

Junior Fellowship for Dr. Fanomezana Mihaja Ratsoavina: Identifying conservation priority areas for lemurs in north-western Madagascar by means of modern conservation genetic approaches

Initiative: Wissen für morgen – Kooperative Forschungsvorhaben im subsaharischen Afrika (beendet)

Ausschreibung: Postdoctoral Fellowships "Resources, their Dynamics and Sustainability - Capacity-Development in Comparative and Integrated Approaches"

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Laufzeit: 3 Jahre

Madagascar hosts five endemic lemur families containing 101 species, with 94% included in the threatened category of IUCN1 Red list. Most threats on lemurs are connected to an increasing degree of habitat loss and fragmentation, and originate from poverty exacerbated by an unstable political situation. Alarmingly, one in four lemur species is currently listed as either Endangered or Critically Endangered. Madagascar is a large country and prioritizing conservation zones remains challenging both logistically and with regard to limited budgets. To approach this question, we will combine state-of-the-art lab-based and applied methods from the fields of conservation genetics and conservation biology. We plan to conduct project in the Sambirano region, and will identify lemur populations of high conservation value by employing traditional genotyping and next generation sequencing techniques on two suitable and contrasting lemur models. The genetic tools will provide sound estimates of the remaining genetic diversity, uniqueness, and populations' connectivity. Theoretical models predict long-term population viability given a high genetic diversity, which in turn will determine part of its overall conservation value. Genetic uniqueness has also to be considered to avoid losing irreplaceable parts of the species gene pool. The genetic results will then be used to prioritize hotspot sites and to develop a highly focused community-based conservation strategy for sustainable use of the natural resources.

Projektbeteiligte

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