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Flora of wood-decaying fungi from Paithan tehsil, Aurangabad district (M.S.) India

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Abstract
Survey and collection of forty-three wood-decaying fungi were done from different localities of Paithan Tehsil, Aurangabad district (M.S.) India. From that seventeen genus and eighteen species were identified according to macroscopic and microscopic characters. The study of specimens was carried out with respect to botanical name, host, fruiting bodies dimension, spore dimension, altitude, latitude, and longitude. Based on observations *Daldinia concentrica, Flavodon flavus, Ganoderma lucidum, Macrocybe pachymeres, Phellinus badius, and Schizophyllum commune* are dominating macrofungi and *Coriolopsis gallica, Earliella scabrosa, Gymnopilus purpureosquamulosus, Hypoxylon haematostroma, Inonotus rickii, Phellinus gilvus, Phylloporia pectinata, Pleurotus djamor, Porostereum spadiceum, Scytinostroma duriusculum, Tomophagus colossus,* and *Volvariella diplasiaare* are rarely observed.

Keywords: Paithan, macroscopic, microscopic, specimens, macrofungi

Introduction
Wood decaying fungi that grow and produce fruiting bodies on living trees are either restricted to interior, primary non-living portion of a living tree (heartwood) or are capable of invading and killing outer living sapwood, break down of the cellulose, hemicelluloses, and lignin in wood and changes in physical and chemical properties that termed as wood decay, as the point of view wood-decaying fungi play an important role in cyclic processes that replenish carbon, hydrogen, nitrogen and other substances essential for plant growth, the element release during biodegradation which add formation and fertility of the soil. Wood decaying fungi are categories into two groups white rot and brown rot depending upon the way of decay wood. White rot fungi degrade lignin and cellulose (Setliff & Eudy, 1979; Blanchette, 1980) [10, 2] while, brown rot fungi degrades cellulose and hemicelluloses (Eriksson *et al*., 1990) [4].
The first serious study of wood-decaying fungi was done by (Bagchee & Bakshi, 1954) [1] who described 14 species. (Ranadive *et al*., 2013) [7] studied eight families, fourteen genera, and twenty species of Aphyllophorales from pune district. (Kakde and Gaikwad, 2014) [9] described 14 genera on the morphological study of wood decaying fungi from mantha. (Chouse and Mali 2020) [3] on the diversity of Aphyllophorales from Latur district, Maharashtra reported 34 genera and 47 species of wood-rotting fungi. (Gore and Mali 2021) [6] reported fourteen genera and fifteen species of wood-decaying fungi from Dr. BAMU, campus Aurangabad.

Materials and Methods
The present study, survey, and collection of forty-three wood-decaying fungi were done 20 to 25 days after heavy rainfall during the month July to October. The fresh fruiting bodies of macrofungi were morphologically characterized in the field based on pileus surface, fertile surface, pores, context, and tube, with a hand lens and fruiting bodies were photographed at the site, collected fruiting bodies, were kept in a brown paper packet noting host, the color of fruiting bodies, locality, and date of the collection according to Gilbertson and Ryvarden (1986) [5]. All specimens were the sun and air-dried and microscopic observations were done under 100X Magnification (Olympus CX 41) in the laboratory by freehand thin section cutting of fruiting bodies with the help of sharp razor blades, stained and studied in 10% KOH, Cotton Blue, and Melzer's reagent.

Observations and Discussion
Coriolopsis gallica (Fr.) Ryvarden, Norw. Norw. Jl Bot. 19: 230 (1973).
Fruiting bodies 26–47 × 19–31 mm, and 5–10 mm thick near the base, annual, pileate, broadly sessile, semicircular or elongated, often several imbricate pilei from a common effused resupinate part, corky to tough. Pileus densely hirsute to hispid, brownish, soon dirty grey zonate to azonate, more hispid at the base. Fertile surface brown to grey, pores angular, thin-walled, 1–3 mm wide, radially elongated, and deeply split. Tubes up to 10 mm deep, whitish to grey on inner walls, trama brown. Context mostly thin, up to 6 mm thick, rusy to umber brown. Hyphal system trimitic, generative hyphae thin-walled, hyaline, clamped, 2–3.5 µm wide, skeletal hyphae thick–walled to solid, golden brown in trama and context, hyaline in the tomentum, 2.5–4 µm wide, binding hyphae thick-walled to almost solid, light golden brown, 2.5–3 µm wide. Basidia clavate 20–36.5 x 5–8 µm, with a basal clamp. Spores cylindrical, hyaline, thin-walled, smooth, 10–14.5 x 3–4.5 µm.

Specimens Examined
India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Pachod; 19˚34′13″N, 75˚37′28″E; alt 484 m; on the wood logs of *Acacia nilotica* (L.) Delile; 12/10/2016; Vijay Gore (VUG/VPM – 559).
Daldinia concentrica (Bolton) Ces. & De Not. Comm. Soc. crittog. Ital. 1(fasc. 4): 197 (1863).

Fruiting bodies 19–32 × 15–30 mm annual, hemispherical to spherical, rarely substalked reddish-brown to purplish-brown. Fertile surface even or frequently cracked into fine network, finely papillate, dotted with minute pores formed by the ostiole of the perithecia. vertical section of the fruiting body shows distinct concentric zonation fibrous hyphae. Perithecia are crowed in a single layer just below the outer crust, asci within the perithecium immersed in mucilage, cylindrical, 80–140 × 8–13 µm, with a long stalk. Spores 12–18× 5–9 µm, ellipsoid–inequilateral with narrow rounded ends, slit present, smooth, thin-walled.

Specimens Examined

INDIA; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Dhorkin; 19˚37′04″N, 75˚21′47″E; alt 469 m; on the wood logs of *Acacia nilotica* (L.) Delile; 12/10/2016; Vijay Gore (VUG/VPM – 533).

*Earliella scabrosa (*Pers.) Gilb. & Ryvarden. Mycotaxon 22(2): 364 (1985).

Fruiting bodies, 51–282 × 2.2–140 mm, annual, solitary or in groups resupinate, effused-reflexed to pileate, grayish-white to pale, reddish-black at the base in old specimens. Lower surface poroid, angular to iripicoid to semi–daedaloid, pores 1–3 per mm. Tube up to 5 per mm deep. Context up to 2 mm thick, solid, duplex. Hyphal system trimitic Generative hyphae hyaline with clamps, 1.5–3 µm wide. Skeletal hyphae thick-walled, to solid, hyaline 2.5–4.5 µm wide. Binding hyphae branched with tapering side branches. Cystidia absent, basidia clavate, 4–sterigmate, 15–19 × 4–5 µm with the basal clamp. Spores 6.5–11 × 3–4 µm, cylindrical, hyaline, smooth, thin–walled, inamyloid.

Specimens Examined

India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Adgoan; 19˚40′46″N, 75˚36′28″E; alt 538 m; on the wood logs of *Ficus benghalensis* L; 12/10/2016; Vijay Gore (VUG/VPM – 564).

Flavodon flavus (Klotzsch) Ryvarden, Norw. Jl Bot. 20(1): 3 (1973).

Fruiting bodies 10–293 × 8–89 mm annual, resupinate to pileate, widely effused reflex. Pileus concentric zonation, tomentose, dull, grayish-yellow to pale yellow-orange.Lower surface poroid, lamellate, iripicoid to hynoid, pores/lamellae/ teeth 1–2 per mm. Tube up to 4 mm deep. Context up to 2 mm thick. Hyphal system dimitic. Generative hyphae hyaline, thin to slightly thick–walled, septate, branched, 1.5 – 3 µm wide. Skeletal hyphae pale yellowish-brown in KOH, thick-walled, branched, 2 – 6 µm wide. Cystidia occur as skeletal hyphal projection, thick-walled, encrusted at the tip, 11–32 × 6–11µm. Basidia 23 – 28 × 6 – 8 µm, clavate, hyaline, thin-walled, with 4-sterigmata. Spores 5.5–7 × 3–4.5 µm, ellipsoid, smooth, thin–walled, hyaline.

Specimens Examined

India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Katpur; 19˚31′10″N, 75˚32′10″E; alt 451 m; on the wood logs of *Citrus medica* L.
; 12/10/2016; Vijay Gore (VUG/VPM – 544).

Ganoderma lucidum (Curtis) P. Karst., Revue mycol., Toulouse 3(no. 9): 17 (1881).

Fruiting bodies 112–198 × 87–123 mm, annual, laterally to centrally stipitate, reniform to dimidiate, sulcate, zonate, shiny, reddish-brown to brown. Margin obtuse, smooth, sterile, pale to pale brown to grayish. Lower surface poroid, pores 3– 6 per mm, thick-walled, round cream to reddish grey. Tube up to 10 mm deep. Context up to 11 mm thick duplexed, light brown upper part, reddish-brown lower part, dissepiments thick. Stipe 5–8 × 1–2.2 mm, violet brown to reddish-brown. Generative hyphae hyaline, septate with clamps, branched, 2.5–4.5µm wide. Skeletal hyphae thick-walled, pale brown arboriform, 3–4.5 µm. Binding hyphae colorless, lumen not visible, 1– 2 µm wide. Spores 8.5–11× 5.5–7 µm, ovoid or truncate, exospores hyaline, smooth, brownish.

Specimens Examined

India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, MIDC Paithan; 19˚32′22″N, 75˚22′51″E; alt 451 m; on the living tree but on the root of *Dalbergia sissoo* DC.; 12/10/2016; Vijay Gore (VUG/VPM – 542).

Gymnopilus purpureosquamulosus Høil. Mycotaxon 69: 82 (1998).

Fruiting bodies small to medium-sized, in groups. Cap 40 – 60 mm in diam., convex to planoconvex, moderately squamulose, chalky white with dark brown squamules, with a dark brown center when young, gradually turning pinkish-white, and finally, ochraceous. Margin cracked when matured, slightly uplifted. Gills free, 18 – 20 per cm, crowded, pinkish-white when young, chocolate brown maturity. Stipe 60 – 80 × 7 – 9 mm, cylindrical with a bulbous base, smooth, chalky white. Context homogeneous solid, chalky white. Annulus present, membranous persistent. Basidia 16–24 × 6.5–9 µm, clavate to subclavate, hyaline, basal cell irregular in shape, with well-developed clamp connections, 4-sterigmata. Cheilocystidia 21–24.5 × 4– 7 µm, subclavate, cylindrical to fusiform with obtuse apex, hyaline, thin-walled. Pileipellis is a cutis type, composed of 6.5–10 µm broad, hyaline, thin-walled hyphae, clamp-connections present. Spores 6 – 9× 4 – 5.5, ovoid to more or less ellipsoid, thick-walled, ornamented, brown.

Specimens Examined

India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Pachod; 19˚34′13″N, 75˚37′28″E; alt 484 m; on the wood logs of *Zizyphus mauritiana* Lam.; 12/10/2016; Vijay Gore (VUG/VPM – 555).

Hypoxylon haematostroma Mont., in Sagra, Annls Sci. Nat., Bot., sér. 2 17: 124 (1842).

Fruiting bodies 5–71 × 5–19 mm, annual, resupinate, closely attached, hard and brittle. Margin sterile, narrow to wide. Fertile surface minutely papillate, cinnabar red to blood red when fresh, reddish-brown when mature. Context papery thin, homogenous, solid, dark brown. Peritheca long tubular 0.3–0.6 × 1–2.4 mm. Ostioles are lower than stromatal surface. Asci 220–320 × 8–12 mm. Spores 16–19 × 6–9 µm. ellipsoid, smooth, thin-walled, dark brown.

Specimens Examined

India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Nanegoan; 19˚32′03″N, 75˚29′52″E; alt 451 m; on the wood logs of *Citrus medica* L.; 12/10/2016; Vijay Gore (VUG/VPM – 550).

Inonotus rickii (Pat.) Reid, Kew Bull. [12](2): 141 (1957).

Fruiting bodies 192 × 159 mm, up to 98 mm thick, annual, sessile, globular to ellipsoidal mass, spongy, wet, easily separable, yellowish-brown becoming rough and rusty

brown with golden brown margin. Context tough fibrous and ochraceous to yellow-orange in color when young. Hyphal system monomitic, generative hyphae thin to moderately thick-walled, pale yellowish to brownish, rarely branched, 3.5–5 um wide; setal hyphae present in the tramal tissue, up to 300 µm long, 3–5 µm wide but up to 12 µm below the tips, hymenial setae frequent, subulate to ventricose, thick-walled. Spores abundant, thick-walled, brownish, reddish-brown in KOH, 6–8.5 x 4–5.5 µm, ellipsoid to ovoid, chlamydospores abundant in the context tissue, irregular in shape, globose to ellipsoid or with an elongated appendage, 10–25 µm.

Specimens Examined

INDIA; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Aadool; 19˚43′02″N, 75˚31′51″E; alt 554 m; on the living tree of main trunk *Ficus benghalensis* L.; 12/10/2016; Vijay Gore (VUG/VPM – 567).

Macrocybe pachymeres (Berk. & Broome) Pegler & Lodge, in Pegler, Lodge & Nakasone, Mycologia 90 (3): 498 (1998).

Fruiting bodies are large-sized. Cap 89– 152 mm diam., fleshy, hemispherical to convex, surface pale yellowish-brown becoming paler towards the margin, at first covered by a white tomentum, soon glabrescent, dry, finally tessellate. margin inrolled, projecting beyond the lamellae, Lamella sinuato-adnexed, greyish-yellow with a pale pinkish tint, up to 11 mm wide, very crowded, Stipe 60 – 90 × 20 – 40 mm, stout, cylindric or swollen either at the base or the centre, solid; surface off white, covered with numerous, greyish brown. Context 24 mm thick, pure white tough, of narrow. Hyphae 4 – 8 µm diam., with clamp-connections, odour faint, pleasant, taste not distinctive. Basidia 38 – 63 × 8 – 10 µm clavate, guttulate, bearing 4-sterigmata. Spores 5 – 7 × 4 – 6 µm, subglobose to ovoid, hyaline, inamyloid.

Specimens Examined

INDIA; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Kondgoan; 19˚39′51″N, 75˚19′42″E; alt 500 m; on the living tree at the base of trunk *Ficus benghalensis* L.; 12/10/2016; Vijay Gore (VUG/VPM – 530).

Phellinus badius (Cooke) G. Cunn. Bull. N.Z. Dept. Sci. Industr. Res. 164: 273 (1965).

Fruiting bodies 123 × 76 mm, Perennial, sessile, half-moon shape to ungulate, easily detachable from the host. Pileus yellowish–brown when young, brownish-black when old, glabrous, rimose. Margin obtuse, sterile. Lower surface poroid, pores 3– 6 per mm, thick-walled, dark brown to reddish–brown. Tube up to 4 mm deep. Context up to 42 mm thick, yellowish-brown corky when fresh, hard on drying. Hyphal system dimitic, Generative hyphae hyaline to pale yellow, septate, branched, 3–4 µm wide. Skeletal hyphae thick-walled, 3–5 µm wide. Hymenial setae absent or very rarely present in older species, 14–25 × 4–8 µm, dark reddish-brown. Basidia broadly clavate 10–14 × 5.5–7 µm, 4–sterigmate. Spores 6.4–7.5 × 5.5–6.5 µm, ellipsoid to sub-globose, yellowish brown.

Specimens Examined

India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, MIDC Paithan; 19˚32′28″N, 75˚22′29″E; alt 451 m; on the dried tree of main trunk *Senna siamea* (Lam.) H.S.Irwin & Barneby; 12/10/2016; Vijay Gore (VUG/VPM – 539).

Phellinus gilvus (Schwein.) Pat., Essai Tax. Hyménomyc. (Lons–le–Saunier): 82 (1900).

Fruiting bodies 24–63 × 22–41 × 4–16 mm, annual to perennial, imbricate to rarely single, sessile to effuse reflexed to flabelliform, corky to brittle on drying, broadly attached. Pileus golden brown to dark yellowish-brown, lighter toward the margin, weakly zonate, finely velutinate, glabrous, strigose to radiate-striate. Margin pale yellow to yellowish-brown, acute, lobed. Lower surface poroid, round and regular, yellowish-brown to dark brown to reddish-brown, smooth, shiny, pores 5–6 per mm. Tube reddish brown, up to 4 mm deep. Context bright yellow to pale reddish-brown, homogenous, up to 6 mm thick. Hyphal system dimitic, Generative hyphae pale yellow to yellowish-brown, septate, branched, 2.5–4 µ m wide. Skeletal hyphae dark brown, thick-walled 3.5–5 µm. Hymenial setae thick–walled, dark brown, abundant, 22–35 × 5.5–10 µm. Basidia 5.58–11 × 4.5–6 µm, clavate, hyaline with 4-sterigmata. Spores sub-globose to ellipsoid, 4.5–6 × 2.5–3.5 µm, dull yellowish to pale brown, thin-walled, smooth.

Specimens examined: INDIA; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Pachod; 19˚34′13″N, 75˚37′28″E; alt 484 m; on the wood logs of *Azadirachta indica* A.Juss; 12/10/2016; Vijay Gore (VUG/VPM – 558).

Phylloporia pectinata (Klotzsch) Ryvarden, Syn. Fung. (Oslo) 5: 196 (1991).

Fruiting bodies 43–67 × 38–59 mm, and 20–30 mm thick near the base, perennial, pileate, applanate to subungulate, frequently imbricate, woody hard, and heavy when dry. Pileus with a compressible tomentum when young, cinnamon to rusty brown, with age a black surface is exposed from the base, finely sulcate with a thin black crust. Margin entire or lobed, usually paler than the basal part of the pileus. Fertile surface yellowish brown to golden yellow, glancing on turning to incident light, pore tiny, invisible to the naked eye, 8–10 per mm. Tubes distinctly stratified, up to15 mm deep. Context up to 20 mm deep. Hyphal system dimitic, generative hyphae thin-walled, septate, 1.4–3 µm wide, skeletal hyphae thick-walled, golden to rusty brown, 3–4.5 µm wide. Basidia 7–9 × 4–5 um, 4-sterigmate. Spores globose to subglobose, hyaline to pale yellow, 1-guttulate, often collapsed, 3–3.5 × 2.5–3 µm.

Specimens Examined

India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, MIDC Paithan; 19˚32′28″N, 75˚22′29″E; alt 451 m; on the dried tree at the base of trunk *Dalbergia sissoo* DC.; 12/10/2016; Vijay Gore (VUG/VPM – 540).

Pleurotus djamor (Rumph. ex Fr.) Boedijn,

Fruiting bodies small to medium-sized, 30– 45 × 25– 40 mm, annual, spathulate to flabelliform, convex or depressed towards the base. Pileus initially pinkish-white then white to cream color, finely tomentose towards the base, finely striate. Margin at first involute, often incised. Lamellae are deeply decurrent, white, sometimes with yellowish cream or pale red tints, narrow, 24 mm wide, moderately crowded. Stipe absent or reduced and then lateral or eccentric, 1–6×3–4 mm, cylindrical, solid. Context thin, 1-4 mm thick, soft, fleshy. Hyphal system dimitic generative hyphae 2–8 µm diam., with prominent clamp-connections, skeletal hyphae,

2–8 um diam. Basidia 22–30×3–6 um, narrowly clavate bearing 4-sterigmata. Cheilocystidia 22–30 × 6–7 um, inflated clavate. Spores 7–9×4–5µm, cylindric, hyaline, thin-walled.

Specimens Examined
INDIA; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Bidkin; 19˚42′03″N, 75˚18′04″E; alt 501 m; on the wood logs of *Dalbergia sissoo* DC.; 12/10/2016; Vijay Gore (VUG/VPM – 529).

Porostereum spadiceum (Pers.) Hjortstam & Ryvarden, Syn. Fung. (Oslo) 4: 51 (1990).

Fruiting bodies 11–94 × 1–62 mm, up to 1 mm thick, annual, adnate, membranous, resupinate, effused reflex to pileate, resupinate patches often arising as small orbicular colonies later becomes widely effused reflex, flabelliform to umbonate. Pileus light brown to woody brown, concentrically zonate. Fertile surface smooth, greyish brown. Context thin, composed of compactly arranged hyphae, pale brownish. Hyphal system dimitic. Generative hyphae thin-walled, branched, septate, 3–4.5µm wide. Skeletal hyphae branched, branches mostly lateral, 3–5 µm wide. Spores 6.5–7.5 × 3–4 µm in diameter, ellipsoid, nonamyloid, smooth.

Specimens Examined
India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Dhorkin; 19˚37′04″N, 75˚21′47″E; alt 469 m; on the wood logs of *Acacia nilotica* (L.) Delile; 12/10/2016; Vijay Gore (VUG/VPM – 532).

Schizophyllum commune Fr. [as 'Schizophyllus communis'], Observ. mycol. (Havniae) 1: 103 (1815)

Fruiting bodies 4–31 × 3–28 mm, annual, flabelliform to kidney or bean-shaped, laterally attached, cream to grayish-white. Margin lobed, grayish-white. Lower surface falsely gilled, separating along gill's–edge. Context up to 1.3 mm thick, grayish brown. Hyphal system monometric, hyphae thin to thick-walled not inflating, septate with clamps. Basidia 14–20 × 4.5–6 µm, narrowly clavate, bearing 4-sterigmata. Cystida absent, Subhymenial layer interwoven, up to 10 µm wide. Spores 3–6 × 1.4–2.5 µm, allantoid cylindric, hyaline, thin-walled, smooth.

Specimens Examined
India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Pachod; 19˚34′13″N, 75˚37′28″E; alt 484 m; on the wood logs of *Acacia nilotica* (L.) Delile; 12/10/2016; Vijay Gore (VUG/VPM – 561).

*Scytinostroma duriusculum (*Berk. & Broome) Donk, Fungus, Wageningen 26(1-4): 20 (1956).

Fruiting bodies 21–114 × 18–62 mm, annual, adnate, membranous, resupinate to widely effused creamy white to pale yellow to ochraceous, papery thin, and brittle on drying. Fertile surface smooth, when touched gives velvety sensation. Context finely layered, smooth, dense, subhyaline in section, faintly stratose, homogeneous, pale yellow to ochraceous. Hyphal system dimitic. Generative hyphae thin-walled, clamp absent, branched, nondextrinoid, 1.5–2.5µm wide. Skeletal hyphae branched, branches mostly lateral, 1–2 µm wide. Spores 5–7.5 × 4–7.5 µm in diameter, globose, amyloid, smooth.

Specimens Examined
India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Dhangoan; 19˚34′22″N, 75˚22′29″E; alt 474 m; on the living tree but on dried part of trunk *Senna siamea* (Lam.) H.S.Irwin & Barneby; 12/10/2016; Vijay Gore (VUG/VPM – 538).

Tomophagus colossus (Fr.). Murrill. Torreya 5: 197 (1905).

Fruiting bodies 219 × 134 mm, up to 108 mm thick, annual, sessile, semicircular to ungulate very light on drying. Pileus finely tomentose when fresh but quickly developing a thin, laccate crust, becoming yellowish-brown or blackening with age. Fertile surface cream colored when fresh, dull pale brown with age. Pores angular to rounded, 2–4 per mm, dessipiments thick, entire. Context cream to pale buff, soft fibrous–spongy, azonate, homogeneous, up to 89 mm thick. Tube layer pale vinaceous brown, up to 19 mm thick. Hyphal system dimitic, generative hyphae thin-walled, with clamps, 2–4 µm wide, skeletal hyphae thick-walled, hyaline, weakly amyloid, with occasional branching, 2–5 µm wide. Basidia almost spherical with a short narrowed base, 4-sterigmate, 15–25 x 12–18 µm, with a basal clamp. Spores ellipsoid, with a rounded or truncate apex, bitunicate, exospore hyaline, smooth, endospore brownish, echinulate, 15–18 x 10–12.5 µm.

Specimens Examined
India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Adgoan; 19˚40′46″N, 75˚36′28″E; alt 538 m; on the wood logs of trunk *Ficus benghalensis* L.; 12/10/2016; Vijay Gore (VUG/VPM – 563).

Volvariella diplasia (Berk. & Broome.). Singer, Lilloa 22: 401 (1951).

Fruiting bodies medium-sized, solitary, or in groups. Cap 30 – 65 mm in diam., conical initially, then convex, umbonate. Pileus smooth to velutinate, finely striate, dry, grey to olive-grey. Margin irregular, entire to splinting or interrupted at maturity. Gills free, 12 – 15 per cm, close to rather crowded, pinkish white. Stipe central, 87 × 11 mm, swollen at the base, tapering toward apex, cream or yellowish-white, smooth, solid. Volva sac like, up to 35 mm long, cream white-yellowish to greyish purple patches. Context up to 3 mm wide, moderately thick in centre, thin towards the margin, soft, pinkish white. Annulus absent. Basidia 24–30 × 7–10 µm, cylindric clavate to clavate, 4-spored, rarely 2-spored. Cheilocystidia abundant, 50–80 × 14–25 µm. Pleurocystidia scattered, 35–71 × 11–30 µm, cylindric-clavate. Pileipellis is a regular cutis consisting of procumbent hyphae, 12–23 µm diam. Volva is made up of filamentous hyphae, with inflated cells 32–50 × 10–15 µm at outer and inner surfaces. Spores 7 – 8 × 5 – 6 um, subglobose to broadly ellipsoid, double-walled, smooth, colorless.

Specimens Examined
India; Maharashtra, Marathwada, Aurangabad district, Taluka Paithan, Adgoan; 19˚40′46″N, 75˚36′28″E; alt 538 m; on the wood logs of trunk *Ficus benghalensis* L.; 12/10/2016; Vijay Gore (VUG/VPM – 565).

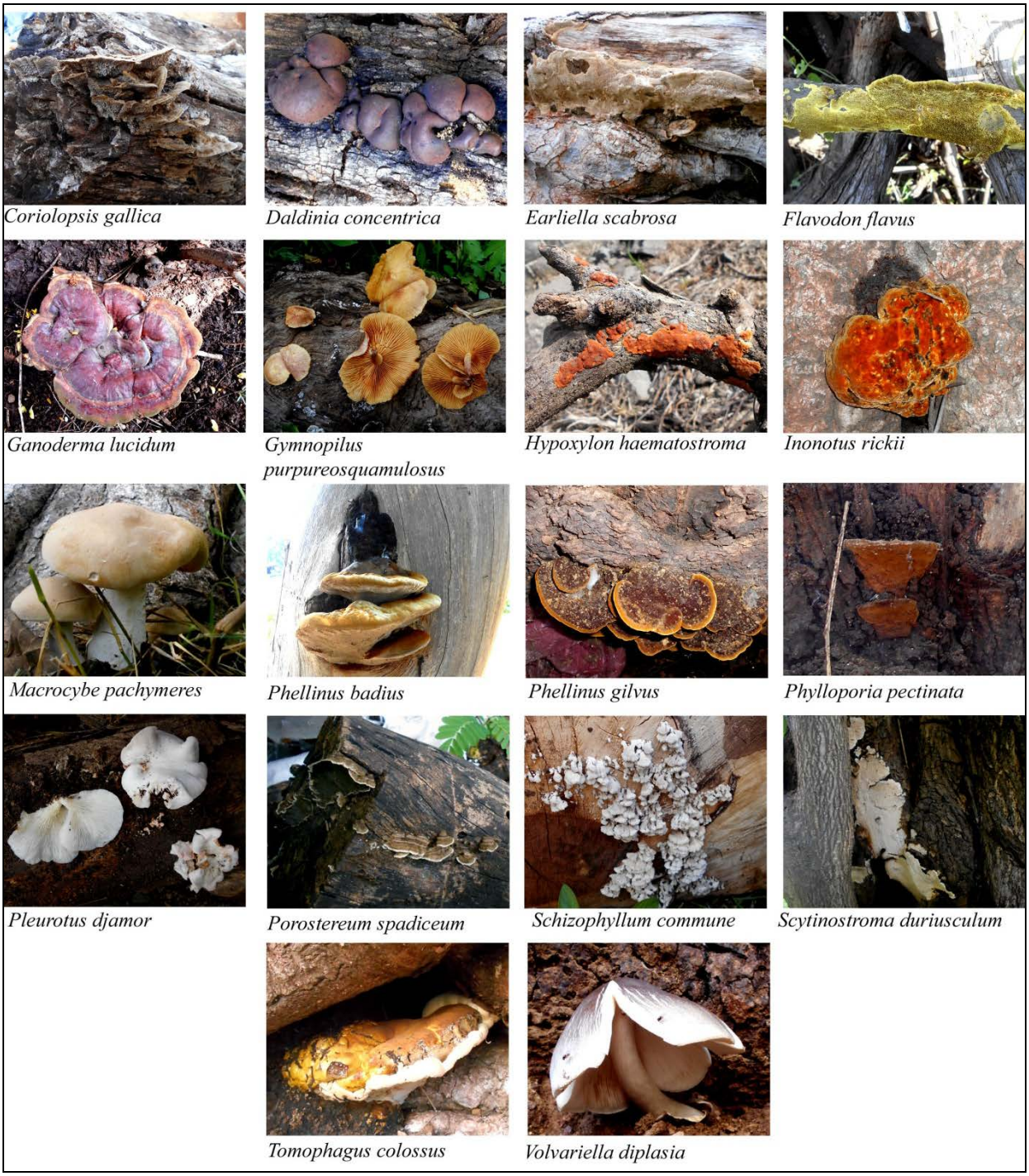

Fig 1

Conclusion

Survey and collection of wood-decaying macrofungi were conducted during July to October from different sites of Paithan Tehsil, Aurangabad district (M.S.) India. Forty-three specimens of macrofungi were collected, from that seventeen different types of genera and eighteen species, were studied (Photo Plate 1) which belongs to twelve families, one family from Division Ascomycota and eleven families from Division Basidiomycota, hymenochaetaceae is dominating family consists four genera. From the above discussion, it is concluded that *Daldinia concentrica, Flavodon flavus, Ganoderma lucidum, Macrocybe pachymeres, Phellinus badius, and Schizophyllum commune* is dominating macrofungi and *Coriolopsis gallica, Earliella scabrosa, Gymnopilus purpureosquamulosus, Hypoxylon haematostroma, Inonotus rickii, Phellinus gilvus, Phylloporia pectinata, Pleurotus djamor, Porostereum spadiceum, Scytinostroma duriusculum, Tomophagus colossus,* and *Volvariella diplasiaare* are rarely observed macrofungi, belongs to seven hosts *Acacia nilotica, Azadirachta indica, Citrus medica, Dalbergia sissoo, Ficus benghalensis, Senna siamea,* and *Zizyphus mauritiana.*

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