



A new tree species of *Schinopsis* (Anacardiaceae) from Paraguay and Bolivia

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Abstract

The new tree species *Schinopsis boqueronensis*, endemic to the Bolivian-Paraguayan Chaco, is described, illustrated and compared to the related *Schinopsis heterophylla*. A distribution map and photographs of the new species are also provided.

Key words: Boquerón, Chaco, South America, taxonomy

Introduction

The genus *Schinopsis* Engl. (1876: 403) (Subfamily *Anacardioideae*, Family *Anacardiaceae*, Order *Sapindales*; Judd *et al.*, 1999; Pell, 2004) has a restricted geographical distribution in the Seasonally Dry Tropical Forests (SDTF, *sensu* Prado, 2000), but is also found in the subtropical Chaco forests (Prado 1993a, b) of South America. It is a small genus of very important cultural and economic influence in the continent, characterized by its timber of extreme durability and toughness (Barberis *et al.*, 2012). The species of *Schinopsis* are also of ecological importance because are usually dominant or co-dominant in the environments where they grow.

Meyer & Barkley (1973) included seven species in *Schinopsis* and placed *S. heterophylla* Ragonese & J. A. Castigl. (1947: 98) as a synonym of *S. quebracho-colorado* (Schltdl., 1861: 139) F.A. Barkley & T. Mey. (1950: 156), which in turn has been placed as a synonym of *S. lorentzii* (Griseb., 1874: 115) Engl. (1881: 46). *S. heterophylla* was originally described from the Argentinean Chaco. Recently, Muñoz (1990) reinstated *S. heterophylla* as a distinct species, and indicated the presence of newly collected specimens in Bolivia and Paraguay.

During the preparation of a revision of *Schinopsis*, the authors of the present contribution found a number of herbarium specimens collected in Bolivia and Paraguay that were identified as *S. heterophylla*, but have morphological characters that do not correspond to Ragonese & Castiglioni's (1947) original description of the species. A thorough morphological analysis of the specimens, together with the collection of fresh material in the field in the Paraguayan Chaco in 2011, led us to propose here a new arboreal species, *Schinopsis boqueronensis*. A key to distinguish the new species from *S. heterophylla*, together with illustrations, photographs and a distribution map of *S. boqueronensis* are provided.

Materials and methods

Herbarium specimens at CTES, FCQ, LIL, PY and SI (*Index Herbariorum*, Holmgren *et al.*, 1990) were studied. Additionally, new material collected in central-western Paraguayan Chaco in December 2011 (deposited in FCQ, Asunción) was also included in the analysis.

At present, the proper administrative processes are being followed in order to formally distribute duplicates of specimens from FCQ herbarium in the near future.

Morphological characters were studied using digital calliper and a stereoscopic microscope, and are here described using the terminology used by Ragonese & Castiglioni (1947), Barkley (1962), Meyer & Barkley (1973), and Muñoz (1990).

Identification key to distinguish *S. boqueronensis* from *S. heterophylla*:

1. Simple leaves glaucous, generally oblong-lanceolate; apex acute to gradually emarginate; base sometimes lobate; secondary veins prominent but inconspicuous in colour, with a divergence of 55° to 60° from the principal vein. Petals 5. Samara without lignified styles *S. heterophylla*
- Simple leaves green and shiny on the upper surface, lighter and grey below, generally oblong-ovate; apex emarginate, obtuse to sub-acute; base rarely lobate; secondary veins pallid, with a divergence of 60° to 90° from the principal vein. Petals 5, occasionally 6. Samara with noticeable lignified styles *S. boqueronensis*

Finally, it is worth noting that the new species described presents morphological characters intermediate between *S. cornuta* and *S. lorentzii*, with which it coexists in the field. A similar situation has been observed for *S. heterophylla*, considered a possible hybrid between *S. balansae* Engl. (1885: 286) and *S. lorentzii* (Ragonese & Castiglioni, 1947, Anzótégui, 1971, and Del Pero de Martínez, 1972).

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