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New Insights of the Endemic Plant Genera in Sri Lanka and Their Conservation Status

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Abstract

Endemism refers to species that are confined to a particular geographical region. A total of 16 plant genera are regarded as endemic to Sri Lanka. The correct identity and the status of these endemic plant genera are still in a debate and thus precise identification with the light of literature, taxonomy and molecular studies is mandatory. Due to erroneous identification, documentation, and nomenclatural issues, rarity and restricted distribution of these taxa and unexplored habitats made this evaluation more problematic. Hence, this present study was conducted to produce an updated list of endemic plant genera in Sri Lanka and identify and analyze the *in-situ* conservation status of these species. The taxonomic history of all 17 endemic genera was summarized to get a general understanding of their basionyms, protologues, nomenclatural issues and taxonomic gaps. Locality data were obtained from an intensive herbarium taxonomic study done at the National Herbarium, Peradeniya, Department of Forest Conservation, and national and international databases. The *in-situ* conservation status was evaluated using the literature, and analysis was conducted by overlaying protected area map with recorded locations of endemic plant genera. According to the conservation status, the categories of endangered, vulnerable, and critically endangered, which are considered the most threaten, covering approximately 95.00% of all species found in endemic genera. *Doona*, *Cyphostigma*, and *Podadenia* are three genera that have the potential to be added to the current list of endemic plant generics. With thorough literature reviews, the genera *Kokoona* and *Farmeria* can be eliminated from the endemic generics. Based on comprehensive botanical survey, *Chlorocarpa*, *Phoenicanthus*, *Loxococcus*, *Schumacheria*, *Championia*, *Stemonoporus*, *Dicellostyles*, *Hortonia*, *Adrorhizon*, *Davidsea*, *Diyaminauclea*, *Leucocodon*, *Nargedia*, *Podadenia*, *Scyphostachys*, *Doona* and *Cyphostigma* considered as the 17 endemic plant genera in Sri Lanka. There were 57 endemic species in total, with *Stemonoporus* and *Doona* being the two largest endemic plant genera in terms of number of species. The majority of species have been reported outside of Sri Lanka's protected areas (70%), according to their recorded distribution data and some need legal conservation validity.

Keywords: Sri Lanka, Endemic, Plant genera, *In situ* conservation