

disease during the fruiting period. This would necessitate further work to evaluate other aspects of its epiphytology and evolve adequate measures for its control.

II. A foliicolous species of *Synchytrium* was collected on the leaves of turnip (*Brassica rapa* L.) during a mycological survey tour at Darjeeling, West Bengal. The infection appeared as small hypophyllous, translucent, pale orange galls usually on the lower leaves. Infected leaves appeared dull due to pallor on the upper surface, although few of them were infected in a plant. No other host part was attacked and the loss in yield was apparently very insignificant. The infection was in scattered areas in the field and ranged between 5 to 10% by random count. Karling¹ in his extensive cross inoculation studies with *Synchytrium macrosporum* Karling found the fungus pathogenic on turnip also covering the latter within its host range. Morphology of the sorus galls and resting sporangia of our fungus broadly resembles the characters of *S. macrosporum*, to which it is referred tentatively. In that case, this constitutes the first record of its occurrence on this host in India.

Synchytrium macrosporum Karling in Sydowia, *Ann. Mycol.*, 1956, 10, 244.

Infection foliicolous, initially hypophyllous but amphigenous later in severe cases. Galls compositely monogallic, separate and scattered or crowded and confluent, mostly superficial, bright lavender red or often dark brown. Resting sporangia solitary, sometimes upto 5 in a gall, ovoid to ovate, 52.5 to 105 μ \times 37.5 to 95 μ or spherical 50 to 112.0 μ in diam. with a dark amber reddish-brown epispore 2.5 to 5 μ thick.

On living leaves of *Brassica rapa* L. at Darjeeling, W.B. on 10 October, 1963. Leg. S. L. Singh.

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ASSOCIATION OF PHOMA SP. WITH SORDARIA PAPILLOSA BAYES.

DURING a recent collection tour to Darjeeling the authors recorded severe leaf spots on *Talauma hodgsoni* Hook. f. and Thoms. The diseased leaves manifested light buff apical or marginal spots. Microscopic examination of the infected patches showed the presence of a species of *Phoma* as well as perithecia of an ascomycetous fungus. Isolations from the diseased leaves yielded a species of *Phoma* in culture. After about a month perithecia of *Sordaria papillosa* Bayes. were also developed in the same culture tubes.

In order to establish the relationship, in these two organisms, monoconidial and mono-ascospore cultures were raised and both the stages were found to be produced in a single culture tube.

Phoma stage is characterized by having the following morphological characters:

Mycelium light brown, richly branched, closely septate, 2.4–3.8 μ wide; pycnidia globose to sub-globose, light yellow, ostiolate, wall persistent, membranous, 42.2–92.4 μ (average 82.4 μ); conidia oval to slightly elongated, hyaline, 3.8–5.7 \times 2.4–3.2 μ (average 4.2–2.6 μ).

The culture was sent to C.M.I., Kew, but it could not be assigned to any of the existing species of *Phoma* so far. Species of *Phoma* and *Phyllosticta* have been found to be associated with several ascomycetous fungi including *Pleospora*,² *Mycosphærella*,⁷ *Venturia*,⁶ *Guignardia*,⁵ *Leptosphaeria*⁴ and *Pleosphaerulina*,¹ etc., but its association with *Sordaria papillosa* has been noted for the first time.

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