



Taxonomic studies in the Miconieae (Melastomataceae). XIII. Systematics of *Miconia subcompressa*, a Hispaniolan endemic comprised of three eco-geographic subspecies

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Abstract

The pattern of morphological variation in *Miconia subcompressa*, a species endemic to the mountains of southern Hispaniola, is assessed by a consideration of numerous herbarium specimens (many collected by the authors) and a phenetic (Principal Components) analysis of 14 vegetative characters, and morphological entities are compared with a phylogenetic hypothesis based on nrDNA-sequence variation (ITS, ETS) including several accessions of this species (from across its geographic and elevational range) as well as related species of *Miconia* sect. *Chaenopleura*, especially those of the Massif de la Hotte, Haiti. Our morphological data, incorporating recently collected herbarium material, indicate that the populations of *M. subcompressa* from the Monteadá Nueva region (= Loma Trocha de Pey) are diagnosable morphologically from those of the Massif de la Selle and Massif de la Hotte, and these plants are described here as *Miconia subcompressa* subsp. *beverlyana*. Additionally, this study supports the recognition of the populations from moist pine forest/cloud forest habitats of the Massif de la Hotte, occurring mainly from 1450–2300 m, as *M. subcompressa* subsp. *plumieri* (= *M. plumerii*, sic). Finally, *Miconia subcompressa* may be paraphyletic, as preliminary molecular evidence suggests that *M. xenotricha* may have arisen within its phylogenetic structure.

Resumen

El patrón de variación morfológica en *Miconia subcompressa*, una especie endémica de las montañas del sur de la Española, está revisado considerando numerosos especímenes de herbario (muchos colectados por los autores), un análisis fenético (Componentes Principales) de 14 caracteres vegetativos y las entidades morfológicas están comparadas con una hipótesis filogenética basada en datos moleculares (ITS, ETS) que incluye varias accesiones de *M. subcompressa* (de todo su rango geográfico y de elevación) y otras especies de *Miconia* sect. *Chaenopleura*, especialmente las especies del macizo de la Hotte, Haití. Nuestros datos morfológicos, los cuales incorporan colecciones recientes, indican que las poblaciones de *M. subcompressa* de la región Monteadá Nueva (=Loma Trocha del Pey) son reconocibles morfológicamente de las poblaciones del macizo de la Selle y del macizo de la Hotte, y aquí están descritas como *Miconia subcompressa* subsp. *beverlyana*. Adicionalmente, este estudio apoya el reconocimiento de las poblaciones de los hábitats del bosque de pino húmedo/nuboso del macizo de la Hotte, que ocurre mayormente de 1450–2300 m, como *M. subcompressa* subsp. *plumieri* (= *M. plumerii*, sic). Finalmente, es probable que la especie *Miconia subcompressa* es parafilético, dado que evidencia preliminar de datos moleculares sugiere que *M. xenotricha* se originó adentro de la estructura filogenética de *M. subcompressa*.

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