A new species of Deguelia (Leguminosae, Papilionoideae) from the Brazilian Amazon Basin

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Abstract

Deguelia decorticans, a new lianescent species of Leguminosae from the Brazilian Amazon, is here described and illustrated. The new species has flowers which resemble those of Deguelia duckeana and Deguelia rariflora and it might be closely related to them, probably forming a species complex. However, this new species can be easily distinguished by some morphological and reproductive characteristics.

Keywords: Amazon Basin, Neotropics, Deguelia, Leguminosae, new species, liana

Introduction

Deguelia Aublet (1775: 750) contains ca. 20 species of neotropical trees or scandent shrubs to lianas from the tribe Millettieae (Leguminosae, Papilionoideae). It is distributed from Panama to southeastern Brazil (São Paulo state), mostly in the Amazon Basin in forested habitats. Only one species occurs in the “Cerrado” domain, D. nitidula (Bentham 1860: 98) A. M. G. Azevedo & R. A. Camargo in Camargo & Tozzi (2014: 16), which has the widest distribution for the genus. Deguelia was first described for French Guiana (Aublet 1775) and later synonymized with Derris Loureiro (1790: 232) by Bentham (1860). Some species have been included in Lonchocarpus Kunth in Humboldt et al. (1824: 383) by some authors (Bentham 1839, 1860, 1862; Pittier 1917; Ducke 1925; Hermann 1947; Lemée 1952) or also in Derris (Bentham 1860, 1862; Macbride 1943; Ducke 1949), until the genus was reestablished (Geesink 1984). Tozzi (1989) studied the Brazilian Deguelia and described three new species (Tozzi 1994), whereas Sousa (2009) described a new species for Panama and Colombia. Recently, a synopsis of the Brazilian species was presented by Camargo & Tozzi (2014), with a key for the 15 recognized species.

The species of Deguelia can be distinguished from other neotropical Millettoid allies mainly by their pseudoracemose inflorescence whose secondary axes form brachyblasts with more than five flowers. Deguelia species vary in their habit (trees or lianas), number of leaflets (3–17) and fruit types (rarely elastic dehiscent, a few lately dehiscent with many seeds or more usually indehiscent, few seeded).

Here we describe a new Deguelia species, a scandent shrub collected in the Amazon Basin, first noticed during a visit to INPA herbarium for a generic revision.

Material & methods

Herbarium specimens from INPA (Manaus, Brazil) were examined locally and during a field trip, together with loans from HRCB (Rio Claro, Brazil) and available images from Reflora Virtual Herbarium (http://reflora.jbrj.gov.br/jabot/PrincipalUC/PrincipalUC.do). Morphological terms were based on Radford et al. (1974) and the terminology of the diagnosis was extracted from Stearn (1983). Flowers were rehydrated as usual and then glued on a stiff white paper and measured.
TABLE 1. Comparative morphology of Deguelia decorticans and its closely related species.

<table>
<thead>
<tr>
<th>Character/Species</th>
<th>Deguelia rariflora</th>
<th>Deguelia duckeana</th>
<th>Deguelia decorticans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bark</td>
<td>rugose</td>
<td>rugose</td>
<td>peeling off in layers</td>
</tr>
<tr>
<td>Stipels</td>
<td>absent</td>
<td>absent</td>
<td>present</td>
</tr>
<tr>
<td>Leaflet number</td>
<td>3–5</td>
<td>5–11</td>
<td>9–11</td>
</tr>
<tr>
<td>Leaflets</td>
<td>widely elliptic</td>
<td>elliptic</td>
<td>narrowly elliptic (rare elliptic)</td>
</tr>
<tr>
<td>Pedicel</td>
<td>0.1–0.2 cm</td>
<td>0.1–0.4 cm</td>
<td>0.8–1.3 cm</td>
</tr>
<tr>
<td>Bracts</td>
<td>ovate</td>
<td>ovate</td>
<td>lanceolate</td>
</tr>
<tr>
<td>Bracteoles</td>
<td>ovate</td>
<td>ovate</td>
<td>lanceolate</td>
</tr>
<tr>
<td>Standard (length)</td>
<td>0.8–0.9(–1) cm</td>
<td>0.9–1.1 cm</td>
<td>1–1.2 cm</td>
</tr>
<tr>
<td>Wings (length)</td>
<td>0.7–1 cm</td>
<td>0.8–1.1 cm</td>
<td>0.8–1.3 cm</td>
</tr>
<tr>
<td>Wings (shape)</td>
<td>elliptic-falcate</td>
<td>elliptic-falcate</td>
<td>oblong-spatulate</td>
</tr>
<tr>
<td>Legume</td>
<td>indehiscent</td>
<td>lately dehiscent</td>
<td>unknown</td>
</tr>
</tbody>
</table>

Acknowledgements

We are thankful to all herbarium curators that collaborated with loans of material, in special to Francisco José de Vasconcellos from INPA, that allowed the examination of material locally at INPA during two weeks and loaned some selected specimens. We also would like to thank CNPq, CAPES and PROCAD/Amazônia for the support and Samira Rolin for the illustration.

References


