

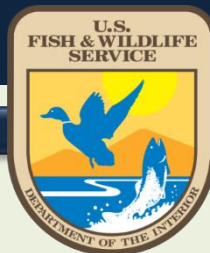


Florida Panther Recovery

Historical Perspective and Current Status

David Shindle
Florida Panther Coordinator
U.S. Fish and Wildlife Service

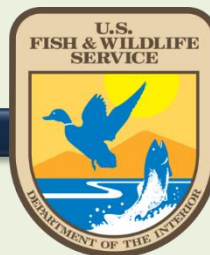
South Florida Ecological Services Field Office



Geographical Perspective: The Florida Panther



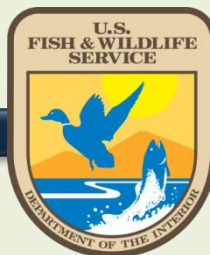
South Florida Ecological Services Field Office



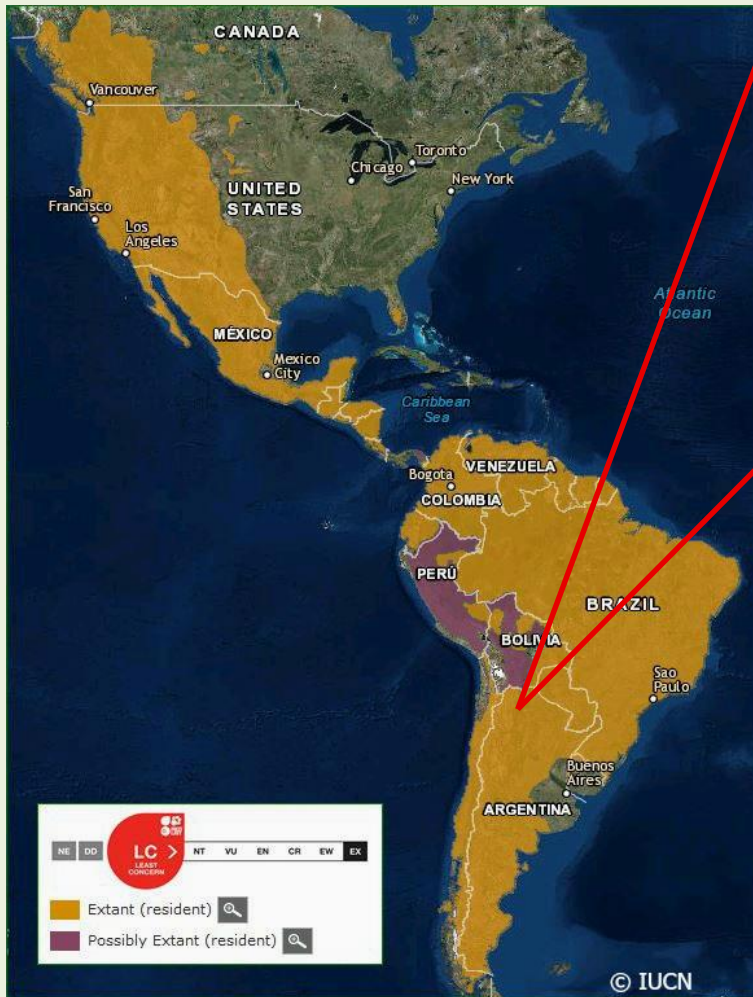
Geographical Perspective: The Florida Panther



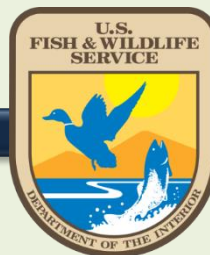
South Florida Ecological Services Field Office



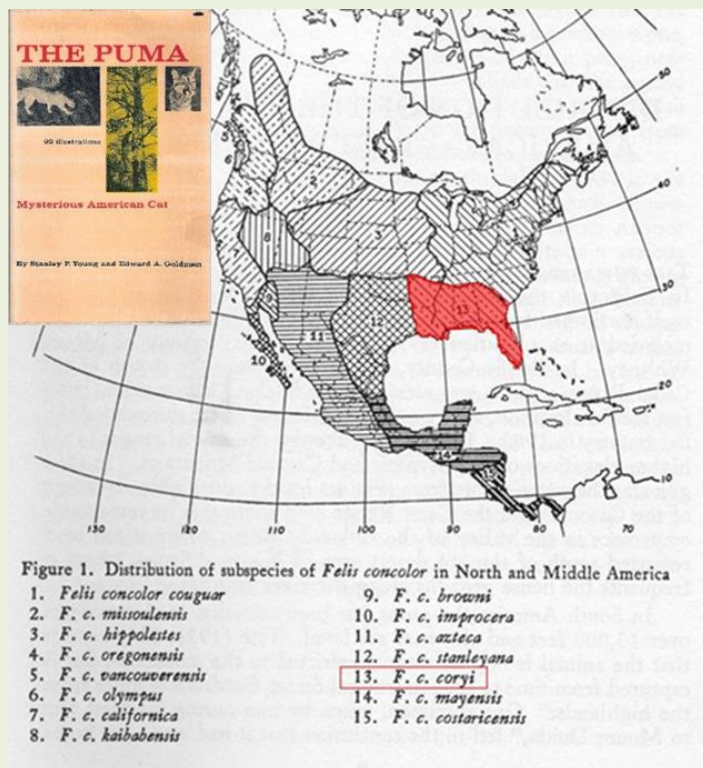
Geographical Perspective: The Puma



South Florida Ecological Services Field Office



Taxonomic Perspective: Florida Panther



Young and Goldman (1946)

15 North American Subspecies
Skull Morphology
Geography



Culver et al. (2000)

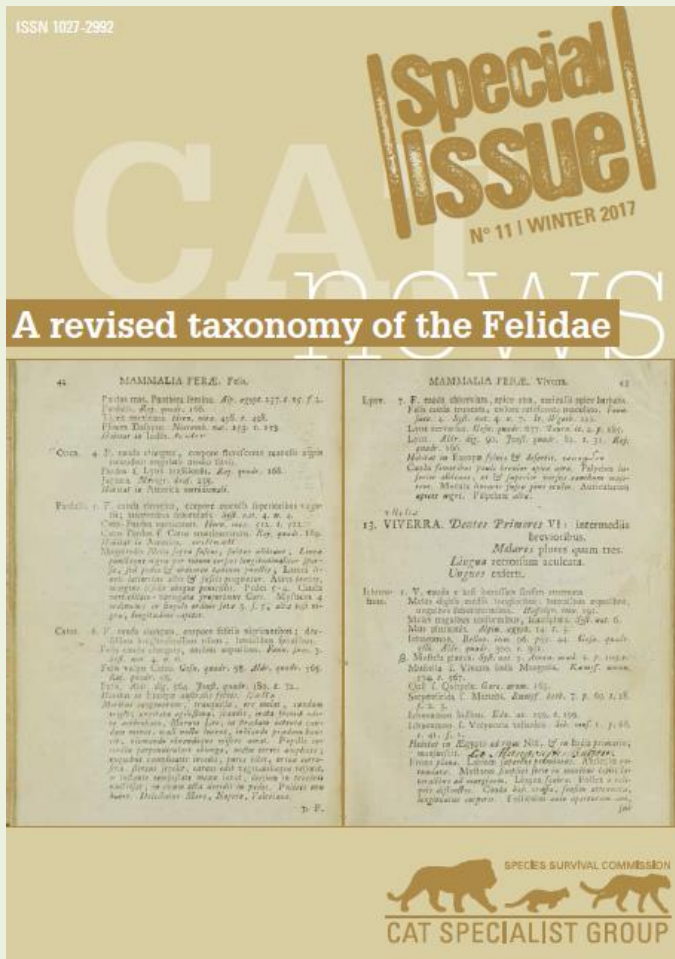
1 North American Subspecies
Molecular Genetic Analysis



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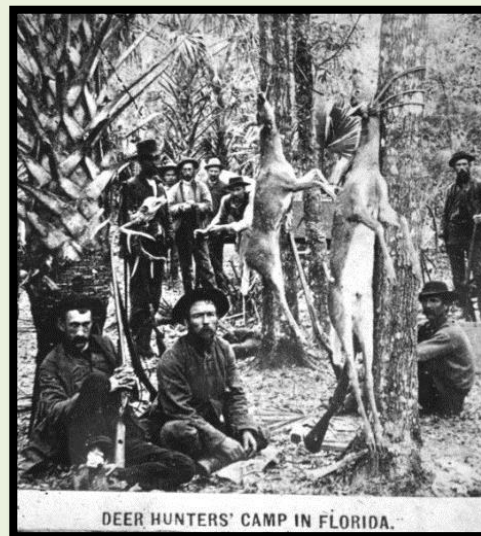
Taxonomic Perspective: Florida Panther



South Florida Ecological Services Field Office



Historical Perspective: How Did We Get Here?



1771 – 250,000 lbs of deer hide exported from Pensacola and Mobile

1887 – Florida authorizes \$5 bounty

1950 – Regulated as game animal

1958 – Protected by State of Florida

1967 – Listed as Federally Endangered

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Historical Perspective: “Last of a Breed”

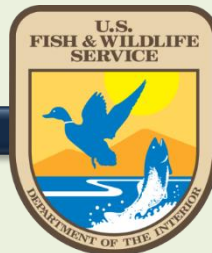


A hundred years ago the ancestors of this Florida panther were nature's king in this area. Today, what few remain, prove a detriment to cattlemen and poultry raisers.

Citrus County Chronical
March 28, 1968



South Florida Ecological Services Field Office



Historical Perspective: 1973-74 WWF Surveys



South Florida Ecological Services Field Office



Historical Perspective: The State Animal



1981-1982



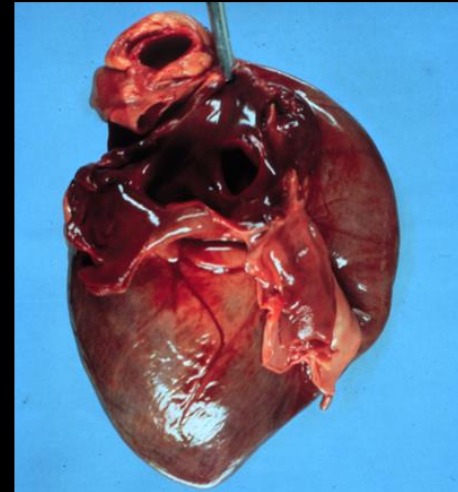
©State Archives of Florida



South Florida Ecological Services Field Office



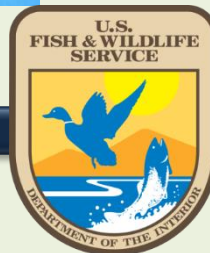
Historical Perspective: Population on the Brink



1985



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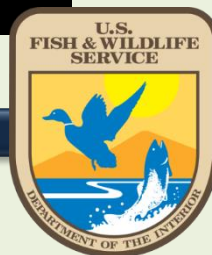
Historical Perspective: A Genetic Rescue



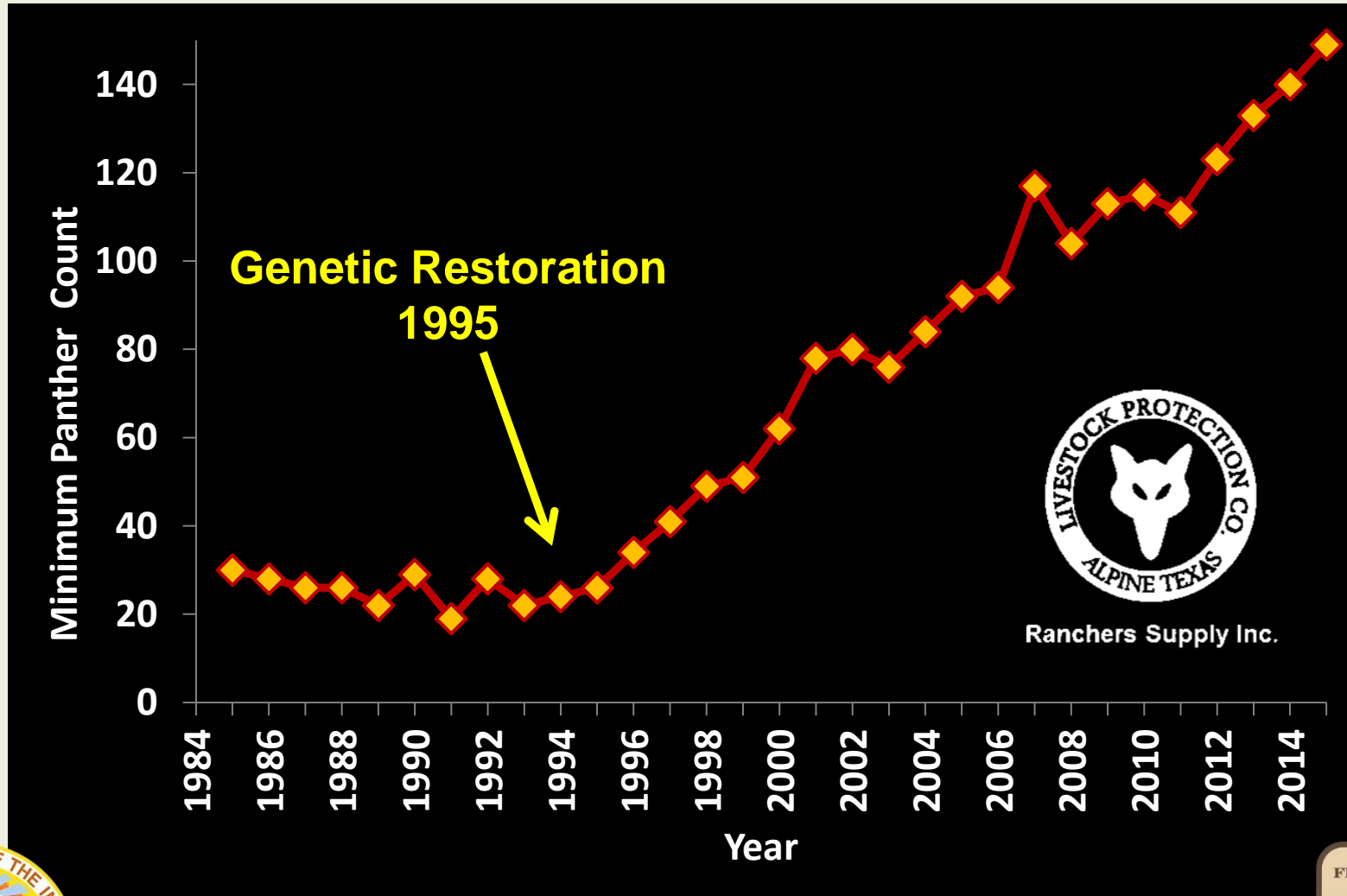
1995



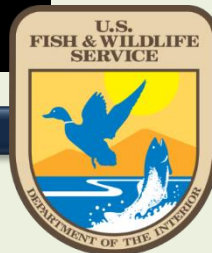
South Florida Ecological Services Field Office



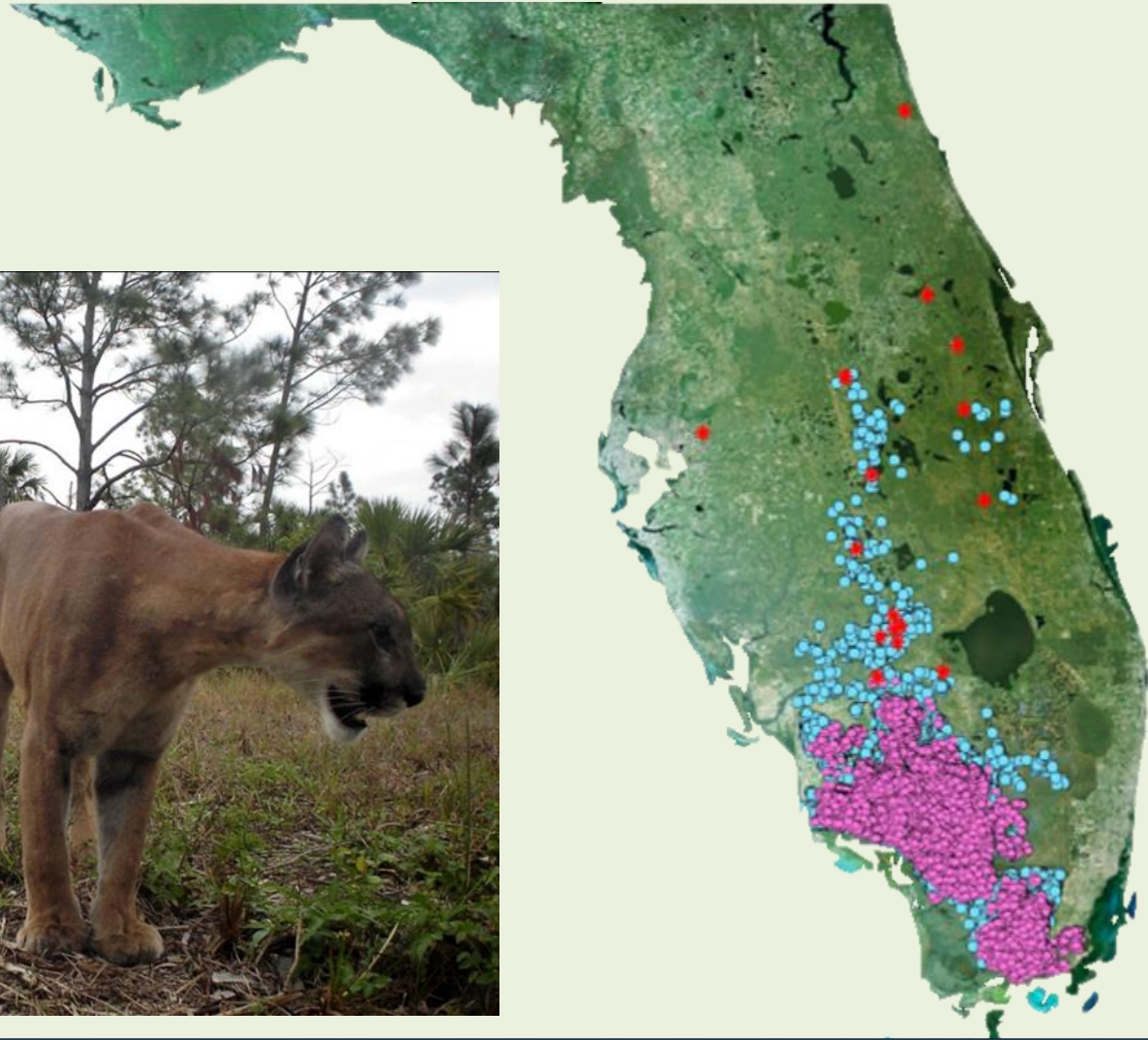
Where Are We Now? A Population Rebound



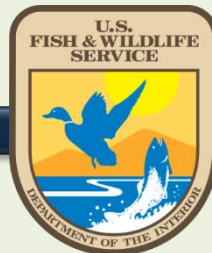
South Florida Ecological Services Field Office



Where Are We Now? A Population Rebound

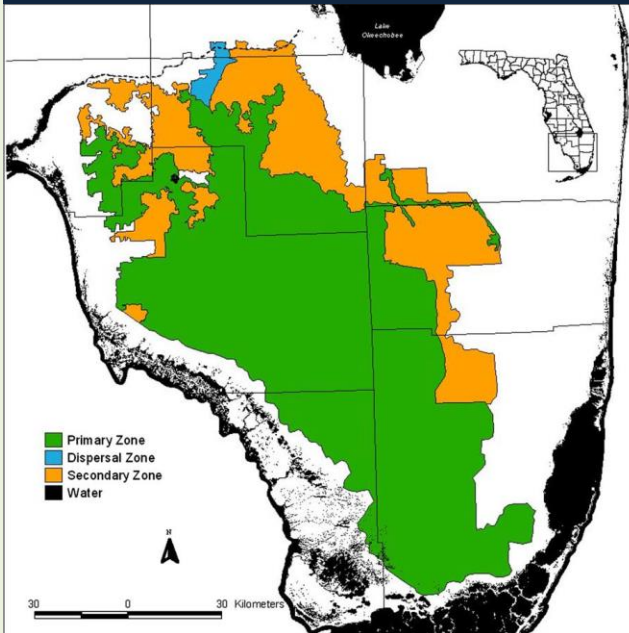


South Florida Ecological Services Field Office



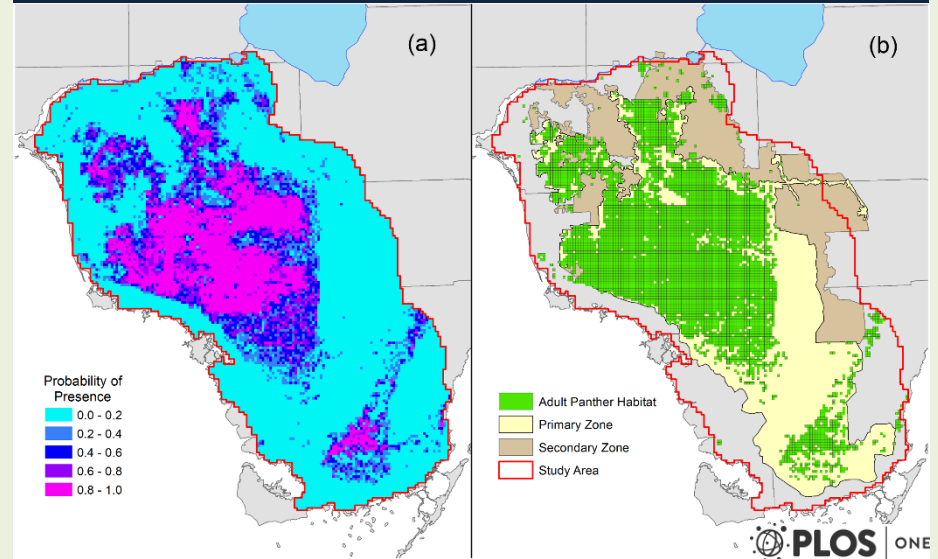
Population Needs: Habitat, Habitat, and Habitat

How much is enough? Landscape-scale conservation for the Florida panther



Randy Kautz et al. (2006)
Biological Conservation 130

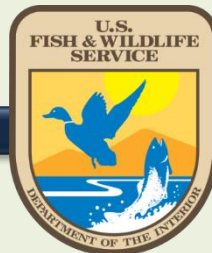
Landscape Analysis of Adult Florida Panther Habitat



Robert Frakes et al. (2015)
PLOS ONE 10(7): e0133044



South Florida Ecological Services Field Office



Population Needs: Importance of Agricultural Lands



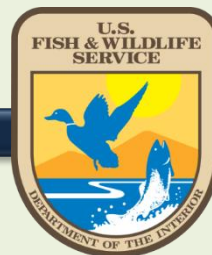
South Florida Ecological Services Field Office



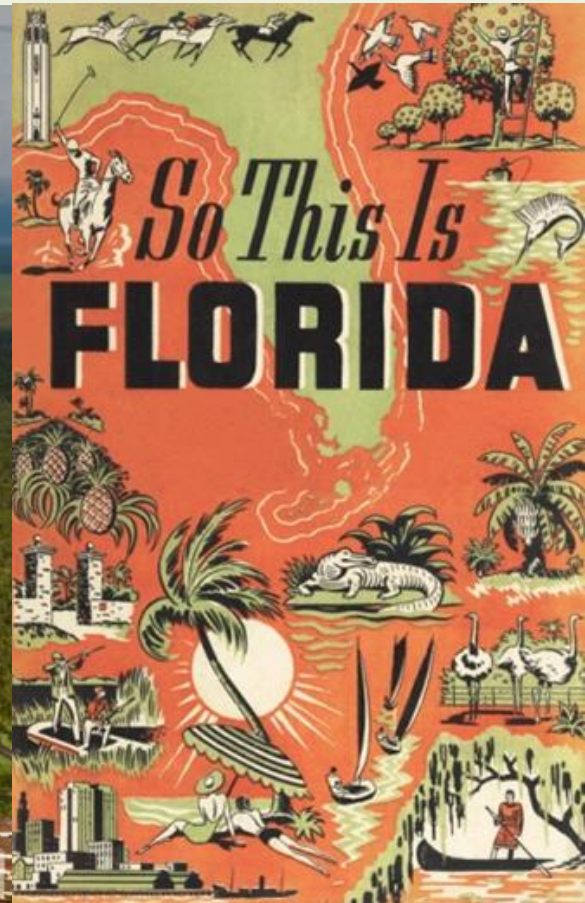
Florida's Working Ranchlands Sustain the Panther Population



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Persistent Threats: Habitat Loss and Population Growth



South Florida Ecological Services Field Office



USFWS Review of the Eastern Collier Multiple Species Habitat Conservation Plan

Applicant:

Eastern Collier Property Owners, LLC

In collaboration with:

Defenders of Wildlife

Florida Wildlife Federation

Audubon of Florida

Audubon of the Greater Western Everglades

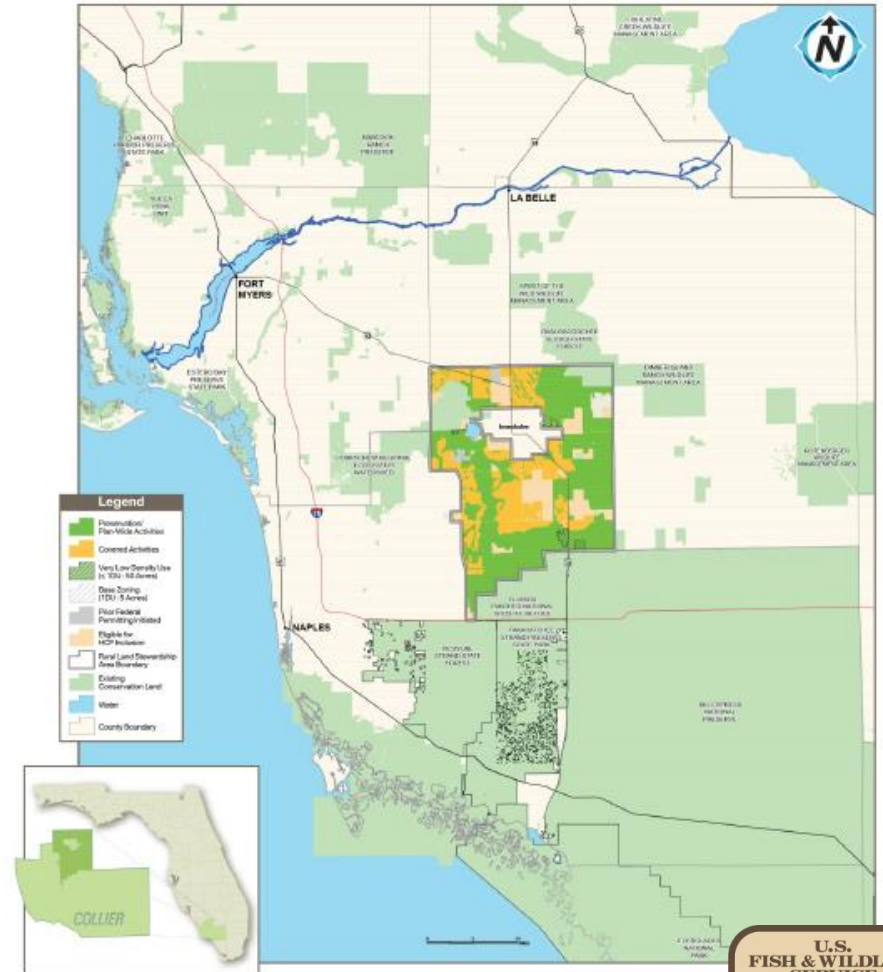
Proposed ~152,000 Acre ECMSHCP Area

~45,000 Acres of Private Land Developed

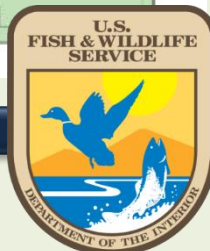
~107,000 Acres of Private Land Preserved

+ Establishment of the Marinelli Fund for species conservation activities.

<http://easterncollierhcpais.com/>



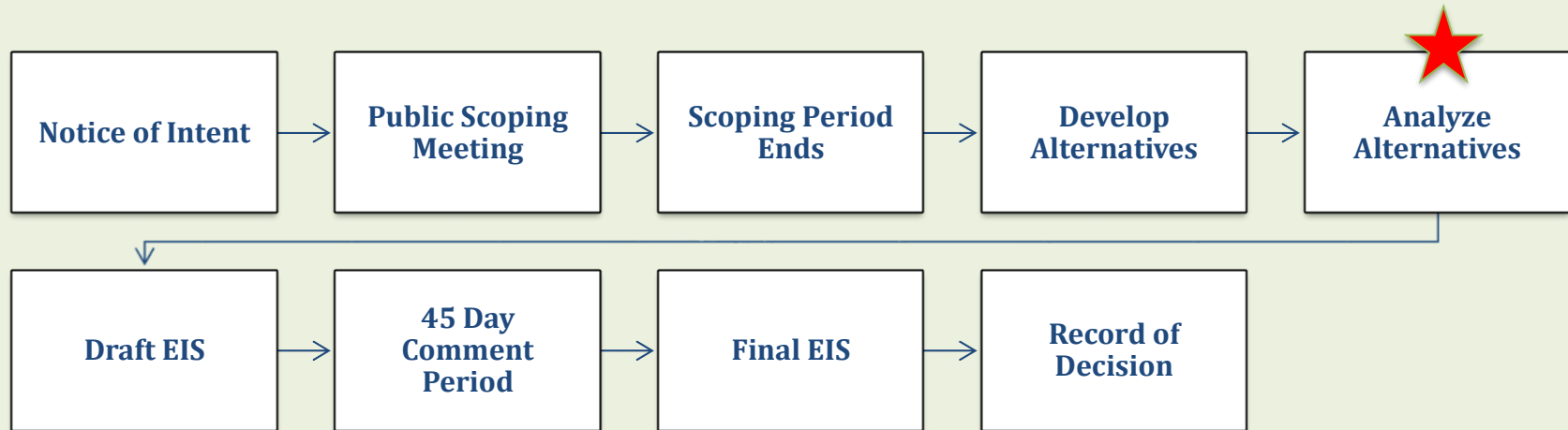
South Florida Ecological Services Field Office



Eastern Collier Multiple Species Habitat Conservation Plan *Environmental Impact Statement*



 = Where are we now?



<http://easterncollierhcpeis.com/>



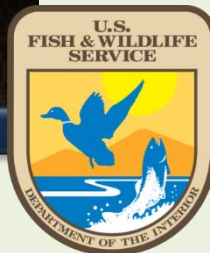
South Florida Ecological Services Field Office



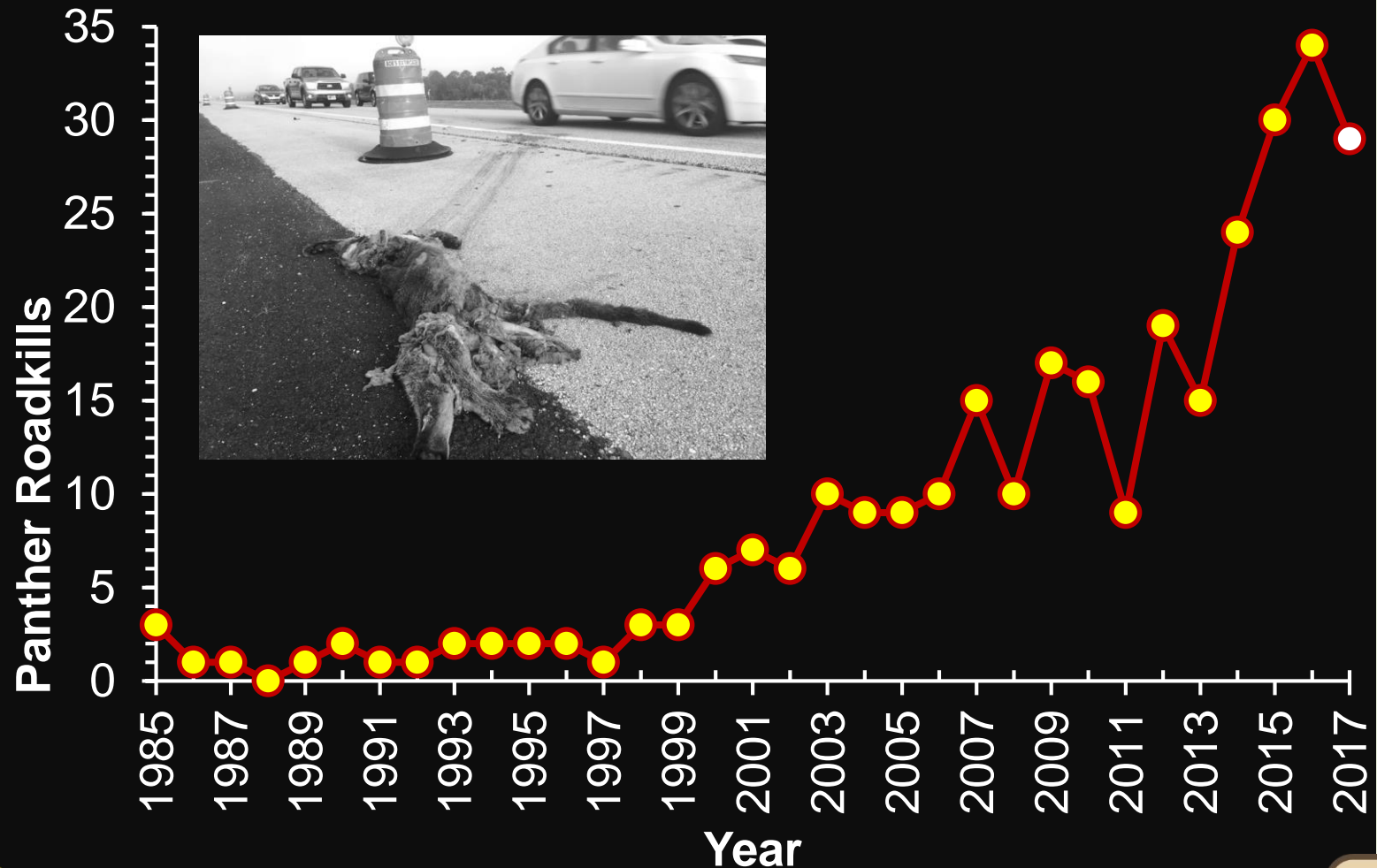
Florida Panther Recovery: **Persistent Threats and Challenges**



South Florida Ecological Services Field Office



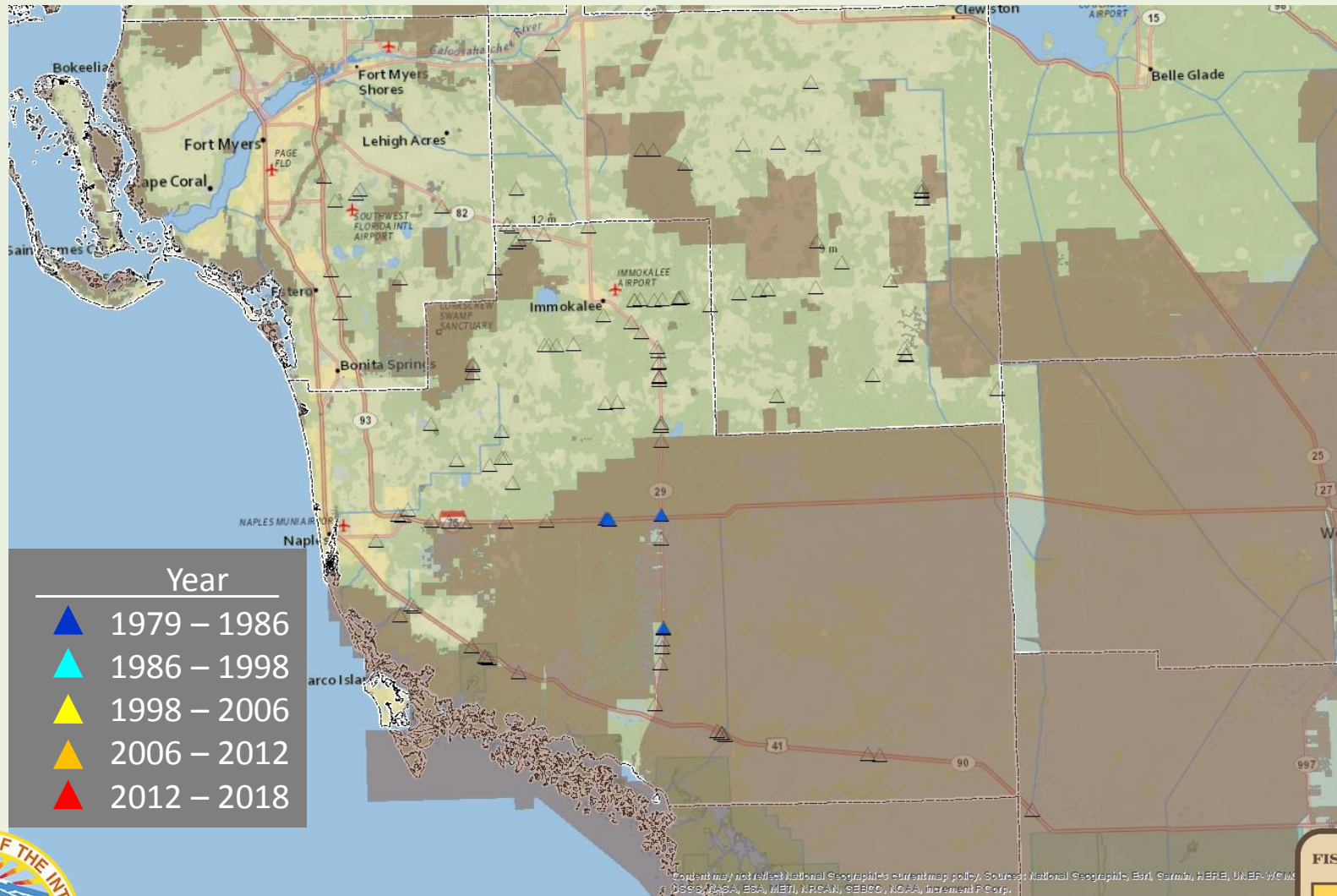
Persistent Threats: Vehicular Mortality



South Florida Ecological Services Field Office



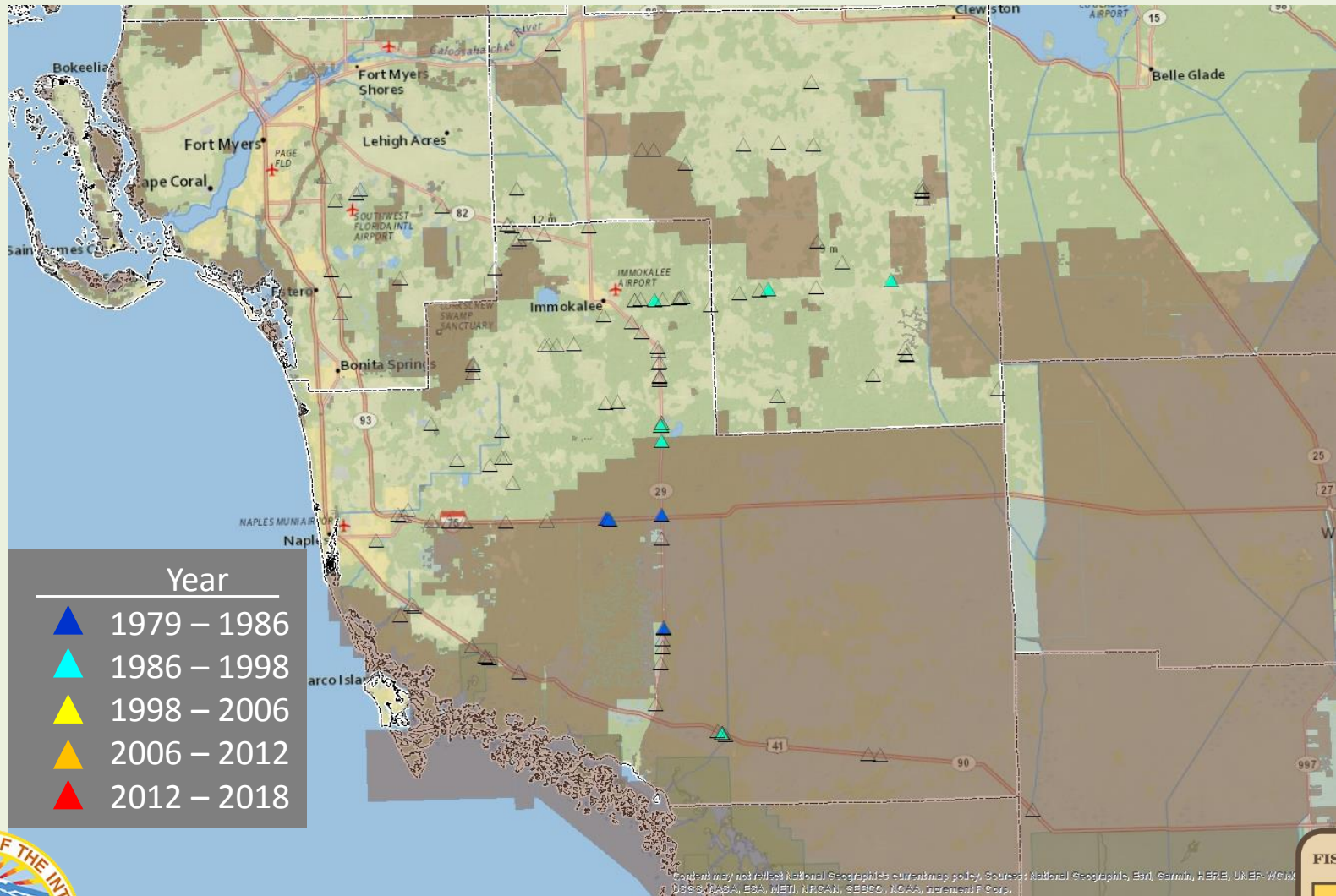
Female Florida Panther Roadkills Over Time



South Florida Ecological Services Field Office



Female Florida Panther Roadkills Over Time



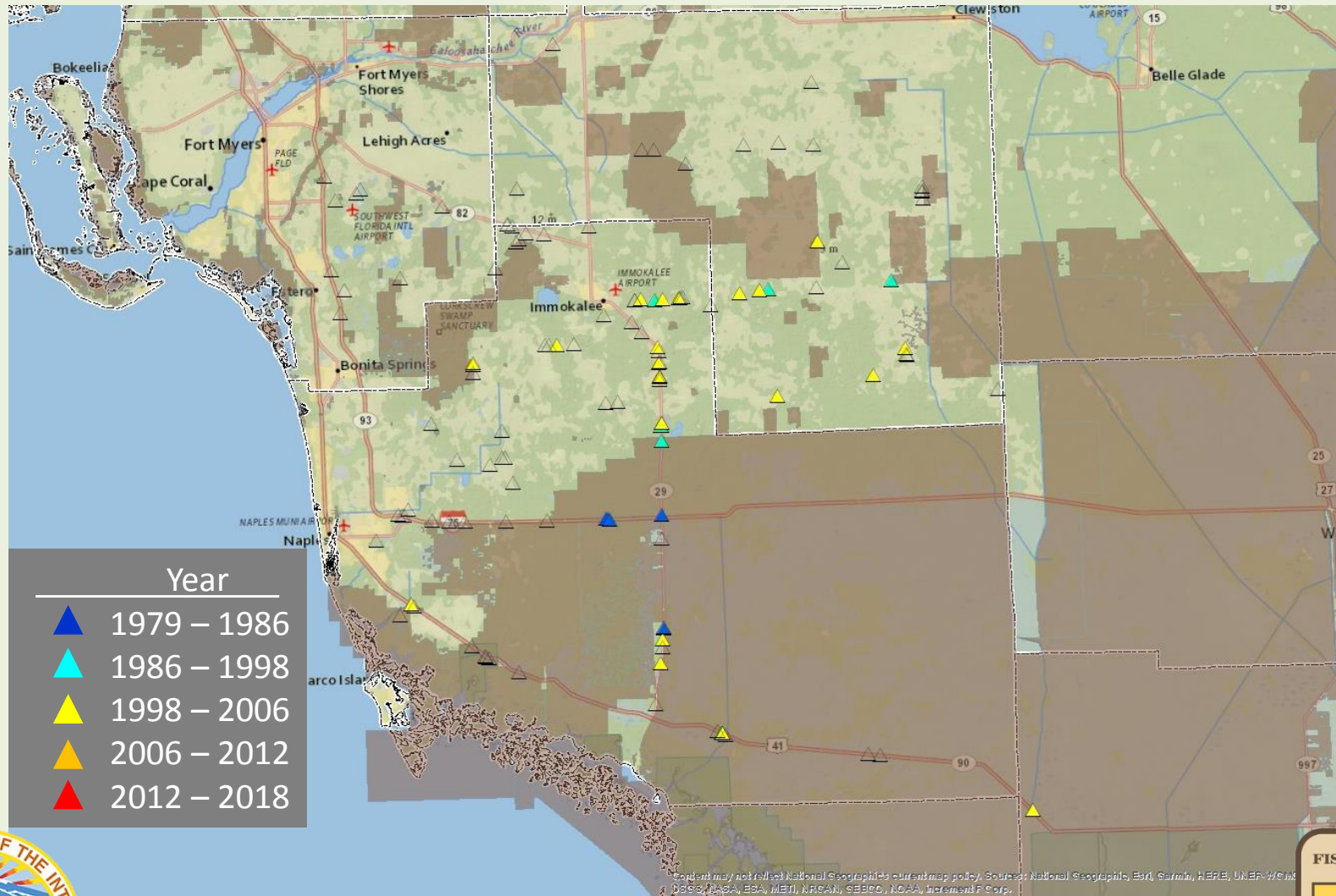
Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.



South Florida Ecological Services Field Office



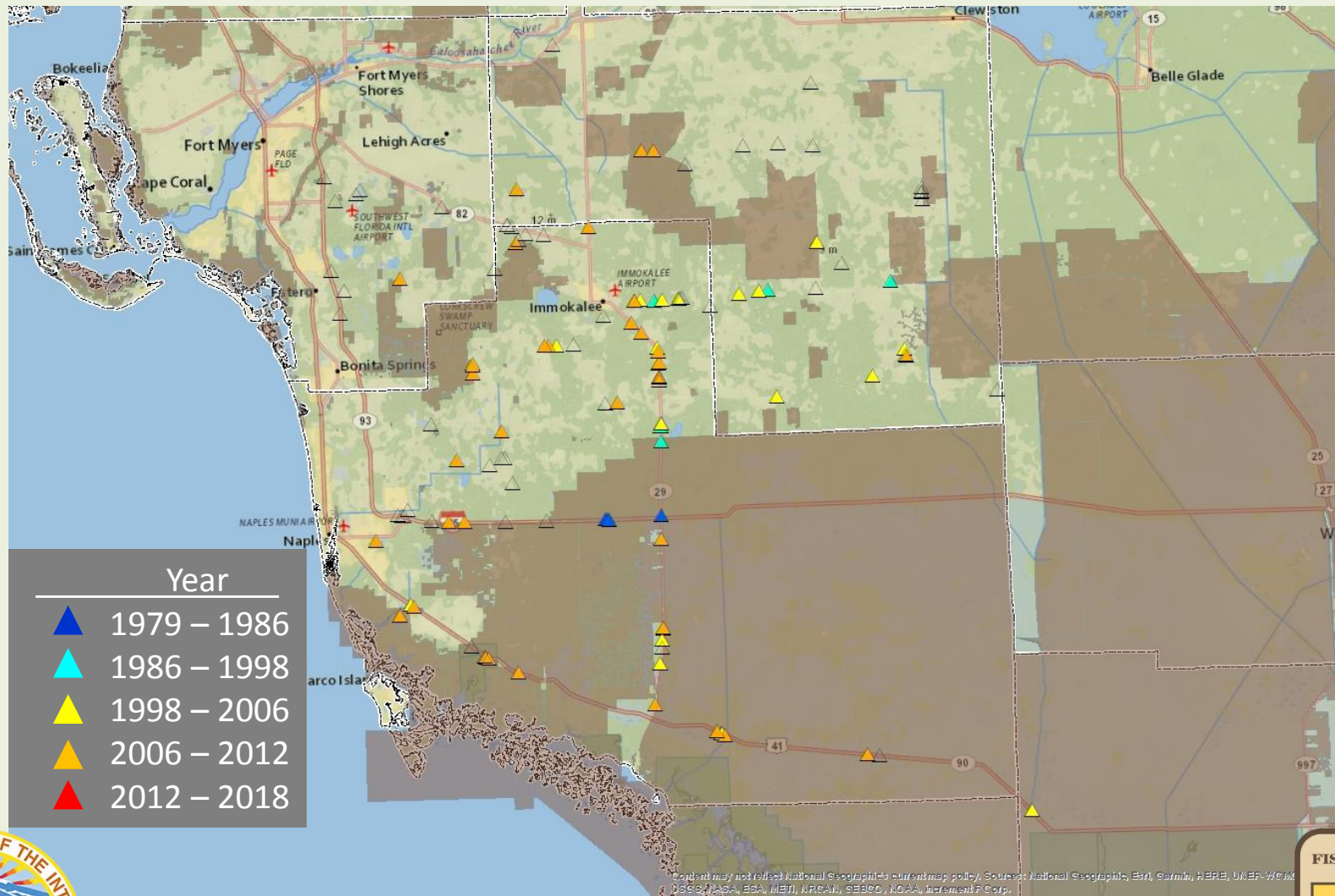
Female Florida Panther Roadkills Over Time



South Florida Ecological Services Field Office



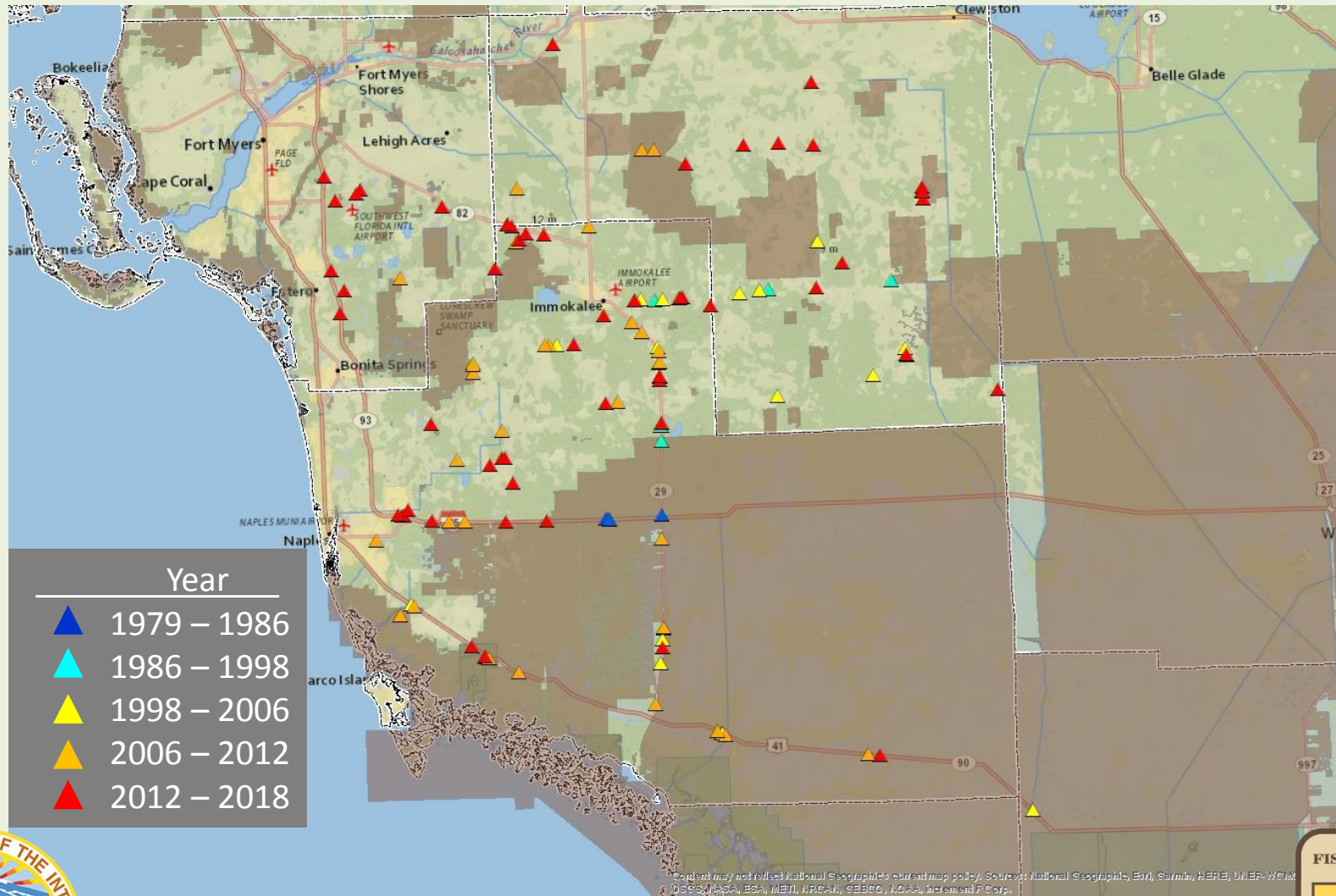
Female Florida Panther Roadkills Over Time



South Florida Ecological Services Field Office



Female Florida Panther Roadkills Over Time



Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.



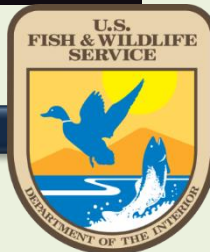
South Florida Ecological Services Field Office



Ameliorating the Threat: Vehicular Mortality



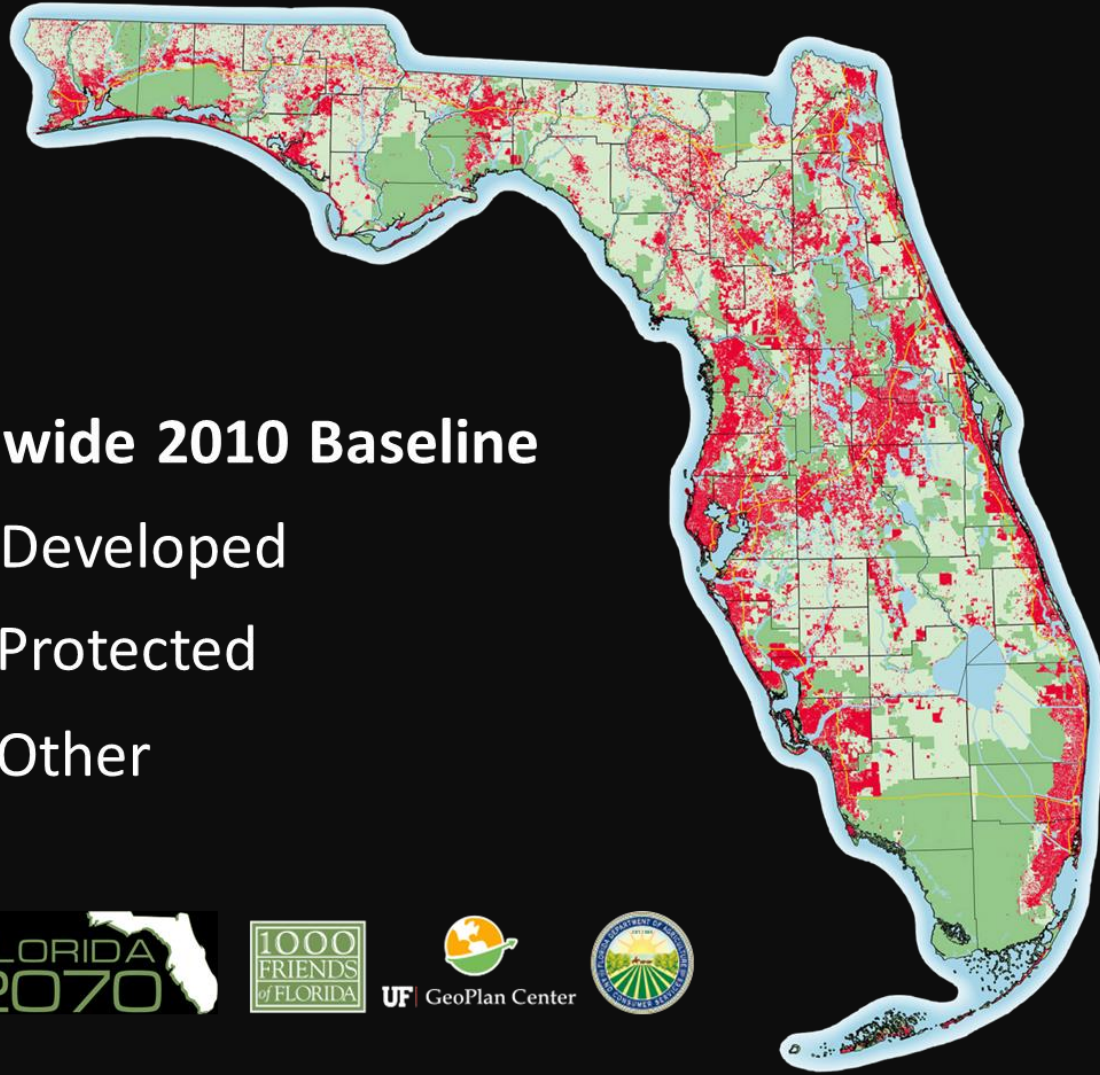
South Florida Ecological Services Field Office



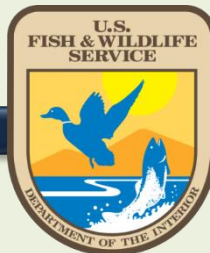
Persistent Threats: Habitat Loss and Population Growth

Statewide 2010 Baseline

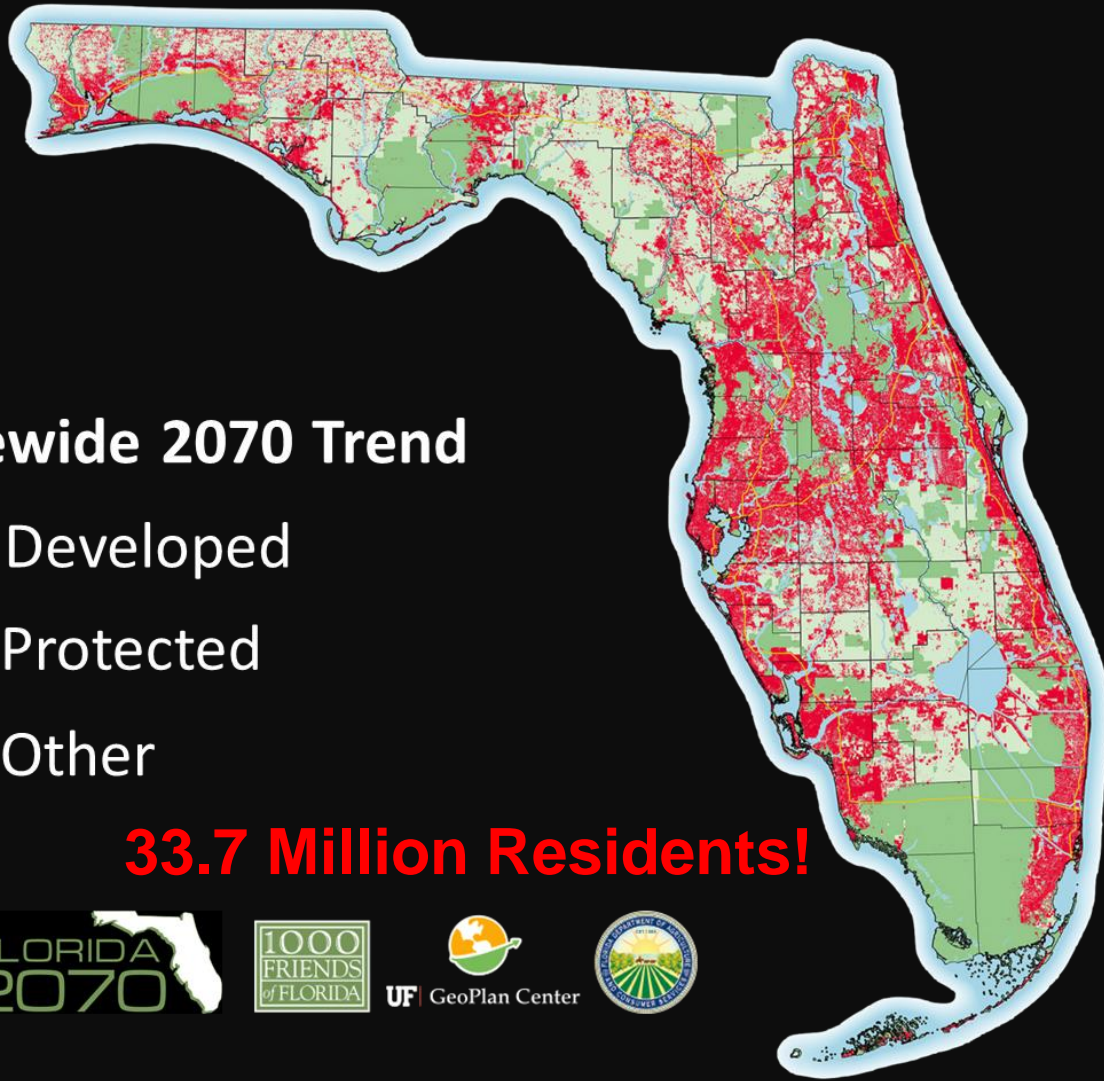
-  Developed
-  Protected
-  Other



South Florida Ecological Services Field Office



Persistent Threats: Habitat Loss and Population Growth



Statewide 2070 Trend

-  Developed
-  Protected
-  Other

33.7 Million Residents!



South Florida Ecological Services Field Office



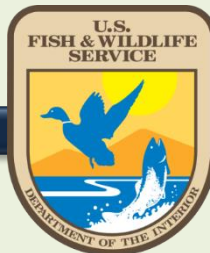
Persistent Challenges: Panther-Human Coexistence

“Bear habitat is more than just space on the ground. It’s the level of human acceptance that exists for them.”

Chris Servheen, Former USFWS Grizzly Bear Recovery Coordinator



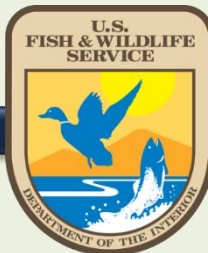
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Persistent Challenges: Living with People



South Florida Ecological Services Field Office



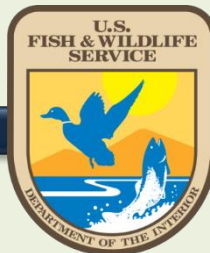
Persistent Challenges: Panther-Human Coexistence



Who gave the panther the gate code?



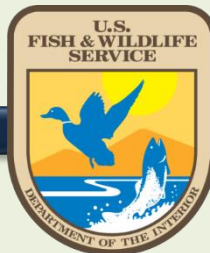
South Florida Ecological Services Field Office



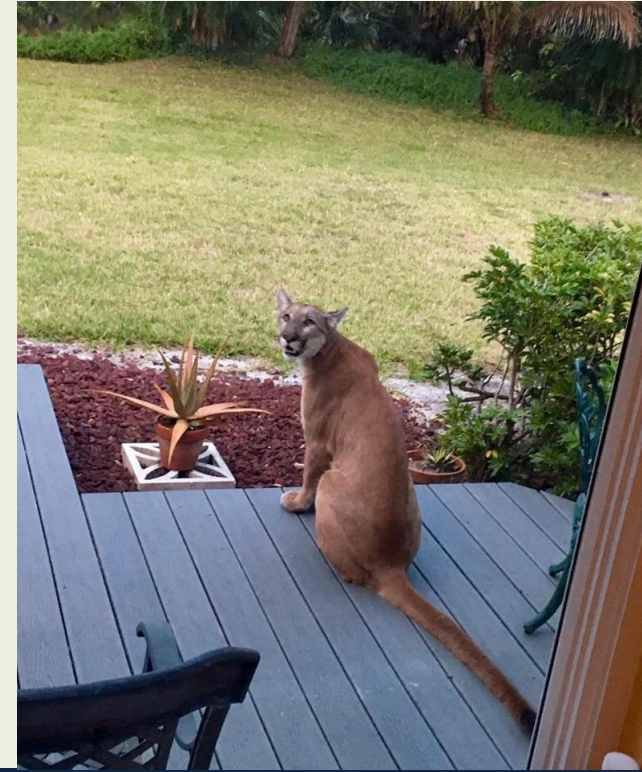
Mountain Lion-Human Conflict: Colorado



South Florida Ecological Services Field Office



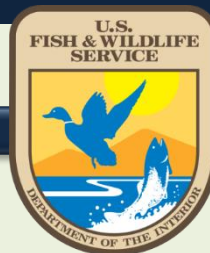
Panther-Human Conflict: Southwest Florida



More People, More Panthers, More Problems



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Puma-Human Conflict: Hot Pockets

Griffith Park mountain lion P-22
suspected of killing koala at L.A. Zoo



Florida panther kills wallaby in
Naples, FL



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Puma Attacks on Humans: Western United States



The Seattle Times Search

1 bicyclist dead, 1 hurt in cougar attack near Snoqualmie

f e t

Originally published May 19, 2018 at 1:16 pm Updated May 19, 2018 at 9:44 pm

1 of 5 Agents with the Washington state Department of Fish and Wildlife tracked and killed the cougar believed responsible for attacking two mountain bikers in the woods northeast of Snoqualmie on Saturday. One man was fatally injured and the other is in satisfactory condition at Harborview Medical Center.



South Florida Ecological Services Field Office



Florida Panther Interagency Response Plan

Interagency Florida Panther Response Plan

Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, FL 32399-1600

U.S. Fish and Wildlife Service
1875 Century Blvd.
Atlanta, GA 30345

National Park Service
100 Alabama St. SW
1924 Building
Atlanta, GA 30303



Wildlife officials: Unwanted panther, kittens, can stay in Pinecrest — for now

Residents, an American Indian nation want the cat booted, but experts say the endangered animal hasn't exhibited behavior that would warrant removal

Hunter says he was attacked by Florida panther



Craig Pittman, Times Staff Writer

Wednesday, April 9, 2014 8:36pm



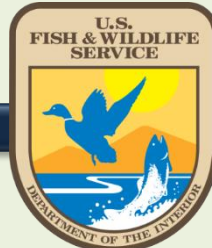
25



Young male Florida panther roaming at Farm Worker's Village in Immokalee captured, to be relocated

An interagency plan for dealing with human-panther interactions and conflicts to promote public safety while assuring the conservation of the panther.

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Florida Panther Interagency Response Plan

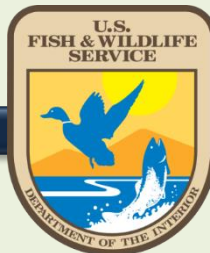


Categorizes Human-Panther Interactions as:

1. **Sighting:** An observation or fleeting glimpse of a panther from a distance
2. **Encounter:** An unexpected direct meeting or series of meetings over a short period between and human and a panther. Panther exhibits nonthreatening behavior
3. **Incident:** An interaction between a human and a panther as described in an Encounter except that the panther displays potentially threatening behavior
4. **Threat:** An unprovoked aggressive or predatory behavior toward a human that requires the individual to take defensive action to avoid direct contact
5. **Attack:** A direct, physical contact between a human and a panther involving aggressive panther behavior



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Florida Panther Interagency Response Team



- Panther Biologist
- Law Enforcement
- Public Information Officer



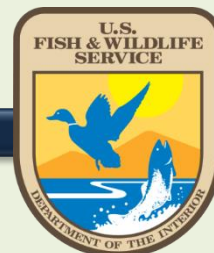
- FPNWR Biologist
- Law Enforcement
- Public Information Officer
- FPNWR Manager
- Panther Coordinator



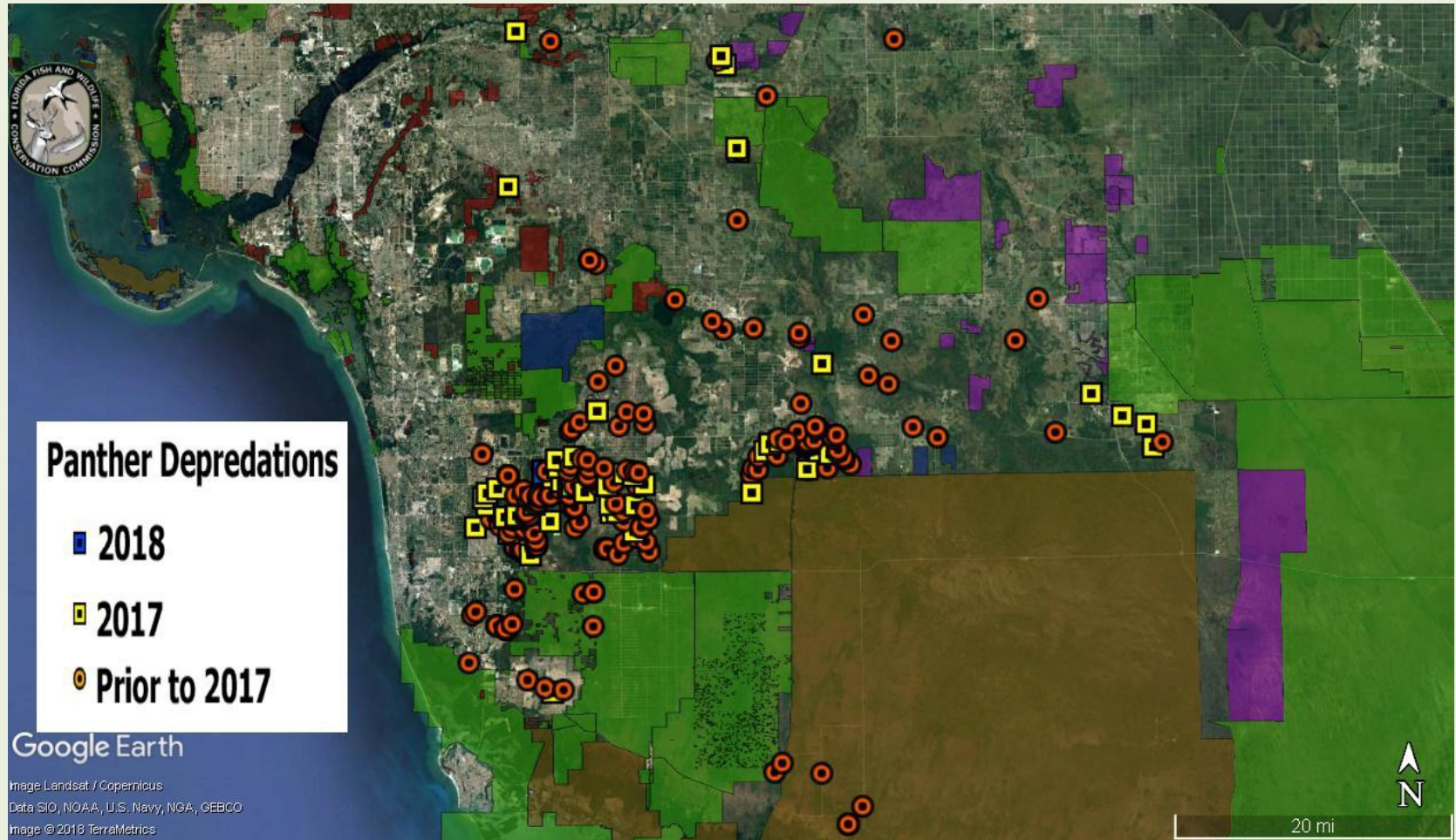
- Panther Biologist
- Law Enforcement
- Public Information Officer



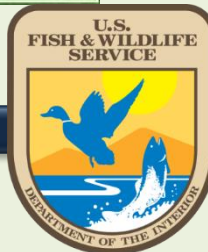
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Panther-Human Conflict: Depredations



South Florida Ecological Services Field Office



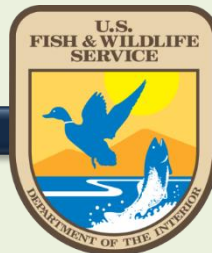
Panther-Human Conflict: Pets and Hobby Livestock



Don't Fence Me Bro!



South Florida Ecological Services Field Office



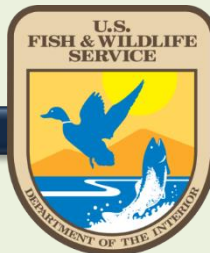
Panther-Human Conflict: Pets and Hobby Livestock



Secure animals in predator-resistant enclosures!!!



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Panther-Human Conflict: Pets and Hobby Livestock



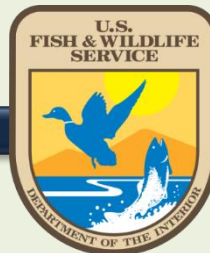
©Lisa Ostberg



Pen Building Assistance Program



South Florida Ecological Services Field Office



Panther-Human Conflict: Livestock Guardian Dogs



Mark Danaher



BOZ

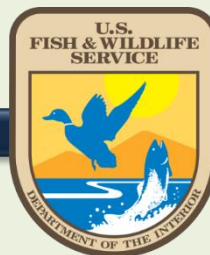
Mitch Barazowski



Mark Danaher



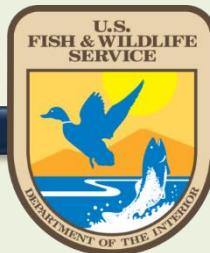
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Panther-Human Conflict: Livestock Guardian Dogs



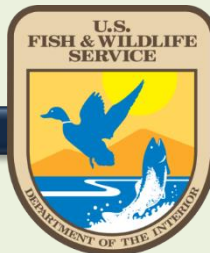
South Florida Ecological Services Field Office



Panther-Human Conflict: Livestock Depredations



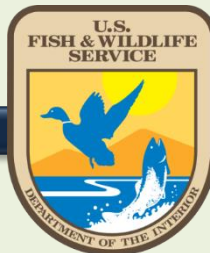
South Florida Ecological Services Field Office



Panther-Human Conflict: Livestock Depredations



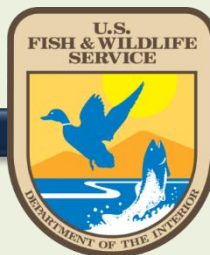
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Panther-Human Conflict: The Nature of the Beast



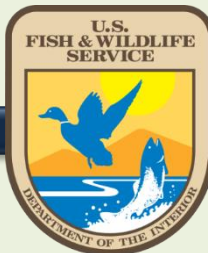
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Livestock Depredations: The Missing Calf



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Panther-Human Conflict: Livestock Compensation



CARLTONWARD

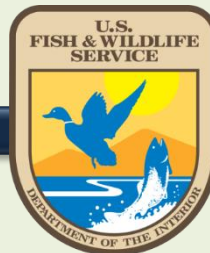
Livestock Indemnity Program



UNITED STATES DEPARTMENT OF AGRICULTURE • FARM SERVICE AGENCY



South Florida Ecological Services Field Office



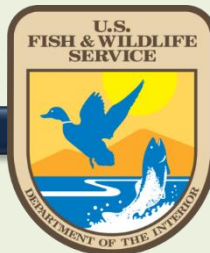
Panther-Human Interactions



**Presence Does Not Constitute A Threat
Panthers Can Be Active and Seen During The Day
Curiosity and Indifference are Common Panther Behaviors**



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Panther Sightings: A Religious Experience

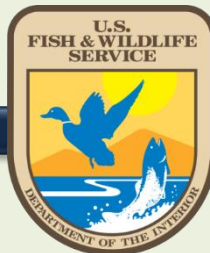


Florida Panther at Corkscrew Swamp

© Andrea Wipperfurth



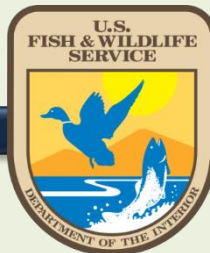
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Panther Encounters: A Lion in the Alcove



South Florida Ecological Services Field Office



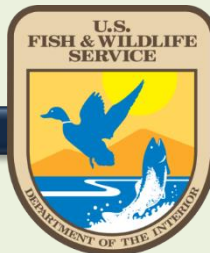
Persistent Challenges: Panther-Human Coexistence



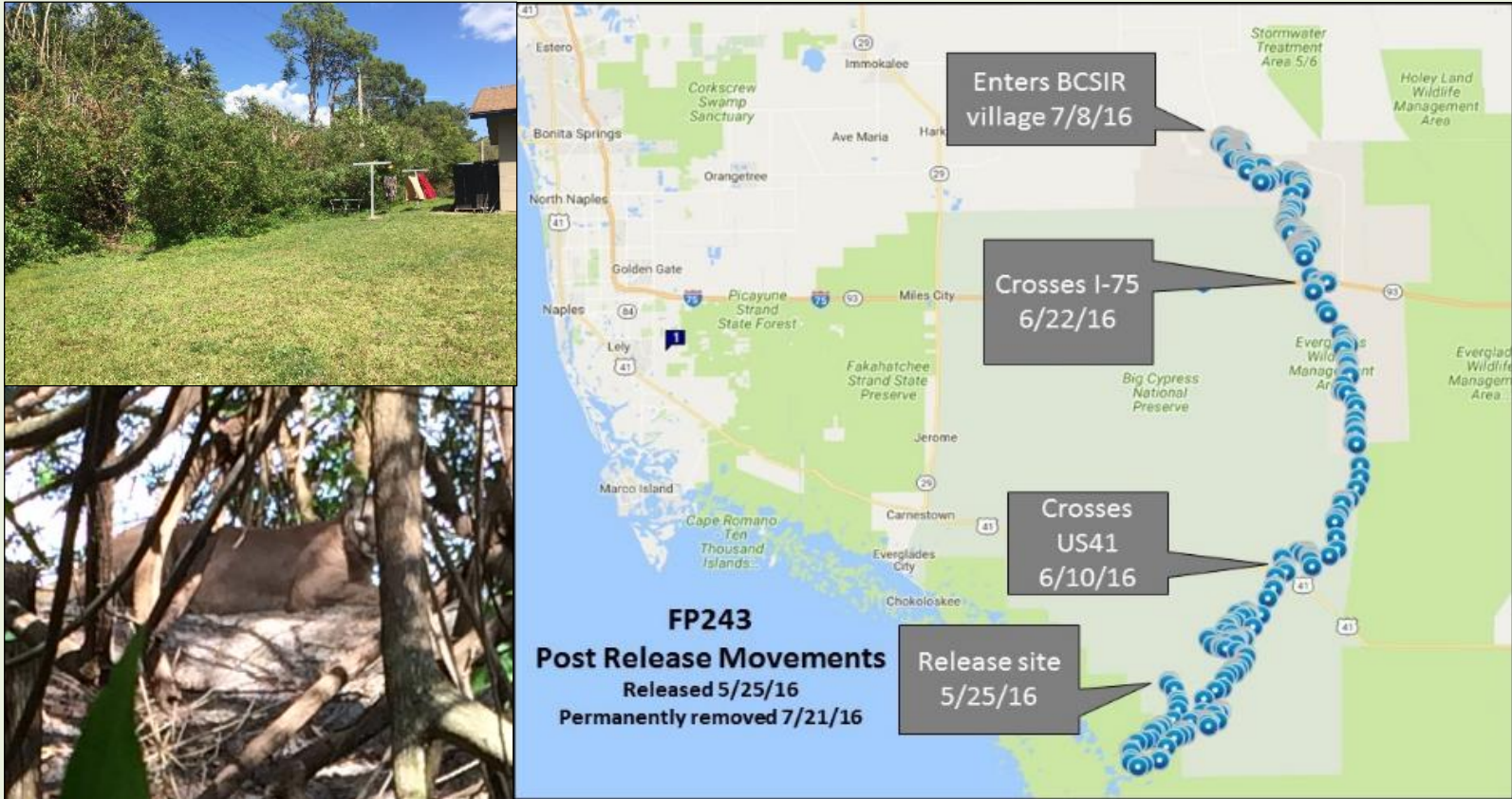
If a panther's behavior indicates a threat to human safety, it will be permanently removed from the wild.



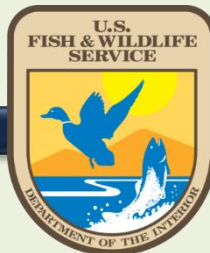
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Response Plan in Action: Removal of FP243



South Florida Ecological Services Field Office



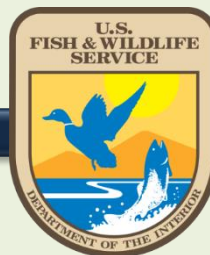
Persistent Threats: Social Intolerance



**\$15,000
REWARD!!**



South Florida Ecological Services Field Office





South Florida Ecological Services Field Office



Florida Panther Recovery Plan: Third Revision 2008

U.S. Fish and Wildlife Service

Florida Panther Recovery Plan



Photo by Mark Lotz, Florida Fish and Wildlife Conservation Commission

3rd Revision

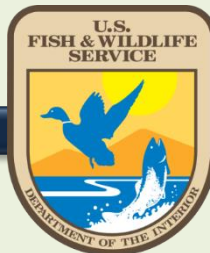
RECOVERY GOAL: Achieve long-term viability of the Florida panther to a point where it can be reclassified from endangered to threatened, and then removed from the Federal List of endangered and threatened species.

RECOVERY CRITERIA Delisting

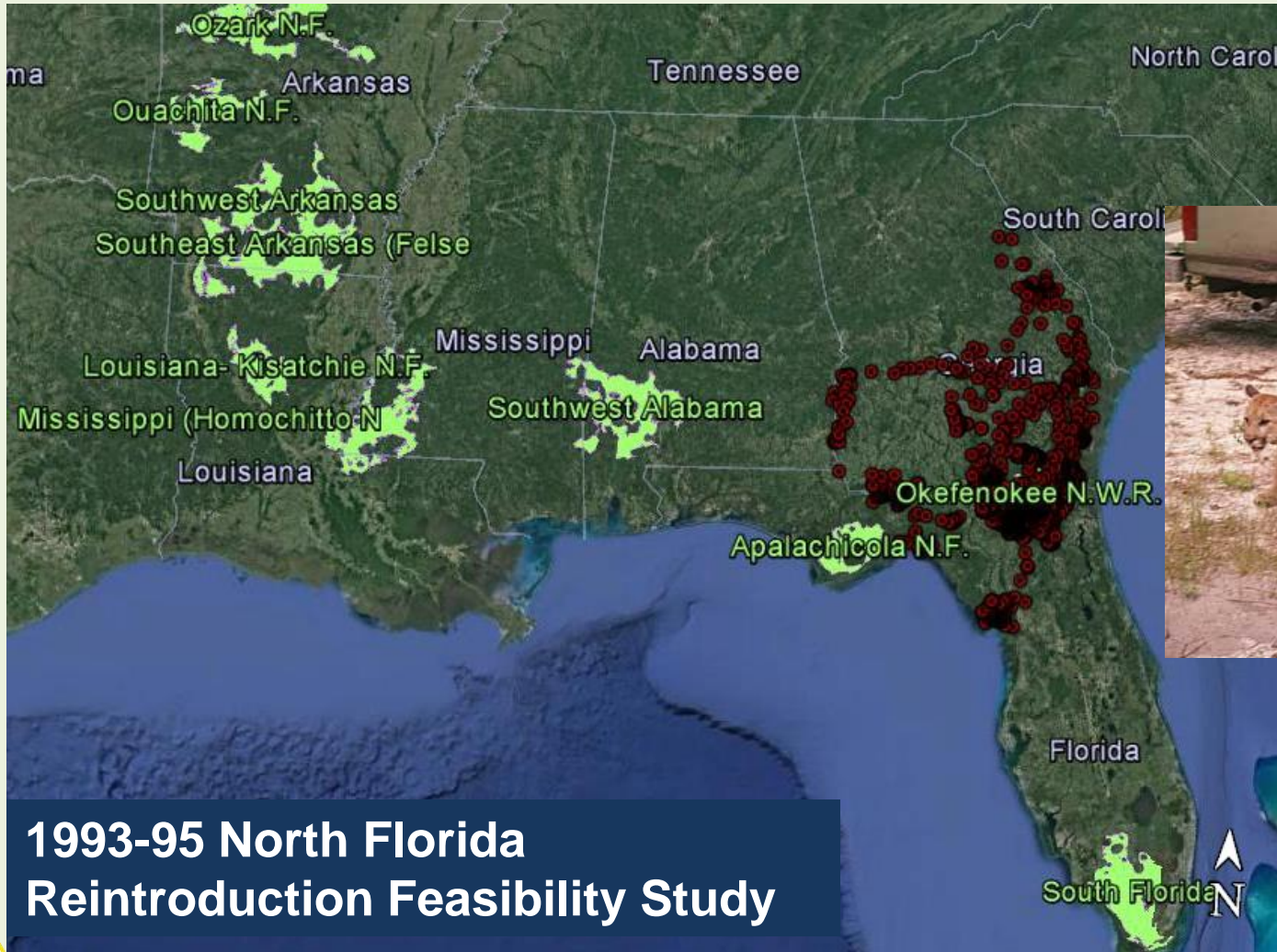
- 3 viable, self-sustaining populations of at least 240 individuals, each established and maintained for a minimum of 12 years.
- Sufficient habitat quality, quantity, and spatial configuration to support these populations is protected or secured for the long-term.



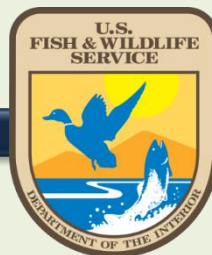
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Prospects for Reintroduction



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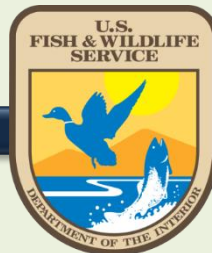
Florida Panther Recovery Implementation Team

Purpose: Assist the Service with implementing the 2008 Florida Panther Recovery Plan

- Formed in 2013
- Members representing USFWS, NPS, FWC, Private Landowners, Conservation NGOs, Cattle Ranchers, and Sportsmen.
- Focus on implementing high-priority action items:
 - Vehicular Mortality (sub-team formed)
 - Inventory and Monitoring (sub-team formed)
 - Recovery Criteria (sub-team formed)
 - Private Lands Incentives
 - Range Expansion
 - Habitat Restoration and Management
 - Genetic Management Plan
 - Panther Taxonomic Status



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Florida Panther Recovery Implementation Team

Transportation Sub-Team



MICHAEL
WANSKI
PHOTOGRAPH

Purpose: To identify and prioritize connectivity solutions in high-risk transportation areas within south Florida and in potential panther expansion areas.

<https://www.fws.gov/verobeach/FloridaPantherRITTransportation.html>

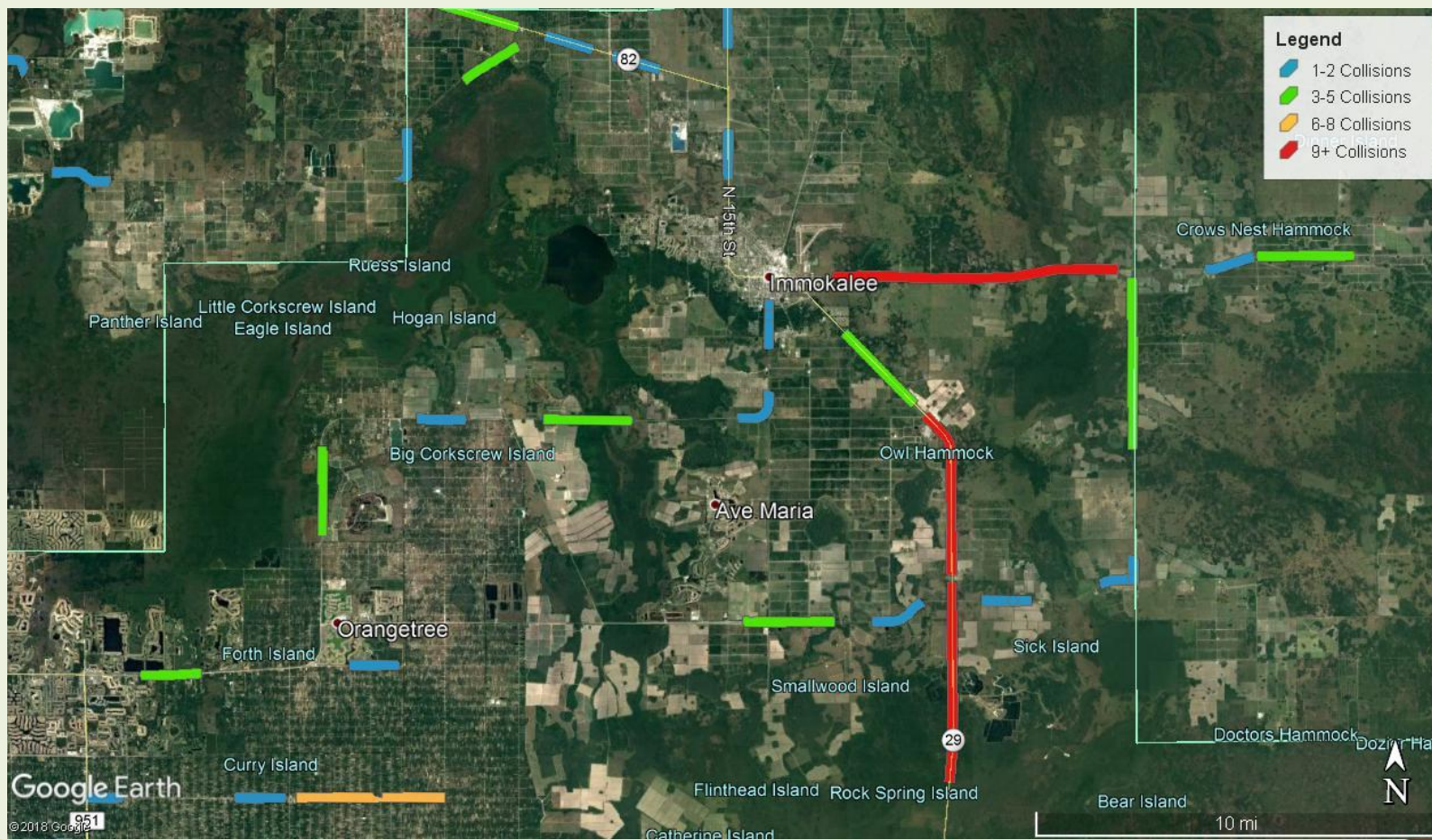


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Transportation Sub-Team of PRIT

Southwest Florida Road Hot Spots

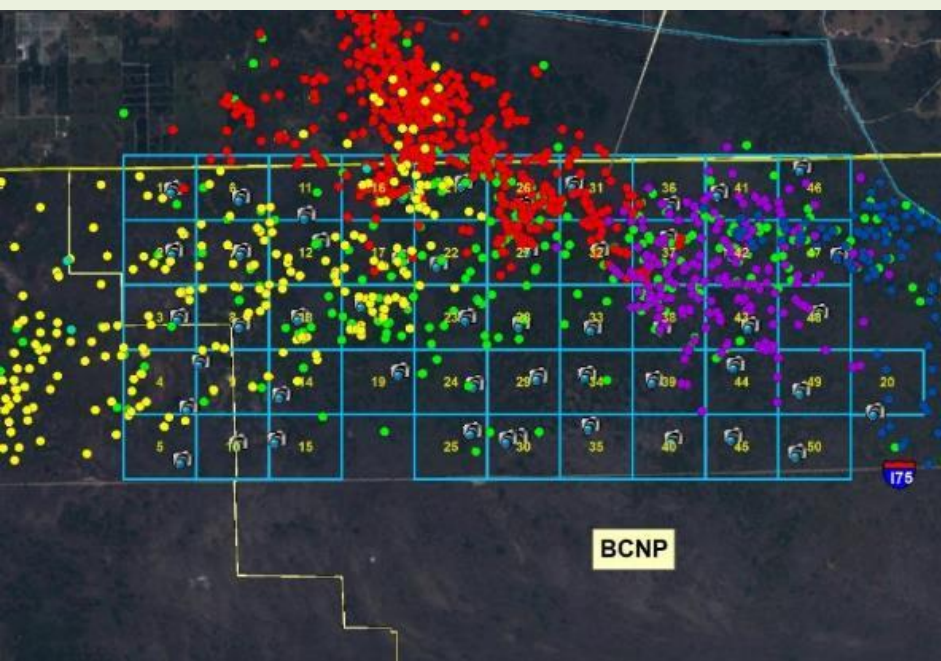


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Florida Panther Recovery Implementation Team

Inventory and Monitoring Sub-Team



Purpose: To provide guidance on methods for estimating and monitoring the statewide panther population.



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Florida Panther Recovery Implementation Team

Recovery Criteria Sub-Team



Purpose: To evaluate the existing recovery criteria and make the determination if new scientific data are available to better guide the Service on how recovery criteria for the panther should be defined.



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Florida Panther Recovery Implementation Team Priorities



Make panther recovery compatible with working ranch lands



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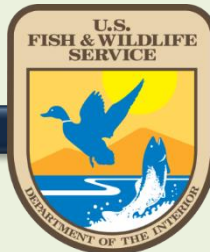
Florida Panther Recovery Implementation Team Priorities



Make panther recovery compatible with hunting and recreational access



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Florida Panther 5-Year Status Review

Initiated in June 29, 2017

A 5-year begins with biologists gathering the best available scientific data regarding the species. Such information includes:

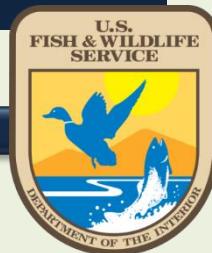
- Population trends, distribution, abundance, demographics, and genetics.
- Habitat conditions
- Conservation measures that have benefited the species
- Threat status and trends
- Other new information, data, or corrections, including but not limited to changes in taxonomy or nomenclature

Possible recommendations upon completion of the 5-year review:

- Reclassify the panther from endangered to threatened (downlist)
- Remove the panther from the List (delist), or
- Maintain the panther's current classification.

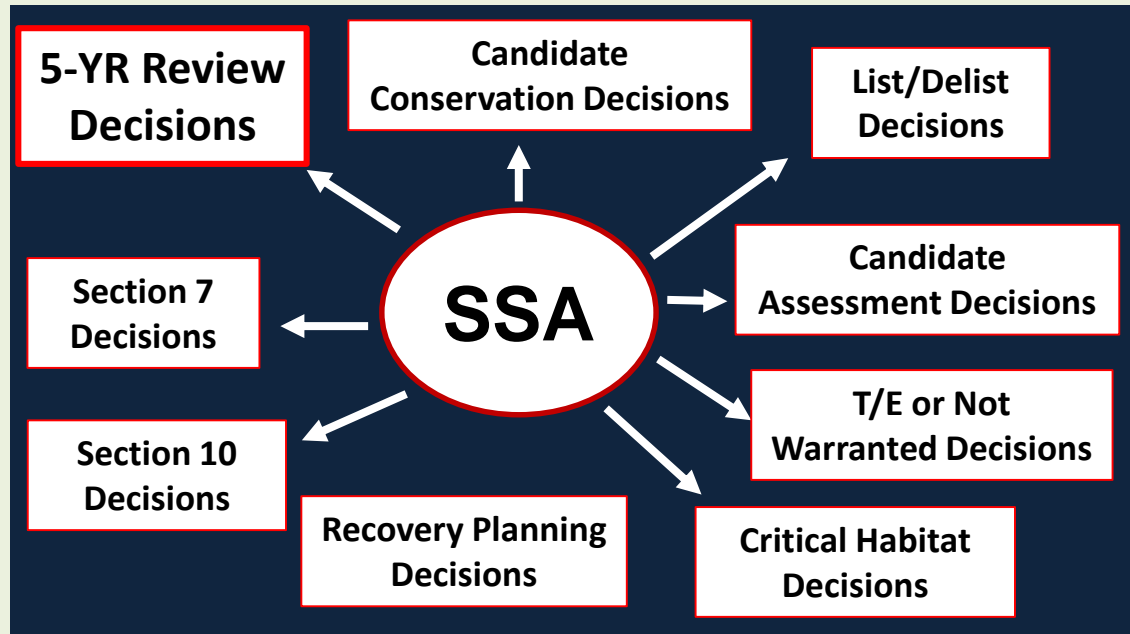
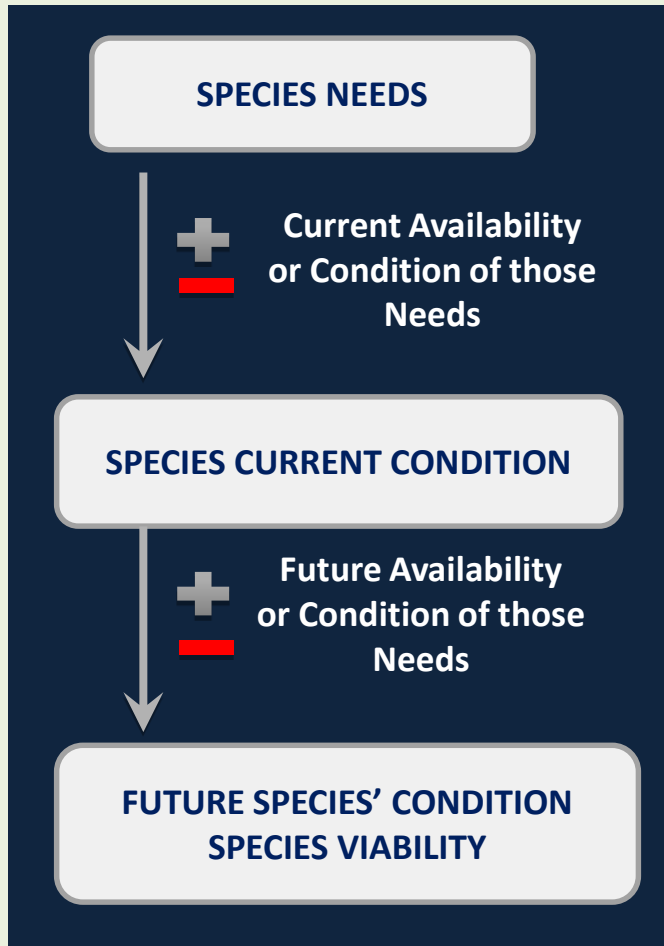


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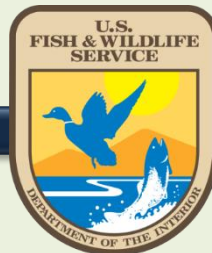


Florida Panther Species Status Assessment (SSA)

An SSA is in essence a biological risk assessment to aid decision makers who must use the best available scientific information to make policy decisions.



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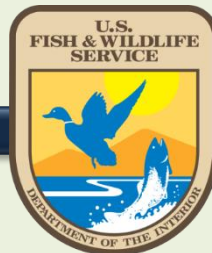
Florida Panther Species Status Assessment (SSA)



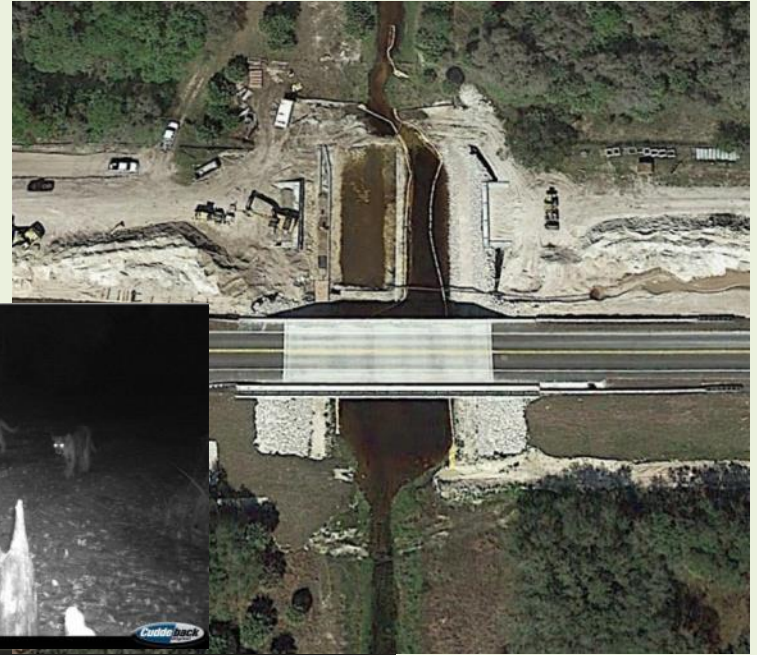
Taxonomic Assessment



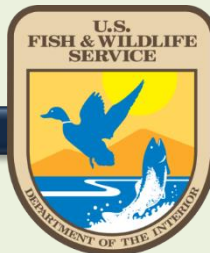
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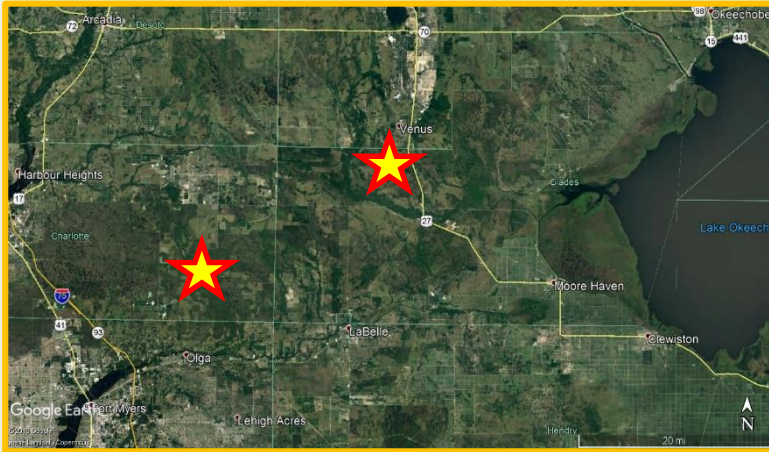
Facilitate Natural Range Expansion



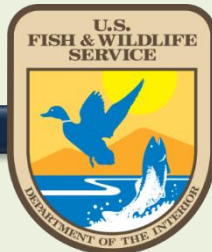
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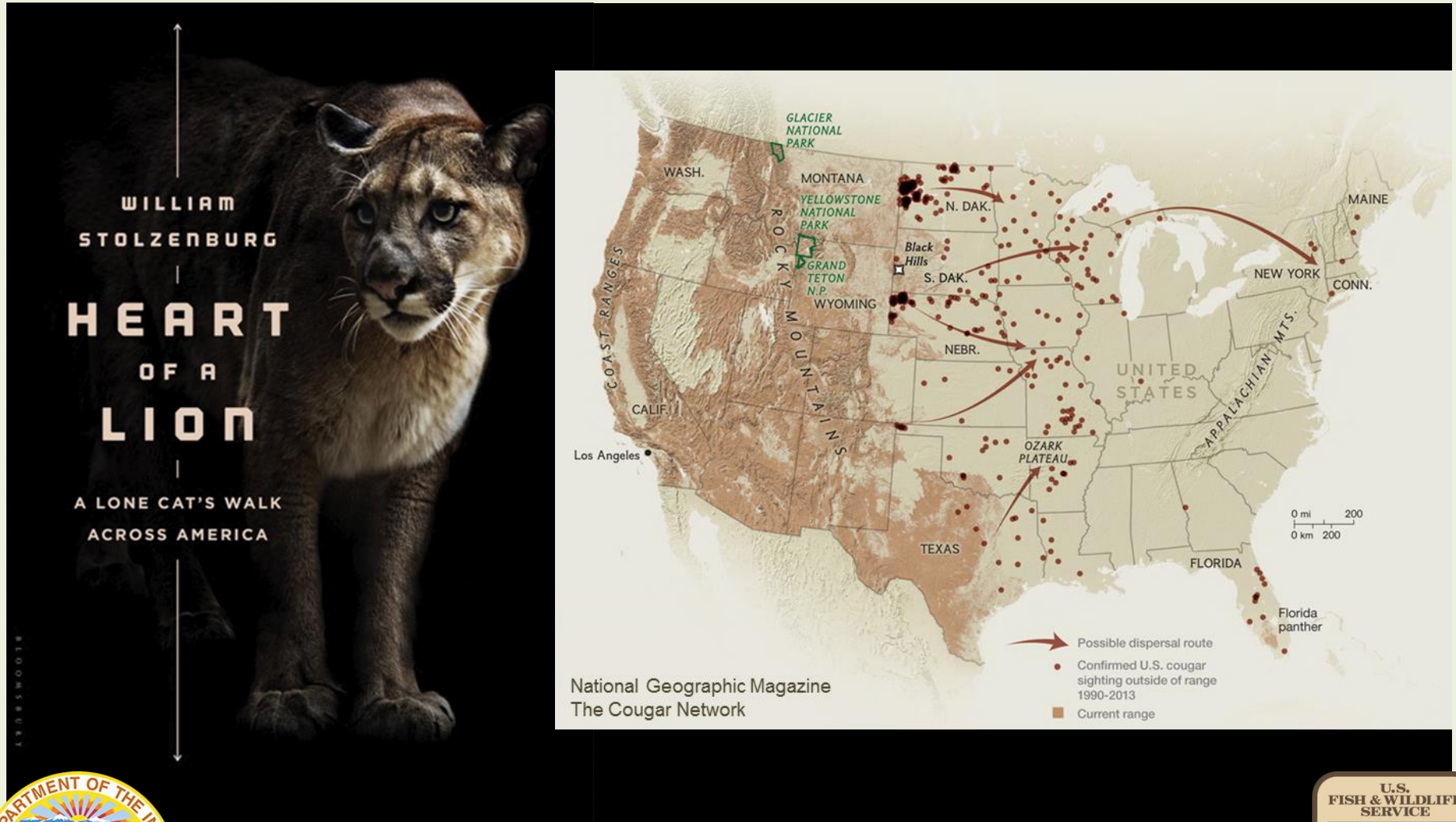
Female Panthers North of the Caloosahatchee



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North American Puma: Heart of a Lion



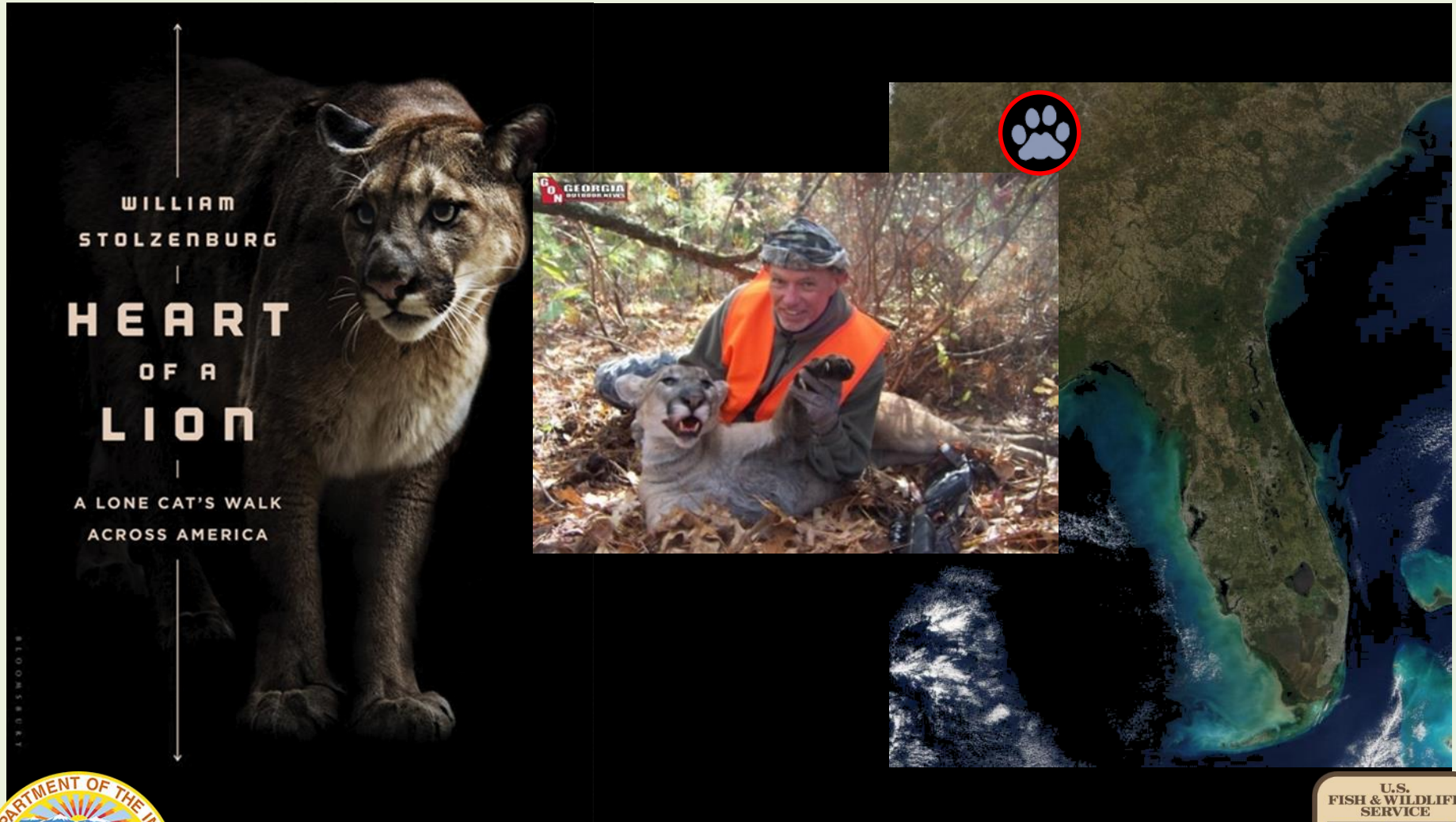
National Geographic Magazine
The Cougar Network



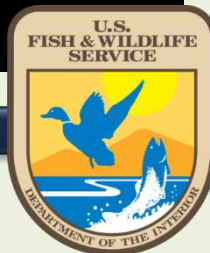
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Florida Panther: Heart of a Lion



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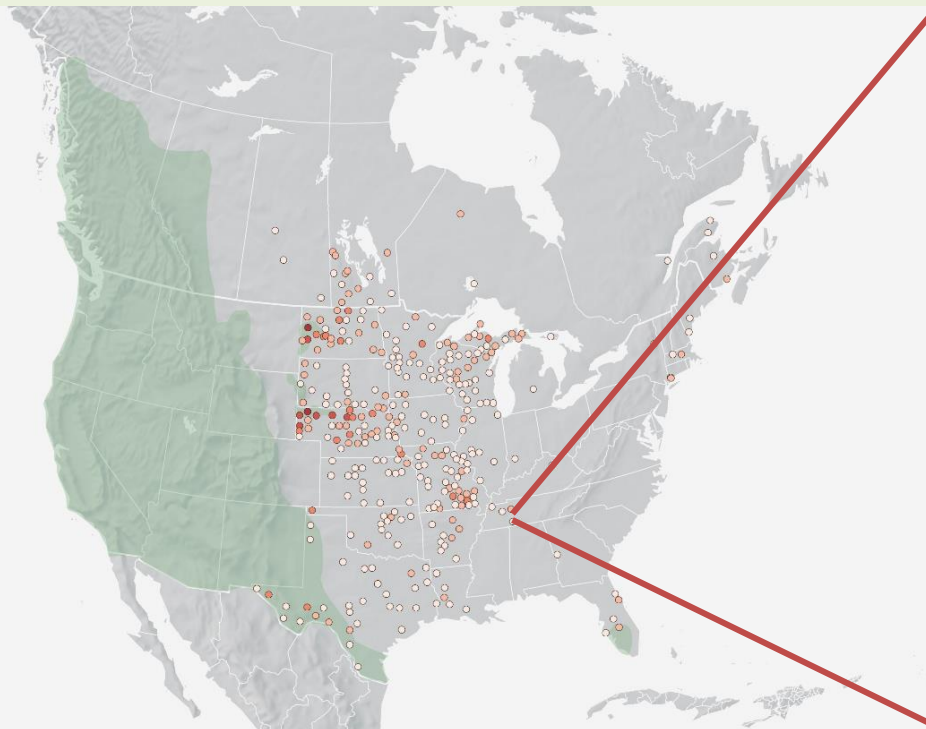


North American Puma: Eastward Expansion

Cougar Confirmations Per County (1990-2017)

- 1
- 2 - 5
- 6 - 15
- 16 - 50
- 51 - 100

■ Known Cougar Range (U.S. and Canada)



COUGAR NETWORK
www.cougarnet.org

Map by Brad Herried, F+H Geographics
October 23, 2017

Cougar data from Cougar Network
Basemap data from Esri, Natural Earth



Tennessee 2015-16



“TWRA has never, nor has it any plans to stock or otherwise physically encourage the establishment of a cougar population in Tennessee.”



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Florida Panther: Public Support



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ASA

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