

Collection of Forest Fungi from Southern Brazil at Embrapa Florestas

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Abstract:

The Forest Pathology Laboratory of Embrapa Florestas develops diagnosis and projects with forest diseases in order to elaborate control methods. From this work, a collection was built with some of the main forest pathogens obtained from nursery or commercial plantations situated in Southern Brazil. The fungi were isolated from diseased seedlings or trees by direct or indirect isolation on PDA medium and selective media with antibiotics. This collection is a part of the Network for Microbial Genetic Resources coordinated by Embrapa. The collection preserves fungal isolates of: *Armillaria sp.* (30 isolates), *Botrytis cinerea* (10 isolates), *Cylindrocladium spp.* (10 isolates), *Fusarium spp.* (20 isolates), *Rhizoctonia spp.* (10 isolates) and *Sphaeropsis sapinea* (12 isolates). The collection also maintains isolates of *Amylostereum areolatum* (10 isolates) utilized in studies for the biological control of woodwasp *Sirex noctilio*. The used preservation methods are: (1) periodical transfer on agar medium and room-temperature storage; (2) keeping agar cultures under mineral oil or Castellani (sterile distilled water) and low temperatures storage in BOD chambers (10 °C and 4 °C); (3) Castellani and room-temperature storage. Some fungi as *Amylostereum areolatum*, *Armillaria sp.* and *Sphaeropsis sapinea* are under morfological and fisiological characterization and genetic diversity analysis by molecular methods. The collection are being used as a source of isolates for diagnosis routine, identification and ethiology in the laboratory. Some of the isolates of the collection are being accessed by the scientific community for purpose of academical projects. Other studies in development are chemical control and inoculation in trees for selection of resistant material against the pathogens. Financial support: Embrapa Florestas, CNPq, CAPES.

Key words: forest diseases, pathogen, preservation