

# Long term ecological study of snow leopards

Snow Leopard Trust



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# Previous research

- Two previous studies, one in Nepal in the 1980s, one in Mongolia in the 1990s (VHF collars)
- 1 snow leopard fitted with GPS-collar in Pakistan 2007
- Not much known about the species





# The snow leopard

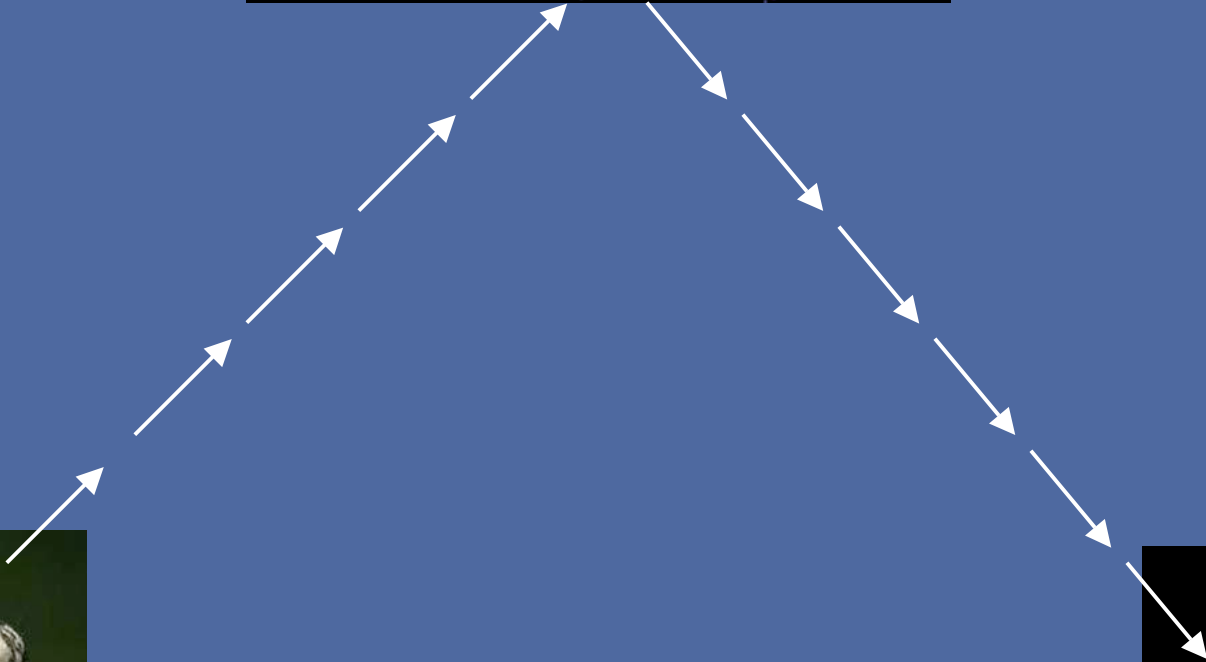
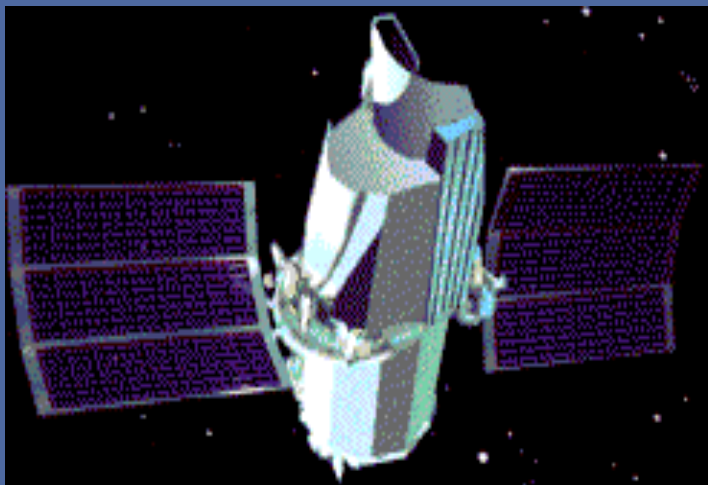
- Solitary species, meets briefly during mating (Jan-March).
- Probably gives birth to 1-3 cubs, follow the mother for 18-24 months?
- Food choice, territoriality, home range size, dispersal patterns, mortality... = ???

# Satellite -GPS collar

- Takes a GPS position three – six times per day
- Sends the position immediately by satellite phone
- All data stored
- Drops off after 13 months (battery)







# Threats

- Illegal hunting – valuable pelts. Bones are used in traditional Chinese medicine
- Livestock predation – herders kill snow leopards to protect their livestock (or in retaliation)
- Increased human utilization of the mountains, over-exploitation of prey populations



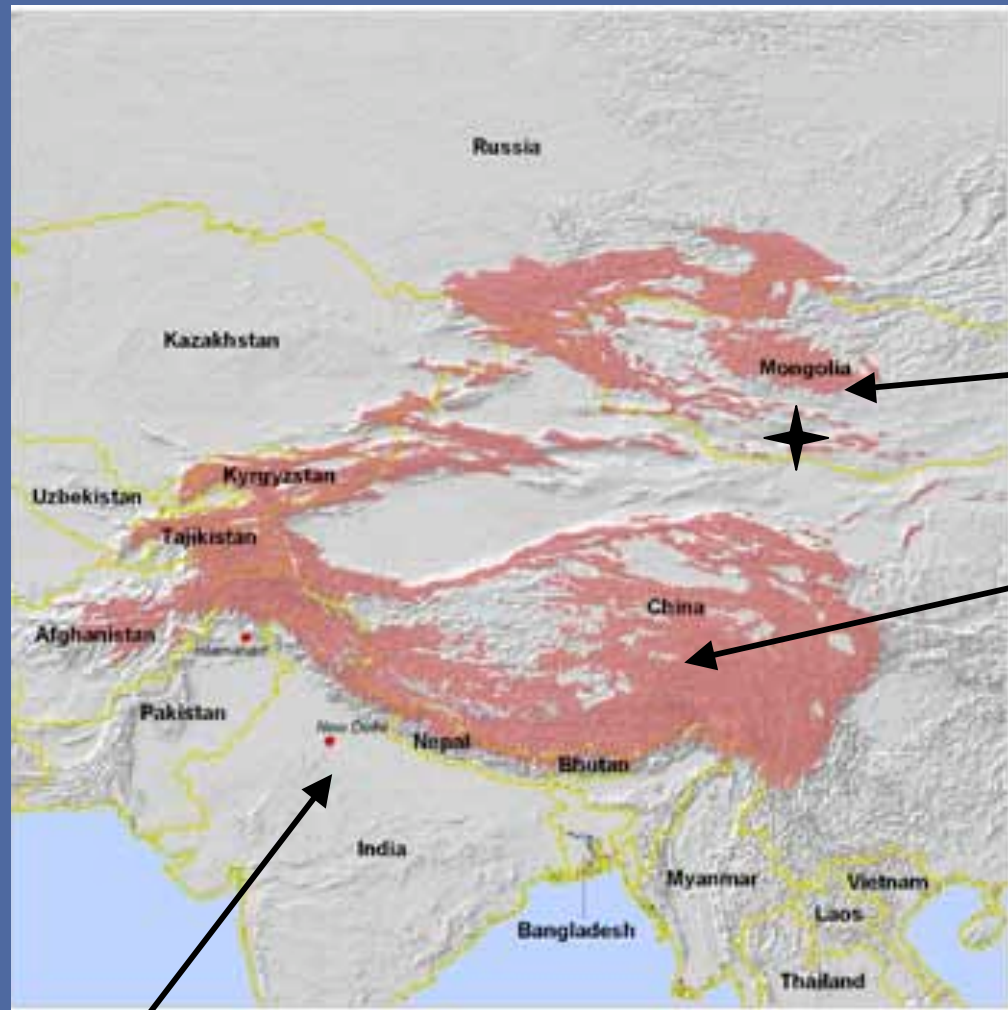


# Population numbers and range

Total  
population:  
3500-7000  
individuals.

Most individuals  
in China,  
Mongolia, India

Lives on 2000  
~ 5700 m  
altitude



500-1000

2000-5000

200-600



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# J. Tserendeleg Snow Leopard Research Center (base camp)





# First ever long-term study

- Minimum of 15 years in length
- State of the art research and training center
- International team of scientists and students
- Information to improve conservation of snow leopards



# Remote cameras



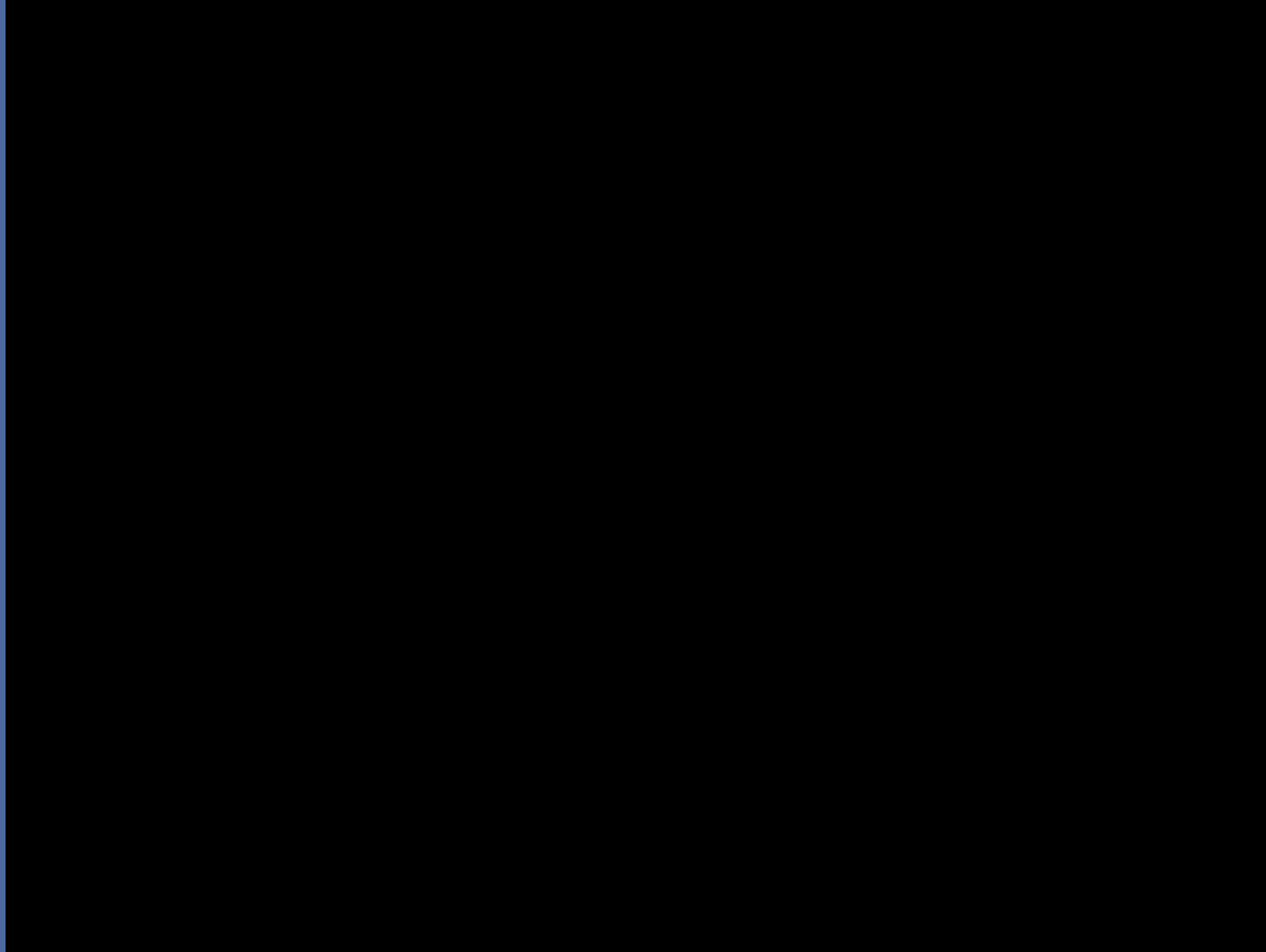
- 11 cameras
- Can store 2500 pictures
- 5 pictures every 3rd second



# Remote cameras

- Placed in areas with good trap sites to estimate number of snow leopards in the area
- 14 identified individuals after 1 year (mid June): 7 males, 2 females, 3 cubs, 2 unknown
- Has been used to improve trap design

# Saikhan three hours before capture



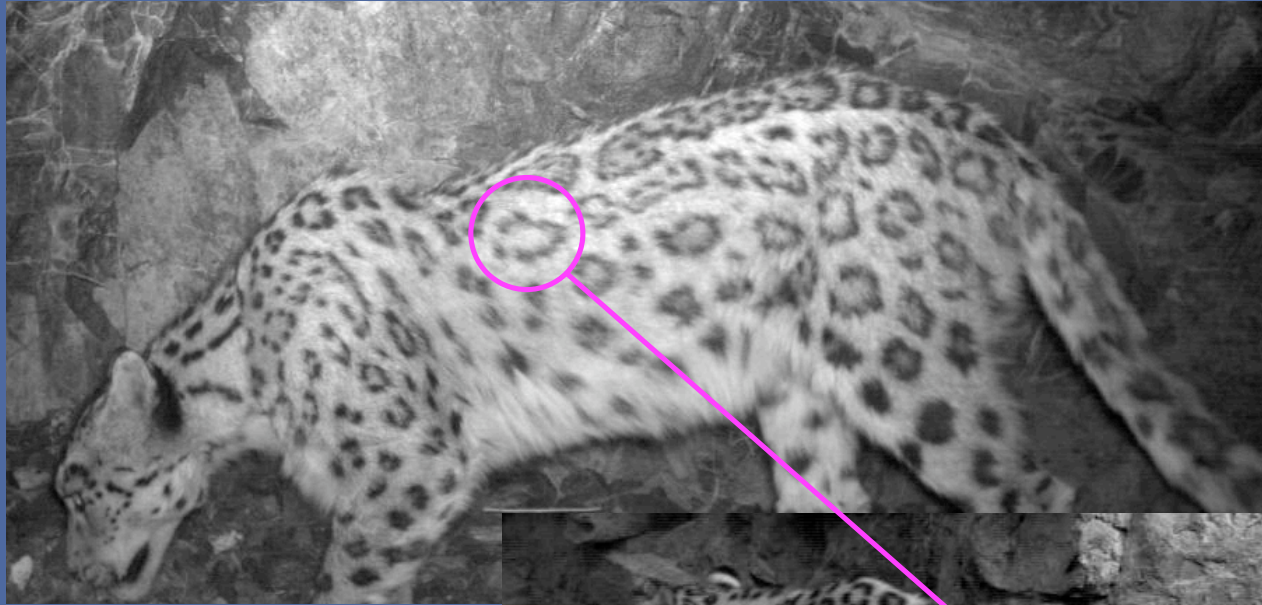
Trap  
→



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# Identification with spot pattern



# Trapping

- Find area with good trap sites and snow leopard signs (10-20 days)
- Move camp (2 days)
- Build traps (3-5 days)
- Catch all resident snow leopards, find new trap area (25-45 days)





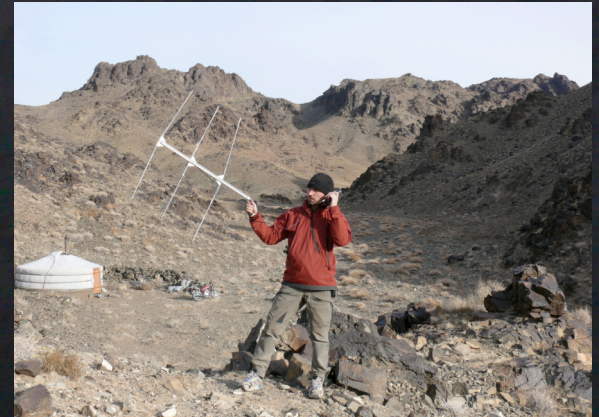
# Traps





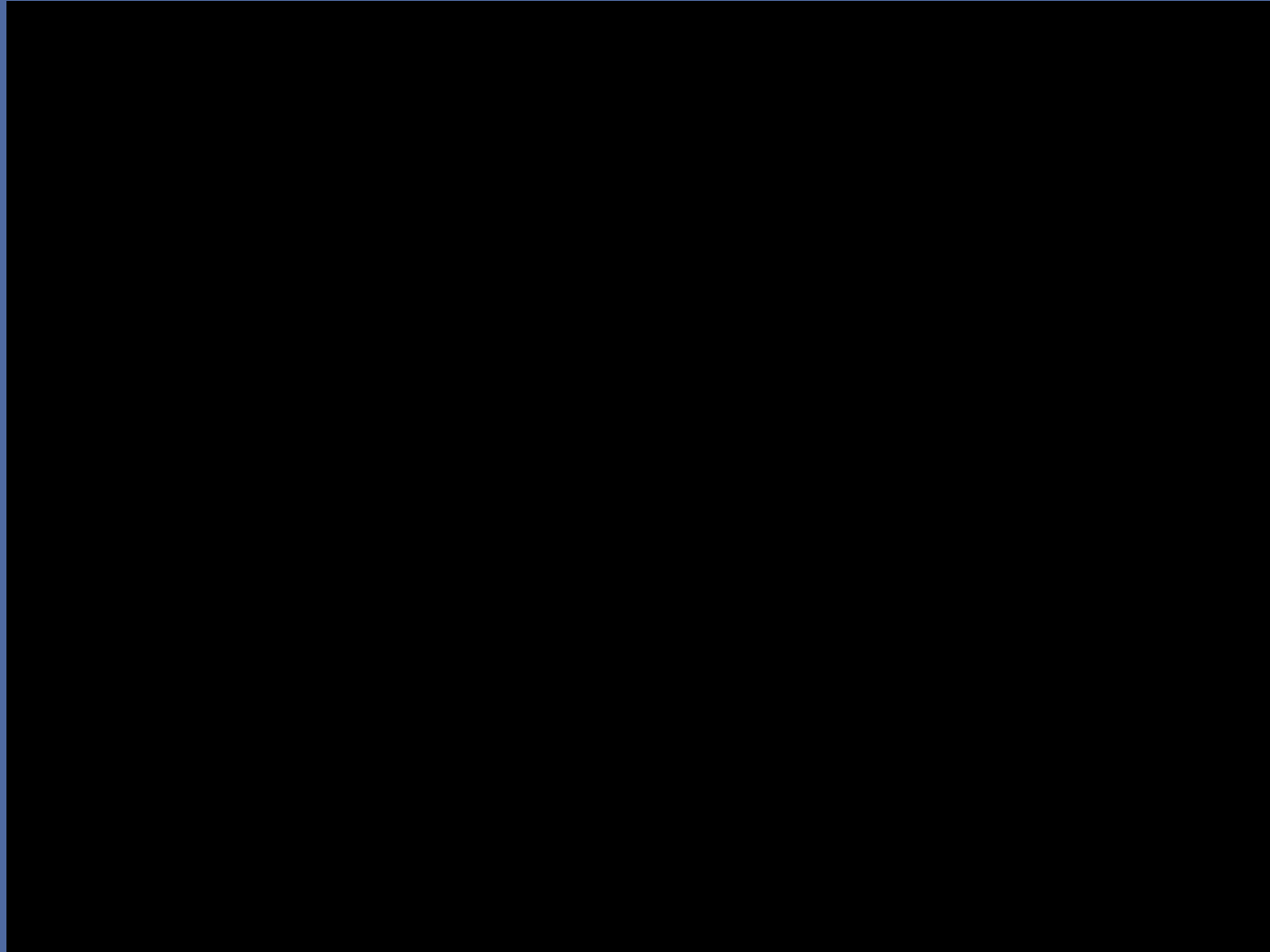
# Waiting

- Signals are checked every third hour
- Up to 45 days of work in a row
- On average one capture / 10 nights
- Maximum 4 hours in the trap



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# Improvement of traps and their location...



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# Immobilization

- 13 captures
- Sedated for 1 hour, reversed with antidote
- Blowpipe or dart gun





# Samples and measurements



Young males 32-35 kg

Adult males 41-45 kg

Female 30 kg

Body length 100-120 cm

Tail length 90-100 cm



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# The seven cats



Aztai (lucky), older male  
Caught aug-08



Shonkhor (falcon), 2 (3?) years  
Caught apr-09



Longtail, 4-5 years  
Caught sep-08  
Killed jan-09



Saikhan (beautiful), 2 years  
Caught maj-09



Tsagaan (White), 4-5 years  
Caught feb-09



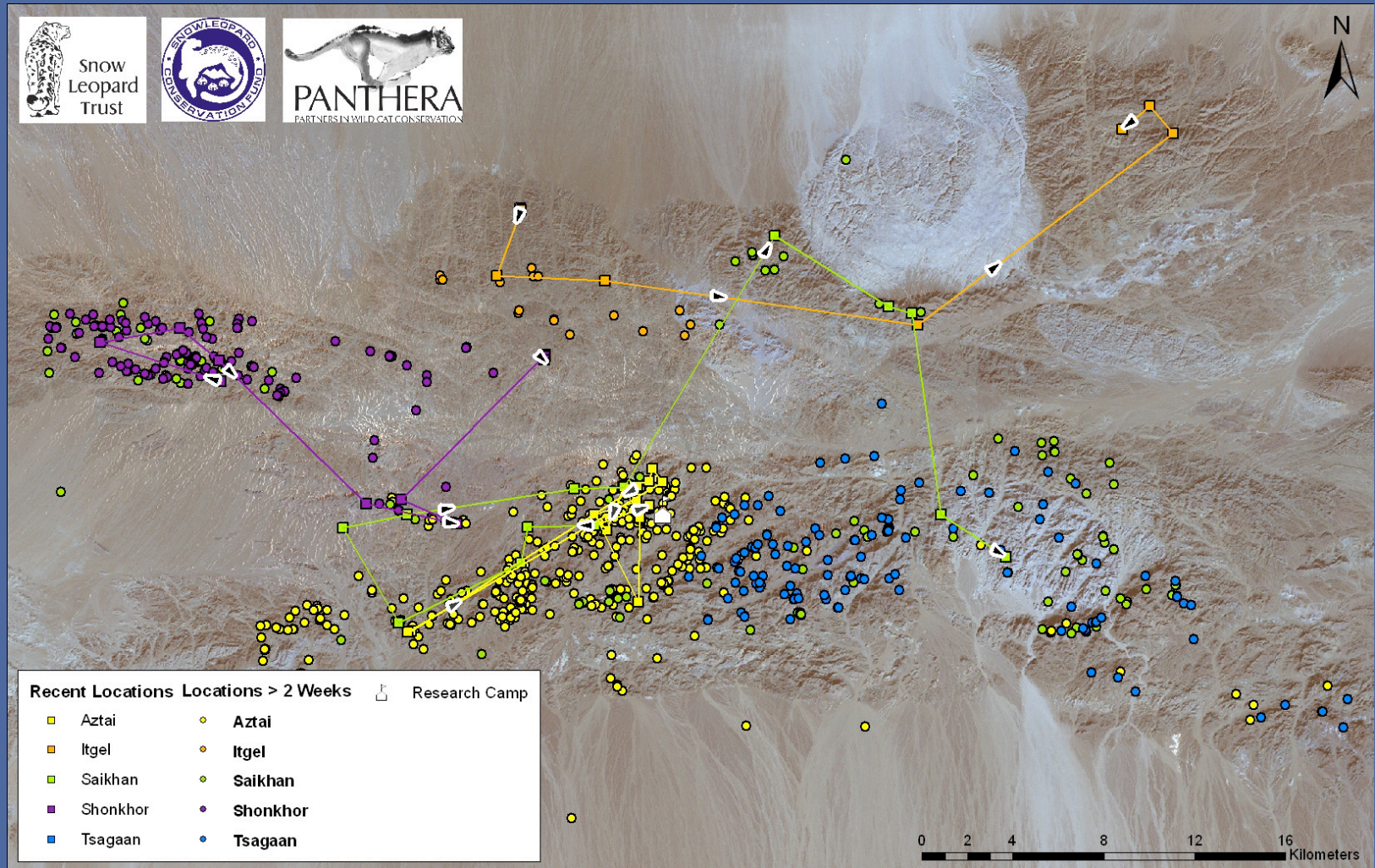
Suhder (Shadow), ? years  
Caught maj-09  
Lost collar



Itgel (Hope), 3-4 years  
Caught in wolf trap Juli-



# Collar data



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# Diet

- 32 prey found on collar locations
- 23 Ibex
- 2 Argali sheep
- 7 domestic sheep



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All news are not  
good



Longtail, New years eve  
2008





# Itgel



Next slide may cause  
discomfort

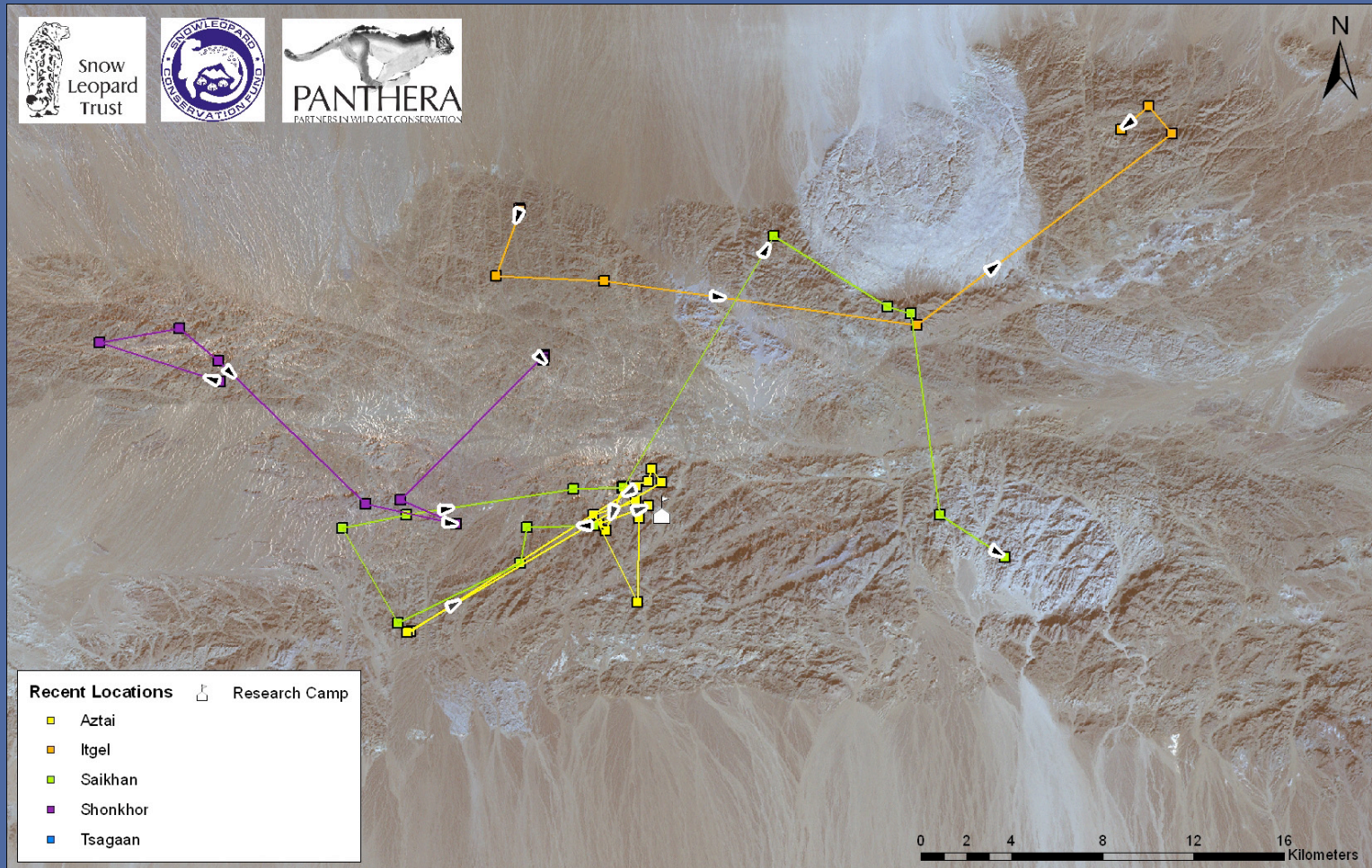


# Itgel's injuries





# Last week

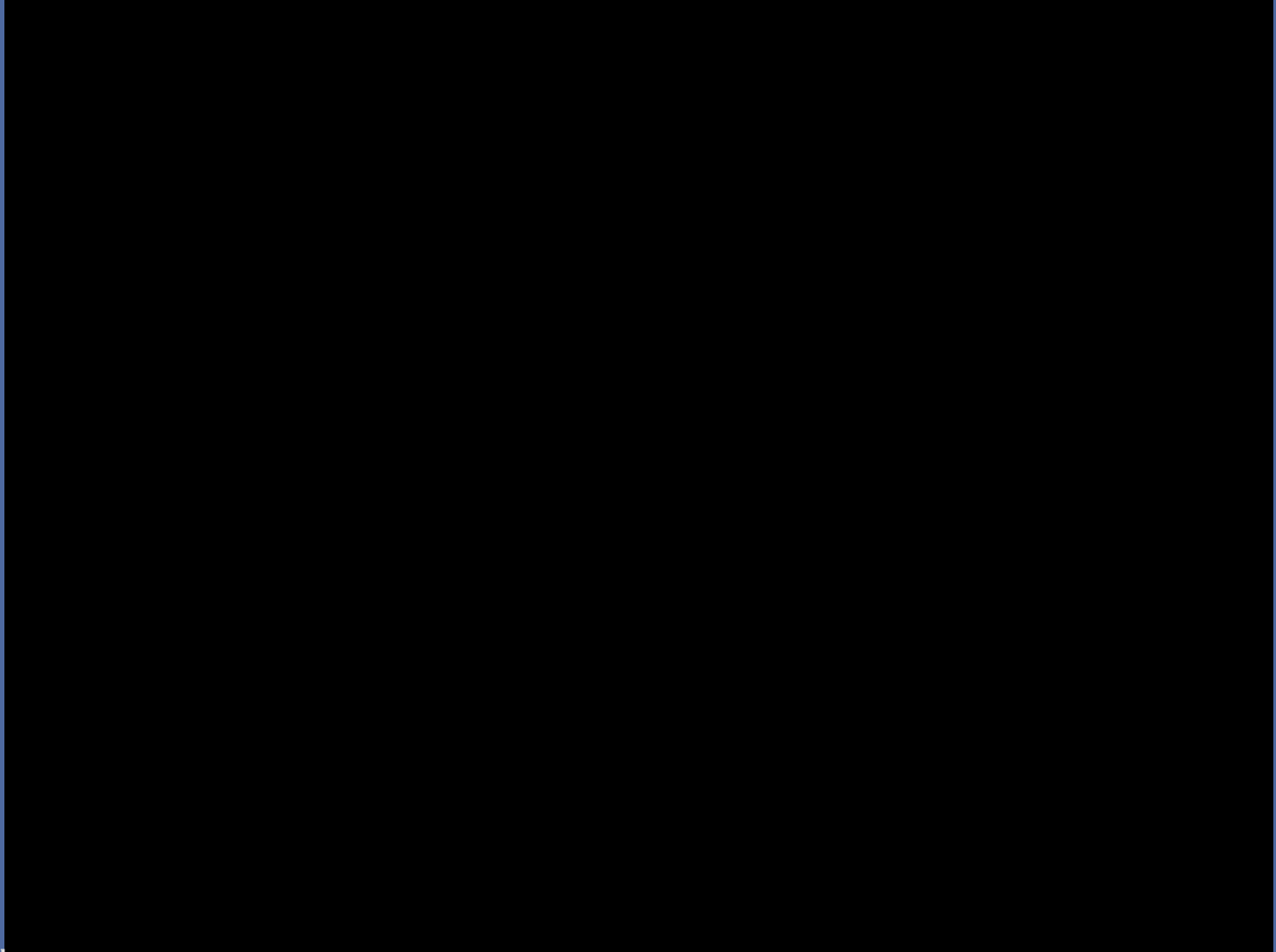




# Summary first year

- 7 snow leopards collared, 6 males and one female. Sep 09 – Contact with 5 males
- 32 prey animals found on GPS locations
- Ensurance program for livestock
- Population survey based on sign, scats (DNA) and remote cameras

# We found this in June!



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# Thank you for your attention

## Sponsors

- Kolmårdens insamlingsstiftelse
- Klättermusen
- Naturkompaniet
- Hilleberg



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