

made in P.M.Cs. of the "narrow-leaf" plants revealed no meiotic abnormalities.

The female sterility and narrow-leaf character proved to be recessive and there was indication of a single gene control. It seems that the two characters are either controlled by a single pleiotropic gene or else by very closely linked genes. Further studies on the nature of the genetic control are underway.

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1. Bond, D. A., Drayner, J. M., Fyfe, J. L. and Toynbee-Clarke, G., *J. Agric. Sci.*, 1964, **63**, 229,
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HAUSTORIA IN *TAPHRINA* *MACULANS* BUTLER

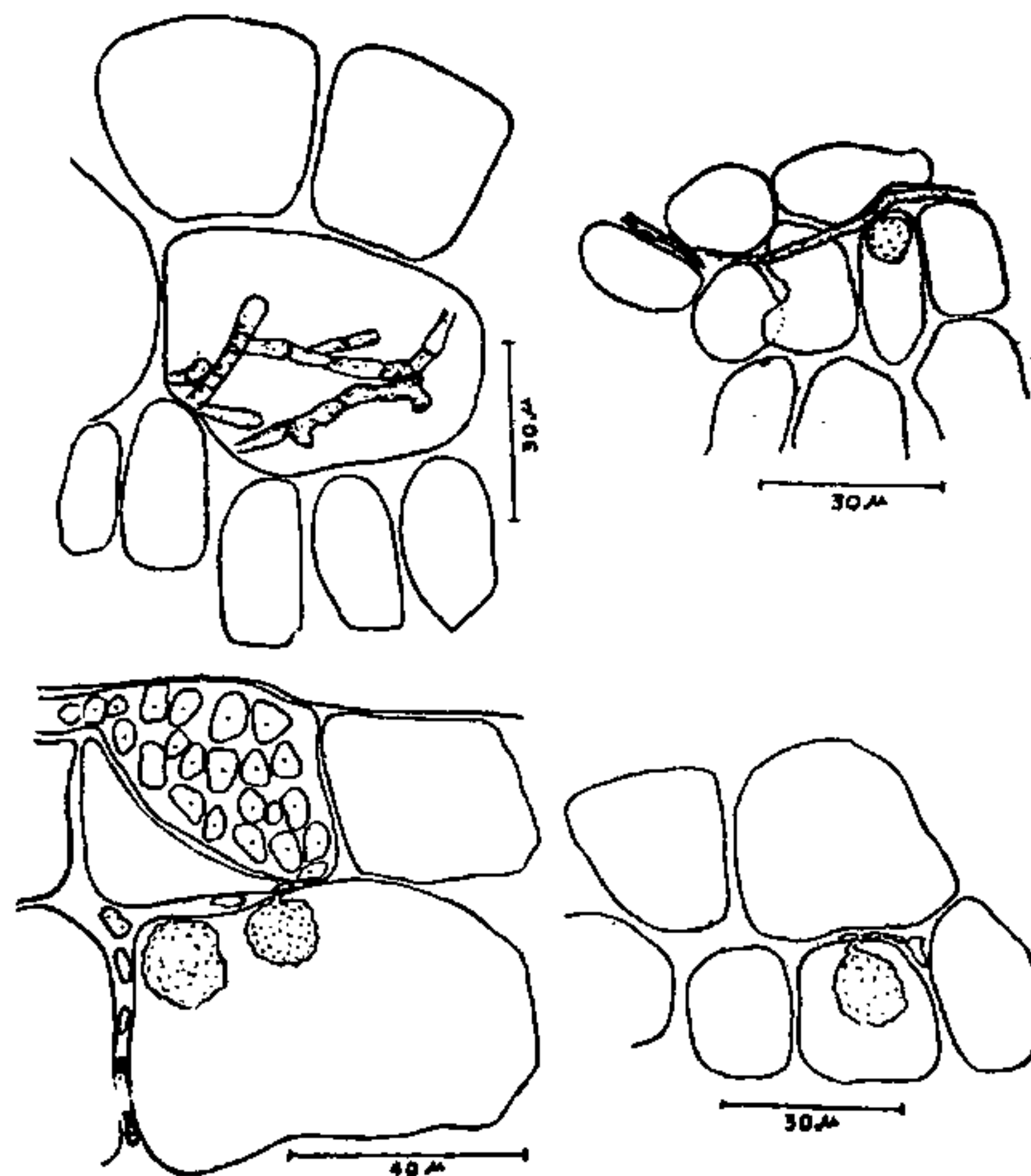
Taphrina maculans is a typically tropical species which has not received much attention till very recently since it was first described by Butler (1911).¹ The fungus infects leaves of *Curcuma longa* producing yellowish-brown blisters on both the surfaces of leaves.

Examination of sections revealed, in young stages of development, intercellular mycelium which is septate branched and uniformly dikaryotic (Fig. 2). The mycelium occasionally was found to become intracellular (Fig. 1).

The most striking feature of this parasitic mycelium on *C. longa* was the production of numerous, large, characteristic haustoria. These were found chiefly in the epidermal cells during the growing stage of the host. The haustoria were found to be equally numerous in the hypodermal cells. Such haustoria were first reported by Butler (1911)¹ in this fungus without any detailed account on their occurrence and structure. The haustoria were found to infect the epidermal, hypodermal as well as mesophyll cells (Figs. 3 and 4) but were more common in the first two regions. Vascular bundles were unaffected.

These haustoria arise from the intercellular hyphae, and consist of densely intertwined masses of hyphal strands arising through repeated divisions of the haustorial primordia ultimately assuming nearly solid globular structures giving a highly convoluted appearance (Figs. 3 and 4). The haustoria measure 8-14 μ in diam. Butler (1911)¹ has reported

the rare occurrence of similar haustoria in *Zingiber casumunar* infected by *T. maculans*. Production of haustoria has not been so far reported in any other species of *Taphrina*.



FIGS. 1-4. Fig. 1. Intracellular mycelium in a hypodermal cell. Fig. 2. Intercellular mycelium and a haustorium in mesophyll (spongy) tissue. Figs. 3-4. Haustoria in hypodermal and spongy parenchyma cells.

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1. Butler, E. J., "Leaf spot of turmeric (*Taphrina maculans* sp. nov.)," *Ann. Mycol.*, 1911, **9**, 36.

A NEW SPECIES OF *SONERILA* ROXB. (MELASTOMATACEAE)

Sonerila corneri Nayar sp. nov. Habitu similis *S. kinabaluensi* Stapf, sed foliis basi attenuatis, venulis transversalibus indistinctis, petiolis brevioribus differt (Fig. A.)

Herba erecta, 20-30 cm. alta. Caulis quadrangularis vel subquadrangularis, farinosus. Folia subaequalia, elliptica, 4-10 × 1-4.5 cm., basi attenuata, apice acuminata, margine remote serrulata, supra glabra, subtus parce farinosa vel glabra, chartacea; petiolus 5-10 mm. longus. Inflorescentia terminalis vel axillaris, 3-8 flores; pedunculus 2-2.5 cm. longus, glaber, rubescens. Calycis tubus campanulatus, 8-9 × 2-2.5 mm., glaber, -rube-

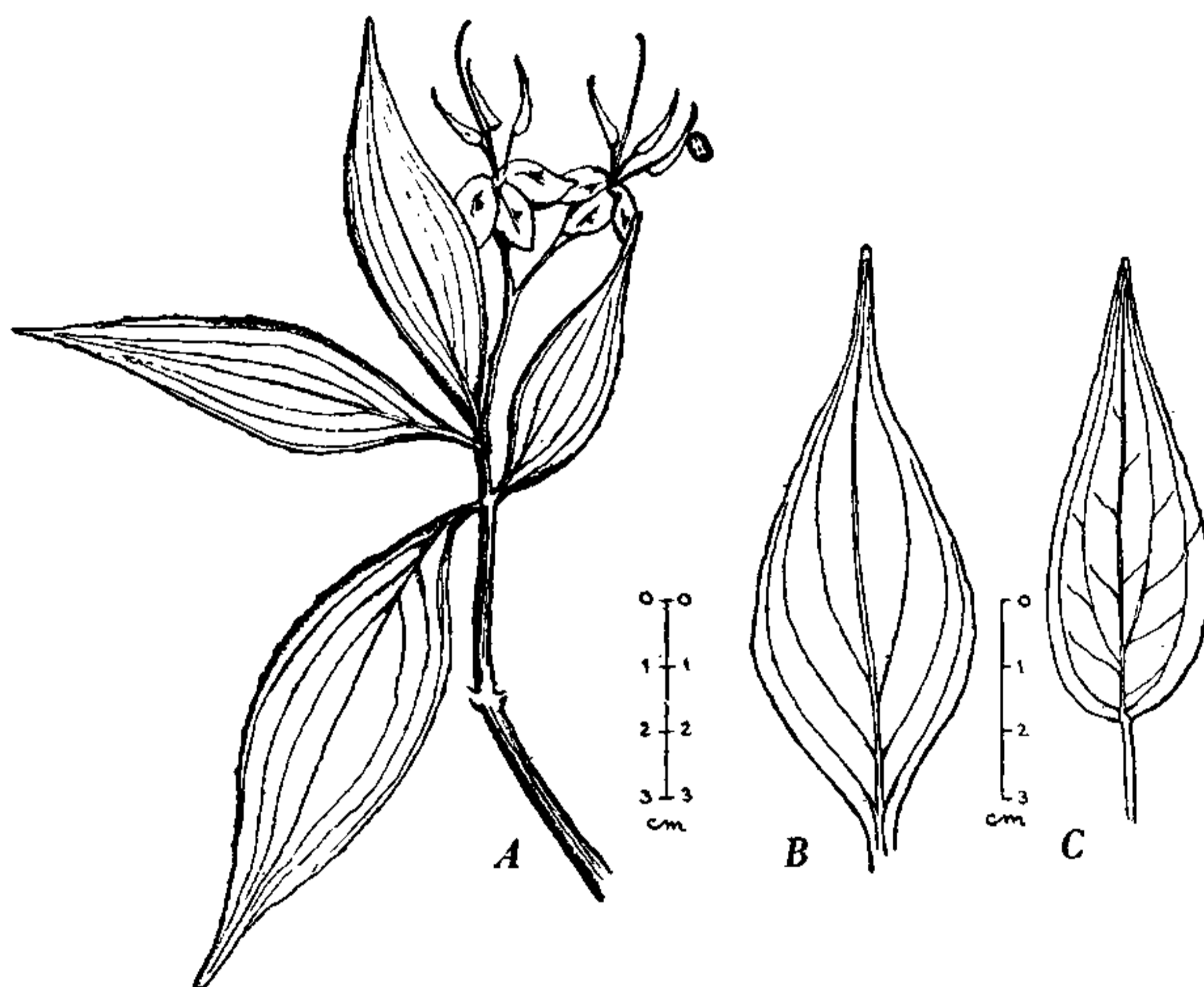
scens, 3-dentatus, dentibus triangularibus 1 mm. longis. *Petala* 3, ovato-elliptica, 10-12 × 4-5 mm., punicea (teste collectore). *Stamina* 3, filamentis 6-7 mm. longis, antheris lanceatis, 9 mm. longis, connectivo inappendiculato. *Ovarium* calycis tubo fere adhærens, 3-loculare; stylus filiformis, 12-13 mm. longus glaber, rubescens, stigmati punctiformi. *Capsula* 7-8 mm. longa, pedicellus 4-6 mm. longus. *Semina* minuta, cuneata, numerosa, 0.4-0.5 mm. longa.

Typus lectus a Chew, Corner et Stainton ad locum Mt. Kinabalu, altit. 1500 m. in Sabah, Borneo die 9 Junius 1961, et positus in Herb. Kew, Anglia, subnumero Chew, Corner et Stainton (R.S.N.B. No.) 1002:

style filiform, 12-13 mm. long, glabrous, becoming red, stigma punctiform. *Capsule* 7-8 mm. long, pedicel 4-6 mm. long. *Seeds* minute, cuneate, numerous, 0.4-0.5 mm. long.

Distribution.—Borneo: Sabah, Mt. Kinabalu, alt. 1500 m., 9 June 1961, Chew, Corner and Stainton (R.S.N.B. No.) 1002. (Holotype K.)

S. corneri Nayar is allied to *S. kinabaluensis* Stapf in the nature of habit. However in *S. corneri* the leaf is shortly petioled (0.5-1 cm. long), leaf-base is attenuate and the cross-venules are indistinct (Fig. B); Whereas in *S. kinabaluensis* the leaf is long petioled (1.5-3 cm. long), the leaf-base is truncate and the cross-venules are distinct (Fig. C).



FIGS. A-C. Fig. A. Habit of *Sonerila corneri* Nayar. Fig. B. Leaf of *Sonerila corneri* Nayar. Fig. C. Leaf of *Sonerila kinabaluensis* Stapf.

Herb erect, 20-30 cm. in height. *Stem* quadrangular or subquadrangular, farinose. *Leaves* subequal, elliptic, 4-10 × 1-4.5 cm., base attenuate, apex acuminate, margin distantly serrulate, upper surface glabrous, under surface sparsely farinose or glabrous, chartaceous; petiole 5-10 mm. long. *Inflorescence* terminal or axillary, 3-8 flowered; peduncle 2-2.5 cm. long, glabrous, becoming red. *Calyx* tube campanulate, 8-9 × 2-2.5 mm., glabrous, becoming red, 3-dentate, lobes triangular, 1 mm. long. *Petals* 3, ovate-elliptic, 10-12 × 4-5 mm., pink (ex collector). *Stamens* 3, filament 6-7 mm. long, anther lance-shaped, 9 mm. long, connective inappendiculate. *Ovary* nearly adnate to the calyx tube, 3-chambered;

This species is one of the attractive *Sonerilas* of Malaysia, since the flowers are with the petaloid peduncle, calyx and style, pink petals and yellow stamens. The species is named in honour of Prof. E. J. H. Corner, F.R.S., for the contributions he has rendered to the understanding of tropical flora.

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