

Disposable Pets, Unwanted Giants: Getting a Grip on Pythons in the Glades

1 November 2007

**Gulf and South Atlantic Regional Panel
On Aquatic Invasive Species**



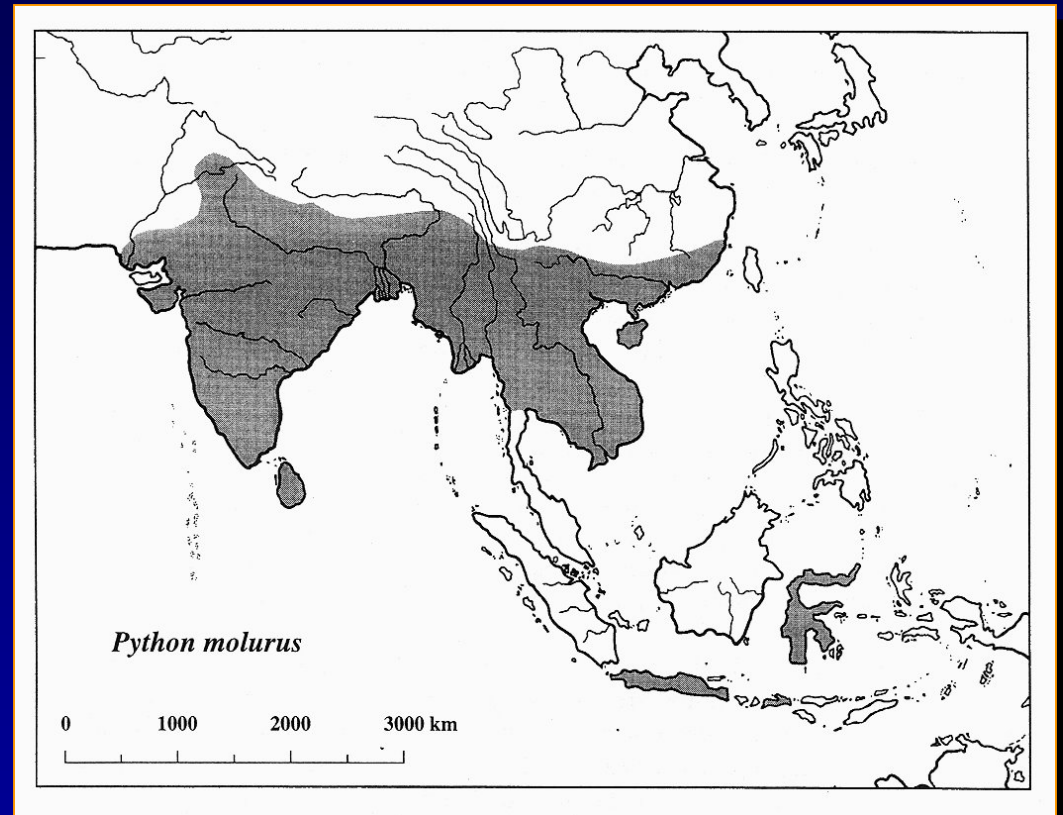
**Skip Snow & Lori Oberhofer
Everglades National Park
Homestead, Florida**



What are Burmese pythons?

Natural range of
Python molurus

2 subspecies:
P. molurus molurus
P. m. bivittatus



What are Burmese pythons?

(continued)

Thought to be able to reach over 20'

Max documented mass 91 Kg (~200 lbs)

Max documented length 5.9 m (~19')

Mating is Feb - March, Eggs laying May – June

Eggs hatch July – Aug after about 60 + days

**Fast growth, 75 mm/mo 1st yr, and
40 mm/mo thru maturity**

**Trophic generalist eating wide taxonomic and
size range of vertebrate prey...**

Generally up to 80% of snake's mass

Reptile Extravaganza!



A satellite image of a large hurricane with a distinct eye, swirling over the Gulf of Mexico. The landmasses of North and Central America are visible in the upper left.

Welcome to **Florida**

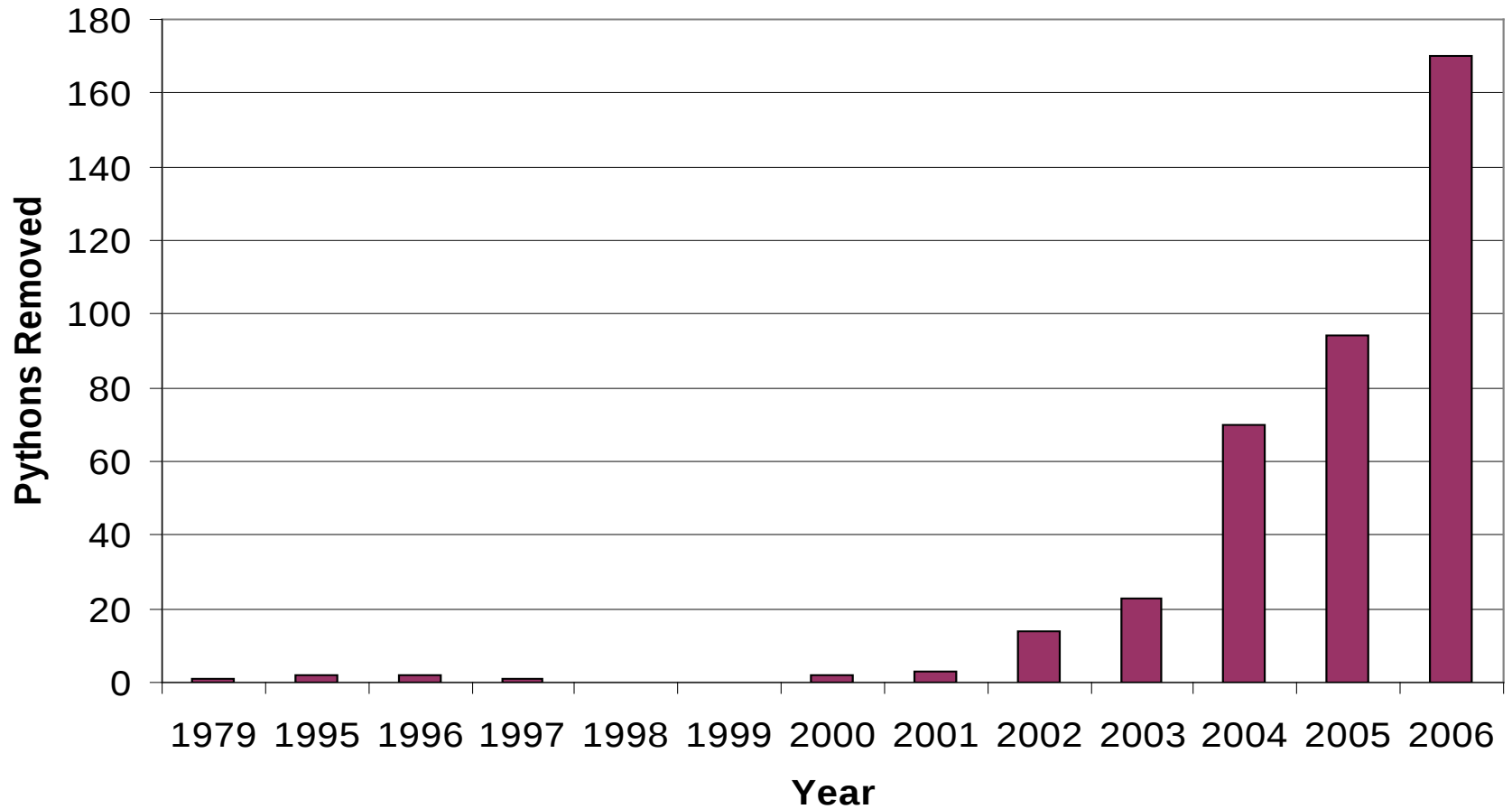
We are here







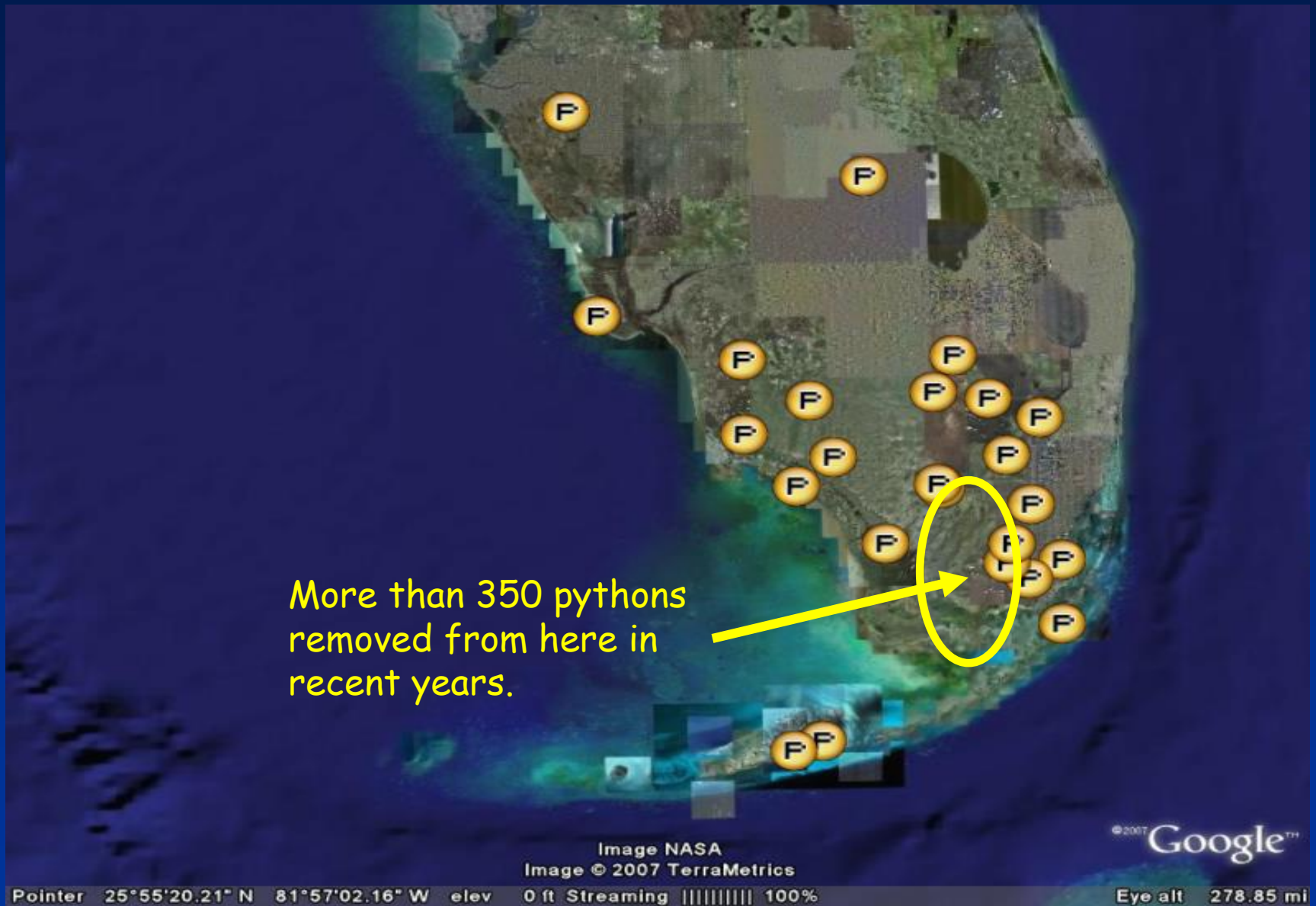
Pythons Removed



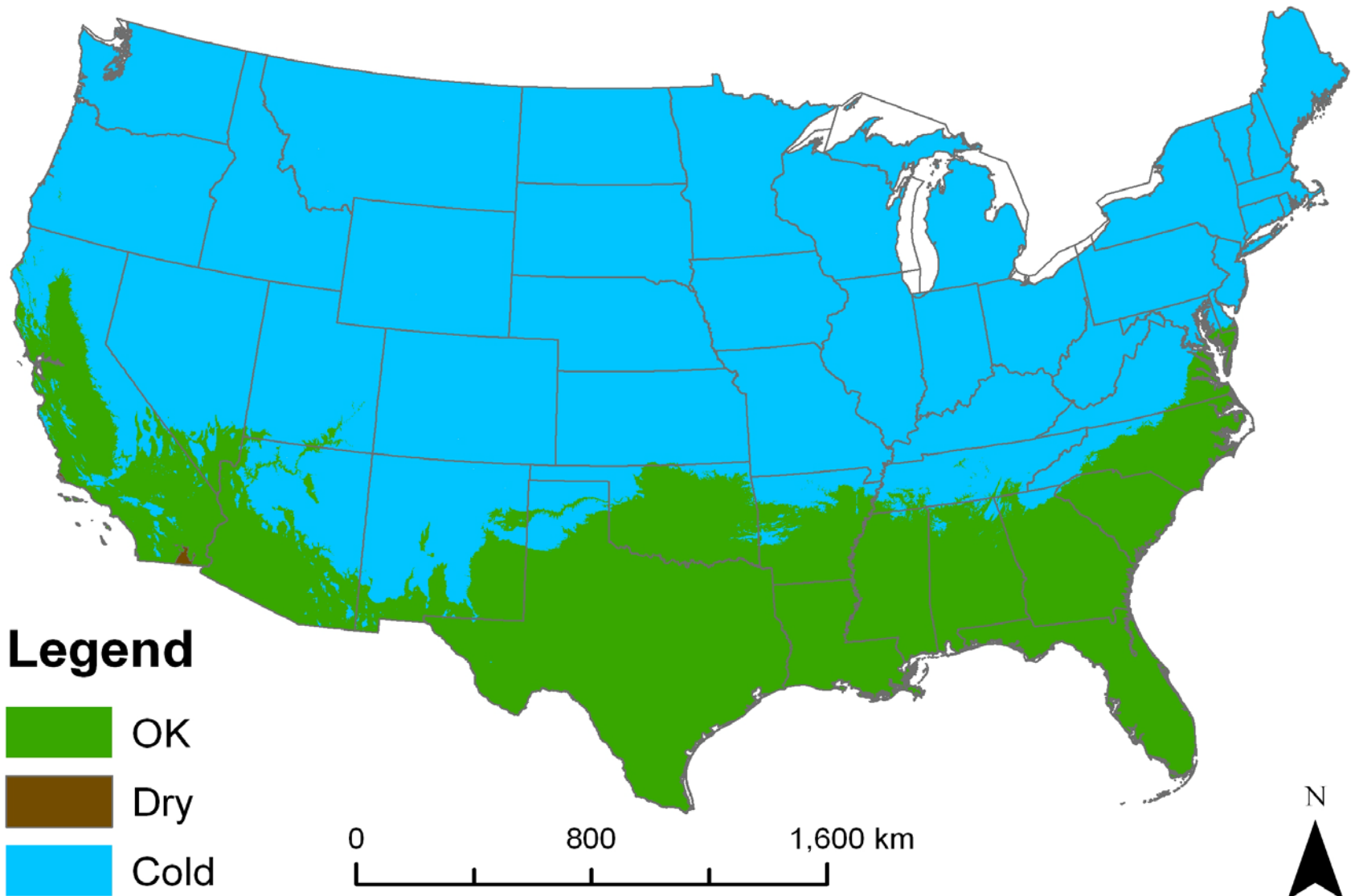
17 May 2006
Everglades National Park



Python Non-native Range



Potential *Python molurus* range in the US
based on South Asia



Do they present a problem for the Park?

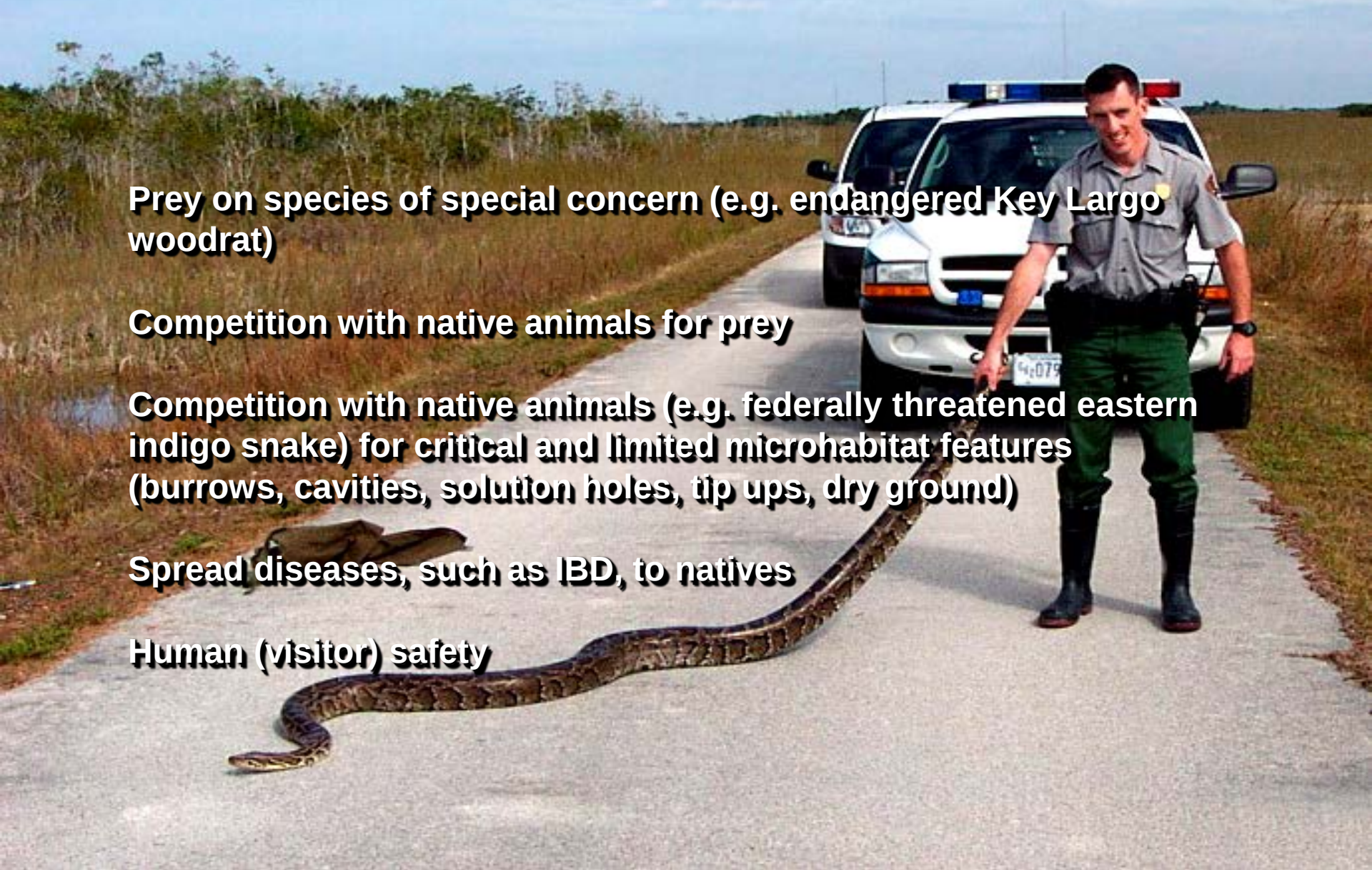
Prey on species of special concern (e.g. endangered Key Largo woodrat)

Competition with native animals for prey

Competition with native animals (e.g. federally threatened eastern indigo snake) for critical and limited microhabitat features (burrows, cavities, solution holes, tip ups, dry ground)

Spread diseases, such as IBD, to natives

Human (visitor) safety



Python Eats Endangered Woodrat



**Breaking
News...**

*** preliminary results ***

rabbit (*Sylvilagus* sp.) (8)
rodent (*Sigmodon* sp.) (7)
squirrel (*Sciurus* sp.) (5)
rodent (*Peromyscus* sp.) (3)
raccoon (*Procyon lotor*) (3)
opossum (*Didelphis virginiana*) (3)
rodent (*Rattus* sp.) (2)
rodent (*Oryzomys* sp.) (1)
muskrat (*Neofiber* sp.) (1)
cat (kitten) (*Felis ?* sp.) (1)
pied- billed grebe (*Podilymbus podiceps*) (2)
limpkin (*Aramus guarauna*) (1)
house wren (*Troglodytes aedon*) (1)
white ibis (*Eudocimus albus*) (1) →
unknown rodent (1)
unknown mammal (1)
unknown bird (7)
unknown item (2)
no food item present (4)



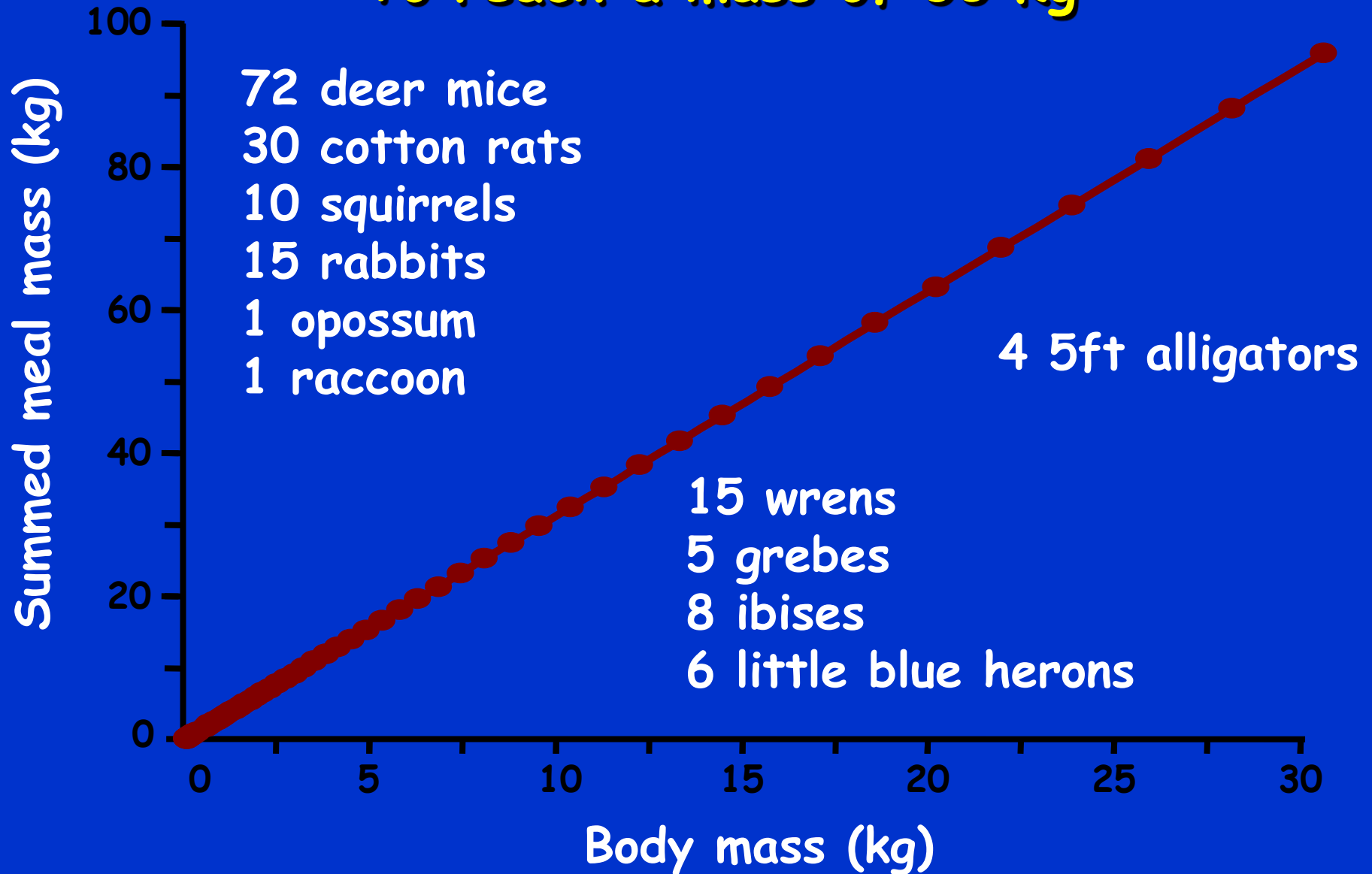
Prey items found inside pythons



Black-tipped
wing feathers
in stomach
of python

samples examined to date = 54
number of pythons = 53

Summed mass of food consumed To reach a mass of 30 Kg



Exotic Tick on an Exotic Snake



Giant Toad Tick
(*Amblyomma rotundatum*)

Snakes Wearing a Wire

Implanting radio tags

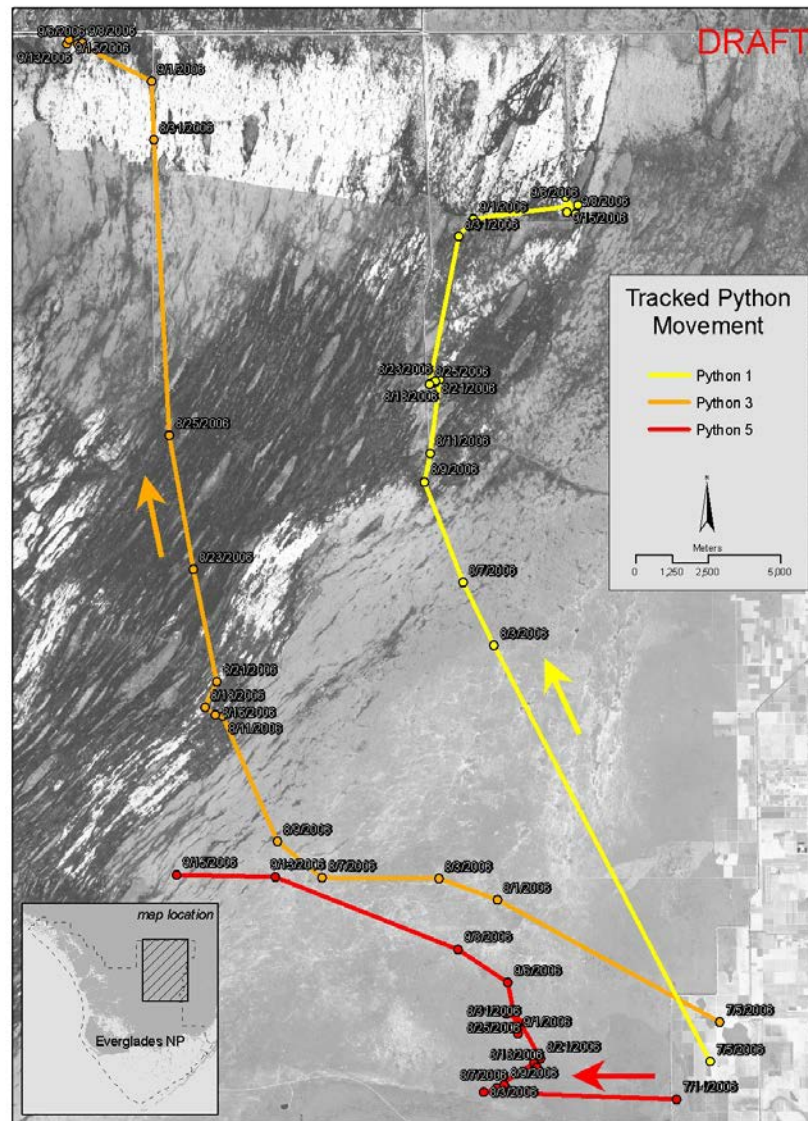


Radio Telemetry Feasibility Project



Four radio tagged pythons released in December 2005 within Everglades National Park have led us to 12 untagged pythons; all twelve were captured and removed.

Snakes Under a Plane



Trap Prototypes





ANIMAL RELEASE PROHIBITED

SE PROHIBE SOLTAR ANIMALES



PLEASE REPORT UNLAWFUL ANIMAL RELEASES



FLORIDA FISH & WILDLIFE
888-404-3922
WILDLIFE ALERT REWARD PROGRAM



EVERGLADES NATIONAL PARK
305-242-7740



WHEN CALLING FROM CELL PHONE DIAL:

***FWC** OR **#FWC**

WHERE WILL YOU KEEP YOURS
WHEN IT GETS THIS BIG?
PLEASE DO YOUR HOMEWORK
BEFORE YOU BUY!

UP FRONT | ENVIRONMENT

IT'S ALIEN VERSUS PREDATOR IN GLADES CREATURE CLASH

■ A giant exotic snake's fatal mistake of trying to swallow an alligator has provided scientists with strange new evidence that pythons are continuing to spread in the Everglades.

BY CURTIS MORGAN
cmorgan@herald.com

A meeting between two of the largest and fiercest predators in the Everglades — a Burmese python and an American alligator — ended in a scene as rare as it was bizarre.

The 13-foot-snake and six-foot gator both wound up dead, locked so gruesomely it is hard to make heads, tails or any other body part of either creature.

When the carcasses were found last week in an isolated marsh in Everglades National Park, the gator's tail and hind legs protruded from the ruptured gut of a python — which had swallowed it whole.

As an added touch of the macabre, the snake's head was missing.

For scientists, exactly how the clash occurred is a compelling curiosity. More importantly, the latest and most extraordinary encounter provides disturbing evidence that giant exotic snakes, which can top 20 feet in length and kill by squeezing the life out of prey, have not only invaded the Ever-

*TURN TO EVERGLADES, 13A



MICHAEL BARRON/EVERGLADES NATIONAL PARK

WILD DEATH: The carcass of an alligator protrudes out to the right from the curved body of a Burmese python in the Everglades.



PROTECT
OUR NATURAL
RESOURCES

DON'T
RELEASE
EXOTIC
PETS



Non-native Pet Amnesty Day
March 24, 2007 Clearwater, Florida

Ken Dineen

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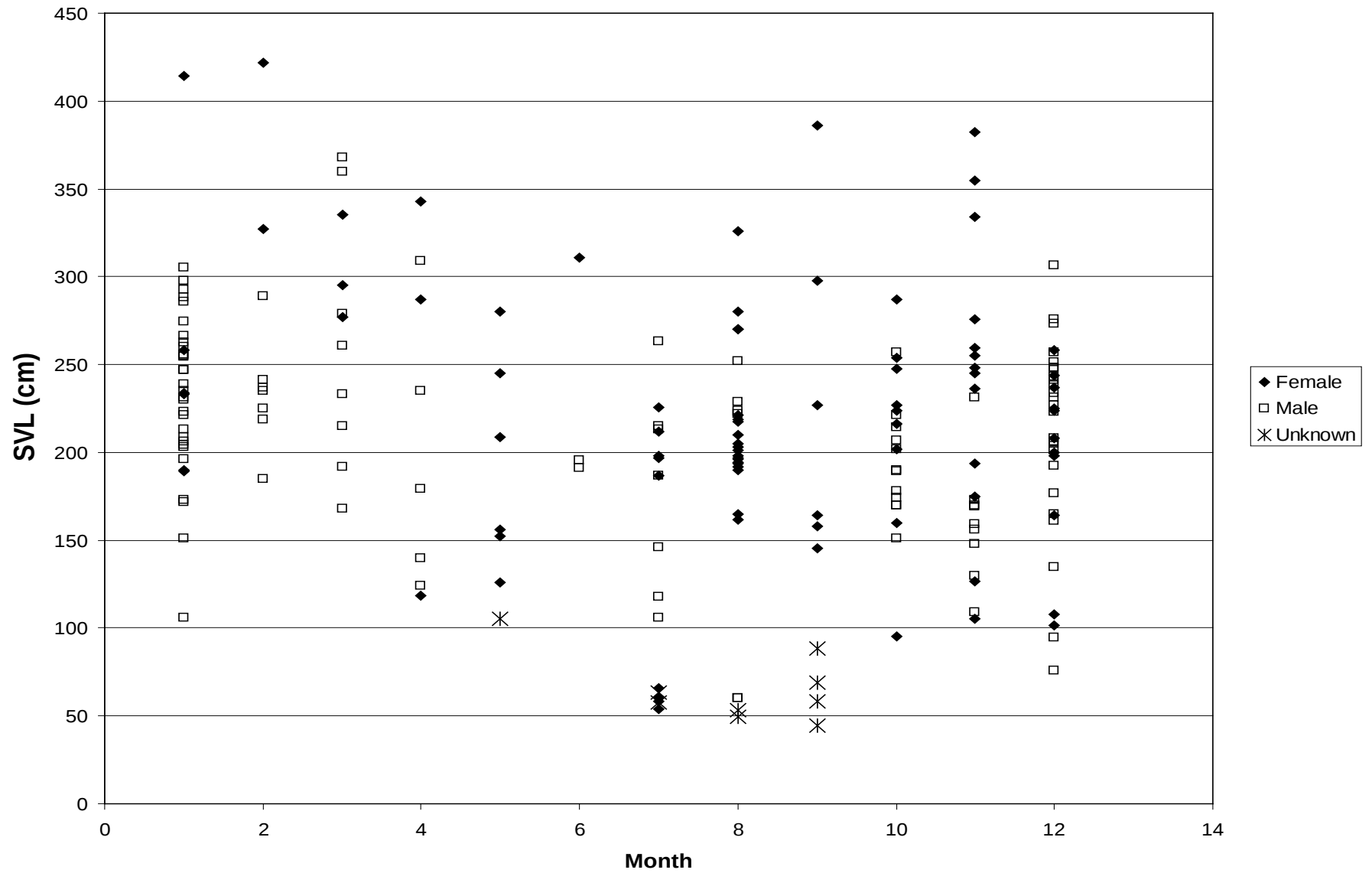
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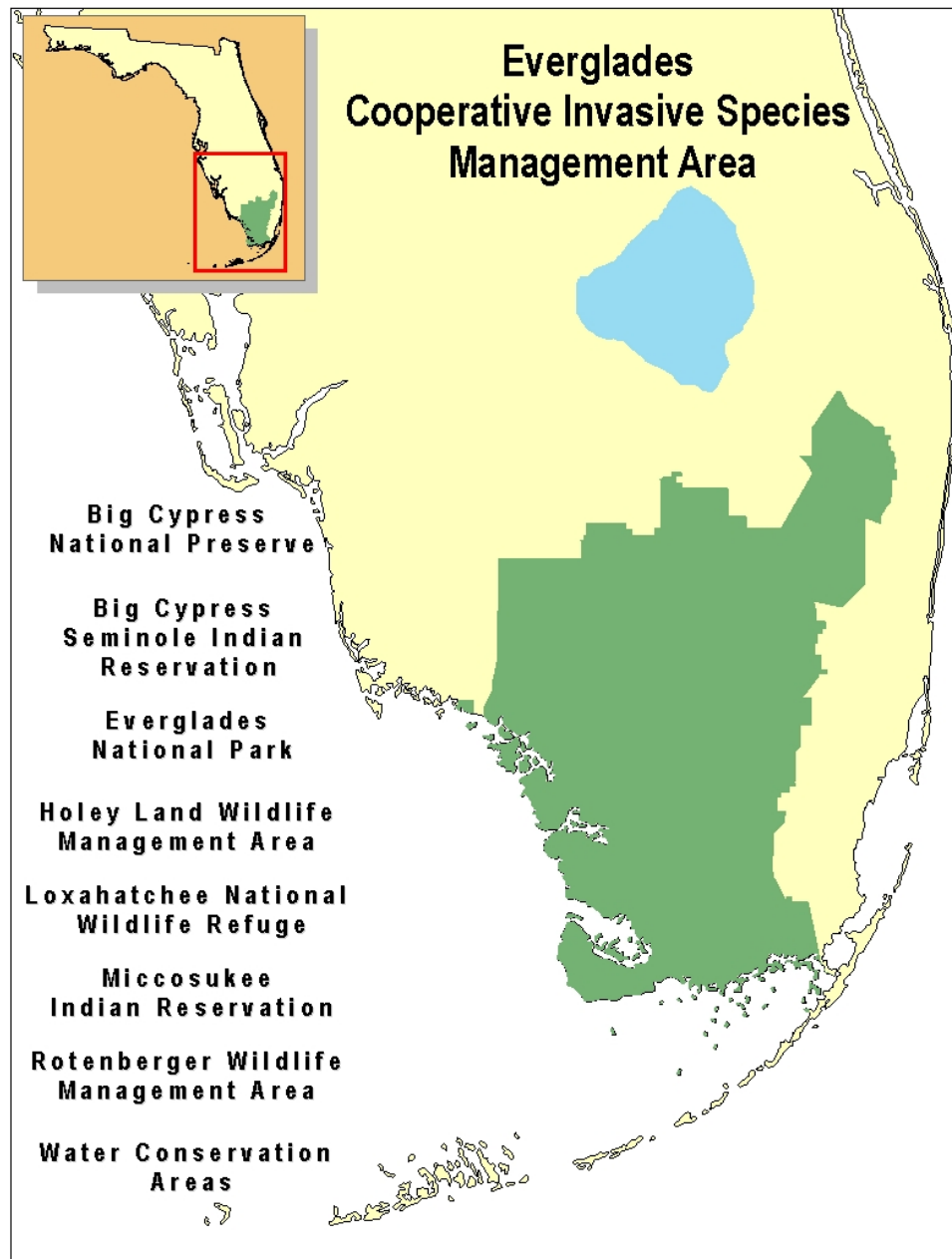
lori_oberhofer@nps.gov



To report a python in Everglades National Park
call the Python Hotline at (305) 242-7827 or (305) 815-2080.

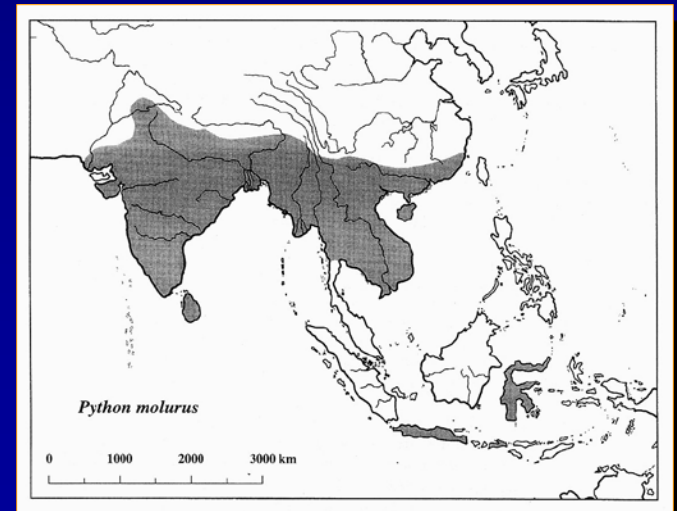
Burmese Pythons





How can they survive here?

- Generalist in terms of diet, habitat use, and behavior
- Lives in some very temperate climates in South Asia
- Lays relatively large clutches of eggs (8 to 107)
- Long lived, 30 years or more
- Able to survive long periods without eating
- Invasive elsewhere
- Hundreds of animals in the pipeline





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(And the next sequel...?)

Pythons in a Park!

(gator vs python in ENP July 2005 - animated)



How did they get here?

Bred by the hundreds

Hatchlings sold for as little as \$20

A 20" baby can be a 6 foot juvenile in 1 year

Difficult to give away (let alone sell) a 6 –12 foot python

Increasingly being abandoned at vets and animal shelters,
or simply turned loose.

Do you really want a snake that may grow more than 20 feet long,
weigh 200 pounds, urinate and defecate like a horse, live more
than 30 years, and for whom you will have to provide mice, rats,
and eventually rabbits?

Aerial view of the L-67 Extension canal (Perfect python habitat?)



"Berms for Burms!"



“Hole-in-the-Donut” spoil mounds



Python Sighting Within Great Egret Nesting Colony

*A large python was
observed at this
alligator hole.*



Nesting Great Egrets



Sources of Mortality





Pythons on a Meal Plan

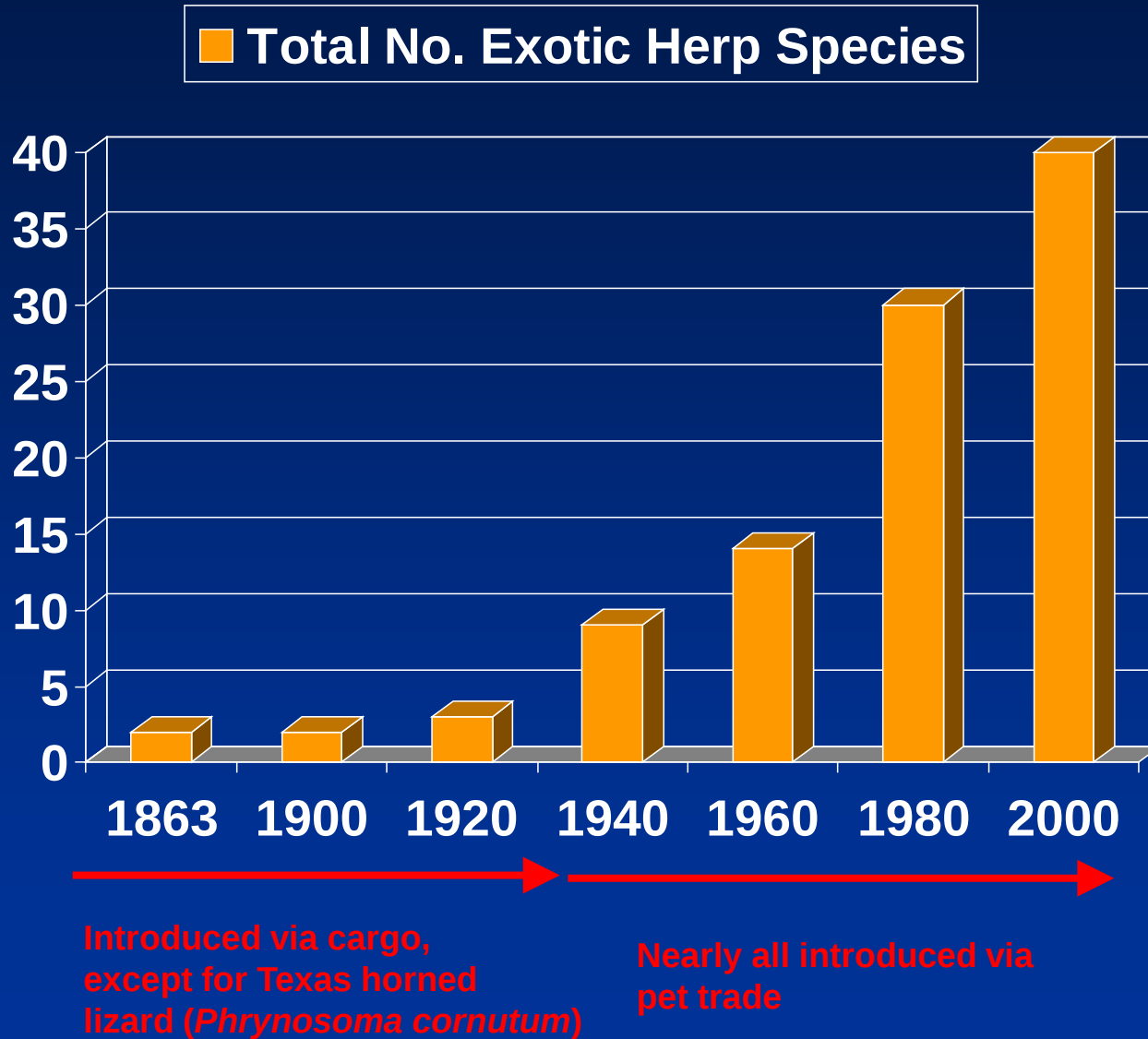
(How much wood would a woodchuck chuck if a woodchuck were a python?)



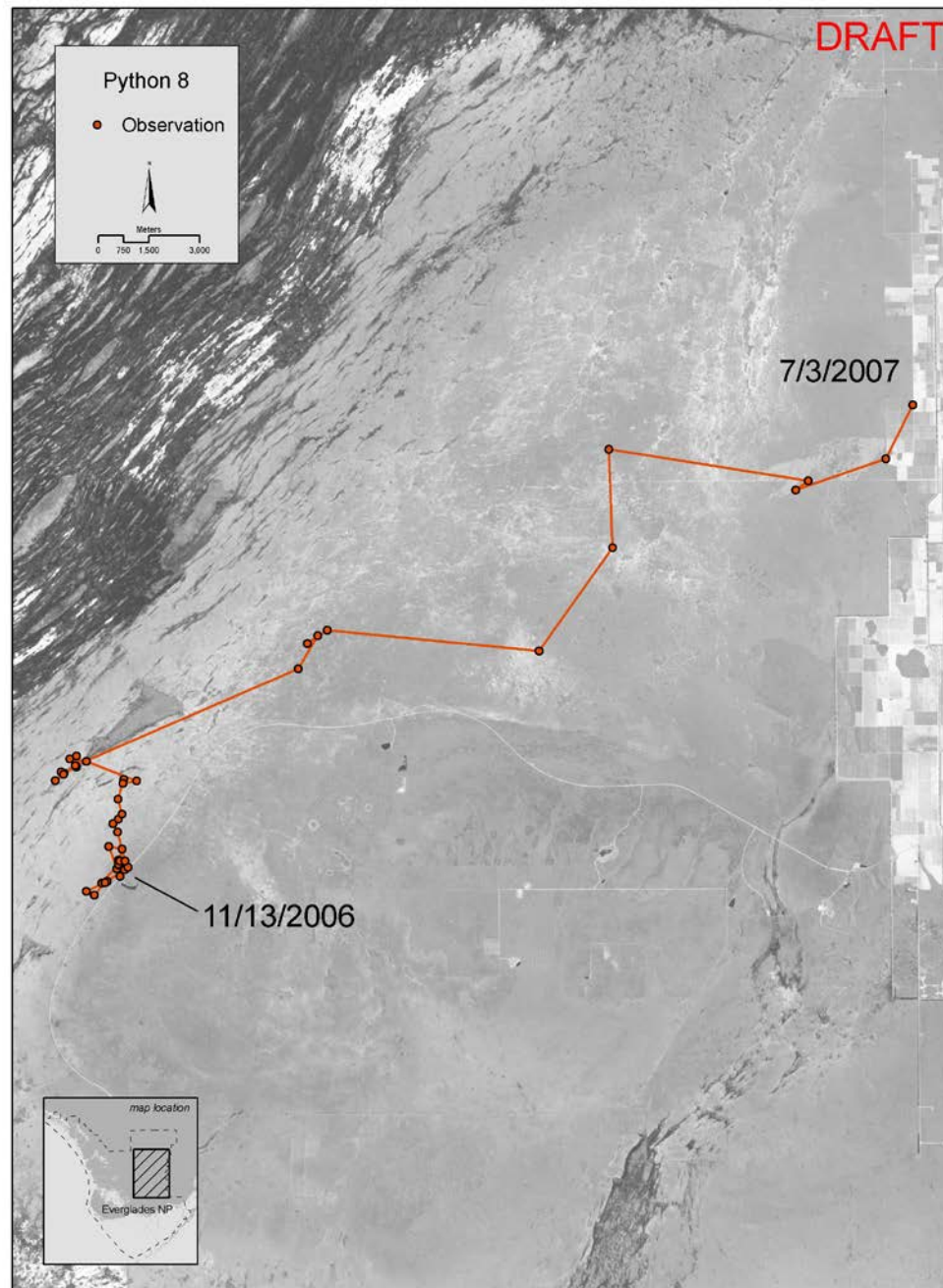
"Python Pete"



Florida's introduced herps

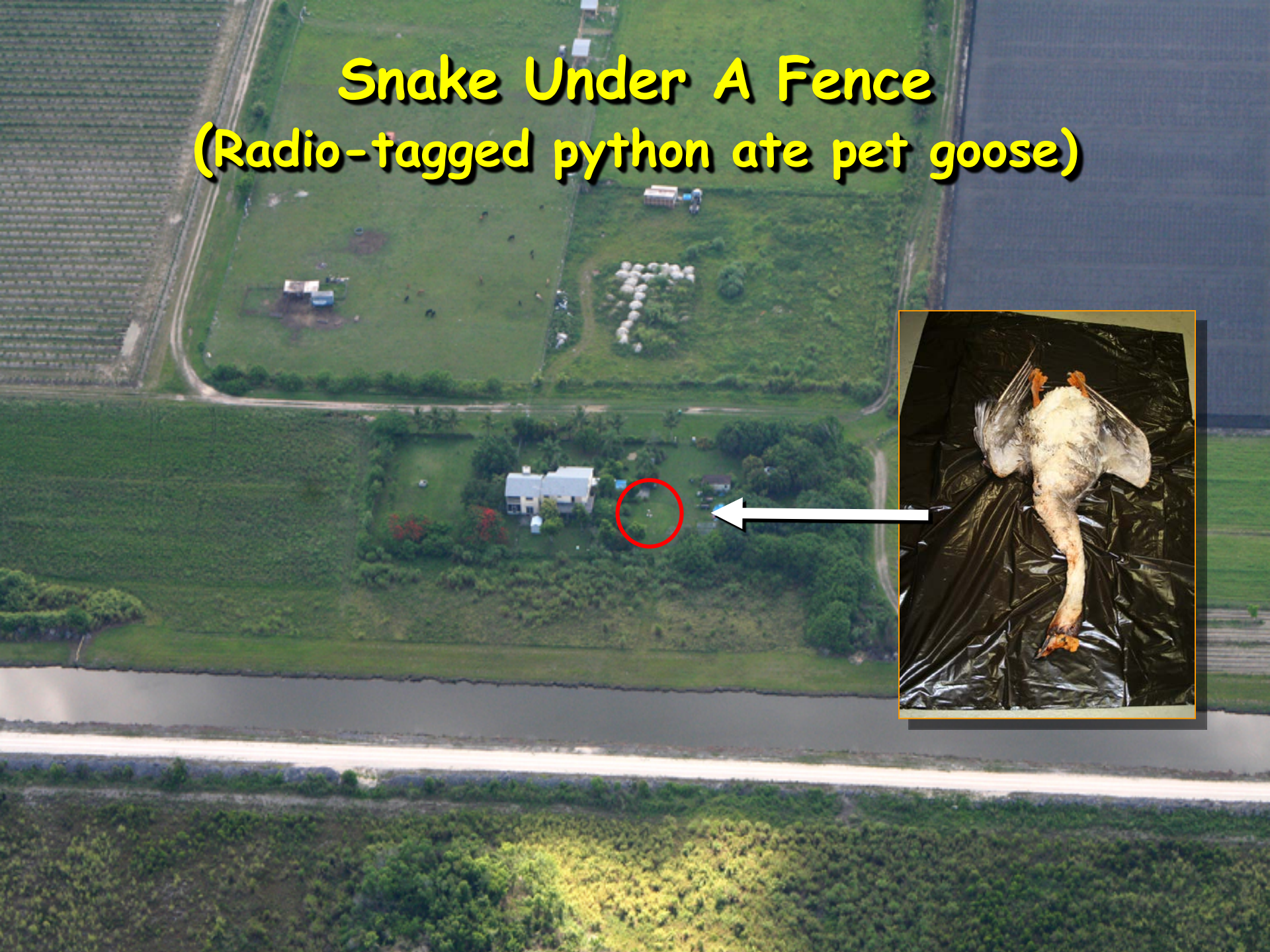


Source: K. Krysko and K. Enge



Snake Under A Fence

(Radio-tagged python ate pet goose)



Needs and Opportunities

- Expand **Habitattitude**TM (or other preventative campaigns such as NRIP, etc., and rigorous implementation)
- **Predictive Risk Assessments** (provide the USFWS and State Fish and Game Agencies the info they need to implement (BPMs) Best Preventative Measures - what to worry about where)
- **Early Detection/Rapid Response** (FWC, CISMA, some kind of unified statewide approach and substantial funds?)
- **Eradication and control R&D** (tools and techniques, traps and lures)