

Identification of Tree Diseases and Their Probable Causal Organisms in Forest Cover of the University of Peradeniya

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The rich floristic diversity of the University of Peradeniya (UoP) has been threatened by unidentified tree diseases. The present study was undertaken to identify diseases and their probable causal organisms. Using a map, the total land area of the UoP was divided into 40 blocks (200 x 200 m), and 10 randomly selected blocks were used for purposive sampling. Identification was performed using signs and symptoms on diseased plants, as well as the colony and spore morphology of isolated microorganisms. Leaf spots on *Mangifera indica*, *Couroupita surinamensis*, *Michelia champaca*, *Bridelia retusa*, *Polyalthia longifolia*, *Mangifera zeylanica*, *Ervatamia divaricata*, *Coffea canephora* and *Alstonia macrophylla* were caused by *Colletotrichum* spp.. *Lasiodiplodia* sp. was isolated from *Ricinus communis* and *Pinus caribaea* leaf spots, while *Pestalotiopsis* spp. were reported from *Lagerstroemia* sp. and *Mesua nagassarium* leaf spots. *Neopestalotiopsis* sp. was identified from leaf spots on *Phyllanthus* sp.. *Diaporthe* sp. and *Mycosphaerella* sp. were isolated from leaf spots of *Ficus religiosa* and *Duranta repens*, respectively. *Nigrospora* sp., *Pseudopeziza* sp. and *Cephaleuros virescens* were identified, respectively from *Polyalthia longifolia*, *Pongamia pinnata* and *Magnolia grandiflora*. *Botrytis* sp. from *Nyctanthes arbor-tristis*, *Lasiodiplodia* sp. from *Pinus caribaea*, *Colletotrichum* sp. from *Tabebuia guayacan* and *Neopestalotiopsis* sp. from *Phyllanthus* sp. were isolated from leaf blights. From stem cankers of *Neolitsea cassia* and *Punica granatum*, *Lasiodiplodia theobromae* and *Phoma lingam* were isolated, respectively. *Cryptovalsa* sp. was identified in the stem decays of *Delonix regia*, and the black crust-causing *Phellinus noxius* was identified from *M. indica*. *Agrobacterium* sp. was isolated from *F. benjamina* stem galls. Basidiocarps of *Ganoderma* spp. were identified in *D. regia*, *Phyllanthus emblica* and *Cassia fistula*. *Haxagonia discopoda*, *Fomes* sp. and *Introfusus petch* basidiocarps were identified on the stems of *Samanea saman* and *Neolitsea cassia*. The findings provide a wealth of information to manage the tree diseases in the UoP.

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