



Evaluation of phylloplane fungal flora on host plant families in the Maharashtra state of India

Dubey R and Neelima AM

Botanical Survey of India, Western Regional Centre 7– Koregaon Road, Pune–411001

Dubey R and Neelima AM 2025 – Evaluation of phylloplane fungal flora and host plant families in the Maharashtra state of India. *Plant Pathology & Quarantine* 15(1), 1–48, Doi 10.5943/ppq/15/1/1

Abstract

This study represents the culmination of extensive surveys conducted across various forest regions of Maharashtra, India, as part of the “Foliicolous fungi of Maharashtra” project (2011–2016). The primary aim of this research was to document the diverse host plant families and the phylloplane fungi manifesting visible leaf symptoms, thus providing deeper insights into their intricate host–fungal relationships. The findings of this investigation unveil a rich diversity, with 569 fungal isolates identified across 239 host plants spanning 68 different plant families. These isolates represent a total of 349 fungal species under 192 genera. Notably, a significant concentration of fungal diversity was observed within certain plant families, such as Rubiaceae (47 species), Poaceae (40 species), Fabaceae (39 species), Arecaceae (38 species), Lamiaceae (32 species), Apocynaceae (26 species), Malvaceae (25 species), Oleaceae (22 species), Moraceae (17 species), Anacardiaceae (16 species), and Myrtaceae (14 species). Additionally, a range of 1 to 15 fungal species was recorded infecting other host families.

Keywords – diversity – distribution – flora – foliar fungi – phylloplane

Introduction

Maharashtra is one of the major states in Peninsular India in terms of area and shows a wide range of ecosystems. The state has a geographical area of 307,713 sq km and lies between 15°35'N to 22°02'N latitude and 72°36'E to 80°54'E longitude. The geographical divisions of the state, viz., Konkan, Sahyadris, Khandesh, Desh, Marathwada and Vidarbha regions represent unique floristic features and differ from one another in diverse rainfall, temperature, elevation and edaphic patterns (Singh & Karthikeyan 2000). A major portion of the northern Western Ghats, the Sahyadris, spreads over 11 districts of Maharashtra. The state of Maharashtra is rich in flora and is represented by 187 families, 1081 genera, 3025 species, 21 sub–species, 145 varieties, one sub–variety and two forms that occur in the wild. Besides this, 844 cultivated species have been recorded. Twenty–five genera and 694 endemic species occur in Maharashtra (Singh & Karthikeyan 2001). Consequently, the plant families in the forest area support a rich foliicolous fungal flora as it exhibits considerable variation in floristic composition, physiognomy, life forms, etc. Fungi inhabiting living leaves or phylloplane of plants are considered ‘foliar’ or ‘foliicolous fungi’ (Dix & Webster 1995). They reside on the leaf surface and act as asymptomatic mutualists, benign commensals or latent pathogens (Andrews & Hirano 1991). Many of the phylloplane fungi are obligate or facultative parasites, having lethal effects on the host, and their infection may lead to the destruction of the

plant (Hawksworth et al. 1995). Pathogenic fungi are responsible for about 30% of all crop diseases (Jain et al. 2019). They show a variety of symptoms on host plants, viz., leaf discoloration, leaf blight, leaf sooty-spots, leafy shot-hole, tar spot, leaf powdery mildew, leaf black mildew, downy mildew, rust, smuts, galls. Many of these epifoliar fungi are also known to be hyperparasites to a number of plant pathogens, including rust fungi and can be evaluated as biocontrol agents in the agricultural sector (Kamal 2010, Phengsintham et al. 2013, Braun et al. 2016, Bakhshi 2019). However, all the fungal infections are always not causing diseases, implying that pathogenicity of their causative fungal agents may not always be obvious (Velásquez et al. 2018). Depending on how pathogens acquire nutrients from their host, they can be classified as biotrophs or necrotrophs (Perfect & Green 2001). Several foliar fungi initially appear benign, showing mild symptoms and negligible damage; however, changes in host physiology and environment triggers destructive pathogenic phase of fungi causing extensive damage and even death of the host plants. Host pH regulates fungal growth and development as well as increasing pathogenicity of several fungi, leading to those fungi evolving mechanisms to release chemicals to adjust host pH to the level required for optimum infection (Jiao et al. 2022). Horbach et al. (2011) provides details of different strategies of plant pathogenic fungi. Pathogenic fungi can generate thousands of microspores in lesions and lead to considerably increased propagation in similar hosts which permit the rapid generation of gene differences via mutation (Jain et al. 2019). The effect of environmental variables on pathogens and plants can have favorable, neutral or negative outcomes on plant disease development (Velásquez et al. 2018) of which several examples can be given. Native hosts are hosts that have not co-evolved with the pathogen, and that do not recognize cues to mount an anti-pathogen response. This is especially concerning in light of global change due to rising atmospheric temperature increasing geographical range of fungal pathogens. Because of these reasons, it becomes pertinent to document symptomatic foliar fungi and their plant host association as they form the first line of suspects capable of emerging as destructive pathogens of the future. Taxa belonging to filamentous ascomycetes, Zygomycetes, Basidiomycetes and deuteromycetes have been recorded on the phyllosphere of different plants. The following genera of hyphomycetes (anamorphic ascomycetes) are in general, considered as foliicolous and causes leaf spots (Braun 1998, Deighton 1959, Ellis 1971, 1976) *Cercospora* Fresen., *Cercospora* Sacc., *Cercostigmia* Braun, *Cercosporidium* Earle, *Corynespora* Gussow, *Gonatophragmium* Deighton, *Helicomin* Olive, *Mycocentrospora* Deighton, *Mycovellosiella* Rangel, *Paracercospora* Deighton, *Passalora* Fr., *Phaeoisariopsis* Ferraris, *Phaeoramularia* Muntanola, *Pseudocercospora* Speg., *Pseudocercospora*, Deighton, *Pseudophaeoramularia* Braun, *Ramularia* Unger, *Stenella* Sydow, *Stigmia* Sacc., *Theadgonia* Sutton. Noteworthy contributions on different foliicolous diseases, viz., leaf spots (Mall et al. 2013), Gall symptoms (Bauer et al. 2001) Tar spots (Leith & Fowler 1998), Fly-Speck fungi (Ivanović et al. 2010), Rust fungi (Aime 2006, Aime & McTaggart 2020, Gautam et al. 2021a), smut fungi (Bauer et al. 2001, Gautam et al. 2021b), Powdery mildew (Gautam & Avasthi 2018) has been made by various researchers.

Significant contributors to the study of foliicolous fungi in India hitherto are Kamal et al. 1986, Karan & Manoharachary 1978. The biogeographical distribution of Black mildew fungi is described and illustrated by Hosagoudar 1996, 2008, 2012, 2013, Haldar 2017 studied some cercosporoid fungi. Considerable studies on foliicolous fungi are carried out by Mathew 2019, Sabeena et al. 2021, Lini 2022, Jalmi 2006, Thimmaiah et al. 2013 conducted a systematic survey of the foliicolous fungi of Kodagu, Karnataka. In the Maharashtra state of India, Pande & Bansude 1980, Pande 1981, Parandekar 1964, Patwardhan 1969, Patil & Magdum 1979, Patil & Pawar 1989, Sawant & Papdiwal 2007, Singh et al. 2011 have done remarkable work on foliicolous fungi. Recently Dubey & Pandey 2017, 2019, 2022 a, b, c, 2023 published a holistic account of foliicolous fungi of different regions of Maharashtra by integrating fungal taxonomy with statistical analysis of ecological data. However, no work has been done with focus on host plant families with respect to the foliar fungi they harbour. The present study is an attempt to fill this gap. A total of 96 locations spread across the major geographical regions and forest types of Maharashtra were

explored, and geographical coordinates were noted, which were used for making survey map (Fig. 1) with the QGIS 3.14 “Pi” version.

Materials and Methods

Extensive studies have been carried out during 2011–2016 in different forest areas of Maharashtra. Host plants were collected from forests (63.6%), arable lands (11.2%), the coast (3.8%), cities (19%), and bare grounds (2.4%). In the present study live, senescing and moribund leaf samples of infected dicot, monocot, pteridophyte and gymnosperm plants were collected. Infected plant parts were observed carefully in the field, and field notes were made regarding their symptoms, nature of colonies and infections, and ecological aspects such as locality, latitude and altitude. Fresh infected samples were brought to the laboratory in the aluminium foil bags to avoid their degradation by saprophytes and also to keep the morphological features and dimensions of fungi intact. Fresh samples were examined using a stereo microscope as soon as they were brought to the laboratory. If no fungal presence was visualized, the samples were subjected to moist chamber incubation (Hawksworth 1974, Callan & Carris 2004) for a few days to facilitate resident fungal flora to sprout, grow and exhibit. Hand-sectioning method was used for preparation of slides with lactophenol used as a mounting medium. Digital images were taken using a Digital colour CCD Camera (Nikon DS Fi1) attached to a Nikon Eclipse 50i microscope with interference optics. Scanning Electron Microscope (SEM) images of some fungi were also captured. For contemporary taxonomic changes, more recent publications such as Wijayawardene et al. 2022 and also, online databases, such as Index Fungorum (<http://indexfungorum.org>) and MycoBank (<http://mycobank.org>), were consulted. Host plants were identified with help of Singh & Karthikeyan (2000) and experts of Botanical Survey of India. All the holotypes are maintained systematically in the Botanical Survey of India, Western Regional Centre Herbarium (BSI), Pune. The enumeration of fungi along with host plant families is given in Table 1.

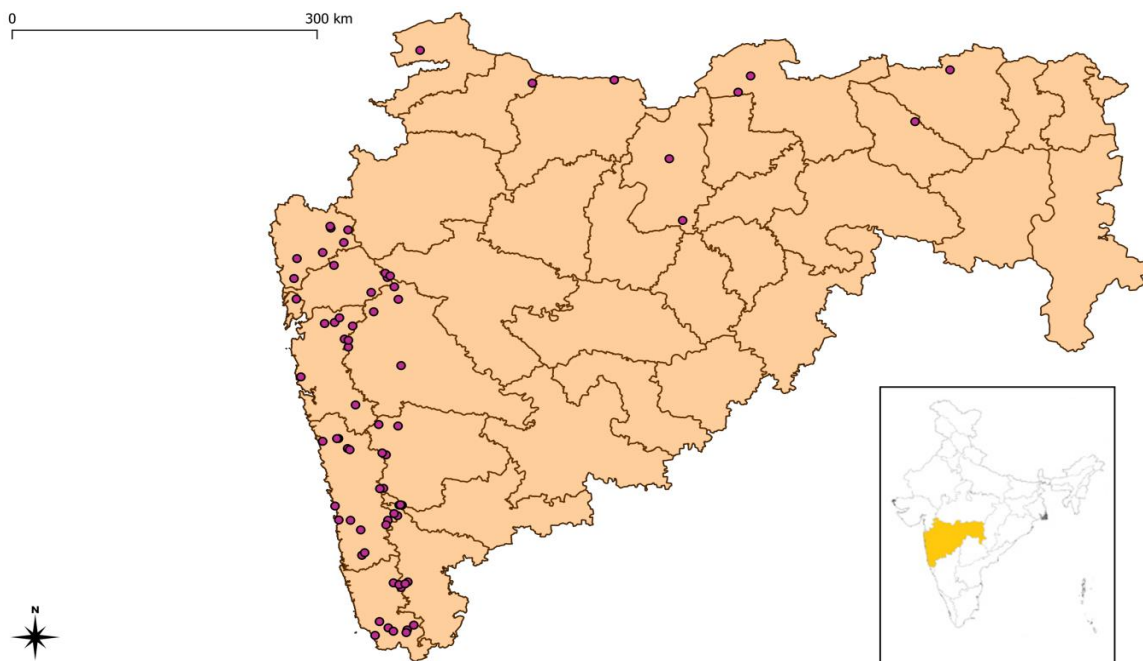


Fig. 1 – Collection locations in different districts of Maharashtra, India, and location of Maharashtra state in India (in inset).

Results

A total of 1801 foliicolous samples were collected, from which a total of 569 fungal isolates belonging 349 fungal species under 192 genera were recorded. All the fungi documented during the studies are grouped under Phyla Ascomycota and Basidiomycota. Of these 349 fungal species, the

Phylum Ascomycota was represented by 332 species and 01 variety in 181 Genera, Phylum Basidiomycota was represented by 16 species in 11 genera.

Table 1 List of Host families and hosts with their respective leaf inhabiting fungi documented during studies.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
Acanthaceae Juss.	6	<i>Barleria</i> sp. (2)	<i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950 <i>Khuskia oryzae</i> H.J. Huds. 1963	12
		<i>Hygrophila auriculata</i> (Schumach.) Heine (1)	<i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
		<i>Justicia adhatoda</i> L. (1)	<i>Domingoella asterinarum</i> Petr. & Cif. 1932	
		<i>Rungia</i> sp. (1)	<i>Paraphoma fimeti</i> (Brunaud) Gruyter Aveskamp & Verkley 2010	
		<i>Strobilanthes callosa</i> Nees (4)	<i>Verticillium</i> sp. <i>Zygosporium majus</i> Piroz. 1972 * <i>Zygosporium minus</i> S. Hughes 1951b * <i>Zygosporium minus</i> S. Hughes 1951b	
		<i>Thunbergia</i> sp. (3)	<i>Cercospora thunbergiae</i> Hansf. 1944 <i>Gibberella baccata</i> (Wallr.) Sacc. 1878 <i>Periconia byssoides</i> Pers. 1801	
Amaranthaceae Juss.	2	<i>Achyranthes aspera</i> L. (3)	<i>Trichoconiella padwickii</i> (Ganguly) B.L. Jain 1975 <i>Melanocarpus</i> sp. <i>Wiesneriomyces laurinus</i> (Tassi) P.M. Kirk 1984	4
Anacardiaceae R.Br.	4	<i>Alternanthera</i> sp. (1)	<i>Cercospora apii</i> Fresen. 1863	
		<i>Holigarna</i> sp. (1)	<i>Meliola holigarnae</i> F. Stevens 1928	18
		<i>Mangifera indica</i> L. (15)	<i>Circinotrichum olivaceum</i> (Speg.) Piroz. 1962 <i>Beltrania mangiferae</i> Munjal & J.N. Kapoor 1963 <i>Beltrania rhombica</i> Penz. 1882 <i>Beltraniella spiralis</i> Piroz. & S.D. Patil 1966 <i>Chloridium indicum</i> Subram. 1955 <i>Chloridium indicum</i> Subram. 1955 <i>Chloridium indicum</i> Subram. 1955 <i>Ciliochorella mangiferae</i> Syd. 1935 <i>Isthomospora</i> state of <i>Trichothyrium asterophorum</i> (Berk. & Broome) Höhn. 1908 <i>Meliola mangiferae</i> Earle 1905 <i>Pestalotiopsis anacardii</i> Kamil, T.P. Devi, N. Mathur, O.P. Singh, P. Pandey, Prabhak. & V. Patil 2012	

Tabel 1 Continued

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Pestalotiopsis linearis</i> Maharachch. & K.D. Hyde 2012	
			<i>Spiropes melanoplaca</i> (Berk. & M.A. Curtis) M.B. Ellis 1968	
			<i>Zygosporium gibbum</i> (Sacc., M. Rousseau & E. Bommer) S. Hughes 1958	
			<i>Zygosporium masonii</i> S. Hughes 1951b	
		<i>Nothopegia</i> sp. (1)	<i>Meliola nothopegiae</i> Hansf. 1957	
		<i>Semecarpus anacardium</i> L.f. (1)	<i>Meliola semecarpi-anacardii</i> Hosag, Kaver, Raghu & Goos 1994	
Apocynaceae Juss.	15	<i>Carissa congesta</i> Wight (2)	<i>Aschersonia</i> sp. <i>Stenella plectroniae</i> Ponnappa 1968	26
		<i>Carissa spinarum</i> L. (5)	<i>Meliola carissae</i> Doidge 1922 <i>Meliola melanoxylois</i> Hosag. & C.M. Pillai 1994 <i>Neopestalotiopsis asiatica</i> (Maharachch. & K.D. Hyde) Maharachch, K.D. Hyde & Crous 2014 <i>Colletotrichum lindemuthianum</i> (Sacc. & Magnus) Briosi & Cavara 1889 <i>Meliola eugeniae-jamboloidis</i> Hansf. 1954	
		<i>Cryptolepis buchananii</i> Roem. & Schult. (1)	<i>Sarcinella cryptolepidae</i> A. Pande 1978	
		<i>Cryptolepis</i> sp. (1)	<i>Alternaria alternata</i> (Fr.) Keissl. 1912	
		<i>Cryptostegia</i> sp. (1)	<i>Sarcinella cryptostegiae</i> N. Srivastava, S. Chandra & C. Gupta 1990	
		<i>Dregea volubilis</i> (L.f.) Benth. ex Hook.f. (1)	<i>Corynespora cassicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
		<i>Holarrhena pubescens</i> Wall. ex G. Don (5)	<i>Isthmospora spinosa</i> F. Stevens 1918 <i>Meliola holarrhena</i> Hansf. & Thirum. 1948 <i>Monostichella indica</i> B. Sutton 1980 <i>Capnodium</i> sp. 3 <i>Capnodium</i> sp. 2	
		Periplocaceae sp. 1 (1)	<i>Acremoniula sarcinellae</i> (Pat. & Har.) G. Arnaud ex Deighton 1969	
		Periplocaceae sp. 2 (3)	<i>Kirschsteiniothelia atra</i> (Corda) D. Hawksw. 2014 <i>Isthmospora spinosa</i> FL. Stevens 1918 <i>Meliola hemidesmicola</i> Hosag. 1996	
		<i>Plumeria</i> sp. (1)	<i>Cladosporium</i> sp.	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
		<i>Tylophora dalzellii</i> Hook. f. (1)	<i>Pestalotiopsis palustris</i> Nag Raj 1993	
		<i>Tylophora indica</i> (Burm.f.) Merr. (3)	<i>Glomerella cingulata</i> (G.F. Atk.) Spauld. & H. Schrenk 1903 <i>Isthmospora spinosa</i> FL. Stevens 1918 <i>Meliola tylophorae-indicae</i> Hosag. & Manojk. 2004 <i>Meliola tylophorae</i> Hosag. 1990	
Araceae Juss.	3	<i>Tylophora</i> sp. (1) <i>Amorphophallus</i> sp. (1) <i>Arisaema</i> sp. (1) <i>Colocasia esculenta</i> (L.) Schott	<i>Cercospora apii</i> Fresen. 1863 <i>Cercospora apii</i> Fresen. 1863 <i>Cladosporium oxysporum</i> Berk. & M.A. Curtis 1868 <i>Gibberella pulicaris</i> (Kunze) Sacc. 1877 <i>Cercospora apii</i> Fresen. 1863 <i>Khuskia oryzae</i> H.J. Huds. 1963	6
Areaceae Bercht. & J. Presl	9	<i>Areca catechu</i> L. (2) Areaceae (2) <i>Caryota urens</i> L. (2) <i>Chrysalidocarpus lutescens</i> Wendl. (1) <i>Cocos nucifera</i> L. (12)	<i>Acroconidiellina arecae</i> (Berk. & Broome) M.B. Ellis 1971 <i>Volutina concentrica</i> Penz. & Sacc. 1902 <i>Fusicoccum</i> sp. <i>Phoma</i> sp. <i>Cladosporium colocasiae</i> Sawada 1916 <i>Verticillium lecanii</i> (Zimm.) Viégas 1939 <i>Phialophora cyclaminis</i> J.F.H. Beyma 1942 <i>Catenularia cubensis</i> Hol-Jech. 1982 <i>Fusariella indica</i> R.Y. Roy & B. Rai 1968 <i>Bahusandhika indica</i> (Subram.) Subram. 1956 <i>Domingoella asterinarum</i> Petr. & Cif. 1932 <i>Excipulariopsis narsapurensis</i> (Subram.) Spooner & P.M. Kirk 1982 <i>Fusarium oxysporum</i> Schltdl 1824 <i>Gliocladium penicillioides</i> Corda 1840 <i>Helicosporium lumbricoides</i> Sacc 1877 <i>Metulocladosporiella musae</i> (E.W. Mason) Crous, Schroers, J.Z. Groenew, U. Braun & K. Schub. 2006 <i>Neopestalotiopsis asiatica</i> (Maharachch. & K.D. Hyde) Maharachch, K.D. Hyde & Crous 2014	38

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Zygosporium cocos</i> Rashmi Dubey 2014a	
			<i>Zygosporium gibbum</i> (Sacc., M. Rousseau & E. Bommer) S. Hughes 1958	
		<i>Livistona chinensis</i> (Jacq.) R.Br. ex Mart. (2)	<i>Dictyosporium heptasporum</i> (Garov.) Damon 1952	
			<i>Tharopama livistonae</i> Dubey & Moonambeth 2013b	
		<i>Phoenix dactylifera</i> L. (1)	<i>Graphiola phoenicis</i> (Moug. ex Fr.) Poit. 1824	
		<i>Phoenix sylvestris</i> (L.) Roxb. (1)	<i>Chaetospermum camelliae</i> Agnihothr. 1962	
		<i>Roystonea regia</i> (Kunth) O.F. Cook (15)	<i>Coniothyrium palmarum</i> Corda 1840	
			<i>Dictyosporium elegans</i> Corda 1836	
			<i>Dictyosporium subramanianii</i> B. Sutton 1985	
			<i>Drechslera rostrata</i> (Drechsler) M.J. Richardson & E.M. Fraser 1968	
			<i>Helicomycetes hyderabadensis</i> Rao & Rao 1964	
			<i>Hermatomyces tucumanensis</i> Speg. 1910	
			<i>Microsphaeropsis sarcinellae</i> (V.P. Sahni) Morgan–Jones 1975	
			<i>Phaeoisaria clematidis</i> (Fuckel) S. Hughes 1958	
			<i>Phaeotrichoconis</i> sp.	
			<i>Phragmospaathula brachyspaathula</i> Mercado 1980	
			<i>Solicorynespora matheranensis</i> Rashmi Dubey & Moonambeth 2014a	
			<i>Sordaria fimicola</i> (Roberge ex Desm.) Ces. & De Not. 1863	
			<i>Stachybotrys echinatus</i> (Rivolta) G. Sm. 1962	
			<i>Tetraploa aristata</i> Berk. & Broome 1850	
			<i>Zygosporium masonii</i> S. Hughes 1951b	
Asparagaceae Juss.	3	<i>Agave americana</i> L. (6)	<i>Colletotrichum capsici</i> (Syd. & P. Syd.) E.J. Butler & Bisby 1931	13
			<i>Dendryphion comosum</i> Wallr. 1833	
			<i>Diplodia</i> sp.	
			<i>Stachybotrys levisporus</i> (Subram.) Yong Wang bis, K.D. Hyde, McKenzie, Y.L. Jiang & D.W. Li 2015	
			<i>Torula herbarum</i> (Pers.) Link 1809	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Torula herbarum</i> (Pers.) Link 1809	
		<i>Dracaena</i> sp. (1)	<i>Torula herbarum</i> (Pers.) Link 1809	
		<i>Dracena fragrans</i> (L.) Ker Gawl. (6)	<i>Botryosporium madrasense</i> Raghuk. 1970 <i>Chalara</i> sp. <i>Cucurbitodithis pityophila</i> (J.C. Schmidt & Kunze) Petr. 1921 <i>Harpographium fasciculatum</i> (Sacc.) Sacc. 1880 <i>Harpographium</i> sp. <i>Monilochaetes laeensis</i> (Matsush.) Réblová, W. Gams & Seifert 2011	
Asteraceae Bercht. & J. Presl	5	<i>Blumea</i> sp. (3)	<i>Cercospora apii</i> Fresen. 1863 <i>Cercospora blumeicola</i> S. Das 1957 <i>Cladosporium colocasiae</i> Sawada 1916	11
		<i>Eupatorium</i> sp. (5)	<i>Cladosporium colocasiae</i> Sawada 1916 <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950 <i>Periconia byssoides</i> Pers. 1801 <i>Pseudocercospora conyzae</i> Sawada ex Goh & W.H. Hsieh 1987 <i>Pseudocercospora</i> <i>eupatorii-formosanae</i> J.M. Yen ex Y.L. Guo & W.H. Hsieh 1995	
		<i>Synedrella nodiflora</i> (L.) Gaertn. (1)	<i>Balladyna pavettae</i> Boedijn 1961	
		Unidentified Asteraceae sp. 1 (1)	<i>Pseudoseptoria stomaticola</i> (Bäumler) B. Sutton 1980	
		Unidentified Asteraceae sp. 2 (1)	<i>Stemphylium vesicarium</i> (Wallr.) E.G. Simmons 1969	
Balsaminaceae A. Rich.	1	<i>Impatiens balsamina</i> L. (1)	<i>Cercospora apii</i> Fresen. 1863	1
Bignoniaceae Juss.	1	<i>Oroxylum indicum</i> (L.) Benth. ex Kurz (1)	<i>Bahusandhika indica</i> (Subram.) Subram. 1956	1
Boraginaceae Juss.	3	<i>Cordia</i> sp. (2)	<i>Ampelomyces quisqualis</i> Ces. 1852 <i>Cladosporium gallicola</i> B. Sutton 1973	5
		<i>Paracaryopsis</i> sp. (2)	<i>Cercospora apii</i> Fresen. 1863 <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
		<i>Trichodesma</i> sp. (1)	<i>Monostichella salicis</i> (Westend.) Arx 1957	
Brassicaceae Burnett	1	<i>Brassica oleracea</i> var. <i>botrytis</i> L. (1)	<i>Alternaria brassicicola</i> (Schwein.) Wiltshire 1947	1
Calophyllaceae J. Agardh	1	<i>Mesua ferrea</i> L. (1)	<i>Stenella araguata</i> Syd. 1930	1
Capparaceae Juss.	2	<i>Capparis grandis</i> L.f. (1)	<i>Coniothyrium eucalypticola</i> B. Sutton 1971	2

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
		<i>Capparis</i> sp. (1)	<i>Asterina capparis</i> Syd, P. Syd. & E.J. Butler 1911	
Caricaceae Dumort.	1	<i>Carica papaya</i> L. (2)	<i>Oidium caricae</i> F. Noack 1898 <i>Vermiculariopsiella papayae</i> Rashmi Dubey & Moonambeth 2014b	2
Celastraceae R.Br.	2	<i>Celastrus paniculatus</i> Willd. (1)	<i>Schiffnerula celastri</i> Hosag, Riju & Sabeena 2008	5
		<i>Maytenus rothiana</i> (Walp.) Ramamoorthy (4)	<i>Ampullifera foliicola</i> Deighton 1960 <i>Ampullifera foliicola</i> Deighton 1960 * <i>Ampullifera foliicola</i> Deighton 1960 <i>Gonatophragmium mayteni</i> S.K. Singh, L.S. Yadav & P.N. Singh 2009	
Clusiaceae Lindl.	1	<i>Garcinia</i> sp. (1)	<i>Asterina morellae</i> Hosag, C.K. Biju & T.K. Abraham 2001	1
Combretaceae R.Br.	6	<i>Combretaceae</i> sp. 1 (1)	<i>Tripospermum myrti</i> (Lind) S. Hughes 1951a	8
		<i>Terminalia arjuna</i> (Roxb.) Wight & Arn. (1)	<i>Cladosporium oxysporum</i> Berk. & M.A. Curtis 1868	
		<i>Terminalia catappa</i> L. (1)	<i>Meliola</i> sp.	
		<i>Terminalia chebula</i> Retz. (2)	<i>Aschersonia</i> sp. <i>Lichenoconium boreale</i> (P. Karst.) Petr. & Syd. 1927	
		<i>Terminalia elliptica</i> Willd. (1)	<i>Leptoxyphium glochidion</i> H. Yang & K.D. Hyde 2014	
		<i>Terminalia</i> sp. (2)	<i>Prathigada terminaliae</i> (Syd.) B. Sutton 1994 <i>Tripospermum melghatense</i> Dubey 2016b	
Commelinaceae Mirb.	2	<i>Commelina benghalensis</i> L. (1) <i>Commelina</i> sp. (1)	<i>Pyriculariopsis</i> sp. <i>Didymella fabae</i> G.J. Jellis & Punith. 1991	2
Convolvulaceae Juss.	4	<i>Argyreia</i> sp. (1)	<i>Corynespora cassicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	5
		<i>Ipomoea pes-caprae</i> (L.) R. Br. (2)	<i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978 <i>Periconia cookei</i> E.W. Mason & M.B. Ellis 1953	
		<i>Ipomoea</i> sp. (2)	<i>Phoma nebulosa</i> (Pers.) Berk. 1860 <i>Cladosporium</i> sp.	
Costaceae Nakai	1	<i>Costus speciosus</i> Konig (1)	<i>Helicominia costi</i> M.A. Salam & P.N. Rao 1958	1
Cucurbitaceae Juss.	1	<i>Cucumis</i> sp. (1)	<i>Trichothecium roseum</i> (Pers.) Link 1809	1
Cycadaceae Pers. [Gymnosperm]	1	<i>Cycas</i> sp. (2)	<i>Alternaria tenuissima</i> (Kunze) Wiltshire 1933 <i>Zygosporium oscheoides</i> Mont. 1842	2
Dilleniaceae Salisb.	1	<i>Dillenia pentagyna</i> Roxb. (7)	<i>Acarophialophora</i> sp. <i>Corynespora cassicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	7

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Dendryphiella vinosa</i> (Berk. & M.A. Curtis) Reisinger 1968	
			<i>Domingoella asterinarum</i> Petr. & Cif. 1932	
			<i>Philonectria</i> sp.	
			<i>Zygosporium dilleni</i> Rashmi Dubey 2014	
			<i>Dendryphion</i> state of <i>Pleospora papaveracea</i> (De Not.) Sacc. 1883	
Dioscoreaceae R.Br.	1	<i>Dioscorea</i> sp. (1)	<i>Monodictys putredinis</i> (Wallr.) S. Hughes 1958	1
Ebenaceae Gürke	1	<i>Diospyros</i> sp. (8)	<i>Capnodium</i> sp.	8
			<i>Cladosporium tenuissimum</i> Cooke 1878	
			<i>Conidiocarpus betle</i> (Syd., P. Syd. & E.J. Butler) T. Bose 2014	
			<i>Corynespora cassicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
			<i>Meliola diospyri</i> Syd. & P. Syd. 1911	
			<i>Meliola unoncola</i> Hosag. & T.K. Abraham 1996	
			<i>Phyllactinia</i> sp.	
			<i>Sarcinella diospyri</i> . Rajak & Soni 1981	
Elaeagnaceae Juss.	1	<i>Elaeagnus conferta</i> Roxb. (1)	<i>Sarcinella</i> sp.	1
Euphorbiaceae Juss.	8	<i>Agrostistachys</i> sp. (1)	<i>Meliola agrostistachydis</i> Hosag. & G. Rajkumar 2005 in Hosag.2005 a	
		<i>Codiaeum variegatum</i> (L.) A. Juss. (1)	<i>Cladosporium oxysporum</i> Berk. & M.A. Curtis 1868	
		<i>Croton</i> sp. (1)	<i>Torula herbarum</i> (Pers.) Link 1809	
		<i>Euphorbia neriifolia</i> L. (3)	<i>Cercospora ricinella</i> Sacc. & Berl. 1885	
			<i>Nigrospora sphaerica</i> (Sacc.) E.W. Mason 1927	
			<i>Pseudocochliobolus pallescens</i> Tsuda & Ueyama 1983	
		<i>Euphorbia</i> sp. (1)	<i>Oidiopsis haplophylli</i> (Magnus) Rulamort 1986	
		Euphorbiaceae (2)	<i>Cladosporium</i> sp.	
			<i>Colletotrichum dematium</i> (Pers.) Grove 1918	
		<i>Macaranga peltata</i> (Roxb.) Müll.Arg. (3)	<i>Graphium</i> sp.	
			<i>Hansfordiellopsis lichenicola</i> (Bat. & H. Maia) Deighton 1965	
			<i>Rhinocladium</i> sp.	
		<i>Mallotus Philippensis</i> (Lam.) Muell Arg. (1)	<i>Asteridiella mallotica</i> (W. Yamam.) Hansf. 1957	
Fabaceae Lindl.	23	<i>Acacia auriculiformis</i> A. Cunn. ex Benth. (1)	<i>Meliola melanoxylois</i> Hosag. & C.M. Pillai 1994	39
		<i>Acacia</i> sp. (1)	<i>Pestalotiopsis linearis</i> Maharachch. & K.D. Hyde 2012	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
		<i>Ageratum</i> sp. (1)	<i>Zygosporium masonii</i> S. Hughes 1951b <i>Kirschsteiniothelia atra</i> (Corda) D. Hawksw. 2014	
		<i>Albizia</i> sp. (1)	<i>Haplotrichum curtisii</i> (Berk.) Hol-Jech. 1976	
		<i>Bauhinia</i> sp. (2)	<i>Meliola bauhiniicola</i> W. Yamam. 1941 <i>Sarcinella</i> sp.	
		<i>Butea monosperma</i> (Lam.) Taub. (1)	<i>Meliola buteae</i> Hafiz Khan, Azmatullah & Kafi 1955	
		<i>Calliandra haematocephala</i> Hassk. (2)	<i>Fusicoccum</i> sp. <i>Phoma multirostrata</i> (P.N. Mathur, S.K. Menon & Thirum.) Dorenb. & Boerema 1973	
		<i>Cassia fistula</i> L. (2)	<i>Phyllactinia bauhiniae</i> Y.S. Paul 2009 <i>Sarcinella cassiae-fistulae</i> Hosag. & Shajivaz 2002	
		<i>Cassia</i> sp. (2)	<i>Cladosporium oxysporum</i> Berk. & M.A. Curtis 1868 <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
		<i>Dalbergia latifolia</i> Roxb. (2)	<i>Colletotrichum lindemuthianum</i> (Sacc. & Magnus) Briosi & Cavara 1889 <i>Zygosporium gibbum</i> (Sacc., M. Rousseau & E. Bommer) S. Hughes 1958	
		<i>Dalbergia sissoo</i> DC. (2)	<i>Diplococcium spicatum</i> Grove 1885 <i>Nigrospora sacchari</i> (Speg.) E.W. Mason 1927	
		<i>Dalbergia</i> sp. (2)	<i>Trichothecium roseum</i> (Pers.) Link 1809 <i>Tripospermum myrti</i> (Lind) S. Hughes 1951a	
		<i>Desmodium</i> sp. (2)	<i>Fusarium solani</i> (Mart.) Sacc. 1881 <i>Prillieuxina polyalthiae</i> Hosag. & T.K. Abraham 1999	
		<i>Desmodium triflorum</i> (L.) DC (1)	<i>Meliola desmodii-triquetri</i> Hosag. & Manojk. 2004	
		<i>Entada rheedii</i> Spreng. (1)	<i>Spiropes nothofagi</i> M.B. Ellis 1968	
		<i>Erythrina corallodendron</i> L. (2)	<i>Cladosporium oxysporum</i> Berk. & M.A. Curtis 1868 <i>Tripospermum myrti</i> (Lind) S. Hughes 1951a	
		<i>Erythrina</i> sp. (1)	<i>Colletotrichum gloeosporioides</i> (Penz.) Penz. & Sacc. 1884	
		<i>Pongamia pinnata</i> (L.) Pierre (8)	* <i>Asperisporium pongamiae</i> (Syd. & P. Syd.) Deighton 1976 <i>Asperisporium pongamiae</i> (Syd. & P. Syd.) Deighton 1976 <i>Asperisporium pongamiae</i> (Syd. & P. Syd.) Deighton 1976 <i>Chalara siamense</i> Pinnoi 2002	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Meliola pongamiae</i> Hosag. & T.K. Abraham 1999	
			<i>Periconia lateralis</i> Ellis & Everh. 1886	
			<i>Questieriella strychni</i> Hosag. 2004	
		Unidentified Leguminosae sp. 1 (1)	<i>Ravenelia hobsoni</i> Cooke 1880	
			<i>Vamsapriya indica</i> Gawas & Bhat 2006	
		Unidentified Leguminosae sp. 2 (1)	<i>Gonatophragmium mayteni</i> S.K. Singh, L.S. Yadav & P.N. Singh 2009	
		Unidentified Leguminosae sp. 3 (1)	<i>Trichothecium roseum</i> (Pers.) Link 1809	
		Unidentified Leguminosae sp. 4 (1)	<i>Helicoceras celtidis</i> (Biv.) Linder 1931 (syn. <i>Sirosporium celtidis</i>)	
Gnetaceae Blume [Gymnosperm]	1	<i>Gnetum ula</i> Brongn. (2)	<i>Colletotrichum gloeosporioides</i> (Penz.) Penz. & Sacc. 1884	
Lamiaceae Martinov	11	<i>Clerodendrum grandiflorum</i> (Hook.) Schauer (5)	<i>Volutella</i> sp.	2
			<i>Cladosporium colocasiae</i> Sawada 1916	32
			* <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
			* <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
			<i>Custingophora olivacea</i> Stolk, Hennebert & Klopotek 1968	
			<i>Zygosporium masonii</i> S. Hughes 1951b	
		<i>Lavandula bipinnata</i> (Roth) Kuntze (3)	<i>Cercospora apii</i> Fresen. 1863	
			<i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
			<i>Periconia byssoides</i> Pers. 1801	
		<i>Leucas</i> sp. (1)	<i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
		<i>Plectranthus</i> sp. (1)	<i>Meliola hyptidis</i> Syd. & P. Syd. 1910	
		<i>Pogostemon</i> sp. (5)	<i>Cercospora apii</i> Fresen. 1863	
			<i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
			<i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
			<i>Periconia lateralis</i> Ellis & Everh. 1886	
			<i>Zygosporium gibbum</i> (Sacc., M. Rousseau & E. Bommer) S. Hughes 1958	
		<i>Tectona grandis</i> L.f. (9)	<i>Ampelomyces quisqualis</i> Ces. 1852	
			<i>Didymella fabae</i> G.J. Jellis & Punith. 1991	
			<i>Epicoccum nigrum</i> Link 1816	
			<i>Erysiphe tectonae</i> (E.S. Salmon) U. Braun & S. Takam. 2000	
			<i>Erysiphe tectonae</i> (E.S. Salmon) U. Braun & S. Takam. 2000	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Erysiphe tectonae</i> (E.S. Salmon) U. Braun & S. Takam. 2000 <i>Olivea tectonae</i> (Racib.) Thirum. 1949 <i>Sarcinella gmelinae</i> Hosag., Archana, Harish, Riju & D.K. Agarwal 2008 <i>Physopella hiratsukae</i> (Syd.) Cummins & Ramachar 1958 <i>Spiropes japonicus</i> (Henn.) M.B. Ellis 1968 <i>Asteridiella depokensis</i> (Hansf.) Hansf. 1957	
		Gnetaceae Blume [Gymnosperm]	<i>Ramularia vitis</i> (Richon) U. Braun 1988	
	–4		<i>Spiropes capensis</i> (Thüm.) M.B. Ellis 1968	
		Lamiaceae Martinov	<i>Mycovellosiella solani–torvi</i> (Gonz. Frag. & Cif.) Deighton 1974	
		<i>Volkameria inermis</i> L. (3)	<i>Meliola hyptidis</i> Syd. & P. Syd. 1910 <i>Isthmospora spinosa</i> F. Stevens 1918 <i>Spiropes melanoplaca</i> (Berk. & M.A. Curtis) M.B. Ellis 1968	
Lauraceae Juss.	4	<i>Actinodaphne angustifolia</i> Nees. (2)	<i>Cercospora apii</i> Fresen. 1863 <i>Gyrothrix circinata</i> (Berk. & M.A. Curtis) S. Hughes 1958 <i>Cryptophiale</i> sp.	5
		<i>Litsea</i> sp. (1)	<i>Hemibeltrania nectandrae</i> (Bat. & H. Maia) Piroz. 1963	
		<i>Litsea stocksii</i> (Meisner) J.Hk. (1)	<i>Colletotrichum gloeosporioides</i> (Penz.) Penz. & Sacc. 1884	
		<i>Persea</i> sp. (1)	<i>Cercospora careyae</i> T.S. Ramakr. & K. Ramakr. 1950 <i>Colletotrichum gloeosporioides</i> (Penz.) Penz. & Sacc. 1884 <i>Penicillium notatum</i> Westling 1911 <i>Spiropes guareicola</i> (F. Stevens) Cif. 1955 <i>Meliola careyae</i> (F. Stevens) Hosag. 2003 <i>Colletotrichum gloeosporioides</i> (Penz.) Penz. & Sacc. 1884 <i>Coremiella cubispora</i> (Berk. & M.A. Curtis) M.B. Ellis 1971	7
Lecythidaceae A. Rich.	1	<i>Careya arborea</i> Roxb. (7)	<i>Isthmospora spinosa</i> FL. Stevens 1918 <i>Meliola jasminicola</i> Henn. 1895 <i>Cladosporium colocasiae</i> Sawada 1916 <i>Cladosporium</i> sp.	2
Loganiaceae R.Br. ex Mart.	1	<i>Strychnos nux–vomica</i> L. (2)	<i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978 <i>Asterina wrightiae</i> Syd. 1931	11
Lygodiaceae M. Roem. [Pteridophyte]	1	<i>Lygodium</i> sp. (2)		2
Lythraceae J.St.–Hil.	4	<i>Lagerstroemia microcarpa</i> Hance (1)		
		<i>Lagerstroemia</i> sp. (5)		

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Phyllactinia guttata</i> (Wallr.) Lév. 1851 <i>Isthmospora spinosa</i> FL. Stevens 1918 <i>Meliola flemingiicola</i> Hosag., P.A. Jose & H. Biju 2005 (in Hosag., 2005a) <i>Sporidesmium</i> sp. <i>Asterina hydrocotyles</i> Hosag. & Biju 2005(in Hosag.2005) <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950 <i>Pseudocercospora viticicola</i> (J.M. Yen & Lim) J.M. Yen 1980 <i>Asterina woodfordiae</i> V.P. Sahni 1964 <i>Domingoella asterinarum</i> Petr. & Cif. 1932	
Malvaceae Juss.	15	<i>Lawsonia inermis</i> L. (1) <i>Woodfordia fruticosa</i> (L.) Kurz (4) <i>Abelmoschus esculentus</i> (L.) Moench (1) <i>Abutilon</i> sp. (1) <i>Bombax ceiba</i> L. (2) <i>Eriolaena</i> sp. (1) <i>Firmiana colorata</i> (Roxb.) R.Br. (1) <i>Grewia</i> sp. (6) <i>Helicteres isora</i> L. (3) <i>Hibiscus esculentus</i> L. (1) <i>Hibiscus rosa-sinensis</i> L. (1) <i>Hibiscus trionum</i> L. (1) <i>Malachra capitata</i> L. (3)	<i>Ampelomyces quisqualis</i> Ces. 1852 <i>Penicillium atramentosum</i> Thom 1910 <i>Myrothecium roridum</i> Tode 1790 <i>Neopestalotiopsis asiatica</i> (Maharachch. & K.D. Hyde) Maharachch., K.D. Hyde & Crous 2014 <i>Uncinula</i> sp. <i>Sarcinella loranthacearum</i> Hosag., Jac. Thomas & D.K. Agarwal 2011 <i>Aschersonia aleyrodis</i> Webber 1897 <i>Cladosporium</i> sp. <i>Colletotrichum</i> sp. <i>Mycosphaerella</i> sp. <i>Mycovellosiella solani-torvi</i> (Gonz. Frag. & Cif.) Deighton 1974 <i>Sphacelia</i> sp. <i>Scolecocyphium</i> sp. <i>Aschersonia aleyrodis</i> Webber 1897 <i>Virgariella globigera</i> (Sacc. & Ellis) S. Hughes 1953 <i>Cladosporium cladosporioides</i> (Fresen.) G.A. de Vries 1952 <i>Cladosporium colocasiae</i> Sawada 1916 <i>Cladosporium oxysporum</i> Berk. & M.A. Curtis 1868 * <i>Ampelomyces quisqualis</i> Ces. 1852 * <i>Ampelomyces quisqualis</i> Ces. 1852	25

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Domingoella asterinarum</i> Petr. & Cif. 1932	
		<i>Sida cordifolia</i> L. (1)	<i>Corynespora cassicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
		<i>Thespesia lampas</i> (Cav.) Dalzell (1)	<i>Tripospermum acrobaticum</i> F.B. Rocha & R.W. Barreto 2010	
		<i>Thespesia populenea</i> (L.) Sol. ex Corrêa (1)	<i>Colletotrichum dematium</i> (Pers.) Grove 1918	
		<i>Triumfetta rhomboidea</i> Jacq. (1)	<i>Tripospermum myrti</i> (Lind) S. Hughes 1951a	
Melastomataceae Juss.	2	<i>Memecylon talbotianum</i> Brandis (3)	<i>Domingoella asterinarum</i> Petr. & Cif. 1932	13
			<i>Meliola memecylica</i> Hansf. 1957	
			<i>Parapericoniella asterinae</i> (Deighton) U. Braun, Heuchert & K. Schub. 2005	
		<i>Memecylon umbellatum</i> Burm. f. (10)	<i>Acremoniula uniseptata</i> Hüseyin, Selçuk & Akgül 2015	
			<i>Camposporium</i> sp.	
			<i>Domingoella asterinarum</i> Petr. & Cif. 1932	
			<i>Meliola memecyli</i> Syd. & P. Syd. 1917	
			* <i>Meliolina mollis</i> (Berk. & Broome) Höhn. 1919	
			* <i>Meliolina mollis</i> (Berk. & Broome) Höhn. 1919	
			* <i>Meliolina mollis</i> (Berk. & Broome) Höhn. 1919	
			<i>Phyllachora</i> sp.	
			<i>Pithomyces ellisii</i> V.G. Rao & Chary 1972	
			<i>Virgariella globigera</i> (Sacc. & Ellis) S. Hughes 1953	
Meliaceae Juss.	1	<i>Azadirachta indica</i> A. Juss.	<i>Calonectria morgani</i> Crous, Alfenas & M.J. Wingf. 1993	2
		–2	<i>Oidium azadirachtae</i> Narayanas. & K. Ramakr. 1969	
Menispermaceae Juss.	2	<i>Diploclisia</i> sp. (1)	<i>Sphacelia</i> sp.	3
		<i>Tinospora cordifolia</i> (Thunb.) Miers (2)	<i>Passalora desmanthi</i> (Ellis & Kellerm.) U. Braun 1999	
			<i>Phoma</i> sp.	
Moraceae Gaudich.	7	<i>Artocarpus heterophyllus</i> Lam. (1)	<i>Zygosporium masonii</i> S. Hughes 1951b	19
		<i>Artocarpus integrifolius</i> L.f. (1)	<i>Monodictys paradoxa</i> (Corda) S. Hughes 1958	
		<i>Ficus benghalensis</i> L. (4)	<i>Colletotrichum gloeosporioides</i> (Penz.) Penz. & Sacc. 1884	
			<i>Scolecostigmina fici-elasticae</i> (J.N. Kapoor) U. Braun 1999	
			<i>Trichothecium roseum</i> (Pers.) Link 1809	
			<i>Zygosporium masonii</i> S. Hughes 1951b	
		<i>Ficus hispida</i> L.f. (3)	<i>Gonatophragmium</i> sp.	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Peridiopsis mori</i> (Barclay) K.V. Prasad, B.R.D. Yadav & Sullia 1993 <i>Stachybotrys</i> sp. <i>Capnodium</i> sp.1 <i>Alternaria chlamydospora</i> Mouch. 1973 <i>Ramularia pusilla</i> Unger 1832 <i>Tryblidiopycnis pinastris</i> Höhn. 1918 <i>Zygosporium masonii</i> S. Hughes 1951b <i>Didymella fabae</i> G.J. Jellis & Punith. 1991 <i>Meliola eugeniae-stocksii</i> Hosag. 1996 <i>Phoma tropica</i> R. Schneid. & Boerema 1975 <i>Septoria</i> sp. <i>Stigmina koyanensis</i> Dubey & S. Sengupta 2016a	
		<i>Ficus racemosa</i> L. (1) <i>Ficus religiosa</i> L. (4)		
		<i>Ficus</i> sp. (5)		
Musaceae Juss.	1	<i>Ensete superbum</i> Cheesm. (1)	<i>Corynespora torulosa</i> (Syd. & P. Syd.) Crous 2013	1
Myrtaceae Juss.	5	<i>Eucalyptus</i> sp. (1) <i>Eugenia</i> sp. (2)	<i>Beltrania querna</i> Harkn. 1884 <i>Asterina jambolanae</i> A.K. Kar & Maity 1970 <i>Moorella speciosa</i> P. Rag. Rao & D. Rao 1964 <i>Capnodium</i> sp.1 * <i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978 * <i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978 <i>Amazonia syzygii</i> Hosag. 1989 <i>Conidiocarpus</i> sp. <i>Asterina henianii</i> R.C. Verma, M.S. Tripathi & R.K. Chaudhary 1999 <i>Cladosporium</i> sp. <i>Domingoella asterinarum</i> Petr. & Cif. 1932 <i>Humicola fuscoatra</i> Traaen 1914	16
		<i>Psidium guajava</i> L. (1) <i>Syzygium cumini</i> (L.) Skeels (8)		
		<i>Syzygium</i> sp. (4)	<i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978 <i>Asterina henianii</i> R.C. Verma, M.S. Tripathi & R.K. Chaudhary 1999 <i>Capnodium coartatum</i> Chomnunti & K.D. Hyde 2011 <i>Zygosporium gibbum</i> (Sacc., M. Rousseau & E. Bommer) S. Hughes 1958	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
Nyctaginaceae Juss.	1	<i>Bougainvillea</i> sp. (3)	<i>Cladosporium</i> sp. <i>Pseudocercospora</i> sp. <i>Zygosporium masonii</i> S. Hughes 1951b	3
Nymphaeaceae Salisb.	1	<i>Nymphae rubra</i> Roxb. ex Andrews (1)	<i>Temerariomyces indicus</i> Rashmi Dubey 2018	1
Oleaceae Hoffmanns. & Link	7	<i>Jasminum malabaricum</i> Wight (5)	<i>Asterina jasmini</i> Hansf. <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950 <i>Isthmospora spinosa</i> FL. Stevens 1918 <i>Meliola garhwalensis</i> S.L. Srivast. & Topal 1981 <i>Pithomyces bulbilus</i> Satya 1975 <i>Domingoella asterinarum</i> Petr. & Cif. 1932 <i>Kirschsteiniothelia atra</i> (Corda) D. Hawksw. 2014 <i>Meliola jasminicola</i> Henn. 1895 <i>Pirozynskiella solaninum</i> (Sacc. & P. Syd.) S. Hughes 2007	22
		<i>Jasminum multiflorum</i> (Burm. f.) Andrews (4)	<i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978 <i>Asterina delicatula</i> Syd., P. Syd. & Bal 1921 <i>Asterina jasminicola</i> H.S. Yates 1918 <i>Asterina jasminicola</i> H.S. Yates 1918 <i>Asterostomella</i> state of <i>Asterina jasmini</i> Hansf. 1948 <i>Asterostomella</i> state of <i>Asterina jasminicola</i> H.S. Yates 1918 <i>Pileolaria</i> sp. <i>Uromyces nassellae</i> Cummins 1956	
		<i>Jasminum odoratum</i> Noronha (1)		
		<i>Jasminum</i> sp. (7)		
		<i>Nyctanthus arbor-tristis</i> L. (2)	<i>Alternaria alternata</i> (Fr.) Keissl. 1912 <i>Cladosporium herbarum</i> (Pers.) Link 1816	
		<i>Olea dioica</i> Roxb. (3)	<i>Aithaloderma viride</i> L.R. Fraser 1935 <i>Aithaloderma viride</i> L.R. Fraser 1935 <i>Aithaloderma viride</i> L.R. Fraser 1935	
Onagraceae Juss.	1	<i>Ludwigia</i> sp. (1)	<i>Sarocladium strictum</i> (W. Gams) Summerb. 2011	1
Oxalidaceae R.Br.	1	<i>Oxalis dehradunensis</i> Raizada (1)	<i>Puccinia oxalidis</i> Dietel & Ellis 1895	1
Pandanaceae R.Br.	1	<i>Pandanus tectorius</i> Parkinson (6)	<i>Sordaria fimicola</i> (Roberge ex Desm.) Ces. & De Not. 1863 <i>Wiesneriomyces laurinus</i> (Tassi) P.M. Kirk 1984 <i>Melanocarpus</i> sp.	6

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
Passifloraceae Juss. ex Roussel	1	<i>Passiflora</i> sp. (2)	<i>Meliola pandanacearum</i> Hosag. & T.K. Abraham 1999	2
			<i>Sheathnema indicum</i> Rashmi Dubey & Moonnambeth 2014 <i>Prathigada</i> sp. <i>Periconia</i> sp. <i>Torula</i> sp.	
Phyllanthaceae Martinov	6	<i>Bridelia retusa</i> (L.) A. Juss. (1)	<i>Gliomastix</i> sp.	14
		<i>Bridelia</i> sp. (1)	<i>Craspedodidymum</i> sp.	
		<i>Glochidion ellipticum</i> Wight (1)	<i>Pseudocercospora griseola</i> (Sacc.) Crous & U. Braun 2006	
		<i>Glochidion</i> sp. (8)	<i>Alternaria dianthicola</i> Neerg. 1945 * <i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978 * <i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978	
			<i>Colletotrichum gloeosporioides</i> (Penz.) Penz. & Sacc. 1884 <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950 * <i>Pseudocercospora griseola</i> (Sacc.) Crous & U. Braun 2006 * <i>Pseudocercospora griseola</i> (Sacc.) Crous & U. Braun 2006 * <i>Pseudocercospora griseola</i> (Sacc.) Crous & U. Braun 2006	
			<i>Glochidion velutinum</i> Wight (2) <i>Pestalotiopsis linearis</i> Maharachch. & K.D. Hyde 2012 <i>Pestalotiopsis linearis</i> Maharachch. & K.D. Hyde 2012 <i>Trichothecium roseum</i> (Pers.) Link 1809	
Piperaceae Giseke	2	<i>Piper nigrum</i> L. (2)	<i>Colletotrichum</i> sp.	3
		<i>Piper</i> sp. (1)	<i>Veronaeopsis simplex</i> (Papendorf) Arzanlou & Crous 2007 <i>Domingoella asterinarum</i> Petr. & Cif. 1932	
Poaceae Barnhart	21	<i>Apluda</i> sp. (1)	<i>Deightoniella jabalpurensis</i> G.P. Agarwal & Hasija 1962	40
		<i>Bambusa vulgaris</i> Schrad. ex J.C. Wendl (1) <i>Bambusa bambos</i> (L.) Voss (12)	<i>Zygosporium oscheoides</i> Mont. 1842 <i>Goosomyces bambusicola</i> Rashmi Dubey & Moonnambeth 2014c <i>Phoma herbarum</i> Westend. 1852 <i>Achroiostachys bambusicola</i> Rashmi Dubey 2021 <i>Aphanofalx</i> sp. <i>Physopella hiratsukae</i> (Syd.) Cummins & Ramachar 1958	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Pithomyces pavgii</i> (V.R. Nath) M.E. Palm, E.L. Stewart & Rossman 1981	
			<i>Porrectotheca</i> sp.	
			<i>Repetophragma ellisii</i> (Piroz.) R.F. Castañeda, McKenzie & K.D. Hyde 2011	
			<i>Periconia cambrensis</i> E.W. Mason & M.B. Ellis 1953	
			<i>Chaetomella acutisetata</i> B. Sutton & A.K. Sarbhoy 1976	
			<i>Dictyoarthrinium sacchari</i> (J.A. Stev.) Damon 1953	
			<i>Fusariella indica</i> R.Y. Roy & B. Rai 1968	
		<i>Coix lacryma-jobi</i> L. (5)	<i>Cladosporium cladosporioides</i> (Fresen.) G.A. de Vries 1952	
			<i>Stauronema sacchari</i> Syd., P. Syd. & E.J. Butler 1916	
			<i>Volutina concentrica</i> Penz. & Sacc. 1902	
			<i>Xepiculopsis graminea</i> (Lib.) Nag Raj 1993	
			<i>Thirumalacharia thanensis</i> Rashmi Dubey 2018	
		<i>Dendrocalamus</i> sp. (1)	<i>Polytretophora calcarata</i> Mercado 1983	
		<i>Eleusine coracana</i> (L.) Gaertn. (5)	<i>Amerosporium polynematoides</i> Speg. 1882	
			<i>Colletotrichum dematium</i> (Pers.) Grove 1918	
			<i>Drechslera papendorfii</i> (Aa) M.B. Ellis 1971	
			<i>Nigrospora sphaerica</i> (Sacc.) E.W. Mason 1927	
			<i>Periconia minutissima</i> Corda 1837	
		<i>Ischaemum</i> sp. (1)	<i>Drechslera papendorfii</i> (Aa) M.B. Ellis 1971	
		<i>Pennisetum purpureum</i> (1)	<i>Capnodium</i> sp. 4	
		<i>Saccharum officinarum</i> L. (1)	<i>Periconia chandolensis</i> Rashmi Dubey 2017	
		<i>Spinifex littoreus</i> (Burm.f.) Merr. (1)	<i>Stauronema spinificis</i> Subhedar & V.G. Rao 1976	
		<i>Thysanolaena latifolia</i> (Roxb. ex Hornem.) Honda (3)	<i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	
			<i>Khuskia oryzae</i> H.J. Huds. 1963	
			<i>Cladosporium colocasiae</i> Sawada 1916	
		Poaceae species 1 (2)	<i>Cercospora apii</i> Fresen. 1863	
			<i>Colletotrichum dematium</i> (Pers.) Grove 1918	
		Poaceae species 2 (1)	<i>Colletotrichum dematium</i> (Pers.) Grove 1918	
		Poaceae species 3 (1)	<i>Drechslera papendorfii</i> (Aa) M.B. Ellis 1971	
		Poaceae species 4 (1)	<i>Domingoella asterinarum</i> Petr. & Cif. 1932	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
Polygonaceae Juss.	1	Poaceae species 5 (1)	<i>Khuskia oryzae</i> H.J. Huds. 1963	3
		Poaceae species 6 (1)	<i>Puccinella graminicola</i> (Burrill) Syd. 1922	
		Poaceae species 7 (1)	<i>Puccinia aristidae</i> Tracy 1893	
		<i>Persicaria auriculata</i> (Makino) Masam. (3)	<i>Rhinocladium</i> sp. <i>Meliolina mollis</i> (Berk. & Broome) Höhn. 1919 <i>Puccinia longinqua</i> Cummins 1951	
Pteridaceae E.D.M. Kirchn. [Pteridophyte]	2	<i>Cheilanthes</i> sp. (1) Fern (1)	<i>Cladosporium</i> sp. <i>Cercospora apii</i> Fresen. 1863	2
Rhamnaceae Juss.	2	<i>Ziziphus jujuba</i> Mill. (5)	<i>Sphacelia</i> sp. * <i>Aschersonia aleyrodis</i> Webber 1897 * <i>Aschersonia aleyrodis</i> Webber 1897 <i>Mitteriella ziziphina</i> Syd. 1933 <i>Meliola ziziphi</i> Hansf. & Thirum. 1948	6
Rosaceae Juss.	1	<i>Zizyphus onenoplia</i> (L.) Mill. (1)	<i>Custingophora ratnagiriensis</i> Dubey & Moonambeth 2013a	1
		<i>Fragaria</i> × <i>ananassa</i> Duchesne ex Rozier (1)	<i>Cladosporium cladosporioides</i> (Fresen.) G.A. de Vries 1952	
Rubiaceae Juss.	13	<i>Canthium dicoccum</i> (Gaertn.) Merr. (1) <i>Canthium</i> sp. (2)	<i>Pestalotiopsis palustris</i> Nag Raj 1993 <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950 <i>Ulocladium botrytis</i> Preuss 1851 <i>Acrodictys balladynae</i> (Hansf.) M.B. Ellis 1961 <i>Balladyna vanderystii</i> (Hansf.) Arx 1962 <i>Monochaetia</i> sp. <i>Tretospora thitei</i> Hosag., T.K. Abraham, N. Ahmad & A.K. Sarbhoy 1999	47
		<i>Catunaregam spinosa</i> (Thunb.) Tirveng. (4)	<i>Asterina</i> sp. * <i>Meliola eugeniae-stocksii</i> Hosag. 1996 * <i>Meliola eugeniae-stocksii</i> Hosag. 1996 * <i>Meliola ixorae</i> Yates 1918 var. <i>macrospora</i> Hosag. 1990 * <i>Meliola ixorae</i> H.S. Yates 1917 var. <i>macrospora</i> Hosag. 1990 <i>Meliola ixorae-coccineae</i> Hosag. & C.M. Pillai 1994 <i>Pestalotiopsis inflexa</i> Maharachch. & K.D. Hyde 2012 <i>Pestalotiopsis</i> sp. <i>Phoma</i> sp. <i>Spiropes effusus</i> (Pat.) M.B. Ellis 1968 <i>Spiropes guareicola</i> (F. Stevens) Cif. 1955 <i>Phyllachora</i> sp.	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
		<i>Ixora coccinea</i> L. (5)	<i>Meliola ixorae</i> H.S. Yates 1917 var. <i>macrospora</i> Hosag. 1990 <i>Stachybotrys levisporus</i> (Subram.) Yong Wang bis, K.D. Hyde, McKenzie, Y.L. Jiang & D.W. Li 2015 <i>Tetraploa ellisii</i> Cooke 1879 <i>Vizella oleariae</i> H.J. Swart 1971 <i>Zygosporium gibbum</i> (Sacc., M. Rousseau & E. Bommer) S. Hughes 1958	
		<i>Ixora</i> sp. (5)	<i>Camarosporium rubicola</i> (Sacc.) Sacc. 1884 <i>Echidnodella polyalthiae</i> Hosag. 2004 <i>Meliola ixorae</i> H.S. Yates 1917 <i>Meliola ixorae-coccineae</i> Hosag. & C.M. Pillai 1994 <i>Spiropes guareicola</i> (F. Stevens) Cif. 1955	
		<i>Meyna laxiflora</i> Robyns (5)	<i>Colletotrichum gloeosporioides</i> (Penz.) Penz. & Sacc. 1884 <i>Colletotrichum lindemuthianum</i> (Sacc. & Magnus) Briosi & Cavara 1889 <i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950 <i>Stenella plectroniae</i> Ponnappa 1968 <i>Zasmidium rubiacearum</i> (S. Chaudhary, N. Sharma & Kamal) Kamal 2010	
		<i>Mitragyna parviflora</i> (Roxb.) Korth (1)	<i>Meliola mitragynae</i> Syd. & P. Syd. 1913	
		<i>Morinda citrifolia</i> L. (1)	<i>Periconia byssoides</i> Pers. 1801	
		<i>Mussaenda</i> sp. (1)	<i>Tripospermum myrti</i> (Lind) S. Hughes 1951	
		<i>Pavetta crassicaulis</i> Bremek. (1)	<i>Balladyna pavettae</i> Boedijn 1961	
		<i>Pavetta indica</i> L. (6)	<i>Ampelomyces quisqualis</i> Ces. 1852 <i>Balladyna velutina</i> (Berk. & M.A. Curtis) Höhn. 1910 <i>Balladyna velutina</i> (Berk. & M.A. Curtis) Höhn. 1910 <i>Cladosporium aecidiicola</i> Thüm. 1876 <i>Colletotrichum lindemuthianum</i> (Sacc. & Magnus) Briosi & Cavara 1889	
		<i>Pavetta</i> sp. (3)	<i>Khuskia oryzae</i> H.J. Huds. 1963 <i>Asterostomula pavettae</i> Hosag. & Sabeena 2012 <i>Balladyna ugandensis</i> Syd. 1939 <i>Erysiphe prasadii</i> (M.K. Bhatn. & K.L. Kothari) U. Braun & S. Takam. 2000	
Rutaceae Juss.	3	<i>Citrus medica</i> L. (2)	<i>Capnodium</i> sp.	4

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Spiropes guareicola</i> (F. Stevens) Cif. 1955	
		<i>Murraya koenigii</i> (L.) Spreng. (1)	<i>Ampelomyces</i> sp.	
		<i>Paramignya monophylla</i> Wight (1)	<i>Asterina wrightii</i> Berk. & M.A. Curtis 1875	
Salicaceae Mirb.	3	<i>Casearia</i> sp. (4)	<i>Cladosporium spongiosum</i> Berk. & M.A. Curtis 1868	6
			<i>Cryptomyces</i> sp.	
			<i>Meliola</i> sp.	
			<i>Myrothecium roridum</i> Tode 1790	
		<i>Flacourtia indica</i> (Burm.f.) Merr. (1)	<i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978	
		<i>Flacourtia</i> sp. (1)	<i>Uredo</i> sp.	
Sapindaceae Juss.	4	<i>Allophylus cobbe</i> (L.) Raeusch. (1)	<i>Idriella lunata</i> P.E. Nelson & S. Wilh. 1956	4
		<i>Allophylus</i> sp. (1)	<i>Meliola allophylifera-serrulati</i> Hosag. & T.K. Abraham 1998	
		<i>Dimocarpus longan</i> Lour. (2)	* <i>Domingoella asterinarum</i> Petr. & Cif. 1932	
			* <i>Domingoella asterinarum</i> Petr. & Cif. 1932	
Sapotaceae Juss.	1	<i>Madhuca longifolia</i> var. <i>latifolia</i> (Roxb.) Chev (2)	<i>Pleurocytospora vestita</i> Petr. 1923	2
			<i>Zygosporium gibbum</i> (Sacc., M. Rousseau & E. Bommer) S. Hughes 1958	
Smilacaceae Vent.	2	<i>Smilax</i> sp. (6)	<i>Colletotrichum gloeosporioides</i> (Penz.) Penz. & Sacc. 1884	7
			<i>Puccinia imposita</i> Arthur 1919	
			<i>Puccinia kraussiana</i> Cooke 1882	
			* <i>Puccinia phragmitis</i> (Schumach.) Tul. 1854	
			* <i>Puccinia phragmitis</i> (Schumach.) Tul. 1854	
		<i>Smilax zeylanica</i> L. (1)	<i>Stenella</i> sp.	
			<i>Cladosporium aecidiicola</i> Thüm. 1876	
Solanaceae Juss.	2	<i>Solanum lycopersicum</i> L. (1)	<i>Stemphylium solani</i> G.F. Weber 1930	2
		<i>Solanum</i> sp. (1)	<i>Pithomyces chartarum</i> (Berk. & M.A. Curtis) M.B. Ellis 1960	
Thymelaeaceae Juss.	1	<i>Gnidia glauca</i> (Fresen.) Gilg. (1)	<i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	1
Urticaceae Juss.	1	<i>Laportea</i> sp. (1)	<i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	1
Verbenaceae J.St.–Hil.	1	<i>Lantana camara</i> L. (1)	<i>Corynespora cassiicola</i> (Berk. & M.A. Curtis) C.T. Wei 1950	1
Vitaceae Juss.	3	<i>Ampelocissus</i> sp. (1)	<i>Coniella granati</i> (Sacc.) Petr. & Syd. 1927	14
		<i>Cissus</i> sp. (1)	<i>Pseudocercospora</i> sp. 1	
		<i>Leea indica</i> (Burm. f.) Merr. (12)	<i>Amazonia elaeocarpi</i> Hosag., D.K. Agarwal, H. Biju & Archana 2007	

Table 1 Continued.

Host family	Number of host taxa	Host	Fungi	Number of Fungi
			<i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978	
			<i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978	
			<i>Ardhachandra cristaspora</i> (Matsush.) Subram. & Sudha 1978	
			<i>Meliolina mollis</i> (Berk. & Broome) Höhn. 1919	
			<i>Passalora leae</i> (Chidd.) U. Braun & Crous 2003	
			<i>Pestaliopsis guepinii</i> (Desm.) Steyaert 1949	
			<i>Pestalotiopsis funerea</i> (Desm.) Steyaert 1949	
			<i>Tripospermum acrobaticum</i> F.B. Rocha & R.W. Barreto 2010	
			<i>Zygosporium gibbum</i> (Sacc., M. Rousseau & E. Bommer) S. Hughes 1958	
			<i>Zygosporium gibbum</i> (Sacc., M. Rousseau & E. Bommer) S. Hughes 1958	
			<i>Zygosporium masonii</i> S. Hughes 1951b	
68 host families	239 host plants			569 fungal isolates

A critical review of Table 1 reveals that 569 foliicolous fungal isolates were harboured by 68 host plant families consisting of 239 host plants. Out of the 239 determined host plants, 234 species belong to angiosperms, 02 host species belong to pteridophytes (Pteridaceae & Lygodiaceae) and the remaining 02 host species belong to gymnosperms (Cycadaceae & Gnetaceae). A perusal of the Fig. 2 reveals that the highest number of foliar fungi (given in parentheses) were recorded on following plant families, viz., Rubiaceae (47), Poaceae (40), Fabaceae (39), Arecaceae (38), Lamiaceae (32), Apocynaceae (26) Malvaceae (25), Oleaceae (22). Moraceae (19), Anacardiaceae (18) and Myrtaceae (16), rest of the host families were found to be harbouring with 1–15 fungal species. Following host taxa yielded maximum number of fungi (given in parentheses) viz., *Mangifera indica* L. (15), *Roystonea regia* (Kunth) O.F. Cook (15), *Cocos nucifera* L. (12), *Bambusa bambos* (L.) Voss (12), *Ixora brachiata* Roxb. (12), *Leea indica* (Burm. f.) Merr. (12), *Memecylon umbellatum* Burm. f. (10). In Table 1, some of the fungi (asterisked) are repeated for the same host. It is due to the fact that in some cases, same host–fungus combination was obtained from more than one location. *Roystonea regia* and *Mangifera indica* L. were most favoured host as they harboured maximum (=15) foliar fungi. Number of foliicolous fungi and host genera in their representative plant families is reflected by bar diagram in Fig. 2. The symptoms of the host plant species are shown in Figs 3–9, and photomicrographs of foliicolous fungi are presented in Figs 10–14.

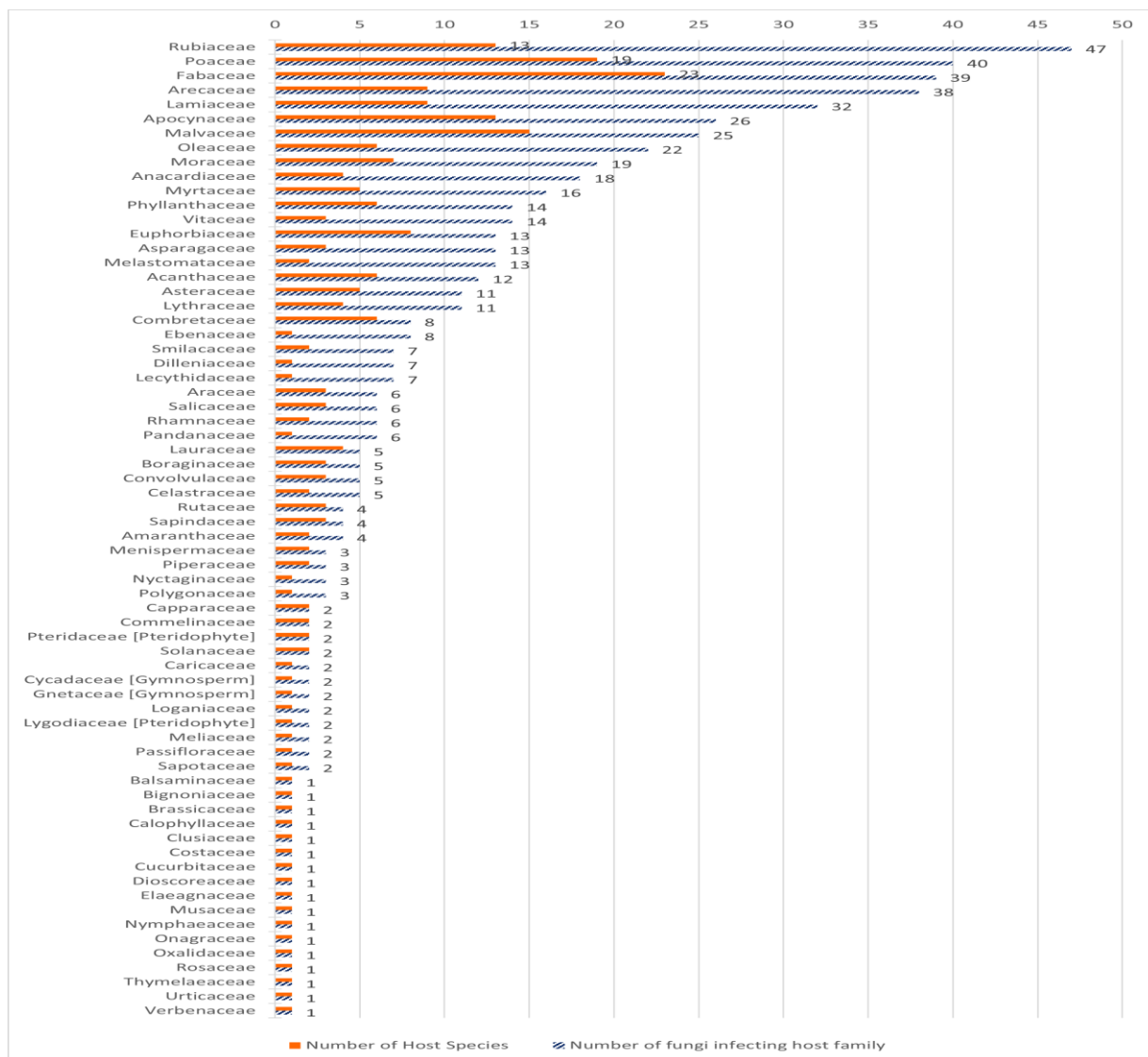


Fig. 2 – Graphical representation of Hosts/Host families with their respective foliicolous fungi.

Discussion

The focus of this study is on mapping the relationship between plant host families and foliar fungi, which is rooted in symptomatic plant–fungal interactions. The methodical field expeditions were conducted across 96 sites, encompassing various geographical regions and forest types in Maharashtra. Priority was accorded to areas with substantial forest cover, leading to a concentration of sampling in Western Maharashtra, where forest density is notably high, as depicted in Figure 1. During the studies, 68 host plant families were studied, represented by 239 host plant species, comprising 3 pteridophyte species, 2 gymnosperm species, and 234 angiosperm species.

Rubiaceae emerged as the largest family hosting 47 foliar fungi, with Poaceae, Arecaceae, Fabaceae, and Lamiaceae following closely behind, comprising the top five families hosting foliar fungi. Among individual species, *Mangifera indica* and *Roystonea regia* each hosted the maximum number of foliar fungi, with 15 fungi identified on each species. However, none of the host families exhibited infections on a large scale or reached epidemic proportions.

Based on these observations and the conceptual framework outlined in the introduction several inferences can be drawn. Firstly, the host–fungal relationship appears to have co–evolved over an extensive period in natural history. Secondly, the structure of tropical forests, which are characterized by their biodiversity and lack of monocultures, seems to play a significant role. We have also observed that, a diverse ecosystem potentially localizes pathogens, limiting their spread and preventing outbreaks on an epidemic scale. Indeed, it is not surprising considering that each

plant species provides a unique microclimate to the fungi it hosts. This variability makes it challenging potential pathogens to optimize their pathogenicity across all plant species. As a result, we observed localized infections rather than widespread outbreaks. This underscores the complexity and specificity of the interactions between plants and fungi within diverse ecosystems like tropical forests. This scenario emphasizes the importance of ongoing research to anticipate and mitigate potential impacts on ecosystems and agricultural systems. By comprehensively documenting these interactions now, we can better prepare for and manage future challenges arising from shifts in environmental conditions.



Fig. 3 – (a) *Barlaria* sp. (Acanthaceae) Infected with *Corynespora cassiicola*. (b) *Thunbergia* sp. (Acanthaceae) Infected with *Zygosporium majus*. (c) *Thunbergia* sp. (Acanthaceae) Infected with *Cercospora thunbergiae*. (d) *Achyranthes aspera* L. (Amaranthaceae) infected with *Trichoconiella padwickii*. (e) *Nothopegia* sp. (Anacardiaceae) infected with *Meliola nothopegiae*. (f) *Mangifera indica* L. (Anacardiaceae) infected with *Pestalotiopsis anacardii*. (g) *Cryptolepis buchananii* (Apocynaceae) infected with *Sarcinella cryptolepidae*. (h) *Carissa spinarum* (Apocynaceae) infected with *Meliola carissae* var. *spinari*. (i) *Arisaema* sp. (Araceae) infected with *Cercospora apii*. (j) *Colocasia esculenta* (Araceae) infected with *Cercospora apii*. (k) *Cocos nucifera* L. (Arecaceae) infected with *Domingoella asterinarum*. (l) *Areca catechu* (Arecaceae) infected with *Acroconidiellina arecae*.



Fig. 4 – (a) *Eupatorium* sp. (Asteraceae) infected with *Cladosporium colocasiae*. (b) *Blumea* sp. infected with *Cercospora blumeicola*. (c) *Impatiens balsamina* L. (Balsaminaceae) infected with *Cercospora apii*. (d) *Cordia macleodii* (Boraginaceae) infected with *Cladosporium gallicola*. (e) *Trichodesma* sp. (Boraginaceae) infected with *Monostichella salicis*. (f) *Brassica oleracea* var. *botrytis* L. (Brassicaceae) infected with *Alternaria brassicicola*. (g) *Capparis grandis* (Capparaceae) infected with *Coniothyrium eucalypticola*. (h) *Garcinia* sp. (Clusiaceae) Infected with *Asterina morellae*. (i) *Terminalia arjuna* (Combretaceae) infected with *Cladosporium oxysporum*. (j) *Terminalia chebula* (Combretaceae) infected with *Licheniconium boreale*. (k) *Commelina benghalensis* infected with *Pyriculariopsis* sp. (l) *Ipomoea pes-caprae* (Convolvulaceae) infected with *Ardhachandra cristaspora*.



Fig. 5 – (a) *Hellenia speciosa* (Costaceae) infected with *Helicomina costi*. (b) *Dillenia pentagyna* (Dilleniaceae) infected with *Zygosporium dilleni*. (c) *Diospyros kurzii* (Ebenaceae) infected with *Conidiocarpus betle*. (d) *Mallotus philippensis* (Euphorbiaceae) infected with *Asteridiella mallotica*. (e) *Euphorbia nerifolia* (Euphorbiaceae) infected with *Pseudocochliobolus pallescens*. (f) *Macaranga peltata* (Euphorbiaceae) infected with *Hansfordiellopsis lichenicola*. (g) *Gnetum edule* (Gnetaceae) infected with *Colletotrichum gloeosporioides*. (h) *Ovieda grandiflora* infected with *Cladosporium: colocasiae*. (i) *Tectona grandis* (Lamiaceae) infected with *Erysiphe tectonae*. (j) *Actinodaphne angustifolia* (Lauraceae) infected with *Gyrothrix circinate*. (k) *Careya arborea* (Lecythidaceae) infected with *Spiopes guareicola*. (l) *Pongamia pinnata* (Fabaceae) infected with *Chalara siamense*.



Fig. 6 – (a) *Lygodium* sp. (Lygodiaceae) infected with *Cladosporium colocasiae*. (b) *Lagerstroemia microcarpa* (Lythraceae) infected with *Ardhachandra cristaspora*. (c) *Woodfordia fruticosa* (Lythraceae) infected with *Asterina woodfordiae*. (d) *Helicteres isora* (Malvaceae) infected with *Aschersonia aleyrodidis*. (e) *Firmiana colorata* (Malvaceae) infected with *Sarcinella loranthacearum*. (f) *Memecylon talbotianum* (Melastomataceae) infected with *Parapericoniella asterinae*. (g) *Memecylon umbellatum* (Melastomataceae) infected with *Meliolina mollis*. (h) *Azadirachta indica* (Meliaceae) infected with *Calonectria morganii*. (i) *Tinospora cordifolia* (Menispermaceae) infected with *Passalora desmanthi*.



Fig. 7 – (a) *Ficus religiosa* (Moraceae) infected with *Tryblidiopycnis pinastris*. (b) *Ficus hispida* (Moraceae) infected with *Peridiopsis mori*. (c) *Ensete superbum* (Musaceae) infected with *Corynespora torulosa*. (d) *Eugenia* sp. (Myrtaceae) infected with *Asterina jambolanae*. (e) *Syzygium cumini* (Myrtaceae) infected with *Conidiocarpus koyanensis*. (f) *Nymphaea rubra* (Nymphaeaceae) infected with *Temerariomyces indicum*. (g) *Jasminum malabaricum* (Oleaceae) infected with *Meliola garhwalensis*. (h) *Tetrapilus dioicus* (Oleaceae) infected with *Aithaloderma viride*. (i) *Ludwigia* sp. (Onagraceae) Infected with *Sarocladium strictum*. (j) *Oxalis dehradunensis* (Oxalidaceae) infected with *Puccinia oxalidis*.

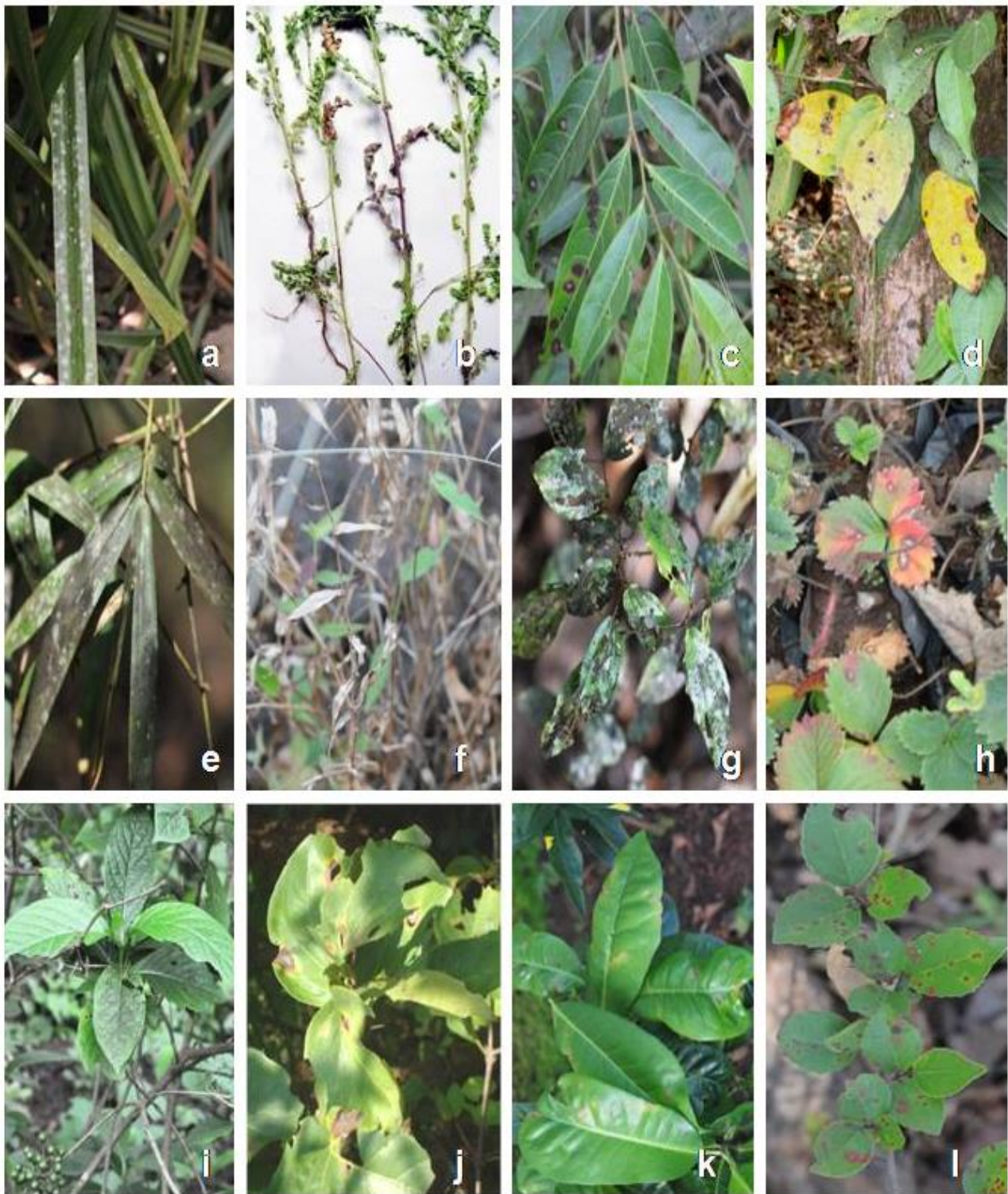


Fig. 8 – (a) *Pandanus tectorius* (Pandanaceae) infected with *Sheathnema indicum*. (b) *Phyllanthus niruri* (Phyllanthaceae) infected with *Trichothecium roseum*. (c) *Glochidion ellipticum* (Phyllanthaceae) infected with *Pseudocercospora griseola*. (d) *Piper nigrum* (Piperaceae) infected with *Veronaeopsis simplex*. (e) *Bambusa bambos* (Poaceae) infected with *Periconia cambrensis*. (f) *Apluda mutica* (Poaceae) infected with *Deightoniella jabalpurensis*. (g) *Ziziphus oenopolia* (Rhamnaceae) infected with *Custingophora ratnagiriensis*. (h) *Fragaria × ananassa* (Rosaceae) infected with *Cladosporium cladosporioides*. (i) *Pavetta indica* (Rubiaceae) infected with *Balladyna velutina*. (j) *Meyna laxiflora* (Rubiaceae) infected with *Zasmidium rubiacearum*. (k) *Citrus medica* (Rutaceae) infected with *Spiropes guareicola*. (l) *Flacourtia indica* (Salicaceae) infected with *Ardhachandra cristaspora*.



Fig. 9 – (a) *Allophylus cobbe* (Sapindaceae) infected with *Idriella lunata*. (b) *Dimocarpus longan* (Sapindaceae) infected with *Domingoella asterinarum*. (c) *Madhuca longifolia* var. *latifolia* (Sapotaceae) infected with *Pleurocytospora vestita*. (d) *Smilax zeylanica* (Smilacaceae) infected with *Cladosporium aecidiicola*. (e) *Solanum lycopersicum* (Solanaceae) infected with *Stemphylium solani*. (f) *Lasiosiphon glaucus* (Thymelaeaceae) infected with *Corynespora cassiicola*. (g) *Laportea interrupta* (Urticaceae) infected with *Corynespora. Cassiicola*. (h) *Lantana camara* (Verbenaceae) infected with *Corynespora cassiicola* (l) *Leea indica* (Vitaceae) infected with *Amazonia elaeocarpi*.

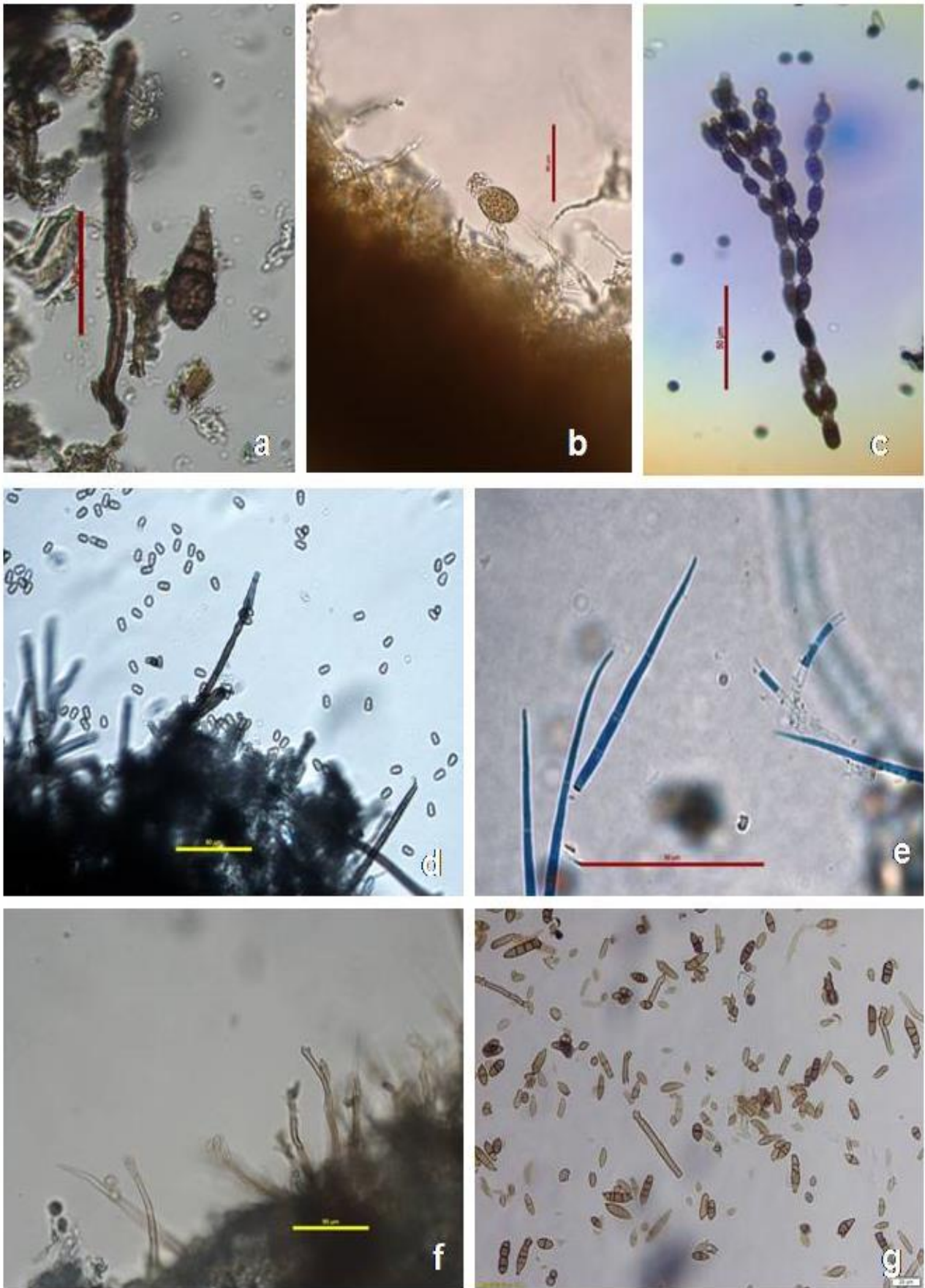


Fig. 10 – (a) *Acroconidiellina arecae*. (b) *Ampelomyces Quisqualis*. (c) *Bahusandhika indica*. (d) *Catenularia cubensis*. (e) *Cercospora apii*. (f) *Cladosporium colocasiae*. (g) *Cladosporium oxysporum*. Scale bars: a –g = 50 μ m.



Fig. 11 – (a) *Corynespora cassicola*. (b) *Custingophora ratnagiriensis*. (c) *Dendryphion vinosum*. (d) *Dictyosporium elegans*. (e) *Domingoella asterinarum*. (f) *Excipulariopsis narsapurensis*. (g) *Gliocaldium penicilloides*. (h) *Gonatophragmium mayteni*. Scale bars: a = 20µm, b–h=50µm.

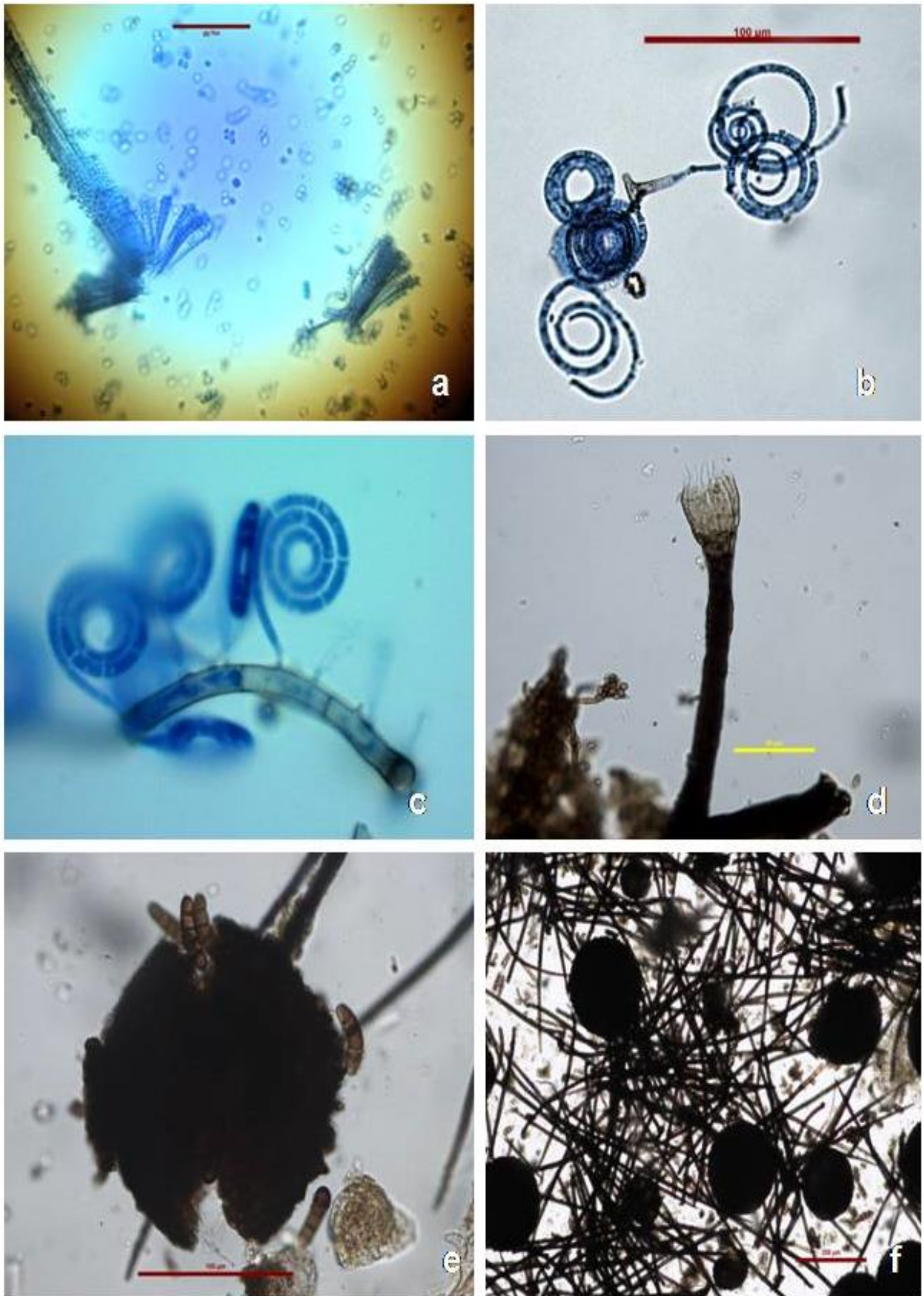


Fig. 12 – (a) *Graphiola phoenicis*. (b) *Helicomyces hyderabadensis*. (c) *Helicosporium lumbricoides*. (d) *Leptoxyphium glochidion*. (e) *Meliola ixorae* var. *macrospora*. (f) *Meliola unicola*. Scale bars: a =50, b =100, d =50μm, e=100, f=50μm.

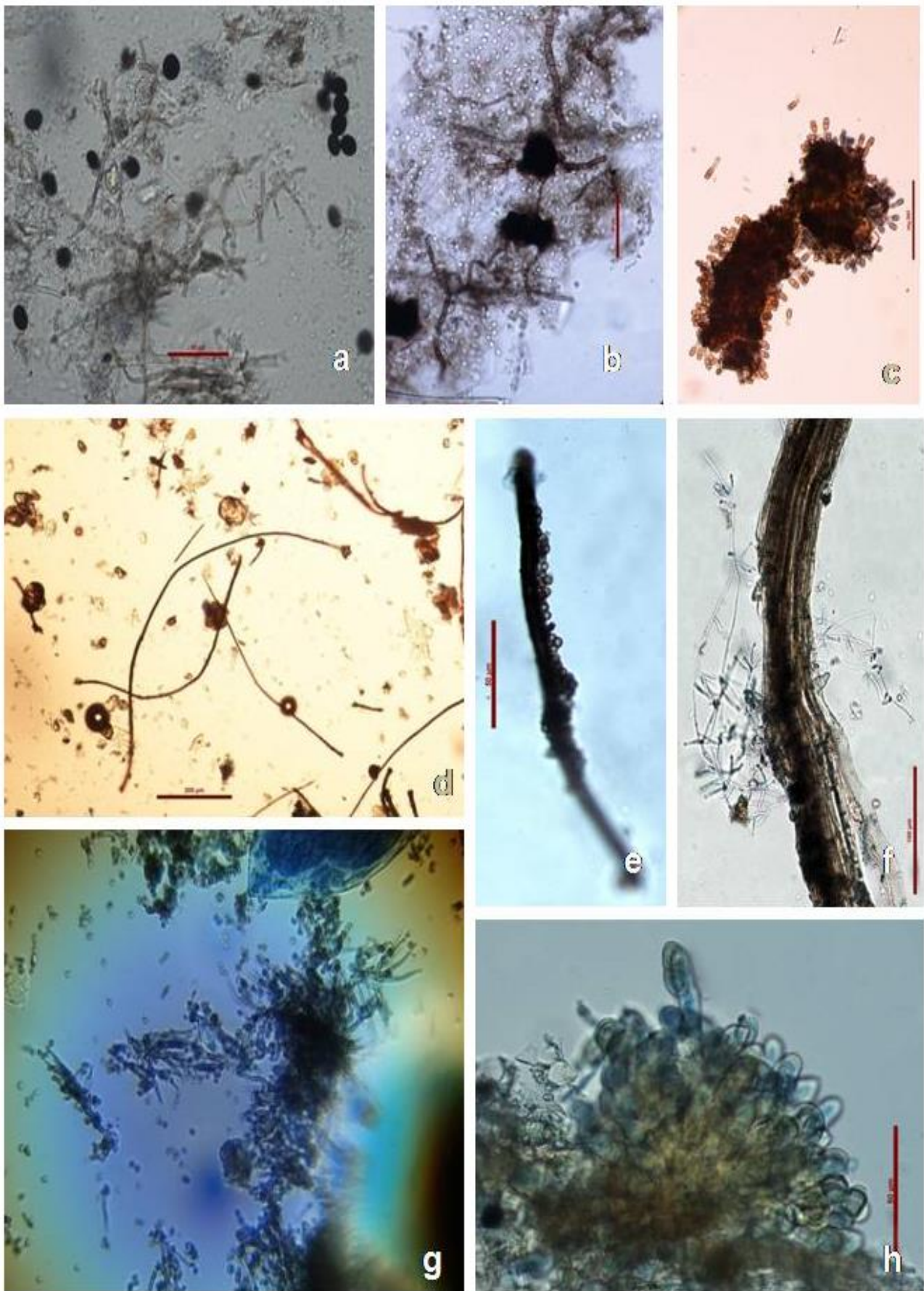


Fig. 13 – (a) *Nigrospora* state of *khuskia oryzae*. (b) *Paraphoma fimeti*. (c) *Phragmospathula brachyspathula*. (d) *Periconia byssoides*. (e) *Periconia lateralis*. (f) *Verticillium lecanii*. (g) *Phialophora cyclaminis*. (h) *Puccinia kraussiana*. Scale bars: a –h = 50µm.

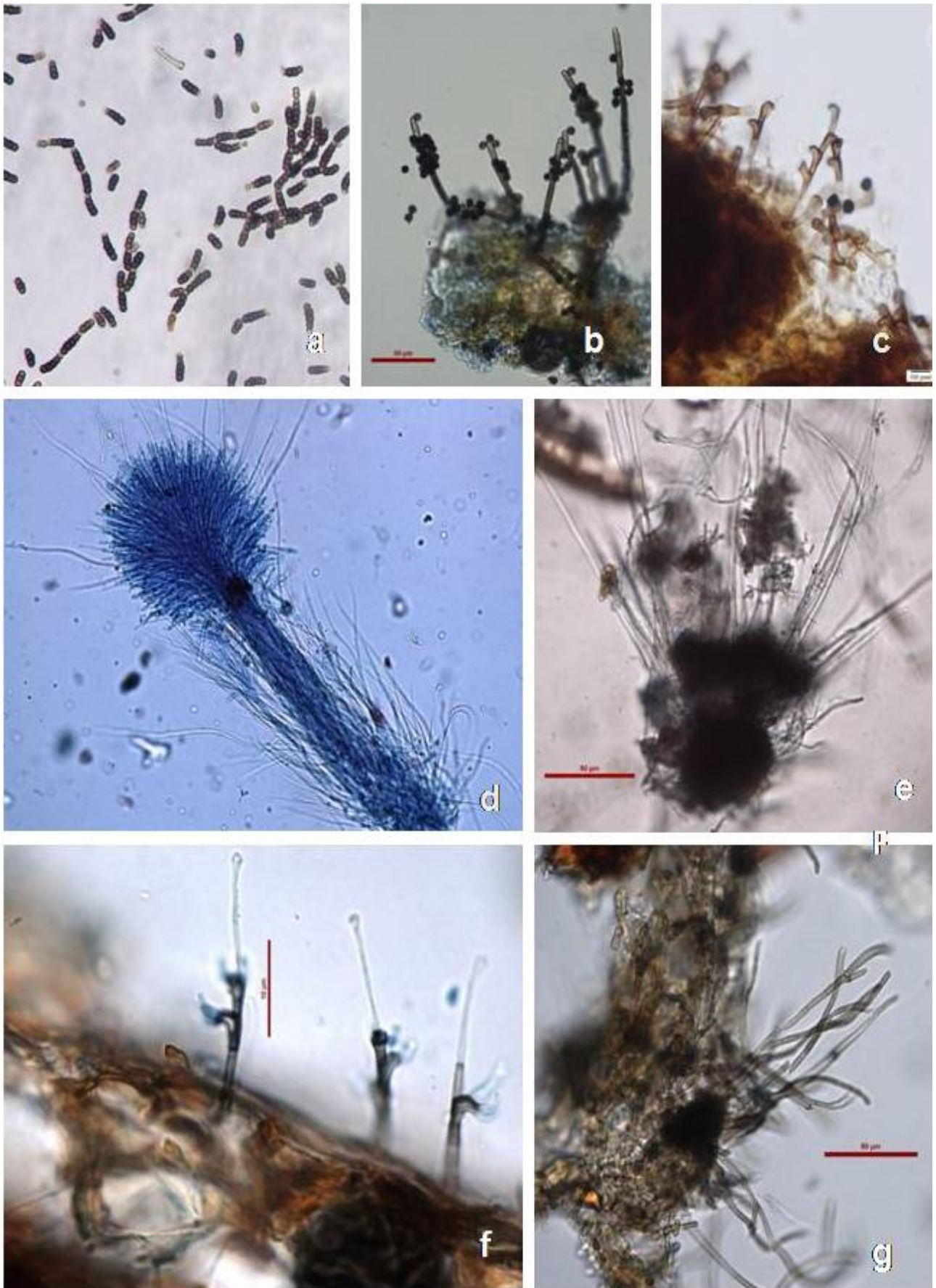


Fig. 14 – a *Torula herbarum*. b *Virgariella globigera*. c *Zygosporium masonii*. d *Tharoopama livistonae*. e *Volutina concentrica*. f *Zygosporium dilleni*. g *Stenella araguata*. Scale bars: a–g = 50µm.

During the studies of foliicolous fungi, additionally 20 fungal isolates were also obtained from unidentified host plants, which are not included in the present studies viz. *Asterostomella* sp, *Beltrania* sp, *Capnodium* sp. 3, *Cercospora* sp, *Cercospra* sp, *Cirsosia vateriae* Hosag. 2012, *Cladosporium* sp, *Colletotrichum lindemuthianum* (Sacc. & Magnus) Briosi & Cavara 1889, *Dictyochaeta* sp, *Heteropatella lacera* Fuckel 1874, *Isthmospora spinosa* FL. Stevens 1918, *Meliola* Koord. 1907, *alstoniae Periconia byssoides* Pers. 1801, *Periconia lateralis* Ellis & Everh. 1886, *Periconiella telopeae* (Hansf.) M.B. Ellis 1967, *Sarcinella gymnosporiae* Subhedar & Rao ex Hosag. 2002, *Sarcinella* sp, *Sphacelia* sp, *Wiesneriomyces* sp.

Conclusion

The present study provides unique perspective on diversity of leaf inhabiting fungi in relation to the host families and corresponding host plant species on which they occur. A large number of foliar fungi were confirmed in 239 species of plants under 68–host families. The study provides baseline data for further studies on host–plant relationship, its underlying molecular and biochemical underpinnings, and potential pathogens capable of causing large scale economic losses to the plants in future.

Acknowledgements

Authors are thankful to Director, Botanical survey of India, for providing all the research facilities. They are also grateful to the Head of the office, Botanical Survey of India, Western Regional Centre, Pune for his kind support. Ministry of Environment and Forest and Climate change New Delhi, is thankfully acknowledged for financial assistance. Forest Department of Maharashtra is also thankfully acknowledged for providing permission to conduct the research work.

References

- Agarwal. 2008 – Some novel additions to Schiffnerulaceous fungi from Kerala, India. *Indian Phytopathology* 61, 247–251.
- Agarwal GP, Hasija SK. 1961 – Fungi causing plant diseases at Jabalpur (Madhya Pradesh). VII. *Journal of the Indian Botanical Society* 40(4), 542–547.
- Agnihotrudu V. 1962 – Notes on fungi from north–east India X. *Chaetospermum camelliae* sp. nov. on tea (*Camellia sinensis* (L.) O. Kuntze.). *Mycopathologia et Mycologia Applicata* 16(2), 113–116.
- Aime MC, Taggart AR. 2020 – A higher–rank classification for Rust Fungi, with notes on genera. *Fungal Systematics and Evolution* 7, 21–47.
- Aime MC. 2006 – Towards resolving family–level relationships in Rust fungi (Uredinales). *Mycoscience* 47: 112–122.
- Andrews JH, Hirano SS. 1991 – Microbial ecology of leaves. Brock/Springer series in contemporary bioscience, USA.
- Arnaud G, Deighton. 1969 – *Mycological Papers* 118, 3.
- Arthur JC. 1919 – New species of Uredineae. XI. *Bulletin of the Torrey Botanical Club* 46, 107–125.
- Arx JA von. 1957 – Revision der zu *Gloeosporium* gestellten Pilze. *Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen Afdeling Natuurkunde* 51(3),1–153.
- Arzanlou M, Groenewald JZ, Gams W et al. 2007 - Phylogenetic and morphotaxonomic revision of *Ramichloridium* and allied genera. *Studies in Mycology* 58, 57-93.
- Bakhshi M. 2019 – Epitypification of *Cercospora rautensis*, the causal agent of leaf spot disease on *Securigera varia*, and its first report from Iran. *Fungal Systematics and Evolution* 3, 157–163.
- Bauer R, Oberwinkler F, Piepenbring M, Berbee Anm L. 2001 – Basidiomycota: Ustilaginales in *Systematics and Evolution*. (Eds.) Mclaugh, DJ, Lin EG, Mclaughlin, Lempke PA. Berlin. Springer, *The Mycota* VII, Part B, 57–8.

- Berkeley MJ, Broome CE. 1850 – Notices of British fungi [no. 438–501]. *Annals and Magazine of Natural History* 5, 455–466.
- Berkeley MJ. 1860 – Outlines of British Fungology 1–442.
- Berkeley MJ, Curtis MA. 1869 – Fungi Cubenses (Hymenomycetes). *Journal of the Linnean Society. Botany* 10, 280–392.
- Berkeley MJ. 1868 – On a collection of fungi from Cuba. Part II, including those belonging to the families Gasteromycetes, Coniomycetes, Hyphomycetes, Physomycetes, and Ascomycetes. *Journal of the Linnean Society, Botany* 10, 341–392.
- Berkeley MJ. 1875 – Notices of North American fungi. *Grevillea* 4(29), 1–16.
- Berlese AN, Saccardo PA. 1885 – Miscellanea micologica. II. *Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti, Serie* 6, 3, 711–743.
- Beyma thoe K, van JFH. 1942 – Beschreibung einiger neuer Pilzarten aus dem Centraalbureau voor Schimmelcultures, Baarn (Nederland). VII. Mitteilung. *Antonie van Leeuwenhoek* 8, 105–122.
- Boedijn KB. 1961 – Notes on the Meliolales. *Persoonia* 1(4), 393–404.
- Bose T, Reynolds DR, Berbee ML. 2014 – Common, unsightly, and until now undescribed: *Fumiglobus pieridicola* sp. nov., a sooty mold infesting *Pieris japonica* from western North America. *Mycologia* 106(4), 746–756.
- Braun U, Crous PW, Nakashima C. 2016 – Cercosporoid fungi (Mycosphaerellaceae) Species on dicots (Anacardiaceae to Annonaceae). *IMA Fungus* 7, 161–216.
- Braun U, Paul YS. 2009 – The Indian Erysiphaceae revisited. *Nova Hedwigia* 89 (3–4), 371–395.
- Braun U, Takamatsu S. 2000 – Phylogeny of *Erysiphe*, *Microsphaera*, *Uncinula* (Erysipheae) and *Cystotheca*, *Podosphaera*, *Sphaerotheca* (Cystothecaceae) inferred from rDNA ITS sequences some taxonomic consequences. *Schlechtendalia* 4, 1–33.
- Braun U. 1988 – Studies on *Ramularia* and allied genera (I). *International Journal of Mycology and Lichenology* 3(2–3), 271–285.
- Braun U. 1998 – A Monograph of *Cercosporella*, *Ramularia* and Allied Genera (Phytopathogenic Hyphomycetes), 2. IHW-Verlag.
- Briosi G, Cavara F. 1889 – I Funghi Parassiti delle Piante Coltivate od Utili 2.
- Butler EJ, Bisby GR. (ed) 1931 – The Fungi of India. Government of India. C.A.B. International Mycological Research Institute, Kew, Surrey.
- Callan BE, Carris LM. 2004 – Fungi on living plant substrata, including fruits. Chap. 7 in: GM Mueller, GF Bills, MS. Foster eds. *Biodiversity of Fungi. Inventory and Monitoring Methods*. Elsevier Academic Press, San Diego, CA.
- Castañeda-Ruiz RF, Heredia G, Arias RM, McKenzie EHC et al. 2011 – A new species and re-disposed taxa in *Repetophragma*: In: *Mycosphere* 2(3), 276.
- Cesati V, De Notaris G. 1863 – Schema di classificazione degli Sferiacei Italici aschigeri più o meno appartenenti al genere *Sphaeria* nell'antico significato attribuitogli da Persoon. *Commentario della Società Crittogamologica Italiana* 1(4), 177–240.
- Cesati V. 1852 – *Ampelomyces quisqualis* Ces. *Botanische Zeitung* 10, 301–302.
- Chomnunti P, Schoch CL, Aguirre-Hudson B, Thida Win Ko Ko. 2011 – Capnodiaceae. *Fungal diversity*. 51:103–134
- Ciferri R. 1955 – Observations on meliolicolous Hyphales from Santo Domingo. *Sydowia*. 9(1–6), 296–335.
- Cooke MC. 1878 – Ravenel's American fungi. *Grevillea* 6(40), 129–146.
- Cooke MC, Ellis JB. 1879 – New Jersey fungi. *Grevillea* 8(45), 11–16.
- Cooke MC. 1880 – The genus *Ravenelia*. *Journal of the Royal Microscopical Society* 3(1), 384–389.
- Cooke MC. 1882 – Exotic fungi. *Grevillea* 10(56), 121–130.
- Corde AC. 1836 – Mykologische Beobachtungen. *Weitenweber's Beitrage zur gesammten Natur- und Heilwissenschaften*. Prague 1, 87.
- Corde ACJ. 1837 – *Icones fungorum hucusque cognitorum* 1:1–32.

- Corda AKJ. 1840 – Icones Fungorum hucusque Cognitorum. 4. apud J.G. Calve, Fridericum Ehrlich.
- Crous PW, Alfenas AC, Wingfield MJ. 1993 – *Calonectria scoparia* and *Calonectria morganii* sp.nov., and variation among isolates of their *Cylindrocladium* anamorphs. Mycological Research 97(6), 701–708.
- Crous, PW, Braun U. 2003 – Mycosphaerella and its anamorphs: 1. Names published in Cercospora and Passalora. CBS Biodiversity Series 1, 1–571.
- Crous PW, Liebenberg MM, Braun U, Groenewald JZ. 2006 – Re-evaluating the taxonomic status of Phaeoisariopsis griseola, the causal agent of angular leaf spot of bean. Studies in Mycology 55, 163–174.
- Crous PW, Wingfield MJ, Guarro J, Cheewangkoon R et al. 2013 – Fungal Planet description sheets, 154–213. Persoonia 31:188–296.
- Crous PW, Schroers HJ, Groenewald JZ, Braun U, Schubert K. 2006– *Metulocladosporiella* gen. nov. for the causal organism of Cladosporium speckle disease of banana. Mycological Research 110(3), 264–275.
- Cummins GB. 1951 – Uredinales of continental China collected by S.Y. Cheo. II. Mycologia 43, 78–98.
- Cummins GB. 1956 – Descriptions of tropical rusts –VIII. Bulletin Torrey Botanical Club 83, 221–233.
- Cummins GB, Ramachar P. 1958 – The genus Physopella (Uredinales) replaces Angiopsora. Mycologia 50(5), 741–744.
- Damon SC. 1952 – Type studies in *Dictyosporium*, *Spiera*, and *Cattanea*. Lloydia 15(2), 110–124.
- Damon SC. 1953 – Notes on Hyphomycetes genera *Spegazzinia* Sacc., and *Isthmospora* Stay. Bulletin of the Torrey Botanical Club 80(3), 155–165.
- Das S. 1957– A new species of *Cercospora* on *Blumea lacera* DC. Current Science. 27, 260–261.
- Deighton FC. 1959 – Studies on *Cercospora* and allied genera I. *Cercospora* species with coloured spores on *Phyllanthus* (Euphorbiaceae). Mycol. Pap. 71:1–23.
- Deighton FC. 1960 – African fungi. I. Mycological Papers 78, 36.
- Deighton FC. 1965 – Various Hyphomycetes, mainly tropical. Mycological Papers 101, 28–43.
- Deighton FC. 1974 – Studies on *Cercospora* and allied genera. V. *Mycovellosiella* Rangel, and a new species of *Ramulariopsis*. Mycological Papers 137:1–76.
- Dietel P. 1895 – Einige neue exotische Pilze. Hedwigia 34, 291–292.
- Dix N, Webster J. 1995 – Fungal Ecology. Chapman and Hall, London, UK.
- Doidge EM. 1922 – A fungus of economic importance on the avocado (*Persea americana*). Bothalia 1(3), 179–186.
- Dorenbosch MMJ, Boerema GH. 1973 – About Phoma liliana Chandra & Tandon II. Mycopathologia et Mycologia Applicata. 50, 255–256.
- Dubey Rashmi, Moonnambeth AM. 2013a – *Custingophora ratnagiriensis* sp.nov. – A novel species of Custingophora from Konkan, India. NeBIO–International Journal on Environment and Biodiversity 4, 31–32.
- Dubey Rashmi, Moonnambeth AM. 2013b – *Tharoopama livistonae* sp. nov. –A new synematous hyphomycetes from India. Indian Journal of Forestry 36, 383–386.
- Dubey Rashmi, Moonnambeth NA. 2014a – *Solicorynespora matheranensis* sp. nov. – A new species of *Solicorynespora* from Indian subcontinent. NeBIO–International Journal of Environmental Biodiversity 5, 15–18.
- Dubey Rashmi, Moonnambeth NA. 2014 – *Sheathnema indicum* gen. et sp. nov. –a new sooty mold fungus from Northern Western Ghats, India. Journal of Threatened Taxa 6, 6549–6555.
- Dubey Rashmi, Moonnambeth NA. 2014b – *Vermiculariopsiella papayae* sp. nov. –A new species of Vermiculariopsiella from Western Ghats, India. International Journal of Scientific Research 3, 35–36.

- Dubey Rashmi, Neelima AM. 2014c – *Goosomyces bambusicola*—A new cheirosporous anamorphic species from Western Ghats, India. *Current Research in Environmental & Applied Mycology* 4, 211–216.
- Dubey Rashmi, Pandey AD. 2017 – Percentage distribution of foliicolous fungi of Maharashtra, India with respect to their disease symptoms: a novel study. *Mycologia Iranica* 4(2), 103–120.
- Dubey Rashmi, Pandey AD. 2019 – Statistical analysis of foliicolous fungal biodiversity of Konkan region, Maharashtra, India: A novel approach. *Plant Pathology & Quarantine* 9(1), 77–115.
- Dubey Rashmi, Pandey AD. 2022a – Inventory and Data Analysis of Leaf inhabiting fungi of Protected Areas of Northern Maharashtra, India. *Indian Phytopathology* 75, 315–323.
- Dubey Rashmi, Pandey AD. 2022b – Documentation and statistical approach towards foliar fungi found in Western Ghats (Desh region of Maharashtra), India. *Plant Pathology & Quarantine* 12(1), 77–104. Doi 10.5943/ppq/12/1/6
- Dubey Rashmi, Pandey AD. 2022c – Documentation & Statistical Analysis of Diversity of Microfungi of Sanjay Gandhi National Park, Maharashtra, India. *Asian Journal of Mycology* 5(1), 130–196.
- Dubey Rashmi, Pandey AD. 2023 – Distribution of foliicolous fungi in diverse forest types of Maharashtra State of India. *Plant Pathology & Quarantine* 13(1), 11–30, Doi 10.5943/ppq/13/1/2.
- Dubey Rashmi, Sengupta S. 2016a – *Stigmina koyanensis*—a new conidial fungus from Western Ghats of India. *Plant Pathology and Quarantine* 6, 54–58.
- Dubey Rashmi. 2014a – Two New species of *Zygosporium* Mont. from Indian Subcontinent. *Indian Journal of Forestry* 37(2), 165–168.
- Dubey Rashmi, Sengupta S. 2016b – *Tripospermum melghatense*- A new anamorphic fungus from Melghat Tiger Reserve, Maharashtra, India. *Journal on New Biological Reports* 5(2), 103–105.
- Dubey Rashmi. 2017 – *Periconia chandoliensis* – A new microfungus from Western Ghats of India. *J. Mycopathological Research* 55, 101–104.
- Dubey Rashmi. 2018 – *Thirumalacharia thanensis* sp.nov– A new species of anamorphic Ascomycota from Maharashtra, India. *Species* 19, 1–3.
- Dubey Rashmi. 2021 – *Achroiostachys bambusicola* Rashmi Dubey, *Species* 22(70), 319
- Earle. *Bulletin of the New York Botanical Garden* 3: 307 (1905).
- Ellis JB, Everhart BM. 1886 – New species of fungi from various localities. *Journal of Mycology* 2(9), 99–104.
- Ellis MB. 1960 – Dematiaceous hyphomycetes. I. *Mycological Papers* 76, 1–36.
- Ellis MB. 1961 – Dematiaceous hyphomycetes. II. *Mycological Papers* 79:1–23.
- Ellis MB. 1967 – Dematiaceous hyphomycetes. VIII. *Periconiella*, *Trichodochium*, etc. *Mycological Papers* 111.
- Ellis MB. 1968 – Dematiaceous hyphomycetes. IX. *Spiropes* and *Pleurophragmium*. *Mycological Papers* 114:1-44.
- Ellis MB. 1971 – Dematiaceous hyphomycetes. C.A.B. Commonwealth Mycological Institute, Kew Surrey.
- Ellis MB. 1976 – More dematiaceous hyphomycetes. Commonwealth Mycological Institute, Kew Surrey 1-507.
- Fraser L. 1935 – An investigation of the sooty moulds of New South Wales. III. The life histories and systematic positions of *Aithaloderma* and *Capnodium*, together with descriptions of new species. *Proceedings of the Linnean Society of New South Wales* 60, 97–118.
- Fresen Fuckel. 1863 – *Fungi Rhenani Exsiccati* Fasc. 2, 117.
- Fresenius JBGW. 1863 – *Beitrge zur Mykologie* 3, 91–94.
- Fuckel L. 1874 – *Jahrbücher des Nassauischen Vereins für Naturkunde* 27–28, 77.

- Gautam AK, Avasthi S, Verma RK, Devadatha B et al. 2021a – Current status of research on rust fungi (Pucciniales) in India. *Asian J. Mycol.* 4(1), 40–80. Doi 10.5943/Ajom/4/1/5.
- Gautam AK, Verma RK, Avasthi S, Sushma et al. 2021b – Smut fungi: a compendium of their diversity and distribution in India. *MycoAsia* 2021/01. <https://doi.org/10.59265/mycoasia.2021-01>
- Gautam AK, Avasthi S. 2018 – Diversity of powdery mildew fungi from North Western Himalayan region of Himachal Pradesh –A checklist. *Plant Pathol. & Quarantine.* 8 (1),78–99.
- Gawas P, Bhat DJ. 2006 – *Vamsapriya indica* gen. et sp. nov., a bambusicolous, synnematos fungus from India. *Mycotaxon* 94, 149–154.
- Goh TK, Hsieh WH. 1987 – Studies on *Cercospora* and allied genera of Taiwan (V). *Transactions of the Mycological Society of the Republic of China* 2(2),125–148.
- Grove WB. 1885 – New or noteworthy fungi: –Part II. *Journal of Botany, British and Foreign* 23, 129–134 & 161–169.
- Grove WB. 1918 – New or noteworthy fungi. VI [part 3], *Journal of Botany, British and Foreign* 56, 340–346
- Gruyter J de, Woudenberg JHC, Aveskamp MM, Verkley GJM et al. 2010 –Systematic reappraisal of species in *Phoma* section *Paraphoma*, *Pyrenochaeta* and *Pleurophoma*. *Mycologia* 102(5), 1066 –1081.
- Guo YL, Hsieh WH. 1995 – *Mycosystema Monographicum Series 2: The genus Pseudocercospora in China* 1–388.
- Hafiz K, Azmatullah, Kafi. 1955 – *Biologia, Lahore* 1(1), 112.
- Haldar D. 2017 – Two new Cercosporoid fungi from India, *Int. j. curr. res.* 9 (02): 46566–46569. <http://www.journalcra.com>.
- Hansford CG, Thirumalachar MJ. 1948 – Fungi of south India. *Farlowia* 3, 285–314.
- Hansford CG. 1948 – Chinese fungi collected by S.Y. Cheo. *Farlowia*, 3, 269–284.
- Hansford CG. 1944 – Contributions towards the fungus flora of Uganda. VI. New records. *Proceedings of the Linnean Society of London* 156, 102–124.
- Hansford CG. 1954 –Meliolales from Indonesia. *Reinwardtia* 3, 75–112.
- Hansford CG. 1957 – Australian fungi–IV. New records and revision. *Proceedings of the Linnean Society of New South Wales* 82, 209–229.
- Hansford CG. 1957 – Tropical fungi VIII. *Sydowia* 11, 44–69.
- Harkness HW. 1884 – New species of California fungi. *Bulletin of the California Academy of Sciences* 1, 29–47.
- Hawksworth DK. 1974 – *Mycologist's handbook*.
- Hawksworth DL, Kirk PM, Sutton BC, Pegler DN. 1995 – *Ainsworth and Bisby's dictionary of the fungi*, 8th ed. CAB International, Wallingford, Oxfordshire, United Kingdom.
- Hennings P. 1895 – Neue und interessante Pilze aus dem Königl. botanischen Museum in Berlin. III, *Hedwigia* 34: 11.
- Höhn., *Sber. Akad. Wiss. Wien, Math.* 1918 – naturw. Kl., Abt. I 127: 562
- Höhnel F von. 1910 – Fragmente zur Mykologie: X. Mitteilung (Nr. 468 bis 526). *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften Math. –naturw. Klasse Abt. I* 119, 393–473.
- Höhnel F von. 1919 – Fragmente zur Mykologie. XXIII Mitteilung, Nr. 1154 bis 1188. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften Math. –naturw. Klasse Abt. I* 128, 535–625.
- Höhnel FXR von. 1908 – Fragmente zur Mykologie (V. Mitteilung, Nr. 169 bis 181). *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften* 117, 985–1032.
- Holubová–Jechová V. 1976 – *Haplotrichum* Link instead of *Oidium* Link, a necessary nomenclatural change. *Ceská Mykologie* 30(1), 3–4.
- Holubová–Jechová V. 1982 – New or interesting phialidic hyphomycetes from Cuba. *Mycotaxon* 15, 277–292.
- Horbach R, Navarro–Quesada AR, Knogge W, Deising HB. 2011 – When and how to kill a plant cell: infection strategies of plant pathogenic fungi. *Journal of Plant Physiology* 168(1), 51–62.
- Hosagoudar V. 2002 – *Zoos' Print Journal* 17 (8), 837.

- Hosagoudar VB. 2003 - Meliolaceae of Kerala, India - XII. The genus *Meliola* on Lecythidaceae members in India. *Persoonia* 18(2), 275-279.
- Hosagoudar, VB. 2005 - Meliolaceae of Kerala, India - XXI. New species and new records. *Journal of Mycopathological Research*. 43(1):17-32
- Hosagoudar VB, Manojkumar A. 2004 – *Meliola desmodii-triquetri* sp. nov. in Hosagoudar, V.B (2004). Meliolaceae of Kerala, India – XX. Three new species and one new variety of genus *Meliola*. *Zoos'Print Journal* 19(5), 1464.
- Hosagoudar VB. 2012 – Asterinales of India. *Mycosphere* 3(5), 617–852.
- Hosagoudar VB, Abraham TK. 1996. Two new Meliolaceae members from Kerala, India. *Kavaka*. 24:15-17
- Hosagoudar VB, Abraham TK. 1998 – Some interesting Meliolaceaeous fungi from. Kerala India. *Journal of Mycopathological Research* 36(2), 95–103.
- Hosagoudar VB, Abraham TK. 1999 – New and interesting Meliolaceae members from Keral. *Indian Phytopathology* 51(3), 301–303.
- Hosagoudar VB, Abraham TK. 1999 – Some interesting members of the Meliolaceae from Kerala, India, *Nova Hedwigia* 68, 477– 487. Doi: 10.1127/nova.hedwigia/68/1999/477
- Hosagoudar VB, Agarwal DK, Biju H, Archana GR. 2007 – Meliolaceae of Kerala, India – XXIV. *Indian Phytopathology* 60(1), 82–87.
- Hosagoudar VB, Biju CK, Abraham TK. 2001 – Some interesting *Asterina* species from Kerala. *Indian Phytopathology* 54, 137–139.
- Hosagoudar VB, Goos RD. 1989 - Meliolaceous fungi from the state of Kerala, India I. *Mycotaxon*. 36(1), 221-247.
- Hosagoudar VB, Goos RD. 1990 – Meliolaceous fungi from the state of Kerala, India II. The genus *Meliola*. *Mycotaxon* 37, 217–272.
- Hosagoudar VB, Kaveriappa KM, Raghu PA, Goos RD. 1994 – Meliolaceae of Southern India –XVI. *Mycotaxon* 51, 107–118.
- Hosagoudar VB, Raghu PA, Pillai CM. 1994 – Meliolaceae of southern India – XIV. *Nova Hedwigia* 58(3–4), 529–543.
- Hosagoudar VB, Riju MC, Sabeena A. 2008 – *Schiffnerula celastri* sp. nov. from. Kerala, India. *Indian Journal of Science and Technology* 1(3), 1–2.
- Hosagoudar VB, Thomas J, Agarwal DK. 2011 – Two new schiffnerulaceous fungi from Kerala, India, *Journal of Yeast and Fungal Research* 2(5), 85 –87.
- Hosagoudar VB. 1996 – Meliolales of India, *Botanical Survey of India, Calcutta* 1–363.
- Hosagoudar VB. 2002 – Studies on foliicolous fungi – X – Five new species and a new record. *Zoos' Print Journal* 17(12), 943–948.
- Hosagoudar VB. 2005a – Meliolaceae of Kerala, India – XXI. New species and new records. *Journal of Mycopathological Research*. 43(1), 17–32.
- Hosagoudar VB. 2005b – Studies on foliicolous fungi – XIX. *Indian Phytopathology* 58(2), 194–204.
- Hosagoudar VB. 2008 – Meliolales of India. vol 2. *Botanical Survey of India, Kolkata*.
- Hosagoudar VB. 2012 – Asterinales of India. *Mycosphere* 2(5), 617–852.
- Hosagoudar VB. 2013 – Meliolales of India. volume III. *J Threat Taxa* 5(6), 3993–4068.
- Hosagoudar VB, Archana GR, Harish M, Riju MC, Agarwal DK. 2008 – Some novel additions to Schiffnerulaceous fungi from Kerala, India. *Indian Phytopathology* 61: 247–251.
- Hudson HJ. 1963 – The perfect state of *Nigrospora oryzae*. *Transactions of the British Mycological Society* 46(3), 355–360.
- Huechert B, Braun U, Schubert K. 2005 – Morphotaxonomic revision of fungicolous *Cladosporium* species. *Schlechtendalia* 13, 1–78.
- Hughes SJ. 1951a – Studies on micro –fungi. XII. *Triposporium*, *Tripospermum*, *Ceratosporella*, and *Tetraposporium* (gen. nov.). *Mycological Papers* 46.
- Hughes SJ. 1951b– Studies on micro–fungi. X. *Zygosporium*. *Mycological Papers*. 44.

- Hughes SJ. 1953 – Conidiophores, conidia and classification. *Canadian Journal of Botany* 31, 577–659.
- Hughes SJ. 1958 – Revisiones Hyphomycetum aliquot cum appendice de nominibus rejiciendis. *Canadian Journal of Botany* 36(6), 727–836.
- Hughes SJ. 1951 – Studies on micro-fungi. X. *Zygosporium*. *Mycological Papers*. 44.
- Hughes SJ. 2007 – *Heteroconium* and *Pirozynskiella* n. gen., with comments on conidium transeptation. *Mycologia* 99(4), 628–638.
- Hüseyin E, Selçuk F, Akgül, H. 2015 – *Acremoniula uniseptata* sp. nov. (hyphomycetes) from Turkey. *Jokull* 65, 227–23.
- Ivanović MM, Ivanović MS, Batzer JC, Tatalović N et al. 2010 – Fungi in the apple sooty blotch and flyspeck complex from Serbia and Montenegro *Journal of Plant Pathology*. Vol. 92 (1), 65–72 <https://www.jstor.org/stable/i40093858>.
- Jain A, Sarsaiya S, Wu Q, Lu Y et al. 2019 – A review of plant leaf fungal diseases and its environment speciation. *Bioengineered* 10(1), 409–424.
- Jain BL. 1975 – *Trichoconiella* gen.nov. *Kavaka* 3, 37–39.
- Jalmi P. 2006 – Studies on foliicolous fungi from Goa and neighbouring areas of Maharashtra and Karnataka. Ph.D. Thesis, Goa University, Goa, India, 211pp.
- Jellis GJ, Punithalingam E. 1991 – Discovery of *Didymella fabae* sp. nov., the teleomorph of *Ascochyta fabae*, on faba bean straw. *Plant Pathology* 40(1), 150–157.
- Jiao W, Liu X, Li Y, Li B et al. 2022 – Organic acid, a virulence factor for pathogenic fungi, causing postharvest decay in fruits. *Molecular plant pathology* 23(2), 304–312.
- Kamal. 2010 – Cercosporoid fungi of India. Bishen Singh Mahendra Pal Singh Publication, Dehradun (Uttarakhand), India 351.
- Kamal, Naraiyan P. 1986 – Fungi from hilly tracts of Uttar Pradesh I. *Indian Phytopath.* 39, 198–203.
- Kamil D, Devi TP, Nita M, Singh OP et al. 2012 – Addition of two new species of *Pestalotiopsis* to the fungal diversity in India. *Journal of Mycopathological Research* 50(2), 185–191. <http://www.imskolkata.org/>.
- Kar AK, Maity MK. 1970 – New *Asterina* spp. from West Bengal. *Transactions of the British Mycological Society* 54(3), 435–444.
- Karan D, Manoharachary C. 1978 – Notes on microfungi from Andhra Pradesh –VII. Some phytopathogenic fungi from Hyderabad. *The Botanique (Nagpur)* 7: 157–162.
- Keissler K von. 1912 – Zur Kenntnis der Pilzflora Krains. Beihefte zum Botanischen Centralblatt 29, 395–440.
- Kirk PM. 1984 – *Volutellaria laurina* Tassi, an earlier name for *Wiesneriomyces jaccanicus* Koorders. *Transactions of the British Mycological Society* 82(4), 748–749.
- Koorders SH. 1907 – Verhandelingen der Koninklijke Nederlandse Akademie van Wetenschappen 13(4).
- Leith ID, Fowler D. 1998 – Urban distribution of *Rhytisma Acerinum* Pers. (Fries) tar spot on sycamore. *New Phytologist* 108(2), 175–181.
- Léveillé JH. 1851 – Organisation et disposition méthodique des espèces qui composent le genre Érysiphé. *Annales des Sciences Naturelles. Botanique. Sér. 3*, 15(3), 129–179.
- Linder DH. 1931 – The genus *Helicoceras*. *Annals of the Missouri Botanical Garden* 18, 1–8.
- Lini KM. 2022 – *Meliola crotalariae* sp. nov. (Ascomycetes, Meliolales) from Malabar Wildlife Sanctuary in Kerala state, India. *Asian J. Mycol.* 5 (2), 59–69, Doi 10.5943/Ajom/5/2/5.
- Link HF. 1809 – Observationes in ordines plantarum naturales. *Dissertatio Ima. Magazin für die Neuesten Entdeckungen in der Gesamten Naturkunde, Gesellschaft Naturforschender Freunde zu Berlin* 3(1), 3–42.
- Link JHF. 1816 – Observationes in ordines plantarum naturales. *Dissert. secunda, sistens nuperas de Mucedinum et Gastromycorum ordinibus observationes. Magazin für die Neuesten Entdeckungen in der Gesamten Naturkunde, Gesellschaft Naturforschender Freunde zu Berlin* 7, 25–45.

- Maharachchikumbura SSN, Guo LD, Lei C, Chukeatirote E et al. 2012 – A multi-locus backbone tree for *Pestalotiopsis*, with a polyphasic characterization of 14 new species. *Fungal diversity* 56(1), 95–129.
- Maharachchikumbura SSN, Hyde KD, Groenewald JZ, Xu J et al. 2014 – *Pestalotiopsis* revisited. *Studies in Mycology* 79, 121–186. <https://doi.org/10.1016/j.simyco.2014.09.005>
- Mason EW, Ellis MB. 1953 – British species of *Periconia*. *Mycological Papers* 56, 1–127.
- Mason EW. 1927 – On species of the genus *Nigrospora zimmermann* recorded on monocotyledons. *Transactions of the British Mycological Society* 12(2–3), 152–165.
- Mathew LK. 2019 – A new black mildew fungi (*Meliola cyamopsidis* sp. nov., Ascomycetes, Meliolales) from Malabar Wildlife Sanctuary, India. *Journal of New Biological Reports* 8 (2), 27–30.
- McKenzie EHC, Pinnoi A, Wong MKM, Hyde KD et al. 2002 – Two new hyaline *Chalara* species and a key to species described since 1975. *Fungal Diversity* 11, 129–139.
- Mercado SA. 1983 – Nuevos e interesantes hifomicetes enteroblasticos de Cuba. *Acta Botanica Cubana* 16, 1–8.
- Mercado Sierra A. 1980 – Nueva especie de Dwayabeeja (Fungi Imperfecti) de Cuba. *Acta Botánica Cubana* 3, 1–4.
- Montagne JFPC. 1842 – Troisième Centurie de plantes cellulaires exotiques nouvelles, Décades I, II, III et IV. *Fungi cubenses. Annales des Sciences Naturelles, Botanique, 2e Série* 17, 119–128.
- Morgan-Jones G. 1975 – Notes on hyphomycetes. VIII. *Lylea*, a new genus. *Mycotaxon* 3(1), 129–132.
- Mouchacca J. 1973 – Deux Alternaria des sols arides d'Égypte: A. *Chlamydosporum* sp. nov. et A. *Phragmospora* van Emden. *Mycopathologia et Mycologia Applicata* 50(3), 217–225.
- Müller E, Arx JA von. 1962 – Die Gattungen der didymosporen Pyrenomyceten. *Beiträge zur Kryptogamenflora der Schweiz* 11(2), 1–922.
- Munjral RL, Kapoor JN. 1963 – Hyphomycetes from Himalayas. *Indian Phytopath.* 16 (1), 86–93.
- Nag Raj TR. 1993 – Coelomycetous anamorphs with appendage-bearing conidia. *Mycologue Publications*, Waterloo, Ontario, Canada.
- Narayanas, Ramakr K. 1969 – *The Madras University Journal* 37–38, 90.
- Neergaard P. 1945 – Danish species of *Alternaria* and *Stemphylium*. *University of Michigan* 560.
- Nelson PE, Wilhelm S. 1956 – An undescribed fungus causing a root rot of strawberry. *Mycologia*, 48(4), 547–551.
- Noack F. 1898 – Cogumelas parasitas das plantas de pomar, horta e jardim. *Boletim, Instituto Agronomico do Estado de São Paulo* 9, 75–88.
- Palm ME, Stewart EL. 1981 – *Pithomyces pavgii*, a new combination for *Trichocladium pavgii* and *Pithomyces funiculosa*. *Mycotaxon* 13(3), 465–468.
- Pande A, Bansude GM. 1980 – *Leptosphaeria* leafspot of *Agave* - a new record from India. *Maharashtra Vigyan Mandir Patrika* 15(1), 31–32.
- Pande A. 1978 – Ascomycetes of Western India 5, *The journal of the Bombay Natural History Society* 75, 460–461.
- Pande A. 1981 – Three foliicolous fungi from India. *Maharashtra Vigyan Mandir Patrika* 16, 33–36.
- Parandekar SA. 1964 – A contribution to the fungi of Maharashtra. *Journal of University of Poona, Science & Technology Sections* 26, 57–65.
- Patil MS, Pawar AB. 1989 – Studies in foliicolous fungi –V. *Indian Phytopathology* 42, 247–252.
- Patil SD, Magdum DK. 1979 – Some *Cercospora* species from Ganeshkhind area. *Maharashtra Vigyan Mandir Patrika* 14, 49–51.
- Patwardhan PG. 1969 – Studies in the Powdery Mildews (Erysiphaceae) of Maharashtra (India): ascigerous. *J. Shivaji University* 2, 55–57.
- Penzig AJO, Saccardo PA. 1902 – Diagnoses fungorum novorum in insula Java collectorum. *Ser. III. Malpighia* 15(7–9), 201–260.

- Penzig O. 1882 – Funghi agrumicoli. Contribuzione allo studio dei funghi parassiti degli agrumi. *Michelia*. 2(8), 385–508.
- Perfect SE, Green JR. 2001 – Infection structures of biotrophic and hemibiotrophic fungal plant pathogens. *Molecular Plant Pathology* 2(2): 101–108.
- Persoon CH. 1801 – Synopsis Methodica Fungorum. Henricus Dieterich.
- Petrak F, Ciferri R. 1932 – Fungi Dominicani. II. *Annales Mycologici* 30(3–4)149–353.
- Petrak F, Sydow H. 1927 – Die Gattungen der Pyrenomyceten, Sphaeropsideen und Melanconieen, 1(3). *Repertorium Specierum Novarum Regni Vegetabilis*. Beihefte 42, Abreviatura de la revista 27, (1)-551.
- Petrak F, Sydow H. 1931 – Mycomycetes philippinenses. Series secunda. *Annales Mycologici* 29, 145–279.
- Petrak F. 1921 – Mykologische Notizen. III. *Annales Mycologici* 19(3–4), 176–223.
- Petrak F. 1923 – Mykologische Notizen. VI. *Annales Mycologici* 21(3–4), 182–335.
- Phengsintham P, Chukeatirote E, McKenzie EHC, Hyde KD et al. 2013 – Monograph of Cercosporoid fungi from Laos. *Current Research in Environmental & Applied Mycology* 3: 34–158.
- Pirozynski KA, Patil SD. 1966 – Nova Hedwigia 11 (1–4), 199.
- Pirozynski KA. 1962 – *Circinotrichum* and *Gyrothrix*. *Mycological Papers* 84.
- Pirozynski KA. 1963 – *Beltrania* and related genera. *Mycological Papers* 90:1–37.
- Pirozynski KA. 1972 – Microfungi of Tanzania. I. Miscellaneous fungi on oil palm. II. New Hyphomycetes. *Mycological Papers* 129.
- Poiteau PA. 1824 – Description du *Graphiola*, nouveau genre de plante parasite de la famille des champignons. *Annales des Sciences Naturelles* 3, 473–476.
- Ponnappa KM. 1968 – Some interesting fungi–II. *Cercospora hygrophilae* sp. nov. and *Stenella plectroniae* sp. nov. *Proceedings of the Indian Academy of Sciences, sect. B* 67: 31–34.
- Prasad KV, Yadav BRD, Sullia SB. 1993 – Taxonomic status of rust on mulberry in India. *Current Science* 65(5), 424–426.
- Preuss CGT. 1851 – Uebersicht untersuchter Pilze, besonders aus der Umgegend von Hoyerswerda. *Linnaea* 24, 99–153.
- Raghukumar S. 1970 – A new species of the genus *Botryosporium* Corda. *Current Science*. 39(4), 90–91.
- Rajak RC, Soni KK. 1981 – Follicolous ectoparasites from Jabalpur - 1. Some Sarcinellae. *Indian Journal of Mycology and Plant Pathology* 11(1) - 89-91.
- Ramakrishnan TS, Ramakrishnan K. 1950 – Additions to fungi of Madras – VIII. *Proceedings of the Indian Academy of Sciences Section B* 32, 97–111.
- Rao PR, Rao D. 1911 – Some Helicosporae from Hyderabad. II, *Speg.*, *Anales Mus. Nac. Hist. Nat. Buenos Aires series* 3. 13, 445.
- Rao PR, Rao D. 1964 – Some Helicosporae from Hyderabad. I. *Mycopathologia et Mycologia Applicata* 22(4), 47–54.
- Rao V, Chary SJ. 1972 – A New *Pithomyces* from India. *Current science* 41(22), 822–823.
- Réblová M, Gams W, Seifert KA. 2011 – Monilochaetes and allied genera of the Glomerellales, and a reconsideration of families in the Microascales. *Studies in Mycology* 68. <https://doi.org/10.3114/sim.2011.68.07>
- Reisinger O. 1968 – Remarques sur les genres *Dendryphiella* et *Dendryphion*. *Bulletin de la revisited. Stud Mycol* 79, 121–186. Doi 10.1016/j.simyco.2014.09.005.
- Mall TP, Singh DP, Kumar A, Sahani S. 2013 – Follicolous fungi: earth's living treasure from North–Tarai forests of (Uttar Pradesh) India. *Indian Journal of Science* 3, 88–96.
- Richardson MJ, Fraser EM. 1968 – *Trans. Br. mycol. Soc.* 51(1), 148.
- Rocha FB, Barreto RW, Bezerra JL, Meira Neto JAA. 2010 – Foliar mycobiota of *Coussapoa floccosa*, a highly threatened tree of the Brazilian Atlantic Forest. *Mycologia* 102(6), 1240–1252.

- Roy RY, Rai B. 1968 – *Fusariella indica* sp. nov. Transactions of the British Mycological Society 51(2), 333–333.
- Rulamort M de. 1986 – Remarques taxonomiques et nomenclaturales sur quelques micromycètes. I. Bulletin de la Société Botanique du Centre-Ouest. 17,191–192.
- Sabeena A, Biju H, Dhanusha SS. 2021 – A new species of Asterinaceous fungi, *Asterina imbertiae* sp. nov. from Kerala, India. Phytotaxa. 505 (1), 114–119.
- Saccardo PA. 1877 – Fungi veneti novi vel critici vel Mycologiae Venetae addendi. Series VI. Michelia 1(1), 1–72.
- Saccardo PA. 1878 – Fungi veneti novi vel critici vel Mycologiae Venetae addendi. Series VII. Michelia 1(2), 133–221.
- Saccardo PA. 1880 – Conspectus generum fungorum italiae inferiorum. Michelia 2(6), 1–38.
- Saccardo PA. 1881 – Fungi veneti novi vel critici v. Mycologiae Venetae addendi. Series XII. Michelia 2(7), 241–301.
- Saccardo PA. 1883 – Sylloge Pyrenomycetum, Vol. II. Saccardo, P.A. Sylloge Fungorum 2.
- Saccardo 1884 – Miscellanea Mycologica II. Atti dell Istituto Veneto Scienze. Sér. 6. 2, 451–455.
- Saccardo PA. 1877 – Fungi italici autographice delineati [Commentarium, tab. 1–160]. Michelia 1(1), 73–100.
- Saccardo PA. 1878 – Fungi veneti novi vel critici vel Mycologiae Venetae addendi. Series VII. Michelia 1(2), 133–221.
- Sahni VP. 1964 – Some foliicolous ectoparasites and associated fungi from Jabalpur (M.P.) – I. Mycopathologia et Mycologia Applicata 23(4), 328–338.
- Salam MA, Rao P N. 1958 – Three new records of Fungi Imperfecti. Indian Phytopathology 11, 121.
- Satya HN. 1975 – A new species of *Pithomyces* with bulbils. Current Science. 44(14):522–523
- Sawada K. 1916 – Report of the Natural History Association, Formosa 25.
- Sawant RJ, Papdiwal PB. 2007 – Studies on leaf spot diseases of *Annona squamosa* L. in eed district of Maharashtra. Bioinfolet 4: 227–228.
- Schlechtendal, von DFL. 1824 – Flora Berlinensis. Flora Berolinensis. 2, Ferdinand Dümmler.
- Schneider R, Boerema GH. 1975 – *Phoma tropica*, n. sp. ein an Gewächshauspflanzen häufig vorkommender, nicht pathogener Pilz. Phytopathologische Zeitschrift 83(4), 360–366.
- Schrenk H, Spaulding P. 1903 – The bitter rot of apples. Science New York 17,750–751.
- Simmons EG. 1969 – Perfect states of *Stemphylium*. Mycologia. 61(1), 1–26.
- Singh N, Todawat J, Papdiwal PB. 2011 – Leaf spot diseases of some fruit trees of Aurangabad district, Maharashtra. Bioinfolet 8, 87–90.
- Singh NP, Karthikeyan S. 2000 – Flora of Maharashtra State –Dicotyledonous. Vol. I. Botanical Survey of India, Calcutta.
- Singh NP, Karthikeyan S. 2001 – Flora of Maharashtra State Dicotyledone, Vol. 2. Botanical Survey of India, Calcutta.
- Singh SK, Yadav LS, Singh PN, Hapat R. 2009 – A new species of *Gonatophragmium* from Western Ghats, India. Mycotaxon 110, 183–187.
- Smith G. 1962 – Some new and interesting species of micro-fungi. III. Transactions of the British Mycological Society 45(3), 387–394.
- Spegazzini C. 1882 – Fungi argentini additis nonnullis brasiliensibus montevidensibusque. Pugillus quartus (Continuacion). Anales de la Sociedad Científica Argentina. 13(1), 11–35.
- Spegazzini CL. 1910 – Mycetes Argentinenses. Series V. Anales Museo Nacional de Historia Natural Buenos Aires 3 (13), 446.
- Spooner BM, Kirk PM. 1982 – Taxonomic notes on *Excipularia* and *Scolicosporium*. Transactions of the British Mycological Society 78, 247–257
- Srivastava NCS, Gupta C. 1990 – New species of foliicolous hyphomycete genus *Sarcinella*. Vegetos 3, 74–82.
- Srivastava SL, Topal R. 1981 – *Meliola garhwalensis* nov. sp. from Garhwal Himalayas, India. Geophytology 11(2), 264–265.

- Stevens FL. 1918 – Some meliocolous parasites and commensals from Porto Rico. *Botanical Gazette* 65, 227–249.
- Steyaert RL. 1949 – Contribution à l'étude monographique de *Pestalotia* de Not. et *Monochaetia* Sacc. *Bulletin du Jardin Botanique de l'État à Bruxelles* 19(3), 285–354.
- Stolk AC, Hennebert GL. 1968 – New species of *Thysanophora* and *Custingophora* gen. nov. *Persoonia* 5(2), 189–199.
- Subhedar A, Rao VG. 1976 – Some new sphaeropsidaceous fungi. *Journal of the University of Poona* 48, 63–68.
- Subramanian CV, Sudha K. 1978 – *Ardhachandra*, a new genus of the Hyphomycetes. *Canadian Journal of Botany* 56(7), 729–731.
- Subramanian CV. 1955 – Fungi imperfecti from Madras – VII. *Proceedings of the Indian Academy of Sciences Section B* 42, 283–292.
- Subramanian CV. 1956 - Hyphomycetes - II. *Journal of the Indian Botanical Society* 35(4), 446–494.
- Summerbell RC, Gueidan C, Schroers HJ, de Hoog GS et al. 2011 – *Acremonium* phylogenetic overview and revision of *Gliomastix*, *Sarocladium*, and *Trichothecium*. *Studies in Mycology* 68, 139–162.
- Sutton BC, Sarbhoy AK. 1976 – Revision of *Chaetomella*, and comments upon *Vermiculariopsis* and *Thyriochaetum*. *Transactions of the British Mycological Society* 66(2), 297–303.
- Sutton BC. 1971– Coelomycetes IV. The genus *Harknessia*, and similar fungi on Eucalyptus. *Mycological Papers* 123, 1–46.
- Sutton BC. 1973 – Hyphomycetes from Manitoba and Saskatchewan, Canada. *Mycological Papers* 132, 1–143.
- Sutton BC. 1980 – The Coelomycetes, Fungi Imperfecti with pycnidia, acervuli and stromata. C.A.B. International Mycological Research Institute, Kew, Surrey.
- Sutton BC. 1985 – Notes on some deuteromycete genera with cheiroid or digitate brown
- Sutton BC. 1994 – IMI Descriptions of Fungi and Bacteria, Set 119, 1181–1190. *Mycopathologia* 125, 43–64.
- Swart HJ. 1971 – Australian leaf-inhabiting fungi. I. Two species of *Vizella*. *Transactions of the British Mycological Society* 57, 455–464.
- Sydow H, Mitter JH. 1933 – “Fungi Indici–I”. *Annales Mycologici* 31(1–2), 84–97.
- Sydow H, Sydow P, Butler EJ. 1911 – Fungi Indiae orientalis pars III. *Annales Mycologici* 9, 372–421.
- Sydow H, Sydow P, Butler EJ. 1916 – Fungi Indiae orientalis pars V. *Annales Mycologici* 14(3–4), 177–220.
- Sydow H, Sydow P. 1910 – Fungi novi Phillipinenses. *Annales Mycologici* 8(1), 36–41.
- Sydow H, Sydow P. 1913 – Enumeration of Philippine fungi with notes and descriptions of new species, II. *Philippine Journal of Science Section C Botany* 8: 475–508.
- Sydow H, Sydow P. 1917 – Beitrag zur Kenntnis der Pilzflora der Philippinen–Inseln. *Annales Mycologici* 15(3/4), 165–268.
- Sydow H. 1922 – Weitere Mitteilungen zur Umgrenzung der Gattungen bei den Uredineen. *Annales Mycologici* 20(3), 109–125.
- Sydow H. 1930 – Fungi venezuelani. *Annales Mycologici* 28(1–2), 29–224.
- Sydow H. 1939 – Novae Fungorum Species. *Annales Mycologici* 37(3), 197–253.
- Sydow H. 1921 – Novae fungorum species. XVII. *Annales Mycologici*. 19(5–6), 304–309.
- Sydow H. 1935 – *Annals Mycology* 33 (1–2), 63.
- Thimmaiah CJ, Hosagoudar VB, Jayashankar M. 2013 – Black mildews of Kodagu, Karnataka. *J. Threat. Taxa*. 5 (16), 5021–5180.
- Thirumalachar MJ. 1949 – Telia of the leaf-rust on teak. *Current Science* 18(5), 175–177.
- Thom C. 1910 – Cultural studies of species of *Penicillium*. U.S.D.A. Bureau of Animal Industry Bulletin 118, 1–107.
- Thümen F von. 1876 – *Mycotheca Universalis*. Cent. 4, 301–400.

- Tode HJ. 1790 – Fungi Mecklenburgenses Selecti 1,1–47.
- Traaen AE. 1914 – Untersuchungen über Bodenpilze aus Norwegen. Nytt Magazin for Naturvidenskapene 52, 1–121.
- Tracy SM. 1893 – Descriptions of new species of Puccinia and Uromyces. Journal of Mycology 7(3), 281–281.
- Tsuda M, Ueyama A. 1983 – *Pseudocochliobolus pallescens* and variability of conidium morphology. Memoirs of the College of Agriculture, Kyoto Imperial University 122, 85–91.
- Unger F. 1832 – Die Exantheme der Pflanzen 1–422.
- Velásquez AC, Castroverde CD, He SY. 2018 – Plant–pathogen warfare under changing climate conditions. Current biology, 28(10): R619–R634.
- Verma RC, Tripathi MS, Chaudhary RK. 1999 – Three new species of black mildews from forest flora of north–eastern Uttar Pradesh. Indian Phytopathology 52(4), 377–380.
- Viégas AP. 1939 – Revista do Instituto de Café do Estado de São Paulo 14.
- Vries G.A. de. 1952 – Contribution to the knowledge of the genus Cladosporium. :1-121
- Wallroth CFW. 1833 – Flora Cryptogamica Germaniae. 2. J.L. Schrag.
- Wang Y, Hyde KD, McKenzie EHC, Jiang YL et al. 2015 – Overview of *Stachybotrys* (*Memnoniella*) and current species status. Fungal Diversity 71:17–83.
- Webber. 1897 – Bulletin of the U.S. Department of Agriculture 20.
- Weber GF. 1930 – Gray leafspot of tomato caused by *Stemphylium solani* sp. nov. Phytopathology 20, 513–518.
- Wei CT. 1950 – Notes on *Corynespora*. Mycological Papers 34, 1–10.
- Westendorp GD. 1852 – Nouvelle notice sur quelques cryptogames récemment découvertes en Belgique [Notice #3]. Bulletins de l'Académie Royale des Sciences, des Lettres et des Beaux Arts de Belgique 19, 110–132.
- Westling R. 1911 – Über die grünen Spezies der Gattung Penicillium. Arkiv för Botanik. 11(1), 1–156.
- Wijayawardene NN, Hyde KD, Dai DQ, Sánchez–García M et al. 2022 – Outline of Fungi and fungus–like taxa –2021. 2022 –Mycosphere 13(1), 53–453, Doi 10.5943/mycosphere/13/1/2
- Wiltshire SP. 1933– The foundation species of *Alternaria* and *Macrosporium*. Transactions of the British Mycological Society 18(2), 135–160.
- Wiltshire SP. 1947 – Species of *Alternaria* on Brassicae. Mycological Papers 20,1–15.
- Yamam W. 1941 – Transactions of Natural History Society, Formosa 225.
- Yang H, Ariyawansa HA, Wu HX, Hyde KD. 2014 – The genus of *Leptoxyphium* (Capnodiaceae) from China. Phytotaxa 178(1), 174–183.
- Yates HS. 1918 – Some recently collected Philippine fungi, II. Philippine Journal of Science Section C Botany 13(6), 361–384.
- Yen JM, Lim G. 1980 – *Cercospora* and allied genera of Singapore and the Malay Peninsula. Gardens Bulletin Singapore 33:151–263.