Stigmaphyllon caatingicola (Malpighiaceae), a new species from Seasonally Dry Tropical Forests in Brazil

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Abstract

Stigmaphyllon caatingicola is described and illustrated. We also provide a distribution map, and comments on species distributions, conservation and taxonomy. This species is distinguished from Stigmaphyllon urenifolium by its deciduous leaves when flowering, lamina membranaceous, entire to apically trilobed, abaxially tomentose, with hairs deciduous in patches, one latero-anterior petal with reddish macula, sepals with darkish hairs, styles glabrous, stigma foliolate, and samaroid mericarps densely sericeous, with a dorsal wing horizontally orientated.

Key words: Caatinga, Malpighiales, Ryssopterys, Taxonomy

Introduction

Stigmaphyllon A.Juss. (1833: 37) comprises 112 species occurring worldwide within the tropics (Anderson 2011). Most species are woody vines with long-petioled, elliptical to cordate leaves, clusters of yellow flowers arranged in dichasia, and styles with lateral appendages at their apices (stigma foliolate). The fruit is a schizocarp that splits into three samaroid mericarps with large dorsal wings (Anderson 1997). The genus is currently divided into two subgenera, subg. Stigmaphyllon with 92 species restricted to the Neotropics, except for S. bannisterioioides (L.) C.E.Anderson (1992: 328) which reaches West Africa; and subg. Ryssopterys (A.Juss.) C.E.Anderson (2011: 76) with 20 species restricted to Southeast Asia and Oceania. Both subgenera were regarded as separate by different authors (Anderson 1997; Niedenzu 1928), but recent phylogenetic studies support their combination (Davis & Anderson 2010). Monographs for both groups were presented by Anderson (1997, 2011).

Stigmaphyllon is represented in Brazil by 46 species, occurring mostly along streams in the Amazon and Atlantic Forests (Anderson 1997; Mamede et al. 2014), with only a few species occurring in dry habitats, such as Caatinga (dryland) and Cerrado (neotropical savanna) vegetation (Mamede et al. 2014). Caatinga vegetation is included within the Seasonally Dry Tropical Forests Domain in South America (Santos et al. 2012), being a mosaic of thorn scrub and seasonally dry forests (Leal et al. 2005, Moro et al. 2014) and holding more than 2000 species of vascular plants, fishes, reptiles, amphibians, birds, and mammals. Endemism levels vary from 7% to 57% within these groups (Leal et al. 2005).
TABLE 1. Comparison of diagnostic morphological characters between S. caatingicola and S. urenifolium.

<table>
<thead>
<tr>
<th>Characters</th>
<th>S. caatingicola</th>
<th>S. urenifolium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apex of leaves</td>
<td>3-lobed to cordiform</td>
<td>5-lobed</td>
</tr>
<tr>
<td>Leaf persistence when flowering</td>
<td>Deciduous</td>
<td>Persistent</td>
</tr>
<tr>
<td>Persistence of leaf indumentum abaxially</td>
<td>Deciduous on patches</td>
<td>Persistent</td>
</tr>
<tr>
<td>Inflorescence type</td>
<td>Dichasia disposed on a thyse</td>
<td>Simple dichasia</td>
</tr>
<tr>
<td>Indumentum of inflorescence branches</td>
<td>Sericeous</td>
<td>Tomentose</td>
</tr>
<tr>
<td>Color of indumentum of inflorescence branches</td>
<td>Whitish</td>
<td>Ocher</td>
</tr>
<tr>
<td>Indumentum of styles</td>
<td>Glabrous</td>
<td>Pubescent</td>
</tr>
<tr>
<td>Apex of styles</td>
<td>Foliolate</td>
<td>Efoliolate</td>
</tr>
<tr>
<td>Indumentum of samaroid mericarps</td>
<td>Densely sericeous</td>
<td>Tomentose to glabrate</td>
</tr>
<tr>
<td>Angle of dorsal wing</td>
<td>$20^\circ$</td>
<td>$70^\circ$</td>
</tr>
</tbody>
</table>

Acknowledgements

We thank Klei Sousa for the drawings, Roy Funch for the English revision, and the curator and staff of HUEFS herbarium for support with herbarium collections. RFA and AMA were sponsored by FAPESB (DEB BOL0584/2013) and CNPq (Produtividade em Pesquisa, DEB 306992/2012-4) respectively. Fieldwork was also sponsored by CNPq REFLORA (DEB 563548/2010-0).

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