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SURVEY AND DISTRIBUTION OF WOOD DECAYING FUNGI FROM BEED DISTRICT, (M.S.) INDIA.

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ABSTRACT:

In present communication two hundred and eighty-five Specimens of Wood decaying macro-fungi were collected from various area of Beed district. Specimens were identified according to morphological and microscopic features, from that new record of thirty-one species, belongs to thwenty-four genera *Auricularia* Bull, *Cyathus* Haller, *Dacryopinax* G.W. Martin, *Exidia* Fr, *Gloeoporus* Mont, *Gymnopilus* P. Karst, *Gyrodontium* Pat, *Heterochaete* Pat, *Hypoxylon* Bull, *Lentinus* Fr, *Leucocoprinus* Pat, *Macrocybe* Pegler & Lodge, *Phanerochaete* P. Karst, *Phlebiopsis* Jülich, *Phylloporia* Murrill, *Pleurotus* (Fr.) P. Kumm, *Pluteus* Fr, *Podoscypha* Pat, *Psathyrella* (Fr.) Quel, *Pycnoporus* P. Karst, *Serpula* (Pers.) Grey, *Truncospora* Pilát, *Volvariella* Speg, and *Xylaria* Hill ex Schrank and sixteen families Agaricaceae, Auriculariaceae, Callistosporiaceae, Coniophoraceae, Dacrymycetaceae, Hymenochaetaceae, Hymenogastraceae, Hypoxylaceae, Phanerochaetaceae, Pleurotaceae, Pluteaceae, Podoscyphaceae, Polyporaceae, Psathyrellaceae, Serpulaceae, and Xylariaceae.

KEYWORDS: Beed, Morphological, Microscopic, Specimens.

INTRODUCTION:

Beed is one of the most important district of Marathwada region of Maharashtra state, belongs to eleven tehsil Ambejogai, Asthi, Beed, Dharur, Georai, Kaij, Majalgaon, Parali (Vaijanath), Patoda, Shirur kasar, and Wadwani. Located between 18°− 19° North and 75°−76° East. Wood decaying fungi shows variations in their forms, and degrade leaf litter, branches, root, and wood logs. These type of fungi are natural recycler of nutrients, soil formation and carbon buget of ecosystem (Lonsdale et al. 2008). Limited taxonomic studies of agaricoid wood-decaying fungi described from Maharashtra State (Sathe and Deshpande, 1980), Check list of complete aphyllophorales diversity data described from Western Ghats of Maharashtra state has been reported by (Ranadive et al. 2011). Ten species of wood decaying fungi were reported from Gautala wildlife sanctuary, Maharashtra, India (Gavhane et al. 2015). Twenty-seven species and twenty-three genera of wood-rotting fungi were reported from Asthi, district Beed, Maharashtra (Vasant Mali 2015). Twelve families, twenty-four genera and twenty-five species were described from Dharashiv District of Maharashtra state (Gore and Mali, 2024).

MATERIALS AND METHODS:

Survey and collection of wood decaying fungi were done 15 to 20 days after heavy rainfall month of July to November from year (2021-2022) from various region of Beed District. The Basidiocarps of macro-fungi is first photographed at the site then noted down morphological features by using a hand lens dimension, color, shape, consistency, upper sterile surface, lower fertile surface, margin, context, tubes, and pores per mm in the field book and then specimens are sun-dried. Microscopic observations were done by taking freehand thin section cutting of fruiting bodies with the help of sharp razor blades, stained and studied in 5 % KOH and Lactophenol, under 40X and 100X Magnification (Olympus CX 41) in laboratory.

RESULTS & DISCUSSION:

Total thirty-one species of wood decaying fungi (Table-1) were studied according to their morphological and microscopic features. All these species have been recorded first time from Beed district, Maharashtra state.

Table:1. Survey and Distribution of Wood Decaying Fungi from Beed

Botanical Name	Family	Host	Date	Locality	Latitude & Longitude
Auricularia delicata (Mont. ex Fr.) Henn.	Auriculariaceae	*Ficus benghalensis* L.	17/09/22	Baheghavan, Tq. Wadwani	18°58'56"N 76°03'21"E
Auricularia nigricans (Sw.) Birkebak, Looney & Sánchez-García,	Auriculariaceae	*Mangifera indica* L.	16/08/22	Adas, Tq. Kaij	18°46'56"N 76°14'17"E
Cyathus striatus (Huds.) Willd.	Agaricales (Uncertain)	*Azadirachta indica* A.Juss.	02/08/21	Nagzari, Tq. Georai	19°20'17"N 75°43'01"E
Dacryopinax spathularia (Schwein.) G.W. Martin	Dacrymycetaceae	*Acacia nilotica* (L.) Delile	22/09/21	Neeknor, Tq. Beed	18°48'20"N 75°46'42"E
Exidia recisa (Ditmar) Fr.	Auriculariaceae	*Acacia nilotica* (L.) Delile	29/09/22	Aranwadi, Tq. Dharur	18°52'23"N 76°04'53"E
Gloeoporus taxicola (Pers,) Gilb.& Ryvarden	Polyporaceae	*Mangifera indica* L	02/08/21	Majalgaon, Tq. Majalgaon	19°09'53"N 76°13'51"E
Gymnopilus pampeanus (Speg.) Singer	Hymenogastraceae	*Zizyphus mauritiana* Lam.	02/08/21	Nagzari, Tq. Georai	19°20'34"N 75°42'51"E
Gymnopilus purpureosquamulosus Høil.	Hymenogastraceae	*Zizyphus mauritiana* Lam.	27/08/21	Jawalgaon, Tq. Ambejogai	18°40'48"N 76°29'36"E
Gyrodontium sacchari (Spreng.) Hjortstam	Coniophoraceae	*Limonia acidissima* Groff	17/09/22	Kanhapur, Tq Wadwani	19°01'14"N 76°01'36"E
Heterochaete delicata Bres.	Auriculariaceae	*Ficus benghalensis* L.	14/10/21	Patoda, Tq. Potda	18°48'14"N 75°29'06"E
Hypoxylon haematostroma Mont	Hypoxylaceae	*Annona reticulata* L	22/09/21	Neeknor, Tq. Beed	18°48'26"N 75°47'17"E
Lentinus connatus Berk.	Polyporaceae	*Nyctanthes arbor-tristis* L.	02/08/21	Takadgaon, Tq. Georai	19°16'10"N 75°46'28"E

Leucocoprinus birnbaumii (Corda) Singer	Agaricaceae	*Senna siamea* (Lam.) H.S. Irwin & Barneby	14/10/21	Khakalwadi, Tq. Asthi	18°51'50"N 75°05'43"E
Macrocybe gigantea (Massee) Pegler & Lodge	Callistosporiaceae	*Ficus benghalensis* L.	02/08/22	Belamba, Tq. Parali vai	18°54'02"N 76°30'43"E
Phanerochaete velutina (DC.) P. Karst.	Phanerochaetaceae	*Azadirachta indica* A.Juss.	27/08/21	Pus Tq. Ambejogai	18°44'36"N 76°29'24"E
Phanerochaete sordida (P. Karst.) J. Erikss. & Ryvarden	Phanerochaetaceae	*Butea monosperma* (Lam.) Taub.	14/10/21	Khakalwadi, Tq. Asthi	18°51'50"N 75°05'43"E
Phlebiopsis crassa (Lév.) Floudas & Hibbett	Phanerochaetaceae	*Delonix regia* (Hook.) Raf.	02/08/21	Majalgaon, Tq. Majalgaon	19°09'53"N 76°13'51"E
Phlebiopsis flavidoalba (Cooke) Hjortstam	Phanerochaetaceae	*Azadirachta indica* A.Juss.	22/09/21	Neeknor, Tq. Beed	18°48'20"N 75°46'42"E
Phylloporia pectinata (Klotzsch) Ryvarden	Hymenochaetaceae	*Senna siamea* (Lam.) H.S. Irwin & Barneby	27/08/21	Jawalgaon, Tq. Ambejogai	18°40'48"N 76°29'36"E
Pleurotus djamor (Rumph. exFr.) Boedijn	Pleurotaceae	*Ficus benghalensis* L.	02/08/22	Belamba, Tq. Parali vai	18°54'01"N 76°30'43"E
Pleurotus dryinus (Pers) P. Kumm.	Pleurotaceae	*Mangifera indica* L.	14/10/21	Sheri BK, Tq. Asthi	18°52'40"N 75°05'24"E
Pleurotus ostreatus (Jacq.) P. Kumm.	Pleurotaceae	*Mangifera indica* L.	10/08/21	Nagzari, Tq. Georai	19°20'34"N 75°42'51"E
Pluteus cervinus (Schaeff.) P. Kumm.	Pluteaceae	*Albizia lebbeck* (L.)Benth	16/08/21	Gandhanwadi, Tq. Potoda	18°47'53"N 75°30'10"E
Podoscypha nitidula (Berk.) Pat	Podoscyphaceae	*Delonix regia* (Hook.) Raf.	02/08/22	Vaijwadi, Tq. Parali vai	18°52'23"N 76°32'52"E
Psathyrella candolleana (Fr.) Maire	Psathyrellaceae	*Acacia nilotica* (L.) Delile	14/10/21	Khakalwadi, Tq. Asthi	18°51'50"N 75°05'43"E
Pycnoporus sanguineus (L.) Murrill	Polyporaceae	*Zizyphus mauritiana* Lam.	17/09/22	Wagholi, Tq. Dharur	18°47'29"N 76°12'21"E
Serpula similis (Berk. & Broome) Ginns	Serpulaceae	*Delonix regia* (Hook.) Raf.	27/08/21	Pus Tq. Ambejogai	18°44'46"N 76°29'33"E
Truncospora ochroleuca (Berk.) Pilát	Polyporaceae	*Leucaena leucocephala* (Lam.) de Wit	14/10/21	Sheri BK, Tq. Asthi	18°52'59"N 75°05'49"E
Volvariella diplasia (Berk. & Broome) Singer	Pluteaceae	*Cordia dichotoma* G.Forst.	02/08/21	Takadgaon, Tq. Georai	19°16'05"N 75°46'32"E
Xylaria feejeensis (Berk.) Fr.	Xylariaceae	*Acacia nilotica* (L.) Delile	16/08/22	Salegaon, Tq. Kaij	18°39'56"N 76°02'54"E

Xylaria polymorpha (Pers.) Grev.	Xylariaceae	*Butea monosperma* (Lam .) Taub.	14/10/21	Patoda, Tq. Patoda	18°48'14"N 75°29'06"E

CONCLUSION:

New records of thirty-one species of wood decaying fungi were identified from various localities of Beed District (M.S.) India. Belongs to sixteen families and twenty-four genera. Most dominating family were observed Polyporaceae (4 genera) followed by dominating genera were observed *Pleurotus* (3 species). All these macro-fungi grows on fourteen different hosts *Acacia nilotica, Albizia lebbeck, Annona reticulata, Azadirachta indica, Butea monosperma, Cordia dichotoma, Delonix regia, Ficus benghalensis, Leucaena leucocephala, Limonia acidissima, Mangifera indica, Nyctanthes arbor-tristis, Senna siamea,* and *Zizyphus mauritiana*.

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