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## Persian leopard semen collection at Tehran Zoo

After integrating the Tehran Zoo into the Persian Leopard PL European Endangered Species Programme EEP, semen was collected from the 17 years old Persian leopard *Panthera pardus saxicolor* male "Rica" to secure its genes for the breeding programme. The PL EEP is currently undertaking big efforts to improve its gene pool and to increase the reproductive output to be able to provide animals for the Persian leopard reintroduction in the Caucasus.

The Persian Leopard European Endangered Species Programme has a population of 96 leopards in 46 institutions but, only 9 founders are currently represented in this gene pool. Therefore, it is crucial to improve the genetic diversity of the breeding population by adding more unrelated founders, which is one of the main goals set by the European Association of Zoo and Aquaria EAZA Felid Taxon Advisory Group Felid TAG in 2012.

On recommendation of the PL EEP and the Felid TAG, EAZA approved in 2015 Tehran Zoo (Iran) as an official participant of the breeding programme, with the intention of enabling the integration of leopards from Iran into the EEP. Iran is the range country with the largest free-ranging population of Persian leopards, which is Endangered according to the IUCN Red List of Threatened Species. By including Tehran Zoo in the PL EEP, the breeding programme added two wild caught leopards to its population, the male "Rica", born in 2000, and the female "Kija", born in 2011. Both leopards are potential founders.

After the approval of Tehran Zoo as an official participant of the breeding programme,

the PL EEP issued an official recommendation to transfer "Gaspar", a 7 years old male (born in Lisbon Zoo, Portugal, studbook number #664), to Tehran Zoo, where he should breed with the young female "Kija". The considerable administrative process required for the transfer is ongoing. It is planned to have "Gaspar" in Tehran Zoo by the end of the first half year of 2017.

In February 2017, following a recommendation from the Persian Leopard EEP and the EAZA Felid TAG, a team of two veterinarians (Imke Lüders from Geolifes and Rui Bernardino from Lisbon Zoo, the PL EEP Veterinary Advisor) travelled to Tehran to collect semen from the 17 years old male "Rica" (Fig 1). The procedure was successful and the semen was frozen for future insemination, securing "Rica's" genes for the breeding programme. This accomplishment was possible thanks to the cooperation between Lisbon Zoo, which funded the travel costs and veterinarian fees, and Tehran Zoo, which provided accommodation and covered all expenses of the team in Tehran, and due to the invitation and organisation by Iman Memarian, the veterinarian of Tehran Zoo.

The PL EEP presently is undertaking big efforts to improve its gene pool, and to increase the reproductive output, in order to be able to provide animals for the reintroduction of the Persian leopard in the Caucasus, which has started in summer 2016 in the Caucasian Biosphere Reserve near Sochi, Russia (Hartmann et al. 2016). Therefore, the EEP is searching further zoos and rescue centres in all Caucasian countries (Georgia, Armenia, Azerbaijan, Iran, Russia, and Turkey), which are interested in keeping Persian leopards. A breeding programme aiming to produce animals for reintroduction does not only need well-designed and well-managed breeding facilities allowing to raise cubs, which are fit for being trained for living in the wild, but also additional facilities for holding disabled leopards, or animals not fit for being released, but may still be sampled so that their genes can still contribute to the breeding population.

## References

- Hartmann M., Ferreira J. D., Sliwa A. & Breitenmoser U. 2016. From the zoo to the wild Zooaquaria 95, 14-15.
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Fig. 1. The veterinarians Iman Memarian, Imke Lüders and Rui Bernardino with the sleeping Persian leopard male "Rica" in Teheran Zoo, 3 February 2017 (Photo Teheran Zoo).