

***Drechslera* Species Firstly Reported from Some Water Bodies of Bhopal, Madhya Pradesh**

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ABSTRACT

During the investigation period (2007-2008) study of fungal diversity has been taken first time in three lakes of Bhopal. Eleven species of *Drechslera* viz. *D. australiensis*, *D. halodes*, *D. hawaiiensis*, *D. rostrata*, *D. sacchari*, *D. state of Cochliobolus bicolor*, *D. state of Cochliobolus miyabeanus*, *D. state of Cochliobolus sativus*, *D. state of Cochliobolus setariae*, *D. state of Cochliobolus spicifer* and *D. state of Trichometaspheria turcica* belonging to order Moniliales and group Deuteromycotina were isolated from lentic environment of Shahpura lake, Sarangpani lake and Lower Lake of Bhopal, Madhya Pradesh.

Introduction :-

The lake ecosystem is very dynamic one. There were considerable variation in quality and occurrence of fungal flora from lake to lake and season to season.

Bhopal the capital of M.P. also known as Lake city for its various natural as well as artificial lakes and is one of the greenest cities in India.

Shahpura lake, Sarangpani lake and Lower lake are mainly utilized for fish catching and recreation. These lakes are surrounded by human habitation and are used as oxidation ponds. They receives sewage and waste water through a number of unlined drains.

Study of fungal diversity has been taken firstly in these lakes of Bhopal. During the investigation period January 2007 to December 2008, this paper deals with the species of *Drechslera* viz. *D. australiensis*, *D. halodes*, *D. hawaiiensis*, *D. rostrata*, *D. sacchari*, *D. state of Cochliobolus bicolor*, *D. state of Cochliobolus miyabeanus*, *D. state of Cochliobolus sativus*, *D. state of Cochliobolus setariae*, *D. state of Cochliobolus spicifer* and *D. state of Trichometaspheria turcica* belonging to order Moniliales and group Deuteromycotina. Shukla⁹ in Jabalpur, Chauhan³ in Hoshangabad and Singh¹⁰ in Bhopal also reported *Drechslera* species in aquatic bodies. Work on fungi was previously done by B. Dubey⁴ and Preeti Pandey⁸ in Bhopal, Madhya Pradesh.

Isolation and Identification :-

Water sample with decaying organic matter were collected from upper surface of lakes from four different station in different condition of the three lake at monthly intervals. Special "baiting" technique were used to isolated particular group of fungi from various habitats. Collection, isolation and preservation methods described by webster and Descals¹¹, Agrawal and Hasija¹ were used. Identification were done upto species level with the help of literature published by Ellis³⁻⁶, Barnett and Hunter², and Gilman⁷.

Description

***Drechslera australiensis* (Fig.1)**

Conidiophores up to 150 µm long, 3.7µm thick. Conidia ellipsoidal or oblong rounded at the ends, rarely 4-5 pseudosepta, 13-40 µm long, 8-10 µm thick.

***D. halodes* (Fig.2)**

Conidiophores up to 150 µm long, 5-8 µm thick. Conidia straight, cylindrical, 6-8 pseudosepta, 30-100 µm long, 11-12 µm thick, hilum distinctly protuberant.

***D. hawaiiensis* (Fig.3)**

Conidiophores up to 120 µm long, 2-7 µm thick. Conidia rounded at the ends, 2-7 pseudoseptate, 12-37x5-11 µm size.

***D. rostrata* (Fig.4)**

Conidiophores up to 200 µm long, 6-8 µm thick. Conidia rostrate, 6-16 pseudoseptate, dark septa, 40-180 µm long, 14-22 µm thick, hilum distinctly protuberant.

***D. sacchari* (Fig.5)**

Conidiophore up to 200 μm long, 5-8 μm thick. Conidia with 5-9 pseudosepta, 35-96x9-17 μm size, hilum 2-3 μm wide.

***D. state of Cochliobolus bicolar* (Fig.6)**

Conidiophore emerging singly or in small group, dark scars, up to 400 μm long. 5-10 μm thick. Conidia straight or rarely slightly curved, with 3-14 pseudosepta, 20-135 x 12-20 μm in size. Hilum flat, dark, 3-5 μm wide.

***D. state of Cochliobolus miyabeanus* (Fig.7).**

Conidiophore up to 600 μm long, 4-8 μm thick. Conidia curved, 6-14 pseudosepta, 63-153x14-22 μm in size, hilum minute often protruding, slightly papillate.

***D. state of Cochliobolus sativus* (Fig.8).**

Conidiophore up to 220 μm long, 6-10 μm thick. Conidia 3-12 pseudosepta, 60-120 μm long and 17-28 μm thick.

***D. state of Cochliobolus setariae* (Fig.9)**

Conidiophore up to 200 μm long, 5-9 μm thick. Conidia 5-10 pseudosepta, 45-100 x 10-15 μm in size.

***D. state of Cochliobolus spicifer* (Fig.10).**

Conidiophore with well defined scars, up to 300 μm long, 4-9 μm thick. Conidia 3-pseudosepta, 20-40 x 9-14 μm in size, hilum 2-3 μm wide.

***D. state of Trichometasphaeria turcica* (Fig.11).**

Conidiophore up to 300 μm long, 7-11 μm thick. Conidia 4-9 pseudosepta, 50-144 μm x 18-33 μm in size, hilum distinctly protuberant.

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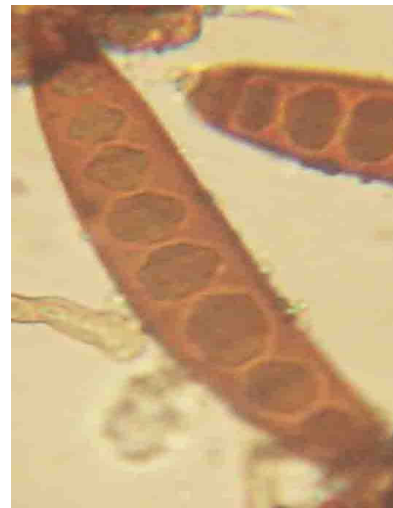
(Fig.1) *Drechslera australiensis*



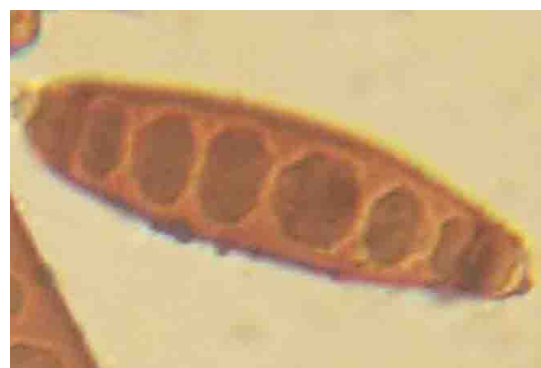
(Fig.2) *Drechslera halodes*



(Fig.3) *Drechslera hawaiiensis*



(Fig.4) *Drechslera rostrata*



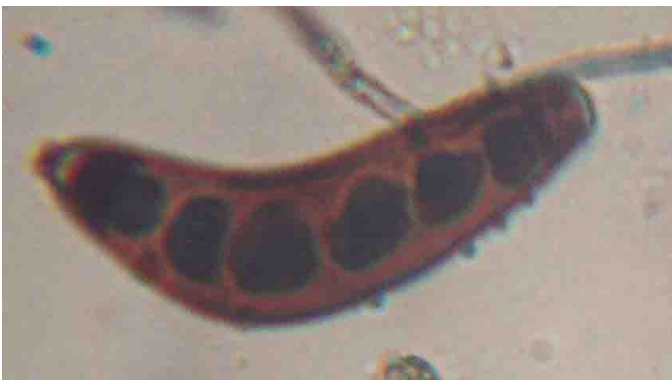
(Fig.5) *Drechslera sacchari*



(Fig.6) D. state of *Cochliobolus bicolor*



(Fig.7) D. state of *Cochliobolus miyabeanus*



(Fig.9) D. state of *Cochliobolus sativus*



(Fig.9) D. state of *Cochliobolus setariae*



(Fig.10) D. state of *Trichometasphaeria turcica*

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