

New host records of dematiaceous hyphomycetes from West Bengal, India

D. HALDAR AND J. B. RAY

Mycology Research Laboratory, Department of Botany, Presidency College, Kolkata 700073 and Dinabandhu Mahavidyalaya, Bongaon, North 24 Parganas, West Bengal

During the study of dematiaceous hyphomycetes (1993-1998), the following genera are studied and the hosts cited here are new to science of the respective hyphomycetes in relation to their habitats.

Key words : New hosts, dematiaceous hyphomycetes

INTRODUCTION

This paper deals with sixty six dematiaceous hyphomycetes and their respective hosts. Some workers have done their work on this group of fungi

viz : Bilgrami and Jamaluddin (1991), Chupp (1953), Deighton (1976, 1979), Ellis (1971, 1976), Mukherji and Bhasin (1986), Sarbhoy *et al.* (1977), Shivas (1995), and Subramanian (1983).

Dematiaceous hyphomycetes	New hosts	Locality with growing seasons
<i>Chlamydomyces palmarum</i> (Cooke)	<i>Physalis minima</i> L., (fam. Solanaceae).	Angrail, Bongaon, North 24 parganas, W. B. India. 16 October, 1995.
<i>Stemphylium botryosum</i> Wallr.	<i>Trianthema monogynum</i> L., (fam. Ficoideae).	Canning, South 24 Parganas, W. B. India. 20 August 1985.
<i>Stemphylium lycopersici</i> (Enjoji) Yamamoto.	<i>Lycopersicum esculentum</i> Mill., (fam. Solanaceae).	Dakshin Barasat, North 24 Parganas, W. B. India. 22 March, 1985.
<i>Pseudocercospora acalyphincola</i> (Petrak) Haldar & Ray. comb.nov.	<i>Acalypha hispida</i> Burm.f., (fam. Euphorbiaceae).	Subhasgram, South 24 Parganas, W. B. India. 30 April, 1998.
<i>Pseudocercospora anonae</i> Haldar & Roy. comb.nov.	<i>Anona squamosa</i> L., (fam Anonaceae).	Tangra Colony, North 24 Parganas, W. B. India. 1 November, 1995.
<i>Pseudocercospora calotropidis</i> (Ellis & Everhart) Haldar & Ray	<i>Calotropis procera</i> R. Br. (fam. Asclepiadaceae).	Gobindapur, South 24 Parganas, W. B. India. 30 January, 1998.
<i>Pseudocercospora cannabina</i> (Weakef.) Deighton.	<i>Cannabis sativa</i> L., (fam. Cannabinaceae).	Diamond Harbour, South 24 Parganas, W.B. India. 7 July, 1995.
<i>Pseudocercospora christellae</i> Haldar & Chattopadhyaya sp. nov.	<i>Christella dentata</i> (Forssk) Browney & Jermy. (fam. Thelypteridaceae).	Parmadan Reserve Forest, North 24 Parganas, W.B. India. 15 December, 1985.
<i>Pseudocercospora cleidionae</i> Haldar & Ray sp.nov.	<i>Cledion javanicum</i> Bl., (fam. Euphorbiaceae).	Jhargram, Midnapore, W. B. India. 24 February, 1985.

Dematiaceous hyphomycetes	New hosts	Locality with growing seasons
<i>Pseudocercospora fici</i> (Heald & Wolf) Halder, Ray & Chattopadhyaya comb. nov.	<i>Ficus elastica</i> Roxb., (fam. Moraceae).	Adisaptagram, Hooghly, W. B. India. 4 March, 1985.
<i>Pseudocercospora killingiae</i> (Ellis & Everhart) Yen.	<i>Excoecaria agallocha</i> L., (fam. Euphorbiaceae).	Bakkhali, North 24 Parganas, W. B. India. 23 February, 1985.
<i>Pseudocercospora leguminum</i> (Chupp & Linder) Deighton.	<i>Clitoria ternatea</i> L., (fam. Fabaceae).	Mallikpur, South 24 Parganas, W. B. India. 30 January, 1998.
<i>Pseudocercospora sonchi</i> Halder	<i>Sonchus asper</i> Vill., (fam. Asteraceae).	Kannamadhampur, North 24 Parganas, W. B. India. 25 March, 1985.
<i>Pseudocercospora subsessilis</i> (H. & P. Syd) Deighton.	<i>Melia azedarach</i> L., (fam. Meliaceae).	Kalyani, Nadia, W. B. India. 20 April, 1998.
<i>Pseudocercospora transvaalensis</i> (H. Syd) Deighton.	<i>Acalypha indica</i> L., (fam. Euphorbiaceae).	Basirhat, South 24 Parganas, W. B. India. 26 July, 1986.
<i>Pseudocercospora trematicola</i> (J. M. & Yen) Deighton.	<i>Trema orientales</i> Bl., (fam. Ulmaceae).	Beharampur, Murshidabad, W. B. India. 2 February, 1996.
<i>Cercospora millettiae</i> Halder & Ray sp. nov.	<i>Mellettia</i> sp. (fam. Fabaceae).	Parmadan Reserve Forest, North 24 Parganas, W. B. India. 8 February, 1998.
<i>Periconiella glochidionae</i> Halder, Chattopadhyay & Ray sp. nov.	<i>Glochidion multiloculare</i> var <i>subsessile</i> Muell. Arg., (fam. Euphorbiaceae).	Jhargram, Midnapore, W. B. India. 24 February, 1985.
<i>Periconiella musae</i> M. B. Ellis.	<i>Musa</i> sp. (fam. Musaceae).	North 24 Parganas, W. B. India. 24 July, 1985.
<i>Periconilla tecomae</i> Halder & Ray sp. nov.	<i>Tecoma stans</i> L., (fam. Bignoniaceae).	Gobindapur, South 24 Parganas, W. B. India. 3 April, 1986.
<i>Veronaea musae</i> M. B. Ellis.	<i>Musa</i> sp. (fam. Musaceae).	Majergram, North 24 Parganas, W. B. India. 24 July, 1985.
<i>Cercospora abelomoschi</i> Ellis & Everhart.	<i>Hibiscus radiatus</i> Wild., (fam. Malvaceae).	Agricultural Experimental Plot, Calcutta University, Baruipur, South 24 Parganas, W. B. India. 25 March, 1998.
<i>Cercospora abromae</i> Hunsford.	<i>Abroma angusta</i> L., (fam. Sterculiaceae).	Lakshi, Midnapore, W. B. India. 24 February, 1986.
<i>Cercospora achyranthina</i> Thirumalachar & Chupp.	<i>Achyranthus aspera</i> L., (fam. Amaranthaceae).	Bongaon, North 24 Parganas, W. B. India. 18 October, 1995.
<i>Cercospora adenostemmae</i> Togashi et. Katsuki.	<i>Adenostemma viscosum</i> Forst., (fam. Asteraceae).	Darjeeling, W. B. India. 29 September, 1995.
<i>Cercospora calendulae-officinalis</i> Halder, Chattopadhyay and Ray, sp. nov.	<i>Calendula officinalis</i> L., (fam. Asteraceae).	Agricultural Experimental Plot, Calcutta University, Baruipur, South 24 Parganas, W. B. India. 25 March, 1998.

Dematiaceous hyphomycetes	New hosts	Locality with growing seasons
<i>Cercospora canescens</i> Ellis & Martin.	<i>Vigna Catjang</i> Endl., (fam. Fabaceae).	Mallickpur, North 24 Parganas, W. B. India. 30 January, 1998.
<i>Cercospora carthami</i> (H. & P. Syd) Sundararaman & Ramkrishnan, comb. nov.	<i>Carthamus tinctorius</i> L., (fam. Asteraceae).	Murshibadbad, W. B. India. 25 December, 1996.
<i>Cercospora charchatensis</i> Haldar, Chattopadhyay & Ray. sp. nov.	<i>Echinops</i> sp. (fam. Asteraceae).	Charchat, North 24 Parganas, W. B. India. 25 March, 1986.
<i>Cercospora crassa</i> var <i>sonchi</i> Woronichin Monit.	<i>Sonchus asper</i> Vill., (fam. Asteraceae).	The Horticultural Society, Alipur Road, Kolkata, W. B. India. 1 April, 1998.
<i>Cercospora davisii</i> Ellis & Everhart.	<i>Melilotus alba</i> Lamk., (fam. Fabaceae).	Agricultural Experimental Plot, Calcutta University, Baruipur, South 24 Parganas, W. B. India. 25 March, 1998.
<i>Cercospora dolichi</i> Ellis & Everhart.	<i>Dolichos lablab</i> L., (fam. Fabaceae).	Agricultural Experimental Plot, Calcutta University, Baruipur, South 24 Parganas, W. B. India. 25 March, 1998.
<i>Cercospora dryopteridis</i> Haldar & Ray sp. nov.	<i>Dryopteris</i> sp. (fam. Dryopteridaceae).	Kalitala, North 24 Parganas, W. B. India. 29 July, 1986.
<i>Cercospora gerberae</i> Chupp & Viegas.	<i>Gerbera</i> sp. (fam. Asteraceae).	Madhyamgram, North 24 Parganas, W. B. India. 11 May, 1985.
<i>Cercospora helianthicola</i> Chupp & Viegas.	<i>Helianthus annuus</i> L., (fam. Asteraceae).	Bhabla, North 24 Parganas, W. B. India. 16 August, 1986.
<i>Cercospora ipomoeae</i> Winter.	<i>Ipomoea carnea</i> sp. <i>fistulosa</i> (Mart. Ex Chotsy) Austin., (fam. Convolvulaceae).	Denglapara, Jalpaiguri, W. B. India. 5 October, 1995.
<i>Cercospora malachrae</i> Heald & Wolf.	<i>Malachra capitata</i> L., (fam. Malvaceae).	Agricultural Experimental Plot, Calcutta University, Baruipur, South 24 Parganas, W. B. India. 25 March, 1998.
<i>Cercospora mikaniae</i> Ellis & Everhart.	<i>Mikania scandens</i> Willd., (fam. Asteraceae).	Murshidabad, W. B. India. 25 June, 1996.
<i>Cercospora momordicae</i> Mendoza.	<i>Momordica charantia</i> L., (fam. Cucurbitaceae).	Parmadan Reserve Forest, Bongaon, North 24 Parganas, W. B. India. 8 February, 1998.
<i>Cercospora oenanthes</i> Haldar, Ray & Chattopadhyaya.	<i>Oenanthes benghalensis</i> Benth., (fam. Apiaceae).	The Horticultural Society, Alipur Road, Kolkata, W. B. India. 1 April, 1998.
<i>Cercospora papayae</i> Hunsford.	<i>Carica papaya</i> L., (fam. Caricaceae).	Subasgram, South 24 Parganas, W. B. India. 30 January, 1998.

Dematiaceous hyphomycetes	New hosts	Locality with growing seasons
<i>Cercospora petuniae</i> (Saito) Muller and Chupp.	<i>Petunia hybrida</i> Vilm., (fam. Solanaceae).	Agricultural Experimental Plot, Calcutta University, Baruipur, South 24 Parganas, W. B. India. 30 January, 1998.
<i>Cercospora polygnorum</i> Cooke.	<i>Polygonum orientale</i> L., (fam. Polygonaceae).	The Horticultural Society, Alipore Road, Kolkata, W. B. India. 1 April, 1998.
<i>Cercospora profusa</i> H. & P. Syd.	<i>Acalypha hispida</i> Burm. f., (fam. Euphorbiaceae).	Subasgram, South 24 Parganas, W. B. India. 30 April, 1998.
<i>Cercospora rungiae</i> M. S. Patil.	<i>Rungia parviflora</i> Nees., (fam. Acanthaceae).	Gobindapur, South 24 Parganas, W. B. India. 1 April, 1998.
<i>Cercospora sagittariae</i> Ellis & Killerman.	<i>Sagittaria sagittifolia</i> L., (fam. Alismataceae).	Paikpara, Bongaon, North 24 Parganas, W. B. India. 19 January, 1986.
<i>Cercospora solani</i> de Thuemen.	<i>Solanum nigrum</i> L., (fam. Solanaceae).	Murshidabad, W. B. India. 25 June, June, 1996.
<i>Cercospora sphaeranthi</i> M. S. Patil.	<i>Sphaeranthus indicus</i> L., (fam. Asteraceae).	Lakshi, Midnapore, W. B. India. 24 February, 1986.
<i>Cercospora stereospermae</i> Halder, Chattopadhyay and Ray, sp. nov.	<i>Stereospermum suaveolens</i> DC., (fam. Bignoniaceae).	Parmadan Reserve Forest, Bongaon, North 24 Parganas, W. B. India. 26 December, 1997.
<i>Cercospora trapaeoli</i> Atkinson.	<i>Tropaeolum majus</i> L., (fam. Tropaeolaceae).	Gobindapur, North 24 Parganas, W. B. India. 3 April, 1986.
<i>Cercospora xanthi</i> Haldar, Ray and Chattopadhyay sp. nov.	<i>Xanthium strumarium</i> L., (fam. Asteraceae).	Mallikpur, South 24 Parganas, W. B. India. 30 January, 1998.
<i>Tandonella ziziphi</i> Prasad & Verma.	<i>Ziziphus jujuba</i> Lamk., (fam. Rhamnaceae).	Anjangerh, Nadia, W. B. India, 22 February, 1986.
<i>Mycovellosiella gmelinae</i> Haldar & Chattopadhyay sp. nov.	<i>Gmelina arborea</i> L., (fam. Verbenaceae).	Jhargram, Midnapore, W. B. India, 24 February, 1985.
<i>Mycovellosiella tragiae</i> Haldar & Ray sp. nov.	<i>Tragia involucrata</i> L., (fam. Euphorbiaceae).	Mandalpara, North 24 Parganas, W. B. India. 9 August, 1986.
<i>Stenella flacourtiiae</i> Haldar, Ray & Chattopadhaya.	<i>Flacourtia sepiaria</i> Roxb. (fam. Flacourtiaceae).	Parmadan Reserve Forest. North 24 Parganas, W. B. India. 15 December, 1985.
<i>Stenella jhargramensis</i> Haldar, Ray & Chattopadhaya.	<i>Glochidion multiloculare</i> var <i>subsessile</i> Muell. Arg., (fam. Euphorbiaceae).	Jhargram, Midnapore, W. B. India. 24 February, 1985.
<i>Stenella bauhiniae</i> Haldar & Ray sp. nov.	<i>Bauhinia vahlii</i> W & A., (fam Fabavae)	Jhargram, Midnapore, W. B. India. 24 February, 1985.
<i>Stenella malloti</i> Haldar, Ray & Chattopadhaya sp. nov.	<i>Mallotus philippinensis</i> Muell. Arg., (fam. Euphorbiaceae).	Parmadan Reserve Forest, North 24 Parganas, W. B. India. 15 December, 1985.

Dematiaceous hyphomycetes	New hosts	Locality with growing seasons
<i>Stenella sonneratae</i> Haldar & Ray sp. nov.	<i>Sonneratia apetala</i> Harm., (fam. Lythraceae).	Sundarban, South 24 Parganas, W. B. India. 11 February, 1985.
<i>Cladosporium gliricidiae</i> Haldar & Ray.	<i>Gliricida maculata</i> H. BK., (fam. Fabaceae).	Agricultural Experimental Plot, Calcutta University, Baruipur, South 24 Parganas, W. B. India. 30 January, 1998.
<i>Cladosporium pithecolobii</i> Haldar, Ray & Chattopadhyay sp. nov.	<i>Pithecolobium dulce</i> Benth., (fam. Fabaceae).	Mallickpur, South 24 Parganas, W. B. India. 1 April, 1998.
<i>Cladosporium viticis</i> Haldar & Ray sp. nov.	<i>Vitex negundo</i> L., (fam. Verbenaceae).	Dakshin Barasat, North 24 Parganas, W. B. India. 22 March, 1985.
<i>Periconia byssoides</i> Pers.	<i>Tiliacora recemosa</i> Colebr., (fam. Menispermaceae).	Monigram, North 24 Parganas, W. B. India, 29 February, 1987.
<i>Corynespora musae</i> . Haldar & Ray sp. nov.	<i>Musa</i> sp. (fam. Musaceae).	Lakshi, Midnapore, W. B. India. 25 February, 1986.
<i>Aternaria brassicae</i> (Berk.) Sacc.	<i>Brassica oleracea</i> L., (fam. Brassicaceae).	Parmadan Reserve Forest, North 24 Parganas, W. B. India. 8 February, 1998.
<i>Alternaria gomphrenae</i> .Togashi.	<i>Gomphrena globosa</i> L., (fam. Amaranthaceae).	Maniktala, Kolkata, W. B. India. 20 June, 1985.
<i>Curvularia geniculata</i> Tracy & Earle.	<i>Eichornia crassipes</i> Solms., (fam. Pontederiaceae).	Chapaberia, North 24 Parganas, W. B. India. 19 November, 1985.

ACKNOWLEDGEMENTS

We thank Dr. T. B. Jha, Professor and Head, Department of Botany, Presidency College, Kolkata and Dr. A. K. Das of the same department for extending support during the work. Authors also extend their sincere thanks to the Director, Central National Herbarium, Shibpur Botanical Garden, Howrah, India for the proper identification and verification of the host plants. Thanks are also due to the Director, International Mycological Institute, Kew, Surrey, England for the verification and identification of the fungal specimens.

REFERENCES

- Bilgrami, K. S. and Jamaluddin, S. (1991). *Fungi of India*. Today and Tomorrow's Printers & Publishers, New Delhi.
- Chupp, C. (1953). *A Monograph of the Fungus Genus Cercospora*. Ithaca, N. Y.
- Deighton, F. C. (1976). Studies on *Cercospora* and allied genera : VI. C. M. I. *Mycol. Pap.* **140** : 1-168.
- Deighton, F. C. (1979). Studies on *Cercospora* and allied genera : VII. C. M. I. *Mycol. Pap.* **144** : 1-55.
- Ellis, M. B. (1971). *Dematiaceous Hyphomycetes* : C. M. I. England. 1-680.
- Ellis, M. B. (1976). More *Dematiaceous Hyphomycetes* : C. M. I. England. 1-507.
- Mukherji, K. G. and Bhasin, J. (1986). *Plant Diseases of India*, Tata McGraw-Hill Publishing Company Limited.
- Sarbhoy, A. K. Agarwal, D. K. and Varshney, J. L. (1977). *Dematiaceous Hyphomycetes from India-III. Indian Phytopath.* **30** : 574-575.
- Shivas, R. G. (1995). New records of plant pathogens in the Kimberley region of northern western Australia. *Australasian Plant Pathology.* **24** : 188-201.
- Subramanian, C. V. (1983). *Hyphomycetes. Taxonomy and Biology*. Academic Press, London. 502.

(Accepted for publication January 18 2004)