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A NEW SPECIES OF \textit{SCHIZOSTACHYUM} (POACEAE: BAMBUSOIDEAE) FROM SUMBA ISLAND, INDONESIA

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ABSTRACT


Key words: New species, \textit{Schizostachyum purpureum}, Sumba Island.

ABSTRAK


Kata kunci: Jenis baru, Pulau Sumba, \textit{Schizostachyum purpureum}.

INTRODUCTION

\textit{Schizostachyum} Nees is one of the native genus in Indonesia. Nees described the \textit{Schizostachyum} for the first time in 1829 based on one species, \textit{S. blumei} Nees ("blumii") (Dransfield, 1983; Yang et al., 2007). After that, many species have been described. There are 45 to 50 species of \textit{Schizostachyum} distributed from South China through South East Asia to the Pacific (Widjaja, 1997). According to Dransfield & Widjaja (1995), there are 30 species of \textit{Schizostachyum} in South East Asia, wild and cultivated mostly in lowland. It is suggested that there are ca. 24 species of \textit{Schizostachyum} found in Indonesia (Widjaja, 1997).

Widjaja & Karsono (2005) recognized 2 species of \textit{Schizostachyum} from Sumba Island. Recently, Damayanto found another species during his exploration to Sumba Island. Although without inflorescence, this species can be recognized easily by its equal and subequal branchings (no dominant middle branch), leaf blade with conspicuous auricle, few bristles on leaf sheath, and purplish shoot blades. Since it can not be matched with other known member of the genus, it is proposed as a new species of \textit{Schizostachyum}.

\textit{Schizostachyum purpureum} Damayanto & Widjaja, \textit{spec. nov.} — Fig. 1.

This species is similar to \textit{Schizostachyum bamban} Widjaja (Widjaja, 1997) by its truncated apex of culm sheath, inconspicuous culm sheath and leaf sheath auricles. It can be distinguished from \textit{Schizostachyum bamban} by its purplish green shoot; purplish, spreading and shorter culm sheath blade; serrat and glabrous leaf sheath ligules. — Type: Indonesia, East Sumba, TN Laiwangi-Wanggameti, Laiwangi area, along the road to Laputi Lake, 29 April 2016, Damayanto & Mahendra 143 [(Holotype BO! Accession No. BO–1935811! (culm sheath); BO–1935813! (shoot); BO–1935816! (leafy branch) ; K Isotype)].

Symposed, densely tufted bamboo. \textit{Shoot} purplish green with white hairs. \textit{Culms} erect with pendulous tips, 5–6 m high, 4–5 cm diameter, internode 50–65 cm, walls thin, green, covered by white to light brown hairs at the node and has circular white wax. \textit{Branch} complements subequal, develop about 2 m from ground. \textit{Culm sheaths} up to 14.6–23 × 17.2 cm, not easily fall; margin of culm sheath with white to light brown hairs up to 1 mm long; apex truncated; auricles inconspicuous, glabrous or sometime with few bristle (1–5 mm long) at the outer end; ligule serrat, 1–2 mm high and glabrous; sheath blades purplish, concave and spreading, narrowly triangular, 13–17 × 1.2–2 cm, white to light brown hairs on the abaxial side. \textit{Leaves} 21.5–26.6 × 3.5–4.0 cm, slightly pubescent beneath; leaf sheath auricle inconspicuous with few bristles 1–5 mm long; ligule serrat 1–1.5 mm high and glabrous. \textit{Inflorescences} not seen.

Distribution. This species is only known from the type locality in East Sumba, Lesser Sunda Islands.
**Habitat.** Primary forest and on the margin of the primary forest at 525 m alt.

**Vernacular Name.** *Au tamiang.*

**Uses.** This bamboo is used for making mat (*gedeg*) and flute (*seruling*).

**Notes.** The epithet *purpureum* is based on the purplish shoot blade which is uncommon in the genus *Schizostachyum*. The similarity of *S. purpureum* and *S. bamban* can be seen at Table 1. This species also differs from *S. castaneum* Widjaja (Widjaja, 1997) because the latter has green shoots with densely brown to chestnut-colored shoots hairs; erect, concave, ovate-oblong culm sheath blade; auricle of the culm sheath extend along to sheath apex up to the blade base, up to 2 mm high with bristles 4−11 mm long.

**Conservation Status.** So far, only 2 clumps of this species have been found, one in the primary forest is still growing although very badly, the other in the primary forest margin has been cut off and left only 5 culms. So, a further study on this bamboo species should be done to ascertain its conservation status.

**Specimens Examined.** Lesser Sunda Islands. Sumba Island: East Sumba, TN Laiwangi-Wanggameti, Laiwangi area, along the road to Laputi lake, *Damayanto & Mahendra* 143 (BO, K), 151 (BO).

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**REFERENCES**


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<th><em>S. purpureum</em></th>
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<th><em>S. castaneum</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Branching</td>
<td>Purlplish green with white hairs</td>
<td>Green with white hairs</td>
<td>Green with densely brown to chestnut-colored hairs</td>
</tr>
<tr>
<td>Culm high</td>
<td>Above 2 m from ground</td>
<td>Above 1.5 m from ground</td>
<td>Above 1.5 m from ground</td>
</tr>
<tr>
<td>Culm diameter</td>
<td>5−6 m high</td>
<td>Up to 10 m high</td>
<td>Green, covered by white to brownish scattered hairs</td>
</tr>
<tr>
<td>Culm sheath apex</td>
<td>4−5 cm</td>
<td>2−8 cm</td>
<td>Up to 15 m high</td>
</tr>
<tr>
<td>Culm sheath ligule</td>
<td>Truncated</td>
<td>Truncated to slightly recessed in the middle</td>
<td>Slightly recessed in the middle to truncated</td>
</tr>
<tr>
<td>Culm sheath blade</td>
<td>Inconspicuous, glabrous or sometimes with few bristle 1−5 mm long</td>
<td>Inconspicuous to rim-like with bristles up to 10 mm long</td>
<td>Extending along to sheath apex up to the blade base, up to 2 mm high with bristles 4−11 mm long</td>
</tr>
<tr>
<td>Culm sheath margin</td>
<td>Serrate 1−2 mm high, glabrous</td>
<td>Denticulate up to 1 mm high with bristles up to 3 mm long</td>
<td>Denticulate up to 1 mm high with bristles up to 1 mm long</td>
</tr>
<tr>
<td>Leaf blade</td>
<td>Purplish, spreading, concave, narrowly triangular, 13−17 × 1.2−2 cm</td>
<td>Erect, slightly concave, narrowly triangular, 12−26.5 × 1.5−2.5 cm</td>
<td>Green, erect, concave, ovate-oblong, 5−7 × 2.3−2.7 cm</td>
</tr>
<tr>
<td>Leaf sheath aurecles</td>
<td>White to light brown hairs up to 1 mm long</td>
<td>Glabrous</td>
<td>Hairy beneath</td>
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<tr>
<td>Leaf sheath ligule</td>
<td>Slightly pubescent beneath</td>
<td>Glabrous</td>
<td>Curved outward up to 1 mm high with bristles 7−9 mm long</td>
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<tr>
<td>Leaf sheath blade</td>
<td>Inconspicuous with few bristles 1−5 mm long</td>
<td>Inconspicuous with bristles up to 6 mm long</td>
<td>Entire up to 1 mm high, glabrous</td>
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Fig. 1. *Schizostachyum purpureum* Damayanto & Widjaja. A. Leafy branch. B. Shoot. C. Culm sheath, showing inconspicuous auricles. (Drawing by I Putu Gede P. Damayanto from *Damayanto & Mahendra 143* (BO)).

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