

Foliicolous Fungi From Bahraich U.P. (India)

Ajay kumar and T.P. Mall.

Postgraduate Department of Botany Kisan P.G. College, Bahraich- 271 801 (U.P.), India.

drtpmall@rediffmail.com

Abstract

The foliicolous fungi were collected from Bahraich during April to November, 2012. The authors collected eleven fungal genera with twenty species has been found on twenty five different angiospermic plant species which belong to twenty four genera of nineteen families.

Keywords: Foliicolous fungi, Bahraich, U.P.

1. Introduction

The leaves provide a very suitable habitat for the growth & development of fungal pathogen by providing ample surface area and nutrient supply. Such leaf inhabiting fungi are known as foliicolous and the invaded area of the leaf appears as leaf spot or leaf lesion. The weed and forest plants serve as reservoir of leaf spot pathogen which on getting opportunity may spread to agriculture & horticulture plants. Keeping it in view, the authors surveyed the locality of Bahraich during April to November, 2012.

2. Materials and methods

During collection, infected leaf samples were taken in separate polythene bags. Suitable amounts of surface scrapping and hand cut sections were prepared from infected portions of the leaf samples. Slides were prepared in cotton-blue lactophenol mixture & were examined. Camera lucida drawing were made and the morpho-taxonomic determination of taxa was done using available literature and with the help of resident's expertise available. All the fungal taxa were identified using microscopic preparation. Literature cited in the text has been provided with their wave links.

3. Results and discussion

The authors surveyed during April to November, 2012 in diversified habitats of Bahraich for the collection, study and documentation of the leaf spot microfungi infecting variety of the angiosperms has resulted in abundant gathering of the fungal specimens. The holotype of collections for allotment of accession number from HCIO is in process. Eleven fungal genera with twenty species has been found on twenty five different angiospermic plant species which belong to twenty four genera of nineteen families. The fungal species and their respective hosts are enumerated table.1

The perusal of the table reveals that *Meliola* sp. is found on 7 host plants whereas *Alternaria alternata*, *Alternaria tenuis* & *Alternaria* sp. on two hosts each *Alternaria tenuissima*, *Alterenaria* sp. nov., *Ascochyta mangiferae*, *Cercospora andographidis*, *Cercospora dolichii*, *Cercospora menispermae*, *Cercospora lagenariae*, *Cercospora zonata*, *Cercospora* sp., *Circinotrichum poonense*, *Corynespora cassicola*, *Curvularia trifolii* var. *galdioli*, *Erysiphae cichoraceus*, *Phoma sorghina*, *Stenella cassicae*, *Stenella litseae* on single host. It is being noticed that *Meliola* sp. is present on a large number of hosts probably for the first time. The study for species rank of the *Meliola* is in process and will be communicated later on.

The literature Bilgrami *et al.*, 1979, 1981, 1991; Carmichael *et al.*, 1980; Ellis 1971, 1976, 1997; Hosagaudar *et al.*, 1996, 2006; Jamaluddin *et al.*, 2004; Mukerji, *et al.*, 1974; Sarbhoy *et al.*, 1986, 1996; Singh and Mall, 2007; Verma *et al.*, 2008; reveals that the fungal taxa mentioned above are hitherto unexplored from

Bahraich. Hence are the new records for Indian micoflora from Bahraich.

Table.1 The fungal species and their respective hosts are enumerated

S.No	Name of the fungus	Name of the Host & family
1	<i>Alternaria alternata</i> (Fr.) Keissler	<ul style="list-style-type: none"> ▪ <i>Calotropis procera</i> R.Br. Madar, Aak (Asclepiadaceae) ▪ <i>Canna indica</i> Linn. Saka Siri, Indian shot, Bandera (Cannaceae)
2	<i>Alternaria tenuis</i> Nees.	<ul style="list-style-type: none"> ▪ <i>Cassia fistula</i> Linn. Amaltas, Golden shower tree (Caesalpinia-ceae) ▪ <i>Lagerstroemia indica</i> Linn. Sawni, Crape Myrtle (Lythraceae)
3	<i>Alternaria tenuissima</i> (Nees ex Fr.) Wiltshire	<i>Alocasia indica</i> Schott. Giant Taro, Elephant Ear Taro (Araceae)
4	<i>Alternaria</i> sp.	<i>Karachi palm</i> , Robis palm (Arecaceae) <i>Saccharum spontaneum</i> Linn. (Poaceae)
5	<i>Alterenaria</i> Nees. sp. nov.	<i>Anthocephalus cadamba</i> Miq. Cadamba (Rubiaceae)
6	<i>Ascochyta mangiferae</i> Batista	<i>Mangifera indica</i> Linn. Aam, Mango (Anacardiaceae)
7	<i>Cercospora andographidis</i> Thirumalachar & Govindu 1963.	<i>Andrographis peniculata</i> (Burm.f.) Wall ex Nees. Kalpnath. (Acanthaceae)
8	<i>Cercospora dolichii</i> Ell. & Ev.	<i>Dolichos lablab</i> Linn. Sem, Bean (Papilionaceae)
9	<i>Cercospora menispermae</i> Ellis & Holway.	<i>Menispermum cordifolia</i> Linn. (Menispermaceae)
10	<i>Cercospora lagenariae</i> Salam & Rao.	<i>Lagenaria vulgaris</i> Ser. Lauki, (Cucurbitaceae)
11	<i>Cercospora zonata</i> Wint.	<i>Vicia faba</i> Linn. Broad Bean, Bakla (Fabaceae)
12	<i>Cercospora</i> Fres. sp.	<i>Agave</i> Linn. Century Plant (Asparagaceae)
13	<i>Circinotrichum poonense</i> Pirozynski & Patil	<i>Dalbergie sissoo</i> Roxb. Sheesham, Sisu (Fabaceae)
14	<i>Corynespora cassicola</i> (Berk. & Curt) Wei.	<i>Salvia officinalis</i> Linn. (Lamiaceae)
15	<i>Curvularia trifolii</i> var. <i>galdioli</i> Parmelu & Luttrell.	<i>Gladiolus communis</i> Linn. (Iridaceae)
16	<i>Erysiphae cichoraceus</i> Scheld. L.	<i>Coccinia cordifolia</i> Linn. Kauwa Khari (Cucurbitaceae)
17	<i>Meliola</i> Fr. sp.	<ul style="list-style-type: none"> ▪ <i>Justicia brandegeana</i> Linn.(Acanthaceae) ▪ <i>Malava sylvestris</i> Linn. Zebra Mallow (Malvaceae) ▪ <i>Saccharum spontaneum</i> Linn. (Poaceae) ▪ <i>Lagerstroemia indica</i> Linn. Sawni, Crape Myrtle (Lythraceae) ▪ <i>Lagerstroemia floribunda</i> Linn. Blue Sawni, (Lythraceae) ▪ <i>Bombax ceiba</i> Linn. Cotton Tree, Semal (Malvaceae) ▪ <i>Dypsis lutescens</i> (H.Wendi). Beentje & J. Drenst Areca Palm (Arecaceae)
18	<i>Phoma sorghina</i> (Sacc.)	<i>Aloe vera</i> (L.) Burn.f. Ghritkumari (Xanthorrhoeaceae)
19	<i>Stenella cassicae</i> Abbasi & Shukla	<i>Cassia fistula</i> Linn. Amaltas, Golden shower tree (Caesalpinia-ceae)
20	<i>Stenella litseae</i> Singh & Mall	<i>Anthocephalus cadamba</i> Miq. Cadamba (Rubiaceae)

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5. References

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