

UNDERSTANDING TARSIER DIVERSITY: THE INTRIGUING PHYLOGEOGRAPHY OF *TARSIUS* IN CENTRAL SULAWESI

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Due to its location in the transition zone between Asia and Oceania and to a troubled geologic history, the Indonesian island of Sulawesi hosts a high diversity of endemic vertebrates. Among these, the tiny, nocturnal tarsiers have become prominent over the last years as indicators of microplate-tectonic shifts and sea level fluctuations. Here, we introduce a previously unknown evolutionary lineage of tarsiers – currently being considered for recognition as a new species – inhabiting a disjunct range in Central Sulawesi. Unique morphological and bioacoustic traits as well as mitochondrial, Y-chromosomal, and microsatellite DNA patterns clearly separate the new taxon from all known tarsier species. The two isolated populations, however, slightly differ from each other in body size, duet call characteristics, and allele frequencies at 10 microsatellite loci. Analyzing mtDNA sequences from $N_1=7$ and $N_2=8$ mist-netted specimens, we found shared patterns of ancestral polymorphism predating isolation of the two populations. This provides for high within-population ($D_1=0.008$ and $D_2=0.005$) and low net between-population variation ($D=0.002$) in cytochrome b sequences. Because of this taxon's distribution across the meeting point of a geographic bottleneck (the Isthmus of Palu) with the central regions of Sulawesi, revealing its phylogeography plays a key role in our quest to understand tarsier dispersal across the island. Our presentation covers morphological, acoustic, and genetic evidence uniting as well as untying the two populations, and we discuss palaeoclimatic events possibly underlying their divergence.

Keywords: biogeography, evolution, Indonesia, landscape genetics