



A generic revision and new combinations in the Hyptidinae (Lamiaceae), based on molecular and morphological evidence

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Abstract

An earlier molecular study demonstrated the monophyly of the Hyptidinae and most of the genera within it. However, the largest genus, *Hyptis*, is paraphyletic and all other genera seem to be derived from a *Hyptis* ancestor. Most of the different lineages which comprise *Hyptis* are already established sections, some of which are now raised to generic rank, augmenting the subtribe to 19 genera and with a greatly reduced but monophyletic *Hyptis*, in which the genus *Peltodon* is included as a section. The sections *Mesosphaeria* and *Polydesmia* are also shown not to be monophyletic, making it necessary to reassign some species from the former to the latter, and then raising the two sections to generic rank as *Mesosphaerum* and *Cantinoa* respectively, the latter a new genus name. A new genus *Oocephalus* is also created from two former subsections of *Hyptis* sect. *Polydesmia*. The genus *Condea*, formed from three former sections of *Hyptis*, is itself divided into two sections. A key to all recognized genera is included, together with a generic conspectus, with brief distributional data, differentiating the new genera and listing their component species. The necessary nomenclatural changes comprise 142 new combinations, 30 new or replacement lectotypifications, four neotypes, 23 new synonymies, eight *stat. nov.*, six newly coined generic names, five new epitypes and four new names.

Key words: generic key, *Hyptis*, molecular data, morphology, new genera, taxonomy

Introduction

The Lamiaceae have recently undergone major changes of both delimitation and reorganization of constituent taxa, as a result of morphological and molecular phylogenetic studies (e.g., Cantino 1992a, 1992b, Wagstaff *et al.* 1995, 1998), with many genera, formerly placed in Verbenaceae, being incorporated (Harley *et al.* 2004).