Phytotaxa 82 (1): 1–6 (2013)
www.mapress.com/phytotaxa/
Copyright © 2013 Magnolia Press

Article

ISSN 1179-3155 (print edition)
PHYTOTAXA
ISSN 1179-3163 (online edition)

http://dx.doi.org/10.11646/phytotaxa.82.1.1

Resurrection of *Dendropemon sintenisii* (Loranthaceae): an endemic mistletoe from Puerto Rico

MARCOS A. CARABALLO-ORTIZ[1, *] & TOMÁS A. CARLO[1, 2]

[1]*The Pennsylvania State University, Biology Department, 208 Mueller Laboratory, University Park, PA 16802, U.S.A.*
[2]*Intercollege Graduate Program in Ecology, The Pennsylvania State University, University Park, PA 16802, U.S.A.*
[*]*Corresponding author: mac587@psu.edu; marcoscaraballo@gmail.com*

On 25 November 1885 German botanist Paul Ernst Emil Sintenis collected a species of mistletoe in a coffee plantation in Aibonito, a municipality located in the central mountain range of Puerto Rico (*Sintenis 2856*, GOET). Ignatius Urban examined the specimen and name it *Dendropemon sintenisii* Krug & Urban (Urban 1897: 25) in honor of its collector. After its description *D. sintenisii* remained unknown in Puerto Rico and, although it was included in all major floristic treatments of the island, the species was a taxonomic ghost known only from the type specimen (Liogier 1985, Liogier & Martorell 2000, Axelrod 2011). No new specimens were labeled with the name in any herbarium since its original description and serious doubts existed among local botanists about its validity. This uncertainty resulted in the provisional placement of *D. sintenisii* under the synonymy of *D. caribaeus* Krug & Urban (Urban 1897: 27) in the recent monograph of *Dendropemon* by Kuijt (2011). This placement was justified because both the vegetative structures and infructescences of *D. sintenisii* share similarities with *D. caribaeus*, and the type specimen lacks flowers, which are key to confidently identify *Dendropemon* species (Kuijt 2011).

In this manuscript we show that *D. sintenisii* is a species with characters that set it apart from other *Dendropemon* species found in Puerto Rico and elsewhere. We show that *D. sintenisii* has been collected many times after its discovery, but that specimens in all herbaria have been universally misidentified. In fact, we have re-identified 40 specimens as *D. sintenisii* that were collected in Puerto Rico from 1913 to 2012 (cited below). We explain the basis of the taxonomic confusion and provide illustrations and fundamental information on the morphology, distribution and host plants of *D. sintenisii*. We also provide an updated key for the identification of the four species of *Dendropemon* found in Puerto Rico.

How to identify *Dendropemon sintenisii*

Until this date all voucher specimens of *D. sintenisii* have been misidentified as *D. bicolor, D. caribaeus* or *D. purpureus* (L.) Krug & Urban (1897: 26). Among these three taxa *D. sintenisii* is most commonly confused with *D. bicolor* (70% of the specimens we have re-determined). This is because both *D. sintenisii* and *D. bicolor* have ripe fruits that are red and black (Figures 1 & 2), while fruits of *D. caribaeus* and *D. purpureus* are all black. Nevertheless, there are multiple morphological characters that are consistently different and separate both species easily.

The young stems of *D. sintenisii* lack indumentum and are green (see panel A of Figure 1), while *D.bicolor* has young stems that are always covered with brown furfuraceous indumentum (see Figure 2 all panels). Also the leaf shape and texture is different in the two species, with *D. sintenisii* having coriaceous leaves that are nearly orbicular to broadly obovate and *D. bicolor* having chartaceous and broadly oblanceolate to obovate leaves (Figure 3). Additionally, the angles at which the monads (i.e., flowers) are disposed along the inflorescence are different in *D. sintenisii* and *D. bicolor.* In *D. sintenisii* the monads are almost parallel to the axis and tend to be evenly spaced along the inflorescence and the fruits are erect (Fig.

Accepted by M. Christenhusz: 29 Jan. 2013; published online in PDF: 22 Feb. 2013