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COMMUNICATION

DIVERSITY OF POLYPORES IN KERALA AGRICULTURAL UNIVERSITY MAIN CAMPUS, VELLANIKKARA, KERALA, INDIA

M. Kiran, C.K. Adarsh, K. Vidyasagran & P.N. Ganesh

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COMMUNICATION

Diversity of polypores in Kerala Agricultural University main campus, Vellanikkara, Kerala, India

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Abstract: A survey of polypores was conducted from January 2013 to December 2015 in the Kerala Agricultural University (KAU) main campus garden lands, botanical gardens, and plantations visited during pre-monsoon, monsoon, and post monsoon periods. A total of 43 polypore species in 28 genera belonging to seven families were recorded during the study. Their distributions were analyzed by family, rot, and habit. Polyporaceae dominated with 29 species, followed by Hymenochetaceae with nine, Meruliaceae with five, Ganodermataceae with three, and Meripilaceae & Fomitopsidaceae represented by two species each. Forty species were white rot polypores and three were brown rotters; annuals and perennials were represented by 28 and 15 species, respectively. This survey emphasizes the importance of university campuses in biodiversity conservation.

Keywords: Basidiomycota, biodiversity, brown rotters, decomposition, mushrooms, Polyporaceae, Polyporales, Thrissur, wood-rotting.

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INTRODUCTION

The Polyporales are a large and taxonomically complex order of mushrooms in the division Basidiomycota. Polypores are among the most efficient decomposers of lignin and cellulose, the main components of wood. These wood-rotters assist in the decomposition of dead wood and act as pathogens on living wood. Polypores play an important role in decomposition and nutrient cycling in forest ecosystems, where they dominate other communities of wood-rotting organisms.

Bakshi (1971) gave an account of 355 species of polypores belonging to 15 genera in his outstanding work Indian Polyporaceae (on trees and timber). Roy & De (1996) listed 114 species in Polyporaceae of India based on exhaustive studies of fungi collected from different parts of the country. Florence (2004) reported 555 species of basidiomycetes under 179 genera from Kerala State. Bhosale et al. (2005) gave a tabulated account of 251 species of order Aphyllophorales from the Western Ghats. Leelavathy & Ganesh (2000) reported 78 species belonging to 26 genera under families Ganodermataceae, Hymenochaetaceae, and Polyporaceae in their classical work 'Polypores of Kerala'. Florence & Yesodharan (2000) reported 35 polypores from Peechi-Vazhani Wildlife Sanctuary. Florence (2004) recorded 93 species of polypores from the state. Lately, Mohanan (2011) identified and described a total of 89 species of polypores belonging to 32 genera from different forest ecosystems of Kerala. Recently, Iqbal et al. (2016) reported 36 polypores under 21 genera belonging to six families from Peechi- Vazhani wildlife sanctuary. In Kerala, polypore studies have been less exhaustive compared to those of mushrooms (Agaricales). While the polypores of Kerala were studied in detail by Bakshi (1971), Leelavathy & Ganesh (2000) and Mohanan (2011), much of the forest area remains unexplored. A total of 148 polypore species under eight families belonging to 68 genera were recorded from Kerala State till now (Adarsh et al. 2018).

In the present study, an attempt was made to document the richness of polypores in Kerala Agricultural University (KAU) main campus, southern India.

STUDY AREA

The Kerala Agricultural University (KAU) main campus is located at Vellanikkara, Thrissur District, Kerala (Figure 1). The area lies between 10.032–10.033 ^{0}N and 76.016–76.017 ^{0}E and is located 5km from the Peechi-Vazhani Wildlife Sanctuary, Western Ghats. The campus has a total area of 391.44ha. Major habitats include garden lands, botanical garden, plantations of rubber, coconut, plantain & cocoa, and orchards of mango, jackfruit, sapota & guava. KAU campus enjoys a moderate climate. The 10-year mean minimum temperature is 23.3^{0}C and 10-year mean maximum of 31.8^{0}C. The area receives

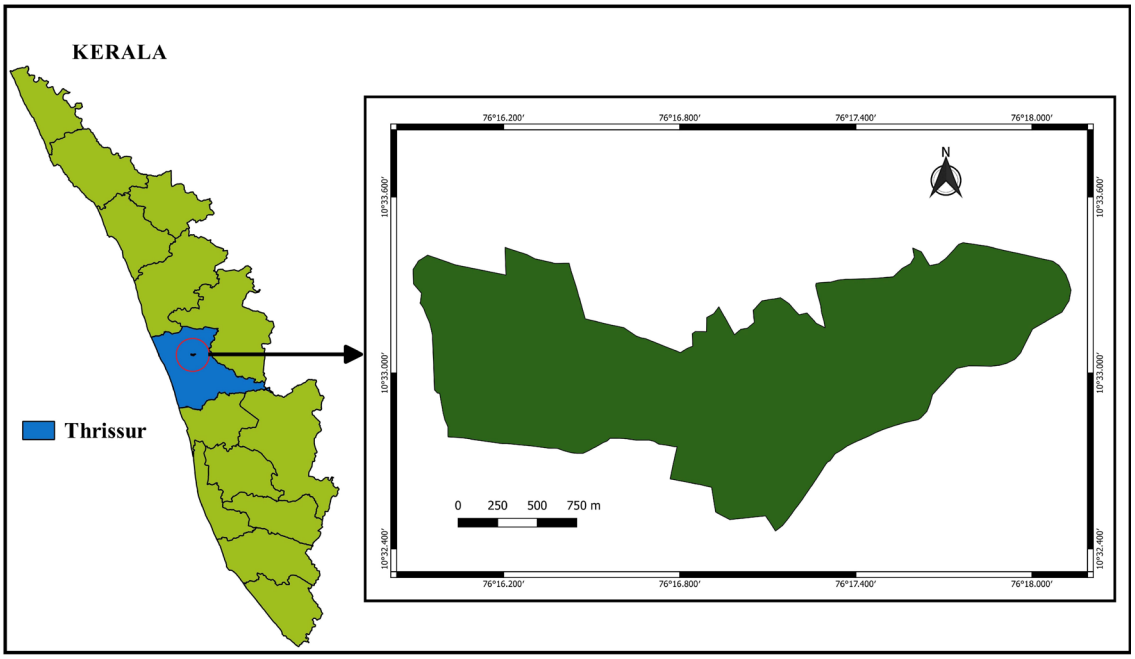

Figure 1. Location map of Kerala Agricultural University main campus, Vellanikkara, Thrissur, Kerala.

both south-west and north-east monsoons, with the greatest portion of the rainfall received from the south-west monsoon between June and September. The mean annual rainfall is 2,763mm. The mean number of rainy days per year is 110 (KAU weather station 2010).

Methods: Survey, Collection and Identification of fungi

The survey was conducted from January 2013 to December 2015 in the Kerala Agricultural University (KAU) main campus for collection of polypores. The garden lands, botanical gardens and plantations were visited during pre-monsoon, monsoon and post monsoon periods for the documentation of polypores. The observations were done by collection of sporocarps, labelling with specimen number, rot character identification, details of host, taking photographs & recording macro morphological characters, and details of substratum in the illustrated data sheet. Collection of polypores was made by opportunistic survey in the study area for maximizing the documentation of polypore diversity and distribution.

The polypore specimens were properly air dried or oven dried and stored in polythene zip-cover under low humid conditions. The specimens were identified by analyzing macro and micro morphological features based on the identification key provided by Bakshi (1971), Leelavathy & Ganesh (2000), and Ryvarden (1976). Some of the specimens were compared with those in the herbaria at Forest Research Institute, Dehradun and Kerala Forest Research Institute, Peechi. All the specimens collected during the study period were catalogued and stored in the Department of Natural Resource Management, College of Forestry at Kerala Agricultural University. The taxonomy and nomenclature are as per indexfungorum (http://www.indexfungorum.org/Names/Names.asp), and the authors of scientific names are according to the 'Authors of Fungal Names' (http://www.indexfungorum.org/AuthorsofFungalNames.htm).

RESULTS AND DISCUSSION

A total of 43 polypore species in 28 genera belonging to seven families were recorded during the study (Images 1–43), which accounts for 29% of the polypores recorded from Kerala (Adarsh et al. 2018). Their distribution was analyzed family-wise, rot-wise, and habit-wise (Table 1, Figures 2–4). The family Polyporaceae dominated with 29 species followed by Hymenochaetaceae with nine species, Meruliaceae with five species, and Ganodermataceae with three species. The families Meripilaceae and Fomitopsidaceae were represented by two species each (Figure 2). Out of the total species recorded 40 species were white rot polypores and only three were brown rotters (Figure 3). Among the 43 polypores identified, annuals and perennials were represented by 28 and 15 species, respectively (Figure 4).

The white rot polypores shows significant dominance over brown fungi with 40 number of species (Figure 3). Among these species, *Junghunia nitida* and *Oxyporus pellicula* were found to be new records from the southern Western Ghats.

The polypore-host analysis revealed that the trees in the family Leguminosae provided habitats for 25 polypore species (Figure 5). The family Anacardiaceae hosted 17 polypore species followed by Euphorbiaceae (11) and Combretaceae (5). Host specificity is a relationship in which a particular fungus is restricted to a single host or a group of related species but does not occur in association with other unrelated plants in the same

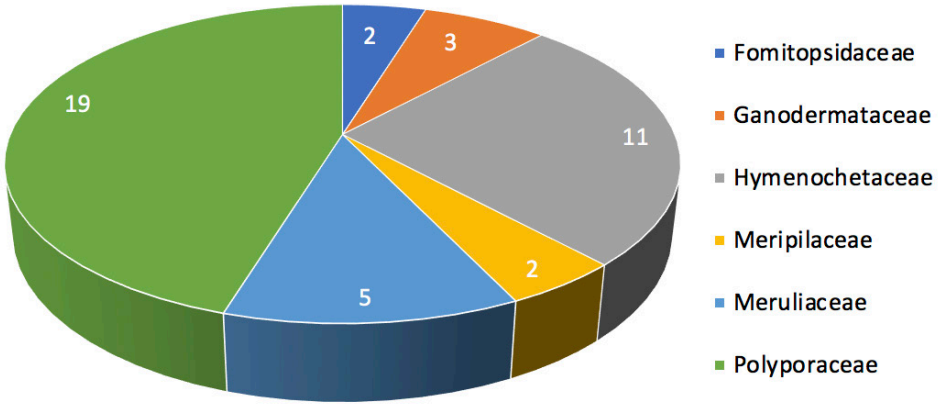

Figure 2. Family-wise distribution of polypores in KAU main campus.

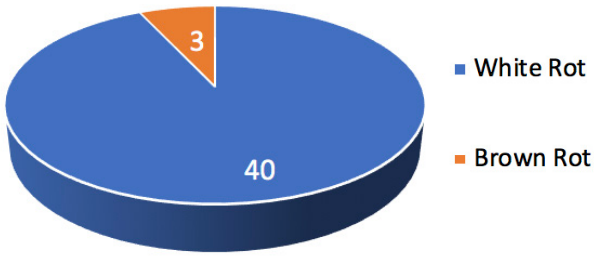

Figure 3. Rot-wise distribution of polypores.

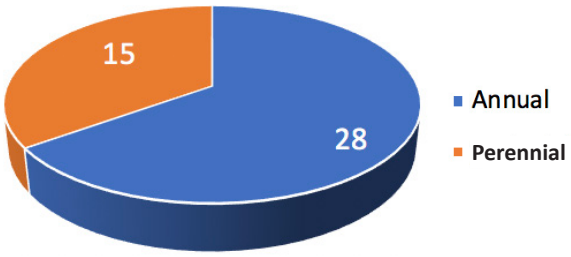

Figure 4. Habit-wise distribution of polypores.

habitat (Holliday 1998). The causes of host selectivity of wood-decay species are complex and include wood chemistry, wood microclimate, gaseous regime and the ways in which fungi become established (Boddy 2001). The host specificity of polypores and other wood-inhabiting basidiomycetes is widely considered to be low in tropical areas because of high host plant species richness (Schmit 2005)

Among the substrate type log harbored the maximum occurrence of polypores (89) followed by snag (23), stump (16), twig (17), and living tree (10) (Figure 6). Logs, especially the larger ones are more prone to harbour high species richness which is partially due to greater surface area and volume (Bader et al. 1995; Kruys & Jonsson 1999). Additionally, the decay rate varies even on the same log, resulting in heterogeneous microhabitats (Crites & Dale 1998). Logs with a high degree of soil contact are likely to be buffered against fluctuations in temperature and especially water content compared to logs with little soil contact (Heilmann-Clausen & Christensen 2003). All these factors are responsible for the high species richness and occurrence of polypores on logs during the present study. Among the substrata, living tree harboured the least number of polypores. This may be due to the different species adaptations to the defense mechanisms present in the living trees.

Thirty-five polypore species were recorded from substrate under diameter class 31–40 cm followed by 11–20 cm, and 21–30 cm diameter classes (Figure 7). The substrate size was found to be influencing the hymenial surface area per log as well as the density of polypores. A large log can support a greater mycelial biomass simply because of the larger volume, corresponding to a greater

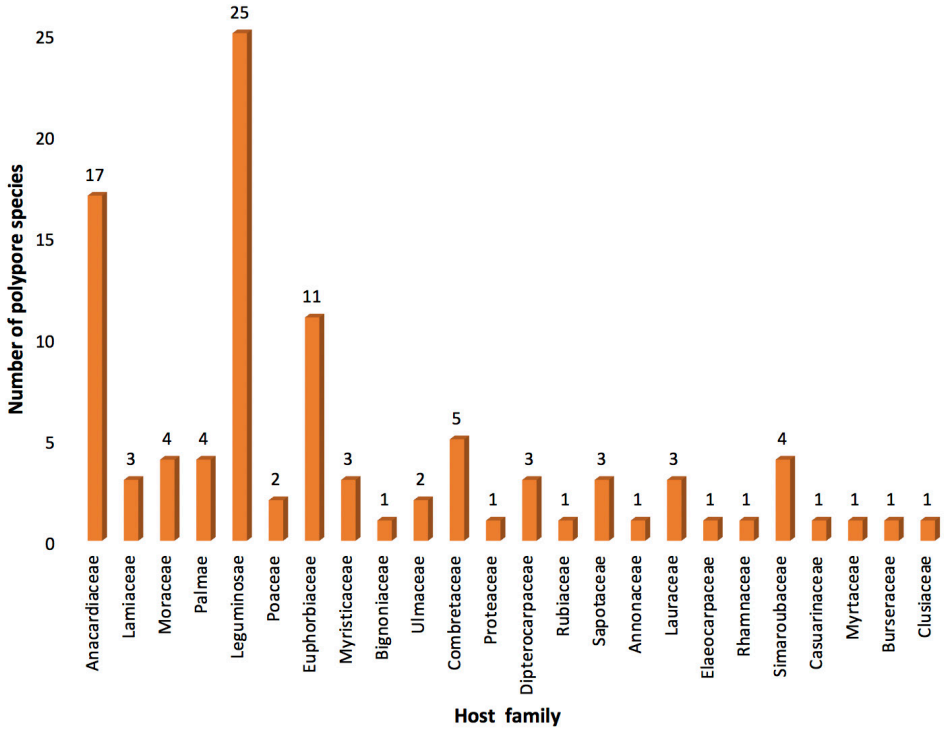

Figure 5. Diversity of polypores on different tree host family

Table 1. Distribution of polypores in Kerala Agricultural University campus.

	Family & Species	Habit (A/P)	Rot (W/B)	Host species	Host family	Substrate type	GBH (cm)
I	**Fomitopsidaceae**						
1.	*Fomitopsis feei* (Fr.) Kreisel 1971	A	B	*Tectona grandis* L. f.	Lamiaceae	Log	39
2	*Fomitopsis palustris* (Berk. & M.A. Curtis) Gilb. & Ryvarden, 1985	A	B	*Cassia fistula* L.	Leguminosae	Snag	31
				Anacardium occidentale L.	Anacardiaceae	Snag	56
				Peltophorum pterocarpum (DC.) Baker ex Heyne	Leguminosae	Log	65
II	**Ganodermataceae**						
3	*Ganoderma australe* (Fr.) Pat. 1889	P	W	*Albizia odaratissima* (L.f.) Benth.	Leguminosae	Snag	215
				Manilkara zapota (L.) P. Royen	Sapotaceae	Log	40
				Cocos nucifera L.	Palmae	Snag	89
				Cocos nucifera L.	Palmae	Snag	72
				Cocos nucifera L.	Palmae	Snag	68
				Annona reticulata L.	Annonaceae	Living tree	32
4	*Ganoderma lucidum* (Curtis) P. Karst. 1881	A	W	*Briedelia retusa* (L.) A. Juss. (L.) A.Juss	Euphorbiaceae	Living tree	22
				Delonix regia (Boj.) Rafin.	Leguminosae	Log	35
				Vateria indica L.	Dipterocarpaceae	Log	63
				Cocos nucifera L.	Palmae	Tree stump	68
				Caesalpinia coriaria Willd.	Leguminosae	Snag	30
				Delonix regia (Boj.) Rafin.	Leguminosae	Tree stump	450
				Gliricidia sepium (Jack.) Kunth ex Walp.	Leguminosae	Log	54
				Albizia odaratissima (L.f.) Benth.	Leguminosae	Tree stump	215
5	*Ganoderma subresinosum* (Murrill) C.J. Humphrey 1938	P	W	*Myristica fragrans* Houtt.	Myristicaceae	Log	31
III	**Hymenochetaceae**						
6	*Inonotus* sp.	P	W	*Vateria indica* L.	Dipterocarpaceae	Tree stump	48
7	*Phellinus caryophylli* (Racib.) G. Cunn. 1965 Fisch	P	W	*Leucaena leucocephala* (Lamk.) de Wit	Leguminosae	Living Tree	32
8	*Phellinus nilgheriensis* (Mont.) G. Cunn. 1965	P	W	*Leucaena leucocephala* (Lamk.) de Wit	Leguminosae	Log	50
9	*Phellinus adamantinus* (Berk.) Ryvarden, 1972	P	W	*Ailanthus triphysa* (Dennst.) Alston	Simauorubaceae	Log	38
10	*Phellinus ferrugineovelutinus* (Henn.) Ryvarden 1972	P	W	*Anacardium occidentale* L.	Anacrdiaceae	Tree stump	56
11	*Phellinus rimosus* (Berk.) Pilát 1940	P	W	*Artocarpus heterophyllus* Lamk.	Moraceae	Log	22
12	*Phellinus* sp. 1	P	W	*Anacardium occidentale* L.	Anacrdiaceae	Log	40
13	*Phellinus* sp. 2	P	W	*Delonix regia* (Boj.) Rafin.	Leguminosae	Log	46
14	*Tropicoporus dependens* (Murrill) L.W. Zhou, Y.C. Dai &Vlasák 2015	P	W	*Mangifera indica* L.	Anacardiaceae	Log	35
				Manilkara zapota (L.) P. Royen	Sapotaceae	Snag	43
15	*Phellinus fastuosus* (Lév.) S. Ahmad 1972	P	W	*Mangifera indica* L.	Anacardiaceae	Tree stump	40
				Pongamia pinnata (L.) Pierre	Leguminosae	Living tree	125

	Family & Species	Habit (A/P)	Rot (W/B)	Host species	Host family	Substrate type	GBH (cm)
16	*Phellinus gilvus* (Schwein.) Pat. 1900 =	A	W	*Terminalia catappa* L.	Combretaceae	Snag	48
				Anacardium occidentale L.	Anacardiaceae	Log	92
				Grevillea robusta A. Cunn.	Proteaceae	Log	68
				Anacardium occidentale L.	Anacardiaceae	Snag	22
				Anacardium occidentale L.	Anacardiaceae	Tree stump	56
				Mangifera indica L.	Anacardiaceae	Living tree	25
				Mangifera indica L.	Anacardiaceae	Stump	38
				Vateria indica L.	Dipterocarpaceae	Log	49
				Mitragyna parvifolia (Roxb.) Kunth	Rubiaceae	Log	41
				Racosperma auriculiformae (Benth.) Pedley	Leguminosae	Log	38
				Terminalia catappa L.	Combretaceae	Stump	48
				Anacardium occidentale L.	Anacardiaceae	Log	92
IV	**Meripilaceae**						
17	*Rigidoporus crocatus* (Pat.) Ryvarden 1983	P	W	*Cinnamomum malabatrum* (Burm.f.) Blume	Lauraceae	Snag	41
18	*Rigidoporus lineatus* (Pers.) Ryvarden 1972	A	W	*Delonix regia* (Boj.) Rafin.	Leguminosae	Snag	206
				Delonix regia (Boj.) Rafin.	Leguminosae	Log	88
				Cocos nucifera L.	Palmae	Log	90
				Ailanthus triphysa (Dennst.) Alston	Simorubaceae	Log	38
				Terminalia paniculata Roth	Combretaceae	Living tree	28
				Hevea braziliensis (H.B.K.) Muell.-Arg.	Euphorbiaceae	Log	>100
				Delonix regia (Boj.) Rafin.	Leguminosae	Log	85
				*Bambusa gigantea*Wall.	Poaceae	Log	38
				Albizia odaratissima (L.f.) Benth.	Leguminosae	Snag	56
				Delonix regia (Boj.) Rafin.	Leguminosae	Log	128
V	**Meruliaceae**						
19	*Flavodon flavus* (Klotzsch) Ryvarden 1973	A	W	*Delonix regia* (Boj.) Rafin.	Leguminosae	Twig	10
				Peltophorum pterocarpum (DC.) Baker ex Heyne	Leguminosae	Log	64
				Peltophorum pterocarpum (DC.) Baker ex Heyne	Leguminosae	Log	16
				Trema orientalis (L.) Blume	Ulmaceae	Log	68
				Cassia nodosa Ham. ex Roxb.	Leguminosae	Log	16
				Delonix regia (Boj.) Rafin.	Leguminosae	Twigs	10
20	*Irpex lacteus* (Fr.) Fr. 1828	A	W	*Anacardium occidentale* L.	Anacardiaceae	Log	18
				Trema orientalis (L.) Blume	Ulmaceae	Log	98
21	*Junghuhnia crustacea* (Jungh.) Ryvarden 1972	A	W	*Macaranga peltata* (Roxb.) Muell.-Arg.	Euphorbiaceae	Twig	8
22	*Junghuhnia nitida* (Pers.) Ryvarden 1972	A	W	*Mangifera indica* L.	Anacardiaceae	Twig	8
				Macaranga peltata (Roxb.) Muell.-Arg.	Euphorbiaceae	Twig	5
23	*Poria* sp.	A	W	*Anacardium occidentale* L.	Anacrdiaceae	Log	55
VI	**Polyporaceae**						
24	*Cerrena* sp.	A	W	*Mangifera indica* L.	Anacardiaceae	Log	15
25	*Trametella telfairii* (Klotzsch) M. Pieri& B. Rivoire 2008	A	W	*Tectona grandis* L. f.	Lamiaceae	Snag	30

	Family & Species	Habit (A/P)	Rot (W/B)	Host species	Host family	Substrate type	GBH (cm)
26	*Trametes flavida* (Lév.) Zmitr., Wasser &Ezhov 2012	A	W	*Cocos nucifera* L.	Palmae	Log	88
				Albizia odaratissima (L.f.) Benth.	Leguminosae	Log	55
				Bambusa bamboos	Poaceae	Log	34
				Albizia odaratissima (L.f.) Benth.	Leguminosae	Log	46
				Racosperma auriculiformae (Benth.) Pedley	Leguminosae	Snag	73
				Gliricidia sepium (Jack.) Kunth ex Walp.	Leguminosae	Snag	56
				Gliricidia sepium (Jack.) Kunth ex Walp.	Leguminosae	Log	38
				Gliricidia sepium (Jack.) Kunth ex Walp.	Leguminosae	Living tree	29
				Gliricidia sepium (Jack.) Kunth ex Walp.	Leguminosae	Log	105
				Racosperma auriculiformae (Benth.)Pedley	Leguminosae	Snag	65
				Mangifera indica L.	Anacardiaceae	Log	35
27	*Earliella scabrosa* (Pers.) Gilb. &Ryvarden 1985	A	W	*Mangifera indica* L.	Anacardiaceae	Log	128
				Macaranga peltata (Roxb.) Muell.-Arg.	Euphorbiaceae	Twig	9
				Delonix regia (Boj.) Rafin.	Leguminosae	Twig	33
				*Myristica fragrans*Houtt.	Myristicaceae	Tree stump	32
				Spathodea companulata Beaux.	Bignoniaceae	Snag	203
				Hevea braziliensis (H.B.K.) Muell.-Arg.	Euphorbiaceae	Log	34
				Delonix regia (Boj.) Rafin.	Leguminosae	Log	49
				Gliricidia sepium (Jack.) Kunth ex Walp.	Leguminosae	Log	36
				Delonix regia (Boj.) Rafin.	Leguminosae	Tree stump	68
				Hevea braziliensis (H.B.K.) Muell.-Arg.	Euphorbiaceae	Log	72
28	*Favolus tenuiculus* P. Beauv. 1806	A	W	*Hevea braziliensis* (H.B.K.) Muell.-Arg.	Euphorbiaceae	Log	51
29	*Neofomitella rhodophaea* (Lév.) Y.C. Dai, Hai J. Li &Vlasák 2015	A	B	*Delonix regia* (Boj.) Rafin.	Leguminosae	Log	117
30	*Hexagonia tenuis* (Fr.) Fr. 1838	A	W	*Delonix regia* (Boj.) Rafin.	Leguminosae	Twig	36
				Mangifera indica L.	Anacardiaceae	Snag	85
				Anacardium occidentale L.	Anacardiaceae	Living tree	22
				Racosperm amangium (Wild.) Pedley	Leguminosae	Snag	15
				Hevea braziliensis (H.B.K.) Muell.-Arg.	Euphorbiaceae	Log	32
				Litsea glutinosa (Lour.) C. Robs.	Lauraceae	Log	32
				Elaeocarpus serratus L. var. serratus	Elaeocarpaceae	Log	56
				Albizia lebbeck (L.) Wild.	Leguminosae	Log	16
				Mangiferaindica L.	Anacardiaceae	Twig	6
				Delonix regia (Boj.) Rafin.	Leguminosae	Log	37
31	Lenzites sp.	A	W	*Cinnamomum malabatrum* (Burm.f.) Blume	Lauraceae	Tree stump	48
32	*Loweporus tephroporus* (Mont.) Ryvarden 1980	P	W	*Mangifera indica* L.	Anacardiaceae	Log	39

	Family & Species	Habit (A/P)	Rot (W/B)	Host species	Host family	Substrate type	GBH (cm)
33	*Microporus affinis* (Blume & T. Nees) Kuntze 1898	A	W	Unidentified		Log	82
				Terminalia cuneata Roth	Combretaceae	Tree stump	6
				Terminalia elliptica Willd.	Combretaceae	Twig	18
				Bauhinia purpurea L.	Leguminosae	Log	16
34	*Microporus xanthopus* (Fr.) Kuntze 1898	A	W	*Terminalia paniculata* Roth	Combretaceae	Twig	34
				Terminalia elliptica Willd.	Combretaceae	Twig	8
				Butea parviflora	Leguminosae	Log	26
				Zizyphus mauritiana Lamk.	Rhamnaceae	Log	34
				Gliricidia sepium (Jack.) Kunth ex Walp.	Leguminosae	Living tree	19
35	*Nigroporus vinosus* (Berk.) Murrill 1905	A	W	*Racospermamangium* (Wild.) Pedley	Leguminosae	Log	60
				Albizialebbeck (L.) Wild.	Leguminosae	Log	13
36	*Lentinus arcularius* (Batsch) Zmitr. 2010	A	W	*Casuarina litorea* L.	Casuarinaceae	Log	18
				Artocarpus heterophyllus Lamk.	Moraceae	Log	130
				Xylia xylocarpa (Roxb.) Taub.	Leguminosae	Twig	10
37	*Favolus grammocephalus* Lloyd 1924	A	W	*Garuga pinnata* Roxb.	Burseraceae	Log	42
				Macaranga peltata (Roxb.) Muell.-Arg.	Euphorbiaceae	Twig	5
				Peltophorum pterocarpum (DC.) Baker ex Heyne	Leguminosae	Log	15
				Ailanthus triphysa (Dennst.) Alston	Simaroubaceae	Twig	11
38	*Pyrofomes albomarginatus* (Zipp. ex Lév.) Ryvarden 1972	P	W	*Pterocarpus santalinus*L.f.	Leguminosae	Log	45
39	*Trametes cotonea* (Pat. & Har.) Ryvarden 1972	A	W	*Myristica fragrans* Houtt.	Myristicaceae	Log	31
				Phyllanthus emblica L.	Euphorbiaceae	stump	12
				Anacardium occidentale L.	Anacardiaceae	Log	30
				Senna siamea (Lamk.) Irwin & Barneby	Leguminosae	Living tree	34
				Macaranga peltata (Roxb.) Muell.-Arg.	Euphorbiaceae	Log	58
				Racosperma mangium (Wild.) Pedley	Leguminosae	Snag	40
				Racosperma mangium (Wild.) Pedley	Leguminosae	Tree stump	36
40	*Trametes hirsuta* (Wulfen) Lloyd 1924.	A	W	*Peltophorum pterocarpum* (DC.) Baker ex Heyne	Leguminosae	Snag	88
				Mangifera indica L.	Anacardiaceae	Log	12
				Artocarpus heterophyllus Lamk.	Moraceae	Log	116
				Albizia odaratissima (L.f.) Benth.	Leguminosae	Snag	68
				Samanea saman (Jacq.) Merr.	Leguminosae	Log	48
				Hevea braziliensis (H.B.K.) Muell.-Arg.	Euphorbiaceae	Log	21
				Hevea braziliensis (H.B.K.) Muell.-Arg.	Euphorbiaceae	Twig	10
41	*Trametes* sp.	A	W	*Bauhinia purpurea* L.	Leguminosae	Log	48

	Family & Species	Habit (A/P)	Rot (W/B)	Host species	Host family	Substrate type	GBH (cm)
42	*Trichaptum byssogenum* (Jungh.) Ryvarden 1972	A	W	*Mangifera indica* L.	Anacardiaceae	Log	20
				Tectona grandis L. f.	Lamiaceae	Log	18
				Artocarpus heterophyllus Lamk.	Moraceae	Log	80
				Terminalia bellirica (Gaertn.) Roxb.	Combretaceae	Log	85
				Delonix regia (Boj.) Rafin.	Leguminosae	Log	14
				Garcinia gummi-gutta (L.) Robs.	Clusiaceae	Twig	6
				Gliricidia sepium (Jack.) Kunth ex Walp.	Leguminosae	Log	18
				Gliricidia sepium (Jack.) Kunth ex Walp.	Leguminosae	Log	60
				Gliricidia sepium (Jack.) Kunth ex Walp.	Leguminosae	Tree stump	28
				Manilkara zapota (L.) P. Royen	Sapotaceae	Log	36
				Mangifera indica L.	Anacardiaceae	Log	22
				Syzygium cumini (L.) Skeels	Myrtaceae	Log	25
				Peltophorum pterocarpum (DC.) Baker ex Heyne	Leguminosae	Log	20
				Albizia odaratissima (L.f.) Benth.	Leguminosae	Log	35
				Macaranga peltata (Roxb.) Muell.-Arg.	Euphorbiaceae	Log	10
				Ailanthus triphysa (Dennst.) Alston	Simauorubaceae	Log	45
				Mangifera indica L.	Anacardiaceae	Log	18
VII	**Schizoporaceae**						
43	*Oxyporu spellicula* (Jungh.) Ryvarden 1980	A	W	*Delonix regia* (Boj.) Rafin.	Leguminosae	Log	12

A—Annual | P—Perennial | W—White rot | B—Brown rot.

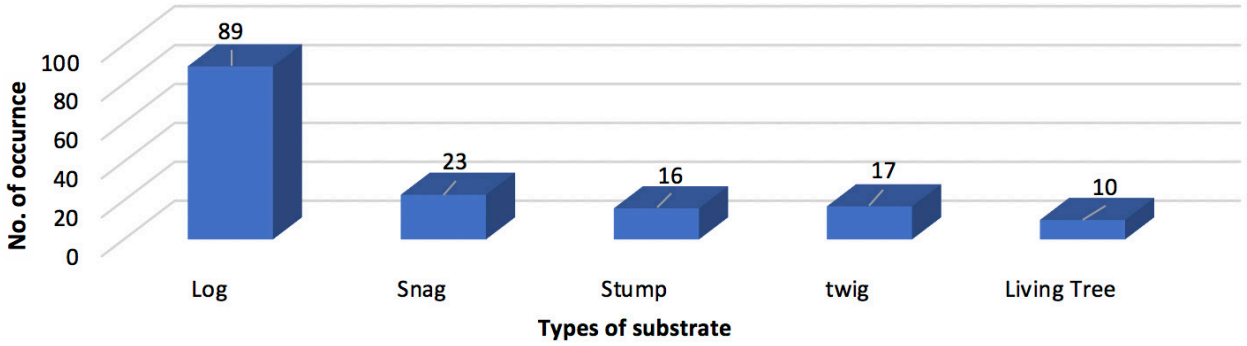

Figure 6. Polypores on different substrate types.

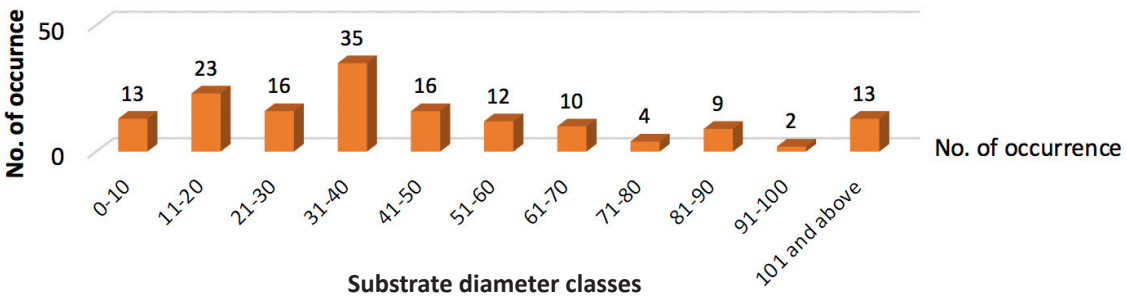

Figure 7. Polypores on different substrate diameter classes

amount of resources (Bader et al. 1995), however, in the present study the abundance of substrate under diameter class 31–40 cm is much higher than others. Understanding local host selectivity is important since it affects patterns of spread, density-dependent population dynamics, and in turn the maintenance of biological diversity and aspects of ecosystem function (Gilbert et al. 2008).

There are only few studies done on the diversity of polypores in Kerala. The present study attempts to document the diversity of polypores in KAU main campus. The present study reiterates the significance of KAU main campus in conserving the biodiversity of the region. Earlier studies on the fauna of KAU main campus have reported 139 species of birds (Nameer et al. 2000), 139 species of butterflies (Aneesh et al. 2013), 48 species of odonates (Adarsh et al. 2014), and 86 species of spiders (Adarsh & Nameer 2015). This is quite significant and thus emphasizes the importance of university campuses in biodiversity conservation.

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Image 1. *Fomitopsis feei*

Image 2. *Fomitopsis palustris*

Image 3. *Ganoderma australe*

Image 4. *Ganoderma lucidum*

Image 5. *Ganoderma subresinosum*

Image 6. *Inonotus* sp.

Image 7. *Phellinus caryophylli*

Image 8. *Phellinus nilgheriensis*

Image 9. *Phellinus adamantinus*

Image 10. *Phellinus ferrugineovelutinus*

Image 11. *Phellinus rimosus*

Image 12. *Phellinus* sp. 1

Image 13. *Phellinus* sp. 2

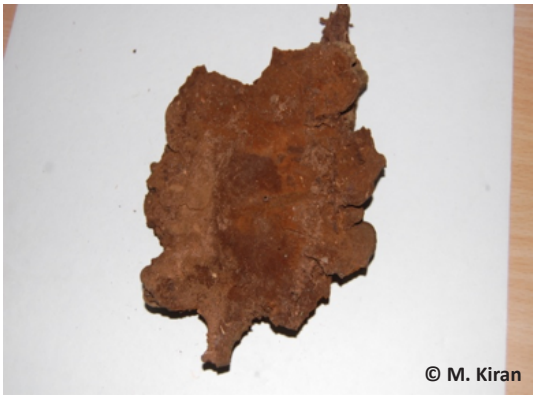

Image 14. *Tropicoporus dependens*

Image 15. *Phellinus fastuosu*

Image 16. *Phellinus gilvus*

Image 17. *Rigidoporus crocatus*

Image 18. *Rigidoporus lineatus*

Image 19. *Flavodon flavus*

Image 20. *Irpex lacteus*

Image 21. *Junghuhnia crustacea*

Image 22. *Junghuhnia nitida*

Image 23. *Poria* sp.

Image 24. *Cerrena* sp.

Image 25. *Trametella telfairii*

Image 26. *Trametes flavida*

Image 27. *Earliella scabrosa*

Image 28. *Favolus tenuiculus*

Image 29. *Neofomitella rhodophaea*

Image 30. *Hexagonia tenuis*

Image 31. *Lenzites* sp.

Image 32. *Loweporus tephroporus*

Image 33. *Microporus affinis*

Image 34. *Microporus xanthopus*

Image 35. *Nigroporus vinosus*

Image 36. *Lentinus arcularius*

Image 37. *Favolus grammocephalus*

Image 38. *Pyrofomes albomarginatus*

Image 39. *Trametes cotonea*

Image 40. *Trametes hirsuta*

Image 41. *Trametes* sp.

Image 42. *Trichaptum byssogenum*

Image 43. *Oxyporus pellicula*

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