

## Materials for a Monograph of *Freycinetia* Gaud. (Pandanaceae) XIII A New Species from Ternate Island, Moluccas<sup>1</sup>

BENJAMIN C. STONE<sup>2</sup>

AMONG THE RICH COLLECTIONS of Pandanaceae in the herbaria of Bogor (BO) and Leiden (L) are numerous specimens of *Freycinetia* collected in Ternate by V. M. A. Beguin. The greater part of these represent a species which had been given a new name in manuscript by C. A. Backer, but which he evidently never published; this name was based on the name of the island Ternate. Recently (Stone, 1970) I have described this as a new species, closely related to *Freycinetia insignis* Blume. Not all the specimens collected by Beguin are of this species, however, and the several mentioned here appear to represent a different species, not very close to *F. insignis* (which pertains to Sect. Blumella), but rather to *F. arborea* Gaud. and its nearest relatives, which together form Sect. Freycinetia. In this paper the name *Freycinetia leptostachya* is proposed for this interesting new endemic of Ternate.

*Freycinetia leptostachya* B. C. Stone, sp. nov.  
(Sect. Freycinetia)

Fig. 1

Liana robusta usque ad 25–35 m alta, caulibus ad 3–4 cm diametro radicibus aereis emittentibus, cortice griseo sparse aculeato; caulibus foliaceis ad 1 cm diametro; foliis trifarie spiraliterque dispositis, tenuibus, lentibus, ad 45–54 cm longis, 2–2.8 cm latis ad medium, oblonge angustaeque oblanceolatis apice acuminulatis, marginibus in basem et apicem extremam excepta, integris; apice per brevem spatiam ad margos costaque perminute spinuloso, spinulis 0.3 mm longis; basi supra auriculos per brevem spatiam ad margos minute spinuloso, spinulis 0.5 mm longis decurvulis; auriculis angustis attenuatis 7–8 cm longis 6–7 mm latis integris membranaceis striato-venosis. Inflorescentiae terminales plerumque quaternatae (vel cephalis 3

ad 5) subumbellatae, bracteis flavido-albis ad 19 cm longis, carnosio-coriaceis, integris acutis, interiores angustis profunde canaliculatis 8–11 cm longis, 5–9 mm latis, vel linearibus et trigonatis. Spadix mascula c. 12 cm longa, 5 mm lata, pallide flava, pedicello 1–2 cm longo, laeve, staminibus numerosis confertis, antheris subsessilibus 0.6–0.7 mm longis oblongis 4-lobatis obtusis exapiculatis, filamentis obsoletis usque ad 0.1 mm longis latisque. Pollinae granae laevia. Spadix foeminea anguste cylindrica in statu florifera c. 55 × 6 mm, ultime 10–12 cm longa et 1.5 cm lata (vel ultra?) pedicello ad 40 × 5 mm glabro, baccis numerosis truncatis breviter pileatis apice 1.2–1.7 mm lato non compressis stigmatibus plerumque 6–9. Semina . . .

HOLOTYPE: *Beguin 1423* (BO ♀ ! Isotype, L).

MATERIAL EXAMINED: MOLUCCAS. TERNATE ISLAND. N. Foramadiahi, ± 650 m alt., 20 Feb. 1921, *Beguin 1423* (BO holotypus, L isotypus; young pistillate spikes, one half-grown fruiting specimen); ± 550 m alt., 22 Jan. 1921, *Beguin 1370* (BO! L! staminate paratypes); 11 Feb. 1921, *Beguin 1411* (BO! ♂).

### Discussion

This new species is unquestionably a member of Sect. *Freycinetia* as redefined recently by the author (Stone, 1968). Thus its nearest relatives are *F. arborea* Gaud. of Hawaii, *F. wilderi* Martelli of Rarotonga, *F. rapensis* F. Brown of Rapa, *F. banksii* A. Cunn. of New Zealand, *F. baueriana* Endl. of Norfolk Island, and *F. longispica* Martelli of New Caledonia. Two other species of Melanesia, which have been tentatively assigned to this section, are much less similar; these are *F. percostata* Merr. & Perry and *F. laeta* Merr. & Perry, of New Guinea and the Solomon Islands.

That Ternate Island should possess an endemic species of this group is somewhat surprising, especially since it is so obviously close to the

<sup>1</sup> Manuscript received December 17, 1969.

<sup>2</sup> School of Biological Sciences, University of Malaya, Kuala Lumpur.

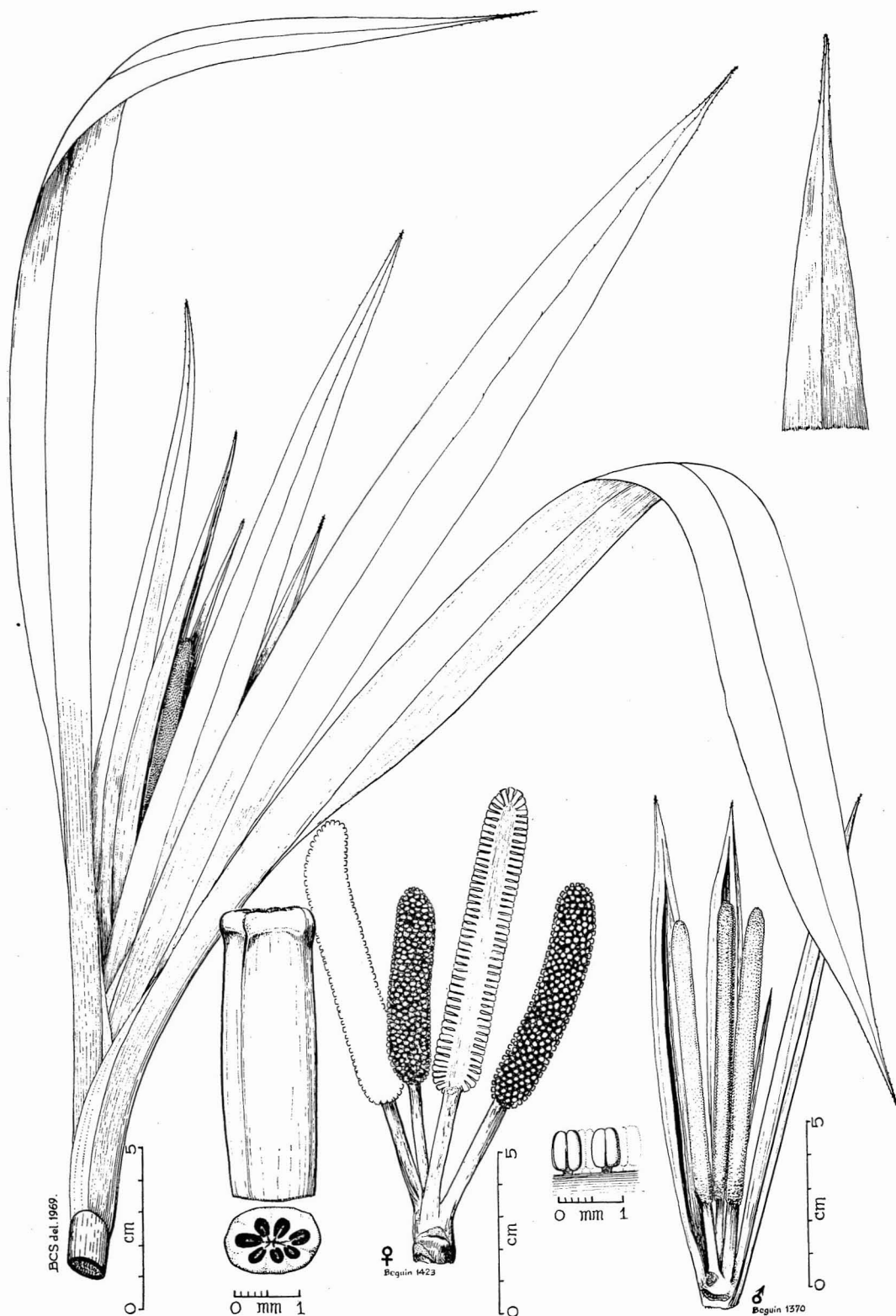


FIG. 1. *Freycinetia leptostachya* B. C. Stone, sp. nov.

typical species, *F. arborea*, and not very close to the two Melanesian species. The present new species seems to differ in its tetrastachyous inflorescences, smaller and fewer marginal and midrib leaf denticulations, more or less terete (not strongly compressed) berries, somewhat more acuminate leaf apices, and very short, nearly obsolete filaments. Perhaps also there is a somewhat smaller number of stigmas per berry. Unfortunately the seeds are too immature for study.

The other species of this genus known from Ternate, *F. backeri* Stone, differs markedly in many characters: broader, more rounded auricles with apical-marginal denticulations; leaf blades gradually attenuate, more rigidly coriaceous, more strongly denticulate; inflorescences mainly ternate; fruiting pedicels hispidulous near the apex; stamens with long filaments about 1 mm long; stigmas usually 2, 3, or 4 per berry.

Ternate thus appears to harbor two distinct endemic species of *Freycinetia*.

The name *leptostachya* was chosen to indicate the long slender spadices.

Thanks are due the curators of the Bogor and Leiden herbaria for their courtesy in making material available on loan.

#### LITERATURE CITED

- STONE, B. C. 1968. Materials for a monograph of *Freycinetia* Gaud. IV. Subdivision of the genus, with fifteen new sections. *Blumea*, vol. 16, no. 2, pp. 361–372.
- 1970. Materials for a monograph of *Freycinetia* Gaud. XII. Federation Museums' Journal (Malaya), n.s., vol. 13. In press.