A new species of Nastus Nees (Gramineae) from Sumba

by

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Summary

An illustrated description of Nastus reholttumianus S. Soenarko is presented and this new species is compared with N. rudimentifer Holtt., and N. obtusus Holtt.

When Holttum (1956) transferred the Malesian species of Oreiostachys Gamble to Nastus Nees, three species of Nastus were known from New Guinea. In 1967 he described four more species and Bor (1972) added one to these; thus there are now eight species endemic to New Guinea. Outside New Guinea there is one species; it occurs in Java.

In most of the Malesian Nastus the spikelets are more or less cylindrical, thus the fourth and the fifth glumes, lemma and palea are rounded at the back (except those in N. schlechteri (Pilger) Holtt., in which they are more or less 1-keeled), with usually prominent nerves; moreover the palea is bifid. A plant collected by Mr. Iboet from the island of Sumba (Indonesia) has characteristically small and laterally compressed spikelets, lightly 1-keeled glumes, lemma and palea, with prominent middle nerve and several (usually 6) faintly lateral nerves, and acuminate palea. These structures, together with the leaf size (up to 8 cm long and 14 mm wide) differentiate the Sumba plant from the other Malesian Nastus, and it is regarded here as a new species, N. reholttumianus. The near relatives of this new Nastus are N. rudimentifer Holtt., and N. obtusus Holtt. which have similar panicle with spreading branches and short-tipped lower glumes. However, this new species differs in several respects from the two latter; their characters are compared in the table below:

<table>
<thead>
<tr>
<th>characters</th>
<th>reholttumianus</th>
<th>rudimentifer</th>
<th>obtusus</th>
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</thead>
<tbody>
<tr>
<td>leaf-blade of flowering branch</td>
<td>4.5-8 cm long 7-14 mm wide</td>
<td>(8) 10-12 cm long 15-27 mm wide</td>
<td>12-15 cm long 12-15 mm wide</td>
</tr>
<tr>
<td>spikelet</td>
<td>± laterally compressed 5-7 mm long</td>
<td>± cylindrical 12 mm long</td>
<td>± cylindrical 13-20 mm long</td>
</tr>
<tr>
<td>rachilla extension</td>
<td>absent</td>
<td>present, sometimes absent</td>
<td>usually absent</td>
</tr>
<tr>
<td>lemma</td>
<td>6 mm long, glabrous</td>
<td>10 mm long, glabrous</td>
<td>14-17 mm long, with appressed hairs on the back</td>
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<tr>
<td>palea</td>
<td>acuminate</td>
<td>bifid</td>
<td>bifid</td>
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</tbody>
</table>

Nastus reholttumianus S. Soenarko, *sp. nov.*, N. rudimentifer Holtt. affinis sed spiculis 5 – 7 mm longis, latere compressis, lemmate 6 mm longo, lamina 8 longa differt. **Typus**: Sumba, Iboet 443 (holotypus, BO).
1. Nastus reholtumianus sp. nov. 1, flowering branches; 2, spikelet; 3–7, glumes I—V respectively; 8, lemma; 9, palea; 10, ovary; 11, lodicule; 12, spikelet after removing the glumes and lemma.
Culm not seen, upper part bearing flowering branches 3.5 mm diam., either solid or hollow, with annular woody ring below each node; branches glabrous, 3–8 in each node. Culm-sheath not seen. Flowering branch 11–22 cm long; leaf-blades 4.5–8 cm long, 7–14 mm wide, oblong-lanceolate, glabrous, acuminate, rounded at the base; leaf-sheath glabrous; ligule less than 1 mm long; auricle up to 1 mm long, fringed (fringe 1–2 mm long). Inflorescence open panicle with spreading branches, main axis and branches with minute appressed hairs. Spikelet more or less laterally compressed, up to 7 mm long, glabrous; glume I: 1.5 mm long, narrowly ovate, 1-keeled on the back, with mucronate apex; glume II: 2.5 mm ovate, slightly 1-keeled on the back, mucronate; glume III: 3.5 mm long, slightly 1-keeled on the back, ovate, faintly 6-nerved with conspicuous median nerve (and so are the median nerves of glumes I and II); glume IV: 5.5 mm long, ovate to ovate-oblong, boat-shaped, acuminate, 3 mm wide, faintly 7-nerved; glume V: more or less similar to glume IV, but slightly longer; lemma and palea more or less equal, 6 mm long, ovate-oblong, acuminate, boat-shaped to slightly compressed; lodicule 1 mm long with fringes; ovary stalked with conical fleshy apex, glabrous, the stalk often elongates up to 2 mm long; rachilla extension absent; stamens 6, anthers 2.5 mm long. (Fig. 1).


The author dedicates this new species to Prof. R. E. Holttum who has contributed so much to the knowledge of S. E. Asian bamboos, especially of Malaya and New Guinea, and has encouraged the author in studying Malesian bamboos. Thanks are due to Sdr. Damhuri (Herbarium Bogoriense) for preparing the figures.

References

