

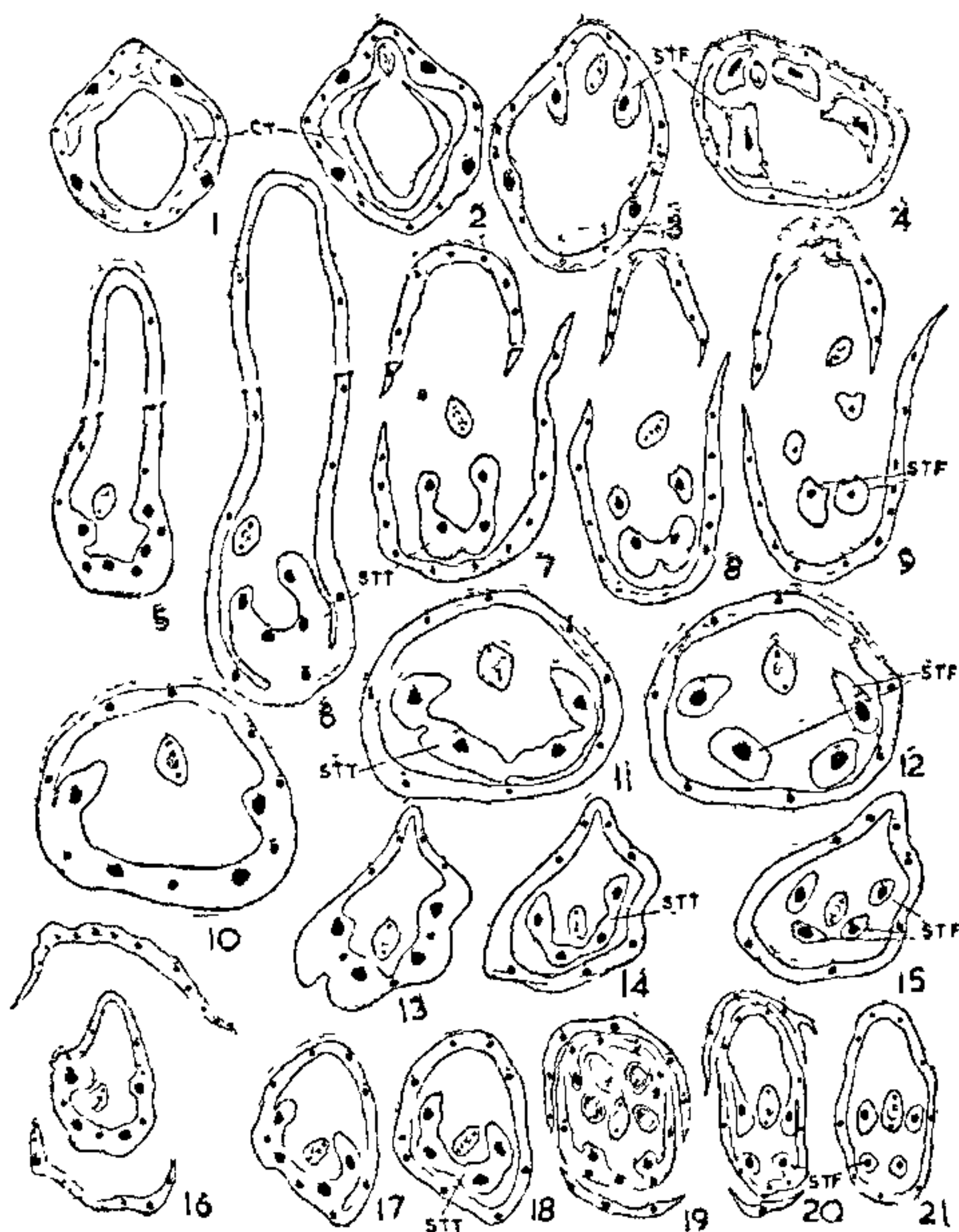
comparatively shorter (50–100 μ) than the two species of *Anisochilus* investigated. However, in another species of *Geniosporum* (*G. indicum*) the staminal filaments are quite free from the point of their origin (Figs. 19–21). Of the two species of *Coleus*, namely, *C. blumi* and *C. scutellarioides*, only the former shows monadelphous condition (Figs. 5–9) while the latter manifests a nonvascular tubular outgrowth developing in between corolla and androecium and the staminal filaments are free as in *Geniosporum indicum*. The coronary tube recorded in *C. scutellarioides* extends upwards and terminates below the place of emergence of stamens (Figs. 1–4). Thus from the present study, it is obvious that the union

Rendle (1959). In view of this observation it may now be considered that, this feature, may furnish additional support to the view that the family is more evolved among the Tubiflorae.

Grateful thanks are hereby expressed to the late Prof. C. Venkata Rao, for suggesting the problem, guidance and constant encouragement. My thanks are also due to the C.S.I.R., New Delhi, for the award of Junior Research Fellowship.

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FIGS. 1–21. Serial transverse sections of flower buds of *Coleus*, *Geniosporum*, and *Anisochilus*. Figs. 1–4. *Coleus scutellarioides* $\times 20$; Figs. 5–9. *Coleus blumii* $\times 20$; Figs. 10–12. *Geniosporum prostratum* $\times 40$; Figs. 13–15. *Anisochilus carnosus* $\times 35$; Figs. 16–18. *A. Polystachyus* $\times 35$; Figs. 19–21. *Geniosporum indicum* 19 $\times 32$, $\times 25$ (CT—Coronary tube; STF—Staminal filaments, STT—Staminal tube).

of the staminal filaments (monadelphous) is not confined to *Coleus* alone, but it also occurs in two more genera, namely, *Anisochilus* and *Geniosporum* though there is a marked variation in the extent of its development in the latter representatives. Monadelphous androecium, which represents a highly evolved condition (Bossey, 1915; Hutchinson, 1959), is not known in other families of Tubiflorae of

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**SOLHEIMIA KAMATI SP. NOV. (HYPHOMYCETE)
A NEW GENERIC RECORD TO INDIA**

RECENTLY, the senior author (KIM) collected a hyphomycetous fungus on the dead leaves of *Pandanus* sp. at Wynaad, N. Kerala, which agreed in all respects with a species of the form genus, *Solheimia* Morris. This form genus was established by Morris (1967)¹ for a monotypic phragmosporous, phaeostilbaceous member of Moniliales, with *S. costaspora* Morris as type, originally described from Panama Canal.

On critical study and comparison the collection proved to be significantly distinct from the type species, viz., *Solheimia costaspora* Morris in possessing much longer and double dichotomously branched conidiophores with smaller conidia. The present collection has therefore been identified as a new species, *Solheimia kamati* sp. nov. (Fig. 1).

Synnemata erecta, cylindracea, viridascentia vel viridonigra, usque ad 1 mm altitudine, usque ad 25–60 μ latitudine; conidiophora cylindrica, erecta, pallidae vel fusco-virides, verrucosae, 2–2.5 μ latitudine, aggregata, non-ramosa ad basin, ramosa et hyalina ad apicem; conidia acrogenis, solitaria, aseptata, cum 6–8 costis longitudinalibus, fusiformata, olivacea vel fuscoviridia, magnit 10–12 \times 2.5–3.5 μ , mucosa.

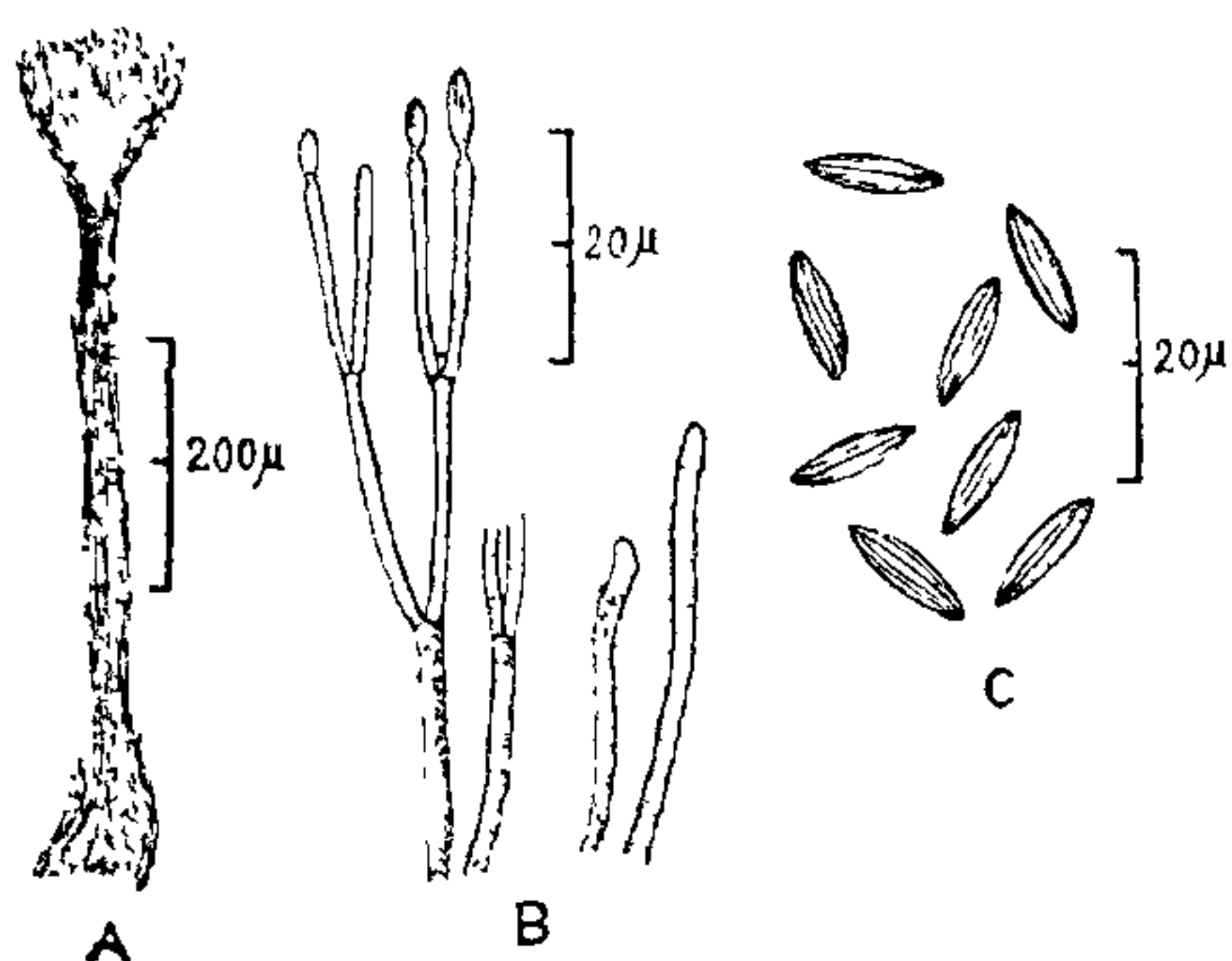


FIG. 1. *Solheimia kamatii* sp. nov. A. Synnemata; B. Conidiophores with conidia; C. Conidia.

Matrix: On dead leaves of *Pandanus* sp. (F. Pandanaceae) Legit. K.I.M.V. (20-1-1976) at Wynaad, Kerala, No. AMH 2869 (Holotypus).

The genus *Solheimia* reported here constitutes a new generic record and an addition to the Fungi of India². The specific epithet has been chosen in honour of Prof. M. N. Kamat for his well-known contributions to Indian Mycology and Plant Pathology.

The writers are grateful to Prof. M. N. Kamat for his keen interest, to the Director for laboratory facilities, and to the Ministry of Education, Govt. of India, for the award of S.R.T. to one of them (K. I. M. V.).

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CARPELLARY VASCULATURE AND THE OVULAR VASCULAR SUPPLY IN *UVARIOPSIS GLOBIFLORA* L. AND *MONOCYCLANTHUS VIGNEI* KEAY

VASCULARIZATION of the ovules by the carpellary dorsal bundle in two species of the Annonaceae, e.g., *Cananga odorata* H.f. and T. and *Sacconetatum tomentosum* H.f. and T., has been described. During the course of a study of the floral anatomy of the family, the present author has observed the same feature in two African species. Since such a type of vascularization is a rare feature, it may be worthwhile to put it on record.

The carpel in both the present plants, *Uvariopsis globiflora* L. and *Monocyclanthus vignei* Keay, is

open for a greater part of its length with only the margins appressed closely. In *U. globiflora*, the ovules are many in number and are two-seriate in a carpel. They arise a little distance away from the margin so that the placentation appears laminar. *M. vignei* shares these features, but the number of ovules is fewer, generally 6–8 per carpel.

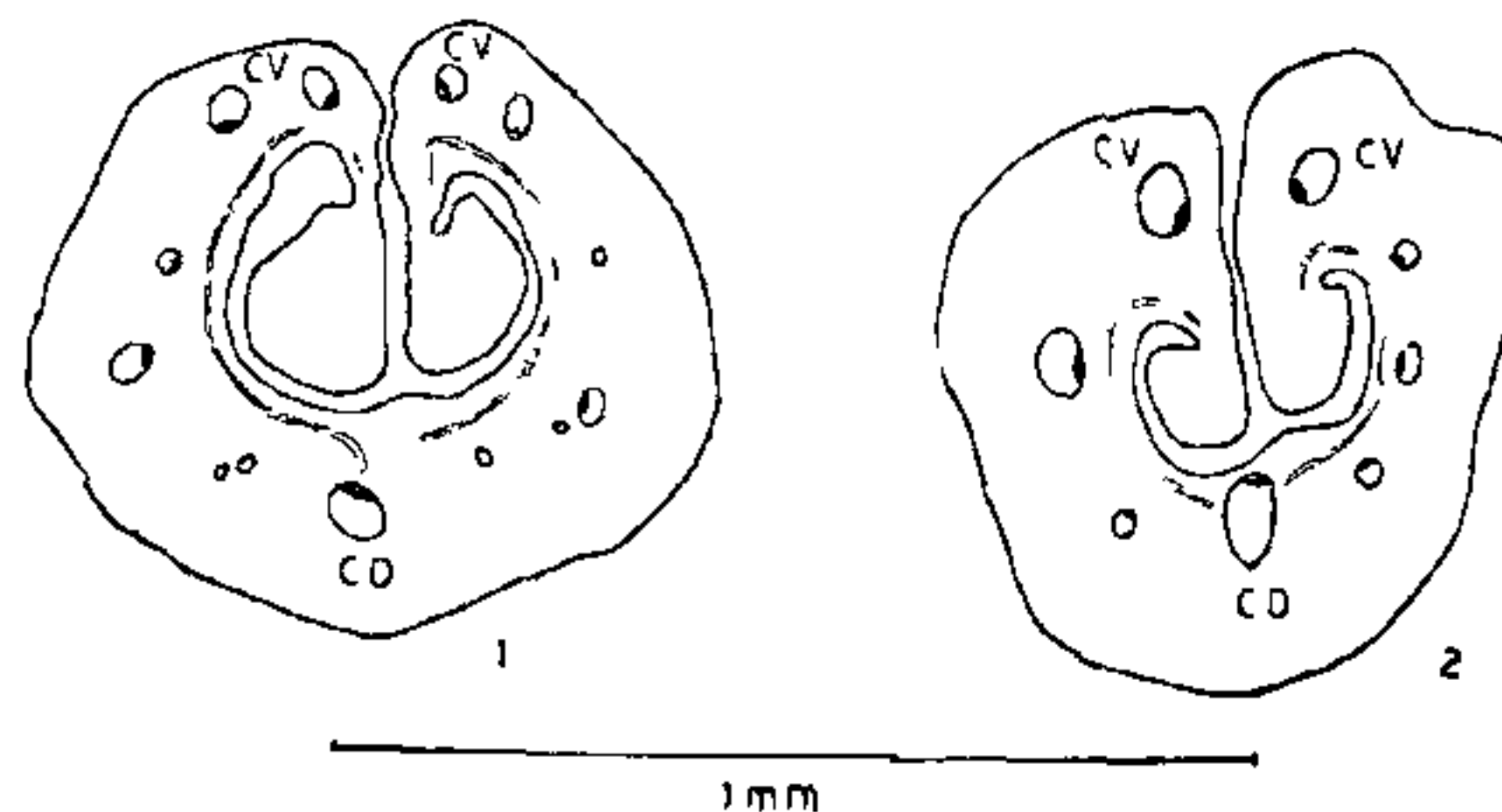


FIG. 1-2. Fig. 1. *Uvariopsis globiflora*. Fig. 2. *Monocyclanthus vignei*. CD, Carpellary dorsal; CV, Carpellary ventral.

In both these species, the carpels have five principal traces—a carpellary dorsal, two carpellary ventrals and two laterals. The latter generally bear a few lateral branches which establish as tiny strands in the carpellary wall, while each of the carpellary ventral bundles bifurcates sooner or later into two strands. The carpellary dorsal bundle bears branches on either side which travel in the carpellary wall towards the ventral side and then enter the ovules. These traces are procambial even in the mature carpel⁴.

Vascularization of the ovules by the carpellary dorsal bundle is a relatively primitive feature observed only in some of the ranalian taxa¹⁻⁶. In the Winteraceae and the Degeneriaceae, where the carpels show a number of primitive features, the ovules receive their vascular supply from both the carpellary dorsal and carpellary ventral bundles¹. The present observations are significant because the dorsal bundle alone is concerned with the vascular supply to the ovules in these annonaceous plants which otherwise show a number of advanced characters and also because this feature is of more common occurrence within the family as observed by Satrio⁵. They may also be taken as additional evidence in support of the conduplicate nature of the carpel.

The author is grateful to Dr. R. M. Pai for his guidance and comments, and Prof. K. B. Deshpande for facilities. She thanks Mr. A. A. Enti, Ghana, for the material of the two species studied.

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