causal organism is therefore identified as *C. dematium* as defined by von Arx[2] and Rajak[3].

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A 'POLLEN VARIETY' OF *IMPATIENS ACAULIS* ARN. (BALSAMINACEAE)

Impatiens acaulis Arn. is a scapigerous balsam endemic to peninsular India. It is found abundantly during the monsoon season on the hilly slopes, especially near the water falls in the high ranges of Western Ghats. In 1836, Arnott[1] first described *I. acaulis* from the specimens collected in the Malabar region. The salient feature of the species is the 2-partite wings which distinguishes it from its near relative, *I. scapiflora* Heyne, wherein the wings are 3-lobed.

A detailed palynological analysis of *I. acaulis* and *I. scapiflora* from nearly 70 herbarium specimens (obtained from BLATT, BSI, CAL, MH and Herbarium of the Presidency College, Madras, grateful acknowledgement is made to the authorities of these herbaria for the loan of specimens) and the study of over 17 fresh specimens collected from various localities in the Western Ghats led to the discovery of a new kind of exine sculpturing in the genus[2]. During the present taxonomic treatment of the South Indian *Impatiens*, it was thought desirable to erect a variety of *I. acaulis* based on its distinct pollen characteristics.

The key based on pollen characters distinguishes the pollen variety as follows :

Pollen 4-colpate, tetrangular, exine simple, reticulate, muri simplibaculate..... .....*I. acaulis* Arn. var. *acaulis*

Pollen 3-porate, radial, exine completely granulate.....*I. acaulis* Arn. var. *granulata*

Impatiens acaulis Arn. in *Hook. Comp. Bot. Mag.* 1 : 325, 1836, var. *granulata* Bhask., Razi and Yog. *var. nov.*

Pollen varietas nomen *I. acaulis* Arn., var. *granulata* etsi alae bini lobus ; pollen cum pori 3 et granulatus, hinc hic varietas abhorrens ab. *I. acaulis* var. *acaulis* ubi pollen 4 colpus et reticulatim.

Typus lectus a Charmadi Ghat (Chickmagalur Dist.), alt. *c.* 1600 m., 26 Aug. 1972, *V. Bhaskar* 312 positus in Herb. Mysore University, Manasagangotri, Mysore. Paratype : *Yoganarasihan* 1312 positus in Regional Research Centre, Bangalore

Scapigerous erect herbs, tuberous ; *leaves* radical, petiolate, 60–80 mm in length, ovate, cordate at base, margin crenate, pilose above, glabrous beneath, 5–7-nerved ; *inflorescence* racemose, 20–25 cm in length, peduncle pink-tinged ; *flowers* pedicellate, pedicel 25 mm in length, glabrous ; *bracts* ovate-lanceolate ; *sepals* ovate, apex rounded, 5-nerved (in Charmadi Ghat material) or 3-nerved and pigmented at apex (in Agumbe material) ; *spur* 2·5 cm long ; *wings* distinctly 2-lobed, the larger anterior lobe fin-shaped, 20 mm in length, the smaller posterior lobe bent to a side, 13 mm in length, venation dichotomous, but veins connected to each other at margin of the lobes ; *fruits* many-seeded, seeds minute, brown, hairy all over the surface, bands spiral.

$n = 9, 10$. Embryo sac monosporic, Polygonum type.

The description of the new variety is based on the fresh specimens collected by the senior author from Charmadi Ghat and Agumbe area. Herbarium specimens collected by W. A. Talbot from Karwar (N. Kanara) have also been examined. These, while showing the granulate condition of the exine, however, differ from the Charmadi specimens in having glabrous leaves, attenuate leaf bases and ovate, apiculate leaves thus resembling the specimens of *I. acaulis* var. *acaulis* from Udipi (S Kanara). The new variety of *I. acaulis* is very abundant on rocky slopes, especially near water falls and on old bridges throughout the Charmadi Ghat and on rocks in Agumbe where water percolates during the monsoon. It is generally associated with other *Impatiens* spp., and species of *Begonia, Sonerila, Utricularia* and some blue-green algae.

Huynh[3,4] has studied the pollen morphology of nearly 350 species of *Impatiens* of the world including some 47 species from South India. He described the pollen morphology of *I. acaulis* as 3-colpate and reticulate (based on a study of Wight's 308 and 310). The present pollen sampling of this species has, however, revealed that *I. acaulis* is normally 4-colpate reticulate and simplibaculate in the different populations from South India (Fig. 1) and only the populations from Karwar, Charmadi and Agumbe exhibit granulate nature (Fig. 2). As to the new kind of exine sculpturing recorded here, Huynh (personal communication) after examining the material referred to him by the authors has stated, "I have surveyed your pollen preparation. It is quite true that the pollen grains have reached their

full maturity. The granulate sculpturing of the pollen of your plant is most interesting. I have never seen such a triaperturate pollen on my *Impatiens* material. In my opinion, the plant would be another species or a microform of it". In view of the fact that the scapigerous groups of species

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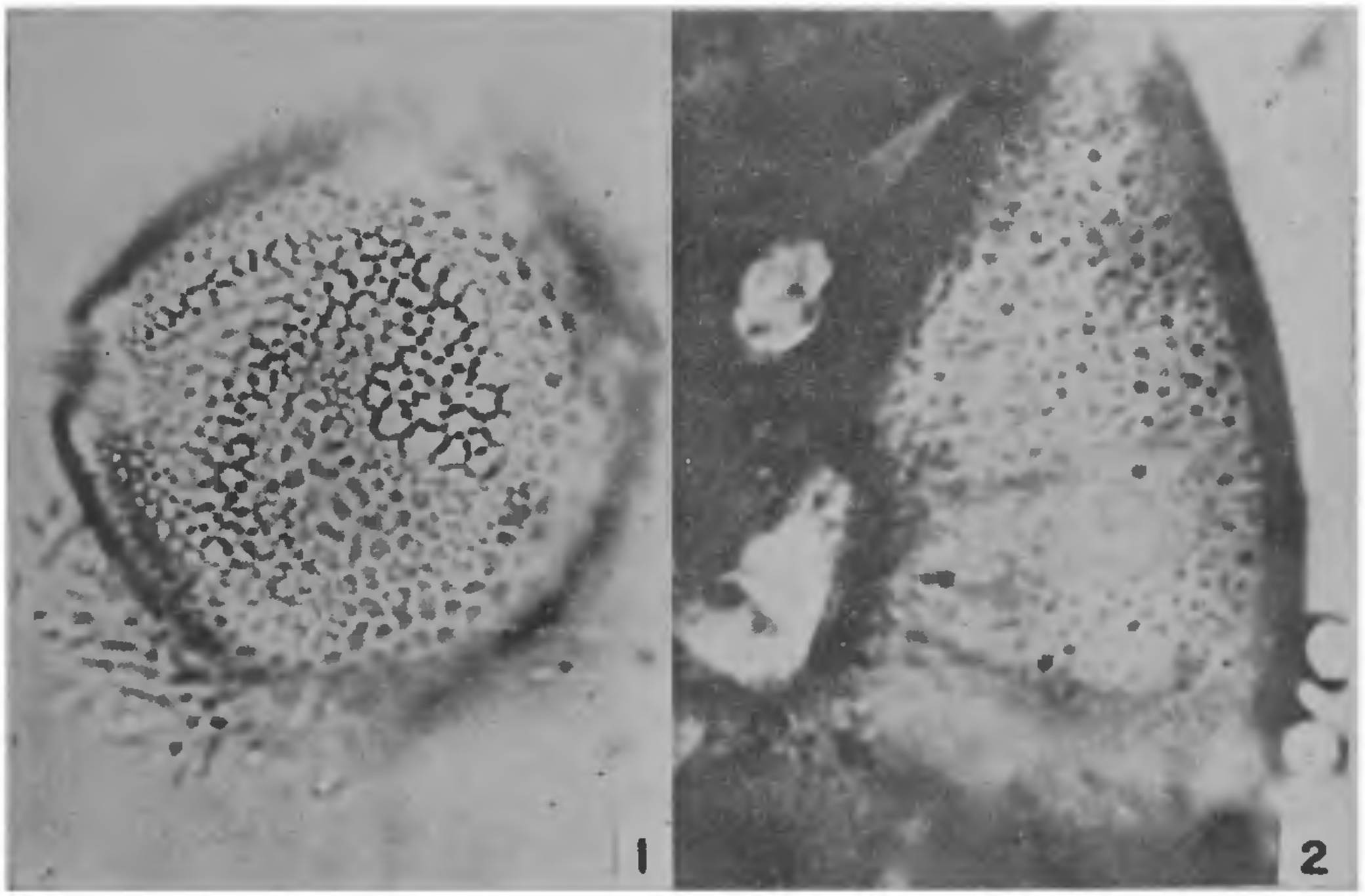

FIGS. 1–2. Fig. 1. Reticulate exine of *Impatiens acaulis* var. *acaulis* with simplibaculate muri (× 3,000). Fig. 2. Granulate exine of *I. acaulis* var. *granulata var. nov.* (× 3,750).

of *Impatiens* which are endemic to peninsular India are highly homogeneous and are distinguished hardly by one or two differences, and only the quantitative differences are very well pronounced rather than the qualitative features, it is felt that the granulate exine which is unique in the genus merits a varietal status for the taxon exhibiting it.

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COLLETOTRICHUM GLOEOSPORIOIDES PENZIG —A MYCOPARASITE ON *RAVENELIA SESSILIS* BERKELEY

A SURVEY of mycoparasites on the genus *Ravenelia* revealed parasitization of uredia and telia of *R. sessilis* Berk. on *Albizzia lebbek* by *Colletotrichum gloeosporioides* Penzig. *R. sessilis* is common in Uttar Pradesh (Butler and Bisby[1]) and our collection was in the vicinity of Varanasi. The mycoparasite infected rust pustules on the pods only, while sori on leaves remained uninfected. Only one other species of *Colletotrichum* parasitic on rust fungi has been reported earlier, *viz.*, *C. urediniphilum* Hulea on *Aecidium muscaridis* (Hulea[2]). Hence the present note, besides reporting a new rust mycoparasite, is also the first report of a *Colletotrichum* parasitizing *Ravenelia*. Observations on its isolation, pure culture, taxonomy and pathogenicity are presented here.

The pathogen was isolated from infected rust sori by the dilution plate method and maintained on