

## Lectotypification of names of Brazilian species of *Cryptocarya* (*Lauraceae*)

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In a forthcoming systematic treatment of Brazilian species of *Cryptocarya*, almost all known herbarium collections were examined, and as a result, eight validly published species names are recognized. Types are cited for accepted names and synonyms. Several lectotypes and an epitype are newly designated. One new combination is proposed.

**KEYWORDS:** Brazil, *Cryptocarya*, *Lauraceae*, nomenclature, taxonomy.

### INTRODUCTION

*Cryptocarya* R. Brown (1810) was originally circumscribed to include three species, of which Kostermans (1939) designated *C. glaucescens* R. Brown as lectotype. *Cryptocarya*, one of the largest pantropical genera in *Lauraceae*, is present in South America, South Africa, Madagascar, Asia, Australia and Oceania (van der Werff, 1992). The genus today includes about 350 spp. (Rohwer, 1993), with approximately 18 neotropical species, mostly in southern Brazil, but also known from Chile, Brazilian Amazon, Guyana, French Guyana, Bolivia, Andean Venezuela, Ecuador, Peru, and Costa Rica (van der Werff, 1991 and pers. comm.; P. L. R. Moraes, unpubl.).

This genus is still poorly understood taxonomically. According to Raj & van der Werff (1988), *Cryptocarya* of tribe Cryptocaryeae Meisn., subtribe Cryptocaryinae Kostermans (1957) is considered isolated among the Neotropical genera of *Lauraceae*. Based on pollen morphology (Raj & van der Werff, 1988; van der Merwe & al., 1990), Rohwer (1993) suggested that the genus might not be a natural group. Christophel & al. (1996), using leaf architecture and cuticular features of all species of leafy *Lauraceae* found in Australia, also pointed to the possibility that the genus, as now defined, is not natural and perhaps even polyphyletic. However, the tribe Cryptocaryeae Nees as circumscribed by van der Werff & Richter (1996), which includes such genera as *Beilschmiedia*, *Cryptocarya*, *Endiandra*, and *Potameia*, has been supported by recent studies with molecular data (Rohwer, 2000; Chanderbali & al., 2001). Wood and bark anatomy (Richter, 1981) also supports the circumscription of the *Beilschmiedia*-*Cryptocarya*-*Endiandra* clade, and a mature embryo sac protruding from the nucellus distinguishes five genera (*Beilschmiedia*, *Caryodaphnopsis*, *Cryptocarya*, *Endiandra*, *Potameia*) from the rest of the family (Heo & al., 1998).

According to Chanderbali & al. (2001), *Beilschmiedia* and *Cryptocarya* are the most widespread pantropical genera of *Lauraceae*. Molecular data have pointed out that these genera diverged from their most recent common ancestor about  $90 \pm 20$  Mya, indicating also a direct migration throughout Gondwana, and a widespread pre-drift distribution for both genera.

Nees von Esenbeck (1836) published the first general treatise (*Systema Laurinarum*) on all known *Lauraceae* at his time. He described 13 species under *Cryptocarya*, including only *C. moschata* Nees & Martius from Brazil.

Meissner (1864) elaborated a complete monograph of *Lauraceae*, accepting 37 species in *Cryptocarya*, of which four were new descriptions from Brazil: *Cryptocarya emarginata* Meisn., *C. mandioccana* Meisn., *C. micrantha* Meisn., and *C. riedelii* Meisn.. The same American *Cryptocarya* species were also described in *Flora Brasiliensis* (Meissner in Martius, 1866), comprehending six species: the preceding ones plus *C. guianensis* Meisn. and *C. moschata* Nees & Martius.

Mez (1889) published a classical monograph on American *Lauraceae*, adopting chiefly Bentham's (1880) classification of genera (Kostermans, 1952). In his specific circumscription, Mez recognized nine species of *Cryptocarya*: he accepted all species described by Meissner, except *C. dubia* Kunth ( $\equiv$  *Aiouea dubia* (Kunth) Mez; Andean species) and *C. emarginata* ( $\equiv$  *Beilschmiedia emarginata* (Meisn.) Mez), which were excluded. He described *C. aschersoniana* Mez and *C. saligna* Mez, and placed *Aydedron floribundum* Meisn. in the genus as *C. minima* Mez, which has been generally accepted. *Cryptocarya moschata* Nees & Martius was described in a broader sense, including the proposal of *C. moschata* forma *angustifolia* Mez. Mez later (1892, 1893, 1902, 1907) described five new Brazilian species: *Cryptocarya hypoleuca* Mez, *C. longistyla* Mez, *C. minutiflora* Mez, *C. schwackeana* Mez, and *C. subco-*