



# Saker Falcon in Russia in Kazakhstan in the 21st century: population trend, threats, and conservation

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Russian Raptor Research and Conservation  
Network



**RRRCN**

# Russian Raptor Research and Conservation Network

- Since 1999 our team conduct continuous surveys on the core population of the Saker in Russia.
- We evidenced a halving of this population in 20 years.
- Acting to mark and reduce negative factors and threats
- Reintroducing captive-bred Saker Falcons

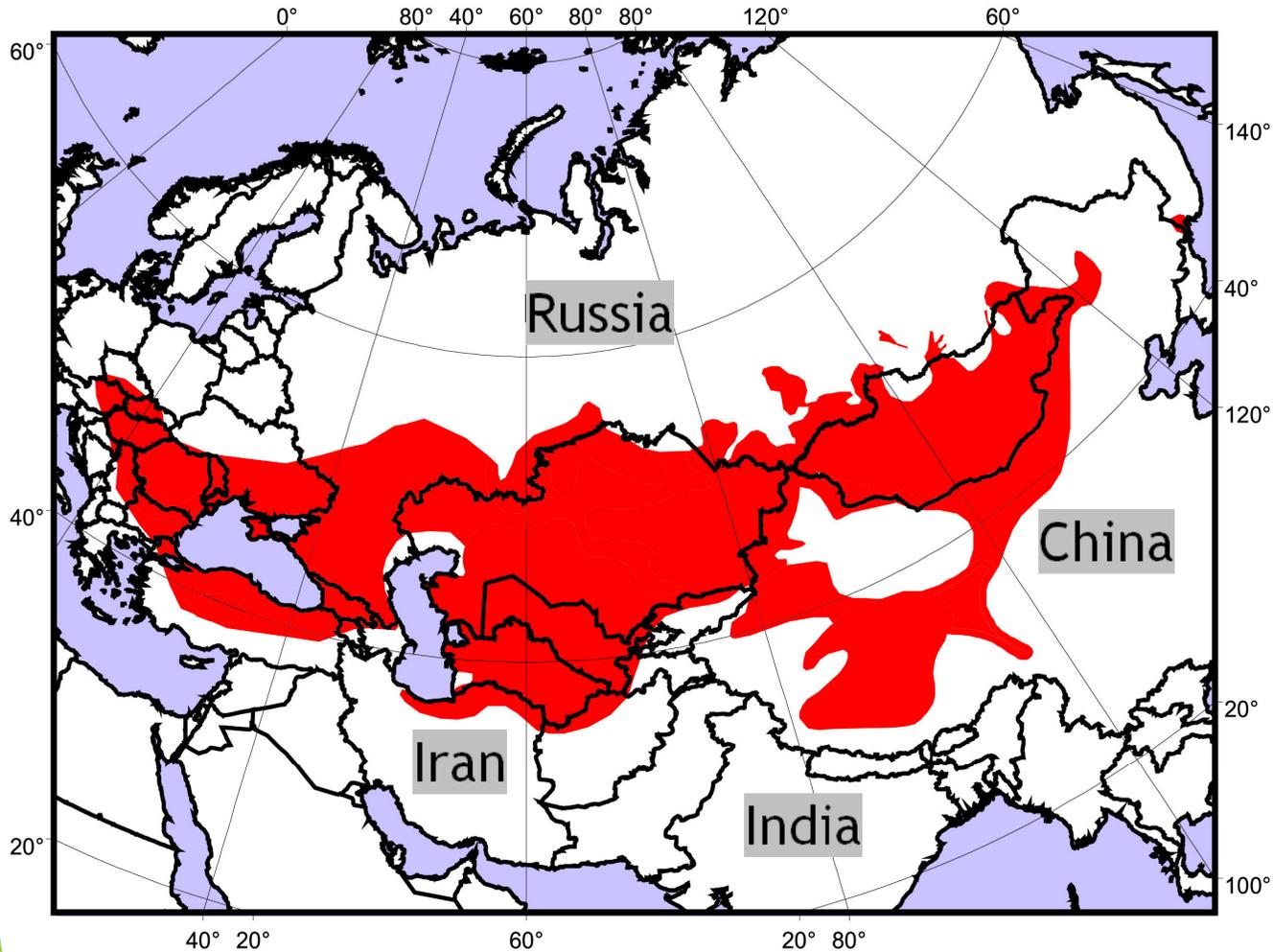


**RRRCN**



Saker Falcon  
СОКОЛ-БАЛОБАН (in  
Russian)  
[Sokol-Baloban]

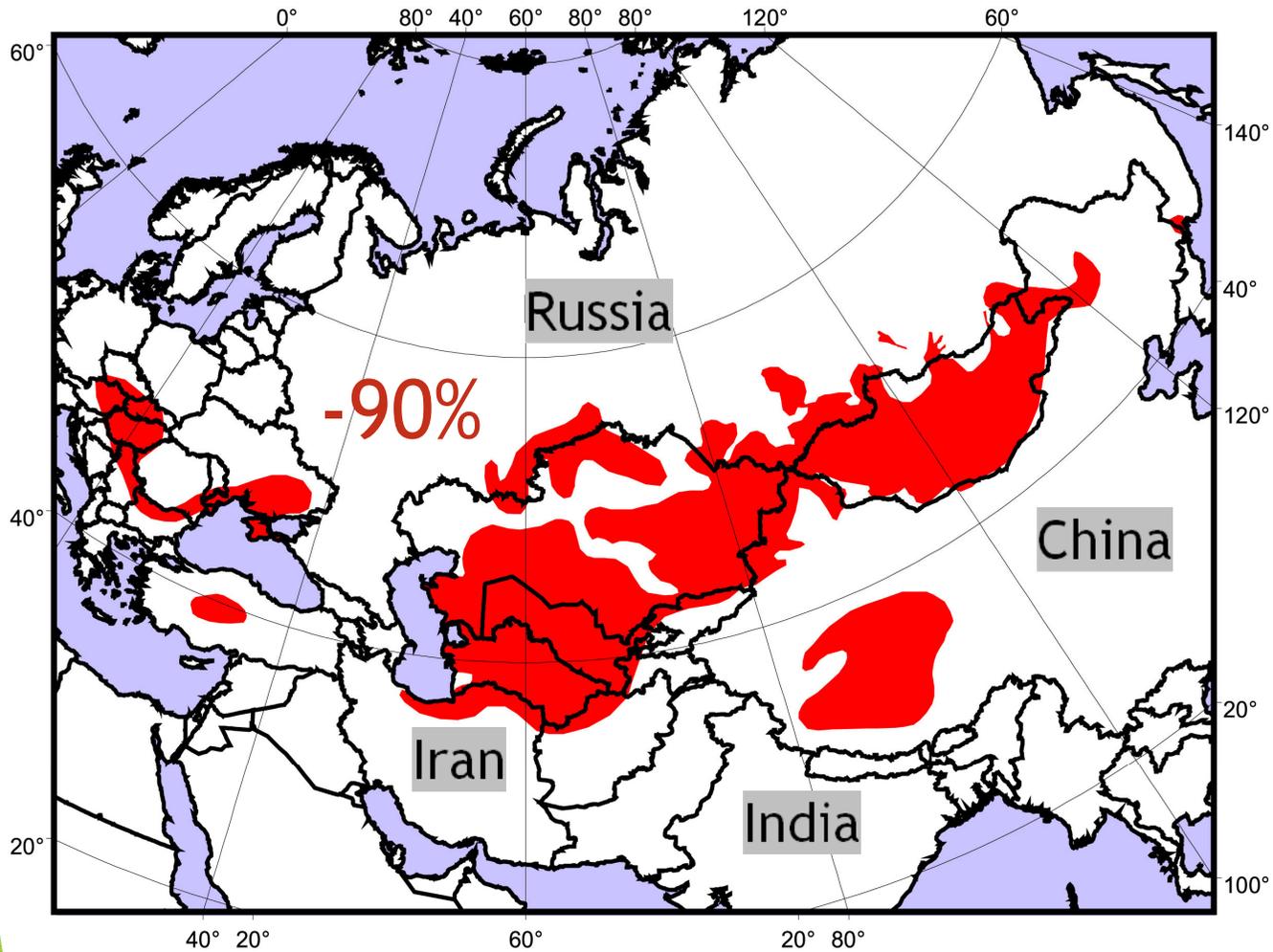
# Population trends



► Global range in 1960<sup>th</sup>

► (rebuilt based on published data and museum collections)

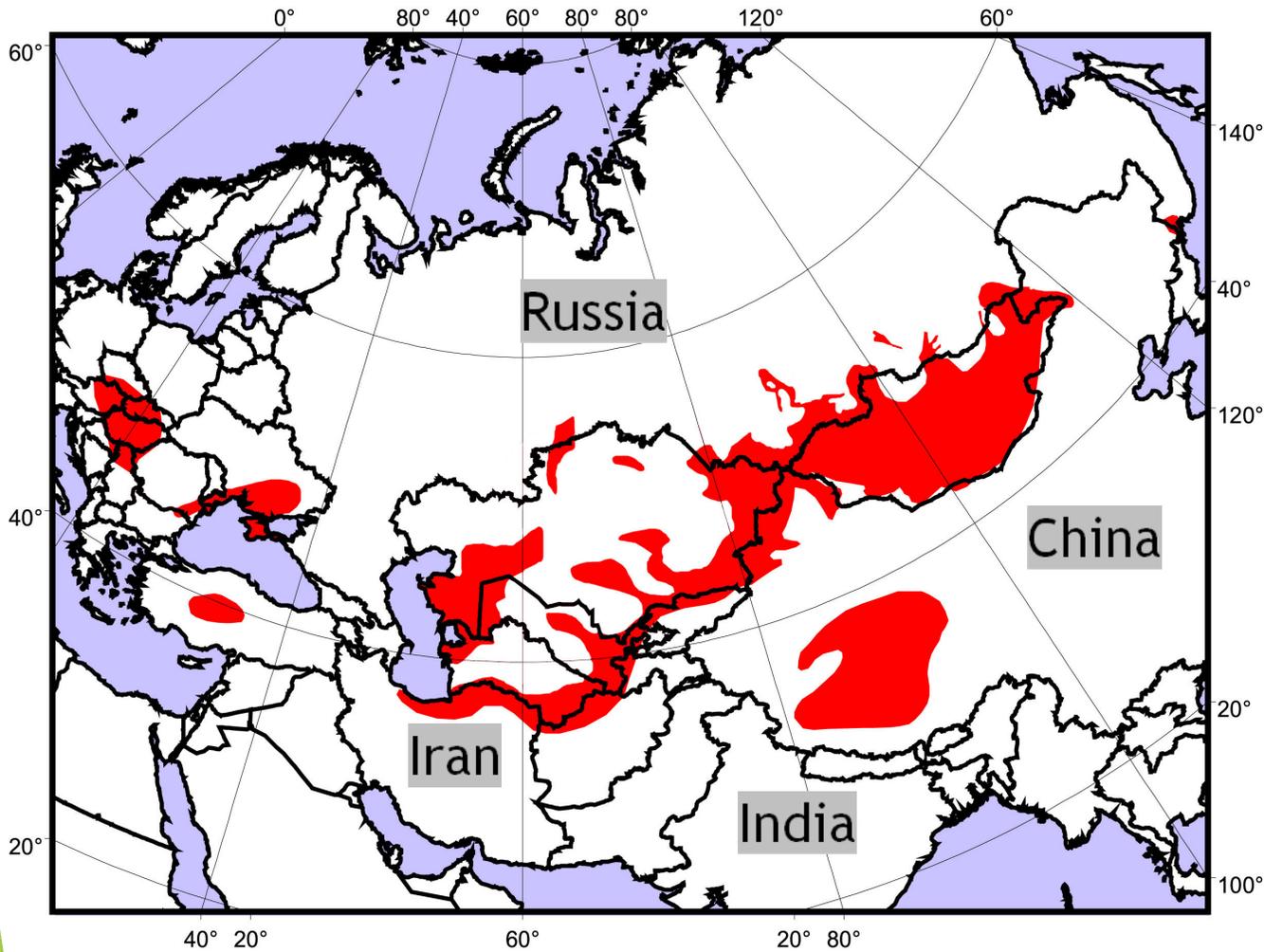
# Population trends



► Global range in 2000

► (rebuilt based on published data and museum collections)

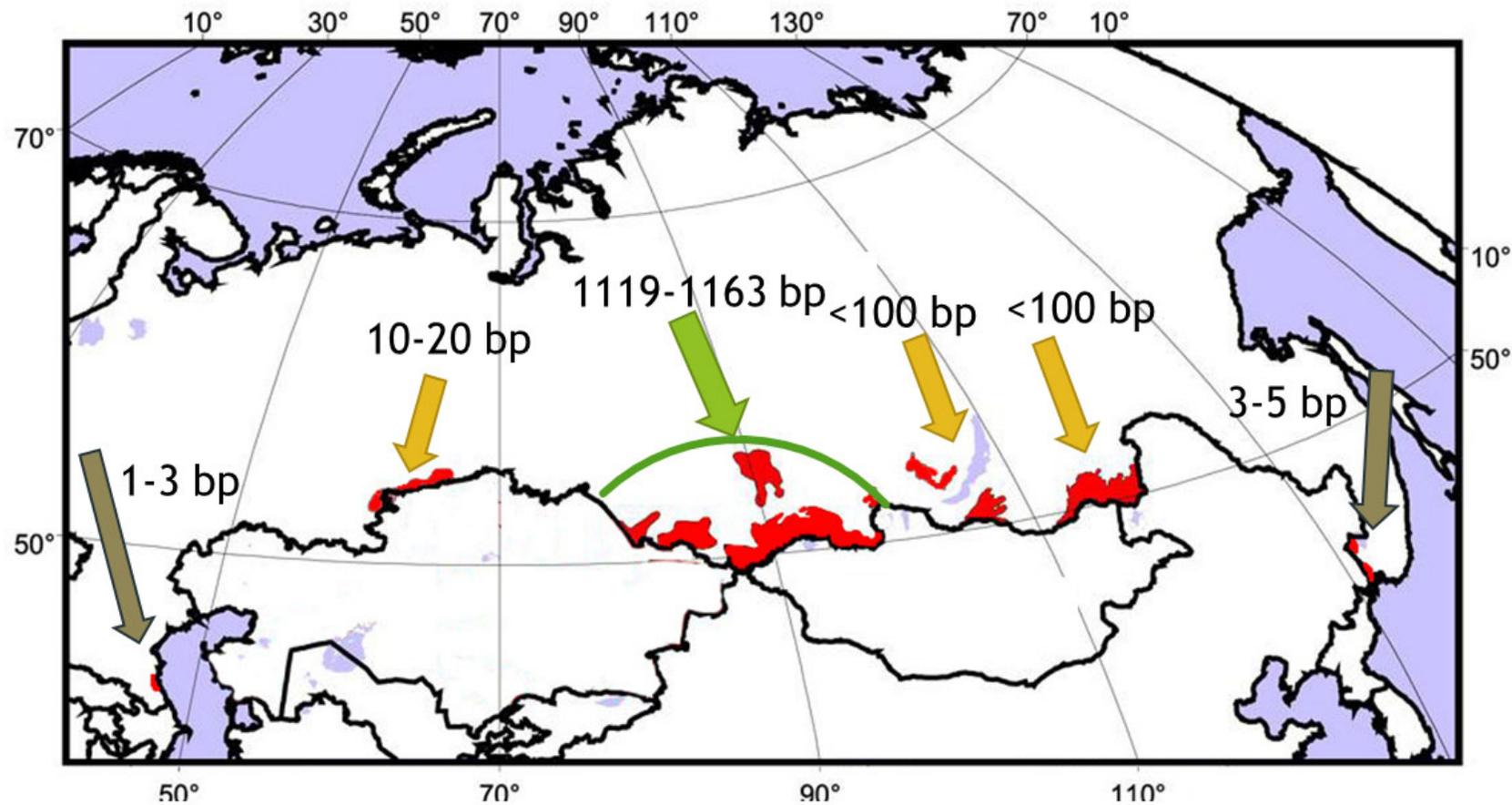
# Population trends



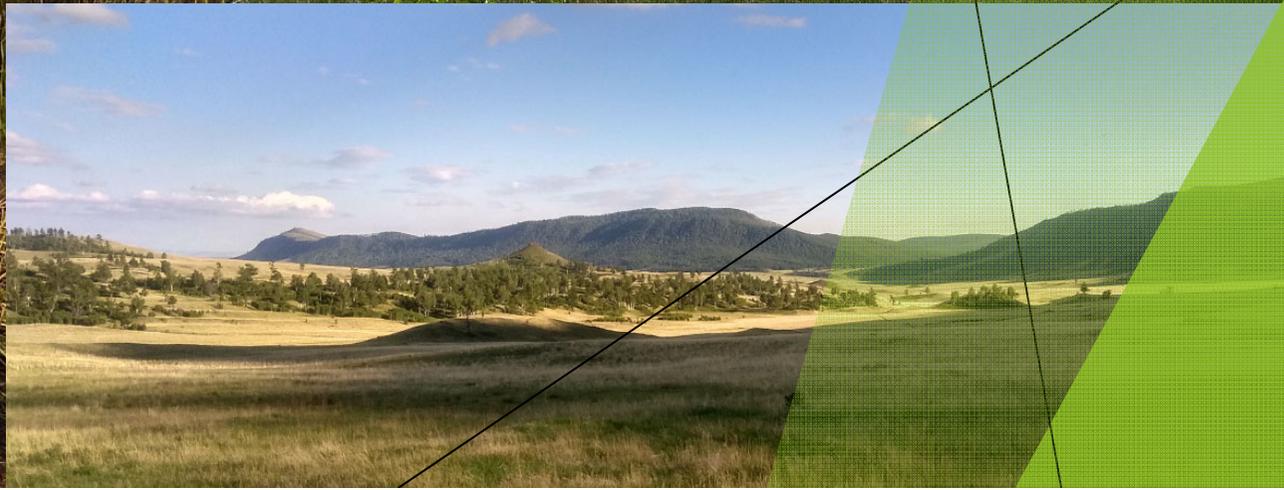
- ▶ Global range in 2014
- ▶ In Russia population declined by 80%
- ▶ Decline estimation: from 9 000 bp to 2 000 bp

# Population trends Russia, 2020

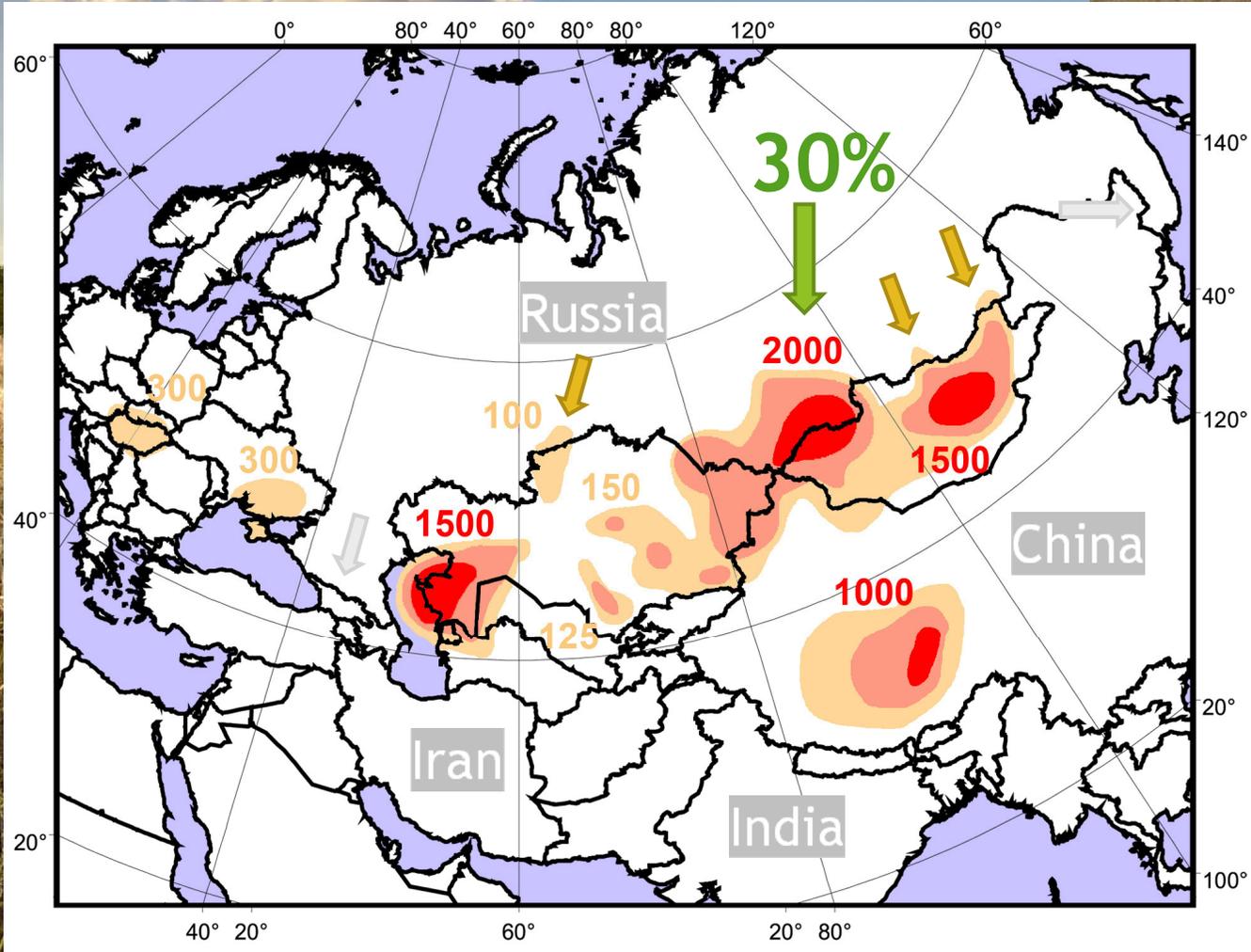
- ▶ 1211 - 1434 breeding pairs (bp)



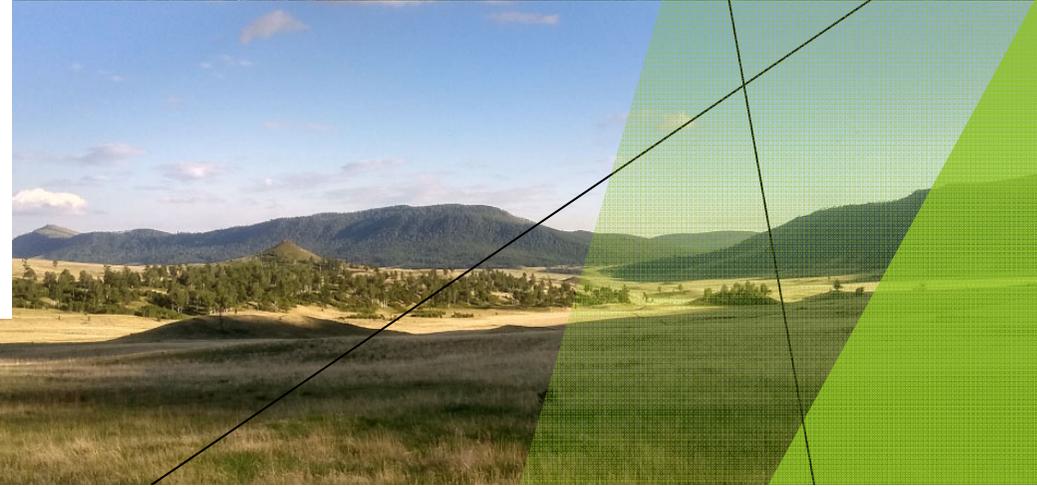
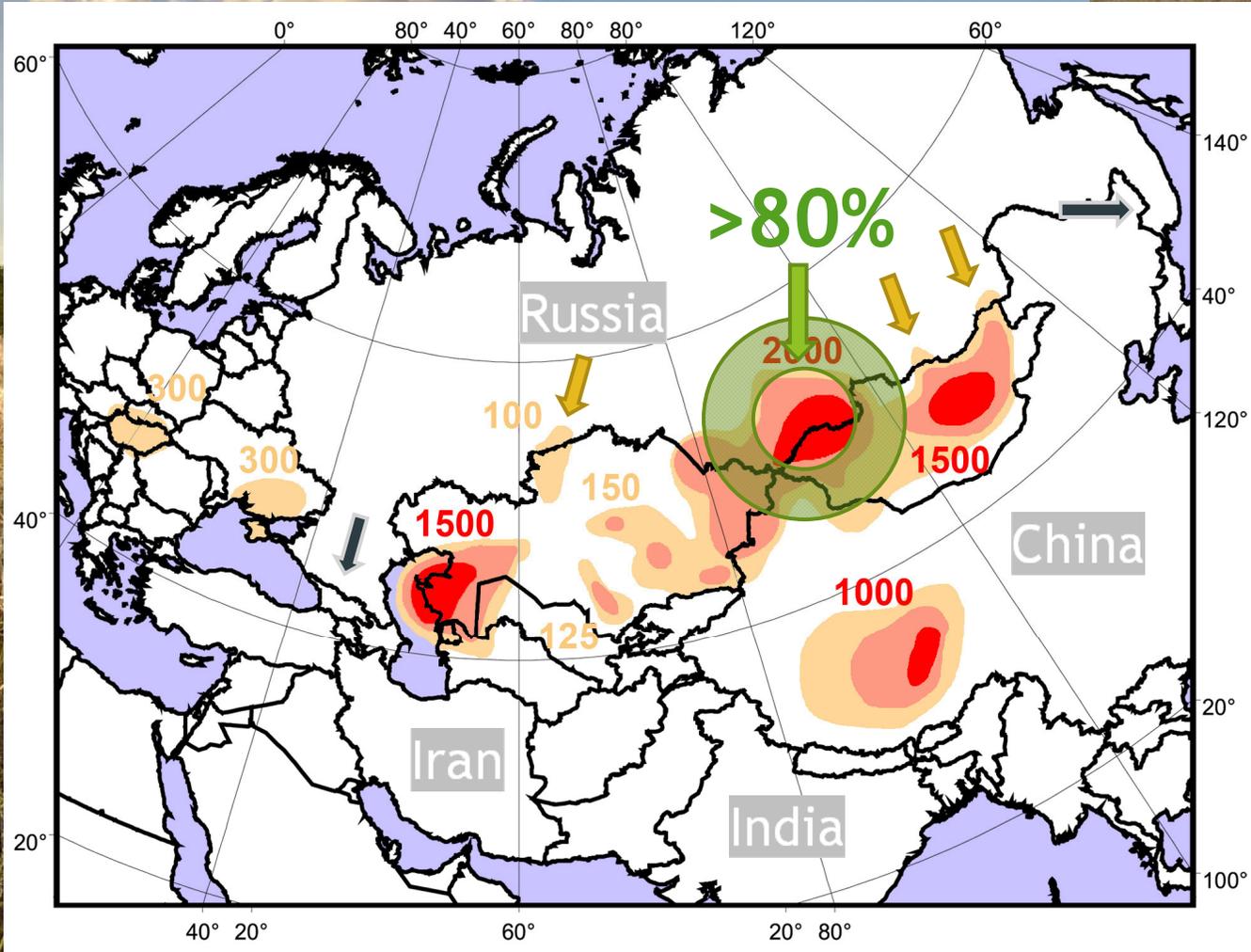
# Population trends



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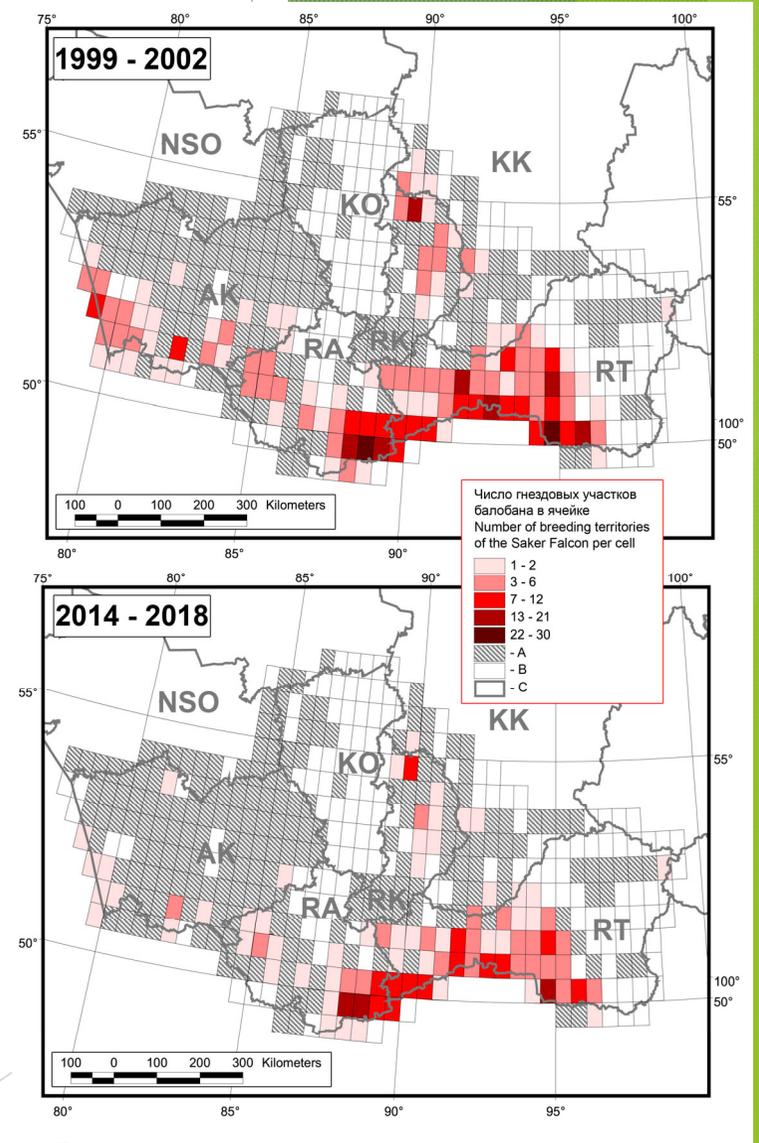
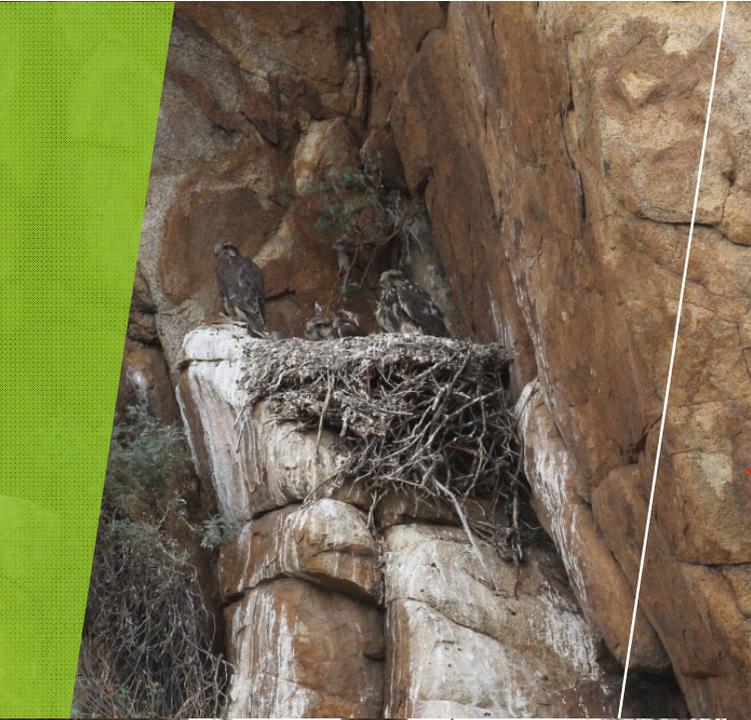
# Population trends

ASR:

↓ 43.5% in 20 years

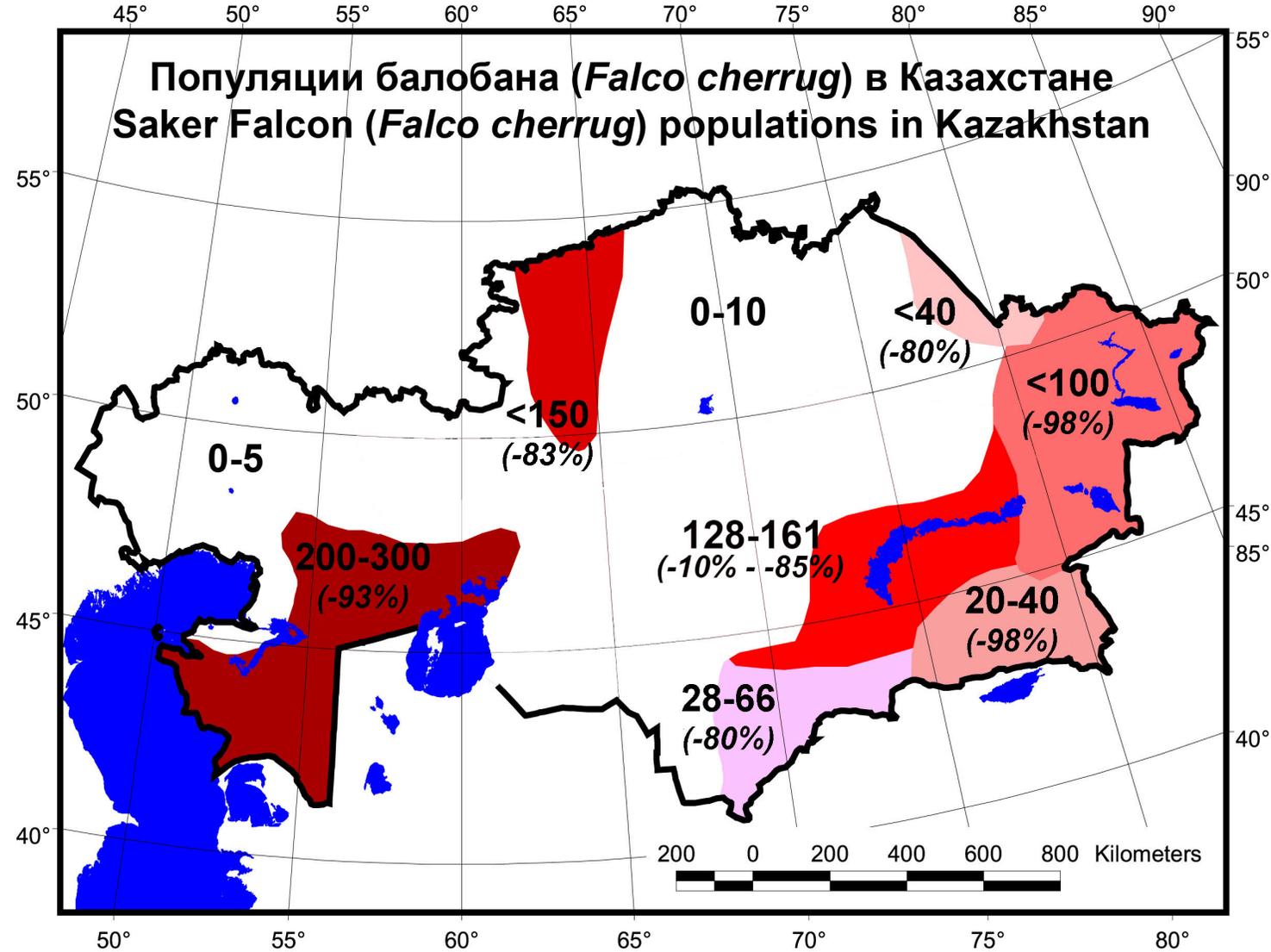
from 2056 bp

to 1119 pb



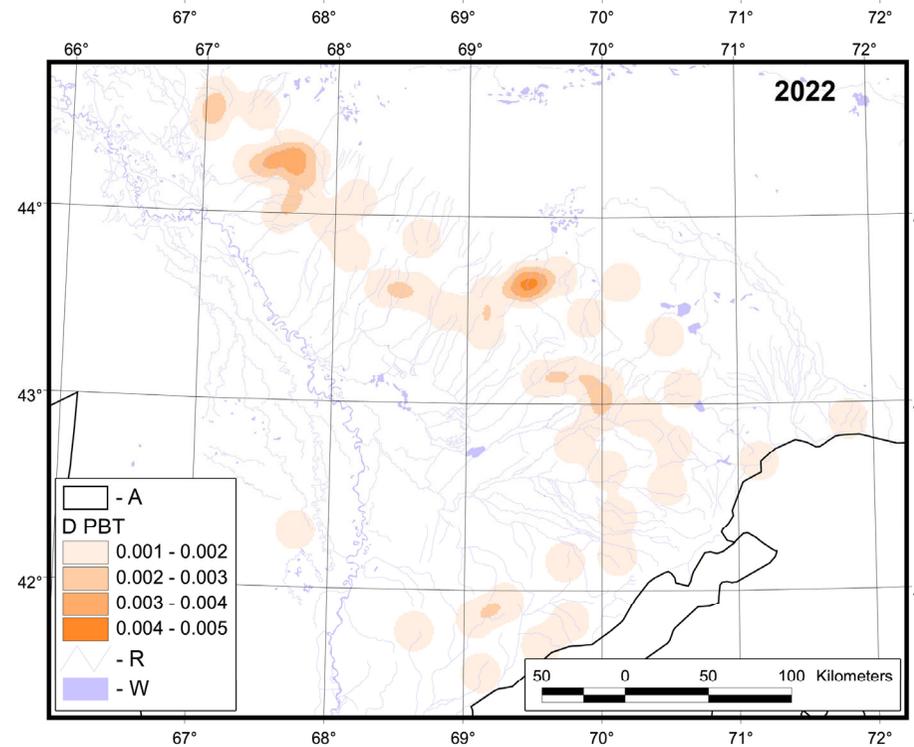
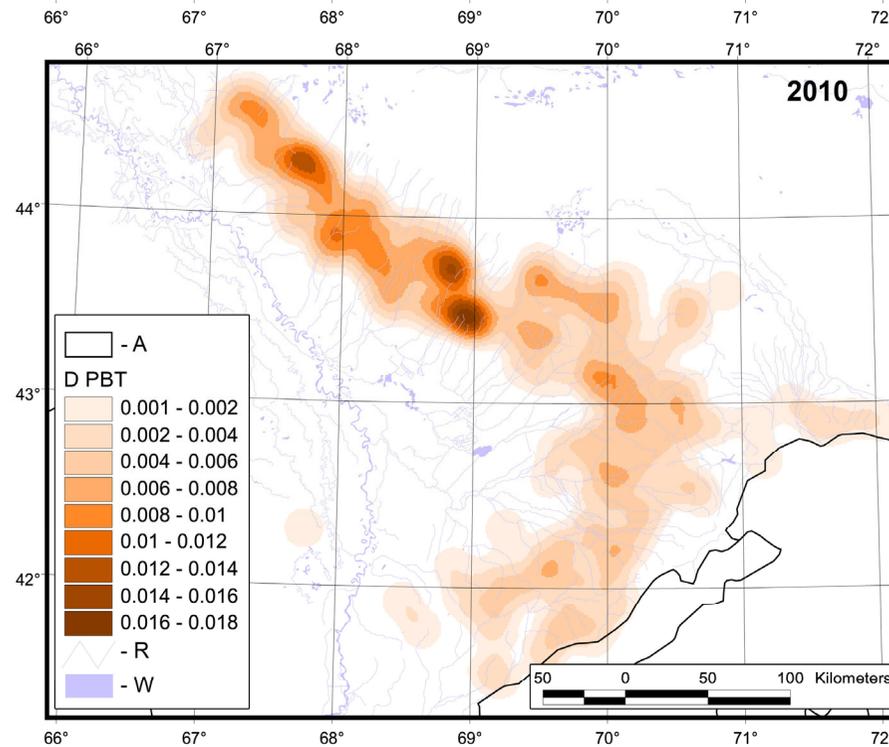
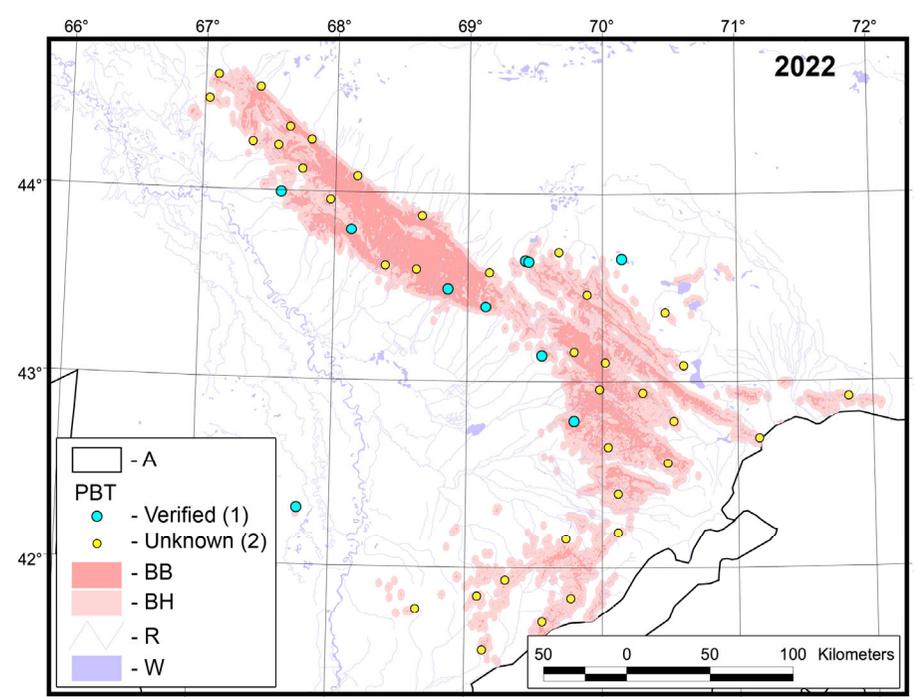
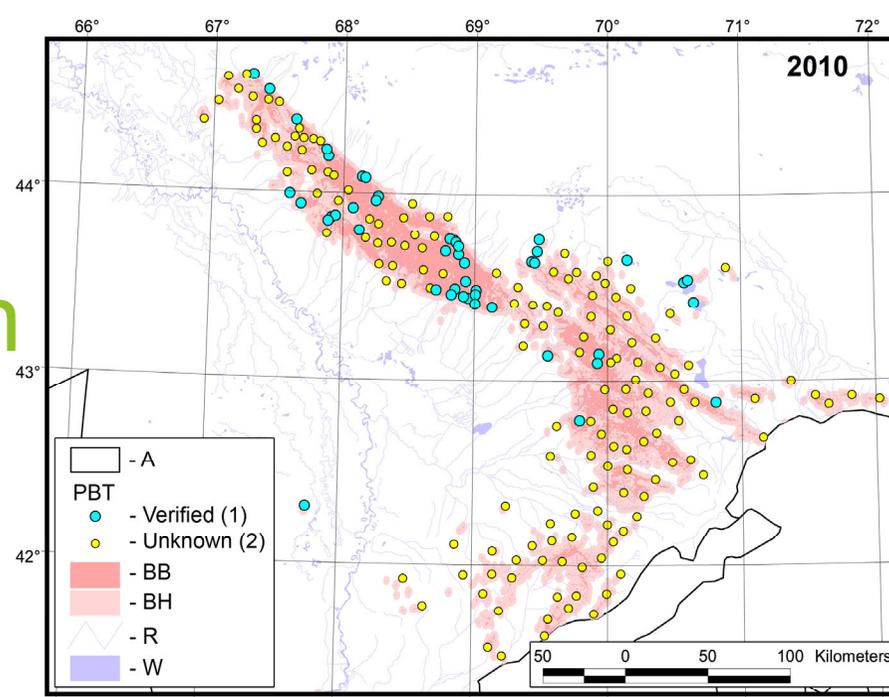
# Population trends Kazakhstan, 2014

- ▶ The number of Saker Falcons in Kazakhstan decreased by 73-79% from 1990 to 2012 and was estimated at 1000-1500 breeding pairs in 2012 (Karyakin et al., 2015).
- ▶ In 2023, the number of saker falcon in Kazakhstan is estimated to be less than 650 pairs



- Южный Казахстан / Southern Kazakhstan
- Северо-Восточный Казахстан / North-Eastern Kazakhstan
- Юго-Восточный Казахстан / South-Eastern Kazakhstan
- Восточный Казахстан / Eastern Kazakhstan
- Центральный Казахстан / Central Kazakhstan
- Западный Казахстан ( север) / Western Kazakhstan ( N)
- Западный Казахстан ( юг) / Western Kazakhstan ( S)

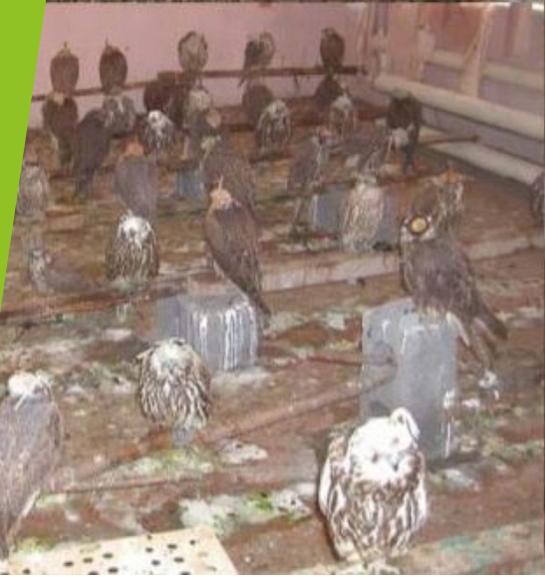
# Decline in Saker Falcon numbers in Karatau



# Threats

Trapping for the purposes of the falconry industry results in

- ▶ Depleting population reproductive resources by trapping predominantly females
- ▶ Depleting population genetical diversity by trapping birds with unique phenotypes
- ▶ Decreasing the average age of breeding population on the background of absence of adult mates
- ▶ Reducing population self-sustainability

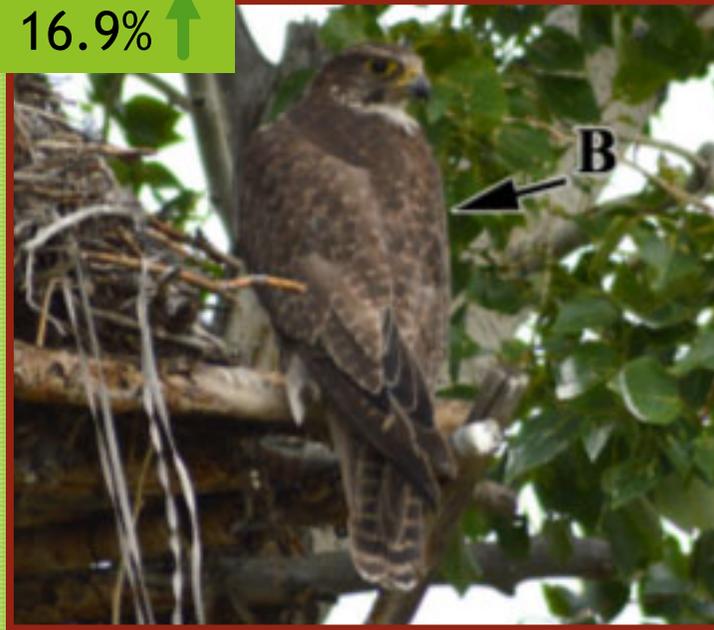


2.6% ↓



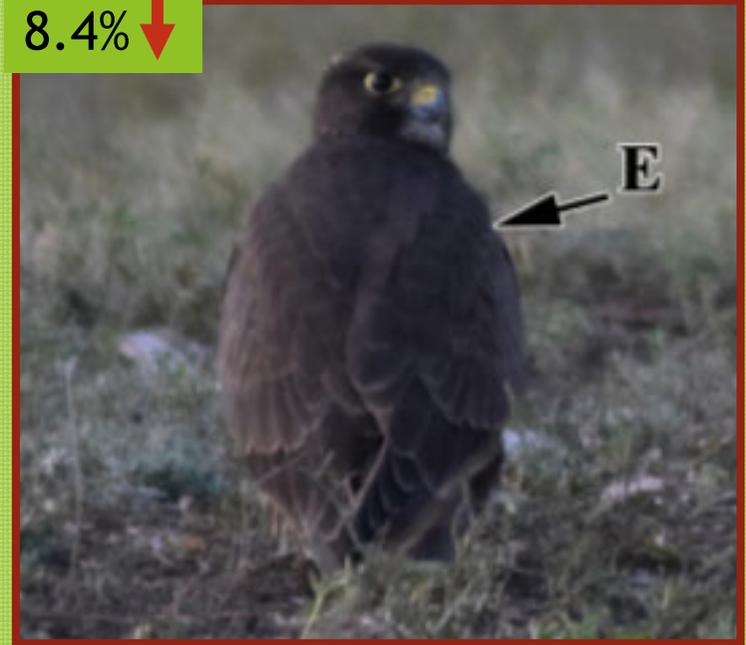
Falco cherrug cherrug

16.9% ↑



F.ch.cherrug x F.ch.milvipes =

8.4% ↓



Falco cherrug m. altaicus

# Threats

Unique and common subspecies in Russia

44.3%



Falco cherrug milvipes

27.8% ↑



Falco cherrug progressus



## Threats

The “Altai” morph  
*F. cherrug m. altaicus*

- ▶ 1999-2010: 18% of the population
- ▶ 2018: 8.4% of the population

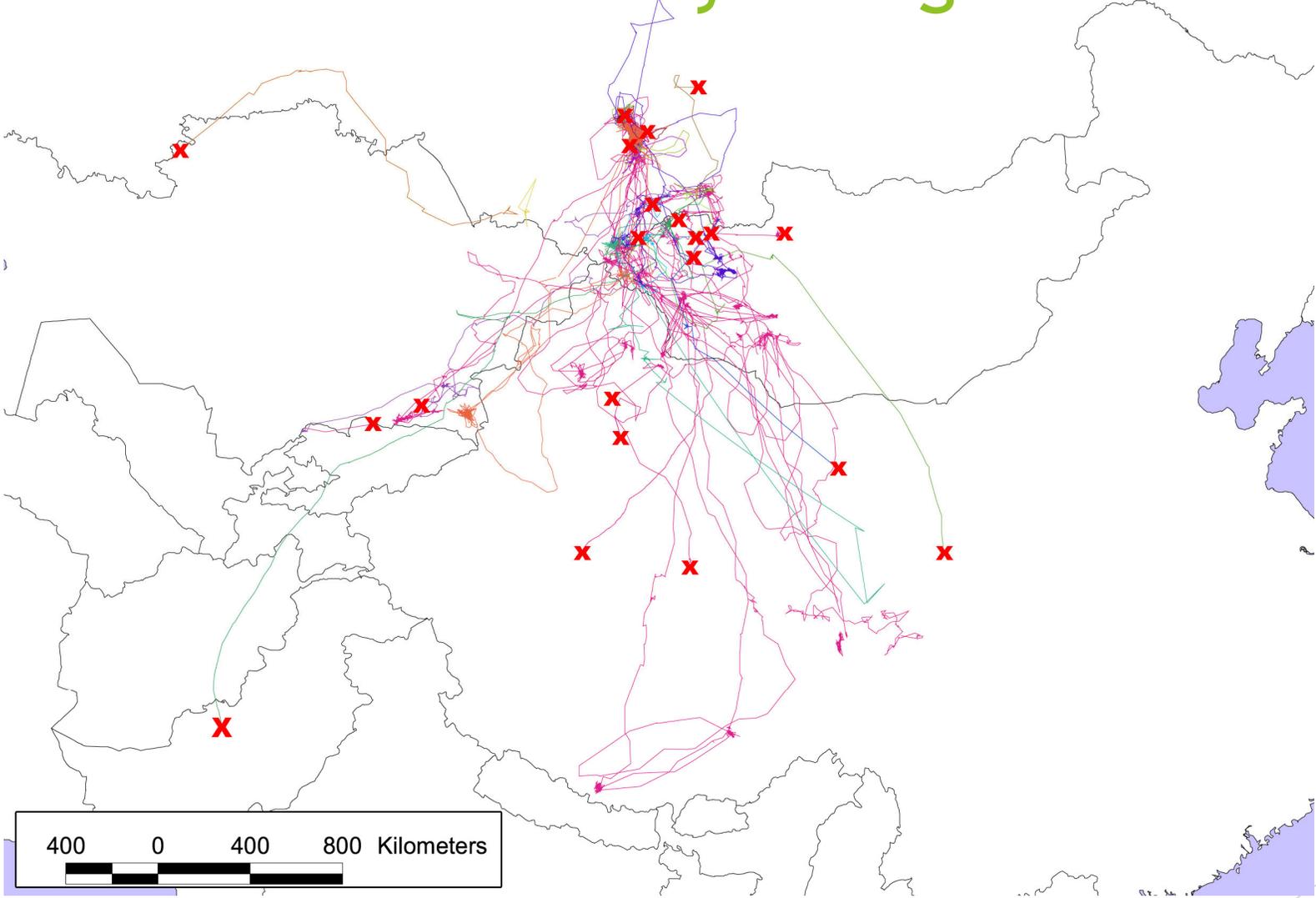


## Actions

- ▶ Color ringing (up to 90 juv sakers annually)
  - ▶ GPS-GSM tracking (52 individuals)
- We lost 80% of tracked birds before they reach 2CY**
- ▶ Only 4 individuals survived 2CY



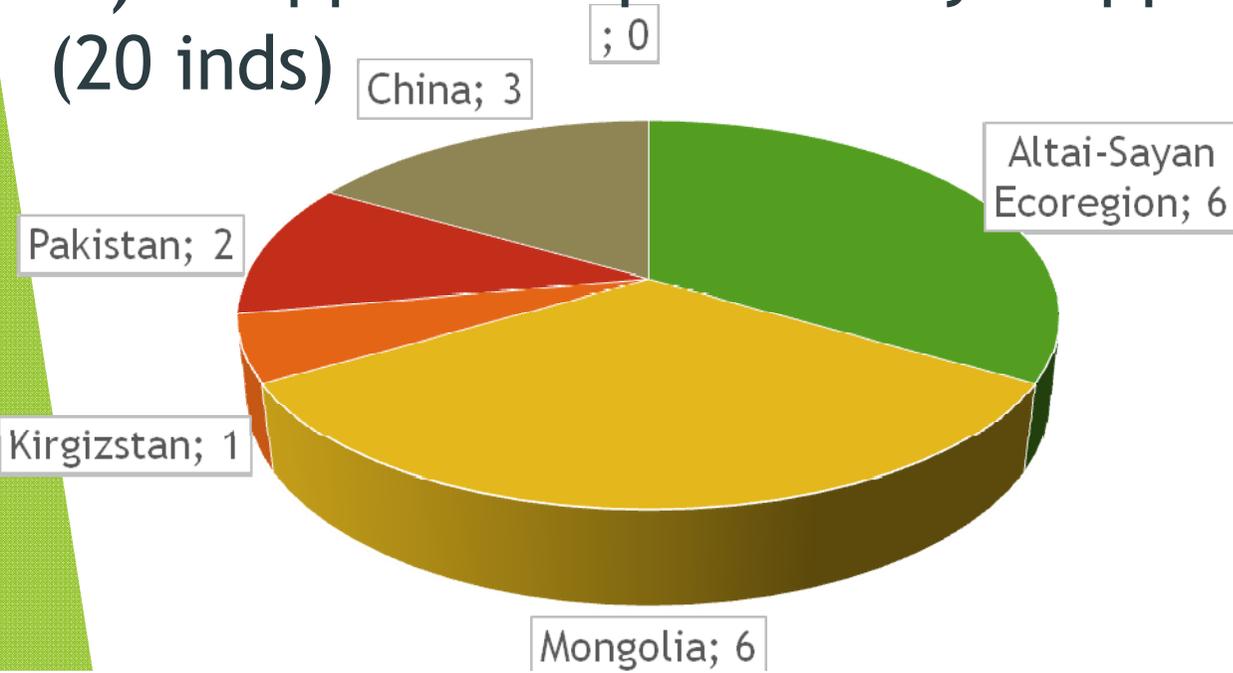
# Area of movement of juvenile Saker Falcons from Altai-Sayan region



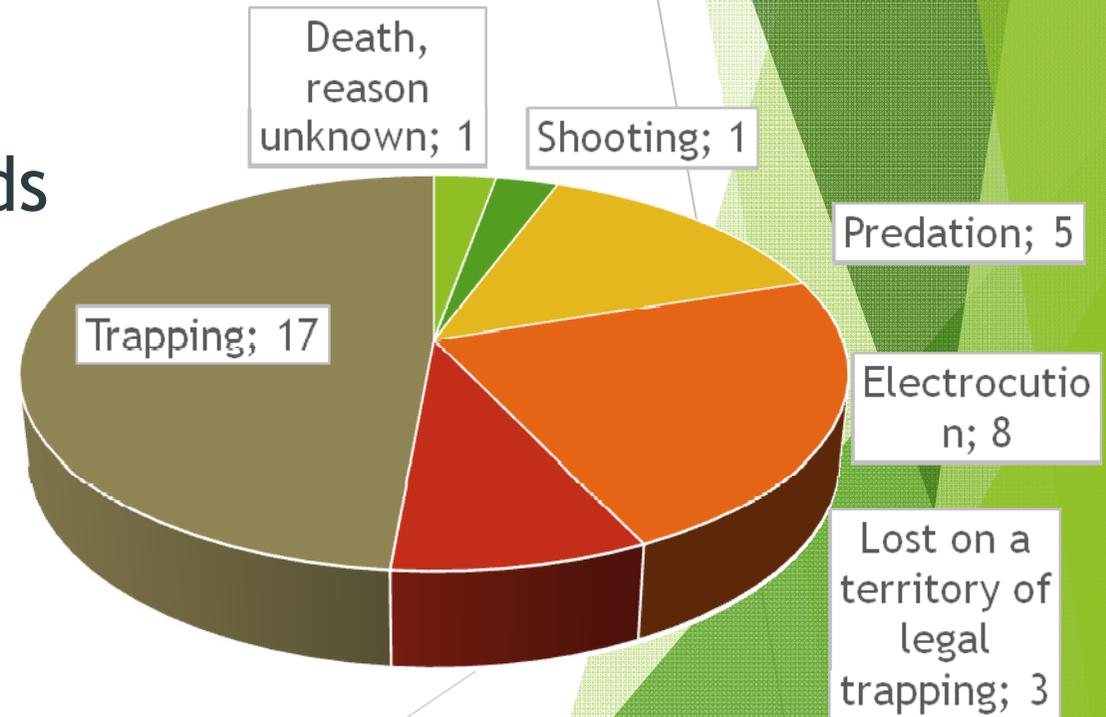
# Threats

- ▶ **35 cases** (+ 7 long-distance ring recoveries - birds that still alive [6x1CY/1x2CY/2 adult])
- ▶ 54% of juvenile Sakers from Russia end up on “black” and “white” falcon markets
- ▶ About ¼ died on power lines

## 2) Trapped and potentially trapped birds (20 inds)



## 1) Lost birds (35 inds)



# Videos from falcon catchers

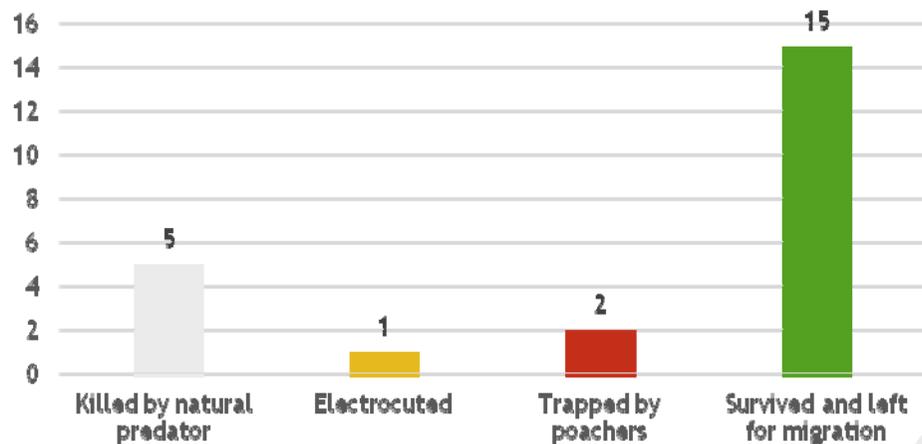


# Actions

## Anti-poaching

- ▶ Co-op of field experts with security bodies and local people
- ▶ Volunteer-led anti-trapping campaigns
- ▶ Ecological education for local people
- ▶ Since 2018:

Tracking of juvenile sakers from the ASR within Russian borders (2018-2021, n=23)



# Actions

## Anti-poaching

In Kazakhstan, there is no systematic work to suppress poaching and smuggling of falcons, judging by the number of arrests and the flow of birds through Kazakhstan.

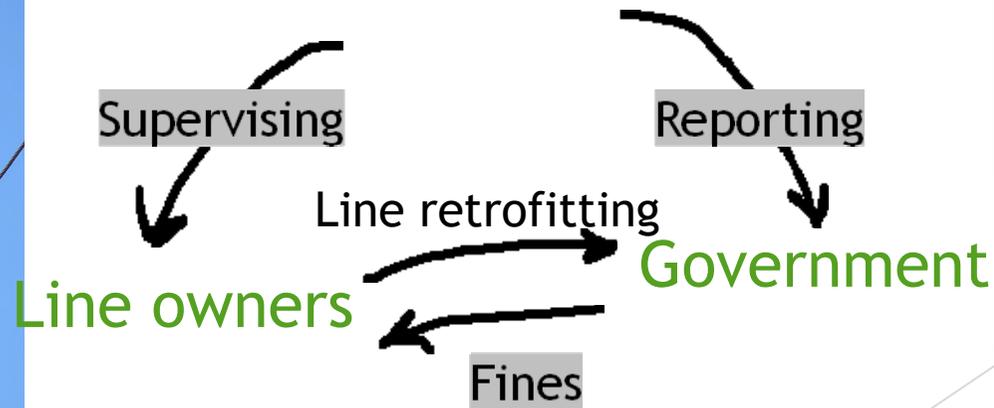


# Threats and actions

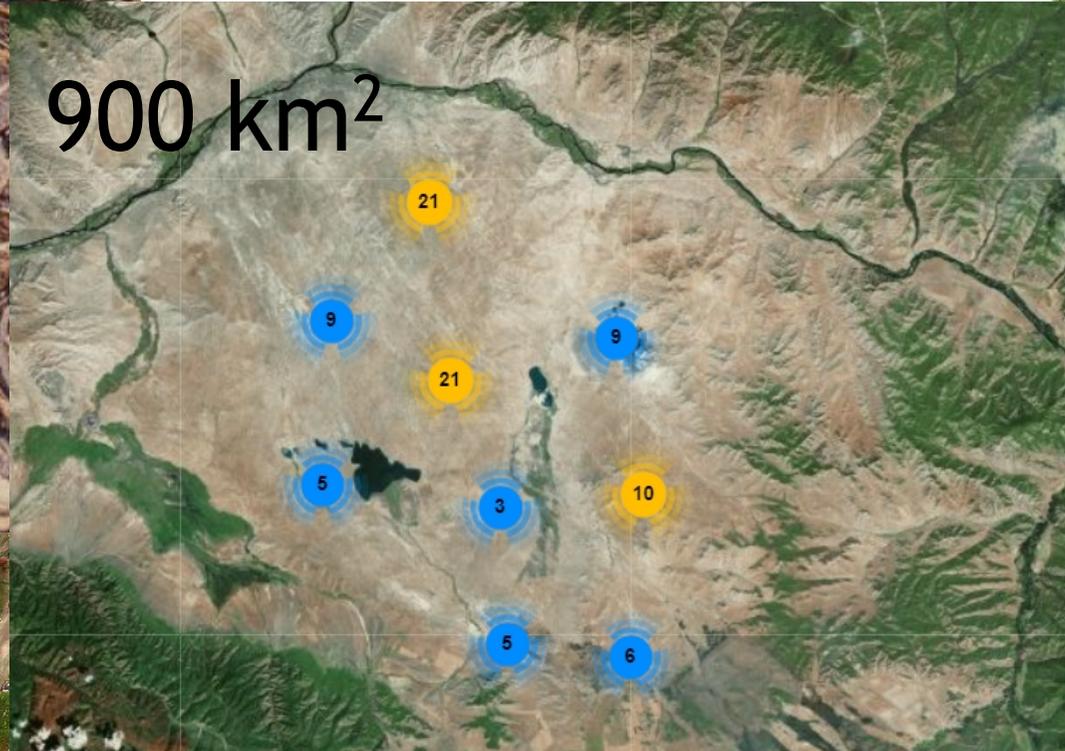
## Electrocution on power lines

- ▶ Nature-protective legislation in Russia
- ▶ NGO's work groups and volunteers
- ▶ Governmental assistance in many regions

## NGO, general public



# Conservation



## Breeding pairs (BP)

2017: 16 BP  
2018: 17 BP  
2019: 17 BP  
2020: 24 BP  
**2021: 38 BP!!!**  
**2022: 35 BP**  
2023: 21 BP



# Actions



What else are we doing to help Sakers?

We support their reproductive success by

- ▶ Providing them with nestboxes and breeding platforms (since 2006)
- ▶ Artificial feeding (since 2018)
- ▶ Reintroducing captive-bred nestlings using a method of adoption by a wild pair of Sakers (since 2017)



- ▶ <https://www.facebook.com/groups/Rusraptors> - RRRCN group in the FB - braking news, rumors and stupid question
- ▶ [http://rrrcn.ru/en/journal\\_rc](http://rrrcn.ru/en/journal_rc) - BILINGUAL journal (RUS/ENG) with articles on raptor study and conservation from Russian-speaking territories mostly, but also from the other sites of the world.
- ▶ [equ001@gmail.com](mailto:equ001@gmail.com) - my personal

