



### RESEARCH ARTICLE

## DIVERSITY AND TAXONOMY OF WOOD ROTTING FUNGI FROM DHARASHIV [OSMANABAD] DISTRICT (M.S.) INDIA

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#### Abstract

In present investigation 107 specimens of Wood-rotting fungi were collected from various regions of Dharashiv [Osmanabad] District (M.S.) India. 25 new species were recorded from the present study area, identified according to macroscopic features at the site and microscopic features in the laboratory and belong to 12 families and 24 genera. The most dominating family were observed Polyporaceae (6 genera) and the most dominating genera was *Leucocoprinus* (2 species).

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#### Introduction:-

Wood rotting macro-fungi inhabit the substrata that differ in size, state of decay, and levels of moisture contents. Wood rotting saprobic species occurs in an organized manner as the wood deteriorates slowly and gradually thus, ecologies of macro-fungi growing on different wood substrata are different. The breakdown of wood and changes in its physical and chemical components are termed wood rot. Wood rotting fungi are categorized into two groups white rot fungi and brown rot fungi depending upon way of wood rot. White rot fungi degrade all wood components including lignin while brown rot fungi degrade cellulose, hemicellulose, and its associated pentose, leaving the lignin more or less unaffected. The first serious study of 14 species of wood-rotting fungi was described by (Bagchee & Bakshi, 1954). 14 species of Wood decaying fungi were described from Mantha, district Jalna Maharashtra (Kakde & Gaikwad, 2014). 10 species were reported from Gautala Wildlife Sanctuary, Maharashtra (Gavhane et al, 2015). 5 species of the genus *Trametes* were described from the Marathwada region of Maharashtra (Mali et al, 2016). 7 species of order Aphyllophorales were described from Yedshi Ramling Wildlife Sanctuary District Osmanabad (Chouse & Mali, 2016). The checklist of Aphyllophorales from Osmanabad district reported 23 genera, 34 species, and 11 families (Chouse & Mali, 2023). 22 genera, 27 species, and 14 families were reported from Soygaon tehsil of district Aurangabad, Maharashtra (Gore & Mali, 2023). 28 genera and 39 species, and were reported from Ajanta Forest, Maharashtra (Gore & Mali, 2023). Recently 18 genera, 20 species, and 15 families were reported from Sillod tehsil of Chhatrapati Sambhajnagar (Aurangabad) District, Maharashtra (Gore & Mali, 2024).

#### Materials and Methods:-

Wood-rotting macro-fungi were collected, 20 to 25 days after heavy rainfall months of July to November from the year (2021-2023) from various regions of Dharashiv (Osmanabad) District (M.S.) India. The fruiting bodies of macro-fungi are first photographed naturally at the site and then noted down morphological features by using a hand lens (20 X) dimension, shape, color, consistency, upper sterile surface, lower fertile surface, context, tubes, and

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pores per mm in the field book. Microscopic observations were done by taking freehand thin section cutting of fruiting bodies with the help of sharp razor blades, stained and studied in 10 % KOH and Lactophenol under microscope 40X and 100X Magnification in the laboratory. Then dried specimens were kept in brown paper packets as per international mycological herbarium guidelines and naphthalene balls were placed in each herbarium packet to avoid insect attack.

### Result and Discussion:-

Wood-rotting fungi were identified from various regions of the Dharashiv (Osmanabad) District belonging to 12 families, 24 genera, and 25 species. In the present study, fungi were categorized into 2 Phyla Ascomycota and Basidiomycota. Phyla Ascomycota belongs to 2 families, 2 genera, and 2 species, and Phyla Basidiomycota belongs to 10 families, 22 genera, and 23 species. Macroscopic and microscopic features are described as follows (Photo plate 1 & Table 1)

#### *Auricularianigricans*(Sw.) Birkebak, Looney & Sánchez-García,

Fruiting body annual, solitary in groups, pileate, moist dependent, bracketed, soft jelly like when fresh, brittle on drying, easily separable. Pileus 0.5–3.8 × 0.5–2.7 cm, up to 0.4 cm thick, ear like or small bowel-like, attached with the help of a short stalk-like apparatus narrowly attached. Upper sterile surface velvety hairy, tuft of hairs forming greyish white appearance when young, greyish brown. Lower fertile surface smooth, purplish brown to coffee brown. Context jelly-like when fresh, waxy hard on drying, and homogeneous. Hyphal system monomitic; generative hyphae 2.5–5 µm wide. Spores 14–16.5 × 5.5–7.5 µm, allantoid.

#### *Crepidotusvariabilis*(Pers.) P. Kumm.

Fruiting body annual, solitary or in groups, fleshy. Pileus 0.5–2.6 cm in diameter, dimidiate, flabelliform or orbicular-reniform, hairy, smooth creamy white to greyish white. Gills 6–8 per cm, rather crowded, creamy white to greyish white. Stalk absent or very short. Context very thin, chalky white. Spore print white. Hyphal system monomitic; generative hyphae 3.5–7.5 µm wide. Spores 5.5–6.5 × 3–3.5 µm, ellipsoid.

#### *Cyathusstriatus*(Huds.)Willd.

Fruiting body annual, solitary or in groups, 0.5–1.3 cm in length, 0.4–0.7 cm wide, flower pot shaped or bell shaped with narrow tapering base, more or less nest like in which egg like organs present which remains covered with grayish whitetograyish brown. External wall 0.4–1.1 cm high, 0.4–0.9 cm wide at mouth, grayish brown to light brown. Internal wall longitudinally sulcate, smooth shiny, distinctly grooved, grayish brown. Peridioles 8–14 in numbers, upto 2 mm in diameter, within the peridium each egg is attached by a thread-like cord, grey to greenish grey. Spores 9–13 × 8.5–11 µm, ellipsoid to oblong ellipsoid.

#### *Dacryopinaxspathularia*(Schwein.) G.W. Martin.

Fruiting body annual, in groups, 0.5–1.9 × 0.1–0.4 cm, up to 0.2 cm thick, gregarious, caespitose many fruit bodies arises from single attachment in row or in groups, stipitate small stalk at base, jelly when fresh, brittle tough on drying. Head flabellate, spathulate to ligulate, arises small smooth cylindrical stalk which gradually develop into stalk and inflated head, brittle or horny on maturity bright yellow to yellowish orange when fresh, becoming on drying grayish yellow to brown orange. Context solid, smooth, homogenous. Stipe 0.3–1.5 × 0.1–0.4 cylindrical, solid. Hyphal system monomitic; generative hyphae 2.5–5.5 µm wide. Spores 7.5–11.5 × 3.5–7 µm, oblong to subcylindrical.

#### *Daldiniaconcentrica*(Bolton) Ces. & De Not.

Fruiting body annual, solitary or in groups, globose, 2.2–6.8 × 2.1–5.3 × 1.1–2.4 cm, hemispherical to depressed spherical, tough to hard when fresh, brittle to charcoal like on drying, purple brown to brownish black Fertile surface smooth, glabrous, even or frequently cracked in to fine network, finely papillate, crusty, composed of single layer spore bearing flask like organ which open with the help of narrow beak on the surface, perithecial 1–2 mm wide, tubular to lanceolate, slightly papillate ostioles. Context composed of alternating zonation and each zone represent seasonal growth. Perithecia 800–1100 × 300–500 µm, lanceolate. Asci 200–260 × 7–12 µm, cylindrical, 8-spored. Spore 12–17 × 5–7 µm, elliptic-fusiform.

#### *Exidiarecisa*(Ditmar) Fr.

Fruiting body annual, solitary or in groups, irregular, 0.5–3.8 × 0.4–3.1 × 0.5–2.1 cm, moist dependent, small to large sized, lobed mass irregularly folded to form brain like structure, sessile, jelly like when fresh, hard and brittle

on drying, easily separable, purple brown to cinnamon brown when young, almost brownish black on drying. Fertile surface smooth, wrinkled, yellowish brown to cinnamon brown to brownish black. Context jelly like when fresh, hard on drying, homogeneous. Hyphal system monomitic; generative hyphae 2.5–3  $\mu\text{m}$  wide. Spores 13.5–14.5  $\times$  3.5–4  $\mu\text{m}$ , allantoid.

***Favolusgrammocephalus***(Berk.) Imazeki.

Fruiting body annual, solitary or in the group, pileate. Pileus 2.7–21.2  $\times$  1.9–13.7 cm and 0.2–1 cm thick at the base, semicircular, spatulate, weakly sulcate, glabrous, yellowish whitetoochraceous to pale brown. Lower fertile surface poroid 3–4 per mm pores, round to angular, yellowish white to brownish yellow. Context 0.1–0.8 cm wide, homogenous. Tubes 0.1–0.2 cm long. Stipe 0.4–1.6  $\times$  0.4–1.8 cm, laterally attached, cylindrical homogenous. Hyphal system dimitic; generative hyphae 2–5  $\mu\text{m}$  wide, skeleto-binding hyphae 4.5–7  $\mu\text{m}$  wide, Spores 5–6  $\times$  2–3  $\mu\text{m}$ , oblong ellipsoid.

***Fomitopsissp.***

Fruiting body annual, solitary or in groups, pileate, effused-reflexed to pileate. Pileus 3.8–9  $\times$  3.5–5.1  $\times$  0.5–2.4 cm, semicircular, imbricate. Upper sterile surface smooth, tomentose becoming glabrous, weakly zonate, brownish grey to dull brown. Lower fertile surface poroid, round to angular, regular, pores 5–7 per mm, creamy when young becoming greyish brown when dried. Context 0.7–2 cm thick at base, solid, distinctly duplex. Tubes up to 0.1–0.4 cm wide. Hyphal system trimitic; generative hyphae 2–3  $\mu\text{m}$  wide, skeletal hyphae 2.5–7  $\mu\text{m}$  wide, binding hyphae 2–3  $\mu\text{m}$  wide. Spores 6–7  $\times$  3.5–4  $\mu\text{m}$ , allantoid.

***Funaliaflocosa***(Jungh.) Zmitr. & Malysheva.

Fruiting body annual, solitary or in groups, resupinate to effused-reflexed to pileate, 0.5–6.9  $\times$  0.5–3.9  $\times$  0.2–0.5 cm. Pileus 0.5–4.3  $\times$  0.4–2.1  $\times$  0.2–0.5 cm, semicircular, kidney shaped. Upper sterile surface zonate, light sulcate, tomentose, ochraceous to greyish. Lower fertile surface poroid, pores round to angular, 1–2 per mm, faint greyish brown to tobacco brown to greyish brown. Context up to 0.3 cm thick, distinctly duplex. Tubes up to 0.2 cm deep, lacerate. Hyphal system trimitic; generative hyphae 1.5–3  $\mu\text{m}$  wide, skeletal hyphae 2.5–6  $\mu\text{m}$  wide, binding hyphae 1.5–4  $\mu\text{m}$  wide. Spores 8.5–11.5  $\times$  2.5–4  $\mu\text{m}$ , cylindrical.

***Fuscoporiasenex***(Nees & Mont.) Ghob.-Nehj.

Fruiting body, annual to perennial, solitary or in groups, resupinate to effused-reflexed to pileate. Pileus 0.7–5.4  $\times$  0.5–1.9  $\times$  0.2–1.2 cm, dimidiate, imbricate. Upper sterile surface velvety to glabrous, azonate to weakly zonate, sulcate, yellowish brown to golden brown. Lower fertile surface poroid, round, regular, pores 8–10 per mm, yellowish cream to yellowish brown. Context up to 1 cm thick, solid, zonate, homogenous. Tubes up to 0.2 cm deep. Hyphal system dimitic; generative hyphae 2–3  $\mu\text{m}$  wide, skeletal hyphae 3–4.2  $\mu\text{m}$  wide. Spores 4–4.9  $\times$  3.2–4  $\mu\text{m}$ , broadly ellipsoid to sub-globose.

***Ganoderma australe***(Fr.) Pat.

Fruiting body annual to perennial, pileate. Pileus 6.8–20.4  $\times$  6.1–11.2  $\times$  0.5–5.3 cm, semicircular. Upper sterile surface smooth, sulcate, groove to papillate, glabrous, cracking with age, surface covered with a cinnamon powder of deposited spores, dull brown to cocoa brown. Lower fertile surface poroid, round, regular, pores 3–5 per mm, cream to tumber brown. Context up to 3.8 cm thick at base. Tubes up to 1.5 cm long. Hyphal system trimitic, generative hyphae 1.5–2.5  $\mu\text{m}$  wide, skeleton-binding hyphae 2–5  $\mu\text{m}$  wide, binding hyphae 1–2  $\mu\text{m}$  wide. Spores 7–13  $\times$  5–8.5  $\mu\text{m}$ , ovoid to broadly ellipsoid.

***Hexagonia sp.***

Fruit body annual, solitary or in groups, resupinate, effused-reflexed to pileate. Pileus 4.4–8.9  $\times$  2.6–3.7  $\times$  0.3–2.1 cm, semicircular, applanate. Upper surface sterile, smooth concentrically zonate, sulcate, glabrous, greyish brown to teak brown. Lower fertile surface poroid 1 per mm wide, angular to hexagonal, teak brown to brownish grey. Context up to 0.8 cm wide, homogenous. Tubes up to 1.3 cm long, homogenous, lacerate. Hyphal system trimitic; generative hyphae 2–3.5  $\mu\text{m}$  wide, skeletal hyphae 3.5–6.5  $\mu\text{m}$  wide, binding hyphae 4.5–5.5  $\mu\text{m}$  wide. Spores 5–7.5  $\times$  3–4.5  $\mu\text{m}$ , cylindrical.

***Hypoxylohaematostroma*** Mont

Fruiting body annual, resupinate, 0.5–16.2  $\times$  0.4–4.9  $\times$  0.1–0.3 cm. Fertile surface minutely papillate, cinnabar red to blood red when fresh, venetian red to reddish brown when mature. Context papery thin, homogenous. Perithecia

long tubular  $900\text{--}2300 \times 200\text{--}600 \mu\text{m}$ . Ostioles are lower than stromatal surface. Asci  $150\text{--}200 \times 6\text{--}9 \mu\text{m}$ , broadly cylindrical, 8-spored. Spore  $15\text{--}18 \times 5.5\text{--}8.5 \mu\text{m}$ , elliptic-fusiform.

***Leucocoprinuscepistipes***(Sowerby) Pat.

Fruiting body annual, solitary or in groups, up to 13 cm high, fleshy fibrous and tough when fresh. Pileus  $1.7\text{--}4.4 \text{ cm}$  in diameter, obovoid then conical, obtusely umbonate, finally comanulate or expanded, truncate at centre, chalky white with pale pink tints. Gills free  $14\text{--}18$  per cm, rather crowded, creamy white. Context thin, soft, solid but becoming hollow with maturity. Stalk  $3.5\text{--}8.6 \times 0.5\text{--}1.2 \text{ cm}$ , cylindrical, sub-bulbous base, slightly fibrillose, with powdery coating on the surface. Annulus. Spore print white. Hyphal system monomitic; generative hyphae  $3\text{--}5 \mu\text{m}$ . Spores  $7.5\text{--}10 \times 5\text{--}7 \mu\text{m}$ , ovoid.

***Leucocoprinusfragilissimus***(Ravenel ex Berk. & M.A. Curtis) Pat.

Fruiting body annual, solitary or in groups, up to 13 cm high, fleshy. Pileus  $3\text{--}3.8 \text{ cm}$  in diameter, flat to planoconvex, with slightly depressed at centre, surface covered with minute squamules radiating sulcate, white with greenish tint, and olive brown at centre. Gills free  $7\text{--}10$  per cm, sub-distant to close creamy white. Stalk  $3\text{--}6.1 \times 0.1\text{--}0.3 \text{ cm}$ , cylindrical, equally or gradually tapering towards apex, fibrous, squamulose, hollow, creamy to dull. Context very thin. Annulus present. Spore print white. Hyphal system monomitic; generative hyphae  $3.5\text{--}12 \mu\text{m}$  wide. Spores  $8.5\text{--}13.5 \times 5.5\text{--}7.5 \mu\text{m}$ , ellipsoid.

***Lophariacinerascens***(Schwein.) G. Cunn.

Fruiting body annual, gregarious, resupinate, effused-reflexed to pileate  $1.6\text{--}109 \times 1.4\text{--}20.4 \text{ cm}$  up to  $0.1 \text{ cm}$  thick. Pileus  $1.5\text{--}47.7 \times 1.4\text{--}2.1 \text{ cm}$  up to  $0.1 \text{ cm}$  thick, umbonate, sometimes semicircular. Upper surface sterile, azonate to concentrically zonate, sulcate, velvety to tomentose, clay to camel brown to smoky brown. Lower fertile surface, smooth, indistinguishably sulcate with maturity, cracked when mature, clay to smoky brown. Context thin, homogenous. Hyphal system monomitic; generative hyphae  $3\text{--}6 \mu\text{m}$  wide. Spores  $7\text{--}9 \times 3\text{--}4 \mu\text{m}$ , cylindrical to ellipsoid.

***Phanerochaetesordida***(P. Karst.) J. Erikss. & Ryvardeen.

Fruiting body annual, resupinate,  $2.8\text{--}15.7 \times 1\text{--}11.4 \text{ cm}$ , up to  $0.3 \text{ cm}$  thick, initially arises as small creamy patches then growing in all directions, widely effused, membranous, leathery when fresh, brittle on drying, broadly elongated, smooth, creamy white to pale yellow brown. Fertile surface smooth, cracked on drying, creamy white to straw yellow when fresh, on drying pale to pale yellow brown. Context thin. Hyphal system monomitic; generative hyphae  $3.5\text{--}6.5 \mu\text{m}$  wide. Spores  $5.5\text{--}8 \times 3\text{--}5 \mu\text{m}$ , broadly ellipsoid.

***Phellinusmori***Y.C. Dai & B.K. Cui.

Fruiting body annual to perennial, solitary, resupinate,  $10.2\text{--}28.6 \times 3.8\text{--}12.6 \times 0.1\text{--}0.6 \text{ cm}$ . Fertile surface poroid, round, regular, pores  $5\text{--}7$  per mm, yellowish brown to golden brown when young, umber brown to reddish brown in old fruiting bodies, glancing when turned in incident light. Context very thin or almost absent. Tubes up to  $0.3 \text{ cm}$  deep in each layer. Hyphal system dimitic; generative hyphae  $1.5\text{--}3 \mu\text{m}$  wide, skeletal hyphae  $3\text{--}5 \mu\text{m}$  wide. Spores  $4\text{--}5 \times 3\text{--}4.2 \mu\text{m}$ , broadly ellipsoid to subglobose.

***Phlebiopsiscrassa***(Lév.) Floudas & Hibbett.

Fruiting body annual, resupinate,  $1.3\text{--}12.8 \times 1.1\text{--}6.7 \times 0.1\text{--}0.2 \text{ cm}$  thick, initially arising as small patch then growing in all direction, membranous to more or less leathery when fresh, brittle on drying, purplish pink to pale violet to violet brown. Fertile surface when young velvety gradually surface become smooth, cracked on drying, grayish violet to dull violet to grayish brown. Context papery thin on drying. Hyphal system monomitic; generative hyphae  $2.5\text{--}8.5 \mu\text{m}$  wide. Spores  $6\text{--}8 \times 3\text{--}4 \mu\text{m}$ , narrowly ellipsoid.

***Phylloporiapectinata***(Klotzsch) Ryvardeen.

Fruiting body annual to perennial, solitary or in groups, pileate. Pileus  $3.6\text{--}4.2 \times 2.5\text{--}12.1 \times 0.2\text{--}4.3 \text{ cm}$ , semicircular, appanate, frequently imbricate with several pilei from a common base. Upper sterile surface velvety, sulcate, brownish black to cinnamon. Lower fertile surface poroid, round, regular, pores  $5\text{--}6$  per mm, glancing on turning to incident light, yellowish brown to dark brown. Context up to  $0.6 \text{ cm}$  thick, duplex. Tubes up to  $0.3 \text{ cm}$  deep, lacerate. Hyphal system monomitic; generative hyphae  $1.5\text{--}5 \mu\text{m}$  wide. Spores  $3\text{--}3.5 \times 2\text{--}3 \mu\text{m}$ , globose to subglobose.

***Pleurocybellaporrigens***(Pers.) Singer.

Fruiting body annual, solitary or in groups, fleshy. Pileus 1.8–8.4 × 1.4–6.6 cm, smooth when mature, creamy white when young, creamy white to greyish when matured, finally ochraceous. Stalk 1.1–3.9 × 0.3–0.8 cm, cylindrical, lateral, creamy white at base, slightly greyish at upper part. Context homogenous. Spore print white. Hyphal system monomitic; generative hyphae 2.5–10 μm wide. Spores 6.5–9 × 4.5–6 μm, ellipsoid.

***Pleurotusostreatus***(Jacq.) P. Kumm.

Fruiting body annual, solitary or in groups, fleshy. Pileus 3.8–7.1 × 3.4–6.4 cm, pleurotoid, smooth to slightly squamulose when mature, greyish to greyish brown when young, finally ochraceous. Gills decurrent, 9–10 per cm, creamy white when young becoming ochraceous at maturity. Stalk 2.1–3.9 × 0.3–0.7 cm, cylindrical, lateral, creamy white at base, slightly greyish at upper part. Context homogenous. Spore print white. Hyphal system monomitic; generative hyphae 3–6.5 μm wide. Spores 8.5–15 × 4.5–6.5 μm.

***Psathyrellacandolleana***(Fr.) Maire.

Fruiting body annual, solitary or in groups, fleshy, medium sized. Pileus 1.7–4.7 cm in diameter, rounded, conical then convex, when young, convex expanding to applanate when mature, cream grey to dull brown. Gills free, 13–15 per cm, close to rather crowded, greyish to dark brown. Stalk 2.8–6.9 × 0.3–0.6 cm, central, swollen at base, tapering toward apex, smooth, solid, greyish white. Context papery thin, fleshy, homogenous. Spore print dark brown. Hyphal system monomitic; generative hyphae 3–22 μm wide. Spores 6.5–7.5 × 3–5 μm, ellipsoid.

***Trametesellipospora***Ryvarden.

Fruiting body annual, solitary or in groups, resupinate to effused reflex to pileate. Pileus 2.4–5.2 × 1.6–2.9 × 0.1–0.4 cm thick near the base, semicircular, applanate, persistent strigose hairs, shiny, sulcate, weakly zonate, cream to pale yellow to pale orange. Lower fertile surface poroid 3–5 per mm pores, decurrent, angular, irregular, toothed, iripicoid to maize like, cream to ochre orange. Context up to 0.2 cm thick, fibrous, hard, duplex. Tubes up to 0.2 cm wide, lacerate. Hyphal system trimitic; generative hyphae 2–3 μm wide, skeletal hyphae 2.5–5.5 μm wide, binding hyphae 1.5–3.5 μm wide. Spores 3–5 × 2–3.5 μm, ellipsoid.

***Xylaria multiplex*** (Kunze) Fr.

Fruiting body annual, in groups 2.4–3.9 × 0.1–0.3 cm. Fertile surface clavate, elongated, cylindrical, undulated (grooved and ridge), apex round to acute below smoky-white conidial deposits, finally turning into purplish deposition purplish black to blackish brown. Stalk short, cylindrical, and sterile. Context homogeneous. Perithecia 1700–4400 × 300–600 μm, embedded in fertile head. Asci 110–120 × 5–7 μm cylindrical, stipitate, 8-spored, septate at base. Spores 9–10.5 × 4–6 μm, uniseriate, ellipsoid-equilateral.

Photo plate - 1

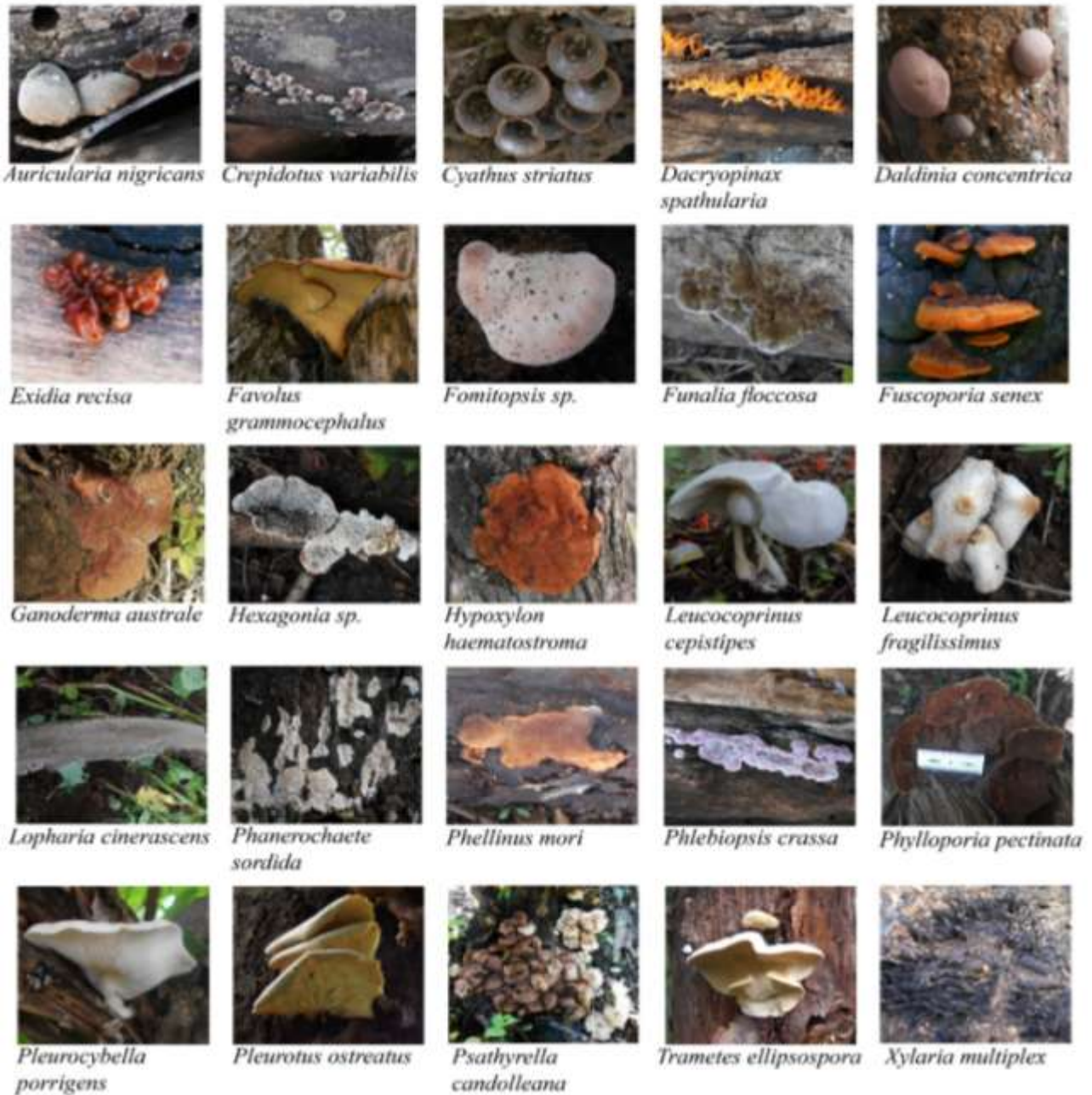


Table 1:- List of Host infected by wood-rotting fungi and its locality.

Botanical Name	Family	Host	Locality	Latitude & Longitude
<b>Ascomycota</b>				
<i>Daldinia concentrica</i> (Bolton) Ces. & De Not.	Hypoxylaceae	Acacia nilotica (L.) Delile	Yermala Tq. Kallam	18°23'34"N 75°52'44"E
<i>Xylaria multiplex</i> (Kunze) Fr.	Xylariaceae	Acacia nilotica (L.) Delile	Rui, TqParanda	18°16'08"N 75°29'15"E



<b>Basidiomycota</b>				
<i>Auricularianigricans</i> (Sw.) Birkebak, Looney & Sánchez-García,	Auriculariaceae	<i>Azadirachta indica</i> A.Juss.	Ranjani, Tq. Kallam	18°32'40"N 76°15'16"E
<i>Crepidotusvariabilis</i> (Pers.) P. Kumm.	Crepidotaceae	<i>Acacia nilotica</i> (L.) Delile	Shendi, Tq. Washi	18°34'08"N 75°47'01"E
<i>Cyathusstriatus</i> (Huds.)Will d	Incertaesedis	<i>Acacia nilotica</i> (L.) Delile	Upala, Tq. Dharashiv	18°14'20"N 76°03'20"E
<i>Dacryopinaxspathularia</i> (Sc hwein.) G.W. Martin.	Dacrymycetaceae	<i>Ficus benghalensis</i> L.	Warewadgao n, Tq. Bhoom	18°28'02"N 75°37'02"E
<i>Exidiarecisa</i> (Ditmar) Fr.	Auriculariaceae	<i>Acacia nilotica</i> (L.) Delile	Dudhi, Tq. Paranda	18°16'09"N 75°29'30"E
<i>Favolusgrammocephalus</i> (B erk.) Imazeki.	Polyporaceae	<i>Zizyphus mauritiana</i> Lam	Shingoli, Tq. Dharashiv	18°15'09"N 76°01'32"E
<i>Fomitopsissp.</i>	Fomitopsidaceae	<i>Acacia nilotica</i> (L.) Delile	Dharashiv, Tq. Dharashiv	18°10'32"N 76°01'39"E
<i>Funaliafloccosa</i> (Jungh.) Zmitr. &Malysheva	Polyporaceae	<i>Zizyphus mauritiana</i> La m	Nawalgaon, Tq. Bhoom	18°26'36"N 75°37'02"E
<i>Fuscoporiasenex</i> (Nees& Mont.) Ghob.-Nehj	Hymenochaetaceae	<i>Azadirachta indica</i> A.Juss.	Shendi, Tq. Washi	18°34'13"N 75°46'56"E
<i>Ganodermaaustrale</i> (Fr.) Pat.	Polyporaceae	<i>Mangifera indica</i> L.	Shiradhon, Tq. Kallam	18°30'29"N 76°10'13"E
<i>Hexagonia sp.</i>	Polyporaceae	<i>Peltophorum pterocarpum</i> (DC.) K.Heyne	Katrabad, Tq. Paranda	18°34'13"N 75°46'56"E
<i>Hypoxylonhaematostroma</i> Mont	Hypoxylaceae	<i>Azadirachta indica</i> A.Juss.	Dharashiv, Tq. Dharashiv	18°10'27"N 76°01'40"E
<i>Leucocoprinuscepistipes</i> (So werby) Pat.	Agaricaceae	<i>Ficus benghalensis</i> L.	Tuljapur, TqTuljapur	18°01'15"N 76°04'11"E
<i>Leucocoprinusfragilissimus</i> (Ravenel ex Berk. & M.A. Curtis) Pat.	Agaricaceae	<i>Eucalyptus obliqua</i> L'Hér.	Sanja, Tq. Dharashiv	18°11'59"N 76°04'30"E
<i>Lophariacinerascens</i> (Schw ein.) G. Cunn.	Polyporaceae	<i>Leucaena leucocephala</i> (L am.) de Wit	Tuljapur, TqTuljapur	18°00'27"N 76°03'56"E
<i>Phanerochaetesordida</i> (P. Karst.) J. Erikss. &Ryvarden.	Phanerochaetaceae	<i>Tamarindus indica</i> L.	Sanja, Tq. Dharashiv	18°12'01"N 76°04'40"E
<i>Phellinusmori</i> Y.C. Dai & B.K. Cui.	Hymenochaetaceae	<i>Acacia nilotica</i> (L.) Delile	Ranjani, Tq. Kallam	18°32'40"N 76°14'60"E
<i>Phlebiopsiscrassa</i> (Lév.) Floudas&Hibbett.	Phanerochaetaceae	<i>Delonix regia</i> (Hook.) Raf.	Dharashiv, Tq. Dharashiv	18°10'40"N 76°01'40"E

<b>Phylloporiapectinata</b> (Klotz sch) Ryvar den.	Hymenochaetaceae	<b>Acacia nilotica</b> (L.) Delile	Tuljapur, TqTuljapur	18°00'17"N 76°04'04"E
<b>Pleurocybellaporrigens</b> (Per s.) Singer.	Incertaesedis	<b>Jatropha curcas</b> L.	Apsinga, TqTuljapur	18°03'29"N 76°02'58"E
<b>Pleurotusostreatus</b> (Jacq.) P. Kumm.	Pleurotaceae	<b>Mangifera indica</b> L.	Ranjani, Tq. Kallam	18°32'40"N 76°15'01"E
<b>Psathyrellacandolleana</b> (Fr.) Maire.	Psathyrellaceae	<b>Senna siamea</b> (Lam.) H.S. Irwin &Barneby	Dharashiv, Tq. Dharashiv	18°10'30"N 76°01'40"E
<b>Trametesellipsospora</b> Ryvar den.	Polyporaceae	<b>Azadirachta indica</b> A.Juss.	Apsinga, TqTuljapur	18°03'29"N 76°02'59"E

### Conclusion:-

Survey and collection of wood-rotting fungi were conducted during the year 2021-2023 month from July to November from different sites of Dharashiv [Osmanabad] district (M.S.) India. One hundred and seven specimens of macro-fungi were collected, according to macroscopic and microscopic character twenty-four different types of genera and twenty-five species, were studied (Photo plate 1 & Table 1), which belong to twelve families. Phyla Ascomycota belongs to two families, two genera, and two species, and Phyla Basidiomycota belongs to ten families, twenty-two genera, and twenty-three species. Polyporaceae is the most dominating family and consists of six genera. From the above observation and discussion, it is concluded that *Auricularianigricans*, *Daldiniaconcentrica*, *Dacryopinaxpathularia*, *Favolusgrammocephalus*, *Funaliafloccosa*, *Fuscoporiasenex*, *Hypoxylonhaematostroma*, *Leucocoprinuscepistipes*, *Leucocoprinusfragilissimus*, *Lophariacinerascens*, *Phanerochaetesordida*, *Pleurocybellaporrigens*, *Psathyrellacandolleana*, and *Xylaria multiplexis* most dominating macro-fungi and *Crepidotusvariatus*, *Cyathusstriatus*, *Fomitopsis* sp., *Ganodermaaustrale*, *Hexagonia* sp., *Phellinusmori*, *Phlebiopsiscrassa*, *Phylloporiapectinata*, and *Trametesellipsospora* are rarely observed macro-fungi, belongs to twelve hosts *Acacia nilotica*, *Azadirachta indica*, *Delonix regia*, *Eucalyptus obliqua*, *Ficus benghalensis*, *Jatropha curcas*, *Leucaena leucocephala*, *Mangifera indica*, *Peltophorum pterocarpum*, *Sennasiamea*, *Tamarindus indica*, and *Zizyphus mauritiana*.

### References:-

1. **Bagchee, K. & B.K. Bakshi (1954)**. Studies on Indian Theleporaceae-I. Some species of Stereum, Peniophora and Corticium. *Indian For. Bull.* **166**:pp 11.
2. **Chouse FH and Mali VP. (2015/16)**. Studies on some Aphylophorales from Yedshi Ramling Wildlife Sanctuary District Osmanabad, Marathwada. *Journal of Advance in Applied Sciences and Technology.* **2(2-4)**: pp01-10
3. **Chouse FH and Mali VP. (2023)**. Diversity and Checklist of Aphylophorales from Osmanabad District. *International journal of Scientific Development and Research.* **8(10)**:pp 89-94.
4. **Gavhane, B.U., Khan, A.M. and Nasreen, S. (2015)**. A few wood decaying fungi of Gautala wildlife Sanctuary, Maharashtra, India. *Biotech Research Communication.* **8(2)**:pp 145-148.
5. **Gore VU and Mali VP, (2023)**. Wood-decaying Fungi reported from Soygaon Tehsil, District Aurangabad (M.S.) India. *Plant Archives.* **23(2)**:pp 351-356.
6. **Gore VU and Mali VP, (2023)**. On the Diversity and Taxonomic Evaluation of Wood-Decaying Fungi from Ajanta Forest Caves, Maharashtra, India. *Biosc. Biotech. Res. Comm.* **16(4)**:pp 226-233.
7. **Gore VU and Mali VP, (2024)**. Diversity and Taxonomic Study on Wood-Decaying Fungi from Sillod Tehsil of Chhatrapati Sambhajnagar [Aurangabad] District, Maharashtra India. *Annals of Plant Sciences.* **13(2)**:pp 6183-6189.
8. **Kakde R.B, Gaikwad R.S. (2014)**. Diversity of Wood Decaying Fungi at Mantha, Jalna (MS) India. *Bioscience Discovery.* **5(2)**:pp 230-236.
9. **Mali et al., (2016)**. Taxonomy and Diversity of Trametes from Marathwada (Maharashtra) India. *Journal of Medicinal Chemistry and Drug Discovery.* **2(1)**: pp 537-546.