



Acalypha subgenus *Linostachys* (Euphorbiaceae, Acalyphoideae): a global review

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Abstract

A critical review of *Acalypha* subgenus *Linostachys* (Euphorbiaceae: Acalyphoideae) worldwide is presented. As a result 28 species, 6 of which were not previously recognized within the subgenus, are accepted and 5 new synonyms are proposed. Comprehensive nomenclatural information is supplied and 16 lectotypes and one neotype are designated. An identification key and geographic information, including a distribution map of the subgenus, are also provided. This is the first treatment of subgenus *Linostachys* since Pax and Hoffmann's monograph in 1924.

Key words: geographical distribution, nomenclature, taxonomy, Tropics, typification

Resumen

Se presenta una revisión crítica de *Acalypha* subgénero *Linostachys* (Euphorbiaceae: Acalyphoideae). Como resultado se aceptan 28 especies, 6 de las cuales no se habían incluido previamente en este subgénero, y se proponen 5 nuevos sinónimos. Se aporta una exhaustiva información nomenclatural y se designan 16 lectótipos y un neótipo. Se incluye también una clave de identificación así como información geográfica incluyendo un mapa de distribución del subgénero. Este es el primer tratamiento del subgénero *Linostachys* desde la monografía de Pax y Hoffmann en 1924.

Introduction

Acalypha Linnaeus (1753: 1003) (Euphorbiaceae: Acalyphoideae) comprises about 500 species of small trees, shrubs, suffrutices and herbs occupying a wide range of habitats worldwide, from tropical rainforests to semi-desert and from sea level to 4000 m elevation. Most of the species grow in tropical and subtropical areas. America is home to almost two-thirds of the species, ranging from southeastern Canada and the United States to Uruguay and northern Argentina. Mexico and Central America stand out as the center of diversity of the genus. Tropical East Africa is a secondary diversity center.

Acalypha is included in the subfamily Acalyphoideae, the most diverse and complex one in the family Euphorbiaceae (Hayden & Hayden 2000). Although this subfamily has been revealed as paraphyletic, the core group of taxa that make it up (Acalyphoideae sensu stricto) is clearly monophyletic (Tokuoka 2007, Wurdack & Davis 2009). Thereby, molecular analyses support the monophyly of Acalyphoideae and confirm that *Acalypha* is a natural and well characterized genus (Wurdack & Davis 2009). Preliminary results of *Acalypha* molecular phylogeny (Steinmann & Levin 2003, Levin *et al.* 2005, Sagun *et al.* 2010) suggest that the genus first appeared in Africa. It is here that the highest morphological diversity within the genus, as well as its sister groups, are found.

Although the infrageneric classification of *Acalypha* is not fully established (see details in taxonomic history), the subgenus *Linostachys* (Klotzsch ex Schlechtendal 1846: 235) Pax & Hoffmann (1924: 13) is a quite well-characterized taxon from a morphological perspective, and it is easily distinguished from the other sections of the genus. This subgenus includes species with racemose or paniculate female inflorescences, non-acrescent minute bracts, and female flowers with 4–5(–6) sepals, vs. spicate inflorescences, accrescent bracts, and female flowers

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