

History of systematic botany in Australasia

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Front cover illustration: *Correa baeuerlenii* F. Muell. by
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Aspects of Australian mycology: 1800–1900

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Abstract

The history of Australian mycology is generally poorly documented. Robert Brown initially recorded a few species of fungi from collections gathered during Flinders's voyage, 1801–1805. During the subsequent 70 years less than 20 papers were published on Australian fungi; by M. J. Berkeley on the collections of Cunningham, Gunn and Drummond and by E. M. Fries on the collections of Preiss. From 1873 to 1900, about 140 publications were contributed to the taxonomy of Australian fungi. Prominent authors included M. J. Berkeley, M. C. Cooke and C. Kalchbrenner. The focus of many of these publications can be often related to the collecting activities of botanists such as F. J. H. Mueller and F. M. Bailey. By 1892 approximately 2,000 fungal species were listed in Cooke's *Handbook of Australian fungi*.

By 1900 the most significant contributions by a resident mycologist were by D. McAlpine, the Victorian Government Vegetable Pathologist. His *Systematic arrangement of Australian fungi* (1895) included the first host index of Australian fungi.

Some of the important problems associated with the collection, naming and storage of Australian fungal taxa during the 19th century are illustrated by consideration of Australian Meliolaceae (black mildews).

Labillardière and the first description of an Australian fungus

The origins of Australian mycology can be traced to the D'Entrecasteaux expedition which sailed from France in 1791 in search of La Perouse. During this voyage the ships visited south-west Australia and Tasmania and extensive plant collections were made by the naturalist Jacques Labillardière. The fate of personnel and collections associated with this eventful expedition have been discussed by Carr and Carr (1981). An account of the voyage was published by Labillardière (1800). Two translations into English were made in the same year; a second edition was produced in 1802. On 1 May 1792, Labillardière was on the shore of Recherche Bay in southern Tasmania. He (Labillardière 1802, p. 156) recorded:

I was agreeably surprised with the singular form of a new genus of mushroom, which grew from the middle of the mosses with which the ground was covered. The disposition of its rays made me name it *aseroe*.

Its root consists of small filaments attached to a fungous tubercle, on which rests a volva, globular, whitish, and gelatinous, marked with seven *striae* without and within.

From the middle of this volva issues a reddish peduncle (*stipes*), nearly cylindrical, hollow throughout its whole length and open at its upper extremity, which, is expanded, of a beautiful red colour, and divided into six bifurcated rays, yellowish at their extremity.

This mushroom is smooth in every part. This new genus ought to be classed next to the *phallus* genus of Linnaeus.

The fungus was called *Aseroe rubra* on Plate XII. Labillardière later published descriptions of 265 species of plants in his *Novae Hollandiae plantarum specimen* (1804–1807). The appendix, first published in 1807,

included a Latin diagnosis of *Aseroë rubra*, the starfish fungus. This was the first fungus to be described from Australia.

Brown and Bauer

HMS *Investigator*, under the command of Captain Matthew Flinders sailed from England in July 1801. The accompanying scientific team included Robert Brown (botanist) and Ferdinand Bauer ('natural history painter'). During the next four years many botanical collections were obtained from various locations around the coast of Australia, including Tasmania and Norfolk Island. Brown and Bauer returned to England in 1805 with sketches and plant collections. Many plant specimens had been previously lost when Flinders attempted to return to England in the HMS *Porpoise* which unfortunately struck Wreck [Cato] Reef. Brown was directed by the Admiralty to describe new species from Australia as well as those plants collected in other Australian expeditions. Much of this work was completed by 1810 when his celebrated *Prodromus florae Novae Hollandiae* was published. The initial part of this work was planned to include the Acotyledons or cryptogams. Lack of interest in the publication caused Brown to withdraw it from sale and consequently no fungal descriptions ever appeared. However, he (Brown 1814) later contributed an appendix to Flinders's *A voyage to Terra australis* and listed ten fungal species, 'natives of both Terra Australis and of Europe'. These were *Agaricus alneus* L., *A. campestris* L., *A. muscarius* L., *Boletus igniarius* L., *Clavaria pistillaris* L., *C. coralloides* L., *Peziza scutellata* L. *Rhizomorpha setiformis* Pers., *Sphaeria ophioglossoides* Pers., and *Tubercularia vulgaris* Pers. Although no locations were given, this list indicated that Australian fungi were probably more cosmopolitan than the

flowering plants. The small number of fungi contrasted with a complementary list of 58 lichens in the same appendix. Brown also remarked that, 'with regard to the proportion of Acotyledons in Terra Australis, it is necessary to premise that I consider my collections of some of the Cryptogamous orders, especially the Fungi, as very imperfect' (Brown 1814, p. 538).

Ferdinand Bauer sketched more than 1,700 Australian plants. On his return to England he was commissioned by the Admiralty to complete paintings of plants to be selected by Robert Brown and Joseph Banks. Of a group of 236 Bauer paintings in the British Museum (Natural History), Nos. 230–236 are of nine species of fungi. However, none of the names correspond with Brown's list and no locations are given. One of the works is an illustration of *Aseroë rubra* Labill.

Gaudichaud and Persoon

Charles Gaudichaud-Beauprè was the botanist on the Freycinet expedition to the west coast of Australia and New South Wales in 1818–1819. Extensive plant collections were made in these areas although relatively few species were described by Gaudichaud (1826–1830) in Freycinet's *Voyage autour du monde . . . exécuté sur les corvettes de S.M. l'Uranie et la Physicienne*. The few fungi and lichens collected during this voyage were determined by C. H. Persoon. Only one species, *Cladoderris dendritica* Pers., was later listed in English mycological literature. Between 1800 and 1838 at least six other French expeditions came to some part of Australia and were involved in botanical collections. No information has been found concerning either collection or identification of fungi.

Berkeley and his collectors

Between 1817 and 1831, Allan Cunningham (the 'King's Botanist') travelled extensively throughout Australia and amassed large plant collections. The specimens were mostly sent to Kew and included fungi, some of which were described by the Rev. M. J. Berkeley in 1839. Our knowledge of Cunningham's interest in fungi is fragmentary although comments are made in his journals: 'A curious species of Fungi, *Agaricus*, of a yellowish colour, which upon being broken and exposed to air immediately assumed a blue tint' (6 May 1817; Lee 1925, p. 204.)

It could also be presumed that some of the fungi Berkeley described as being found in 'Illawarra' are Cunningham collections, because of his collecting excursions to the area. Whether the contemporary Colonial Botanist, Charles Fraser, also collected and forwarded specimens of fungi to England is unknown.

Robert Lawrence became W. J. Hooker's botanical correspondent in Tasmania in 1830. He died only three years later but, in the interim, had introduced R. C. Gunn, his friend and co-collector, to Hooker. Gunn continued the scientific association with Hooker in Glasgow. By 1840 he was private secretary to Governor Franklin and secretary of the Tasmanian Natural History Society. During the period from 1832 to 1850, Gunn 'collected indefatigably over a great part of Tasmania . . . and collected large suites of specimens with singular tact and judgment. They have all been transmitted to England in perfect preservation and are

accompanied with notes that display remarkable powers of observation' (Hooker 1859 p. cxxv). Fungal specimens collected by Lawrence and Gunn were forwarded to Berkeley in England. He described some of these in *Annals of Natural History* (Berkeley 1839). This represents the first English taxonomic treatment of Australian fungi — 50 years after settlement began! Berkeley (1845) continued to describe Tasmanian fungi in the *London Journal of Botany* and named two of the more unusual species in honour of Gunn: *Cordyceps gunnii* Berk. ('vegetable caterpillar') and *Cyttaria gunnii* Berk. [parasitic on *Nothofagus cunninghamii* (Hook.) Oersted.]. On separate occasions, in 1840 and 1841, J. D. Hooker spent time with Gunn in Tasmania while attached to the Antarctic Expedition of Capt. Ross in the HMS *Erebus* and HMS *Terror*. Again, many fungi were collected and given to Berkeley. These fungi, plus collections made by William Archer between 1847 and 1857, form the basis of Berkeley's (1859) contribution to Hooker's *Flora Tasmaniae*. In his introductory statement Berkeley (1859, p. 241) wrote:

The great characteristic of Tasmanian Fungi, of which 275 species are here enumerated, is their identity with or close relation to European forms. A very few only partake of a subtropical nature while no considerable number of species exhibit any striking peculiarity . . . The three genera which abound most in species are *Agaricus*, *Polyporus* and *Peziza*. About eight species only can be considered as peculiarly Australian.

Berkeley described 99 new species of fungi from Tasmania in Hooker's *Flora Tasmaniae*. However, Archer deserves special mention as he contributed specimens of 211 species (77% of the total). Berkeley reflected this effort by giving the epithet 'archeri' to at least 15 of the species.

During the period Gunn and his associates were collecting fungi in Tasmania, James Drummond (excursioner of the Botanic Gardens in Cork, Ireland) had emigrated to the Swan River Colony in 1829. It is rather coincidental that he travelled in the *Parmelia*, a name also applied to a large group of lichenised fungi, specimens of which he later collected. Drummond's plant collections remain as some of the most extensive from Western Australia and also contained some fungi. In a letter to W. J. Hooker in 1843 mention was made of the collection of 300 species of fungi (Erickson 1969, p. 74). About 130 fungal specimens were forwarded via Hooker to Berkeley, who described and published some of them in Hooker's *Journal of Botany* (1845). Drummond (1841) also wrote to Hooker on the luminescence of fungi, a topic which also attracted casual attention from other botanists for many years; he also recorded the use of geocarpic fungi as food by small marsupials (Erickson 1969).

Fries and Preiss

From 1838 to 1842, Ludwig Preiss engaged in natural history collections in southwest Australia. His systematic approach to collecting specimens was reflected in a public offer to sell shares for potential collections (Ducker 1981). In addition to a wealth of plant specimens a largely unknown number of fungi were obtained. It is also known that Preiss accompanied Drummond on some excursions although their contrasting personalities often led to friction. When Preiss

returned to Europe in 1842 the remaining collections were sold and/or dispersed to specialists for taxonomic studies. The fungi and lichens were observed and described by Elias M. Fries, 'the Linnaeus of mycology' (Hawksworth *et al.* 1983, p. 151) and he (Fries 1847) published an account of 40 species of fungi in J. G. C. Lehmann's *Plantae Preissianae* (1844–1848). The apparent disregard this work received from plant taxonomists in Britain also applied to mycologists as it took 40 years for the species to be included in English scientific journals (e.g. Cooke 1882).

Mueller, Kalchbrenner and other resident botanists and collectors

In 1847 Dr Ferdinand Mueller emigrated to South Australia. He was subsequently appointed Government Botanist of Victoria in 1853. In almost 50 years in this country Mueller made a botanical contribution of unequalled magnitude and value. Early in his career he travelled extensively throughout Australia and amassed a large herbarium. During this period, and later, Mueller organized a large number of amateur (and paid!) collectors to forward specimens to Melbourne. Most of his attention was given to the taxonomy of flowering plants while 'having wisely forwarded all the Musci and following Orders of Cryptogams to European specialists' (Bailey 1891). The extent of Mueller's own fungal collections is unknown but it was probably of some significance.

Although perusal of literature concerning Australian fungi gives an impression of mycological inactivity in a 25 year period (from 1848 to 1873) Mueller and others apparently continued to supply European mycologists with specimens. Berkeley (1873) initiated publication of these specimens and was followed by Thümen (1875, 1878), Kalchbrenner (1876) and Berkeley and Broome (1880, 1882, 1886). Taxonomy of the Australian mycoflora was receiving increasing attention in a variety of European scientific journals. Berkeley (1877) also enumerated some Australian fungi collected by H. N. Moseley during the expedition of HMS *Challenger*. The location 'Pennant Hills, Parramatta' suggests that Moseley was assisted by that enthusiastic botanist, Rev. W. Woolls. Mordecai C. Cooke began his extensive series of papers on Australian fungi in *Grevillea* in 1880 and continued the series until 1894. Mueller compiled 11 volumes of his *Fragmenta phytographiae Australiae* between 1858 and 1881 and commissioned Cooke (1883) to produce a supplement called *Fungi australiani*. It was 'an enumeration of the species hitherto recorded as occurring in Australia, Tasmania, Lord Howe's Island, etc. exclusive of New Zealand) with figures of some species described by the Rev. C. Kalchbrenner.' About 1,200 species were listed including 45 new names and descriptions (see Table I). It was the first attempt to compile a fungus 'flora' of Australia from various British and European sources. Apparently *Fungi australiani* did not become widely known as 'the bulk of the copies were lost at sea' (Cooke 1892). The publication gave some indication of the distribution of fungal taxa in Australia (by states or territories) and of their collectors. Some of the more frequently mentioned collectors were:

Queensland: W. E. Armit, F. M. Bailey, T. L. & J. Bancroft, L. A. Bernays, E. M. Bowman, J. Dallachy, C. H.

Hartmann, J. Keys, T. Pentske, W. Persieh, B. Scortechini, J. E. Tenison-Woods, M. A. Thozet, H. Tryon.

New South Wales: Miss Bate, H. Beckler, A. Camara, M. Hodgkinson, R. Thornton, T. F. Willcox, W. Woolls, W. Guilfoyle, C. Stuart.

Victoria: F. M. Campbell, C. French, F. Reader, H. T. Tisdall.

South Australia: R. M. Schomburgk, J. G. O. Tepper.

Mueller also named and described some Australian fungi — probably more than the four species given by Muir (1979). Mueller (1885) published notes on the botany of Norfolk Island (based on specimens collected by Mr Isaac Robinson). A list of nine fungi was included, to which J. H. Maiden (1903) added another four species.

Hoare (1981) has documented the efforts of botanists and others who 'cultivated science' to form scientific societies in the eastern states. By 1874 all states, with the exception of Queensland, had an active 'Royal Society' and the Linnean Society had begun to publish in New South Wales. The first paper in a journal of these societies to extensively discuss Australian fungi was written by J. E. Tenison-Woods and F. M. Bailey in 1880. In a comment on Australian botany the authors stated that fungi 'have never been approached in a systematic manner by any author . . . We purpose to furnish a contribution to Australian mycology and so far as possible to popularize the subject with a view to stimulate enquiry' (Tenison-Wood & Bailey 1880, p. 50). It should be noted that this paper and subsequent contributions by Bailey in his *Synopsis of the Queensland flora* (1883–1890) largely reiterated lists and descriptions of fungi given in British journals. There were still no taxonomic mycologists in Australia and this situation contrasted with growing local activity in studies of Australian lichens (Wilson 1887; Shirley 1889). In 1883, Kalchbrenner (1883a-c) contributed three papers to the *Proc. Linn. Soc. New South Wales* in which 18 new species of basidiomycetes were described. They constitute the first taxonomic treatments of fungi in an Australian journal. Mueller, in an introductory note to one of the papers, commented in his inimitable style that, 'Though now at a far advanced evening of life and no longer enjoying unimpaired eyesight, the Hungarian Divine has elaborated some more Australian fungaceous plants . . .' (Mueller in Kalchbrenner 1883c, p. 638). It seems that Mueller was unable to cajole other European mycologists to publish in Australia.

Another group of enthusiasts who actively attempted to arouse some scientific interest in fungi were members of the Field Naturalists Club of Victoria. Miss F. M. Campbell and H. T. Tisdall frequently displayed fungi at meetings and wrote articles on their distribution, edibility, general biology and vegetable pathology (Campbell 1887; Tisdall 1884, 1889a,b, 1890). Both these members, as well as others, were encouraged to give specimens to Mueller. In turn he 'promised to forward to an eminent botanist in Switzerland who has made the order Phalloidei, his special subject' (presumably Ed. Fischer) or would 'kindly forward the fungus (sic) to Professor Cooke for

classification' (Tisdall 1889a, p. 110). Perhaps some of the impetus for general studies of fungi in the 1880s can be traced to the early writings of F. M. Bailey (1878). He provided glowing descriptions of the beauty of fungi in tropical forests and prophesied that fungi 'will some day yield a rich harvest to the Mycologist' (Bailey 1878, p. 279).

Fungi and agriculture

Virtually all food and fibre crops grown in Australia, as well as many pasture and fodder plants, have been introduced from other regions. It is not surprising that many fungal pathogens were introduced on seed and clonal material, or that indigenous fungi were provided with a new range of hosts. In fact, fungal diseases of crop plants have been one of the major limiting factors in Australian agriculture. A comprehensive review of the historical impact of cereal rusts was compiled by Waterhouse (1936). It is pertinent to recall that a dispatch from Governor Hunter (1796) probably gave the earliest reference to 'blight' in wheat crops.

'Rust' and 'smut' appeared as early as 1803 (King 1804) and mildews (Dawson 1830) some time later. There is little doubt that the first century of cereal growing in Australia was constantly plagued by fungal diseases. However, Cooke (1883b) was able to list only six rusts of crop plants and a few smuts from Australia. This situation reflected a lack of interest (or ignorance) of microfungi and especially plant pathogens. A few years earlier, Tenison-Woods and Bailey (1880, p. 56) had attempted:

to call attention to the very great importance which the study of fungi possesses for a young country like ours, which depends so much upon its agriculture. Sad experience has taught us how its prospects may be injured by blight, mildews, smuts, rusts, etc. Little or nothing is known about the origin and spread of these terrible pests, and it is equally certain that if they were known they would in measure be provided against. Although by many mycologists the polymorphy of these blights has been doubted, yet experience seems to have decided that a blight of one kind affecting one class of plants may be transformed into a mildew or rust amongst cereal crops.

By the late 1880s rust epidemics in wheat crops had caused such concern that 'Rust in Wheat Conferences' were convened with delegates from each state. In the context of increasing awareness of the causes of plant disease, the New South Wales and Victorian governments decided to employ 'vegetable pathologists' in 1890. One of the appointees, Daniel McAlpine in Melbourne, was to become the founder of fungal systematics in Australia. Scientific co-operation was also gathering momentum as evidenced by the formation of the Australasian Association for the Advancement of Science. At the fourth meeting in Hobart F. M. Bailey contributed a comprehensive paper on 'fungus blights ... [on] living vegetation in the colony of Queensland' (Bailey 1893).

Edible fungi

During the first century of European settlement in Australia it is difficult to ascertain the degree to which people utilized fungi in their diet. It would be unusual if attempts were not made to utilise various

'mushrooms' similar to those consumed in Europe. The outcomes of early mycophagous experiences are largely unknown although most rural communities have certain guide-lines (or folklore) for selecting fungi. In general, Australians are very conservative in their consumption of fungi. Some reports of the uses of fungi by aborigines were recorded by early settlers. Meyer (1843) noted that puff-balls (*Lycoperdon* Pers. spp.) were eaten in South Australia. Another puff-ball [*Pisolithus tinctorius* Mich. ex Pers.] Coker & Couch] and the desert truffle [*Elderia arenivaga* (Cooke) McLennan] were eaten in Central Australia and also supplied 'potable water'. However, various taboos in certain tribes prohibited the eating of gilled fungi (Latz 1982). Probably the most frequent early reference to aboriginal use of fungi concerns *Polyporus mylittae* Cooke & Masee (native or 'blackfellows' bread). The large subterranean sclerotium (up to 20 kg) was dug up and eaten by various tribes throughout southern Australia. Berkeley (1839) gave a detailed description of the sclerotium (as *Mylitta australis* Berk.) and noted that 'this is the species of *Tuber* mentioned by Mr Backhouse in his account of the esculent plants of Van Diemens Land' (p. 325). Hooker (1859) included this fungus as well as *Agaricus campestris* L. ex Fr. (common mushroom) and *Cyttaria gunnii* Berk. in a list of the 'esculent plants of Australia'.

Cooke's *Handbook of Australian fungi* and taxonomy today

By 1892, M. C. Cooke had collated virtually all publications on Australian fungi and compiled his *Handbook of Australian fungi* (see Table I). In the preface he (Cooke 1892) wrote:

It is not supposed that the present work is by any means exhaustive . . . since those [fungi] which are so minute as to require the aid of a pocket lens are far below the number which would be reasonably expected to occur over

Table I
Comparison of numbers of species listed in 'families' and 'orders' in Cooke's *Fungi australiani* (1883) and *Handbook of Australian fungi* (1892)

Fungal Groups	1883	1892	% increase
Hymenomycetes — Agaracini	366	542	
Polyporei	247	375	
Hydnei	32	46	
Thelephorei	87	130	
Clavariaceae	29	49	
Tremellini	23	32	
Total	784	1,174	49.7
Gasteromycetes — Phalloideae	27	28	
Nidulariaceae	12	15	
Lycoperdaceae	67	121	
Hymenogastreae	5	10	
Total	111	174	56.7
Hypodermeae (Aecidiomycetes)	49	101	106.1
Ascomyceteae — Tuberoideae	2	4	
Discomyceteae	84	134	
Hysteriaceae	4	12	
Pyrenomyceteae	90	190	
Total	180	340	88.9
Phycomyceteae	4	12	200.0
Fungi Imperfecti — Sphaeropsidae	8	114	
Hyphomyceteae	47	114	
Total	55	228	314.5
Myxomycetes	32	48	50.0
Total fungi	1,215	2,077	70.9

such a large expanse of country . . . Interested persons will possibly take exception to the omission of the names of collectors under each individual species, but as this could not be done for lack of the necessary information in all cases, it was considered advisable not to attempt it in any. Moreover, this could hardly be classed as 'scientific information' and would in no way have contributed to the practical value of the volume.

For many years this was the standard text on Australian fungi. As was the case with higher plant tax

onomists using Bentham's *Flora australiensis* (1863–1878) Australian mycologists later experienced difficulties in establishing species locations and herbarium specimens. In a monograph of the Australian species of *Amanita* Pers. ex Hook., D. A. Reid (1979, p. 1) commented:

It is a sobering thought that, hitherto, anyone wishing to name an Australian *Amanita* had to resort to M. C. Cooke's *Handbook of Australian fungi*. This provided minimal microscopic data . . . limited to spore size with occasional mention of spore shape. These meagre data were totally unreliable and misleading.

A group of little known parasitic fungi, the black mildews, further illustrates the relationship between fungal taxonomy in the late 19th century and today. At present, this group of melioline fungi (Meliolaceae) in Australia consists of four genera and over 100 species (Parbery, unpubl.). Cooke (1892) and Bailey (1893) listed a total of 11 species of *Meliola* Fr. on various host plants in Australia. These are summarized in Table II, together with the meagre data supplied by these authors concerning host range and distribution, and an outline of the present taxonomic status of each fungus. The summary indicates that *M. densa* Cooke remains as the only legitimate name of an Australian melioline fungus and *M. polytricha* Kalch. & Cooke has been placed in synonymy. All other original names have either been discarded or are invalid, misapplied, transferred or are *nomina dubia*.

By the end of the 19th century a considerable amount of interest and expertise in mycology had developed in Australia. Some ideas for the future were aptly stated by J. H. Maiden (1895, p. 29):

More attention is being directed, at the present time, to the fungi, particularly the micro-fungi, on indigenous plants. Many of them are quite minute, and look like mere discolourations of the leaves, etc. Much more attention has been given in Victoria and Queensland to the collection of these lower forms of plant-life, and we would like to invite the attention of observers all over the Colony to this matter, and to state that careful search will probably be rewarded by the discovery, not only of species of micro-fungi new to the Colony, but also new to science.

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Table II

Notes on species of *Meliola* Fr. recognized as occurring in Australia by Cooke (1892) and Bailey (1893)

1. <i>M. amphitricha</i> Fr. * 'On leaves of <i>Cupania</i> , <i>Eucalyptus</i> and <i>Flindersia</i> . Victoria, Queensland.' # 'Abundant on the foliage of indigenous shrubs.' The epithet has been discarded (Hansford 1961) as no type specimen or host can be assigned to the 'species'. It seems that this name was formerly applied to most black mildews.
2. <i>Meliola corallina</i> Mont. * 'On leaves, Queensland.' # On foliage of shrubs in mountain scrubs.' Found on <i>Drimys</i> spp. in South America but has not been observed on <i>Tasmannia</i> spp. or related plants in Australia.
3. <i>Meliola orbicularis</i> B. & C. * 'On branches and leaves, Queensland.' # Not mentioned. A herbarium specimen (Bailey 831, BRIP) consists of a fungus growing on bark from an unidentified tree in the Mt Bellenden-Ker area, Queensland. Hansford (1961) considered the fungus not to be a <i>Meliola</i> sp. and to probably belong to a new genus. It is still awaiting determination.
4. <i>Meliola loganiensis</i> Sacc. & Berl. * 'On leaves of <i>Smilax</i> . Queensland.' # On the leaves of a <i>Smilax</i> .' Transferred to <i>Zukalia</i> by Saccardo (1891) and doubtful if the type collection exists.
5. <i>Meliola octospora</i> Cooke * 'On leaves, Queensland.' # On foliage of the Brisbane box, <i>Tristania conferta</i> .' Transferred to <i>Meliolina</i> Syd. (= <i>M. cladotricha</i> Lév.).
6. <i>Meliola mollis</i> B. & Br. * 'On leaves, Queensland.' # 'On eucalypt leaves.' Transferred to <i>Meliolina</i> [= <i>M. mollis</i> (Berk. & Br.) Höhnel].
7. <i>Meliola tetracerae</i> Thum. * 'On leaves of <i>Tetracera wuthiana</i> , Queensland.' # 'On foliage of <i>Tetracera wuthiana</i> , Daintree River.' Doubtful if any type collection exists and there are no records of a <i>Meliola</i> sp. on the host. Saccardo (1889) referred it to <i>Limacinia</i> Neger.
8. <i>Meliola eucalypti</i> Cooke * Not mentioned. # 'On plant specimens sent to Mueller.' There is no record of Cooke publishing this name. Stevens and Roland (1935) used the epithet when naming a <i>Meliola</i> on <i>Eucalyptus</i> sp. in the Philippines.
9. <i>Meliola densa</i> Cooke * 'On <i>Eucalyptus</i> leaves, Queensland.' # 'Found on plant specimens sent from Queensland to Baron Mueller.' Found on <i>Eucalyptus</i> spp. in northeast Queensland.
10. <i>Meliola polytricha</i> Kalch. & Cooke * Not mentioned. # 'On leaves of <i>Callistemon</i> , Queensland.' Now known as <i>M. queenslandica</i> (E. Fisher) Hansf. Found widely on <i>Callistemon</i> spp.
11. <i>Meliola musae</i> Mont. * 'On <i>Musae</i> , Queensland.' # 'On foliage in mountain scrubs.' Recorded on <i>Ravenala</i> and <i>Heliconia</i> spp. in Central and South America. No <i>Meliola</i> spp. known on <i>Musa</i> spp.

* Denotes that information is from Cooke (1892).

Denotes that information is from Bailey (1893).

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