

# Genetic population structure and connectivity of the mud creeper *Terebralia palustris* (Linnaeus, 1767) in Kenya and Madagascar

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The 'South Equatorial Current' (SEC) in the Indian Ocean, which flows westward along 10°S in the eastern basin and shift to 15°S west of 80°E (Grodsky and James, 2001), could facilitate the dispersal of propagules, which is important for recolonisation, especially after disturbance events. *Terebralia palustris* (Potamididae: Gastropoda), also known as the mud creeper, is the largest prosobranch in mangrove habitats (Pape, 2007). It has a high importance in the nutrient cycling process in mangrove forests by its significant processing amount of leaf litter (Slim *et al.*, 1997; Fratini *et al.*, 2004). Despite their wide distribution, abundance, and ecological importance in mangrove systems, there have been no studies on connectivity and genetic population structure of this species. However, it is known that the eggs deposited by the females on the roots of mangroves hatch into free-swimming planktonic larvae, which could have a high dispersal potential. The genetic population structure will be analysed by sequencing the mitochondrial cytochrome c oxidase subunit I gene (COI), constructing a haplotype network, and conducting an Analysis of Molecular Variances (AMOVA). Samples have already been collected from several sites in Madagascar and Kenya. Additional samples are planned to be collected in Tanzania. This study aims to evaluate the connectivity of different populations of the mud creeper in Madagascar, Kenya, and Tanzania.

## References

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