

Hendersonula toruloidea Nattrass. fungus on new host from Nandurbar district (M.S.)

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Abstract

The present investigation report deals with the fungus collected from Nandurbar district, it is being new addition to the North Maharashtra region. *Ipomea fistulosa* Mort ex. Choisy is being reported as a new host substrate for *Hendersonula toruloidea* Nattrass.

Keywords: Deuteromycota, *Hendersonula*, *Ipomea fistulosa*, Maharashtra.

INTRODUCTION

The genus *Hendersonula* was erected by Spegazzini. The genus with 12 synonyms have been mentioned on different host plants. It is a plant pathogen and causes sudden wilting of shoots to large branches, firing of leaves and trunk cankers, Dieback [7]. It is also human pathogen infect skin and nails [4]. After a critical examination found to be not host specific and rare in occurrence.

Soil of grass plot, Varanasi, U.P. (4249); twigs of *Psidium guajava*, Kota, Rajasthan (2416); living leaves of *Philodendron bipinnatifidum*, Jabalpur, M.P. (4305); *Vitis vinifera* Akola, M.S. (6319); Fruits of *Pyrus molus*, Warangal, A.P. (2173); on Mango, Warangal, A.P. (2177); Leaves of *Wrightia tomentosa*, Allahbad, U.P. (1282); stem of *Anacardium occidentale*, Deharadun, U.P. (5538); stem and twigs of *Acacia auriculaeformis*, Deharadun, U.P. (383); stem & twigs of *Eucalyptus tereticornis*, Deharadun, U.P. (383); on dry twigs of *Cordylina* sp; Jabalpur; M.P. (276). Fungi of India. (List and References), Today & Tomorrow's Printers and publishers new Delhi, by Bilgrami, K.S., Jamaluddin S. and Rizwi, M.A. 1991 pp.241. The fungus was not previously recorded on the mentioned host in these localities.

MATERIALS AND METHODS

Specimens were collected on dead and dried stems of *Ipomea fistulosa* Mart ex choisy. These samples were examined as soon as possible for fungal growth and the same samples were incubated at room temperature for one to several weeks in sterile petri-plates with wet blotting paper. The incubated materials were periodically examined for six months. The Transverse sections of stroma were prepared & observed under microscope using cotton blue stain, measurements of various parts of fungi were taken. The

microphotographs were taken and by using camera lucida sketches of specimens made. Identification of fungi and their host substrate records were confirmed with the help of available literature.

OBSERVATION AND DESCRIPTION

Hendersonula toruloidea, Nattrass.

Habit gregarious to stromatic, when young are pale brown and at maturity becomes dark black.(fig.1.) Pycnidia dark black, conical shaped with small ostiole, one to several per stroma, measuring from 69-317 μ m long and 83-297 μ m wide(fig.2.) Conidiophores short, flexuous; conidia often extruded in cirri, at first one-celled, hyaline to pale brown, 2-septate, 3-celled, central cell large dark brown and both end cells hyaline, elliptical to cylindrical, thin walled, slightly tapering at ends, 14.7-18.32 μ m long and 5.7 μ m wide, (fig.3-4) saprophytic on bark of *Ipomea fistulosa*.

Habitat :- On dried twigs of *Ipomea fistulosa*, Mart. Ex choisy. (Convolvulaceae) Navapur; 27 Oct 2011, SFN-1. Leg. B.B. Mangle.

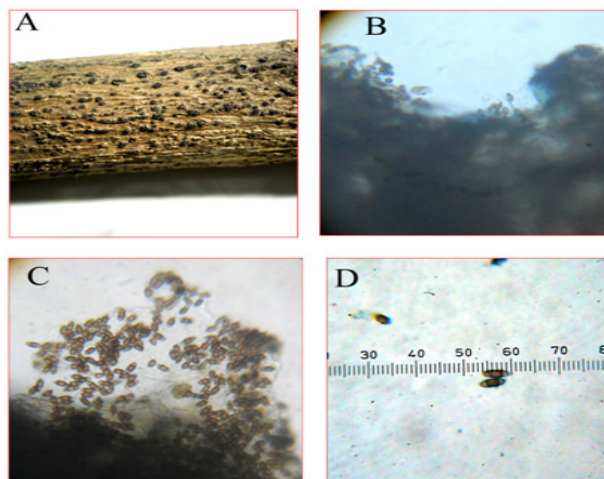


PLATE : *Hendersonula toruloidea*

Fig.1 : Habit

Fig.2 : T.S. of Stoma showing pycnidium (x450)

Fig.3 : Conidia in group (x450)

Fig.4 : Conidia (x450)

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REFERENCES

- [1] Al- Zarari. Attrackchi, A.A., Tarabeib, A.M., 1979. New host for *Hendersonula toruloidea* pak. Sci, ind. Res; 22:251
- [2] Bilgrami, K.S., Jamaluddin S. and Rizwi, M.A., 1991. Fungi of India. Part III. List and references, Today & Tomorrow's Printers and publishers new Delhi, pp.1-798.
- [3] Cambell, C.K., Kurwa, A, Abdel-Aziz AHM, 1973. Fungal infection of skin & nails by *Hendersonula toruloidea*, British journal of dermatology.; 89; 45 -52.
- [4] Eady, R., Moore M. 1974. *Hendersonula toruloidea* infection of skin and nails, Tran st. Johns Hosp. Dermatological society. 60(1); 104-8
- [5] Greer, D.L., Gutierrez, M.M., 1987. Tinea pedis caused by *Hendersonula toruloidea*, A new problem in dermatology, Journal of the American Academy of Dermatology.
- [6] Natrass, R.M. 1933. A new species of *Hendersonula (H.toruloidea)* on deciduous trees in Egypt, Tran brit mycol. Soc. 18; 189-97
- [7] Themis J., D.P. Michilides, D.Morgan., Felt, and H. Reyes. 2005. New project Etiology and Management of Limb Dieback of figs in California
- [8] Singh, S.M., Barde A.K., 1980. *Hendersonula toruloidea* infection of human skin and nail. Ind.J. dermatol Lepr.; 46; 350-5