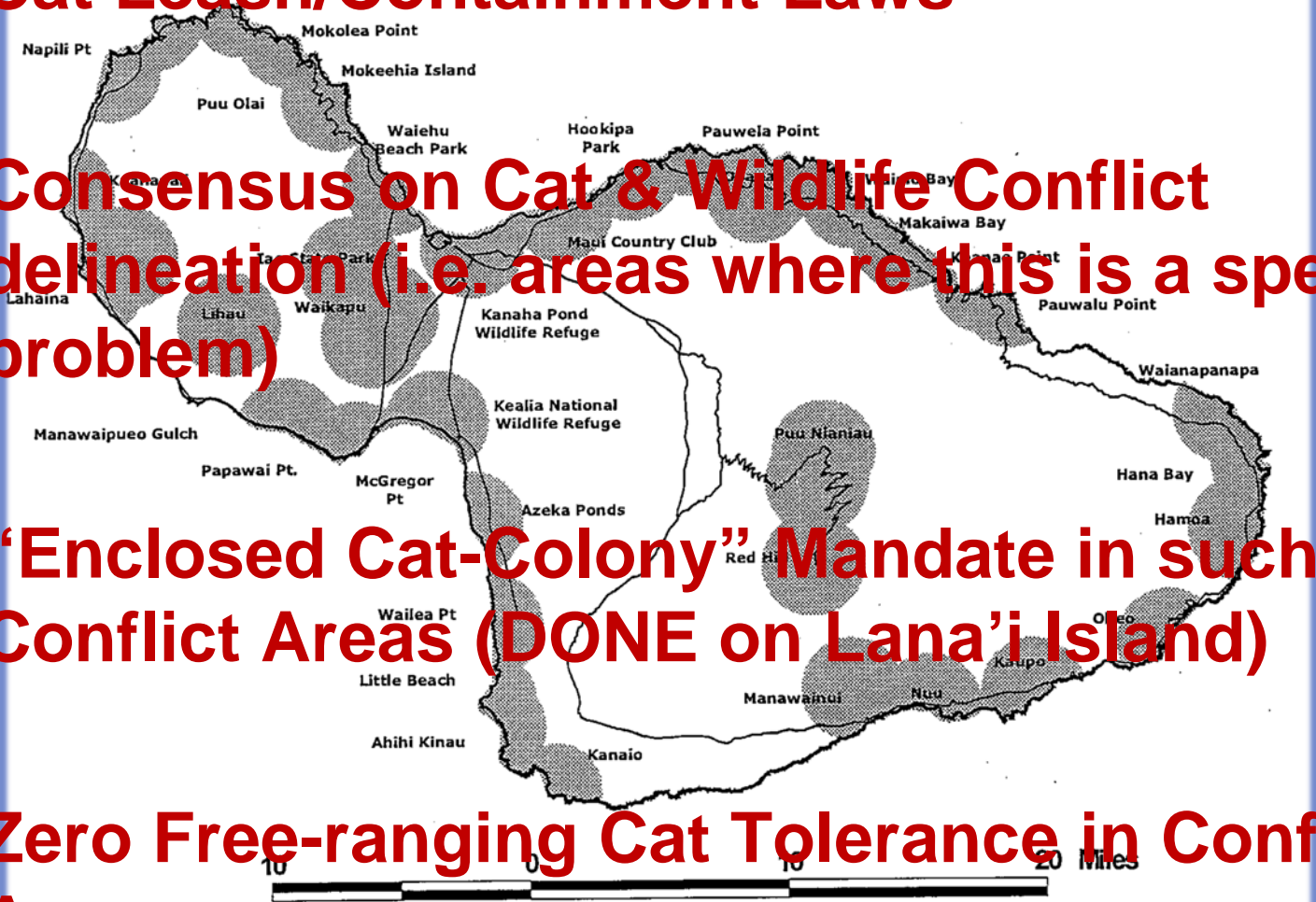
- Conservation at Island, National, Global Levels needs to involve Policies and Actions to Preserve Biodiversity and Healthy Ecosystems
- A Scientifically Logical Proposal to Address Free-ranging Cats at Landscape Level to Solve the Problem of Cats versus Conservation of Wildlife is Urgent
- Irreversible action/inaction is worse than reversible!

MAUI NEEDS (at Landscape Level):

Cat-Wildlife Conflict Zones
Island of Maui



- Cat Leash/Containment Laws
- Consensus on Cat & Wildlife Conflict delineation (i.e. areas where this is a special problem)
- “Enclosed Cat-Colony” Mandate in such Conflict Areas (DONE on Lana’i Island)
- Zero Free-ranging Cat Tolerance in Conflict Areas



We must act now, as we are the human voice for our truly irreplaceable native, threatened, and endangered species.

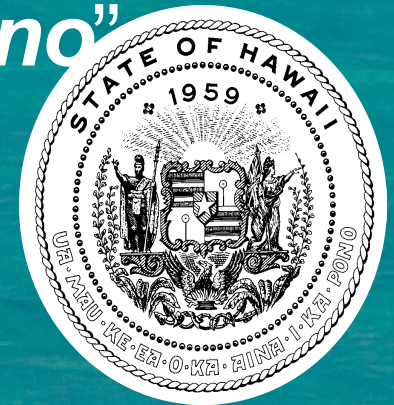


Do the Right Thing, Do it Right!



“Ua Mau ke Ea o ka ‘Aina i ka Pono”

Hawaii Motto: “Life of the Land is Perpetuated in Righteousness”



Mahalo



-Steven C. Hess, Paul Banko,
Chris Farmer of USGS- Pacific
Island Ecosystems Research
Center



-Norma Bustos, Hawaii
Division of Forestry & Wildlife



-Chris Lepczyk, University of
Hawaii at Manoa



-Lana`ihale Endangered
Seabird Recovery Project Staff

And..

-FLICKR and all who took
pictures of feral cats while on
vacation in Hawaii