

Colonization of Madagascar by land-bound vertebrates

Date	22 Sept (Fri.)	
Time	16:00 (UTC+8)	
Venue	3N01 & Zoom	

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Madagascar's iconic land-vertebrate assemblage has long been studied and discussed. How the ancestors of the thirty different lineages arrived on the island, which has existed since 85 Mya and is separated from neighbouring Africa by 430 km of water, is a deeply important question. Did the colonizations take place when the landmass formed part of Gondwana, or were the crossings later and involve either now-drowned causeways or over-water dispersal (on vegetation rafts or by floating/swimming)? Following a historical review, we appraise (i) the geological-geophysical evidence, and (ii) the faunal-suite colonization record; neither offer support for emergent land-bridges. Twenty-six clades are explained by temporally-stochastic overwater passages (spanning 69–0 Mya), while two others are considered Gondwana 'relicts' (due to a lack of information, the two remaining groups cannot be evaluated). The findings thus appear to resolve a debate that has rumbled along, with intermittent eruptions, since the mid-1800s.

All are welcome!



About speaker:

Until his recent retirement, **Jason Ali** worked as a faculty member within the HKU Department of Earth Sciences (1997–2023); he is now affiliated with the Museum of Zoology at Senckenberg Dresden (Germany). For many years his research focused on regional-scale geological investigations, but since the late twenty-noughties he has worked largely on biogeography. He is mainly interested in the geological and physical processes that have shaped the distribution of life around the planet, particularly the land-bound animals on the marine islands.