

Looking for a project of a Master thesis or 6 months Intern?

Join our project on the remaining genetic diversity in the critically endangered crested macaques (*Macaca nigra*) endemic to Sulawesi (Indonesia)

Humans have altered the natural habitat of many primate species. As a consequence, many primate species are endangered. Crested macaques (*Macaca nigra*) are one of the critically endangered primate species. This charismatic species is endemic to the island of Sulawesi (Indonesia), but humans have transferred this species also to nearby islands. In fact, human pressure (especially hunting pressure) is higher on Sulawesi than on other islands.



In this project, embedded in a PhD lead by Nora Neugebauer, we collected > 1000 fecal samples of about 10 populations of unhabituated monkeys (monkeys not used to human presence, but they leave fecal samples in their home range). One population represents one of the largest remaining population of crested macaques. These are habituated monkeys we study since 2006 in the Tangkoko Nature Reserve (Sulawesi). This project will specifically compare Tangkoko monkeys which are well protected compared to other populations of different human impact. DNA is already extracted. We now aim to investigate the remaining genetic diversity, relatedness and inbreeding via:



1/ STR (short tandem repeats) analysis as established in Engelhardt et al. (2017)

2/ whole genome sequencing after enrichment of the DNA

The task of the student will be to run PRCs and fragment analysis to remove duplicate samples (i.e. samples of same individual) and establish relatedness, levels of inbreeding and genetic diversity in these population.

Start earliest in November 2023 at the genetic laboratory at the Behavioural Ecology group (Widdig group) at the Talstr. 33

Requirements: good lab skills or willingness to learn them, it is ideal if you are already familiar with PCR and STR analysis. For questions or application, please contact Prof. Anja Widdig anja.widdig@eva.mpg.de and Nora Neugebauer elenora.neugebauer@uni-leipzig.de

References:

Engelhardt, A., Muniz, L., Perwitasari-Farajallah, D., & Widdig, A. (2017). Highly polymorphic microsatellite markers for the assessment of male reproductive skew and genetic variation in critically endangered crested macaques (*Macaca nigra*). *International Journal of Primatology*, 38(4), 672–691. <https://doi.org/10.1007/s10764-017-9973-x>