

A NEW SPECIES OF *PEYRONELLAEA* GOID

GOIDANICH¹ created this genus in 1946 to accommodate some members of Sphaeropsidales which possessed ostiolate pycnidia like those of *Phoma* or *Phyllosticta* but their chlamydospores (Hypnocysts) resembled the dictyospores found in hyphal dematiaceæ such as *Alternaria* or *Coniothecium*, etc.

In March 1958 the authors observed a serious leafspot disease on the plants of *Eriobotryæ japonica* at Naini Agricultural Institute, Allahabad. The infection was mostly either marginal or from the tips and developed brown lesions on the leaf-blade. Occasionally few scattered spots were also observed. Isolations from most of the diseased regions yielded an *Alternaria*-like fungus in culture. About a month later few ostiolate pycnidia were also formed in those cultures. On account of this peculiarity the organism was sent to Commonwealth Mycological Institute, Kew, where it was identified to be a species of *Peyronellæa*. Detailed investigations established that cultures derived from single pycnidiospores produced dark brown pycnidia as well as multiseptate muriform chlamydospores, while the culture plants seeded with chlamydospores alone developed pycnidia also in 6-7 days. The development of pycnidia was considerably increased if maltose was one of the ingredients of the culture medium. A spray with spore suspension produced typical symptoms on the host in 4-6 days but the chlamydospores required about 10 days for causing the infection.

Morphological characters of this species were not in complete agreement with any of those Sphaeropsidales² which have been transferred to this genus or with any other species referable to genus *Peyronellæa*.^{3,4} Due to obvious differences in its habitat as well as in the size of chlamydospores, pycnidia and pycnidiospores, this species is described as *Peyronellæa*

nainiensis, sp. nov. having the following characters:

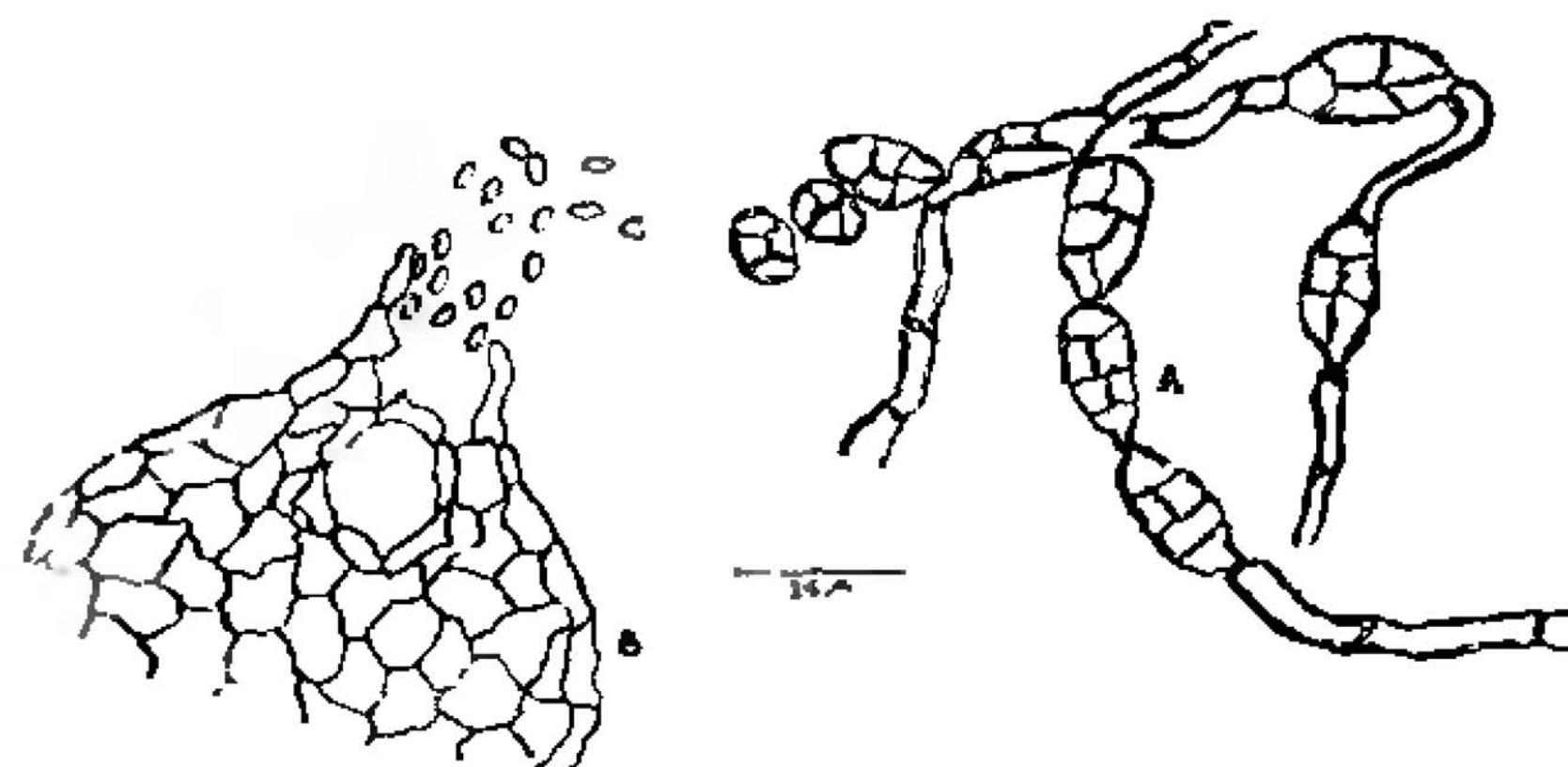


FIG. 1. *Peyronellaea nainiensis*. A. Chlamydospores ; B. A portion of pycnidium ; C. Spores.

Peyronellaea nainiensis, sp. nov.—Chlamydospores abundant, intercalary, usually in chains, variable in shape and size, light-brown, resemble the conidia of *Alternaria tenuis*. Number of septa varies from 1-6, usually three transverse septa and one or two longitudinal septa, $13-46.8 \times 9.1-16.9 \mu$. Pycnidia dark-brown or black, generally spherical or slightly oval, $80-135 \times 73-121 \mu$ prominently ostiolate, conidia numerous, hyaline, ellipsoidal $3.2-5.3 \times 1.9-2.6 \mu$.

Latin translation

Peyronellaea nainiensis spec. nov.—Chlamydosporæ abundantes, intercalares, vulgo catenatæ, formæ et magnitudinis variabilis, pallide brunneæ, similes conidiis *Alternariæ tenuis*. Septa numero variabili, 1-6, vulgo 3 transversa, unum vel duo longitudinalia, $13-46.8 \times 9.1-16.9 \mu$. Pycnidia fusce brunnea vel nigra, vulgo sphærica vel paulum ovalida, $80-135 \times 72-121 \mu$, eminenter ostiolata. Conidia plurima, hyalina et ellipsoidea, $3.2-5.3 \times 1.9-2.6 \mu$. In foliis *Eriobotryæ japonicæ*.

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Botany Department, R. N. TANDON.
Univ. of Allahabad (India), K. S. BILGRAMI.
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1. Goidanich, G., *R.C. Acad. Lincei.*, 1946, 3, 449.
2. —, *Ibid.*, 1946, 5, 654.
3. Lacoste, L., *C.R. Acad. Sci., Paris*, 1955, 13, 818.
4. Togliani, F., *Ann. Sper. Agr.*, N.S., 1952, 6, 81.



Figs. 1-3. Fig. 1. *Cinnamosma macrocarpa*. Part of the seedcoat showing rimate processes, $\times 160$. Fig. 2. *Cinnamosma madagascariensis*. Longisection of seed showing rimate seedcoat, $\times 52$. Fig. 3. *Cinnamosma madagascariensis*. A rimation process enlarged from Fig. 2, $\times 100$.