



A New Species of *Mucuna* (Leguminosae-Papilionoideae-Phaseoleae) from Costa Rica and Panama

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Abstract

A new species of *Mucuna* from Costa Rica and Panama is described and illustrated. *Mucuna monticola* is mainly known from the highlands of the Cordilleras of Guanacaste, Tilarán, Central and Talamanca in Costa Rica, and in Panama in particular from the Chiriqui area. It is superficially similar to *Mucuna mutisiana* and *M. killipiana*, but it differs from both in multiple aspects of its morphology and is unique among Neotropical *Mucuna* in its pod, which is larger and longer with conspicuous irregular lamellae or reticulate-ridged, not constricted between the seeds.

Key Words: Biodiversity, Fabaceae, Neotropics, New World, Taxonomy

Introduction

The pantropical and subtropical genus *Mucuna* Adanson (1763: 579) (Leguminosae, Papilionoideae, Phaseoleae) contains about 100 species and is distinctive in its scandent habit, uniformly trifoliolate leaves, umbelliform or pseudoracemose inflorescences, which are usually pendent from a long peduncle, showy, resupinate papilionaceous flowers with a campanulate calyx, and frequently large, woody pods, many with strongly urticating trichomes. The New World members of the genus (ca. 20 species) lack a recent taxonomic review, although several treatments for regional floras were published (Macbride 1943, Burkart 1970, Martinez 1997, Aymard *et al.* 1999, Mori *et al.* 2002, Correa *et al.* 2004, Acevedo-Rodríguez 2005, Lleras & Cruz 2005, Moura & Tozzi 2010, Zamora 2010), as well as descriptions of some new species (Tozzi *et al.* 2005, Ruiz 2009).

In the New World, *Mucuna* is most diverse in South America, where about 15 species occur, but in Central America nine species are present, representing an important secondary area of diversity. The Central American species encompass most of the morphological variation present in New World *Mucuna*. Two of the three pollination syndromes that occur in the genus, bird and bat pollination, are present in Central America, although only the latter has been well-documented by studies (Helvesen & Helvesen 1999, Agostini 2008). Most of the Central American species are not endemic to the isthmus, because they also occur in South America. Also, the geographical range of the widespread species *Mucuna sloanei* Fawcett & Rendle (1917: 36) extends to the Caribbean and Pacific islands, North America, South America and some countries of Africa. Prior to this study, *M. argyrophylla* Standley (1922: 504) was considered to be the only *Mucuna* species endemic to Mesoamerica, but now it is known that it is not true.