Scytalidium dimidiatum (Penz.) B. Sutton and Dyko (synonym: Hendersonula toruloidea Nattrass, S. Campell and Mulder, and Nattrassia mangiferae (Syd. and P. Syd.) B. Sutton and Dyko (Roeijmans et al., 1997) is a common fungus in tropical and semitropical countries where it causes plant diseases and dermatomycoses. It has been reported in Kuwait in the soil and the air (Moustafa, 1982); in the USA on Citrus, Castanea, Musa, Populus, Ficus, Prunus and Juglans (Farr et al., 1989); in Iraq on Malus fruits, in Pakistan on Citrus sinensis and Morus alba (Sutton and Dyko, 1989); in Iran on Eucalyptus, apple and orange trees (Baban et al., 1995; Sutton and Dyko, 1989); in India on Agave americana, Acacia auriculiformis and Mangifera indica (Sutton and Dyko, 1989); and in Oman on Albizia lebbeck, Ficus benghalensis, F. carica, F. retusa, Thespesia populnea, Delonix regia, and Peltophorum pterocarpace (Elshafie and Ba-Omar, 2002).

From 1982 to 1983 a few trees of Ficus benghalensis in Khartoum, Sudan, started to show dieback of the branches, followed by cracks on the bark of the main stem exposing masses of black spores that were identified as S. dimidiatum (Hendersonula toruloidea Nattrass) (Fig. 1). In the years from 1992 to 2003 the disease reached a peak and over 97% of the F. benghalensis trees along the Nile road in Khartoum died. The same happened to 60% of Khaya senegalensis trees and to 40% of Azadirachta indica.

Spores from infected tissues were cultured on potato dextrose agar (PDA) at room temperature (22±1°C). They produced rapidly growing colonies whose mycelium was branched, septate, hyaline to brown. Arthroconidia were cylindrical, dark brown to black, thick-walled, 0–2 septate, 5–12×5–7.5 µm. The fungus was identified as the hyphomyc-
First report of Ficus benghalensis dieback by Scytalidium dimidiatum in Sudan

...ete S. dimidiatum, the arthric state of the coelomycete N. mangiferae. Opportunistic fungi associated with the infection sites were Aspergillus niger, A. flavus, A. nidulans, Cladosporium cladosporioides, Rhizopus stolonifer, Fusarium moniliforme and Penicillium spp.

Scytalidium dimidiatum has in a relatively short period of time (1982–2002) almost completely destroyed one of the most beautiful evergreen shade trees along the Nile road and elsewhere in Khartoum.

Since spores of the fungus enter the plant through wounds, it is possible that, besides wounds caused by insects, animals, and the rubbing of branches together, man is also responsible for disease spread. Moreover, it has been noticed that people deliberately remove the bark of F. benghalensis and K. senegalensis along the Nile road and use it as a medicine. Such activity has recently been prohibited by law. The possibility cannot be excluded however that some simple preventive measures could have reduced the phenomenon.

The Nile road is a high traffic road used daily by thousands of people and it is likely that many people came in contact with spores of the fungus and spread it over medium and long distances.

Literature cited


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