The phylogenetic relationships of species in *Dracocephalum* and *Lallemantia* based on molecular data

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Abstract

Dracocephalum and Lallemantia, two members of the tribe Mentheae subtribe Nepetinae (Lamiaceae, Nepetoideae), were analysed with respect to phylogenetic analysis. All species of the genus Lallemantia and four species of the genus Dracocephalum were investigated for nuclear (ITS) and plastid (trnS/G, rpl32, and rpl32-trnL) DNA sequence comparison. The results strongly suggested that Lallemantia is a separate genus from Dracocephalum with distinct morphological and phylogenetic characteristics. For intrageneric phylogeny of Dracocephalum and Lallemantia, 2 groups were recognised in each genus. Monophyly of each linaeage supported by distinct morphological characters (e.g., structure of flower and pollen).

Keywords: Dracocephalum, ITS, Lallemantia, Lamiaceae, molecular phylogeny, Nepetinae.