

**Phylogenetic and multivariate analyses of *Gekko smithii* Gray, 1842 recover a new species from Peninsular Malaysia and support the resurrection of *G. albomaculatus* (Giebel, 1861) from Sumatra**

**ABSTRACT**

An integrative taxonomic analysis of Sundaic populations of *Gekko smithii* from the Thai-Malaya Peninsula, Sumatra, and Borneo recovered four deeply divergent mitochondrial lineages that are separated by major geographic barriers (mountains and seaways). Furthermore, they bear a number of concordant statistically significant differences in meristic and morphometric features, morphospacial separation in multivariate space, and discrete differences in color pattern. *Gekko smithii sensu stricto* is restricted to southern Thailand south of the Isthmus of Kra and Peninsular Malaysia west of the Banjaran (mountain range) Titiwangsa, being that the type locality is on Penang Island, Penang. *Gekko hulk* sp. nov. is a new species from extreme southern Thailand and Peninsular Malaysia east of the Banjaran Titiwangsa and five east coast islands—the type locality being Pulau (island) Tioman, Pahang. *Gekko cf. albofasciolatus* is tentatively used to include Bornean populations west of the Iran Mountains in Sabah and Sarawak which, in the absence of molecular data, cannot unequivocally be separated morphologically from *G. albofasciolatus* from the type locality at Banjarmasin, Kalimantan, Indonesia east of the Iran Mountains. In the absence of molecular data, *G. albomaculatus* is resurrected to include mainland Sumatran, Nias Island, and Banyak Islands populations which, based on their morphology, cannot be separated from descriptions of *G. albomaculatus* from the type locality of Bangka Island, 15 km off the southeast coast of mainland Sumatra. Further integrative analyses of all Sumatran and Bornean populations are currently underway as well as the enigmatic Wallacean populations from Sulawesi. Data are presented that strongly suggest all references to *G. smithii* from Java stem from a 151 year-old misidentification of a specimen of *G. gecko* of unknown provenance. Additionally, there are no vouchered records of *G. smithii* from Myanmar. The phylogeographic patterns of Sundaic populations of the *G. smithii* complex are concordant with those of a plethora of other Sundaic lineages.