

**PAYOFFS FROM IN SITU - EX SITU COOPERATIVE RESEARCH ON THE ENDANGERED LION-TAILED MACAQUES**

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The lion-tailed macaque, endemic to the rainforests of the Western Ghats in southern India, now inhabits forest fragments only. Its total population of about 3,500 individuals is divided into 49 unconnected subpopulations. Breeding programs have been established for this species in North America and Europe. In the late 1990s field researchers of the University of Mysore started a collaborative research program with American and European zoo-based researchers working on the captive populations. Using the altered and extremely fragmented living conditions of captive populations as a quasi-experimental setup the analysis of their reproductive potential, growth patterns and effective population size helped to develop a model for the understanding and long-term management of wild populations in forest fragments. Investigations using similar methods on captive and wild populations helped understand the reproductive system of lion-tailed macaques in greater details. Recent studies on male-male relationships under both conditions reveal high levels of intra sexual aggression thus indicating that males need to be managed in forest fragments where they have no room for dispersal. The field studies accumulated critical knowledge on the species' biology as required for the breeding programs. An analysis of the unsatisfactory development of the captive populations, however, indicates that its integration into management practices still requires serious efforts.

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