

Some additional records of follicolous fungi from North Central Tarai Forests of U.P.

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Abstract

The follicolous fungi was collected from Feb. 03-05, 2008 from Sirsa forest range of Shrawasti District. The authors collected twenty plant species, representing fourteen families, parasitized by sixteen fungi species. *Leptoxylum buteae* was found on *Butea frondosa* (Fabaceae), where as *Pseudocercospora nigricans* on *Cassia occidentalis* (Fabaceae); *Pseudocercospora* sp. on *Hetrofragma* sp (Boraginaceae) *Alternaria* on *Achyranthes aspera* (Amaranthaceae), *Syzygium* sp. (Myrtaceae) and *Corchorus olitoris* (Tiliaceae); *Corynespora* on *Lantana* in (Verbenaceae), *Croton roxburghii* (Euphorbiaceae), *Clerodendron* sp. (Verbenaceae); *Sirosporium lantanae* on *Lantana camera* (Verbenaceae); *Sirosporium* sp. on *Carica papaya* (Caricaceae); *Stenella tectonic* on *Tectona grandis* (Verbeaceae); *Stenella* sp. on *Eucalyptus lanculatus* (Myrtaceae); *Stenella greviae* on *Grewia elastica* (Tiliaceae); *Cercospora* sp. on *Galycosmis pentaphyla* (Rutaceae), *Corchorus olitorius* (Tiliaceae); *Meliola* sp. on *Streblus asper* (Moraceae); *Astrostromella* on *Litsea chinensis* (Lauraceae); *Acrodytis* sp. on *Tinspora malaverica* (Menispermaceae); *Passalora* sp on *Eopatarium cannabinum* (Asteraceae); *Oidium* sp on *Syzygium* sp. (Myrtaceae) and *Coccinia indica* (Cucurbitaceae).

Keywords:- Follicolous fungi, Ethnomedicine

Introduction

The leaves provide a very suitable habitat for the growth and development of fungal pathogens by providing ample surface area and nutrient supply. Such leaf inhabiting fungi are known as follicolous fungi and invaded area of the leaf appear as leaf spot or leaf lesions. Taxonomic studies of such fungal forms have been generally considered as only of academic interest, taxonomic treatment of a fungal organism is the first requirement for any studies concerning its biology. Correct identification of a fungus absolutely free from ambiguities is vital for its employment in applied disciplines. Infact without being equipped for ascertaining the correct identity of a fungul pathogen all studies concerning its phytopathological aspects would be misleading. The weed and forest plants serve

as reservoirs of leaf spot pathogens which on getting opportunity may spread to agriculture and horticulture plants keeping this in view the author surveyed the Sirsia forest range of Shrawasti District on February, 03-05, 2008.

Materials and Method

During collection, infected leaf samples were taken in separate polythene bags. Suitable amounts of suface scrapping and free hand cut sections were prepared from infected portions of the leaf samples. Slides were prepared in cotton-blue lactophenol mixture, slides were examined and *Camera lucida* drawings were made which seems to be new. Morphotaxonomic determinations of taxa were done with the help of current literature and resident expertise available. All the fungal taxon were identified after making microscopic preparations and later confirmed by Prof. Kamal, Emeritus Scientist (DST), DDU Gorakhpur University, Gorakhpur.

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Results and Discussion

The author surveyed the Sirsia forest range of Shrawasti District on Feb. 03-05, 2008 so as to collect the follicolous fungi. The authors collected twenty plant species, representing fourteen families, parasitized by sixteen fungi species. *Leptoxylum buteae* was found on *Butea frondosa* (Fabaceae), where as *Pseudocercospora nigricans* on *Cassia occidentalis* (Fabaceae); *Pseudocercospora* sp. on *Hetrofragma* sp (Boraginaceae) *Alternaria* on *Achyranthes aspera* (Amranthaceae), *Syzygium* sp. (Myrtaceae) and *Corchorus olitoris* (Tiliaceae); *Corynespora* on *Lantana* in (Verbenaceae), *Croton roxburghii* (Euphorbiaceae), *Clerodendron* sp. (Verbenaceae); *Sirosporium lantanae* on *Lantana camera* (Verbenaceae); *Sirosporium* sp. on *Carica papaya* (Caricaceae); *Stenella tectonic* on *Tectona grandis* (Verbeaceae); *Stenella* sp. on *Eucalyptus lanculatus* (Myrtaceae); *Stenella grewiae* on *Grewia elastica* (Tiliaceae); *Cercospora* sp. on *Glycosmis pentaphylla* (Rutaceae), *Corchorus olitorius* (Tiliaceae); *Meliola* sp. on *Streblus asper* (Moraceae); *Astrostromella* on *Litsea chinensis* (Lauraceae); *Acrodytis* sp. on *Tinospora malaverica* (Menispermaceae); *Passalora* sp. on *Eopatarium cannabinum* (Asteraceae); *Oidium* sp. on *Syzygium* sp. (Myrtaceae) and *Coccinia indica* (Cucurbitaceae).

The literature (Bilgrami *et al.*, 1981; 1991; Goos and Hosagoudar, 1998; Hosagoudar and Goos, 1990; Hosagoudar 1996; Hosagoudar *et al.*, 1997; Hosagoudar and Abraham 1998; Hosagoudar *et al.*, 2007; Jamaluddin *et al.*, 2004; Jana *et al.*, 2005; and Singh and Mall, 2007) reveals that all fungal taxon has not been reported from north central tarai forest of Uttar Pradesh.

The follicolous fungal pathogens interfere with the manufacturing rate of food and other valuable substances by damaging the photosynthetic elements of living leaves, bringing about qualitative and quantitative damage in the living tissue of the host in various ways. Several leaf spot pathogens

are known to produce toxins of the various kinds. When the leaf spots are numerous or large, there is a considerable reduction in the photosynthetic area of the leaf. Some times rapid defoliation occurs due to such infections. The productivity of the host plants is reduced. The weeds and forest plants serve as reservoir of leaf spot pathogens which may also spread to agriculture and horticultural plants. The destruction caused by these enemies of leaves is serious problem because they also cause degradation of quality of ethnomedicine present therein.

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