

A Checklist of the Hypoxylaceae and Xylariaceae Species of India

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ABSTRACT

The families, Hypoxylaceae and Xylariaceae, constitute a well-known group of fungi, with a distribution that is dominant throughout the world. This article reviews available literature, books, and doctoral theses on this group of fungi, producing a checklist of Hypoxylaceae and Xylariaceae species. A total of 206 species has been identified, including both newly introduced and previously recorded species from India. These species belong to 23 different genera across the two distinct families. Among these, the genus, *Xylaria*, stands out with the highest number of species (76 spp.), making it the most species-rich genus within the two families. The genus *Hypoxyton* comes next, as the second most species-bearing genus (36 spp.), followed by the genus *Rosellinia*, which is the third most species-bearing genus (20 spp.).

Keywords: Distribution, Fungi, Hypoxylaceae, Taxa, Xylariaceae

INTRODUCTION

The Hypoxylaceae and Xylariaceae are considered major families within Sordariomycetes, and their taxonomic rankings are as follows: Kingdom - Fungi, Sub-Kingdom - Dikarya, Phylum - Ascomycota, Sub-Phylum - Pezizomycotina, Class - Sordariomycetes, Sub-Class - Xylariadeae, Order - Xylariales (Wijayawardene *et al.*, 2017). The Xylariaceae fungi are widely known due to their macro fruit bodies, extended persistence in nature, visibility to the naked eye, and independence from seasonal variations. Initially, Xylariaceae fungi were categorized into two informal subfamilies: Xylarioideae and Hypoxyloideae, based on their asexual morphology, i.e., *Geniculosporium* and *Nodulisporium*-like conidiophores. These were considered two major clades within the Xylariaceae family (Maharachchikumbura *et al.*, 2016). Multigene phylogenetic studies later revealed that they belong to two distinct clades, which were subsequently recognized as two new families: Hypoxylaceae and Xylariaceae (Wendt *et al.*, 2018). Molecular clock evidence placed Hypoxylaceae within the order Xylariales, comprising 18 genera (Daranagama *et al.*, 2018).

More recently, Hyde *et al.* (2020) described the Xylariaceae fungi group with 51 different genera across two distinct families, acknowledging 19 genera for Hypoxylaceae and 32 genera in the new Xylariaceae family. The exploration of secondary metabolites and bioactive compounds in Xylariaceous fungi has led to the emergence of a

new research area in modern science (Hyde *et al.*, 2020), with numerous ongoing studies in this field. Chemotaxonomy stands as a valuable and effective tool for taxonomical research (Stadler *et al.*, 2011). The combination of both teleomorph and anamorph data is ideal for taxonomic differentiation of species within a genus and segregation of genera within a family. Notably, Hypoxylaceae is often associated with a *Nodulisporium*-like anamorph, while Xylariaceae fungi typically exhibit a *Geniculosporium*-like anamorph. Additionally, their chemical profiles aid in more accurate species differentiation. Modern taxonomists have been studying Xylariaceae fungi by combining both chemotaxonomic and molecular profiles, such as multigene profiles (ITS, RPB2, LSU, SSU, etc.) (Stadler *et al.*, 2011; Kunhert *et al.*, 2017). Molecular studies have predominated since the 20th century, and contemporary taxonomists now incorporate both morphology and molecular data into their research (Persoh, 2009; Stadler, 2011; Fournier *et al.*, 2011; Hashemi *et al.*, 2015; Li *et al.*, 2015; Maharachchikumbura *et al.*, 2016; Wendt *et al.*, 2018). Moreover, Xylariaceae fungi have exhibited medicinal properties in their metabolites and demonstrate antibacterial and antifungal activities (de Carvalho Ribeiro *et al.*, 2011; Canli *et al.*, 2016).

India ranks as the seventh-largest country in the world, encompassing a total area of 3,287,263 km² (1,269,219 sq mi). Geographically situated north of the equator, it spans from 8°4' north

(mainland) to 37°6' north latitude and 68°7' east to 97°25' east longitude. India measures 3,214 km (1,997 mi) from north to south and 2,933 km (1,822 mi) from east to west. Its land frontier stretches for 15,200 km (9,445 mi), accompanied by a coastline spanning 7,516.6 km (4,671 mi). The northern borders are predominantly defined by the Himalayan Mountain range, where the country shares borders with China, Bhutan, and Nepal. To the west, the border with Pakistan lies amidst the Karakoram and Western Himalayan ranges, Punjab Plains, Thar Desert, and the Rann of Kutch salt marshes. The far northeast is demarcated by the Chin Hills and Kachin Hills, densely forested mountainous regions that separate India from Myanmar. To the east, the border with Bangladesh is largely shaped by the Khasi Hills and Mizo Hills, along with the watershed area of the Indo-Gangetic Plain. The nation is politically divided into 28 states and 8 Union territories, and it can be geographically categorized into four main regions: Northeast India, South, West, and North. The vegetation across the entire Indian region varies significantly based on altitudinal ranges and forest types. Four distinct forest types are found based on altitude: tropical, subtropical, temperate, and alpine.

MATERIALS AND METHODS

The prepared checklist was based on available published literature, as well as doctoral theses and books up to February 2023. The Index Fungorum (<http://indexfungorum.org>; accessed 22 January 2022) was utilized for systematic organization and to verify the accurate nomenclature of valid species. Additionally, the MycoBank (<https://www.mycobank.org>; accessed 22 January 2022) databases were consulted to ensure species names were correct. Invalid names were eliminated, and synonyms were appropriately transferred to their correct systematic positions, as initially described by earlier authors. Within the checklist, species are arranged in alphabetical order, categorized by family, genus, and species, along with corresponding references.

RESULTS AND DISCUSSIONS

In India, the Hypoxylaceae and Xylariaceae groups of fungi have predominantly been studied in specific regions, namely North-west India, including states such as Punjab, Himachal Pradesh, Jammu and Kashmir, Uttarakhand, and Uttar

Pradesh, as well as South India, including Maharashtra, Karnataka, and Kerala. The member species of Hypoxylaceae family have been investigated across 20 states. Among these, Maharashtra has recorded the highest number, with 44 species, followed by Himachal Pradesh with a total of 20 species. Furthermore, Uttar Pradesh has documented 17 species from this family. For the family Xylariaceae, research has covered 21 states, with Maharashtra being a dominant contributor with 92 species. Uttar Pradesh and Karnataka have reported 16 and 15 species, respectively. The Hypoxylaceae family encompasses a total of 422 species across 19 genera, while the Xylariaceae family comprises a total of 1,236 species across 32 genera (Hyde *et al.*, 2020).

From India, a combined total of 74 species belonging to 7 genera have been recorded. Notably, the genus *Hypoxylon* holds the highest number of species (36 species out of 232 worldwide species). In the case of Xylariaceae, a total of 132 species from 16 genera have been documented in India. Within this group, the genus *Xylaria* stands out with the highest number of species (76 species out of 670 worldwide species).

CONCLUSION

From this literature-based checklist of Hypoxylaceae and Xylariaceae from India, it clearly highlights the diversity and distribution records of these groups of fungi. A review and comparative analysis of valid species within Hypoxylaceae and Xylariaceae show that the number of recorded species from India is notably low. The focus of study has primarily been on selected states, including Punjab, Himachal Pradesh, Jammu and Kashmir, Uttarakhand, Uttar Pradesh, Maharashtra, Karnataka, and Kerala. These states, situated in both the North-western and Southern regions of India, have been the primary subjects of study. In contrast, the remaining states, such as Arunachal Pradesh, Assam, Gujarat, Haryana, Madhya Pradesh, Mizoram, Nagaland, Sikkim, Tamil Nadu, Telangana, West Bengal, Tripura, as well as the Union Territories of Andaman and Nicobar Islands, have received significantly less attention in terms of research on this subject.

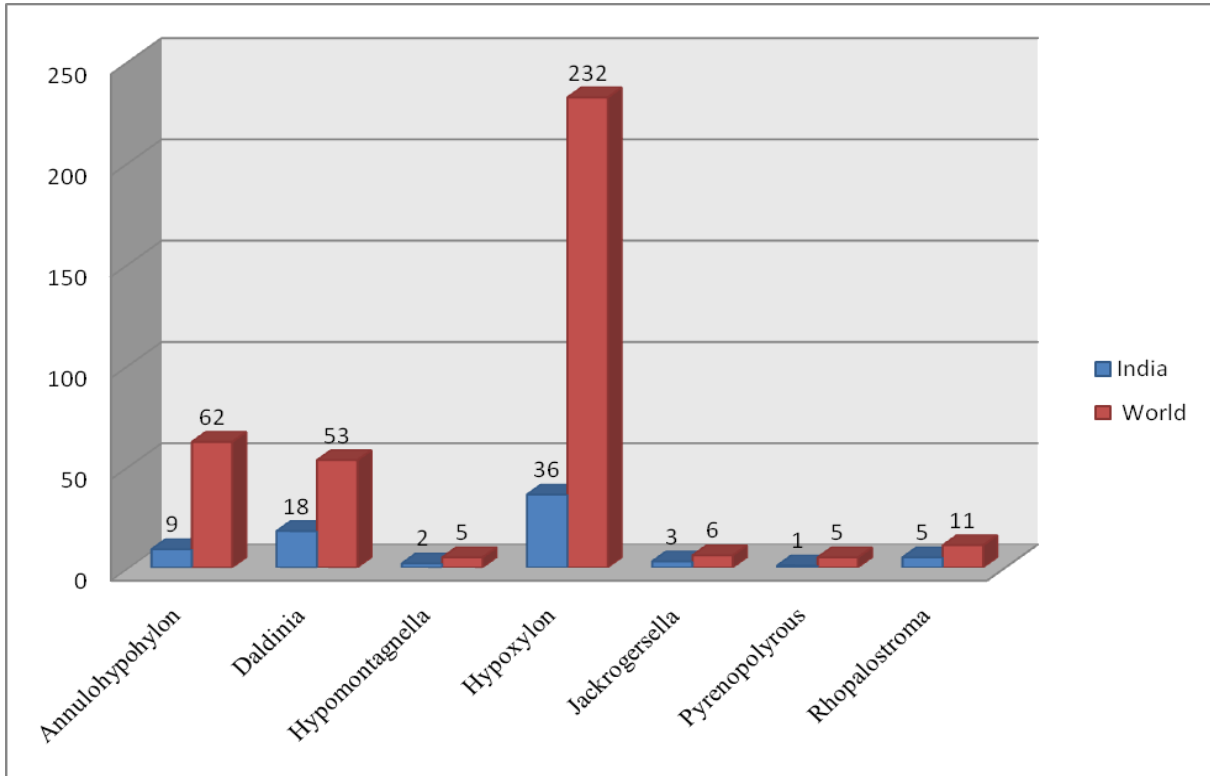


Figure 1: Total reported species of Hypoxylaceae from India and World.

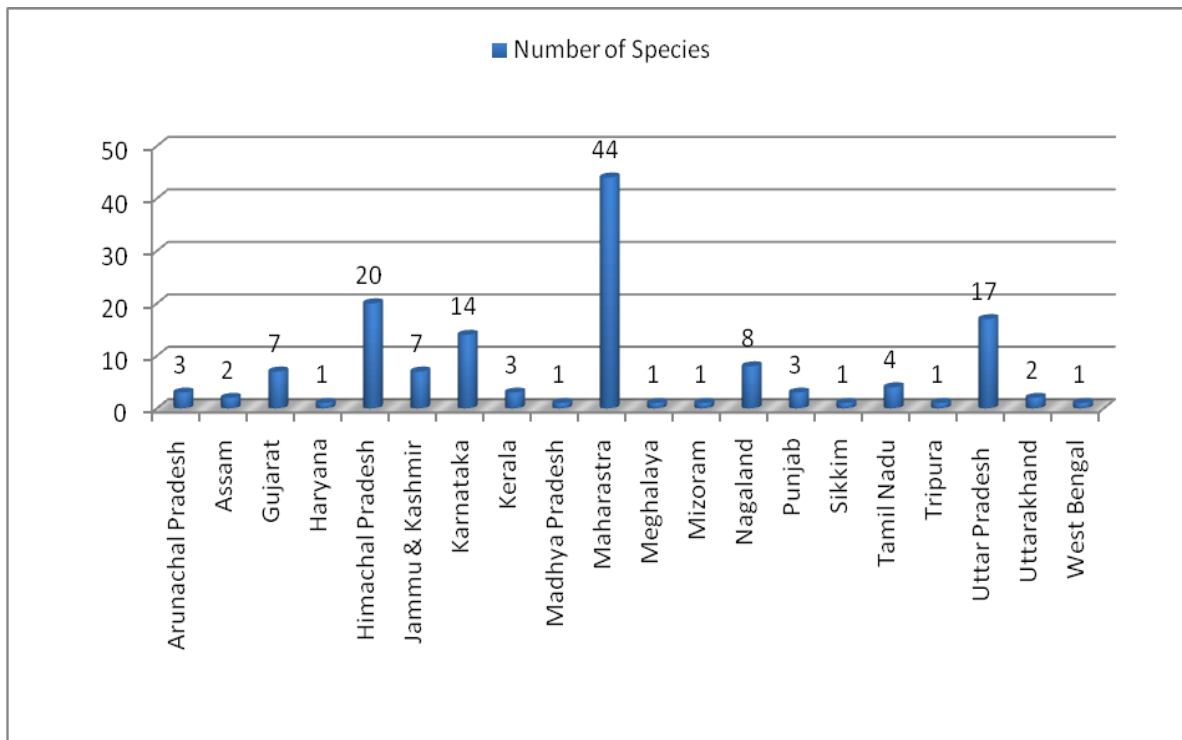


Figure 2: Overview of the Hypoxylaceae diversity in different states of India

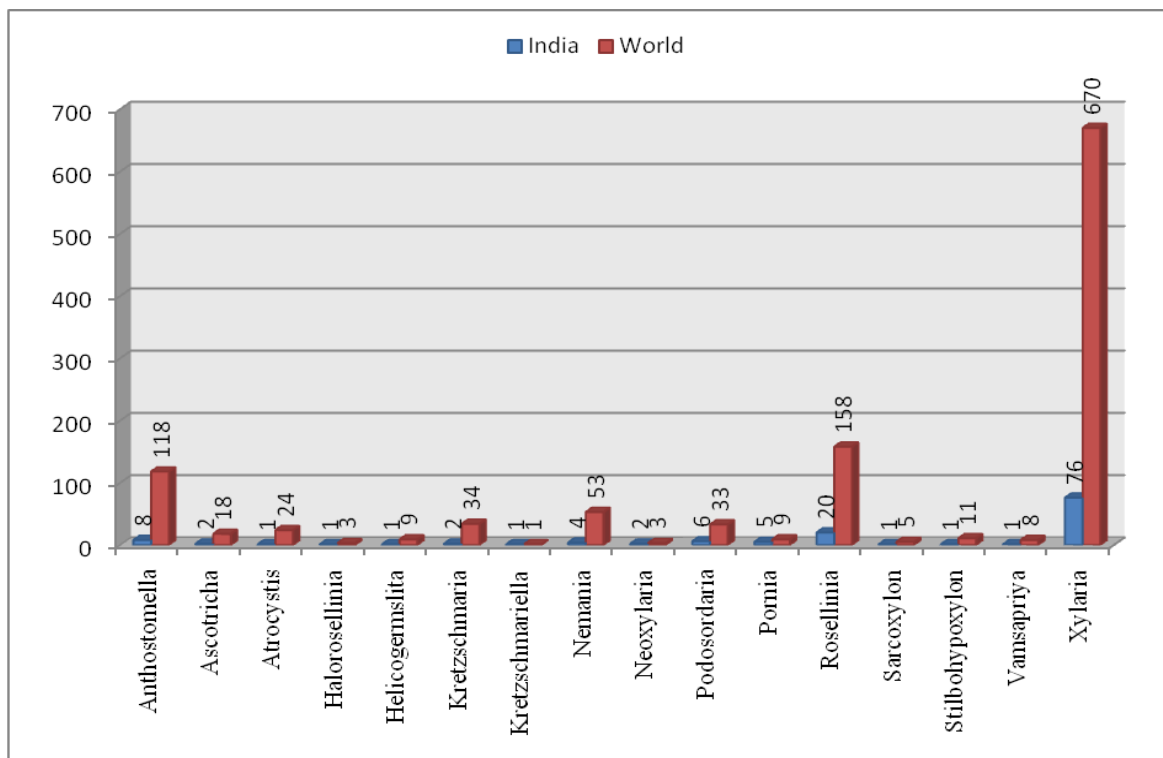


Figure 3: Total reported species of Xylariaceae from India and World.

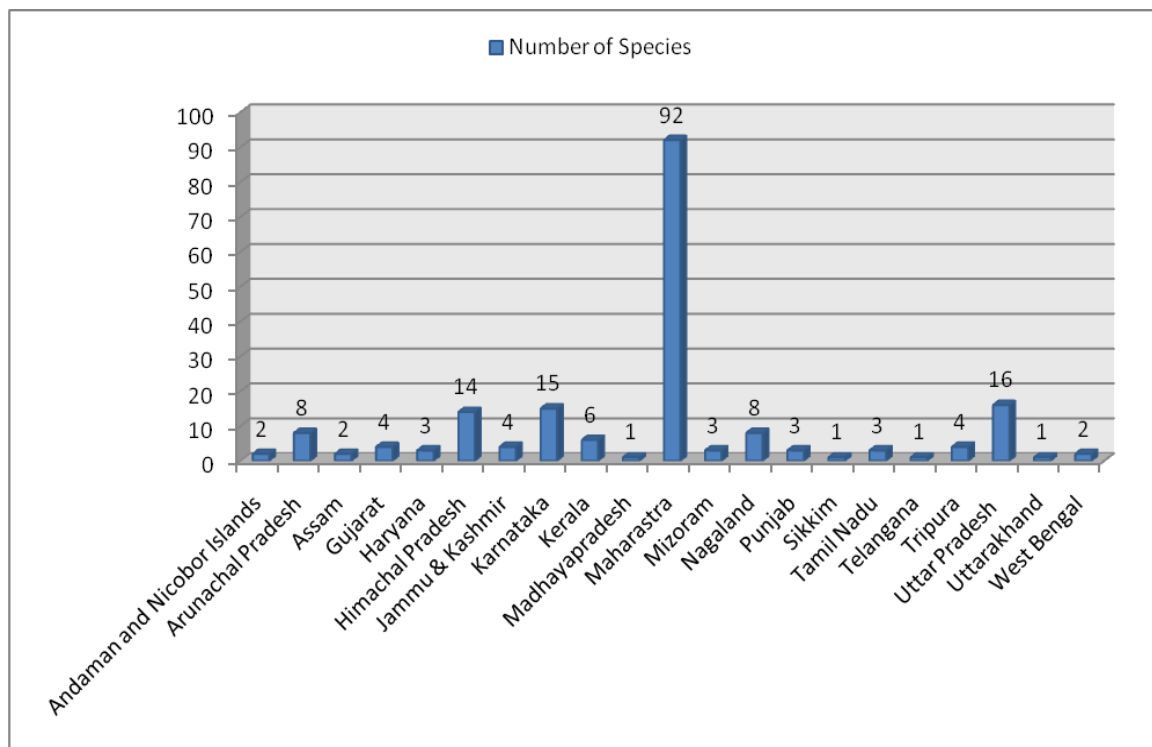


Figure 4: Overview of the Xylariaceae diversity in different states of India.

Table 1: List of Hypoxylaceae taxa reported from India with details.

Name of the Taxa	Habitat	Distribution	References
<i>Annulohypoxyton archeri</i> (Berk.) Y.M. Ju, J.D. Rogers and H.M. Hsieh	On dead twigs of <i>Quercus semecarpifolia</i>	Uttar Pradesh; Himachal Pradesh; Jammu and Kashmir; Karnataka: Sirsi	Dargan, 1976
<i>Annulohypoxyton bovei</i> (Speg.) Y.M. Ju, J.D. Rogers and H.M. Hsieh	On dead wood	Maharashtra; Nagaland: Tuophema reserved forest	Chuzho and Dkhar, 2019a; Niranjan and Sarma, 2018
<i>Annulohypoxyton elevatidiscum</i> (Y.M. Ju, J.D. Rogers and H.M. Hsieh) Y.M. Ju, J.D. Rogers and H.M. Hsieh	On bark	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Annulohypoxyton hians</i> (Berk. and Cooke) Y.M. Ju, J.D. Rogers and H.M. Hsieh	On dead twigs	Karnataka: Coorg	Niranjan and Sarma, 2018
<i>Annulohypoxyton michelianum</i> (Ces. and De Not.) Y.M. Ju, J.D. Rogers and H.M. Hsieh	On dead bark of <i>Ficus</i> sp.	Maharashtra	Niranjan and Sarma, 2018
<i>Annulohypoxyton moriforme</i> (Henn.) Y.M. Ju, J.D. Rogers and H.M. Hsieh	On wood of <i>Memecylon umbellatum</i> Burm	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Annulohypoxyton pouceanum</i> (Berk. and Cooke) Y.M. Ju, J.D. Rogers and H.M. Hsieh	On dead twigs of <i>Ficus</i> sp.	Karnataka: Bangalore	Niranjan and Sarma, 2018
<i>Annulohypoxyton stygium</i> (Lév.) Y.M. Ju, J.D. Rogers and H.M. Hsieh	On dead twigs	Himachal Pradesh: Shimla; Arunachal Pradesh; Maharashtra: Lonavala	Niranjan and Sarma, 2018
<i>Annulohypoxyton truncatum</i> (Starbäck) Y.M. Ju, J.D. Rogers and H.M. Hsieh	On dead angiospermic log and twigs	Uttar Pradesh; Punjab; Himachal Pradesh; Jammu and Kashmir; Karnataka; Tamil Nadu: Ullur	Dargan, 1976; Niranjan and Sarma, 2018
<i>Daldinia bakeri</i> Lloyd	On dead wood	Himachal Pradesh; Uttar Pradesh; Tamil Nadu; Assam; Maharashtra: Kolhapur	Dargan, 1976; Niranjan and Sarma, 2018; Patil <i>et al.</i> , 2012
<i>Daldinia bambusicola</i> Y.M. Ju, J.D. Rogers and F. San Martín	On bamboo host	Gujarat: Vadodara	Maharachchikumbura <i>et al.</i> , 2016
<i>Daldinia caldariorum</i> Henn.	On dead angiospermic twig	Uttar Pradesh; Uttarakhand: Ranikhet	Dargan, 1976
<i>Daldinia childiae</i> J.D. Rogers and Y.M. Ju		Gujarat: Vadodara	Maharachchikumbura <i>et al.</i> , 2016

Name of the Taxa	Habitat	Distribution	References
<i>Daldinia concentrica</i> (Bolton) Ces. and De Not.	On Oak bark and dead twigs	Assam: Garbhanga Reserve Forest; Meghalaya: East Khasi Hills; Mizoram: Hmuifang Forest, Tanhril Forest; Nagaland: Mount Puliebadze, Rangapahar zoological park, Ngwalwa community forest, Rusoma community forest, Tuophema reserved forest, Kikruma community forest, Phuschodu community forest, Phek, Lower Kitsubozou; Sikkim: Barsey Rhododendron Sanctuary; Tripura: Trishna; Arunachal Pradesh; Maharashtra; Himachal Pradesh; Uttar Pradesh; Punjab	Ao and Deb, 2019; Ao <i>et al.</i> , 2016; Chuzho and Dkhar, 2017; Chuzho and Dkhar, 2018; Chuzho and Dkhar, 2019a; Dargan, 1976; Deb <i>et al.</i> , 2008; Debnath <i>et al.</i> , 2020; Dey <i>et al.</i> , 2016; Li <i>et al.</i> , 2015; Maharachchikumbura <i>et al.</i> , 2016; Niranjan and Sarma, 2018; Patil <i>et al.</i> , 2012; Paul, <i>et al.</i> , 2019; Vabeikhokhei <i>et al.</i> , 2019
<i>Daldinia cuprea</i> Starbäck	On dead wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Daldinia dennisii</i> Wollw., J.A. Simpson and M. Stadler	On dead Wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Daldinia eschscholtzii</i> (Ehrenb.) Rehm	On dead angiospermic stump	Himachal Pradesh; Uttar Pradesh; Punjab; Gujarat: Vadodara	Dargan, 1976; Maharachchikumbura <i>et al.</i> , 2016
<i>Daldinia fissa</i> Lloyd	On dead Wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Daldinia graminis</i> Dargan and K.S. Thind	On dead wood	Punjab	Stadler <i>et al.</i> , 2004
<i>Daldinia loculata</i> (Lév.) Sacc.	On dead Wood	Maharashtra: Kolhapur; Gujarat: Vadodara	Maharachchikumbura <i>et al.</i> , 2016, Patil <i>et al.</i> , 2012
<i>Daldinia martinii</i> M. Stadler, Venturella and Wollw.	On dead wood	Northern India	Stadler <i>et al.</i> , 2004
<i>Daldinia palmensis</i> M. Stadler, Wollw. and Tichy	On dead Wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Daldinia petriniae</i> Y.M. Ju, J. D. Rogers, and San Martín	On dead wood	Gujarat: Vadodara; Maharashtra: Kolhapur	Maharachchikumbura <i>et al.</i> , 2016; Patil <i>et al.</i> , 2012
<i>Daldinia raimundi</i> M. Stadler, Venturella and Wollw	On dead Wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Daldinia sacchari</i> Dargan and K.S. Thind	On dead wood	Tamil Nadu; Gujarat: Vadodara	Maharachchikumbura <i>et al.</i> , 2016; Nagadesi and Arya, 2017
<i>Daldinia theissenii</i> Læssøe, J. Fourn. and M. Stadler	On dead Wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Daldinia vernicosa</i> Ces. and De Not.	On dead angiospermic wood	Uttar Pradesh; Uttarakhand: Ranikhet	Dargan, 1976
<i>Hypomontagnella monticulosa</i> (Mont.) Sir, L. Wendt and C. Lamb	On decorticated wood, dead angiospermic stump	Maharashtra: Kolhapur; Himachal Pradesh: Kulu, Kothi	Dargan, 1976; Patil <i>et al.</i> , 2012
<i>Hypomontagnella submonticulosa</i> (Y.M. Ju and J.D. Rogers) Sir, L. Wendt and C. Lamb	On dead twigs	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012

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<i>Hypoxylon vandervekenii</i> Van der Gucht, Y. M. Ju and J. D. Rogers	On decorticated wood	Maharashtra: Kolhapur	Patil and Patil, 2018a; Patil <i>et al.</i> , 2012
<i>Hypoxylon acaciae</i> Tilak 1968	On dead twigs of <i>Acacia arabica</i>	Maharashtra: Aurangabad	Niranjan and Sarma, 2018
<i>Hypoxylon anthochronum</i> Berk. and Broome	On dead Wood	Maharashtra: Kolhapur	Patil and Patil, 2018a
<i>Hypoxylon apiculatum</i> (Sacc.) J.H. Mill.	On dead angiospermic twig	Haryana: Kalka; Himachal Pradesh: Dalhousie, Kalatop	Dargan, 1976
<i>Hypoxylon cinnabarinum</i> (Henn.) Henn	On dead dicot plants twigs, dead wood of <i>Shorea robusta</i>	Maharashtra; Uttar Pradesh; Punjab; Himachal Pradesh; Jammu and Kashmir; Karnataka: Chikkamagaluru	Dargan, 1976; Himani and Krishnappa, 2021; Niranjan and Sarma, 2018
<i>Hypoxylon coorgianum</i> A. Pande	On dead wood	Karnataka	Niranjan and Sarma, 2018
<i>Hypoxylon crocopeplum</i> Berk. and M.A. Curtis	On decaying angiospermic twigs	Punjab: Pathankot	Dargan, 1976
<i>Hypoxylon deustum</i> (Hoffm.) Grev.	On dead stump of <i>Quercus</i>	Himachal Pradesh; Uttar Pradesh	Dargan, 1976
<i>Hypoxylon diatrypeoides</i> Rehm	On bark, dead twigs	Maharashtra: Kanakeshwar, Ajara, Kolhapur	Niranjan and Sarma, 2018; Patil and Patil, 2018a; Patil <i>et al.</i> , 2012
<i>Hypoxylon dieckmannii</i> Theiss.	On bark, dead twigs of <i>Latania chinensis</i> , on dead angiospermic stump	Maharashtra: Kolhapur; Uttar Pradesh	Dargan, 1976; Niranjan and Sarma, 2018; Patil and Patil, 2018a; Patil <i>et al.</i> , 2012
<i>Hypoxylon fendleri</i> Berk. ex Cooke	On dead wood	Karnataka: Chikkamagaluru	Himani and Krishnappa, 2021
<i>Hypoxylon fragiforme</i> (Pers.) J. Kickx f.	On dead twigs	Nagaland: Rangapahar zoological park	Chuzho and Dkhar, 2019a
<i>Hypoxylon fuscopurpureum</i> (Schwein.) M.A. Curtis	On dead twigs of <i>Eugenia jambolana</i>	Maharashtra: Mahabaleshwar	Niranjan and Sarma, 2018
<i>Hypoxylon fuscum</i> (Pers.) Fr.	Dead twigs of <i>Ficus</i> sp.	Nagaland: Puliebadze reserved forest, Mount Puliebadze; Kerala	Chuzho and Dkhar, 2018; Chuzho and Dkhar, 2019a; Niranjan and Sarma, 2018
<i>Hypoxylon griseobrunneum</i> (B.S. Mehrotra) J. Fourn., Kuhnert and M. Stadler	Stromata associated with dead wood and bark in neotropical forests	Madhya Pradesh: Saugar	Koehn, 1978
<i>Hypoxylon haematostroma</i> Mont.	Dead trunk of <i>Tectona grandis</i> , dead angiospermic wood	Nagaland: Rangapahar zoological park, Ngwalwa community forest, Rusoma community forest; Maharashtra: Mumbai; Uttar Pradesh; Punjab; Bihar; West Bengal; Karnataka: Chikkamagaluru	Chuzho and Dkhar, 2019a; Dargan, 1976; Himani and Krishnappa, 2021; Niranjan and Sarma, 2018
<i>Hypoxylon howeanum</i> Peck	On dead branch of <i>Quercus semecarpifolia</i>	Himachal Pradesh: Shimla; Arunachal Pradesh; Maharashtra: Lonavala	Cedeño-Sanchez <i>et al.</i> , 2020; Dargan, 1976; Deb <i>et al.</i> , 2008; Niranjan and Sarma, 2018
<i>Hypoxylon hypomiltum</i> Mont.	On bark, dead twigs, decaying angiospermic wood	Maharashtra: Kolhapur, Karnala; Himachal Pradesh	Dargan, 1976; Niranjan and Sarma, 2018; Patil and Patil, 2018a; Patil <i>et al.</i> , 2012
<i>Hypoxylon investiens</i> (Schwein.) M.A. Curtis	Dead twigs, on decaying angiospermic wood	Himachal Pradesh; Uttar Pradesh; Maharashtra: Bhimashankar	Dargan, 1976; Niranjan and Sarma, 2018

Name of the Taxa	Habitat	Distribution	References
<i>Hypoxylon lenormandii</i> Berk. and M.A. Curtis	Dead <i>Bambusa</i> sp.	Maharashtra	Himani and Krishnappa, 2023; Niranjana and Sarma, 2018
<i>Hypoxylon macrosporum</i> P. Karst.	On dead wood	Maharashtra: Kolhapur	Patil, 2018
<i>Hypoxylon medullare</i> (Wallr.) P.M.D. Martin	On dead angiospermic twigs	Himachal Pradesh: Dalhousie, Dainkund	Dargan, 1976
<i>Hypoxylon notatum</i> Berk. and M.A. Curtis	Dead wood <i>Hevea brasiliensis</i> , decaying wood	Karnataka; Punjab: Chandigarh,	Dargan, 1976; Niranjana and Sarma, 2018
<i>Hypoxylon placentiforme</i> Berk. and M.A. Curtis	On dead wood of <i>Bombax malabaricum</i> DC On dead bark of <i>Quercus</i>	Maharashtra: Kolhapur; Himachal Pradesh: Shimla	Dargan, 1976; Niranjana and Sarma, 2018, Patil <i>et al.</i> , 2012
<i>Hypoxylon ravidoroseum</i> Y. M. Ju, Van der Gucht and J. D. Rogers	On bark	Maharashtra: Kolhapur	Patil and Patil, 2018a; Patil <i>et al.</i> , 2012
<i>Hypoxylon rickii</i> Y.M. Ju and J.D. Rogers	On dead wood	Karnataka: Chikkamagaluru	Himani and Krishnappa, 2021
<i>Hypoxylon rogersii</i> A. Pande	On dead wood	Maharashtra: Bhimashankar	Niranjana and Sarma, 2018
<i>Hypoxylon rubiginosum</i> (Pers.) Fr.	Dead twigs of <i>Toddalia asiatica</i> on dead wood	Nagaland: Ngwalwa community forest, Rusoma community forest, Kikruma community forest, Jog Falls, Karnataka; Maharashtra: Khandala; Himachal Pradesh; Punjab; Uttar Pradesh; Jammu and Kashmir; Gujarat: Vadodara	Chuzho and Dkhar, 2019a; Maharachchikumbura <i>et al.</i> , 2016; Niranjana and Sarma, 2018
<i>Hypoxylon sclerophaeum</i> Berk. and M.A. Curtis	On dead trunk of <i>Ficus</i> sp.	Uttar Pradesh: Rishikesh	Dargan, 1976
<i>Hypoxylon spirale</i> A. Pande	Dead twigs of <i>Eugenia</i> sp.	Maharashtra	Niranjana and Sarma, 2018
<i>Hypoxylon subgilvum</i> Berk. and Broome	On dead wood	Karnataka: Chikkamagaluru	Himani and Krishnappa, 2021
<i>Hypoxylon sublimbatum</i> (Durieu and Mont.) P.M.D. Martin	On culms of <i>Saccharum spontaneum</i> L., A.S. Gill	Punjab: Chandigarh	Dargan, 1976
<i>Hypoxylon subrutulum</i> Starbäck	On dead angiospermic tree	Himachal Pradesh; Uttar Pradesh; Jammu and Kashmir	Dargan, 1976
<i>Hypoxylon teeravasati</i> Devadatha, V.V. Sarma and E.B.G. Jones	On decaying wood	Tamil Nadu	Phookamsak <i>et al.</i> , 2019
<i>Hypoxylon umbilicatum</i> Speg.	On dead twigs of <i>Avicennia marina</i> (Acanthaceae)	Maharashtra: Kolhapur	Patil and Patil, 2018a; Patil <i>et al.</i> , 2012
<i>Hypoxylon vogesiacum</i> (Pers. ex Curr.) Sacc.	On dead angiospermic wood	Himachal Pradesh; Uttar Pradesh; Jammu and Kashmir	Dargan, 1976
<i>Jackrogersella cohaerens</i> (Pers.) L. Wendt, Kuhnert and M. Stadler	On dead dicot twigs of <i>Acacia caesia</i> , rotten wood, and dead bark of angiospermic log	Kerala: Malayatoor; Maharashtra: Kolhapur; Himachal Pradesh; Nagaland: Mount Puliebadze, Rusoma community forest, Puliebadze reserved forest, Puliebadze Rhododendron reserved forest, Phek	Chuzho and Dkhar, 2018; Chuzho and Dkhar, 2019a; Chuzho and Dkhar, 2019b; Dargan, 1976; Niranjana and Sarma, 2018, Patil <i>et al.</i> , 2012

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<i>Jackrogersella minutella</i> (Syd. and P. Syd.) L. Wendt, Kuhnert and M. Stadler	On dead twigs	Nagaland: Puliebadze reserved forest	Chuzho and Dkhar, 2019a
<i>Jackrogersella multiformis</i> (Fr.) L. Wendt, Kuhnert and M. Stadler	On dead wooden log	Himachal Pradesh; Uttar Pradesh; Punjab; Jammu and Kashmir	Dargan, 1976
<i>Pyrenopolyporus hunteri</i> Lloyd	On fallen bark of <i>Ficus racemosa</i> tree	Karnataka: Chikkamagaluru	Himani and Krishnappa, 2021
<i>Rhopalostroma africanum</i> (Wakef.) D. Hawks.	On bark of <i>Ficus benghalensis</i> L. (Moraceae)	Maharashtra: Kohlapu, Pune	Patil and Patil, 2019b
<i>Rhopalostroma dennisii</i> D. Hawksw., Zachariah and Sankaran	On dead wooden log of <i>Artocarpus integrifoli</i>	Kerala: Calicut University	Stadler, 2011
<i>Rhopalostroma lekae</i> Whalley, Thienh., M.A. Whalley and Sihan.	On bark of <i>Memecylon umbellatum</i> Burm. (Melastomataceae)	Maharashtra: Kolhapur, Panhala	Patil and Patil, 2018b
<i>Rhopalostroma sphaerocephalum</i> (Petch) D. Hawks. var <i>indica</i> , var. nov.	On dead branches of <i>Bombax malabaricum</i>	Maharashtra: Radhanagari, Kolhapur	Patil and Patil, 2018b
<i>Rhopalostroma indicum</i> D. Hawksw. and Muthappa	On dead wooden log of <i>Ficus retusa</i>	Karnataka	Hawksworth, 1977

Table 2: List of Xylariaceae taxa reported from India with details.

Name of the Taxa	Habitat	Distribution	Reference
<i>Anthostomella acaciae</i> S.B. Kale and S.V.S. Kale	On <i>Acacia arabica</i> (L) Willd ex Delile (Fabaceae)	Maharashtra: Bamangaon, Takli, Puri, Awarad	Niranjan and Sarma, 2018
<i>Anthostomella agaves</i> Narendra and V.G. Rao	Leaves of <i>Agave Americana</i> L. (Agavaceae)	Maharashtra: Katraj, Pune	Niranjan and Sarma, 2018
<i>Anthostomella capparis</i> (Syd., P. Syd. and E.J. Butler) A. Pande	living leaves of <i>Capparis</i> sp.	Maharashtra: Pune	Niranjan and Sarma, 2018
<i>Anthostomella hibisci</i> K. Ramakr.	On dead dtwigs of <i>Hibiscus rosa sinensis</i> L. (Malvaceae)	Kerala: Ernakulam	Niranjan and Sarma, 2018
<i>Anthostomella jasmini</i> J.N. Kapoor and H.S. Gill	On dead twigs of <i>Combratum albidum</i> Don.(Combretaceae)	Maharashtra: Patanadevi	Niranjan and Sarma, 2018
<i>Anthostomella mirabilis</i> Speg.	On dead stems of <i>Dendrocalamus strictus</i> Nees. (Poaceae)	Karnataka: Coorg	Niranjan and Sarma, 2018
<i>Anthostomella phoenicis</i> (Dhaware) K.D. Hyde, J. Fröhl. and Joanne E. Taylor	On dead leaves of <i>Phoenix sylvestris</i> Roxb. (Arecaceae)	Maharashtra: Osmanabad	Niranjan and Sarma, 2018
<i>Anthostomella tumulosa</i> (Roberge ex Desm.) Sacc.	On dead dicot twigs	Maharashtra: Patanadevi	Niranjan and Sarma, 2018
<i>Ascotricha bosei</i> D. Hawksw.	On paper	Maharashtra	Niranjan and Sarma, 2018
<i>Ascotricha chartarum</i> Berk.		Tamil Nadu: Chennai	Niranjan and Sarma, 2018
<i>Astrocystis dimidiata</i> (Starbäck) L.E. Petrini	On roots of <i>Tectona grandis</i>	Maharashtra	Niranjan and Sarma, 2018
<i>Halorosellinia oceanica</i> (S. Schatz) Whalley, E.B.G. Jones, K.D. Hyde and Læssøe	On dead mangrove plants	Common in mangrove localities, India	Niranjan and Sarma, 2018
<i>Helicogermis celsa</i> (S.B. Kale and S.V.S. Kale) Lodha and D. Hawksw.	On unidentified wood	Telangana: Hyderabad	Hawksworth and Lodha, 1983; Niranjan and Sarma, 2018
<i>Kretzschmaria chardoniana</i> (J.H. Mill.) P.M.D. Martin	On dead twigs of <i>Artocarpus integer</i>	Karnataka: Coorg; Kerala	Niranjan and Sarma, 2018
<i>Kretzschmaria deusta</i> (Hoffm.) P.M.D. Martin	On dead wood	Nagaland: Mount Puliebadze, Rusoma community forest, Tuophema reserved forest, Kikrma community forest, Phuschodu community forest, Puliebadze reserved forest, Phek; Maharashtra: Kolhapur	Chuzho and Dkhar, 2019a; Chuzho and Dkhar, 2019b; Debnath <i>et al.</i> , 2020; Patil <i>et al.</i> , 2012
<i>Kretzschmaria phoenicis</i> S.B. Kale and S.V.S. Kale	On dead leaf bases of <i>Phoenix sylvestris</i> Roxb	Karnataka	Niranjan and Sarma, 2018
<i>Kretzschmaria culmorum</i> (Cooke) Y.M. Ju and J.D. Rogers	On dead bamboo	Karnataka	Niranjan and Sarma, 2018

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Name of the Taxa	Habitat	Distribution	Reference
<i>Nemania caries</i> (Schwein.) Y.M. Ju and J.D. Rogers	On dead dicot twigs	Maharashtra	Niranjan and Sarma, 2018
<i>Nemania chrysoconia</i> (Berk. and Broome) Y.M. Ju and J.D. Rogers	On dead dicot twigs	Maharashtra	Niranjan and Sarma, 2018
<i>Nemania conostoma</i> (Mont.) Pouzar	On dead wood	Maharashtra	Niranjan and Sarma, 2018
<i>Nemania serpens</i> (Pers.) Gray	On bark	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Neoxylaria juruensis</i> (Henn.) Konta and K.D. Hyde	On leaf litter and dead decorticated twigs of dicot plant	Maharashtra: Khandala, Kolhapur	Niranjan and Sarma, 2018, Patil <i>et al.</i> , 2012
<i>Neoxylaria juruensis</i> (Henn.) Konta and K.D. Hyde	In leaf litter	Maharashtra: Khandala	Niranjan and Sarma, 2018
<i>Podosordaria aristata</i> (Mont.) P.M.D. Martin	On dead twigs of <i>Eugenia jambolana</i>	Maharashtra: Khandala; Kerala: Ponnudiy; Punjab: Chandigarh; Uttar Pradesh	Dargan, 1976; Niranjan and Sarma, 2018
<i>Podosordaria axifera</i> (Mont.) P.M.D. Martin	On dicot leaves, twigs and leaf litter	Maharashtra: Kalamawadi Dam, Kolhapur, Pune	Niranjan and Sarma, 2018, Patil <i>et al.</i> , 2012
<i>Podosordaria heloidea</i> (Penz. and Sacc.) P.M.D. Martin	On dead twigs of <i>Pongamia pinnata</i> , fallen leaves and capsules of <i>Cedrus toona</i> , on wood of <i>Memecylon umbellatum</i>	Maharashtra: Triambakeshwar, Kolhapur; Uttar Pradesh	Dargan, 1976; Niranjan and Sarma, 2018; Patil <i>et al.</i> , 2012
<i>Podosordaria leporina</i> (Ellis and Everh.) Dennis	Collected and isolated from the incubated pellets of rabbit	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Podosordaria nigripes</i> (Klotzsch) P.M.D. Martin	On soil and wood of <i>Tectona grandis</i>	Tripura: Jampui Hills, Betlingshib; Maharashtra: Borivali, Mumbai, Kolhapur; Himachal Pradesh; Uttar Pradesh; Chandigarh	Dargan, 1976; Debnath <i>et al.</i> , 2018; Debnath <i>et al.</i> , 2020; Niranjan and Sarma, 2018, Patil <i>et al.</i> , 2012
<i>Podosordaria thyrsus</i> (Berk.) P.M.D. Martin	On soil	Pona; Maharashtra: Kolhapur; Punjab: Chandigarh; Madhya Pradesh	Dargan, 1976; Niranjan and Sarma, 2018, Patil <i>et al.</i> , 2012
<i>Poronia gigantea</i> Sacc.	On elephant dung	Tamil Nadu	Niranjan and Sarma, 2018
<i>Poronia oedipus</i> (Mont.) Mont.		India	Patil, 2018
<i>Poronia pileiformis</i> (Berk.) Fr.	On cow dung	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Poronia punctata</i> (L.) Fr.	Saprophytic on twigs of <i>Artocarpus integer</i> and on the pellets of rabbit	Karnataka: Coorg; Maharashtra: Kolhapur	Niranjan and Sarma, 2018; Patil <i>et al.</i> , 2012
<i>Poronia radicata</i> Hembrom, A. Parihar and K. Das	On grassy soil	West Bengal: Howrah; Maharashtra: Kolhapur	Hembrom <i>et al.</i> , 2013; Patil <i>et al.</i> , 2012
<i>Rosellinia acaciae</i> A. Pande and V.G. Rao	On dead twigs of <i>Acacia arabica</i>	Maharashtra: Ahmedpur,	Niranjan and Sarma, 2018

Name of the Taxa	Habitat	Distribution	Reference
<i>Rosellinia aquila</i> (Fr.) Ces. and De Not.	On dead angiospermic twig	Jammu and Kashmir: Gulmarg, Kailangmarg; Uttar Pradesh; Himachal Pradesh; Punjab.	Dargan, 1976
<i>Rosellinia aquiloidea</i> A. Pande and V.G. Rao	On dead wood	Goa: Mollem National Park	Niranjan and Sarma, 2018
<i>Rosellinia attenuata</i> M. Niranjan and V.V. Sarma	On an unidentified twig	India: Andaman and Nicobar Islands, North Andaman, Ram Nagar	Narmani <i>et al.</i> , 2019
<i>Rosellinia congesta</i> I. Hino and Katum	On dead bamboo	Karnataka: Anmode; Maharashtra: Chikhadara	Niranjan and Sarma, 2018
<i>Rosellinia corticium</i> (Schwein.) Sacc.	On dead angiospermic twig	Himachal Pradesh: Dalhousie, Kalatope	Dargan, 1976
<i>Rosellinia indica</i> Dargan and K.S. Thind	On dead twigs of <i>Dendrocalamus strictus</i>	Maharashtra: Dhule, Triambakeshwar	Niranjan and Sarma, 2018
<i>Rosellinia lakshadweepensis</i> A. Pande and V.G. Rao	On dead pericarp of <i>Cocos nucifera</i>	Lakshadweep: Kavarati Island	Niranjan and Sarma, 2018
<i>Rosellinia macrospora</i> A. Pande and Maharashtraaskar	On dead leaves of <i>Agave</i> sp.	Maharashtra: Pune	Niranjan and Sarma, 2018
<i>Rosellinia mammiformis</i> (Pers.) Ces. and De Not.	On bark of dicot wood; On dead angiospermic twigs	Himachal Pradesh: Chamba, Khajjiar; Maharashtra: Karnala, Kolhapur	Dargan, 1976; Patil <i>et al.</i> , 2012
<i>Rosellinia medullaris</i> (Wallr.) Ces. and De Not.	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Rosellinia mimosae</i> S.B. Kale	On dead twigs of <i>Cassia auriculata</i>	Various place in Maharashtra	Niranjan and Sarma, 2018
<i>Rosellinia petrakii</i> Narendra	On dead twigs of <i>Syzygium cumini</i>	Karnataka: Sagar	Niranjan and Sarma, 2018
<i>Rosellinia petriniae</i> A. Pande and V.G. Rao	On dead twigs of <i>Lantana camara</i>	Maharashtra	Niranjan and Sarma, 2018
<i>Rosellinia picta</i> (Berk. ex Cooke) Sacc.	On dead decorticated twigs	Tamil Nadu	Niranjan and Sarma, 2018
<i>Rosellinia punicae</i> Anahosur	On dead twigs of <i>Punica granatum</i>	Karnataka: Coorg	Niranjan and Sarma, 2018
<i>Rosellinia sancta-cruciana</i> Ferd. and Winge	On dead twigs of <i>Zizyphus</i>	Maharashtra	Niranjan and Sarma, 2018
<i>Rosellinia sublimbata</i> (Durieu and Mont.) Pass.	On dead stems of <i>Dendrocalamus strictus</i>	All Maharashtra	Niranjan and Sarma, 2018
<i>Rosellinia tetraspora</i> M. Niranjan and V.V. Sarma	On an unidentified twig	India, Andaman and Nicobar Islands, North Andaman: Ram Nagar	Narmani <i>et al.</i> , 2019
<i>Rosellinia thelena</i> (Fr.) Rabenh.	On bark of dead twigs of <i>Abies pindrow</i>	Jammu and Kashmir: Gulmarg, Ningal Nallah, Srinagar, Yusmarg, Pahlgam, Shikargah; Himachal Pradesh: Shimla, Narkanda	Dargan, 1976

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Name of the Taxa	Habitat	Distribution	Reference
<i>Sarcoxydon punctum</i> (Jungh.) Cooke	On wood	Western Ghats regions of Karnataka	Pande, 2008
<i>Stilbohypoxydon quisquiliarum</i> (Mont.) J.D. Rogers and Y.M. Ju	On twigs of <i>Lagerstroemia</i> sp.	Karnataka: Coorg	Niranjan and Sarma, 2018
<i>Vamsapriya indica</i> Gawas and Bhat	On bamboo host	Karnataka; Uttarakannada: Yellapur	Dai <i>et al.</i> , 2014
<i>Xylaria allantoidea</i> (Berk.) Fr.	On wood	Maharashtra: Kolhapur, Castle rock; Gujara: Vadodara	Maharachchikumbura <i>et al.</i> , 2016; Niranjan and Sarma, 2018, Patil <i>et al.</i> , 2012
<i>Xylaria alpina</i> Speg.	On dead female cones of <i>Picea morinda</i>	Himachal Pradesh	Dargan, 1976
<i>Xylaria anisopleura</i> (Mont.) Fr.	On dead twigs and on bark of fallen tree	Maharashtra: Widely distributed in India and Kolhapur	Dargan, 1976; Niranjan and Sarma, 2018, Patil <i>et al.</i> , 2012
<i>Xylaria apiculata</i> Cooke	On dead twigs	Nagaland: Mount Puliebadze, Rusoma community forest, Phuschodu community forest, Puliebadze reserved forest, Phek; Maharashtra	Chuzho and Dkhar, 2018; Chuzho and Dkhar, 2019a; Chuzho and Dkhar, 2019b; Niranjan and Sarma, 2018
<i>Xylaria arbuscula</i> Sacc.	On dead wood	Nagaland: Rusoma community forest; Arunachal Pradesh	Chuzho and Dkhar, 2019a; Deb <i>et al.</i> , 2008
<i>Xylaria aristata</i> Mont.	On dead fallen leaves of various dicot	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria assamensis</i> C. G. Lloyd, Mycol Callan and J.D. Rogers	On unknown dicot wood	Assam: Goalpara	Ju <i>et al.</i> , 2016
<i>Xylaria atosphaerica</i> (Cooke and Masee) Callan and J.D. Rogers	On bark	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria azadirachtae</i> Anahosur	On seeds of <i>Azadirachta indica</i>	Karnatak: Coorg	Niranjan and Sarma, 2018
<i>Xylaria badia</i> Pat.	On bark	Maharashtra: Kolhapur; Karnataka	Himani and Krishnappa, 2021; Patil <i>et al.</i> , 2012
<i>Xylaria bambusicola</i> Y.M. Ju and J.D. Rogers	On dead stem of <i>Cusuarina equisetifolia</i>	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria berkeleyi</i> Mont.	Soil, decaying leaves	Maharashtra: Kolhapur	Niranjan and Sarma, 2018
<i>Xylaria bifigurata</i> Lloyd	On root of <i>Pongamia pinnata</i>	Maharashtra: Pune	Patil <i>et al.</i> , 2012
<i>Xylaria botrys</i> Pat.	On dead wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria brachiata</i> Sacc.	On dicot wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria brasiliensis</i> (Theiss.) Lloyd var <i>indica</i> var nov.	On soil	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012

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<i>Xylaria carpophila</i> (Pers.) Fr.	On seeds of <i>Pyrus</i> sp., soil	Nagaland: Rusoma community forest, Himachal Pradesh; Gujarat: Vadodara, Karnala; Maharashtra	Chuzho and Dkhar, 2019a; Dargan, 1976; Maharachchikumbura <i>et al.</i> , 2016
<i>Xylaria castorea</i> Berk.	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria coccophora</i> Mont.	On dicot wood, dead angiospermic twigs	Maharashtra: Kolhapur; Uttar Pradesh, Punjab: Chandigarh; Haryana	Dargan, 1976; Patil <i>et al.</i> , 2012
<i>Xylaria cubensis</i> (Mont.) Fr.	On dead twig	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria curta</i> Fr.	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria dealbata</i> Berk. and M.A. Curtis	On dead wood	Karnataka: Sagar; Maharashtra: Panhala, Kolhapur	Niranjan and Sarma, 2018, Patil <i>et al.</i> , 2012
<i>Xylaria deceptiva</i> Lloyd	On soil	Maharashtra: Kolhapur	Niranjan and Sarma, 2018, Patil <i>et al.</i> , 2012
<i>Xylaria escharoidea</i> (Berk.) Sacc.	On soil	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria feejeensis</i> (Berk.) Fr.	On dead twigs of <i>Butea monosperma</i> , angiospermic stump	All Maharashtra; Himachal Pradesh; Uttar Pradesh; Gujarat: Vadodara; Arunachal Pradesh	Dargan, 1976; Deb <i>et al.</i> , 2008; Maharachchikumbura <i>et al.</i> , 2016, Niranjan and Sarma, 2018
<i>Xylaria filiformis</i> (Alb. and Schwein.) Fr.	On fallen leaves of <i>Symplocos</i> sp and dead twigs	Nagaland: Rusoma community forest, Tuophema reserved forest; Maharashtra: Kolhapur; Himachal Pradesh; Uttar Pradesh	Chuzho and Dkhar, 2019a; Dargan, 1976; Patil <i>et al.</i> , 2012
<i>Xylaria gigantean</i> (Zipp. And Lev.) Fr.	On humus rich soil and plant debris	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria glebulosa</i> (Ces.) Y.M. Ju and J.D. Rogers	on wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria gracillima</i> (Fr.) Fr.	On soil, dead angiospermic twigs	Maharashtra: Kolhapur; Himachal Pradesh; Uttar Pradesh; Arunachal Pradesh	Deb <i>et al.</i> , 2008; Patil <i>et al.</i> , 2012
<i>Xylaria grammica</i> (Mont.) Mont.	On dead stump of <i>Shorea robusta</i>	Mizoram: Hmuifang Forest; Uttar Pradesh; Himachal Pradesh	Dargan, 1976; Vabeikhokhei <i>et al.</i> , 2019
<i>Xylaria guaranitica</i> (Speg.) Dennis	On soil	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria guazumae</i> F. San Martín and J.D. Rogers	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria heliscus</i> (Mont.) J.D. Rogers and Y.M. Ju	On dead wood	Himachal Pradesh; West Bengal	Dargan, 1976
<i>Xylaria himalayensis</i> Narula and Rawla	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria humosa</i> Lloyd	On fallen tree trunks of <i>Tectona grandis</i>	Maharashtra: Mumbai	Niranjan and Sarma, 2018

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<i>Xylaria hypoxylon</i> (L.) Grev.	On dead <i>Quercus</i> stump, on soil and dead wood	Assam: Garbhanga Reserve Forest; Meghalaya: East Khasi Hills; Himachal Pradesh; Uttar Pradesh; Jammu and Kashmir; Mizoram: Hmuifang Forest, Tanhril Forest; Nagaland: Ngwalwa community forest, Rusoma community forest, Mount Puliebadze, Tuophema reserved forest; Sikkim: Barsey Rhododendron Sanctuary; Tripura: Sabual, Jampui Hills; Arunachal Pradesh; Maharashtra: Kolhapur, Radhanagari	Ao and Deb, 2019; Chuzho and Dkhar, 2018; Chuzho and Dkhar, 2019a; Dargan, 1976; Deb <i>et al.</i> , 2008; Debnath <i>et al.</i> , 2018; Debnath <i>et al.</i> , 2020; Dey <i>et al.</i> , 2016; Li <i>et al.</i> , 2015; Niranjana and Sarma, 2018; Patil <i>et al.</i> , 2012; Paul <i>et al.</i> , 2019; Sailo, 2010 Vabeikhokhei <i>et al.</i> , 2019
<i>Xylaria inaequalis</i> Berk. and M.A. Curt.	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria kamatii</i> A. Pande	On dead leaves of <i>Memecylon umbellatum</i>	Maharashtra: Bhimashankar	Niranjana and Sarma, 2018
<i>Xylaria kedahae</i> Lloyd	On soil	Maharashtra: Khandala	Niranjana and Sarma, 2018
<i>Xylaria kegeliana</i> (Lév.) Fr.	On dead branches of dicot plant	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria longiana</i> Rehm	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria longipes</i> Nitschke	On dead angiospermic sticks and wood of <i>Tectona grandis</i>	Mizoram: Hmuifang Forest, Tanhril Forest; Nagaland: Rangapahar zoological park, Ngwalwa community forest, Rusoma community forest, Tuophema reserved forest, Kikruma community forest, Lower Kitsubozou, Mount Puliebadze; Uttar Pradesh; Himachal Pradesh; Arunachal Pradesh; Maharashtra: Mumbai	Chuzho and Dkhar, 2017; Chuzho and Dkhar, 2019a; Chuzho and Dkhar, 2019b; Dargan, 1976; Deb <i>et al.</i> , 2008; Niranjana and Sarma, 2018; Vabeikhokhei <i>et al.</i> , 2019
<i>Xylaria luteostromata</i> Lloyd	On dead twigs and wood	Maharashtra: Panhala	Niranjana and Sarma, 2018
<i>Xylaria maitlandii</i> (Dennis) D. Hawksw	On dead branches of <i>Casuarina equisetifolia</i> and dead angiospermic twig	Maharashtra: Kolhapur; Haryana; Uttar Pradesh	Dargan, 1976; Patil <i>et al.</i> , 2012
<i>Xylaria massula</i> Ces.	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria melanura</i> (Lév.) Sacc.	On soil	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria mellissii</i> (Berk.) Cooke	On dead twigs of <i>Quercus semecarpifolia</i>	Uttar Pradesh; Himachal Pradesh; Haryana	Dargan, 1976
<i>Xylaria memecyli</i> A. Pande	On dead leaves of <i>Memecylon umbellatum</i>		Niranjana and Sarma, 2018
<i>Xylaria microceras</i> (Mont.) Berk.	On dead leaves and dicot wood	Kerala; Maharashtra	Niranjana and Sarma, 2018

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<i>Xylaria monstrosa</i> A. Pande, Waing., L. Prasad, Y. Vaidya and Vaidya	On soil	Karnatak: Coorg; Maharashtra: Kolhapur	Niranjan and Sarma, 2018; Patil <i>et al.</i> , 2012
<i>Xylaria multiplex</i> (Kunze ex Fr.) Fr.	On dead angiospermic twig and soil	Nagaland: Rusoma community forest; Tripura: Tlangsang, Jampui Hills; Himachal Pradesh; Uttar Pradesh; Punjab: Chandigarh; Maharashtra: Kolhapur, Triambakeshwar; Arunachal Pradesh	Chuzho and Dkhar, 2019a; Dargan, 1976; Deb <i>et al.</i> , 2008; Debnath <i>et al.</i> , 2018; Debnath <i>et al.</i> , 2020; Niranjan and Sarma, 2018; Patil <i>et al.</i> , 2012
<i>Xylaria myosurus</i> Mont.	On bamboo and soil	Kerala: Idamalayar; Maharashtra: Kolhapur	Niranjan and Sarma, 2018; Patil <i>et al.</i> , 2012
<i>Xylaria nigripes</i> (Klotzsch) Cooke		Gujarat: Vadodara	Maharachchikumbura <i>et al.</i> , 2016
<i>Xylaria obovata</i> (Berk.) Berk.	On dead stems of <i>Erythrina</i> sp.	Tripura: Betlingshib, Jampui Hills, Panhala; Torna All Maharashtra	Debnath <i>et al.</i> , 2018; Debnath <i>et al.</i> , 2020; Niranjan and Sarma, 2018; Patil <i>et al.</i> , 2012
<i>Xylaria pallida</i> Berk. and Cooke	On dead wood of <i>Tectona grandis</i>	Maharashtra: Mumbai	Niranjan and Sarma, 2018
<i>Xylaria papulis</i> Lloyd	On tree trunk	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria papyrifera</i> (Link) Fr.	On dead wood	Himachal Pradesh: Shimla ; Uttar Pradesh; Arunachal Pradesh	Dargan, 1976; Deb <i>et al.</i> , 2008
<i>Xylaria phosphorea</i> Berk.	On soil and dead twigs	Maharashtra: Malavali; Uttar Pradesh	Dargan, 1976; Niranjan and Sarma, 2018
<i>Xylaria piperiformis</i> Berk.	On soil	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria placenta</i> (Petch) A. Pande	On dead twigs of <i>Artocarpus integer</i>	Karnataka: Kumbaladalu, Coorg	Niranjan and Sarma, 2018
<i>Xylaria polymorpha</i> (Pers.) Grev.	On dead twigs of <i>Erythrina indica</i> and dead wood	Karnataka: Coorg; Gujarat: Vadodara; Maharashtra: Kolhapur; Jammu and Kashmir; Arunachal Pradesh	Dargan, 1976; Deb <i>et al.</i> , 2008; Maharachchikumbura <i>et al.</i> , 2016; Niranjan and Sarma, 2018; Patil <i>et al.</i> , 2012
<i>Xylaria readeri</i> F. Muell.	On soil	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria regalis</i> Cooke	On wooden log of <i>Ficus racemosa</i>	Maharashtra: Western Ghats, Pune	Hsieh <i>et al.</i> , 2010
<i>Xylaria rhizomorpha</i> (Mont.) Mont.	On soil	Cherai, Ernakulum; Kerala	Niranjan and Sarma, 2018
<i>Xylaria schreuderiana</i> Van der Byl	On dead twig	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012

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<i>Xylaria schweinitzii</i> Berk. and M.A. Curtis	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria scruposa</i> (Fr.) Fr.	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria squamulosa</i> F. San Martín and J.D. Rogers	On soil	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria symploci</i> A. Pande, Waing., Punekar and Ranadive	On roots of <i>Symplococ racemosa</i> Roxb.	Karnataka: Anshi National Park	Niranjan and Sarma, 2018
<i>Xylaria tectonae</i> A. Pande and Waing	On logs of <i>Tectona grandis</i>	Maharashtra: Vikramgad Forest, Mumbai	Niranjan and Sarma, 2018
<i>Xylaria tentaculata</i> Ravenel ex Berk.	On soil	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria terminaliae-bellericae</i> A. Pande and Waing.	On fallen fruits of <i>Terminalia bellerica</i> Roxb.	Maharashtra: Dharni, Washim	Niranjan and Sarma, 2018
<i>Xylaria terminaliae-crenulatae</i> A. Pande and Waing.	On fallen fruits of <i>Terminalia crenulata</i>	Maharashtra: Pune	Niranjan and Sarma, 2018
<i>Xylaria theissenii</i> Lloyd	On soil	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012
<i>Xylaria trachelina</i> (Lév.) Cooke	On dead angiospermic sticks	Uttar Pradesh: Mussoorie, Mossy Falls	Dargan, 1976
<i>Xylaria tuberiformis</i> Berk.	On wood	Maharashtra: Kolhapur	Patil <i>et al.</i> , 2012

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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