

Evolution and Systematics of Caribbean Island Skinks (Squamata, Scincidae, Mabuya)

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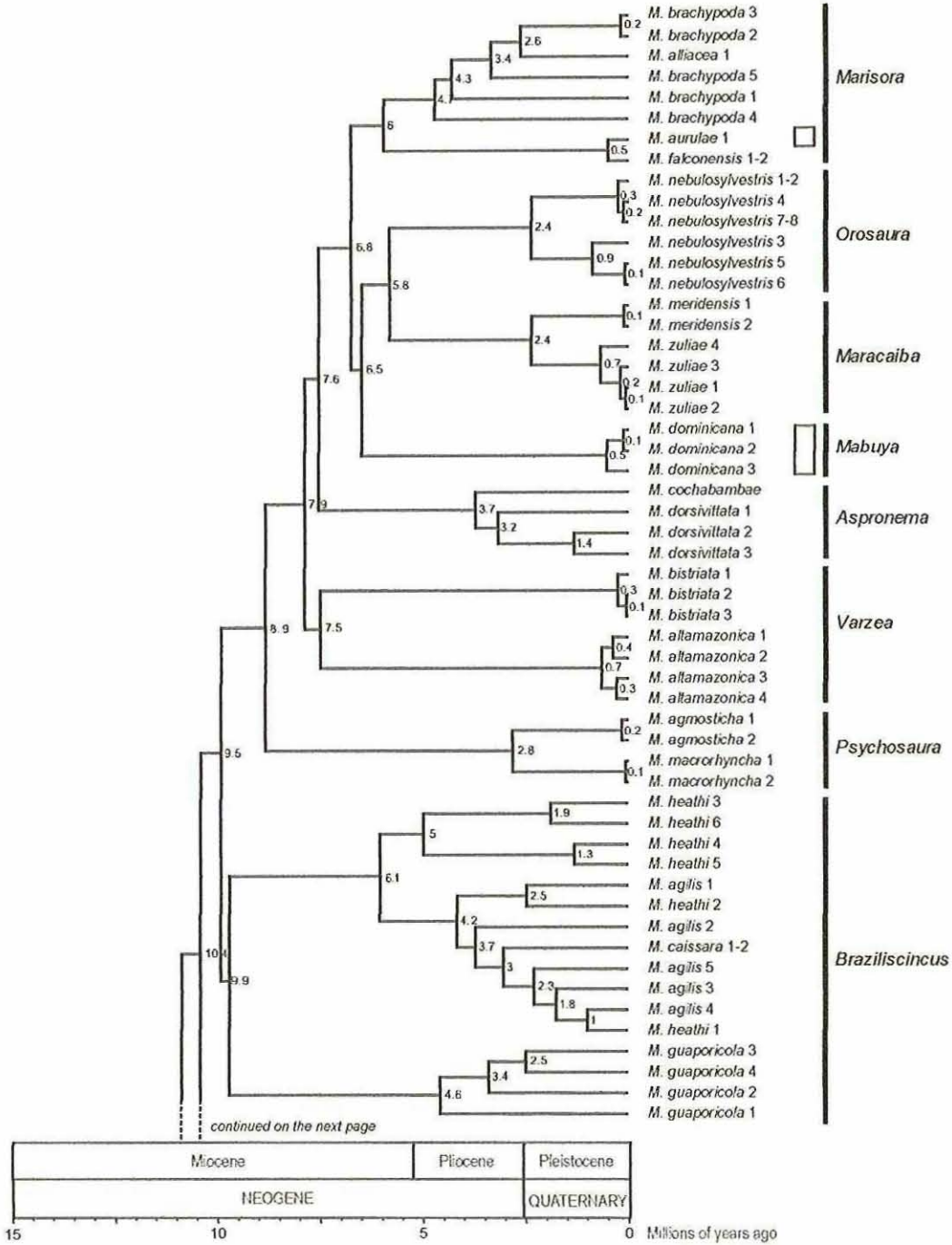
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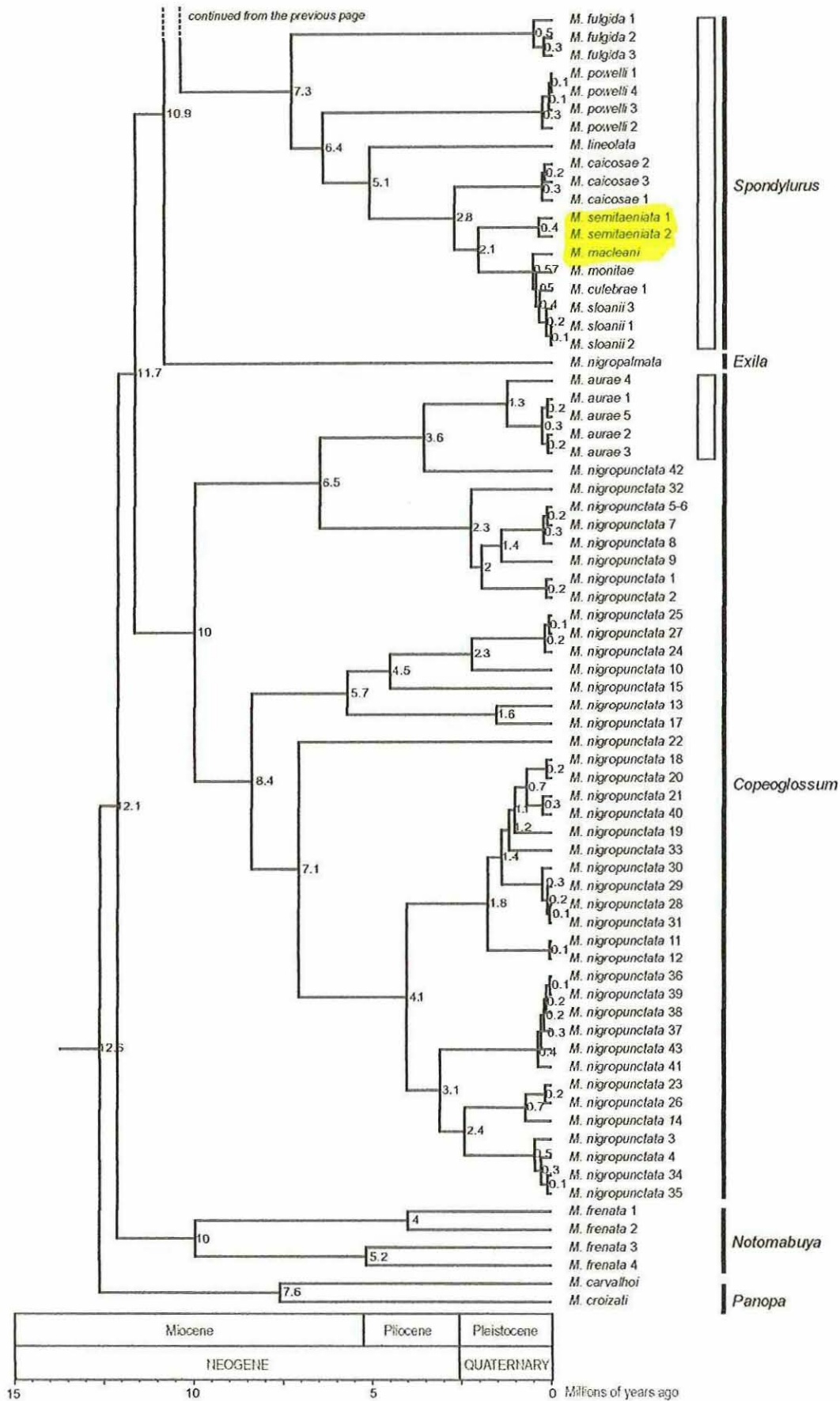
Abstract

Species of New World lizards (skinks) of the genus *Mabuya* have been famously difficult to diagnose for two centuries, largely because of a conservative body plan and wide variation in conventional systematic characters. As a result, the number of recognized species has both increased and decreased through time, depending on the taxonomic authority. There are 26 currently recognized species, 7 of which occur on Caribbean islands. We conducted a systematic revision of the Caribbean island skink fauna using both conventional and unconventional morphological characters, supplemented by DNA sequence analyses. We recognize 56 species of *Mabuya*, with 33 species occurring on Caribbean islands (28 from the West Indies). We describe 19 new species and also resurrect nine species from synonymies..... Most Caribbean island species are allopatric, single-island endemics, although three species occur on Hispaniola, two occur on Culebra, and two occur together in the southern Lesser Antilles, Trinidad, and Tobago. Unfortunately, one-third of the Caribbean island species are probably extinct-victims of predators, such as the mongoose, introduced by humans. Although some species can climb, their ground-dwelling and diurnal habits have made them especially susceptible to predation. Analyses of molecular and morphological variation among all New World *Mabuya* identified 15 clades of species, here recognized as subgenera..... Few additional new species, if any, are likely to be discovered on Caribbean islands, but molecular phylogenies suggest that large numbers of new species will be found and described in Middle America and South America when similar revisions are undertaken. A timetree of *Mabuya* evolution shows that the lineage arose by dispersal from Africa 00 million years ago (Ma) and first diversified in South America before dispersing to Middle America and the Caribbean islands. The present Caribbean island fauna is the result of at least 00 dispersal events from South America over the last 00 million years.

Key words: evolution, West Indies, Antilles, systematics, taxonomy, hidden species, cryptic species, DNA sequence



Slippery backs - 1



Slipperybaeks - 2
 via Falconwood