TOWARDS AN INFRAGENERIC CLASSIFICATION OF MYRCIA s.l. BASED ON EVOLUTIONARY RELATIONSHIPS.

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Neotropical Myrtaceae are particularly species-rich in some of South America’s most threatened habitats (e.g. the Western Amazon, the Brazilian Atlantic rainforest and cerrado) where plant species inventories are urgently required to facilitate conservation initiatives. Low and cryptic morphological variation makes Myrtaceae a ‘difficult’ family to identify at every taxonomic rank, hampering these inventories. Recent molecular phylogenetic studies indicate the second largest Neotropical Myrtaceae genus, Myrcia s.l., (c. 700 spp) to encompass three other traditionally recognised genera, Calyptranthes (c. 270 spp), Gomidesia (c. 50 spp) and Marlierea (c.100 spp); the first two of these are monophyletic clades. Myrcia s.l. was last revised in the 1850’s resulting in an over-abundance of names based on a limited amount of material. A modern understanding of Myrcia s.l. taxonomy is now required to support diversity, conservation and sustainable use studies in these important habitats. A new sub-generic classification of Myrcia s.l. is presented, based on evolutionary relationships of DNA sequence data, and supported by morphological evidence. Nine sections are recognized, providing a much-needed framework with which to divide the genus into groups suitable for monography or other study.

Key words: Myrcia, Calyptranthes, Gomidesia, Marlierea, classification, taxonomy, systematics.

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