

XYLARIACEAE FROM PAPUA AND NEW GUINEA

by R.W.G. DENNIS.

The species of Xylariaceae described below are among collections recently received at Kew from Miss P. A. WRIGHT, made during a short period of service with the Department of Forests, Papua and New Guinea. Opportunity has been taken to list with them such additional material of the family as has accumulated in the Kew herbarium from Papua, New Guinea, the western Pacific and Malaysia.

Xylaria Greville Fl. Edinensis 355, 1824, Nomen conservandum.

Xylosphaera Dumortier Commentationes Botanicae 91, 1822,
Subgenus *Penzigia* Sacc. & Paol. 1888, as genus.

Xylaria cranioides (Sacc. & Paol.) comb. nov.

Penzigia cranioides Saccardo & Paoletti in Atti R. Istit. Venet, Sci. Litt. et Arti, Ser. 6, 6, 406, 1888.

Stromata hemispherical, up to 4.5 cm diameter, sessile and attached by a papilla in centre of base, flesh white, drying pinkish buff with blackish streaks radiating from the point of attachment, solid at first but disintegrating with age; crust thin, brittle, carbonaceous, smooth, covered by a firmly adherent white film perforated by the black very slightly papillate ostioles; perithecia monostichous, crowded, completely immersed immediately beneath the crust. Asci uniseriate, 8-spored; ascospores inequilateral with rounded ends, one side flat or even slightly concave, 24-30 x 6-9 μ , germ slit straight and rather short. On dead wood. Fig. 1 A.

The species is obviously very close to *X. fockei* but probably separable by its less apiculate ascospores as well as by the broadly sessile stromata. It may also have a much more restricted distribution, all material so far seen is from the eastern tropics.

New Guinea: Morobe district, Bulolo, Taun Creek, 3500', on rotten wood on forest floor. 14.11.1956, P.A. Wright 58.

Malaya: Malacca (Typus); Kelantan, Gua Ninik, 26.10.1927, M.R. Henderson 19687.

Xylaria fockei (Miq.) Cooke in Grevillea 12, 8, 1884.

Xylosphaera fockei (Miq.) Dennis in Kew Bull. 14, 448, 1960.

Sphaeria fockei Miq. in Tijdschr. Wis.-Nat. Wet. 5, 198, 1852.

Xylaria dealbata Berk. & Curt. in Journ. Acad. Nat. Sci. Philadelphia Ser. 2, 284, 1853.

Penzigia dealbata (Berk. & Curt.) Sacc. & Paol. loc. cit. 407, 1888.

Xylaria ridleyi Masee in Kew Bull. 1898, 118, 1898.

Like the preceding but with cylindrical to subglobose stromata on a welldefined cylindrical stalk and conspicuously apiculate ascospores $24-33 \times 6-11 \mu$. The type of *Xylaria cretacea* Berk. & Br. from Queensland, Bailey 111, is very fragmentary but, if one relies on the apiculate ascospores, it may belong here rather than with *X. cranioides*. The species has a pantropical distribution; American and African collections have been cited by DENNIS 1957, 1961 and only tropical asiatic and australasian material is listed here. Fig. 1 B.

New Guinea: District Manokwari, Kebar valley, summit of Sobato hill, 650 m, on dead tree, 6.11.1954, P. van Royen 4957; Strickland River 1885, Bauerlen 1; Northern Division, Papua, 5 km north of Divinikoari village, on fallen trunk of *Artocarpus incisus*: 30 m, 20.8.1953, R.D. Hoogland 3697 A; Eastern Highlands, Kassam Pass, 4000', Mrs H.E. Brown; 5062; 23.1.1968, P.A. Wright FM 245; New Britain, Lakit, 2500', 2.4.1968, P.A. Wright FM 598; Gazelle Peninsula helicopter pad, 12.4.1968, P.A. Wright FM 995.

Queensland: Bellenden Ker, leg. Bailey.

Philippine Islands: Prov. Bataan, Mt. Mariveles, 9.4.1912, P.W. Graff, Camaranes Province, Paracales, Nov.-Dec. 1918, M. Ramos 33938;

Magallanes Province, Sibuyan, Mt. Giting-Giting, May 1910, A.D.E. Elmer.

Mindoro, Bacao river, March 1905, E.D. Merrill 4079; Los Banos, Mt. Maquiling, E.D. Merrill; Catanduanes, Nov.-Dec. 1917, M. Ramos 30602; Basilan island, Isabella Nov.-Dec. 1919, H.S. Yates 36203;

Fig. 1.

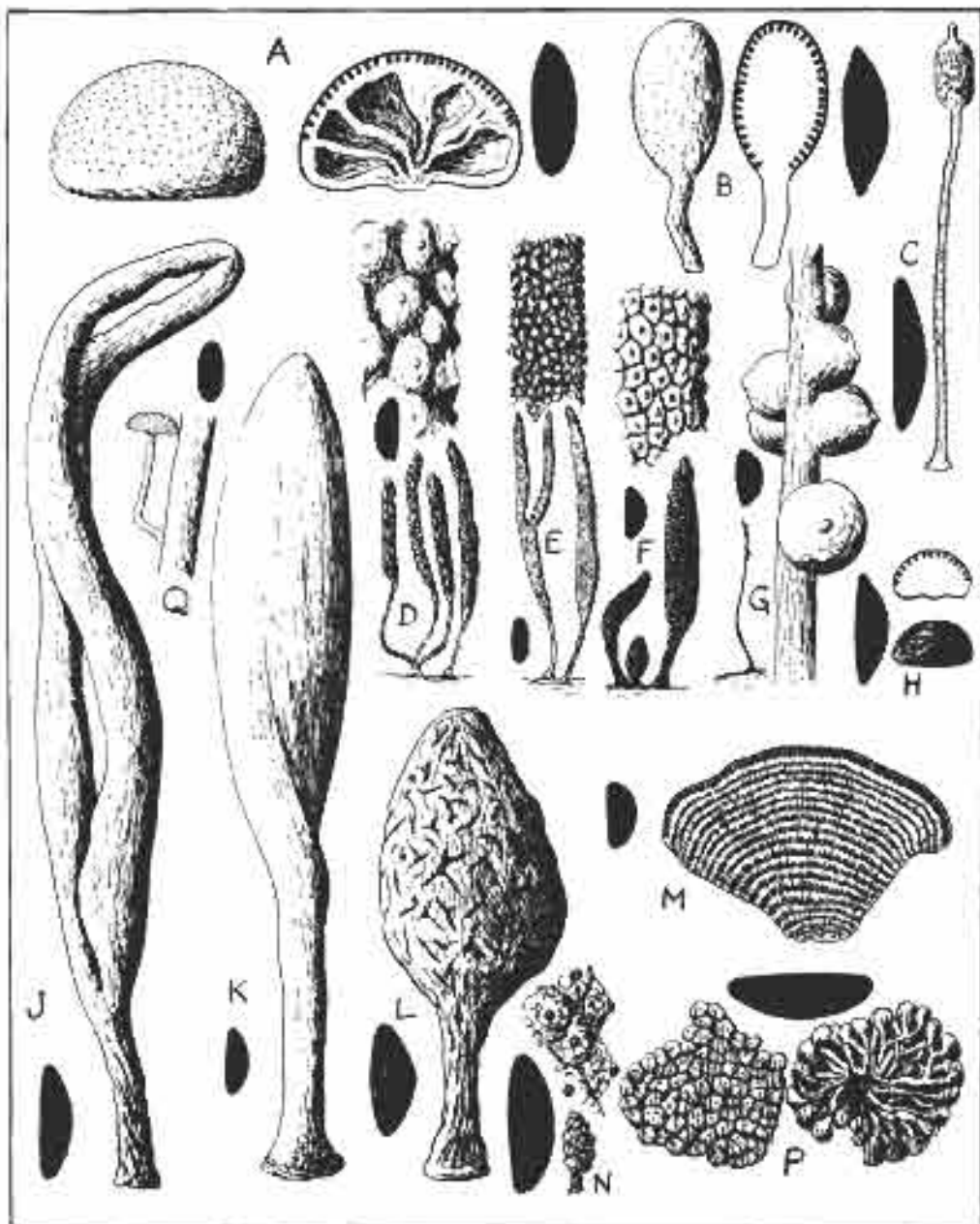
A. *Xylaria cranioides*. B. *X. fockei*. C. *X. eucephala*.

D. *X. adscendens*. E. *X. oligotoma*. F. *X. feejeensis*.

G. *X. warburgii*, natural size and portion enlarged. H. *X. fibula*.

J. *X. telfairii*. K. *X. papyrifera*. L. *X. schweinitzii*. M. *Daldinia concentrica* var. *eschschoelzii*, vertical section of stroma. N. *Xylaria anisopleura*. P. *Kretzschmaria tetra-rioides*, group of stromata from above and below. Q. *Poronia ustorum* (ascospore $\times 1000$).

Ascospores $\times 600$, in D.E.F. & N., portion of surface as seen under hand lens $\times C. 10$.



Sarawak Dulit, on log in mid-stream, 3.8.1932, Oxford Univ. Exp. S87.

Sabah : Sandakan, M. Ramos 2061.

Malaya : Singapore, Botanic Garden 1896 (Typus of *X. ridleyi*); Johore, Ulu Kahang 450', 2.6.1923, R.E. Holttum 10944; Federated Malay States, Taiping Hill, 3000' Aug. 1914, F.T. Brooks; Negri Sembilan, Gunong Angsi, 2000' 21.11.1923, M. Nur 11602; Kelantan, S. Ketch, Gua Ninik, 24.10.1927, M.R. Henderson 19619.

Xylaria papyrifera (Link) Fr. in Nov. Acta Reg. Soc. Sci. Upsal., Ser. 3, 1, 126, 1851.

Xylosphaera papyrifera (Link) Dennis in Kew Bull. 13, 105, 1958.

Sphaeria papyrifera Link apud Fries in Linnaea 5, 536, 1830.

Sphaeria allantodea Berk. in Ann. Mag. Nat. Hist. 3, 397, 1839.

Xylaria allantodea (Berk.) Fr. loc. cit. 126, 1851.

Hypoxylon obtusissimum Berk. in Ann. Mag. Nat. Hist. Ser. 2, 9, 202, 1852.

Xylaria obtusissima (Berk.) Sacc. Syll. Fung 1, 318, 1882.

Sphaeria zeylanica Berk. in Hooker's London Journ. Bot. 6, 513, 1847.

Hypoxylon domingense Berk. in Ann. Mag. Nat. Hist. Ser. 2, 9, 202, 1852.

Xylaria domingense (Berk.) Sacc. Syll. Fung. 1, 315, 1882.

Xylaria regalis Cooke in Grevillea 11, 86, 1883.

Xylaria emerici Berk. apud Cooke in Grevillea 11, 86, 1883.

Xylaria cynoglossa Cook in Grevillea 12, 1, 1883.

Xylaria obesa Syd. in Ann. Mycol. 5, 400, 1907.

X. composita Lloyd Mycol. Notes 6, 1055, 1921.

Stromata variable in shape, typically cylindrical-fusoid to allantoid with rounded apex and short stalk but often sessile. The type of *X. cynoglossa* has curiously flattened stromata. All have a smooth crust, often with a slightly coppery sheen, closely dotted with minutely papillate ostioles to give it a feel like fine sandpaper; ascospores 11-15x4.0 - 5.5 μ . Fig. 1K, an unusually long stalked form.

New Guinea : Madang district, Kar Kar island, 4.1.1968, on rotting wood, C. Ridadale, FM360 : 1.4.1968, P.A. Wright F.M. 304; Morobe district, Bulolo, on log, 21.11.1967, P.A. Wright F.M. 85; Taun Creek 14.11.1967, F.M. 60; Stickland river 1885, Bauerlen 2.

New Caledonia : J.F. Roberts 1886.

Queensland : Endeavour river; Tweed river, Typus of *X. cynoglossa*.

Malaya : Singapore Botanic garden, June 1902, H.N. Ridley 4919;

18.8.1920, F. Flippance 6163; Woodlands 15.10.1919, M. Noor 5380; Pahang, Ayer suria, 900', 20.5.1927, M.R. Henderson 18282; Negri Sembilan, Bukit Tangga, 1.12.1923, M. Nur 11838; Selangor, Port Swettenham, on mangrove, 25.1.1920, F. Chipp 5640; Penang, C.K. Bancroft, April 1911.

Christmas island : on *Inocarpus*, 10.7.1968, D.A. Powell 67.

India : Calcutta, Kurz 2659, type of *X. regalis*; Dehra Dun 25.7.1904, E.J. Butler 329.

All the above are subspecies *papyrifera* but subspecies *cubensis* (Mont.) Dennis with ascospores only $9-11 \times 4 \mu$ should be sought in New Guinea for there are collections so referred at Kew from Ceylon, Johore, Sarawak, Lord Howe island and Fiji.

Xylaria telfairii (Berk.) Fr. in Nov. Acta Reg. Soc. Sci. Upsal. Ser. 3, 1, 127, 1851.

Xylosphaera telfairii (Berk.) Dennis in Kew Bull. 13, 106, 1958.

Sphaeria telfairii Berk. in Ann. Mag. Nat. Hist. 3, 397, 1839.

Hypoxylon enterogenum Mont. in Ann. Sci. Nat. Bot. Ser. 2, 13, 342, 1840.

Xylaria enterogena (Mont.) Fr. loc. cit. 127, 1851.

Hypoxylon tabacinum Kickx in Bull. Acad. Roy. Soc. Brux. 8, 2, 76, 1841.

Xylaria tabacina (Kickx) Fr. loc. cit. 127, 1851.

Xylaria euglossa Fr. loc. cit. 124, 1851.

Sphaeria involuta Klotzsch ex Currey in Trans. Linn. Soc. London 22, 263, 1858.

Xylaria involuta (Klotzsch) Cooke in Grevillea 11, 84, 1883.

Xylaria wrightii Berk. & Curt. in Journ. Linn. Soc. Bot. 10, 380, 1869.

Xylaria thwaitesii Berk. & Cooke in Grevillea 12, 1, 1883.

Xylaria involuta var. *nigrescens* Sacc. in Ann. Mycol. 4, 75, 1906.

Usually elongated subcylindric stromata which soon become hollow and split longitudinally, crust thin, smooth, light brown, dotted with innate black ostioles; ascospores $18-22 \times 6-7 \mu$. Fig. 1J.

New Guinea : ? locality, W.E. de M. Armit; Koitaki, 1500', on large decayed log, 19.6.1935, C.E. Carr 12602; Morobe district, Bulolo, Menki, 14.9.1968, P.A. Wright 999; Wau subdistrict, Edie Creek, 6500', 10.6.1968, P.A. Wright FM 667; Madang district, Kar Kar island 4.1.196, FM 359; New Britain district, Lakit, 2500', 2.4.1968, P.A. Wright FM 591.

Queensland : Daintree River ; Russell river.
Sarawak : Dulit, 6.8.1932, Oxford Univ. Exp. S116 ; S119.
Java : Tjibodas, May 1923, Bruggeman 1315.
India : Assam, Khasia hills, Hooker s.n. ; Kala Panee, 5000', June 1850 ; Sikkim 7-8000', Oct. 1868, Kurz 2575.
Ceylon : Peradeniya, G.H.K. Thwaites 643.
Pantropical, for African and American material see Dennis 1957, 1961.

Subgenus *Xyloglossa* Fr. loc. cit. 124, 1851.

Xylaria anisopleura (Mont.) Fr. loc. cit. 127, 1851.

Xylosphaera anisopleura (Mont.) Dennis in Kew Bull. 13, 102, 1958.

Hypoxylon anisopleura Mont. in Ann. Sci. Nat. Bot. Ser. 2, 12, 348, 1840.

Xylaria tuberiformis Berk. Fl. Novae-Zelandiae, part 2, 204, 1855.

Xylaria haemorrhoidalis Berk. & Br. in Journ. Linn. Soc. Bot. 14, 117, 1873.

Xylaria huberiana P. Henn. in Hedwigia 41, Beiblat (17), 1902.

Small short-stalked stromata with protuberant perithecia and ascospores $21-30 \times 7-9 \mu$. Fig. 1N. Note the corky-warted surface and large ostiolar papillae in sketch of hand lens view.

New Guinea : Morobe district, Bulolo, 3500', on felled log. 12.12.1967, P.A. Wright FM 173.

New Caledonia : Mont Mou, R.H. Compton 707.

Queensland : Daintree river 1886, Pentzke.

Malaya : Singapore botanic Garden, 18.10.1913, E.M. Burkill 188 pars.

Christmas island : Murray hill track, oct. 1904, H.N. Ridley 236.

India Bombay 1862, H.J. Carter ; Simla, 21.7.1965, Thind 2603.

Ceylon : Peradeniya, Nov. 1867, G.H.K. Thwaites 31.

Xylaria feejeensis (Berk.) Fr. loc. cit. 128, 1851.

Xylosphaera feejeensis (Berk.) Dennis in Kew Bull. 13, 103, 1958.

Sphaeria feejeensis Berk. in Hooker's Journ. Bot. 1, 456, 1842.

Xylaria rhytidophloea Mont. in Ann. Sci. Nat. Bot. Ser. 4, 3, 101, 1855.

Xylaria fuegiensis Speg. in Bol. Acad. Nac. Ciencias, Cordoba 11, 68, 1887.

Xylaria antarctica Speg. loc. cit. 67, 1887.

Xylaria trivialis Speg. loc. cit. 135, 1889.

Xylaria obtusissima var. *polymorphoides* Rehm in Hedwigia 40, 144, 1901.

Xylaria brevipes Sacc. & Fairman in Journ. Mycol. 12, 47, 1906.

Xylaria brevipes var. *africana* Sacc. in Ann. Mycol. 4, 75, 1906.

Small, more or less cylindrical, obtuse stromata, with a finely reticulately cracked corky crust, up to about 40 x 5 mm; ascospores 8-10 x 4-4.5 μ . Fig. 1F.

New Guinea : Morobe district, Bulolo, 250', on rotting wood, 21.11.1967, P.A. Wright FM 92; 12.9.1968, FM 926.

Fiji : leg. R.B. Hinds, typus of *Sphaeria feejeensis*.

Queensland : Johnstone river, leg. Berthoud.

Philippine Is : Laguna Provinc, Mt Maquiling, near Los Banos, December 1915. C.F. Baker 300.

Malaya : Selangor, H.N. Ridley 71; Perak, Blanja, L. Wray 145.

India : Uttar Pradesh, Varanesi, on *Shorea robusta*, 28.8.1961, B.K. Chopra; Bihar, Soane river; Chamba, 13.10.1964, Kapoor 952.

Subspecies *faveolis* (Lloyd) Dennis, usually stouter stromata with fine white scales on the surface, though received from Ceylon, Malaya and Australia is not represented at Kew from New Guinea.

Xylaria schweinitzii Berk. & Curt. in Journ. Acad. Nat. Sci. Philadelphia Ser. 2, 281, 1853.

This is the tropical representative of *X. polymorpha* (Pers. ex St. Amans) Greville, with a less rugose crust to the stroma and ascospores 18-22 x 7-9 μ . Fig. 1L. The stroma does not always wrinkle as much as in the figured specimen on drying and the stalk may be lacking.

New Guinea : Eastern Highlands district : Kassam pass, 4000', on rotting wood, 23.1.1968, P.A. Wright FM 264.

New Caledonia : Mont Canala, R.H. Compton 1213.

Lord Howe Island : 13.9.1963, A.C. & W.M. Beaglehole 180.

Borneo : Herb. Berkeley.

Malaya : Singapore botanic garden 18.10.1913, E.M. Burkill 188 pars.

Thailand : H.B.G. Barrett 592, 5.11.1930.

India : Madras presidency, Palni Hills, 3000', 14.8.1933, G. Foreau 198.

Xylaria fibula Masee in Kew Bulletin 1906, 256.

This little fungus, with ascospores 21-24 x 6-7 μ , evidently belongs to the *X. polymorpha* series but its hemispherical sessile to subsessile

stromata, up to 1.3 cm diameter, seem distinctive. *Kretzchmaria rugosa* Earle 1905, from St. Kitts, West Indies, is very similar and may offer a slightly earlier epithet, but its type has slightly larger ascospores, 24-29 x 7-8 μ . Fig. 1H.

New Guinea : New Britain district, Kemerere logging area, Kerawat, 300', on rotting log, 11.3.1968, P.A. Wright F.M. 467.

Malaya : Singapore, Bukit Timak, 1899 (Typus).

Philippine Is : Mindanao, Davao, Todaya, 3700', April 1904, E.B. Copeland 1213.

Subgenus *Xylosphaera*.

***Xylaria eucephala* Sacc. & Paol. loc. cit. 1888.**

Fertile portion of stroma elliptic-cylindric, up to 8 x 4 mm. seated on a slender black stalk, villose below or throughout, and crowned by a short, pointed, sterile continuation of the axis; crust black, smooth, outline even or undulating over the completely immersed perithecia, covered at first by a thin grey-brown veil, which pulls apart into short, closely adherent, longitudinally-elongated scales; ostioles minute, slightly papillate. Ascospores inequilateral, slightly apiculate, 26-33 x 7-7.5 μ , with a long germ-slit. Fig. 1C.

New Guinea : New Britain district, Lakit, 2500', on rotten wood in covered very wet position, 2.4.1968. P.A. Wright F.M. 596.

Malaya : Malacca (Typus).

This is clearly very close to the well-known South American *X. comosa* (Mont.) Fr. which apparently differs in having the apex of the stroma usually divided into a crown of short branches. *Xylaria calocephala* P. Henn., from Lordberg, German New Guinea, December 1912, may be a synonym but was described as having relatively broader ascospores, 23-28 x 10-12 μ .

***Xylaria adscendens* (Fr.) Fr. in Nova Acta Reg. Soc. Sci. Upsal. Ser. 3, 1, 128, 1851.**

Xylosphaera hypoxylon subsp. *adscendens* (Fr.) Dennis in Bull. Jard. bot. Bruxelles 124, 1961.

Sphaeria (Cordyceps) adscendens Fries in Linnaea 5, 537, 1830.

Xylaria bidentata Pat. in Bull. Soc. mycol. France 11, 87, 1895.

Xylaria cristulata Lloyd Mycol. Notes 5, *Xylaria* notes 31, 1918.

This tropical representative of *X. hypoxylon* differs from the typical subspecies in having more completely immersed perithecia and smaller ostiolar papillae. Its ascospores, 11-14 x 4.5 μ , are larger than those of *X. multiplex* (Kunze) Fr., which it otherwise closely resembles. The

stromata are much longer and narrower than in *X. mellisii* (Berk.) Cooke and lack the pointed tip characteristic of the latter. The pantropical *X. mellisii* with ascospores $11-15 \times 4.5-6 \mu$, is known from India and Malaya and should be looked for in New Guinea. Fig. 1D.

New Guinea : New Britain district, Lakit, 2500', on rotten wood on forest floor, very wet. P.A. Wright F.M.

Xylaria oligotoma Sacc. & Paol. loc. cit. 1888.

Xylaria hypoxylodes Lloyd in Mycological Notes 7, 1252, 1924.

Stroma up to 40×2 mm, cylindrical or flattened, sometimes branched, with pointed tip and short strap-like stalk with discoid base, not villose; surface at first covered by a thin buff veil which splits longitudinally to expose the black crust, finely verrucose throughout; perithecia completely immersed. Ascospores olivaceous, ellipsoidal, with a long germ-slit, $7.5-9 \times 2.5-4 \mu$. Fig. 1E.

New Guinea : Morobe district, Bulolo, 2500', on side of rotten log., 21.11.1967, P.A. Wright F.M. 89; Lae subdistrict, Lae Botanic Garden, 30', 2.9.1968, F.M. 911.

Malaya : Malacca (Typus); Johore, near Kluang, R. Holttum 9322, 16.11.1922 (Typus of *X. hypoxylodes*); Kelantan, Gua Ninik, 26.10.1927, M.R. Henderson 19670; Perak, Blanja, L. Wray 154.

The verrucose crust probably indicates an affinity with *X. grammica* (Mont.) Fr. and *X. venustula* Sacc. but I have not seen *X. oligotoma* from other parts of the tropics.

Xylaria warburgii P. Hennings in Hedwigia 32, 224, 1893.

Stroma simple, filiform, villose towards the base, perithecia erumpent, scattered over the upper part of the stroma, ostioles papillate. Ascospores $10-11.5 \times 4.5-5 \mu$. All collections are on fallen capsules of *Sloanea* species. Fig. 1G.

New Guinea : Madang district, Kar Kar island, 4.1.1968, P.A. Wright FN 311; Morobe district, Bulolo subdistrict, Wau gorge, 3000', 28.12.1967, P.A. Wright F.M. 230.

Other collections on *Sloanea* capsules bear what appear to be conidial states of two species of *Xylosphaera* and it is not apparent which, if either, of these belongs to *X. warburgii*.

Daldinia Cesati & de Notaris Com. crittog. Ital. 1, 197, 1863.

Daldinia only differs from the large and cosmopolitan genus *Hypoxylon* Fries in the concentrically zoned flesh of the stroma. The latter is, however,

very much larger than in most species of *Hypoxylon*. Only one species is known from the area.

Daldinia concentrica (Bolt. ex Fr.) Ces. & de Not. var. *eschschoizii* Starback in Bihang K. Svenska Vet. Akad. Handl. Abd. III, 27, Nr. 9, 5, 1901.

Sphaeria eschschoizii Ehrenb. Horae Physicae Berolinenses 89, 1820 (devalidated name).

Daldinia eschschoizii (Starb.) Rehm in Ann. Mycol. 2, 175, 1904.

Daldinia luzonensis Rehm in Philippine Journ. Sci. 8, 260, 1913.

This well-known fungus, with ascospores $11.5-13 \times 5-6 \mu$, has a pantropical distribution and, indeed, is doubtfully separable from the north temperate var. *concentrica*. There are collections at Kew from India, Ceylon, Sumatra, Christmas I., Singapore, North Borneo, Philippine islands and New Caledonia in addition to those from tropical Africa and America cited by DENNIS 1913. Fig. 1M.

New Guinea : New Britain district, Lakit helicopter pad, 2500', on rotting wood, 2.4.1968, P.A. Wright F.M. 581; Gazelle peninsula, Matanakunai forest, 28.3.1968, F.M. 547; 31.3.1968 F.M. 579; Morobe district, Lae subdistrict, Busu, 20.8.1968, P.A. Wright F.N. 865; Manokwari district, Ajambore, 16.6.1956, C. Kalkman.

Kretzschmaria Fries Summa Veg. Scand. sect. post 409, 1849.

Rhopalopsis Cooke in Grevillea 11, 93, 1883.

Only one species is known from this area viz :

Kretzschmaria cetrarioides (Welw. & Curr.) Sacc. Syll. Fung 2, 1883.

Hypoxylon cetrarioides Welw. & Curr. in Trans. Linn. Soc. London 26, 282, 1868.

Rhopalopsis cetrarioides (Welw. & Curr.) Cooke in Grevillea 11, 94, 1883.

Xylaria puiggarii Speg. in An. Soc. Cient. Argent. 12, 1881.

Kretzschmaria pechuelii P. Henn. in Engler's Bot. Jahrbucher 14, 365, 1891.

Kretzschmaria novo-guineensis P. Henn. in Beiblatt 33 zu Bot. Jahrb. 15, 7, 1892.

Kretzschmaria lichenoides Rehm in Hedwigia 44, 6, 1904, non Saccardo Syll. Fung. 2, 1883.

Kretzschmaria paradoxa Pat. in Bull. Soc. mycol. France 8, 51, 1892.

Kretzschmaria botritis Lloyd in Mycological notes 6, 995, Sept. 1920.

Kretzschmaria singaporensis Sacc. in Bull. Orto Bot. Napoli 6, 48, 1921.

Differs from the type species of *Kretzschmaria*, *K. clavus* (Fr.) Sacc., in having the clavae densely clustered on a system of branched, flattened, thalloid stalks, radiating from a central point; pantropical but especially abundant in Africa. Fig. 1P.

New Guinea : Hügelleger, Sepik, 23.7.1913, C. Ledermann 12345; Milne Bay District, on a dead tree, 8.9.1954, R. D. Hoogland 4687.

Malaya : Gunong Angsi, January 1914, F.T. Brooks : Kuala Lumpur, on dying tree of *Hevea*; Negri Sembilan, Pontianak, February 1917, J.H. Burkill 4922.

Singapore, Botanic Gardens, on rotting logs, Sept. 1917, C.F. Baker (Typus of *K. singaporensis*); on dead *Hevea*, 22.12.1919, Sappan 5433 (Typus of *K. botritis*).

Tonkin : Typus of *K. paradoxa*.

Poronia Willdenow ex S.F. Gray Natural Arrangement of British Plants 1, 515, 1821.

Neither of the common Indonesian coprophilous species of *Poronia*, *P. oedipus* (Mont.), with ascospores $24-30 \times 13-17 \mu$, or *P. pileiformis* (Berkeley) Fr., with ascospores $8 \times 4 \mu$, has been received at Kew from Papua-New Guinea. In the absence of terrestrial, native, placental mammals this may not be surprising but *P. oedipus* has reached Queensland with imported domestic animals and must eventually be expected to appear in Papua-New Guinea in a similar context. The following little fungus originally referred to *Poronia* is not coprophilous and its true generic position remains uncertain, some relationship with *Neurospora* may not be impossible.

Poronia ustorum Pat. in Bull. Soc. mycol. France 3, 175, 1888.

Xylaria ustorum (Pat.) Dennis in Kew Bulletin 1957, 304.

Stroma erect, unbranched, with smooth, slender, white to pale buff stalk, abruptly expanded into a convex fertile head up to 7 mm across, with soft white to pale buff crust and even surface ornamented with convex, black, ostiolar papillae.

Perithecia immersed, closely spaced beneath the upper surface of the stroma. Flesh white, solid. Asci 8-spored, the apical ring blued by Melzer's reagent; ascospores uniseriate, elliptical, dark brown, $8-10 \times 3.5-5 \mu$.

Stromata attached to stems and roots of grasses in sand-dunes. Fig. 1Q.

New Guinea : Buse, south-east of Lae, 21.6.1972, Dr. E. Horak.

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