

# Panther Recovery Criteria

August 8, 2017



# Panther Recovery Criteria Sub-team



## Membership

Kipp Frohlich: Deputy Division Director, FWC, PRIT member liaison to this subteam.

Randy Kautz: Formerly worked for FWC and GFC; member of Florida Panther Sub-team of MERIT and has published on various aspects of Florida panthers.

Dr. Madan Oli: Professor Department of Wildlife Ecology, teaches courses in population ecology and modeling, and conducts research in applied population ecology and conservation biology.

Dr. Dave Onorato: Associate Research Scientist FWC; Florida Panther Project, sub-team chair.

Dr. Michael Runge: Research Ecologist - USGS Patuxent Wildlife Research Center. Focuses on the use of decision theory and population modeling to inform wildlife management; Co-chair of the Polar Bear Recovery Team; worked on manatee recovery and downlisting.

Seth Willey: Deputy Assistant Regional Director, USFWS, Region 2, Albuquerque, NM. Worked on Threatened & Endangered issues including gray wolves and grizzly bears.

## Important resources to the sub-team

Dr. Jeffrey Hostetler: Research Scientist FWC; PVAs, published on panther population models.

David Shindle: USFWS Panther Recovery Coordinator

# Panther Recovery Criteria Sub-team

## History of meetings:

- October 1, 2015. First phone meeting. (All members)
- December 11, 2015. Webx. Recovery Planning 101. Presented by Seth Wilely
- January 27, 2016. Webx. Panther viability model webx. Presented by Randy Kautz
- January 28, 2016. Webx. Polar bear Recovery Plan. Presented by Mike Runge.
- March 29, 2016. Conference Call. PVA discussion.
- April 25, 2016. Presentation by Jeff Hostetler.
- **May 3-4, 2016. In person meeting, FWRI, St. Petersburg FL.**
- October 12, 2016. Conference call. Demographic Criteria, Genetic Criteria, Habitat.
- December 9, 2016. Conference call. Factor D, Prey Criteria.
- May 19, 2017. Conference call/ Webx. Go over sections including demographics, genetics, threat-based, prey, habitat, factor D
- August 3, 2017. Conference call. Discuss draft.



# Where is the line between T vs. E

Endangered Species: in danger of extinction throughout all or a significant portion of its range

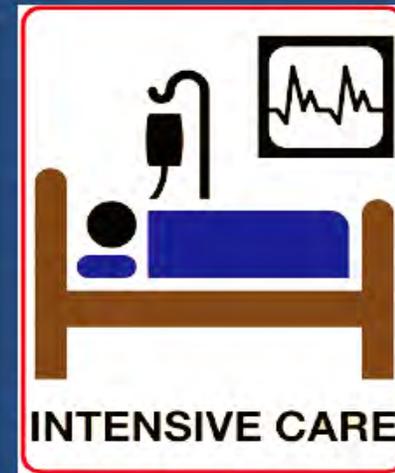
Threatened Species: one that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range



# Where is the line between T vs. E

Endangered Species: in danger of extinction throughout all or a significant portion of its range

- “on the brink of extinction”
- High, near-term risk of extinction
- “an established, present condition”



# Where is the line between T vs. E

Threatened Species: one that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range

- Likely to become endangered later
- “an expected or predicted future condition”



# Recovery Criteria

## Section 4(f)(1)(B):

- *“objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of this section, that the species be removed from the list”;*
- Typically includes:
  - Demographic recovery criteria
  - Threats based recovery criteria



# General Aspects of Recovery Criteria

- Recovery Criteria are not regulatory or mandated – they do not have to be achieved in order to reclassify a species
- Changing Recovery Criteria requires a major revision to the Recovery Plan
- Sometimes criteria may not be possible to meet and reclassification may never occur - some species may always be listed
- Trend today is for Recovery Plans to be more adaptive and not have as prescriptive criteria, but rather have multiple pathways to recovery



# The team organized the criteria into 3 tiers

- Fundamental Criteria

- Tier 2 Criteria:

- ✓ Demographics
- ✓ Genetics



- Tier 3 Criteria: threat-based

- ✓ Habitat loss
- ✓ Prey availability
- ✓ Disease, Inadequacy of regulations, manmade factors



# How **does** the ESA consider threats? Sec 4(a)(1): the five factors”

- A. **Habitat**
- B. **Overutilization**
- C. **Disease or predation**
- D. **Regulatory mechanisms**
- E. **Other factors**



# Moving forward

- Current version is a draft – additional work and refinement needed
- Some of the criteria proposed will require more research to determine values
- Looking for feed-back and input from PRIT and members of other sub-teams
- Ultimately, adoption of new criteria is purview of FWS

