
***Mauritiana rhizophorae* gen. et sp. nov. (Ascomycetes,
Requienellaceae), with a list of terrestrial saprobic mangrove
fungi**

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The new ascomycete genus *Mauritiana* is described. It is tentatively attributed to the Requienellaceae, but its relation to *Passeriniella* is also discussed. A list of all terrestrial mangrove fungi described so far is given.

Key words: Ascomycetes, mangrove fungi, *Mauritiana*, Mauritius, new genus, new species, Requienellaceae, review, saprobic, terrestrial.

Introduction

Studies on mangrove fungi have concentrated on the marine component of the ecosystem (Hyde and Lee, 1995). There is also an important but poorly studied part of the mangrove ecosystem that receives little or no salt spray and is virtually terrestrial (Kohlmeyer and Kohlmeyer, 1979). This habitat has been neglected as far as saprobic fungi are concerned. Kohlmeyer (1969) reviewed the terrestrial fungi on *Avicennia* sp., *Hibiscus tiliaceus*, *Laguncularia racemosa* and *Rhizophora mangle*. George and Kenneally (1975) reported *Nectria* sp., *Pseudofavolus tenus* (Hook.) G.H. Cunn and *Phellinus gilvus* (Schw.) Pat. as terrestrial mangrove fungi. Terrestrial fungi have been reported sporadically from mangrove trees throughout the literature. Table 1 lists the terrestrial fungi reported on major and minor mangrove components as well as on the mangrove associates. The inventory was abstracted from Saccardo's *Sylloge Fungorum* (Volumes 1-26), Saccardo's omissions, Petraks lists (Volumes 1-8), Index of fungi (Volumes 1-6, 1991-1999) and other relevant literature. Only the terrestrial fungi (excluding lichenized fungi) on obvious mangal hosts are given. The terrestrial mangrove fungi that have been reported so far are mostly mitosporic and foliar.

Taxonomy

Mauritiana Poonyth, K.D. Hyde, Aptroot and Peerally, gen. nov.

Etymology: In reference to Mauritius where the fungus was first collected.

Ascomata globosa vel obovata, immersa, ostiolata, gregaria. *Asci* 8-spori, bitunicati, cylindricei vel cylindrico-clavati, dextrinoidei, ad apicem rotundati, et cum camera apiculi. *Ascospores* fusiformae, ad extrema rotundatae, hyalinae, 9-13-distoseptatae, septae crassae et pigmentatae.

Ascomata globose to ovoid, immersed beneath thin, brown, non-coriaceous fungal tissue. *Ostiole* central, periphysate. *Peridium* pseudostromatic, composed of several layers of thick-walled, elongated cells. *Pseudoparaphyses* filamentous, branched, septate, abundant. *Asci* 8-spored, bitunicate, cylindrical to cylindric-clavate, dextrinoid (IKI(lugol)+brown), apex rounded, with an ocular chamber. *Ascospores* smooth, fusiform, with rounded ends, hyaline to very pale brown, 9-13-distoseptate, non-amylloid (IKI-), septa thick, with dark pigmentation, slightly constricted at middle septum.

Type species: *Mauritiana rhizophorae* A.D. Poonyth, K.D. Hyde, A. Aptroot and A. Peerally.

Mauritiana rhizophorae Poonyth, K.D. Hyde, Aptroot and Peerally, sp. nov.

(Figs. 1-11)

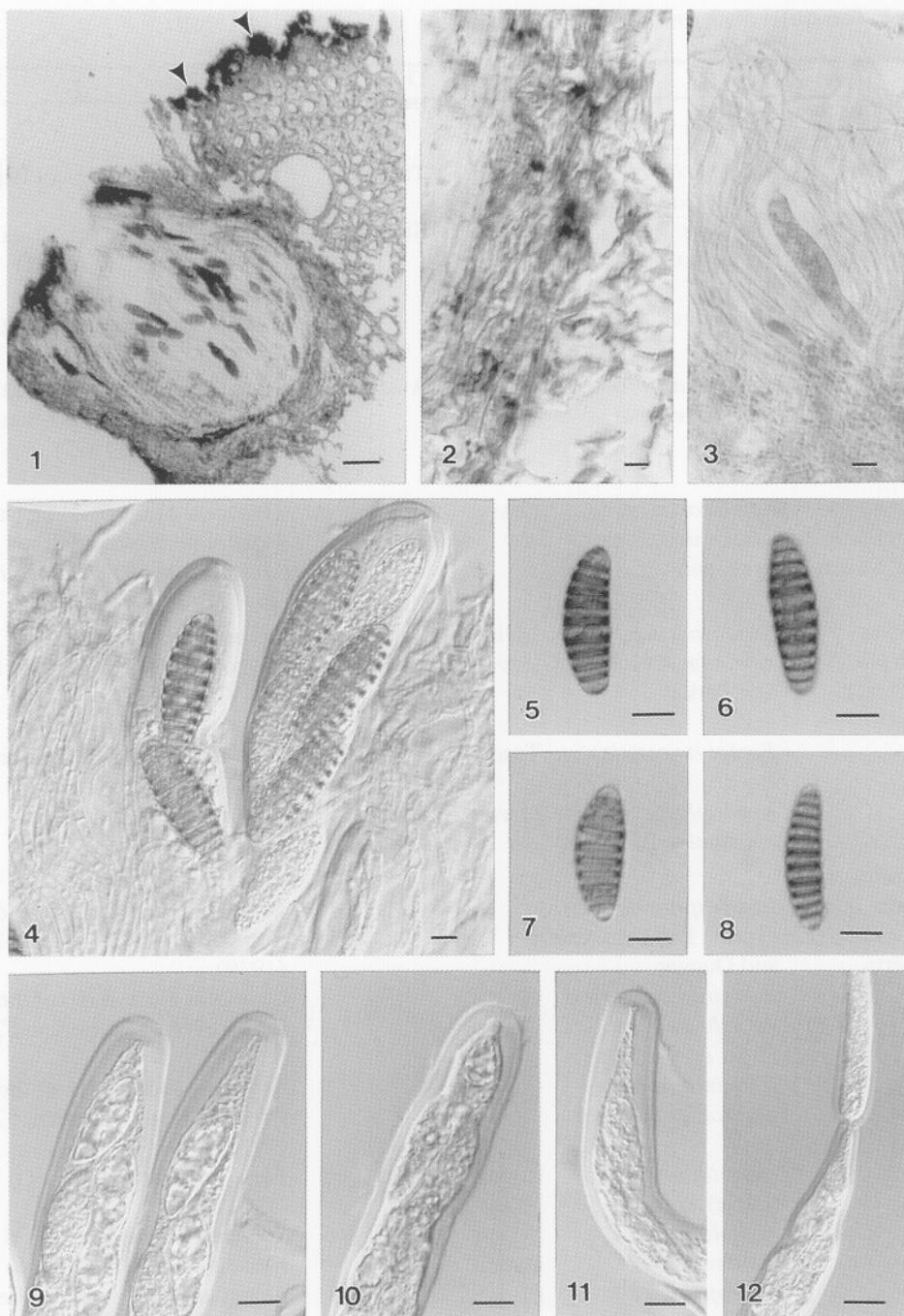
Etymology. In reference to the host, *Rhizophora mucronata*.

Ascomata 390-410 µm alta, 310-325 µm diam., globosa vel obovata, immersa, ostiolata, gregaria. *Peridium* 40-60 µm crassum. *Asci* 130-180 × 20-25 µm ($\bar{x} = 156 \times 21.8$, n = 10), 8-spori, cylindricei vel cylindrico-clavati, ad apicem rotundati, et cum camera apiculi. *Ascospores* 29-40 × 9-13 µm ($\bar{x} = 35.4 \times 11$ µm, n = 20) fusiformae, ad extrema rotundatae, brunneae, ad apicem cellulae pallidae, 9-13-septatae, septae crassae, ad medium septum leviter constrictae.

Ascomata 390-410 µm high, 310-325 µm diam., ovoid, immersed, substrate surface covered with a thin layer of brown pseudostroma, gregarious (Fig. 1). Neck short, ostiolate, 40-60 µm diam. (Fig. 1). *Peridium* 40-60 µm wide, thicker around neck, pale brown, darker around neck, made up of thick-walled irregularly elongated cells not arranged in distinct layers (Fig. 2). *Pseudoparaphyses* 1.5-2 µm diam., filamentous, septate, branched, numerous (Fig. 3). *Asci* 130-180 × 20-25 µm ($\bar{x} = 156 \times 21.8$, n = 10), 8-spored, cylindrical or cylindric-clavate, apex rounded, with an ocular chamber, short-pedicellate, thick-walled (Figs. 4-6). *Ascospores* 29-40 × 9-13 µm ($\bar{x} = 35.4 \times 11$ µm, n = 20), 2-3-seriate, smooth-walled, fusiform, with rounded ends, dark brown with paler apical cells, 9-13-distoseptate, septa thick, slightly constricted at middle septum, smooth-walled, lacking mucilaginous sheath (Figs. 7-11).

Host species: *Rhizophora mucronata*.

Known distribution: Mauritius.



Figs. 1-12. *Mauritiana rhizophorae* (from holotype). 1. Section through ascoma. Note the thin layer of fungal tissue (pseudostroma?) on the host surface. 2. Peridium. 3. Paraphyses and immature ascus. 4. Fissitunicate asci. 5-8. Ascospores with transverse septa and paler polar cells. 9-12. Asci showing thickening of the apical wall. Bars: 1 = 40 µm; 2, 4-12 = 10 µm; 3 = 20 µm.

Table 1. Terrestrial mangrove fungi.

Host	Fungi	Niche	Distribution	References
(A) Major components				
<i>Avicenniaceae</i>				
<i>Avicennia</i> spp.	<i>Eudimeriolum avicenniae</i> Hansf.	Leaves	Tanzania	Hansford, Mycological Papers 15: 52 (1946)
	<i>Inonotus cremeicinctus</i> Corner	Trunk	Singapore	Corner, Beihefte zur Nova Hedwigia 101: 71 (1991) (nom. inval.)
	<i>Irene sepulta</i> (Pat.) Toro	Leaves	-	Patouillard, Illinois Biological Monographs 2: 14 (1916)
<i>Avicennia eucalyptifolia</i> (Zipp.) Moldenke	<i>Botrytis argillacea</i> var. <i>avicenniae</i> McAlp.	Bark	Australia	McAlpine, Proceeding of the Royal Society of New South Wales 22: 701 (1897)
<i>Avicennia germinans</i> (L.) Stearn	<i>Sphaeronaema avicenniae</i> Gonz. Frag. and Cif.	Leaves	Dominican Republic	Gonzalez Fragoso and Ciferri, Boletin de la Sociedad Espanola de Historia Natural 26: 477 (1926)
<i>Avicennia marina</i> (Forsk.) Vierh.	<i>Cladosporium marinum</i> A.K. Pal and Purkay	Living leaves	West Bengal, India; Hong Kong	Pal and Purkay, Journal of Mycopathological Research 30: 175 (1992).
	<i>Fomes avicenniae</i> Bacc.	Trunk	Somalia	Baccarani, Mission Stefanini-Paoli: 193 (1916)
	<i>Kyphophora avicenniae</i> B. Sutton	Leaves	Queensland, Australia	Sutton, Sydowia 43: 268 (1991)
<i>Combretaceae</i>				
<i>Laguncularia racemosa</i> (L.) Gaertn.	<i>Botryosphaeria ribis</i> (Tode : Fr.) Grossenb. and Duggar	-	-	Seymour, Host index of the Fungi of North America: 522 (1929)
	<i>Botryosphaeria ribis</i> var. <i>chromogena</i> Shear et al.	-	-	Seymour, Host index of the Fungi of North America: 522 (1929)
	<i>Helminthosporium glabroides</i> F. Stevens	-	-	Seymour, Host index of the Fungi of North America: 522 (1929)
	<i>Irene lagunculariae</i> (Earle) Toro	Living leaves	Porto Rico	Earle, Muhlenbergia 1: 11 (1901)
	<i>Meliola nigra</i> F. Stevens	Living leaves	Porto Rico	Stevens, Illinois Biological Monographs 2: 505 (1916)
	<i>Micropeltis lagunculariae</i> G. Winter	-	-	Seymour, Host index of the Fungi of North America: 522 (1929)
	<i>Physalospora laguncularia</i> Rehm	Leaves	Brazil	Rehm, Hedwigia 40: 113 (1901)

Table 1. (continued).

Host	Fungi	Niche	Distribution	References
	<i>Schizothyrium lagunculariae</i> (G. Winter) v. Arx	Leaves	Brazil	Winter, Hedwigia 29: 159 (1890)
<i>Lumnitzera racemosa</i> Wild.	<i>Meliola pelliculosa</i> Syd. and P. Syd.	Living and wilting leaves	Philippines	Sydow and Sydow, Philippine Journal of Science 8: 480 (1913)
Palmae				
<i>Nypa fruticans</i> (Thunb.) Wurmb.	<i>Astrosphaeriella nypicola</i> (Cooke and Massee) K.D. Hyde and J. Fröhl.	Rachid	Brunei, Indonesia, Malaysia	Cooke, Grevillea 16: 92 (1888) Hyde and Fröhlich, Sydowia 50: 108 (1997)
	<i>Fasciatispora petrakii</i> (Mhaskar and V.G. Rao) K.D. Hyde	Rachid	Malaysia	Hyde and Alias, Mycoscience 40: 145 (1999)
	<i>Neolinocarpon nypicola</i> K.D. Hyde and Alias	Rachid	Malaysia	Hyde and Alias, Mycoscience 40: 148 (1999)
	<i>Oxydothis nypicola</i> K.D. Hyde	Rachid	Brunei	Hyde, Sydowia 46: 298 (1994)
	<i>Rhipidocarpon javanicum</i> (Pat.) Theiss and Syd.	Leaves	Indonesia, Philippines	Patouillard, Annales du Jardin Botanique de Buitenzorg, Suppl 1: 122 (1897)
Rhizophoraceae				
<i>Bruguiera gymnorhiza</i> (L.) Lamk.	<i>Phyllostictina elodea</i> Syd.	Dead leaves	Philippines	Sydow, Annales Mycologici 30: 110 (1932)
<i>Bruguiera hainesii</i> C.G. Rogers	<i>Helminthosporium subsimile</i> Sacc.	Languid and dead leaves	Singapore	Saccardo, Bulletin dell' Orto Botanico della Universita di Napoli 6: 61 (1918)
	<i>Meliola bruguierae</i> Syd.	Leaves	Philippines	Sydow, Leaflet of Philippine Botany 9: 3116 (1925)
	<i>Podosporium consors</i> Sacc.	Languid leaves	Singapore	Saccardo, Bulletin. Orto Botanico della Universita Napoli 6: 63 (1918)
<i>Ceriops tagal</i> (Perr.) C.B. Robinson	<i>Meliola ceriopsis</i> Hansf.	Living leaves	Brunei	Hansford, Sydowia 10: 68 (1957)
	<i>Meliola elodea</i> Syd.	Leaves	Borneo	Sydow, Annales Mycologici 36: 87 (1928)
<i>Rhizophora</i> L.	<i>Ascochytella rhizophoropsis</i> Cif. and Gonz. Frag.	Living leaves	Dominican Republic	Gonzalez Fragoso and Ciferri, Boletin de la Sociedad Espanola de Historia Natural 276: 76 (1926)

Table 1. (continued).

Host	Fungi	Niche	Distribution	References
<i>Rhizophora mangle</i>	<i>Tremates rhizophorae</i> Reich.	Trunk	Papua New Guinea	Reichardt, Fungi, Hepaticae et Musci: 139 (1870)
	<i>Cercospora rhizophorae</i> Creager	Leaves	Florida	Creager, Mycologia 54: 536 (1962)
	<i>Crepidotus krieglsteineri</i> Singer	Dead wood	Florida, U.S.A.	Singer, Zeitschrift für Mykologie 54: 70 (1988)
	<i>Leptothyrium rhizophorae</i> Gonz. Frag. and Cif.	Leaves	Dominican Republic	Gonzalez Fragoso and Ciferri, Publicaciones del Estacion Agronomia de Moca, Ser B. 13: 14 (1928)
	<i>Pestalotia disseminata</i> Thüm.	-	-	Guba, Monograph of <i>Monochaetia</i> and <i>Pestalotia</i> : 140 (1961)
	<i>Pestalotia guepini</i> Desm.	-	-	Seymour, Host index of the Fungi of North America: 522 (1929)
	<i>Pestalotia longiaristata</i> Maubl.	-	-	Guba, Monograph of <i>Monochaetia</i> and <i>Pestalotia</i> : 244 (1961)
	<i>Pestalotia versicolor</i> Speg.	-	-	Guba, Monograph of <i>Monochaetia</i> and <i>Pestalotia</i> : 233 (1961)
	<i>Pestalotia zahlbruckneriana</i> Henn.	-	-	Guba, Monograph of <i>Monochaetia</i> and <i>Pestalotia</i> : 187 (1961)
	<i>Phellinus gilvus</i> (Schw.) Pat.	-	-	Kohlmeyer, Transactions of the British Mycological Society 53: 243 (1969)
<i>Phoma rhizophorae</i> F. Tassi		Dead branch	West Africa	Tassi, Bulletino del Laboratorio ed Orto Botanico della Real Universita di Siena 3: 145 (1899)
	<i>Phomopsis rhizophorae</i> Bat. and H. Maia	-	Brazil	Batista <i>et al.</i> , Anais da Sociedade de Biologia de Pernambuco 13: 193 (1955)
	<i>Physalospora rhizophorae</i> Bat. and H. Maia	-	Brazil	Batista <i>et al.</i> , Anais da Sociedade de Biologia de Pernambuco 13: 195 (1955)
	<i>Physalosporopsis rhizophoricola</i> Bat. and H. Maia	-	Brazil	Batista <i>et al.</i> , Anais da Sociedade de Biologia de Pernambuco 13: 83 (1955)
	<i>Psathyrella rhizophorae</i> Singer	Dead young plants	Hawaii	Singer, Beiheft Sydowia 7: 74 (1973)

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Table 1. (continued).

Host	Fungi	Niche	Distribution	References
	<i>Pterosporidium rhizomorphae</i> (Kunze) W.H. Ho and K.D. Hyde	Living leaves	Bermuda	Ho and Hyde, Canadian Journal of Botany 74: 1827 (1996)
	<i>Pterosporidium rhizophorae</i> (Currey) W.H. Ho and K.D. Hyde	Living leaves	-	Ho and Hyde, Canadian Journal of Botany 74: 1828 (1996)
	<i>Trametes rhizophorae</i> - Reich.	-		Reichart, Fungi, Hepaticae et Musci: 139 (1870)
<i>Rhizophora racemosa</i> Meyer	<i>Pseudocercospora rhizophoricola</i> Deighton	Leaves	Sierra Leone	Deighton, Mycological Papers 140: 86 (1976)
<i>Rhizophora stylosa</i> Griff.	<i>Phyllosticta hiratsukae</i> Kobay. and Onuki	Leaves	Ryukyu Island, Japan	Kobayashi and Onuki, Reports of the Tottori Mycological Institute 28: 160 (1990)
Sonneratiaceae				
<i>Sonneratia caseolaris</i> (L.) Engl.	<i>Polystigma sonneratiae</i> Petr.	Leaves	Philippines	Sydow and Petrak, Annales Mycologici 29: 214 (1931); Hyde and Cannon, Australian Systematic Botany 5: 415 (1992)
<i>Sonneratia</i> sp.	<i>Polystigma sonneratiae</i> Petr.	Leaves	Queensland, Australia	Hyde and Cannon, Australian Systematic Botany 5: 415 (1992)
(B) Minor components				
Euphorbiaceae				
<i>Excoecaria agallocha</i> L.	<i>Colletotrichum</i> sp.	Living leaves	Hong Kong	Ho and Hyde, unpublished
	<i>Pestalotiopsis agallochae</i> A.K. Pal and Purkay.	Leaves	West Bengal, India	Pal and Purkayastha, Journal of Mycopathological Research 30: 173 (1992; nom. inval.)
	<i>Pseudocercospora</i> sp.	Living leaves	Hong Kong	Ho and Hyde, unpublished
	<i>Skierka agallocha</i> Racib.	Leaves	Java	Raciborski, Bulletin internationale de l' Académie de Sciences Cracovie, Classe mathématique et nature: 275 (1909)

Table 1. (continued).

Host	Fungi	Niche	Distribution	References
Meliolaceae				
<i>Xylocarpus granatum</i> Konig	<i>Meliola elodea</i> Syd.	Leaves	Borneo	Annales Mycologici 26: 87 (1928)
Myrsinaceae				
<i>Aegiceras corniculatum</i> (L.) Blanco	<i>Glomerella</i> sp.	Living leaves	Hong Kong	Ho and Hyde, unpublished
	<i>Lasiothyrium cyclochizone</i> Syd. and P. Syd.	Living and dead leaves	Manila, Philippines	Sydow, Philippine Journal of Science, Section C, Botany 8: 503 (1913)
	<i>Mycosphaerella</i> sp.	Living leaves	Hong Kong	Ho and Hyde, unpublished
	<i>Phaeothyrium pulchellum</i> Petr.	-	Hainan, China	Petrak, Sydowia 1: 12 (1947)
	<i>Setella halophila</i> F.E. Fisher	-	Queensland, Australia	Fisher, Proceedings of the Royal Society Victoria, NS 62: 159 (1950)
	<i>Sphaerostilbe dubia</i> Berk.	Bark	Australia	Berkeley, Australian Fungi: 313 (1881)
(C) Mangrove associates				
<i>Acanthaceae</i>				
<i>Acanthus ilicifolius</i> L.	<i>Mycosphaerella</i> sp.	Living leaves	Hong Kong	Ho and Hyde, unpublished
<i>Combretaceae</i>				
<i>Conocarpus erectus</i> L.	<i>Acanthostigma conocarpi</i> Tracy and Earle	Leaves	Florida, USA	Tracy and Earle, Bulletin of the Torrey Botanical Club 32: 186 (1901)
	<i>Cercospora conocarpi</i> Chupp and Muller	Leaves	Venezuela	Chupp and Muller, Boletin de la Sociedad Venezolana de Ciencias Naturales 8: 42 (1942)
	<i>Endothiella coccobolii</i> Roane	-	Bermuda	Roane, Chestnut blight, other Endothia diseases, and the genus Endothia: 36 (1986)
	<i>Moellerodiscus conocarpi</i> (Seaver and Waterston)	Dead leaves	Bermuda	Seaver and Waterston, Mycologia 34: 517 (1942); Dumont, Mycologia 68: 239 (1976)
	<i>Schizotrichum conocarpi</i> Seaver and Waterston	Fallen decaying leaves	Bermuda	Seaver and Waterston, Mycologia 38: 196 (1946)
	<i>Stictis conocarpi</i> Seaver and Waterston	-	Bermuda	Seaver and Waterston, Mycologia 33: 311 (1941)

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Table 1. (continued).

Host	Fungi	Niche	Distribution	References
<i>Terminalia catappa</i> L.	<i>Apiognomonia terminaliae</i> Katum. and Y. Harada	Leaves	Bonin Islands, Japan	Katumoto and Harada, Transactions of the Mycological Society of Japan 20: 418 (1979)
	<i>Cercospora catappae</i> Henn.	Leaves	Zanzibar	Hennings, Botanische Jahrbücher: 56 (1903)
	<i>Cercospora geraisensis</i> Chupp	Leaves	Brazil	Chupp, A Monograph of the Fungus Genus <i>Cercospora</i> : 115 (1954)
	<i>Diplodia catappae</i> Cooke	Nuts	Bengal, India	Cooke, Grevillea 4: 114 (1876)
	<i>Fomes terminaliae</i> S. - Ito and M. Imai	-	Japan	Ito and Imai, Transactions of the Sapporo Natural History Society 16: 125 (1940)
	<i>Fusicoccum microspermum</i> Har. and P. Karst.	Leaves	Dominican Republic	Hariot and Karsten, Revue Mycologique 12: 128 (1890)
	<i>Gloeosporium terminaliae</i> Syd. and E.J. Butler	Leaves	Burma	Sydow and Butler, Annales Mycologici 14: 219 (1916)
	<i>Gnomoniella catappae</i> Koord.	Leaves	Java	Koorders, Verhandelingen der Koninklijke Akademie van Wetenschappen te Amsterdam, Tweede Sectie, 13: 193 (1907)
	<i>Harknessia terminaliae</i> Sawada	Leaves	Taiwan	Sawada, Special Publications of the College of Agriculture of the National Taiwan University 8: 160 (1959; nom. inval.)
	<i>Hendersonia catappae</i> Petr.	Languid leaves	Philippines	Petrak, Annales Mycologici 26: (1928)
	<i>Hyphoderma vulkanense</i> Gilb. and Adask.	Dead plant	Hawaii	Gilbertson and Adaskaveg, Mycotaxon 49: 376 (1993)
	<i>Peroneutypella graphidiooides</i> Syd.	Dead wood	Philippines	Sydow, Philippine Journal of Science, Sect. C, 9: 163 (1914)
	<i>Phomopsis terminaliae</i> (P. Henn) B. Sutton.	-	Brazil and Zambia	Hennings, Hedwigia 48: 14 (1908); B. Sutton, The Coelomycetes, Fungi imperfecti with pycnidia, acervuli and stromata: 573 (1980)

Table 1. (continued).

Host	Fungi	Niche	Distribution	References
	<i>Phomopsis terminaliae</i> Sawada	Leaves	Taiwan	Sawada, Special Publications of the College of Agriculture of the National Taiwan University 8: 160 (1959; nom. inval.)
	<i>Phyllosticta latispora</i> Verwoerd and Du Plessis	Leaves	South Africa	Verwoerd and Du Plessis, South African Journal of Science 7: 230 (1909)
	<i>Phyllosticta catappae</i> Syd.	Leaves	Burma	Sydow, Annales Mycologici 14: 181 (1916)
	<i>Polyrhizon terminaliae</i> (Syd.) Theiss. and Syd.	Leaves	India	Sydow and Butler, Annales Mycologici 9: 401 (1911)
	<i>Pseudocercospora catappae</i> Goh and W.H. Hsieh	Leaves	Taiwan	Goh and Hsieh, <i>Cercospora and Similar Fungi from Taiwan</i> : 57 (1990)
	<i>Ramularia catappae</i> Racib.	Leaves	Java	Raciborski, Parasitische Algen und Pilze Javas 2: 41 (1900)
	<i>Sphaceloma terminaliae</i> Bitanc.	-	Brazil	Bitancourt, Archivos do Instituto Biológico 8: 197 (1937)
	<i>Trametes demoulinii</i> G. Castillo	Dead wood	Papua New Guinea	Castillo, Mycotaxon 51: 479 (1994)
Euphorbiaceae				
<i>Hippomane mancinellae</i> L.	<i>Ganoderma pulvurulentum</i> Murrill	Dry trunk	Grenada	Murrill, Bulletin of the Torrey Botanical Club 35: 121 (1908)
	<i>Meliola hippomaneae</i> Stevens	Living leaves	Panama	Stevens, Annales Mycologici 26: 284 (1928)
Goodeniaceae				
<i>Scaevola taccada</i> (Gaertn.) Roxb.	<i>Hyphoderma scaevolae</i> Boidin and Gilles	-	Reunion	Boidin and Gilles, Cryptogamie, Mycologie 12: 121 (1991)
Guttiferae				
<i>Calophyllum inophyllum</i> L.	<i>Dwibeeja sundara</i> Subram.	Bark	Singapore	Subramanian, Cryptogamie, Mycologie 13: 117 (1992)
	<i>Exosporium calophylli</i> Syd.	-	Philippines	Sydow and Sydow, Philippine Journal of Science, Sect. C, 9: 163 (1914)
	<i>Gloeosporium calophylli</i> Trel.	Fruits	Caroline Island	Trelease, Report of the Eclipse Expedition to Caroline Island: 90 (1883)
	<i>Macrophoma calophylli</i> Syd.	-	India	Sydow, Annales Mycologici 14: 188 (1966)

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Table 1. (continued).

Host	Fungi	Niche	Distribution	References
	<i>Polyporus ramosii</i> (Murrill) Sacc. and Trotter	Dead wood	Philippines	Murrill, Bulletin of the Torrey Botanical Club 35: 400 (1908)
<i>Calophyllum inophyllum</i> var. <i>tacamaha</i>	<i>Haplographium calophylli</i> Wiehe	-	Mauritius	Wiehe, Mycological Papers 29: 5 (1949)
Lecythidaceae				
<i>Barringtonia asiatica</i> (L.) Kurz.	<i>Gloeosporium barringtoniae</i> Stevens and Young	Leaves	Hawaii	Stevens and Young, Bernice Bishop Museum Bulletin 19: 144 (1925)
<i>Barringtonia racemosa</i> (L.) Spreng.	<i>Scolecotrichum barringtoniae</i> Viennot-Bourgin	Leaves	Madagascar	Viennot-Bourgin, Bulletin de la Société Mycologique de France 79: 108 (1963)
Leguminosae <i>(Caesalpinoideae)</i>				
<i>Caesalpinia bonduc</i> (L.) Roxb.	<i>Helminthosporium bonducellae</i> Henn.	Leaves	Brazil	Hennings, Hedwigia 43: 95 (1904)
	<i>Phaeoisariopsis caesalpiniae</i> J.M. Yen, A.K. Kar, B.K. Das	Leaves	West Bengal, Yen, Kar and Das, Mycotaxon India 16: 84 (1982)	
	<i>Phyllosticta bonduc</i> Stevens	Leaves	Puerto Rico	Stevens, Botanical Gazette 69: 256 (1920)
<i>Caesalpinia crista</i> L.	<i>Asterina ciferiana</i> Petr. <i>Meliola</i> <i>cylindrophora</i> Rehm	Living leaves	Dominican Republic	Petrak and Cifferi, Annales Mycologici 30: 155 (1932)
		Living leaves	Philippines	Rehm, Philippine Journal of Science, Ser. C, 8: 181 (1913)
<i>(Papilioideae)</i>				
<i>Dalbergia ecastophylla</i> (L.) Taub.	<i>Mycosphaerella devia</i> Petr. and Cif.	Living leaves	Dominican Republic	Petrak and Cifferi, Annales Mycologici 30: 210 (1932)
<i>Derris</i> sp.	<i>Phyllachora yapensis</i> subsp. <i>pongamiae</i> (Berk. and Br.) P.F. Cannon	Living leaves	Hong Kong	Ho and Hyde, unpublished; Cannon, Mycological Papers 163: 194 (1991)
<i>Derris trifoliata</i> Lour.	<i>Asterina derridis</i> Henn. <i>Hapalophragmum derridis</i> H. and P. Syd.	Leaves	Philippines	Hennings, Hedwigia 47: 260 (1908)
		Living leaves	Kenya and Madagascar	Sydow and Sydow, Hedwigia 40: 64 (1901)

Table 1. (continued).

Host	Fungi	Niche	Distribution	References
<i>Inocarpus fagifer</i> (Parkinson) Fosberg	<i>Diplodia inocarpi</i> Sacc.	Cortex of rotting fruit	Singapore	Saccardo, Bulletino dell' Orto Botanico della Regia Università di Napoli 24: 18 (1918)
	<i>Gloeosporium inocarpi</i> Sacc.	Fruit	Singapore	Saccardo, Bulletino dell' Orto Botanico della Regia Università di Napoli 24: 18 (1918)
	<i>Helotium inocarpi</i> Henn.	Leaves	New Guinea	Hennings, Botanische Jahrbücher der Systematik 18, Beibl. 44: 40
	<i>Mapea radiata</i> Pat.	Fruit	French Polynesia	Patouillard, Bulletin de la Société Mycologique de France 22: 46 (1906)
<i>Pongamia pinnata</i> (L.) Pierre	<i>Cercospora pongamiae</i> A.K. Kar and M. Mandal	-	West Bengal, India	Kar and Mandal, Transactions of the British Mycological Society 53: 351 (1969)
	<i>Cryptomyces pongamiae</i> (Berk. and Br.) Sacc.	Leaves	Sri Lanka	Berkeley and Broome, Fungi of Ceylon # 1128 (1880)
	<i>Dothiorella indica</i> Soni, Dadwal and Jamaluddin	Pods	India	Soni, Dadwal and Jamaluddin, Current Science 52: 601 (1983)
	<i>Eutypella pongamiae</i> G.P. Agarwal and Gypli	Dry twigs	India	Agarwal and Gypli, Proceedings of the National Academy of Sciences of India, Sect. B, Biological Sciences 58: 341 (1988)
	<i>Pseudocercospora pongamiae-pinnatae</i> M.R. Ram and Mallaiah	Living leaves	India	Ram and Mallaiah, Mycological Research 97: 127 (1993)
	<i>Ravenalia stictica</i> Berk. and Br.	Leaves	Sri Lanka	Berkeley and Broome, Fungi of Ceylon # 839 (1880)
	<i>Stigmatea pongamiae</i> Racib.	Leaves	Java	Raciborski, Parasitische Algen und Pilze Javas 3: 36 (1900)
	<i>Tryblidaria pongamiae</i> Ramchandra Rao	Dead branches	India	Ramchandra Rao, Mycopathologia et Mycologia Applicata 28: 359 (1966)
	<i>Urohendersonia pongamiae</i> Nag Raj and Ponnappa	Leaves	India	Nag Raj and Ponnappa, Current Science 37: 417 (1968)

Fungal Diversity

Table 1. (continued).

Host	Fungi	Niche	Distribution	References
Malvaceae				
<i>Hibiscus tiliaceus</i> L.	<i>Botryosphaeria ribis</i> var. <i>chromogena</i>	-	-	Shear, Stevens and Wilcox, Journal of Agricultural Research 28: 589 (1924)
	Shear, N.E. Stevens and Wilcox			
	<i>Capnobotrys hibisci</i> Mercado	Leaves	Cuba	Mercado, Acta Botanica Cubana 23: 2 (1984)
	<i>Cercospora hibisci</i> Tracy and Earle	Leaves	Louisiana, U.S.A.	Tracy and Earle, Bulletin of the Torrey Botanical Club 1895: 179 (1895)
	<i>Cercospora hibiscina</i> Ellis and Everh.	Leaves	Mexico	Ellis and Everhart, Proceedings of the Academy of National Sciences, Philadelphia 4: 38 (1895)
	<i>Colletotrichum hibiscicola</i> Rangel	-	Brazil	Rangel, Boletim de Agricultura 16: 321 (1915)
	<i>Dacrymyces intermedius</i> L.S. Olive	Dead twig	Tahiti	Olive, Bulletin of the Torrey Botanical Club 85: 108 (1958)
	<i>Diplodia natalensis</i>	-	-	Pole-Evans, Transvaal Agricultural Journal 4: 15 (1905)
	<i>Gloeosporium hibisci-tiliacea</i> Sawada	Living leaves	Formosa	Sawada, Report of the Department of Agriculture, Government Research Institute, Formosa 51: 106 (1931)
	<i>Gnomoniella hibisci</i> Sawada	-	Taiwan	Sawada, Journal of the Taihoku Society of Agriculture and Forestry 7: 126 (1942)
	<i>Hyphoderma crystallophorum</i> Gilb. and Adask.	-	Hawaii	Gilbertson and Adaskaveg, Mycotaxon 49: 374 (1993)
	<i>Hyphodontia aloha</i> Gilb. and Adask.	Dead branches	Hawaii	Gilbertson and Adaskaveg, Mycotaxon 49: 377 (1993)
	<i>Irenopsis molleriana</i> var. <i>major</i> Hansf.	Leaves	Puerto Rico	Hansford, Sydowia 10: 44 (1957)
	<i>Lasionectria dothideicola</i> Petch	Leaves	Sri Lanka	Petch, Annals of the Royal Botanic Gardens Peradeniya 9: 320 (1925)
	<i>Meliola procera</i> Cif.	-	Dominican Republic	Ciferri, Annales Mycologici 36: 220 (1938)
	<i>Meliola triumphetiae</i> F. Stevens	Leaves	Puerto Rico	Stevens, Illinois Biological Monograph 2: 498 (1916)

Table 1. (continued).

Host	Fungi	Niche	Distribution	References
	<i>Mollisia petiolorum</i> Cash.	-	Hawaii	Cash, Mycologia 30: 103 (1938)
	<i>Patellaria atrata</i> (Hedw.) Fr.	-	-	Cash, Mycologia 30: 103 (1938)
	<i>Phyllachora minuta</i> Henn.	-	-	Hennings, Hedwigia 41: 143 (1902)
	<i>Phragmodothis hibisci</i> Sawada	Leaves	Taiwan	Sawada, Special Publications of the College of Agriculture of the National Taiwan University 8: 55 (1959; nom. inval.)
	<i>Physalospora fusca</i> Stevens and Shear	-	-	Stevens and Shear, Mycologia 18: 210 (1926)
	<i>Physalospora hibisci</i> Racib.	Leaves	Java	Raciborski, Parasitische Algen und Pilze Javas 1: 17 (1900)
	<i>Sebacina gloeofilum</i> L.S. Olive	Dead branch	Tahiti	Olive, Bulletin of the Torrey Botanical Club 85: 22 (1958)
	<i>Sebacina minima</i> L.S. Olive	Rotting wood	Tahiti	Olive, Bulletin of the Torrey Botanical Club 85: 89 (1958)
	<i>Tulasnella bifrons</i> Bourdot and Galzin	-	-	Bourdot and Galzin, Bulletin de la Société Mycologique de France 29: 264 (1923)
	<i>Tulasnella pacifica</i> L.S. Olive	Dead wood	Tahiti	Olive, Mycologia 49: 665 (1957)
	<i>Tulasnella violea</i> (Quél.) Bourdot and Galzin	-	-	Bourdot and Galzin, Bulletin de la Société Mycologique de France 25: 31 (1909)
<i>Pavonia spicata</i> Cav.	<i>Meliola pavoniae</i> Cif.	-	Dominican Republic	Ciferri, Mycopathologia 7: 170 (1954)
<i>Thespesia populnea</i> (L.) Solander	<i>Ascochytella thespesiae</i> Frag and Cif.	Leaves	Dominican Republic	Gonzalez Fragoso and Ciferri, Boletin de la Sociedad Espanola de Historia Natural 28: 139 (1928)
	<i>Botryodiplodia thespesiae</i> Petr. and Cif.	Dead branch	Dominican Republic	Petrak and Ciferri, Annales Mycologici 28: 408 (1930)
	<i>Cercospora thespesiae</i> Thirumalachar and Narasimhan	-	India	Thiromalachar and Narasimhan, Sydowia 4: 66 (1950)
	<i>Haplosporella thespesiae</i> Cif.	Leaves	Dominican Republic	Ciferri, Sydowia 10: 155 (1957)
	<i>Hemidothis pellitiformis</i> Cif.	Leaves	Dominican Republic	Ciferri, Sydowia 10: 157 (1957)

Table 1. (continued).

Host	Fungi	Niche	Distribution	References
	<i>Phomopsis thespesiae</i>	Leaves	India	Padmabai Luke and Narayana Reddy, Current Science 48: 590 (1979)
	Padmabai Luke and Narayana Reddy			
	<i>Septoria thespesiae</i>	-	India	Ramakrishna and T.S. and K. Ramakrishna
				Ramakrishna, Proceedings of the National Academy of Sciences of India 26: 11 (1947)
Palmae				
<i>Oncosperma tigillarium</i> (Jack) Ridl.	<i>Dictyochaeta tumidoseta</i>	Dead raches	Malaysia	Kuthubutheen and Nawawi, Mycological Research 95: 1215 (1991)
	Kuthubutheen and Nawawi			
<i>Phoenix reclinata</i> Jacq.	<i>Exosporium preisii</i>	Leaves	-	Bubak, Annales Mycologici 2: 460 (1904)
	Bubak			
	<i>Rhabdospora phoenicis</i>	Dry branch	Portugal	Almo and Campbell, Boletim da Sociedade Broteriana 25: 55 (1909)
	Almo and L. Campb.			
Sapindaceae				
<i>Allophylus cobbe</i> (L.) Bl.	<i>Cercospora allophylorum</i>	-	West Bengal, India	Kar and Mandal, Indian Phytopathology 26: 679 (1973)
	Kar and Mandal			

Material examined: MAURITIUS, Grand Gaube, Melville mangrove, on dead decorticated *Rhizophora mucronata* wood still attached to living tree, Jan. 1995, A.D. Poonyth [HKU(M)10219, HOLOTYPE].

Discussion

The genus *Mauritiana* is introduced to accommodate the present collection of an undescribed fungus. *Mauritiana* is placed in the Pyrenulales *s.s.* (Melanommatales *s.l.*; Dothideales *s.l.*) as it has immersed ascomata, interascal tissue composed of branched pseudoparaphyses, thick-walled, fissitunicate asci, and brown, septate ascospores constricted at the middle septum (Hawksworth *et al.*, 1995). The relationships of *Mauritiana* are unclear, but it seems closest to *Requienella* in the *Requienellaceae* (Boise, 1986; Aptroot, 1991), because of the distoseptate, dextrinoid ascospores and the broad cellular pseudoparaphyses. It mainly differs by the partly hyaline ascospores which are mainly pigmented at the septa. It is thus related with lichenized fungi and seems best accommodated in the *Requienellaceae*. An attempt to identify the fungus using Luttrell's (1973) key for Loculoascomycetes led to the genus *Passeriniella* Berl. Ascomata of *Passeriniella* are immersed beneath a thin stroma, are composed of two distinct layers and have a relatively long,

erumpent, ostiolate neck, while those of *Mauritiana* are immersed beneath a thin layer of non-coriaceous fungal tissue and have only a short neck opening on the surface of the host (Hyde and Mouzouras, 1988). Both genera have transversely septate, brown ascospores, with paler apical cells, but the ascospores of *Passeriniella* are 3-septate, while those of *Mauritiana* have 9-13 septa (Hyde and Mouzouras, 1988; Kohlmeyer and Volkmann-Kohlmeyer, 1991). The family arrangement of *Passeriniella* is uncertain (Hawksworth *et al.*, 1995) and this is true of *Mauritiana*. *Passeriniella savoryellopsis* K.D. Hyde and Mouzouras and *P. obiones* (Crouan and Crouan) K.D. Hyde and Mouzouras, the only species two species comprising the genus *Passeriniella*, have been reported from intertidal mangroves (Hyde and Mouzouras, 1988; Kohlmeyer and Volkmann-Kohlmeyer, 1991).

One hundred and sixty-three fungi are listed from mangroves and mangroves associates in Table 1.

Acknowledgements

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References

- Aptroot, A. (1991). A monograph of the Pyrenulaceae (excluding *Anthracothecium* and *Pyrenula*) and the *Requienellaceae*, with notes on the *Pleomassariaceae*, the *Trypetheliaceae* and *Mycomicrothelia* (lichenized and non-lichenized ascomycetes). *Bibliotheca Lichenologica* 44: 1-178.
- Boise, J. (1986). *Requienellaceae*, a new family of Loculoascomycetes. *Mycologia* 78: 37-41.
- George, A.S. and Keneally, K.F. (1975). The flora of the Prince Regent river reserve. Dissertation, The University of Hong Kong.
- Hawksworth, D.L., Kirk, P.M., Sutton, B.C. and Pegler, D.N. (1995). Ainsworth and Bisby's Dictionary of the Fungi. 8th edn. Cambridge University Press, CAB International, U.K.
- Hyde, K.D. and Lee, S.Y. (1995). Ecology of mangrove fungi and their role in nutrient cycling: what gaps occur in our knowledge? *Hydrobiologia* 295: 107-118.
- Hyde, K.D. and Mouzouras, R. (1988). *Passeriniella savoryellopsis* sp. nov., a new ascomycete from intertidal mangrove wood. *Transactions of the British Mycological Society* 91: 179-185.
- Kohlmeyer, J. (1969). Ecological notes on fungi in mangrove forests. *Transactions of the British Mycological Society* 53: 237-250.
- Kohlmeyer, J. and Kohlmeyer, E. (1979). Marine Mycology. The Higher Fungi. Academic Press, New York.
- Kohlmeyer, J. and Volkmann-Kohlmeyer, B. (1991). Illustrated key to the higher marine fungi. *Botanica Marina* 34: 1-61.
- Luttrell, E.S. (1973). Loculoascomycetes. In: *The fungi. A taxonomic review with keys. Volume IVB* (eds. G.C. Ainsworth, F.K. Sparrow and A.S. Sussman). Academic Press, London, U.K.: 135-222.

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