

ENCONTRO SCIENTIA

June 05

12h00

Room 2.2.14, Ciências ULisboa

Demographic recovery speed can impact genetic diversity for savanna elephant populations

Savanna elephant populations in South Africa have been rapidly growing, after a near extirpation of the species in the early 1900s. Such a success was achieved through demographic growth of existing populations in national parks, and the translocation of elephants to reinforce existing populations and found new ones in private reserves. However, information on the genetic status of most populations is limited.

Using a target enrichment approach, we generated genome wide sequencing data from 69 savanna elephants. We focused on the genetic diversity differences between two populations with differing demographic trajectories in the last century: one of gradual and one of quick recovery after severe demographic bottlenecks. We also aimed to investigate founder effects in private reserves, as elephants in these areas can be sourced to start new populations. This work highlights the importance of a quick demographic recovery to diminish genetic diversity changes, and of conducting population genetic assessments of populations prior to translocation.



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