



**University of
Zurich**^{UZH}

Department of Evolutionary Biology
and Environmental Studies

Special Seminar

Can conservation genomics guide species recovery?

Speaker:	Prof. Uma Ramakrishnan National Centre for Biological Sciences, Bangalore, India https://scholar.google.co.in/citations?user=zGGbdkEAAAAJ&hl=en
Date/Time:	Wednesday, 2024-06-19 12:15 to 13:00
Place:	Y35-F-51/UZH Irchel Winterthurerstr. 190; 8057 Zürich
Access:	only intern
Host:	Gözde Cilingir

Abstract:

Despite international and national conservation legislation in the 1970's, habitat loss and fragmentation continues, endangering species. While many species continue to decline, some others are recovering, like wolves in Europe, and tigers in India. Technologies to sequence DNA were developed in the late 1970's. More recently, the ability to sequence several genomes relatively inexpensively has resulted in an explosive amount of genetic sampling and monitoring. But how can genomic data aid conservation? Over nearly two decades, I have studied conservation genetics in the Indian subcontinent. Our research has identified isolated populations and connected landscapes, and factors that allow tiger movement and connectivity. We identified mutations responsible for rare phenotypes like the black tiger, and highlighted inbred populations. We strive to translate the implications of our work to management and action for conservation. Further, we use genomic approaches to investigate multi-species connectivity, enhance understanding of at-risk populations, and better understand species biology for a host of endangered species including vultures, elephants, Dhole, Gaur and Sambar. In this talk, I will present these case studies, but also propose a way forward by which genomics can be better integrated into conservation action for endangered species.

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