



SNOW LEOPARD CONSERVATION IN MONGOLIA



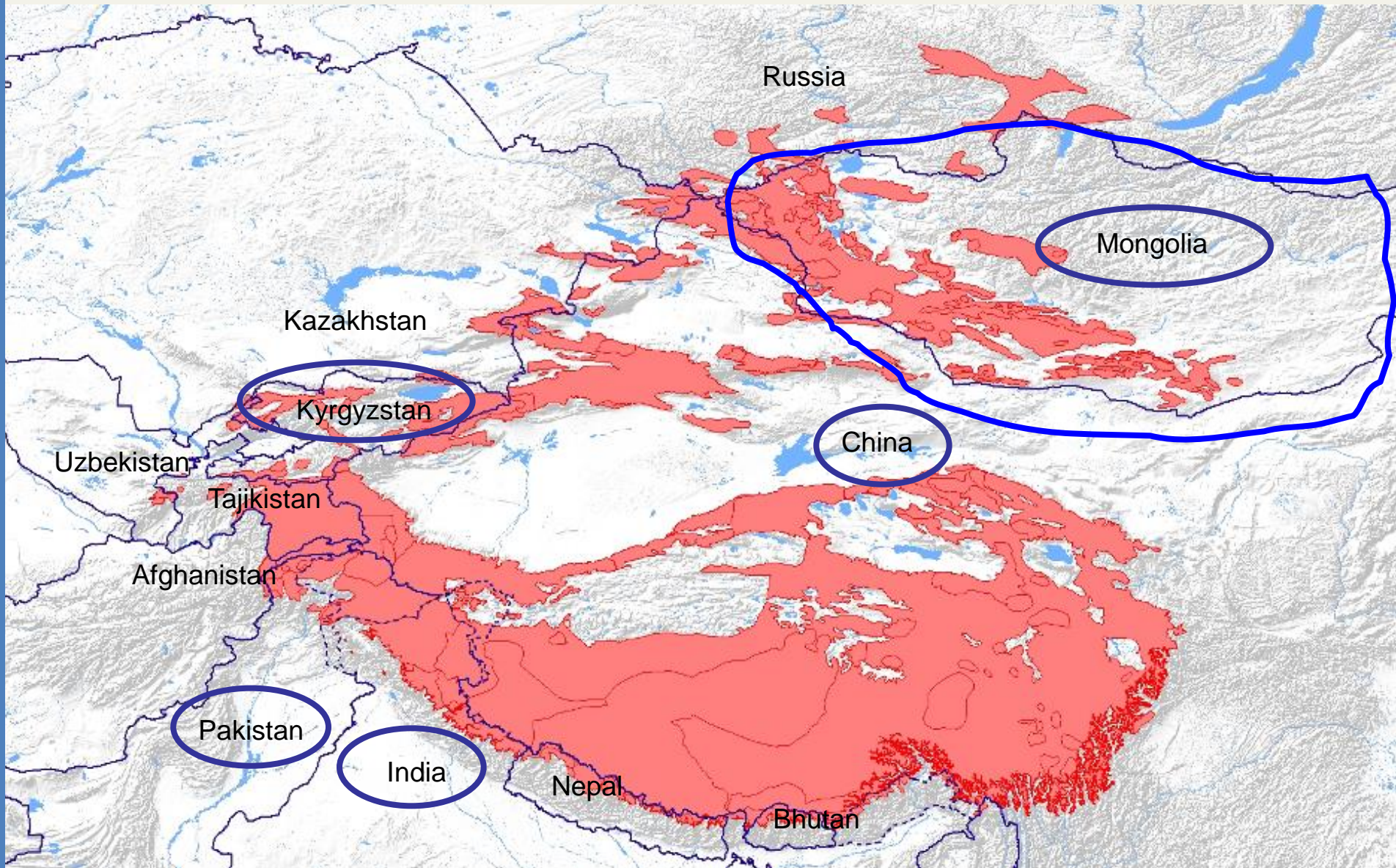
Batbold Dorjgurkhem
WWF Mongolia
November 2016

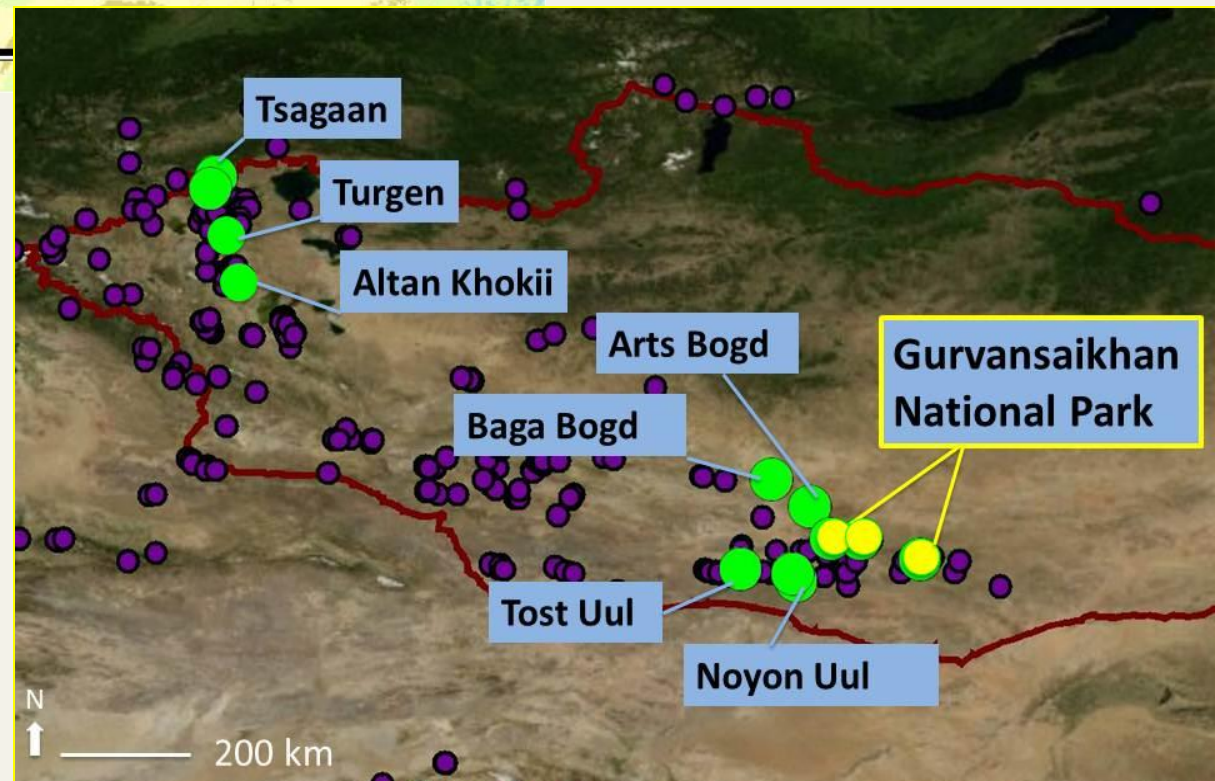
Snow leopard

- Top predator in the living mountain ecosystems spread across 2 million km²
- Just about 3,500-7,000 individuals left in the wild
- Little known about their ecology, hence means of mitigating threats



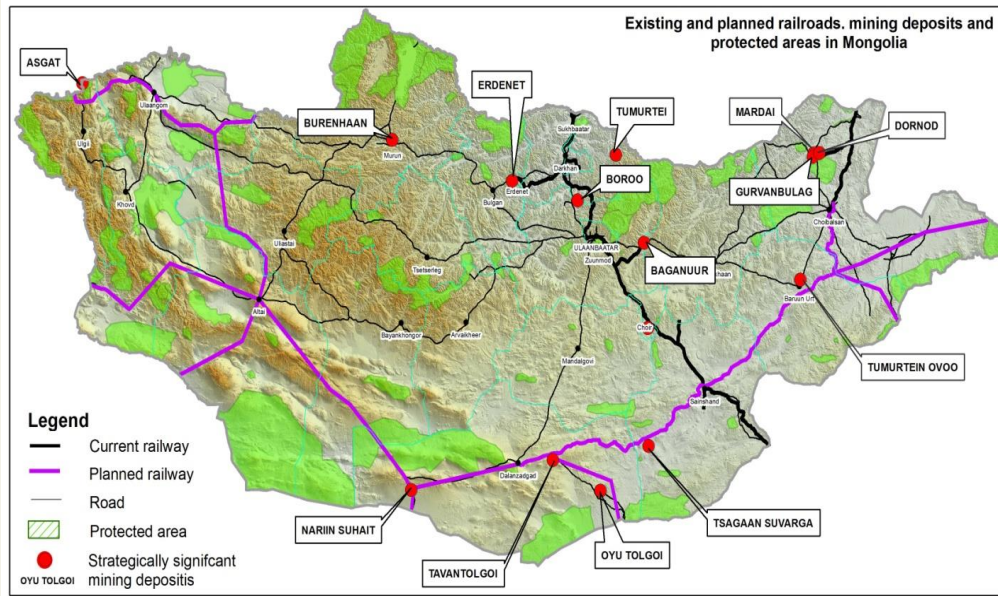
Snow leopard countries



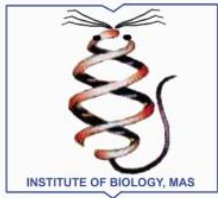


Snow leopard status in Mongolia

Snow leopard status in Mongolia – Threats to snow leopard



- Prey reduction due to competition with livestock and illegal hunting (growing livestock population)
- Retaliatory killing (overlapping the habitat is intensifying SL-Human Conflict)
- Poaching and illegal trade
- Development of mining related infrastructure



Main partners for SL conservation:

- MEGDT
- PA administrations
- Local and regional governments
- CBOs and herders



Main funding and implementing sources:

Snow Leopard conservancy

WWF

MAS

Mongolian Irves center

Snow Leopard Conservation Grants Program

National Science Foundation

National Geographic Society

Texas A&M University

Tost mountain

- Among the highest known snow leopard densities in the world
- Rich in wild prey populations



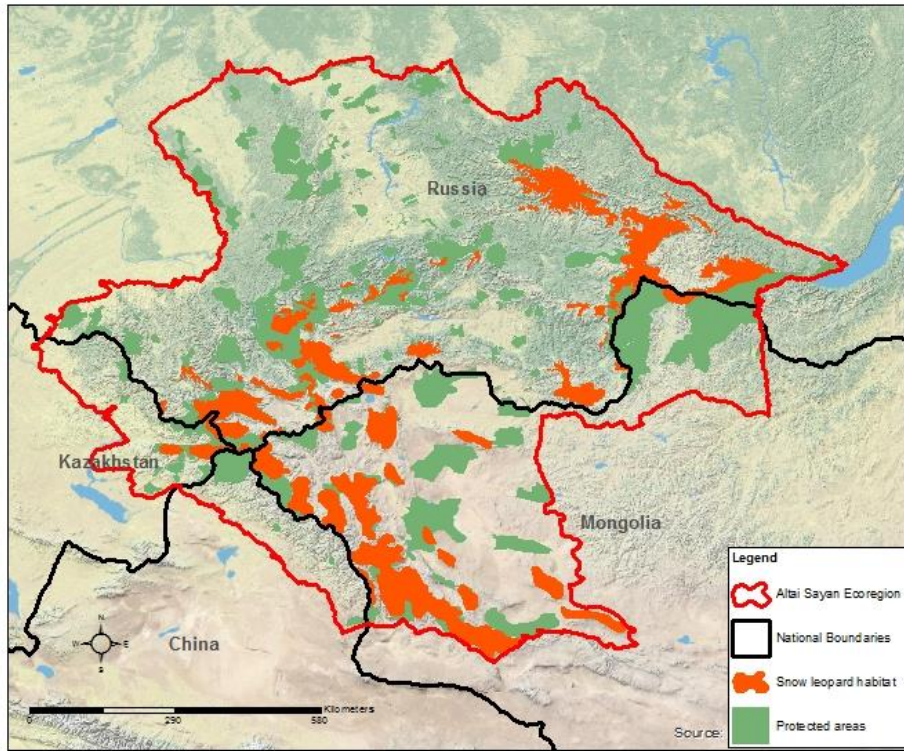
Tost mountain/Conservation

- Snow Leopard Enterprise
 - Provides sustainable cash income through handicraft products sold all over the world
 - Active for over 10 years in this region
 - More than 100 families involved
 - Within one Soum, herders earned more than \$15,000 in the last 10 years.
- Livestock Insurance
 - Allows villagers to manage their own insurance funding
 - Compensates for livestock losses to wildlife
 - Number of participants doubled in two years
- Long term research
 - GPS-Satellite collars
 - High speed infrared camera traps
 - Development of new methods for monitoring snow leopards



Altai Sayan Ecoregion (ASER) Key species

Snow leopard (*Pantera uncia*)



09-14-2013 12:45:59

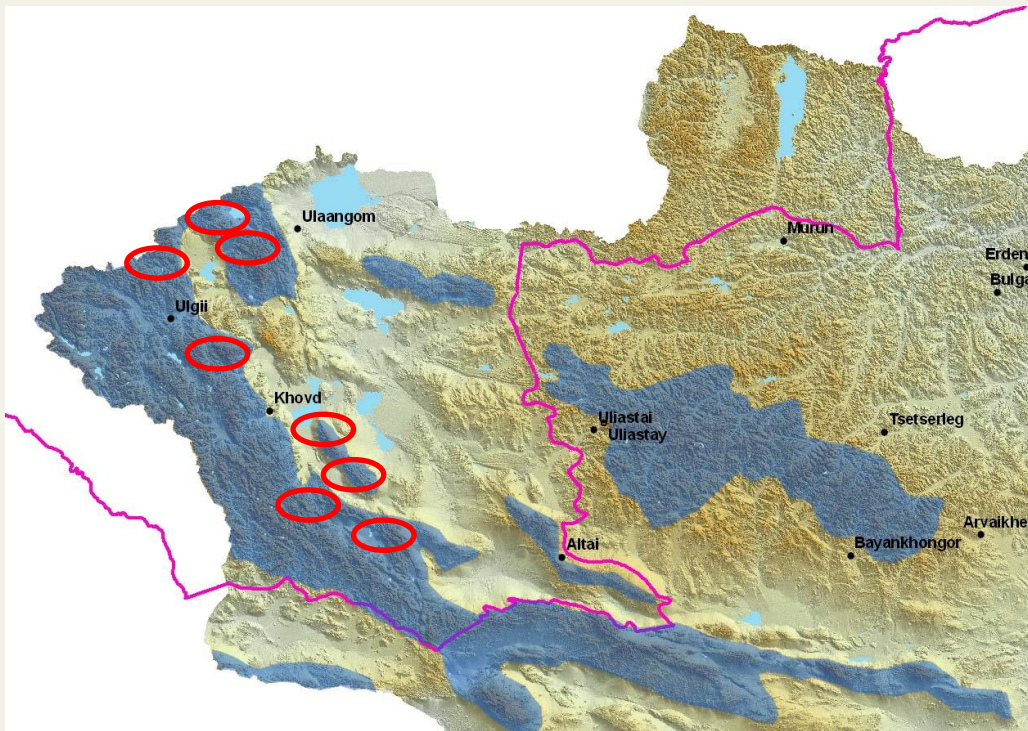


M: 34,5%
R:20,5%

Target	Current state	Habitat distribution in ASER /ha/
Snow leopard	500-700	7.300.000 ha
Saiga antelope	8000 individuals	1.300.000 ha
Argali	2770 individuals	2.000.072 ha

WWF Mongolia involvement for snow leopard conservation

WWF Mongolia involvement – Priority areas



Priority areas for Snow leopard conservation includes trans-boundary areas – Movement corridors to Russia and China

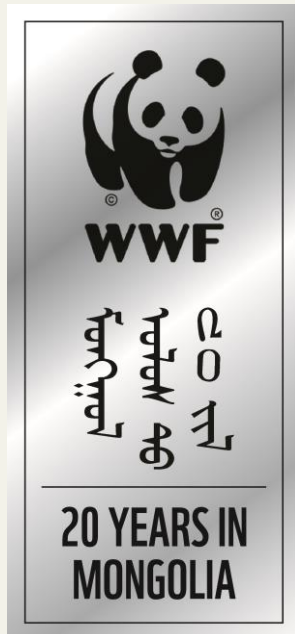
Minimal number of the leopards in 8 regularly monitored key populations is 150 individuals



Target	Current state	Habitat distribution in ASER Mongolia /ha/
Snow leopard	150 individuals	5.400.000 ha

WWF Mongolia involvement for snow leopard conservation

WWF Mongolia involvement – Areas for conservation measures



- Effectiveness of snow leopard protection:

- PA network management,
- Establishment of PAs and the connectivity areas,

- Increase knowledge about the values and benefits of snow leopard and participation of stakeholders for SL conservation

- Education and awareness activities,

- Up-to-date information on current snow leopard distribution and abundance:

- telemetry,
- camera traps,
- community based monitoring,

- Conflict resolution:

- “Buy goat” compensation programme,
- SL enterprise,
- Herder community involvement

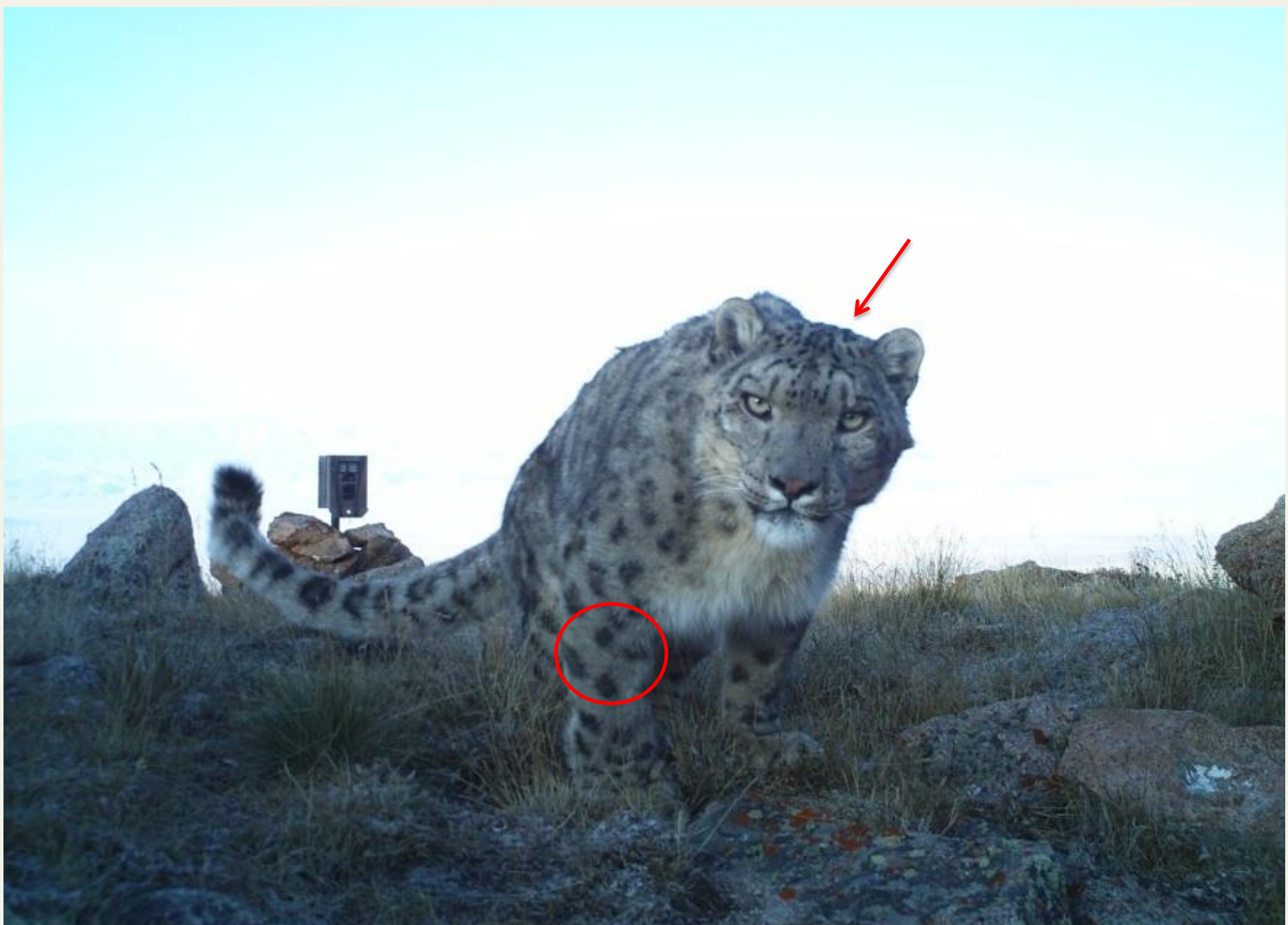


MONITORING AND RESEARCH





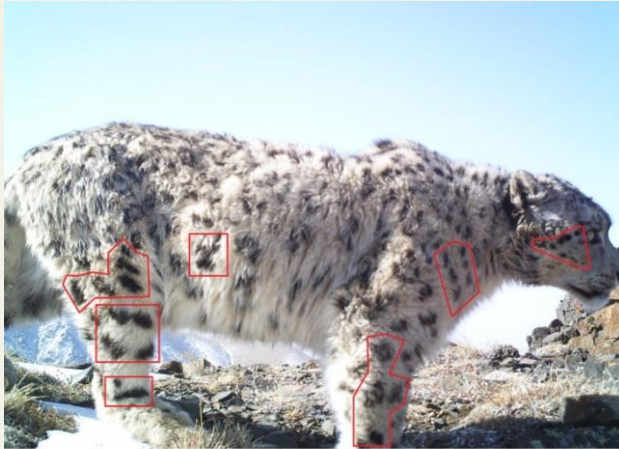




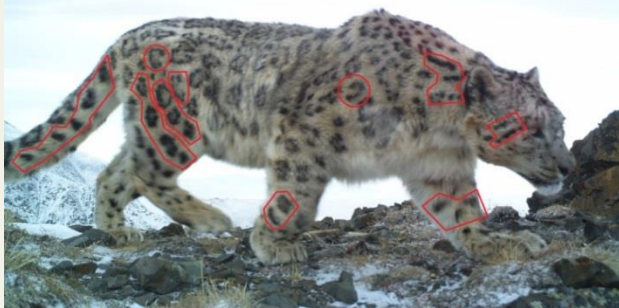




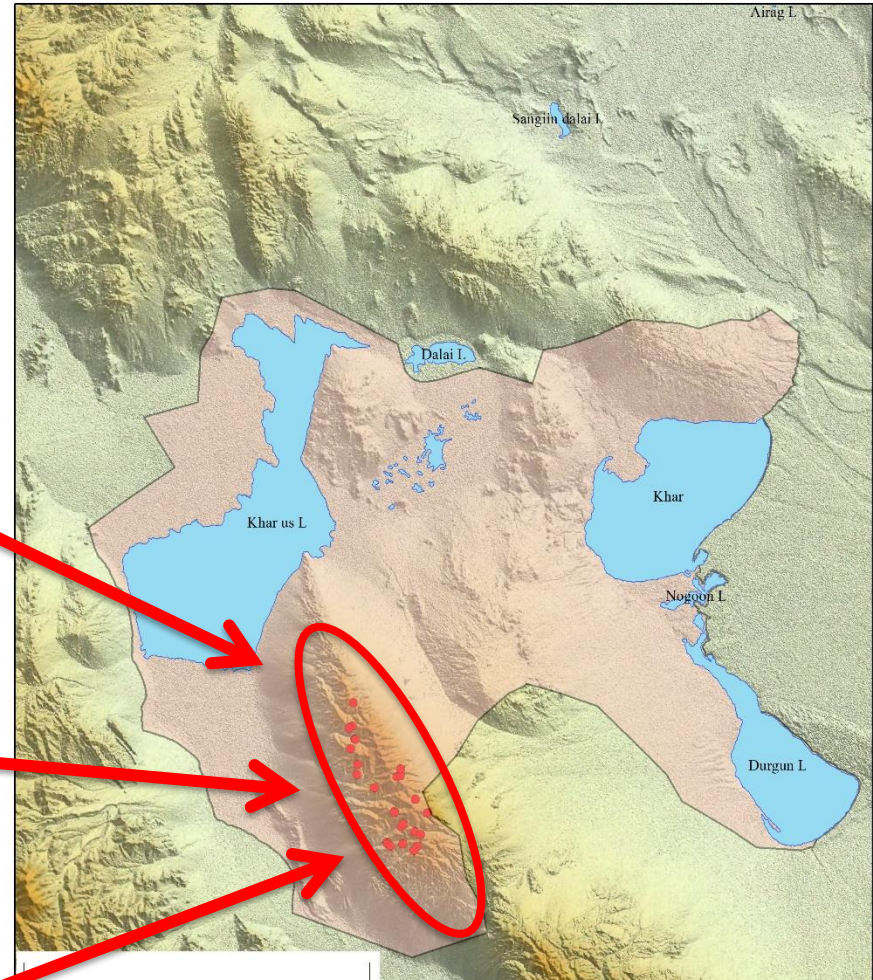
MONITORING AND RESEARCH



Bashnell 02-21-2014 16:10:58



Bashnell 03-08-2014 17:06:09



37 snow leopards consisting of 27 adults and 10 cubs in 300 sq.km,
density is **1.2 individuals per 100 sq.km** .



MONITORING AND RESEARCH





MONITORING AND RESEARCH

FOOD POTENTIAL OF SNOW LEOPARD IN MONGOLIA




1. Ibex




2. Argali




5. Marmot and rodents




4. Chukar and snow cock





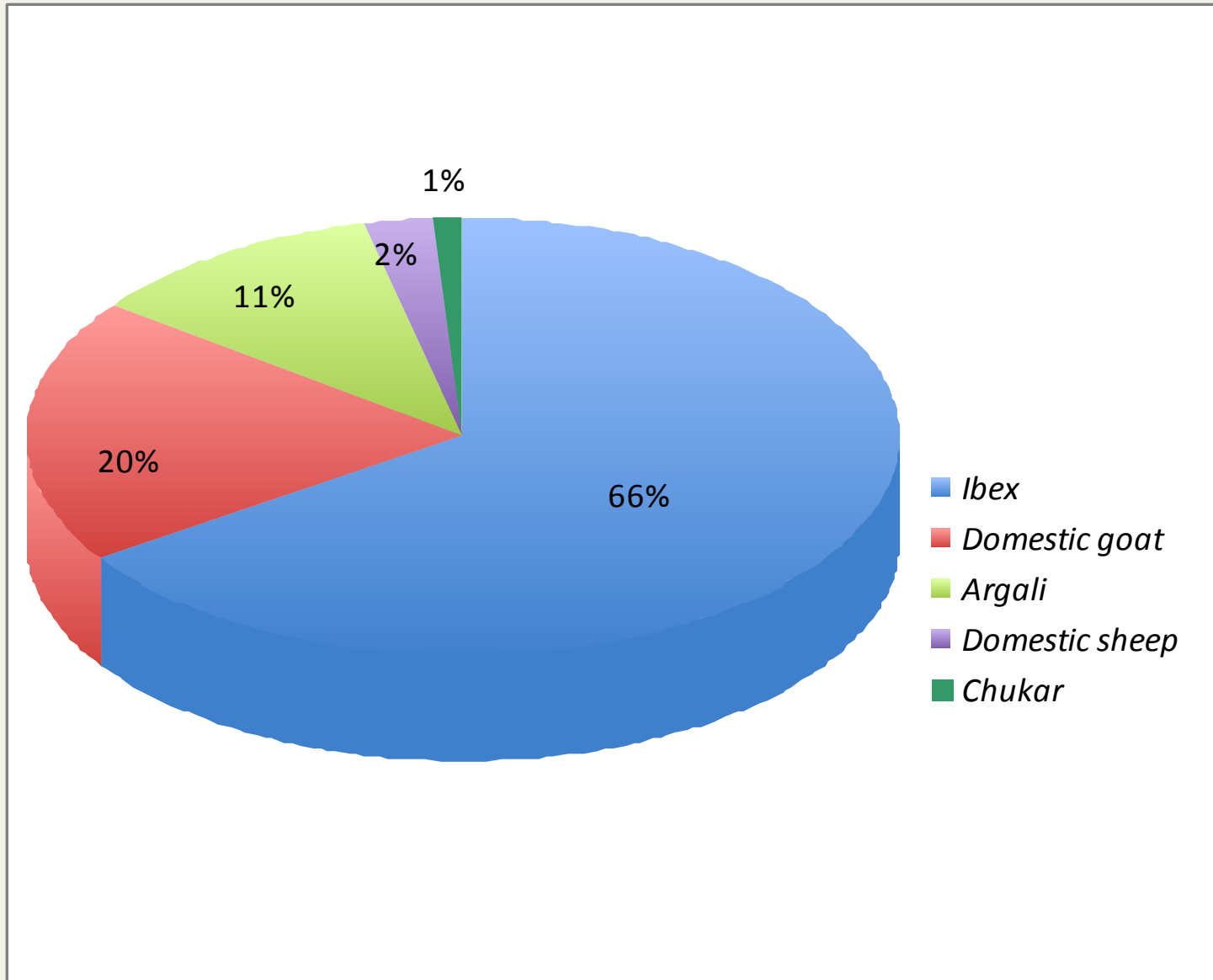
3. Livestock







MONITORING AND RESEARCH

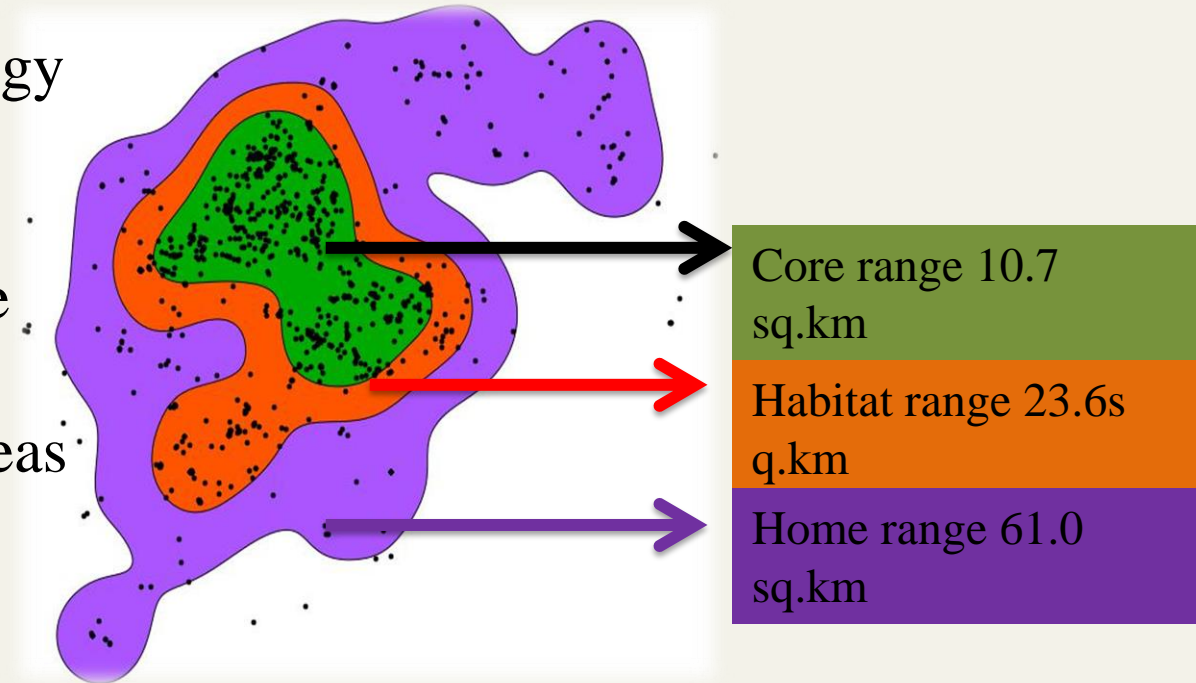




MONITORING AND RESEARCH

Basic snow leopard ecology is poorly understood.

Data on habitat use, home range, activity patterns, dispersal, connectivity areas etc., are minimal



Lacking key information that only good science can provide, conservation actions will not likely succeed.

- 1. Camera traps*
- 2. Genetics*
- 3. Collaring a animals*

Community based monitoring of snow leopard and prey base


ШИНЖЛЭХ УХААНЫ АКАДЕМИ
БИОЛОГИЙН ХҮРЭЭЛЭН
13330 Улаанбаатар хот, Баянзүрх дүүрэг,
Жуузын гудамж 77, Утас: 45-30-88; Факс: (078-11) 45-17-81
E-mail: ecobab@mail.ru


ДЭЛХИЙН БАЙГАЛЬ ХАМГААЛАХ
САНГИЙН МОНГОЛ ДАХЬ
ХӨТӨЛБӨРИЙН ГАЗАРТ

2009.7.06 № 78
танай _____ -ны № _____ -т

Арга зүй баталсан тухай

Байгаль хамгаалагчдад зориулсан монгол орны ойн туруутан амьтдын популяцийн анхан шатны мэдээ цуглуулах, нэгтгэх арга зүй, монгол тарваганы (*Marmota sibirica* Radde, 1862) мониторинг судалгааны анхан шатны мэдээ цуглуулах арга зүй, монгол бөхөнгийн популяцийн анхан шатны мэдээ цуглуулах, нэгтгэх арга зүй, уулын туруутаны популяцийн анхан шатны мэдээ цуглуулах, нэгтгэх арга зүй (Аргаль хонь, Янгир ямаа), цоохор ирвэс (*Uncia uncia*)-ний популяцийн анхан шатны мэдээлэл цуглуулах, нэгтгэх арга зүй болон шувуу судлах хээрийн мониторинг судалгааны анхан шатны мэдээ цуглуулах хялбаршуулсан арга зүйнүүдийг ШУА-ын Биологийн хүрээлэнгийн эрдмийн зөвлөлийн 2009 оны 7-р сарын 3 өдрийн хурлаар хэлэлцэн баталсан болно.

ЭРДЭМТЭН НАРИЙН БИЧГИЙН ДАРГА, ДОКТОР  Л.АМГАЛАН







MONITORING AND RESEARCH

5 snow leopards are collared in ASER



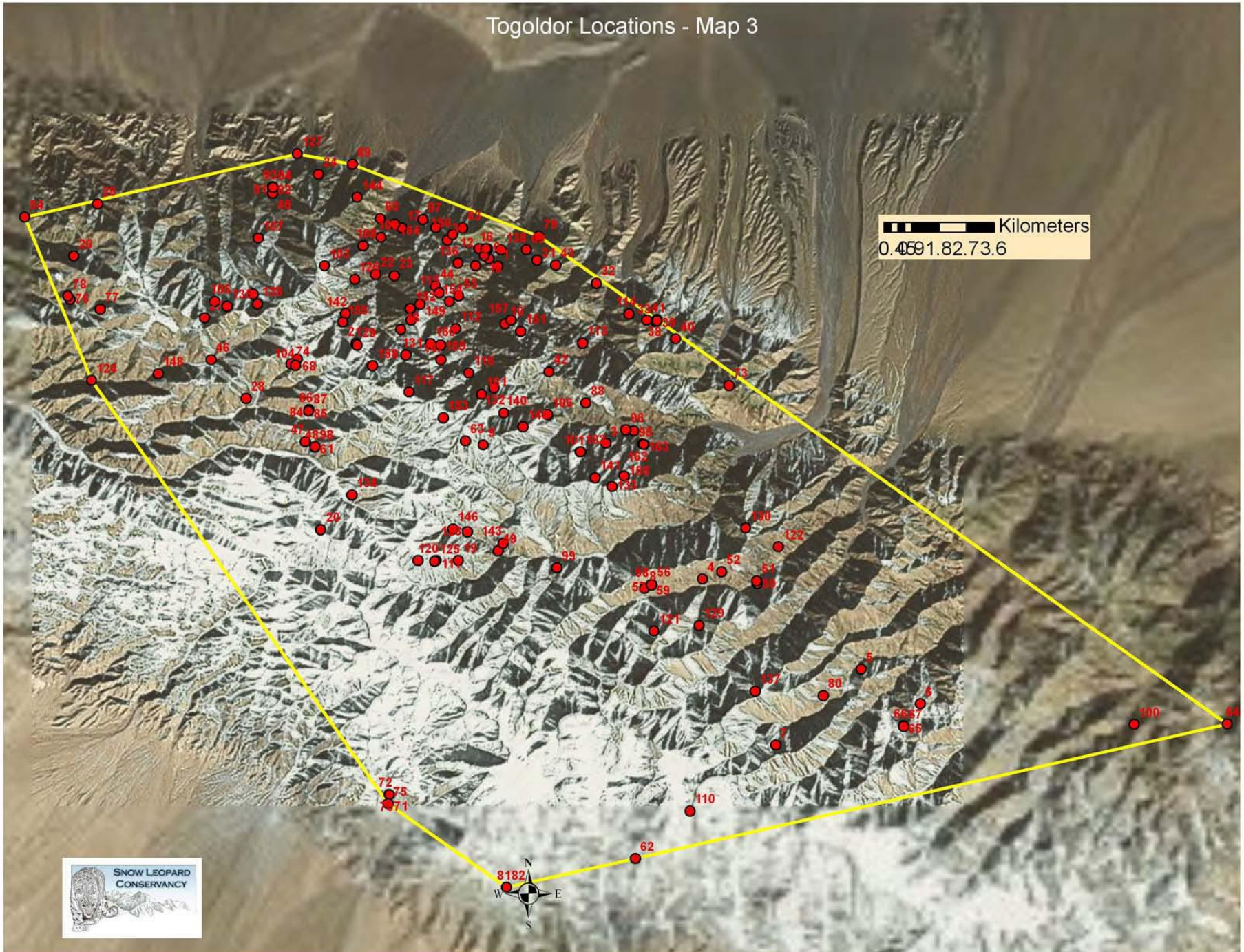
GPS Vertex:

- Mortality and temperature sensor
- Drop off
- Elevation sensor

Every 4 hours



Togoldor Locations - Map 3



Kilometers
0.459 1.82 7.3 3.6





Traps and snares



Камерын зураг, бичлэгүүд дотор хоорондоо толбоороо ялгарсан 3 өөр ирвэс хөлдөө хавхтай, хавханд орж хөлгүй болсон байна.





CONSERVATION STORY/ACTIVITY



- Trap Campaign: Children initiated Campaign for Trap Free Mountain – 234 traps
- Minister of Environment supported to disseminate the initiative throughout the Country

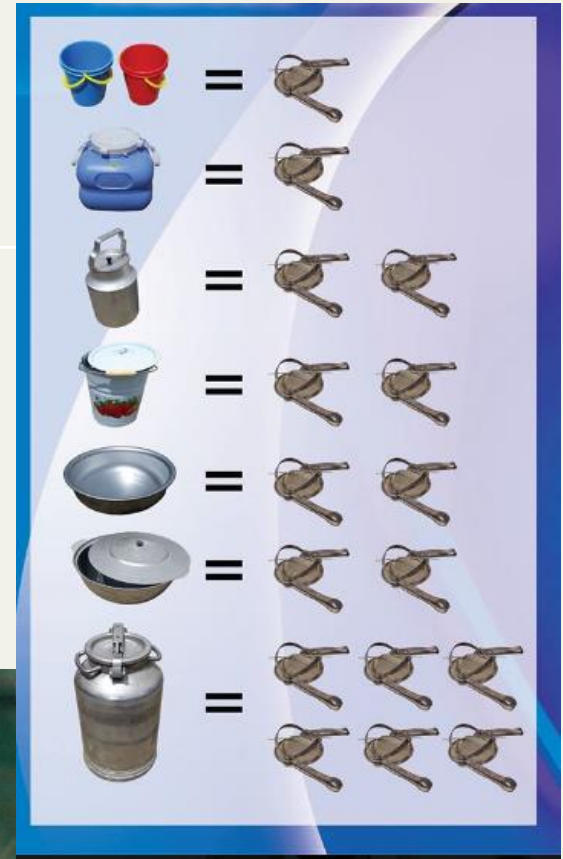


CONSERVATION STORY/ACTIVITY

Children's campaign against traps



Anti-trap campaign;
234 traps collected,
dismantled and an
artwork created in
Khovd city, Western
Mongolia, ASER





CONSERVATION STORY/ACTIVITY





CONSERVATION STORY/ACTIVITY

Community centered conservation efforts





CONSERVATION STORY/ACTIVITY

Community centered conservation efforts



Thoughts for Future

- AS SL population special feature
 - Most northern range susceptible to CC
 - Transboundary of nature
- Transboundary cooperation on SL range habitat
- Collaboration with herder communities, kids' clubs

Status of the White-naped Crane and Hooded Cranes in Mongolia

- Population size in Mongolia
 - White-naped Crane: Up to 40% of Global population in Mongolia (MNE & JICA 2001) or around 800 individuals breed in Eastern Mongolia (Bold 1997).
 - Hooded Crane: 700-900 individuals pass through Mongolia during migration (Gombobaatar et al, 2011)
- Main threats
 - Habitat loss (overgrazing by livestock, drought, wetland)
 - Human disturbance including Dog
 - Steppe fire

Conservation status

- White-naped Crane

- Listed as a very rare in Mongolian Red Book (1987, 1997, 2013 versions)
- Vulnerable in IUCN Red List category
- Listed in Appendix 1. of CITES
- Protected by Mongolian Hunting Law in 2000
- Approximately 9,9% of the species range in Mongolia is within the protected areas

- Hooded Crane

- Listed as a very rare in Mongolian Red Book (1987, 1997, 2013 versions)
- Vulnerable in IUCN Red List category
- Listed in Appendix 1. of CITES
- Protected by Mongolian Hunting Law in 1995
- Approximately 10,2% of the species range in Mongolia is within the protected areas

White-naped Crane study in Mongolia

- **Ongoing project: STRENGTHENING BIODIVERSITY CONSERVATION IN THE ARID STEPPE OF EAST ASIA: USING THE WHITE-NAPED CRANE AS A FLAGSHIP SPECIES**

by: **Wildlife Science and Conservation Center of Mongolia**
International Crane Foundation, United States Forest Service

Hooded Crane study in Mongolia

- No study that directly addressed Hooded Crane exists!
- Studies are basic recordings during migration in Eastern Mongolia along the Ulz, Onon, Kherlen river basins and Khurkh Khuiten valley.

Special consideration for conservation

- Mongols do not hunt cranes – cranes choose nesting ground in vicinity to humans to avoid predators
 - This leads to livestock destroying nests eggs
 - Domestic dog also destroy and eat eggs and young ones
- In Mongolia, cranes tied to grain fields e.g. grain production in Dornod declined and so is crane population – thus for conservation and protection of cranes need to consider closely working with grain producers
- During active breeding season or Spring to work with herder communities
- Since second half of summer to work more with farmers

- Herder Communities and Farmer's Collaboration
- Individual person and business
-

Thank you

2016.11.28

- www.mongolia.panda.org