Cougar Outline

- Historic and current status of cougars in the Midwest
- Likelihood of cougar recolonization
- Evidence of cougar presence
Topic 1: Cougar Status
Historic Status of Cougars

• Pre-settlement, most widely distributed species in North America
• Direct persecution
• 1900: Gone from East and Midwest, vastly reduced in West
• 1960: Agency management out west
  – Populations flourished
“Lions will hit the Mississippi in the next decade. The East and Midwest is beautiful cat country, full of deer and cover.”

-Maurice Hornocker, Outside Magazine 2003
During Aug 2003 - present:
>100 cougar confirmations in 12 midwestern states and 2 provinces!

- Confirmation = known mortalities, trailcam photos...
- Many were carcasses, and “apparently wild” individuals
>300 cougar confirmations since 1990!

4 in Illinois since 2000
1860-2000, 0 confirmations!
What is Going On?

• Aliens, gov’t conspiracy, captives? No…

• Natural dispersal from western populations!
  – Populations flourishing
  – Midwest vacant
  – Subadult males
    • 77% carcasses
  – Potential sources?

Spooner, WI 2009
Likely Source of Dispersers: Black Hills, SD/WY

- 250 individuals, population at carrying capacity
- 30 subadult dispersers/yr
- Many animals fitted with radiocollars to study dispersal; subadult males can disperse 1,500 miles!
Why? – Social Constraints Out West
Subadult Dispersal Into Voids
Cougar Voids Full in the West!
Cougar Dispersal (males)

• Generally subadults disperse
• Males disperse more than females
• Males travel much farther than females
• Any evidence for dispersal of juvenile males into Midwest?
Male Dispersal: OK Cougar

• Male cougar hit by train in NE Oklahoma in May 2004

• Radiocollared in Black Hills (SD) in 2003 as a juvenile

• Missing from radiocontact for 8 months

• 667 miles traveled (straight-line)…
Corridor-following male cougar would have traveled 935 miles
What About Female Dispersal?

• Female cougars philopatric, or display relatively short dispersal movements (<150 miles)

• Female cougars have a long way to go!
Conclusions: Current Status

• How many cougars present in the Midwest? Few.

• Gender of those individuals? Mostly males.

• Breeding populations? Black Hills, ND Badlands, NW Nebraska, but nowhere else in region

• But, can cougars eventually recolonize?
Topic 2: Will Cougars Eventually Recolonize the Midwest?
Short Answer: Yes!

R² = 0.6293
Cougar Recolonization: Knowns

- Cougar confirmations have increased considerably
- Subadults (esp. M) can disperse far enough
- Suitable habitat and prey (wait…)
- Generally good support from the public (wait…)
**Cougar Recolonization: Unknowns**

- Can enough females get here?
- Record dispersal of 807 miles (1,300 km)

Dispersal of cougar F31 from Oquirrh Mountains, Utah to Meeker, Colorado, 9 February 2005 to 7 February 2006
Cougar Recolonization: Unknowns

• Mortality
  - Legal harvest?
  - Illegal killing?
  - Vehicles?

***How will the public respond???
What to do in the meantime?

• Prepare! We know enough about what’s going on to do so…

• Residents of Midwestern states would benefit from educational and informational efforts; some deviation between perceptions and reality

• Educational efforts would have to be diverse given regional and residential differences
SB 3049 (which provides protection status for cougars) passed both houses in May 2014 and awaits the Governor's signature.
Recent Management Actions

• North Dakota and South Dakota: regulated hunts since 2005 (controversial)
  - Will harvest out west “short-stop” dispersers traveling east?

• Nebraska and Missouri: Mountain Lion Task Force

• Illinois DNR funding SIUC research on large carnivores in Illinois
Topic 3: Evidence of Cougar Presence

Harley Shaw: “Wherever cougars are around in any number or for any period of time, they leave sign!”

See Puma Field Guide...www.cougarnet.org
Types of Cougar Evidence

- Sightings may not be verified
- Tracks or scat are helpful, but not always conclusive
- Physical remains
Trailcam Pics/Videos

• Great evidence if photo is clear

• MUST verify location of camera

• MANY hoaxes going around... pics claimed from multiple locations, etc.

• In pics, many people mistake bobcats, deer, coyotes, dogs, otters, raccoons, and other critters for cougars
Cougar Tracks

• Size: 4 inches or thereabouts (bobcats 2 inches)

• No clawmarks in tracks

• More “circular” than canid tracks and 2 lobes in heel pad (not 1)

• Still, need perfect track substrate, clear photo/cast, scale, etc., which makes track ID very difficult!
Cougar Scat

• Extremely difficult to differentiate cougar scat from others without DNA analysis

• Easy to confuse with other carnivores such as coyotes, bobcats, domestic dogs

• Should be larger than the others, right? Very difficult…
Cougar Kills

- Cougars usually kill by biting the back of the neck or throat.

- Distance between toothmarks = 1.8 – 2 in for top canines, 1.2 – 1.6 in for bottom canines (much narrower for dogs/coyotes).

- Hemorrhage at base of throat or neck.

- Claw marks and rakes along shoulders.

- Dogs go for hindquarters, cougars do not!!!

- Cougars enter carcass behind rib cage and eviscerate/eat organs; may cover the carcass.
Finally, Cougar Evidence...

...is best examined with other corroborating forms of evidence, especially when assessing tracks, kills, and scat.

Extensive site searches to get all information available!