

The future of rare bactrian deer in EAZA

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Introduction:

The Bactrian deer (*Cervus hanglu bactrianus*) is a lowland subspecies of Tarim red deer native to Central Asia. Because of the Least Concern conservation status, the EAZA population is serving as an insurance population.

The EEP has a well known pedigree and a studbook containing 661 individuals from 35 institutions from 1944 until present (Fig. 1) is now endangered because of the decreasing trend (Fig. 2.), problematic age structure (Fig. 3) and unclear population development predictions (Fig. 4).

Population Size (Dec 2019)	30.31.2 = 63
Founders	6
Percent Pedigree Known	72%
Gene Diversity	0.7443
Gene Value	0.7404
Mean Inbreeding	0.2337
Population Mean Kinship	0,2557

Fig. 1: The status current to Dec 2019

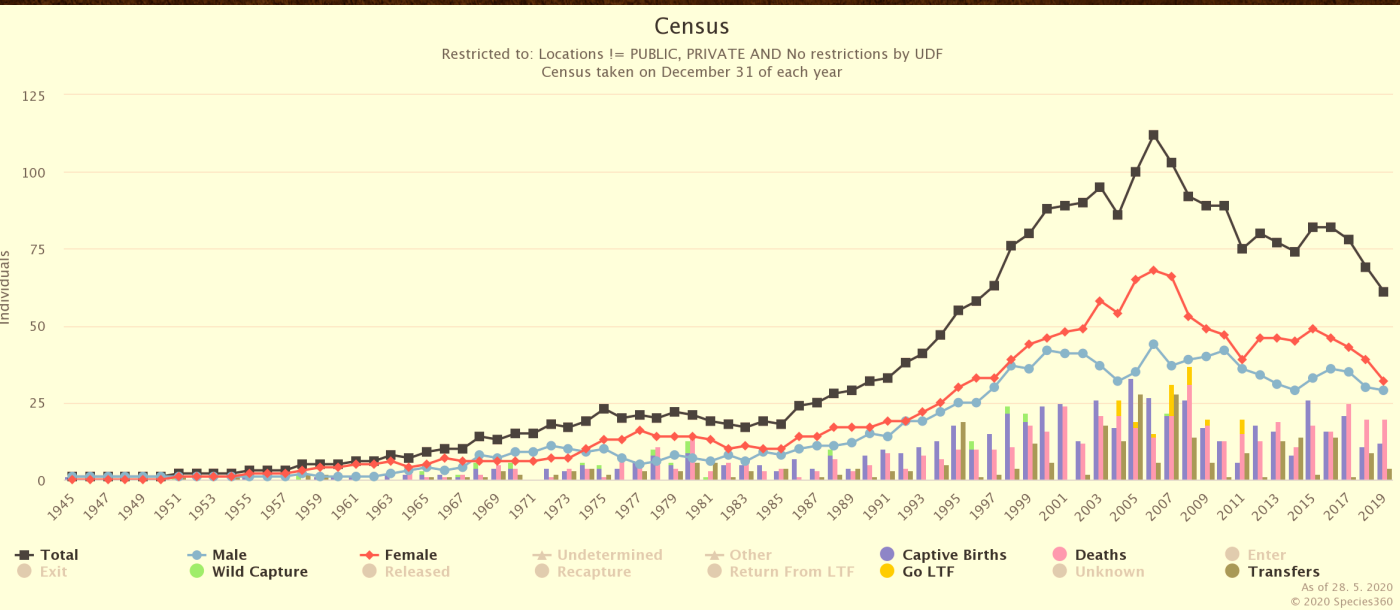


Fig. 2: The EAZA insurance population was growing for a long time but it is showing a decreasing trend in the last decade instead of being stable.

What can be done for the population?

- Finding **more participating institutions**.
- Cooperation with non-EAZA zoos willing to keep **bachelor groups**.
- **Research** to improve the husbandry.



Two adult Bactrian deer males, Photo by Miroslav Brtnický, Zoopark Chomutov



Bactrian deer dam with fawn, Photo by Miroslav Brtnický, Zoopark Chomutov

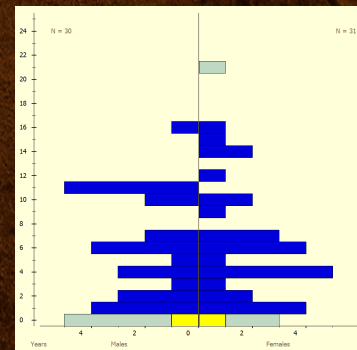


Fig. 3: The present state of the population structure is problematic.

Aims for ongoing research:

Our aim is to find out **which biological, ethological, genetic and environmental factors are affecting the sex ratio and survival** in captive ungulate populations. This will help to develop a more efficient way of managing *ex situ* populations thru Best practice guide-lines for the EAZA programme deer species.

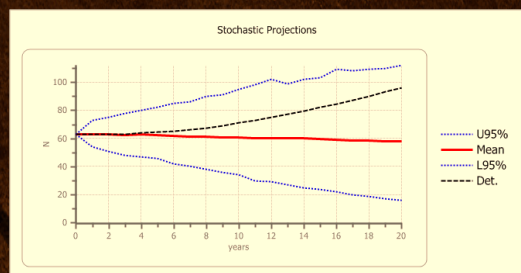


Fig. 4: The projections of the future population development are unclear at the current status.