

**A NEW SPECIES OF RACEMOBAMBOS (GRAMINEÆ)  
FROM NEW GUINEA**

by R. E. HOLTUM

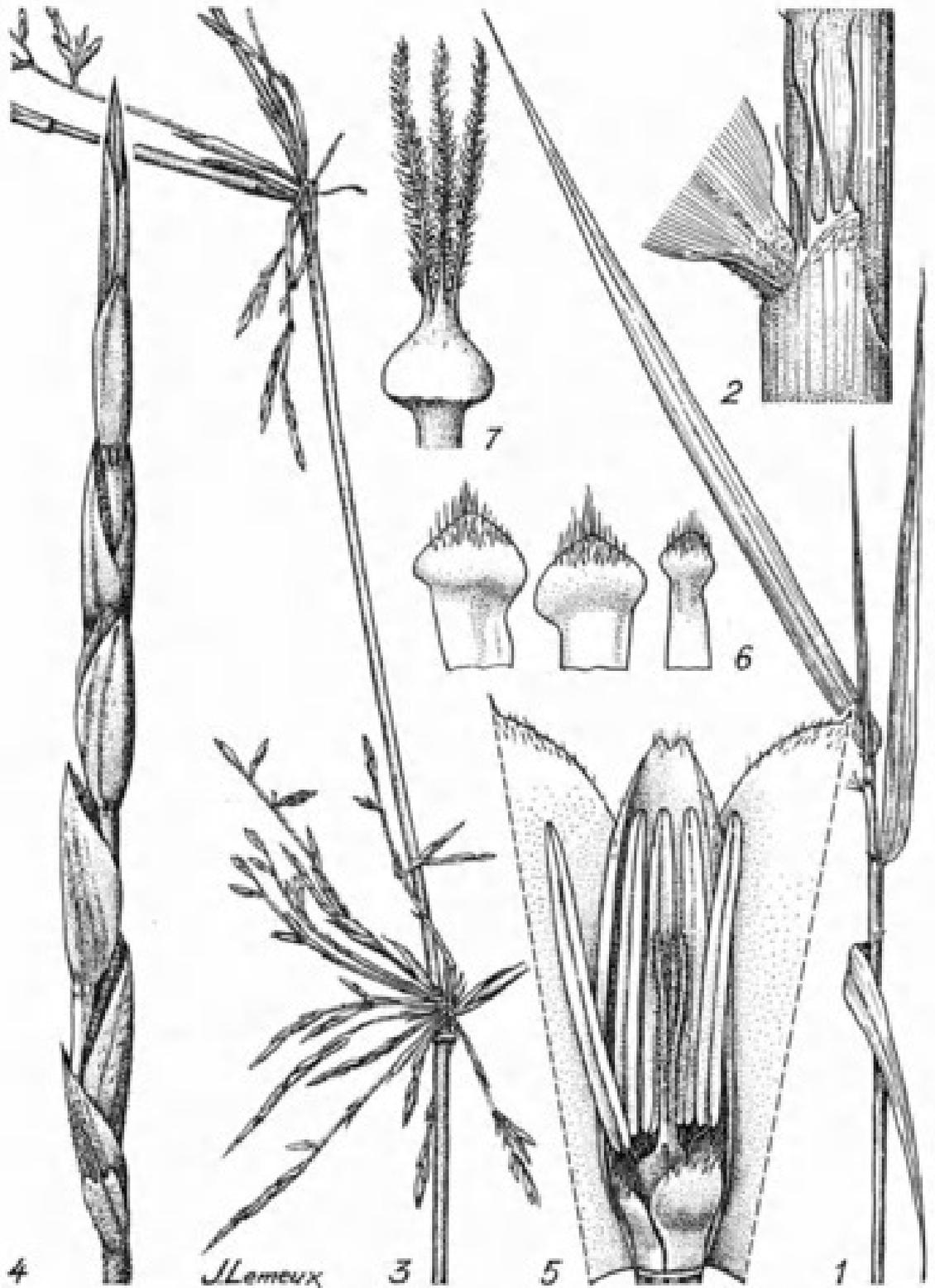
This genus (HOLTUM, 1956) was based on four species from Borneo and one from Malaya, with *Bambusa gibbsiae* Stapf as type. To these I added four species from New Guinea in 1967, and more recently another from Borneo (HOLTUM, 1973). All are slender bamboos of mountain forest, their main culms insufficiently strong for self-support, in habit like most species of *Nastus*, but with elongate *Arundinaria*-like spikelets; the structure of each floret in a spikelet of *Racemobambos* is identical with that of the single floret of *Nastus*, which can thus be regarded as a specialized development from the condition seen in *Racemobambos*.

The new species here described was found by J. RAYNAL during the King Leopold III Expedition to Irian Jaya (Western New Guinea) in 1973. It is only distinguishable from the other species of New Guinea by the structure of its spikelet (except that *R. multiramosa* is distinguished by rigid deflexed hairs on branch-internodes), and I know of no character by which flowerless plants of *Racemobambos* can be distinguished from *Nastus*. Plants of both genera are most commonly found in a flowerless condition, and there is no information about frequency of flowering. The most distinctive vegetative characters are to be found in the sheaths on new culms (see HOLTUM, 1967 : 279, fig. 2) but unfortunately young culms with good sheaths are often not available simultaneously with flowering material. These plants need more field study by persons who can make repeated visits to mountain forests. The new species is described briefly by stating the difference in its spikelets and flowers from the known species to which it appears to be most nearly allied (*R. hirta*, from similar altitudes in Eastern New Guinea) and a detailed description in English of such vegetative parts as are available.

***Racemobambos raynalii* Holttum, sp. nov.**

*R. hirtæ* Holttum (1967 : 283) affinis, differt : internodiis ramorum floriferorum omnino breviter hirsutis ; spiculis usque ad 4,5 cm longis, lemmatibus 5 mm longis, ad apicem abrupte contractum apiculo minuto præditis, dorso apicem versus tantum pilis paucis brevibus adpressis vestitis, carinis palearum omnino ciliatis, lodiculis apice pilosis.

TYPE : J. Raynal 17642, Irian Jaya, région du Mt. Carstensz, Tembagapura, forêt à Mousses escarpée, dans les environs de la station radio du Mile 64, alt. 2 600 m, abondant mais un seul pied fleuri, 8.5.1973 (holo-, P; iso-, BO, BR, K).



Pl. 1. — *Racemobambos raynaldi* Holttum : 1, apex of a leafy branch  $\times 2/3$ ; 2, base of leaf blade, showing auricle  $\times 6$ ; 3, distal part of a culm bearing short flowering branchlets at two nodes  $\times 2/3$ ; 4, spikelet  $\times 5$ ; 5, young floret enclosed by palea and lemma  $\times 10$ ; 6, lodicules  $\times 10$ ; 7, ovary and stigmas  $\times 20$ .

Slender scandent or trailing bamboos; largest culm-internodes seen c. 15 cm long, smooth, 6 mm diameter, walls c. 1 mm thick; several subequal leafy branches at each node; each branch c. 30 cm long, branch-internodes (where exposed) glabrous, apical leaves longest, to  $17 \times 0.8$  cm, sessile, glabrous apart from short hairs on upper surface near base and on edges and surface near apex, auricles not enlarged but bearing a few slender setæ 5-10 mm long, ligules short, entire; at some of the distal nodes there is one much larger elongate branch in addition to the subequal short ones, this longer branch with internodes c. 10 cm long and 2-2.5 mm diameter, bearing at its nodes c. 8-10 subequal leafy or flowering branches. *Flowering branches* c. 5-10 cm long, some very short linear fringed leaves present at their bases, leaves above the base mostly reduced to sheaths but 1-2 leaves with blades  $5 \times 0.3$  cm sometimes produced; each flowering branch bearing a few short lateral branchlets and up to c. 8 spikelets, all internodes covered with very short spreading whitish hairs; lateral spikelets almost sessile. *Spikelets* 3.5-4.5 cm long, consisting of 5-8 florets, the terminal one sometimes imperfect; basal empty glumes usually 2, lower one 4-5 mm long, narrowed gradually to an acute apex, its back bearing numerous very short slender appressed hairs, upper glume 5.5-6.5 mm long, shaped as lemmas with abruptly rounded and shortly apiculate apex and dorsal hairs near apex only; rhachilla-internodes 4 mm long, flattened distally, glabrous apart from very short hairs on edges of flat distal part; lemmas c. 5 mm long (lowest one sometimes to 6 mm) shaped as upper glume; paleæ c. 0.5 mm longer than lemmas, apex shortly bifid, keels and apex bearing short stiff hairs, some hairs also on infolded edges near apex, no veins between keels, 1-2 veins between keel and edge; lodicules 1-1.5 mm long, broadly pointed with short hairs near apices; anthers c. 3.5 mm long when mature; ovary almost or quite glabrous on its distal part, stigmas 2 mm long; partly developed fruit seen in some basal florets with apex of ovary enlarged to a broad dome-shape (as in *Nastus hooglandii*, in HOLTUM, 1967 : fig. 4, 5, 9).

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