Ludwig Leichhardt's Australian plant collections, 1842-1847

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Summary

Dowe, J.L. (2005). Ludwig Leichhardt's Australian plant collections, 1842-1847. *Austrobaileya* 7(1): 151–163. The contribution made by Ludwig Leichhardt to Australian botany is examined with reference to his collections and their use as types. About 2800 specimens collected by Leichhardt were located, of which at least 78 specimens have been designated as types. Leichhardt's records of species distribution, and manuscript names, are also examined. Forty-nine eponyms, named for Leichhardt, are listed.

Key Words: Australian botany, Ludwig Leichhardt, Overland Expedition, botanical exploration

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Introduction

The plant collections and botanical observations that were made by Australia's colonial explorers contributed to the major taxonomic and systematic treatments produced at the time. Works such as *Flora Australiensis* (Bentham 1863-1878) and *Fragmenta Phytographiae Australiae* (Mueller 1858-1882), were predominantly based on collections by explorers such as Mitchell, Sturt, Gregory, Giles, and Leichhardt, among others, as well as botanists, such as Banks & Solander, Brown, Caley, Dietrich, C. Moore and Cunningham (Maiden 1908; Blake 1955; Hall 1978; Orchard 1999).

Ludwig Leichhardt

The exploration activities of [Friedrich Wilhelm] Ludwig Leichhardt (b. Prussia, 23 Oct. 1813, d. central Australia? 1848) have made him one of Australia's most memorable and controversial colonial figures (Jack 1921; Neumayer 1944; Chisholm 1955; Allingham 1977; Desmond 1977; Dalton 1986; Roderick 1988; Barker & Barker 1990; Priessnitz 1991; Levitus 1995; Pearn 2001). His contribution to botany, though well recognised by some (Maiden 1908; Moore 1920; Blake 1955; Hall 1978; Webster 1980; Filson 1992; Orchard 1999; Short 2003), has been oddly disparaged by others who have chosen to emphasise his enigmatic and controversial status (Chisholm 1955; Webb 2003). This paper aims to provide an overview of his collecting

activities, the use of his specimens as types, and his contribution to botany in Australia.

Methods

Citations and other references to collections made by Leichhardt were located in Flora Australiensis (Bentham 1863-1878), and Fragmenta Phytographiae Australiae (Mueller 1858-1882), as well as other relevant works. The determination and updating of nomenclature were primarily achieved through access to Henderson (2002), APNI (2004), IPNI (2004), and published volumes in the Flora of Australia series. Unpublished Queensland Herbarium data, based on Henderson (2002) were designated as the standard in the event of conflicting nomenclature. Literature pertaining to Leichhardt's Overland Expedition was examined and parts relevant to vegetation or botany were appraised and where appropriate were used as references within the text. Searches for Leichhardt's plant specimens were done in B, BM, BRI, E, HO, K, MEL, NSW and P. Herbarium acronyms are according to Holmgren et al. (1990).

Results

Arriving in Australia in February 1842 from Germany where he received an education in the natural sciences at Göttingen and Berlin Universities, Leichhardt undertook three major expeditions. The first was the Overland Expedition from the Darling Downs to Port

Essington, Oct.1844-Dec.1845 (Leichhardt 1847b). The second was an unsuccessful attempt to cross Australia from east to west, which commenced in Brisbane in December 1846, but was compelled to return because of illness and the loss of stock after six months (Bunce 1859; Sprod 1989). The third, also an attempt to cross Australia from east to west, commenced in March 1848, and resulted in the disappearance of Leichhardt and his entire party, of which no remains have ever been found (Connell 1980).

Of the specimens collected by Leichhardt during his five years of activity in Australia, the number would have been considerably greater had Leichhardt not been forced to abandon most of his plant and geology specimens during the Overland Expedition because of the drowning of the packhorses, and other unfortunate incidents. In correspondence to his brother-in-law C. Schmalfuss [24 January 1846], Leichhardt reported that, during the Expedition, he had to "....burn about 3000 dried plants...." whilst in correspondence to G. Durando of the Paris herbarium [20 May 1846] he wrote ".... As my collection increased, I surrounded the different packages with green hide, which when dry, formed a fine box round them, and protected them from hard usage to which they were exposed....the time came when I had to open all my fine green hide boxes, to make a poor choice of the dried plants, and to throw the greatest number of them away unable to carry them any farther, as four of my pack horses drowned, and the means of carrying my collections of plants and geological specimens were consequently destroyed. I fully lost 4-5000 specimens. There are however still some very interesting remnants..." (Politzer 1944; Aurousseau 1968). Furthermore, additional losses were incurred when a bullock carrying his remaining specimens "plunged into a deep pond, where he was quietly swimming about and enjoying himself, whilst I was almost crying with vexation at seeing all my plants thoroughly soaked' (Leichhardt 1847b, p. 469). The majority of Leichhardt's extant specimens were collected in locations that are now southeast Queensland, central and northern New South Wales, and the Port Essington area in the Northern Territory (Webster 1980).

Leichhardt published his diary of the Overland Expedition in the form of a journal that was edited by geographer and surveyor P.P. King (Leichhardt 1847b). Hooker (1860, p. cxxi) noted that the journal, at the time, was "...by far the fullest published detailed account of the tropical vegetation of the interior of Australia that we possess".

At the time that Leichhardt was engaged in his exploration activities, systematic studies of the Australian flora were relatively rudimentary. Leichhardt's primary references were those of Brown (1810, 1830) and volumes 1-7 of Candolle and Candolle (1823-1839) (Aurousseau 1968). Those works dealt primarily with the plants of the coastal and near-coastal regions, of settled areas and where exploration had previously occurred. The floras of central and northern Australia were yet to be fully appreciated and studied, and it is in this context that Leichhardt framed his scientific attention.

Apart from Leichhardt's specimens subsequently being used in the formulation of taxonomic descriptions, Leichhardt's botanical observations in the journal of the Overland Expedition were often quoted. For example, Bentham (1864, p. 297) noted in his description of Erythrophleum chlorostachys (F.Muell.) Baill., as "also in Leichhardt's collection, and said to be his 'leguminous Iron-bark tree'" and Leichhardt's original: "a leguminous tree, with the dark fissured bark of the Ironbark...." (Leichhardt, 1847b, p. 242). Mention was made by Bentham (1866, p. 408) with regards to *Gardenia edulis* F.Muell., [= *G vilhelmii* Domin] of the Gilbert and Lynd Rivers, "...the "Breadfruit-tree" of Leichhardt...", though correctly the 'Bread tree' in the Journal (Leichhardt 1847b, p. 273). Mueller (1866a), in his taxonomic account of Xylomelum scottianum (F.Muell.) F.Muell., suggested that this was probably the species noted by Leichhardt in his Journal. The journal entry of May 22, 1845, in the vicinity of Separation Creek was: ".... a Xylomelum, with smooth and smaller seed-vessels than those of X. pyriforme" (Leichhardt 1847b, p. 263). Mueller, in naming Bauhinia leichhardtii F.Muell., noted that Leichhardt "referred to it repeatedly in his journal" (Mueller, 1859, p.51), and with reference to Loranthus grandibracteus, Mueller (1860,

p. 150) noted that this species was "cursorily mentioned in the diary of that lamented traveller".

It was beyond the scope of this paper to both confirm the existence and whereabouts of all Leichhardt's collections, and to determine the type status of those specimens that have been designated as types. However, herbarium searches yielded about 2800 specimens, which most likely form the bulk of Leichhardt's collections. Of these, at least 78 specimens have been designated as types (**Appendix**).

Leichhardt published no taxonomic work, although he provided accounts that were published within the botanical domain, including an overview of his botanical activities of 1842-1844 (Leichhardt 1845), letters sent to G. Durando of Paris, (Leichhardt 1846), lecture transcripts (Leichhardt 1847a) that contained proposed species names (**Table 1**), and his Journal of an Overland Expedition (Leichhardt 1847b). These publications outlined the extent of Leichhardt's travels and his plant collecting activities. As well, many minor articles were published in newspapers and magazines in Australia, England and Germany (Aurousseau 1968; Hoare 1981).

Heward (1847) provided an account of the botany of Leichhardt's Overland Expedition

which drew primarily from Leichhardt's paper published in the *Tasmanian Journal of Natural Science* (Leichhardt 1847a), and it is reasonable to assume, based on Heward making no reference to specimens, that he did not examine any Leichhardt specimens collected during the Overland Expedition. More recently, Jackes (1990) provided an assessment of Leichhardt's botany for the Lynd, Mitchell and Nassau Rivers area, based on Leichhardt's descriptions and names. That account identified species as noted by Leichhardt in his Journal.

With further regard to taxonomy, Leichhardt was cited as author of Kallstroemia minuta (Leichh. ex Benth.) Engl. (Engler 1897; Barker 1998), with Engler's transfer of Tribulopsis minutus Leichh. ex Benth. to Kallstroemia. The type for Tribulus minutus Leichh. ex Benth. is "Queensland (?). Leichhardt's Expedition" and is extant in K. Engler's work is an illegal combination and he should have cited this taxon as Tribulus minutus Leichh. ex Benth., not as a Tribulopsis, as *Tribulus* is the genus in which Bentham (1863) formerly established the taxon. The reason that Bentham originally cited Leichhardt as the author is not documented, and it could be surmised that Leichhardt may have provided some notes about the species. Bentham's (1863) author citation of 'Leichh. in Herb. F. Muell.'

Table 1. Plant names used by Leichhardt (1845, 1847), and which have not been taxonomically accepted and are designated nomina nuda.

Taxon	Reference and citation
Acacia equisetifolia	Journ. Overl. Exped. 356 (1847) "In a patch of rusty-gum forest we found Acacia equisetifolia" Tas. Journ. Nat. Sc. 3: 97 (1847) "Grevillea ceratophylla, and Acacia equisetifolia, were first met with in latitude 19° 19'."
Casuarina villosa	Journ. Overl. Exped. 49 (1847) "a new species of forest oak, which deserves the name Casuarina villosa, for its bark looks quite villous"
Grevillea lanceolata	Tas. Journ. Nat. Sc. 3: 97 (1847) "Grevillea lanceolata, a new species with broad lanceolate leaf, thus named by me, showed itself first at the Suttor, where it was growing on a light sandy soil with Pandanus spiralis."
Zamia australis	London J. Bot. 4: 279 (1845) "The grass tree (Xanthorrhoea) gives a peculiar character to many spots, and Zamia australis is no less striking."

suggests this. To my knowledge, the only published reference to Tribulus made by Leichhardt is that in which he noted the presence of "a species of Tribulus" at Comet Creek (Leichhardt 1847b, p. 87). Barker (1998, p. 32) stated that the type for T. minutus was "[Queensland, Leichhardt District], before Canal [pastoral run] and afterwards, s. dat., L. Leichhardt s.n. (syn: MEL s.n., p.p., excluding lower LHS specimen); without locality, Leichhardt's Expedition, s.dat., Herb. Mueller (syn: K-Herb. Hooker, type seen photographs in the Eichler manuscripts)". Furthermore, Barker (1998) indicated that there was a specimen in MEL (Leichhardt 26, MEL) that was annotated by Leichhardt as "Tribulus parviflorus mihi" from Bokkara Flats, 3 January 1847. Barker placed this specimen under Tribulus micrococcus Domin.

Leichhardt provided material for an illustration of the fungus *Aseroe rubra* Labill. (Phallaceae) that was published in an account of the fungi in the Hooker collection (Berkeley 1844). Labillardière (1806) had earlier described the fungus. Leichhardt collected the specimen in Sydney in 1842. With regards to examination of specialised collections, Mueller (1866b) provided a summary of the ferns collected by Leichhardt, and Filson (1992) noted that Mueller sent to European researchers a small number of lichen specimens that were collected by Leichhardt.

Conclusion

The contribution made by Leichhardt toward the development of botany in Australia is acknowledged in a number of ways. Mueller, Bentham and others noted over 500 Leichhardt collections in works, about 2800 specimens have been located in herbaria, and at least 78 specimens have been designated as types. In relative terms this is a high proportion of types to numbers collected. Leichhardt's name is commemorated in at least 49 taxa (Table 2), of which about half are currently in use. In addition, Leichhardt's journal provided valuable distribution information that was subsequently used by taxonomists in various treatments. Leichhardt's descriptions of the potential pastoral value of areas that he passed through were used in determining patterns of settlement and development of pastoral and mining industries.

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Table 2. Taxa named for Ludwig Leichhardt. Currently accepted taxa honouring Leichhardt indicated in bold

Name honouring Leichhardt	Current Accepted Name for taxon
Acacia decurrens var. leichhardtii Benth	Acacia oshanesii F.Muell. & Maiden
Acacia leichhardtii Benth	no change
Acacia mollissima var. leichhardtii F.Muell. ex Maiden	Acacia pubescens (Vent.) R.Br.
Alsophila leichhardtiana F.Muell.	Cyathea leichhardtiana (F.Muell.) Copel.
Amanoa leichhardti Baill	Bridelia leichhardtii Baill. ex Müll.Arg.
Anthocercis leichhardtii F.Muell.	Duboisia leichhardtii (F.Muell.) F.Muell.
Aristida leichhardtiana Domin	No change
Bauhinia leichhardtii F.Muell.	Lysiphyllum cunninghamii (Benth.) de Wit
Carex inversa R.Br. var. leichhardtii Boeck.	Carex inversa R.Br.
Chorizema leichhardtii F.Muell.	Isotropis filicaulis Benth.
Clematis aristata var. leichhardtiana Kuntze	No change
Commersonia leichhardtii Benth.	No change
Datura leichhardtii F.Muell. ex Benth.	No change
Dendrohypnum leichardtii A.Jaeger	Camptochaete leichhardtii (A.Jaeger) Broth.
Dicranum leichhardtii Hampe	Dicranoloma leichhardtii (Hampe) Watts & Whitel.
Digitaria macractinia subsp. leichhardtiana Henrard	No change
Eriostemon leichhardtii F.Muell.	Halfordia kendack (Montrouz.) Guillaumin
Eriostemon myoporoides var. leichhardtii Benth.	Philotheca glasshousiensis (Domin) P.I.Forst.
Eriostemon trachyphyllus var. leichhardtii Benth	Philotheca glasshousiensis (Domin) P.I.Forst.
Eucalyptus leichhardtii F.M.Bailey	Corymbia leichhardtii (F.M.Bailey) K.D.Hill & L.A.S.Johnson
Euphoria leichhardtii Benth.	Dimocarpus longan Lour.
Flindersia leichardtii C.D.C.	Flindersia bennettiana Benth.
Euphoria leichhardtii var. hebepetala Benth.	Arytera foveolata F.Muell.
Grevillea leichardtii S.Moore	Grevillea pungens R.Br.
Halfordia leichhardtii F.Muell. ex Guillaumin	Halfordia kendack (Montrouz.) Guillaumin
Harpullia leichhardtii F.Muell. ex Benth.	No change
Hypnum leichardtii Hampe	Camptochaete leichhardtii (Hampe) Broth.
Kunzea opposita var. leichhardtii Byrnes	No change
Kunzea opposita val. telchharatti byllies	
Leichhardtia F.Muell.	Phyllanthus L.
	Phyllanthus L. Marsdenia R.Br.
Leichhardtia F.Muell.	

Table 2 (continued). Taxa named for Ludwig Leichhardt. Currently accepted taxa honouring Leichhardt indicated in bold

Name honouring Leichhardt	Current Accepted Name for taxon
Lobelia leichhardii E.Wimm.	No change
Livistona leichhardtii F.Muell.	Livistona humilis R.Br.
Macropteranthes leichhardtii F.Muell. ex Benth.	No change
Marsdenia leichhardtiana F.Muell.	Marsdenia australis (R.Br.) Druce
Morinda leichhardtii F.Muell.	No change
Najas leichhardtii Magnus	No change
Neckera leichhardtii Hampe	Neckera pennata Hedw.
Parsonsia leichhardtii F.Muell.	No change
Prostanthera leichhardtii Benth.	Prostanthera ringens Benth.
Psoralea leichhardtii F.Muell.	Indigofera glandulosa Willd.
Rotala occultiflora var. leichhardtii Koehne	Rotala occultiflora Koehne var. occultiflora
Rubus moorei var. leichardtianus Domin	Rubus moorei F.Muell. var. moorei
Sarcocephalus leichhardtii F.Muell.	Nauclea orientalis (L.) L.
Unona leichardtii F.Muell.	Melodorum leichhardtii F.Muell.
Urera leichhardtiana Wedd.	Dendrocnide photinophylla (Kunth) Chew
Urostigma leichhardtii Miq.	Ficus platypoda var. leichhardtii (Miq.) R.J.F.Hend.
Vitex leichhardtii F.Muell.	Gmelina leichhardtii F.Muell.

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 - Captain Sir James Clark Ross, Kt., R.N., F.R.S., & L.S., Etc. Part III. *Flora Tasmaniae*, Vol. 1. Dicotyledones. Lovell Reeve: London.
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Appendix: Specimens, collected by Ludwig Leichhardt in Australia, that have been designated as types, with updated nomenclature, original literature citations and herbaria where specimens are kept. If specimens have been selected as lectotypes or have become lectoparatypes due to lectotypification this has not been indicated.

has not been indicated.		
Akaniaceae Cupania lucens F.Muell., Fragm. 3: 44 (1862) = Akania bidwillii (Hogg.) Mabb., Plant Book 707 (1990)	Ad sinum Moreton Bay; Leichhardt.	cited but not located[not at K or BM]
Anacardiaceae Rhus viticifolia F.Muell. ex Benth., Fl Austral. 1: 489 (1863) = Rhus tomentosa L., Sp.Pl. 266 (1753)	Queensland (?) Leichhardt	K
Apocynaceae Parsonsia leichhardtii F.Muell., Fragm. 6: 128 (1868)	Ad simum Wide Bay; Leichhardt	MEL
Asteraceae Cassinia theodori F.Muell., Fragm. 5: 148 (1866)	In parietibus phonolithicis ad originem fluvii Gwydir; Dr. Ludw. Leichhardt	K
Asteraceae Helichrysum diotophyllum F.Muell., Fragm. 5: 150 (1866) = Ozothamnus diotophyllus (F.Muell.) Anderb., Op. Bot. 104: 89 (1991)	In Australia orientali subtropica ad flumen Dogwood Creek; Leichhardt et Bunce	MEL, K
Boraginaceae Cordia ixiocarpa F.Muell., Fragm. 1: 59 (1858) = Cordia myxa var. ixiophylla (F.Muell.) Domin, Biblioth. Bot. 89(4): 1097 (1930)	In collibus humilibus ad flumen Gilbert. Leichhardt, Mueller.	cited but not located[not at K or BM]
Caesalpiniaceae Cassia concinna Benth., Fl. Austral. 2: 291 (1864) = Chamaecrista concinna (Benth.) Pedley, Fl. Aust. 12: 143, 196 (1998)	N.S.Wales. Mount Flinders, Leichhardt	MEL
Campanulaceae <i>Lobelia leichhardii</i> E.Wimm., <i>Das Pflanzenreich</i> 107: 584 (1953)	Australien: Morton Bay, 1845 (Leichhard! - Hb. Paris)	P
Casuarinaceae Casuarina equisetifolia var. microcarpa F.Muell., Fragm. 6: 17 (1867) = Casuarina cunninghamiana Miq. subsp. cunninghamiana, Revisio critica Casuarinarum 56 (1848)	ad Glendon (Leichh.).	MEL
Chenopodiaceae Atriplex stipitata Benth., Fl. Austral. 5: 168 (1870)	N.S.Wales. also in Leichhardt's collection	MEL
Chrysobalanaceae Parinari nonda F.Muell. ex Benth., Fl. Austral. 2: 426 (1864)	N.Australia. From the Upper Lind to Van Dieman's river, Gulf of Carpentaria, Leichhardt	MEL
Combretaceae Macropteranthes leichhardtii F.Muell. ex Benth., Fl. Austral. 2: 505 (1864)	Queensland. Ruined Castle Creek Leichhardt.	MEL, K
Combretaceae Terminalia platyptera F.Muell., Fragm. 2: 151 (1861)	In plantiebus terrae Arnhem's Land et circum sinum Carpentariae.	MEL
Cyathaceae Alsophila leichhardtiana F.Muell., Fragm. 5: 53 (1865) = Cyathea leichhardtiana (F.Muell.) Copel., Philipp. J. Sc., C 6: 360 (1911)	Moreton Bay, Fern-tree Creek, Bunya Mountain, L. Leichhardt.	MEL

Cyperaceae Carex inversa var. leichardtii Boeck., Linnea 39: 70 (1875) = Carex inversa R.Br., Prodr. 242 (1810)	Nova Holland., Paramatto (Leichardt)	MEL
Cyperaceae Cladium scleroides F.Muell., Fragm. 9: 12 (1875) =Exocarya scleroides (F.Muell.) Benth., Icones Plantarum 13: t.1206 (1877)	In silvis Araucariae Bidwilli prope fluvios Burnett's et Dawson's River, Leichhardt	MEL
Epacridaceae Styphelia exolasia F.Muell., Fragm. 6: 34 (1867) = Leucopogon exolasius (F.Muell.) Benth., Fl. Austral. 4: 217 (1868)	In vicinia pagi Camden Dre Ludiv. Leichhardt anno 1843 detecta	К
Epacridaceae Styphelia pleiosperma F.Muell., Fragm. 6: 41 (1867) = Leucopogon pleiospermus (F.Muell.) Benth., Fl. Austral. 4: 207 (1868)	In Australia orientali (loco speciali non indicato), Leichhardt	К
Euphorbiaceae Bridelia leichhardtii Baill. ex Müll.Arg. in Candolle, A.P. de & Candolle, A.L.P.P. de (ed.), Prodromus 15(2): 499 (1886)	In Nova Hollandia ad Moreton Bay (Leichhard! in hb. Mus. Paris).	P
Euphorbiaceae Claoxylon australe Baill. ex Müll.Arg., Étude Génerale du Groupe des Euphorbiacées: 493 (1858)	herb. Mus. Nouvelle- Hollande. Coll. Leichhard, 1845	P
Euphorbiaceae Croton stigmatosus F.Muell., Fragm. 4: 140 (1864)	ad sinum Moreton Bay, Dr. Leichhardt	G-DC, MEL, P
Euphorbiaceae Hemecyclia lasiogyna F.Muell., Fragm. 4: 119 (1864) = Drypetes deplanchei (Brongn. & Griseb.) Merr., J. Arnold Arbor. 32: 199 (1951)	In locis fontanis ad portum Essingtoni; Leichhardt	MEL
Euphorbiaceae Micrantheum ericoides var. juniperinum Grun., Das Pflanzenreich 58: 25 (1913)	Queensland (Leichhardt!)	MEL
Fabaceae Bossiaea brownii Benth., Fl. Austral. 2: 163 (1864)	Queensland. also in Leichhardt's Collection	MEL
Fabaceae Chorizema leichhardtii F.Muell., Fragm. 4: 20 (1863) = Isotropis filicaulis Benth., Fl. Austral. 2: 40 (1864)	In clivis arenoso- rupestribus ad sinum marinum Wide Bay; Dr. Ludw. Leichhardt	MEL
Fabaceae Flemingia parviflora Benth., Fl. Austral. 2: 269 (1864)	Queensland. Lynedoch valley, Leichhardt	MEL
Fabaceae Hovea heterophylla A.Cunn. ex Hook.f. f. decipiens Domin, Biblioth. Bot. 89: 729 (1928) = Hovea linearis (Sm.) R. Br., Hortus Kewensis Edn. 2, 4: 275 (1812)	sandstone hills towards Brisbane, Leichhardt	MEL

Appendix (continued)		
Fabaceae Pultenaea paleacea Willd. var. obtusata Benth., Fl. Austral. 2: 116 (1864) = Pultenaea paleacea Willd. var. paleacea, Trans. Linn. Soc. London 9: 246 (1808)	between Suggerah and Lake Macquoy, Leichhardt	MEL
Fabaceae Sophora fraseri Benth., Fl. Austral. 2: 274 (1864)	Queensland. Murrum-Murrum Creek, Leichhardt	MEL
Fabaceae Swainsona brachycarpa Benth., Fl. Austral. 2: 217 (1864)	Queensland. Condamine river and Darling Downs, Leichhardt	MEL, NSW
Fabaceae <i>Swainsona oroboides</i> F.Muell. ex Benth., <i>Fl. Austral.</i> 2: 222 (1864)	N.S.Wales. head of Gwydir, Leichhardt	MEL
Fabaceae Templetonia muelleri Benth., Fl. Austral. 2: 169 (1864) = Templetonia stenophylla (F.Muell.) J.M. Black, Flora of South Australia 4: 304 (1929)	Queensland. Wide Bay, Bidwill, Leichhardt	MEL
Fabaceae <i>Tephrosia filipes</i> Benth., <i>Fl. Austral.</i> 2: 208 (1864)	Queensland. Erythrina Creek, Leichhardt	MEL
Fabaceae Tephrosia juncea Benth., Fl. Austral. 2: 208 (1864)	Queensland. also in Leichhardt's collection	MEL
Fabaceae Tephrosia purpurea Pers. var. rufescens Benth., Fl. Austral. 2: 210 (1864) = Tephrosia rufula Pedley, Austrobaileya 1: 38 (1977)	Archer's Hill, Leichhardt	MEL, NSW
Mimosaceae Acacia polybotrya var. foliolosa Benth., Fl. Austral. 2: 414 (1864) = Acacia glaucocarpa Maiden & Blakely, Proc. Roy. Soc. Queensland 38: 120 (1927)	Queensland. limestone hills, Leichhardt	MEL
Mimosaceae Acacia undulifolia var. humilis Benth., Fl. Austral. 2: 356 (1864) = Acacia hubbardiana Pedley, Contr. Queensland Herb. 4: 2 (1969)	also the Brisbane specimens from F.Mueller and Leichhardt	MEL
Mimosaceae Acacia leichhardtii Benth., Fl. Austral. 2: 372 (1864)	Queensland. Expedition range, Leichhardt	K, NSW
Musci Neckera leichhardtii Hampe, Linnaea 36: 520 (1870) = Neckera pennata Hedw., Sp. Musc. Frond. 200 (1801)	Hab. New South Wales leg. Leichhard	BM
Myrsinaceae Myrsine subsessilis F.Muell., Fragm. 4: 81 (1864) = Rapanea subsessilis (F.Muell.) Mez., Das Pflanzenreich 9: 354 (1902)	In silvis ad simum Moreton Bay, Dr. Leichhardt	NSW
Myrtaceae Eucalyptus albens Miq. ex Benth., Fl. Austral. 3: 219 (1867)	N.S.Wales. between Alford's and the Range, "Box," Leichhardt	MEL
Myrtaceae Eucalyptus fibrosa F.Muell., J. Linn. Soc., Botany 3: 87 (1859)	In montibus nemorosis ad flumen Brisbane. Anth. aestate.	MEL
	<u> </u>	

Appendix (continued)		
Myrtaceae Thryptomene polyandra F.Muell., Fragm. 4: 77 (1864) = Homalocalyx polyandrus (F.Muell.) F.Muell. ex Benth., Fl. Austral. 3: 56 (1867).	In quadam parte Australiae haud indicata detexit Dr. Ludw. Leichhardt.	MEL
Najadaceae Najas leichhardtii Magnus, Beitrage zur Kenntniss der Gattung Najas L.: 46, 50,52, t. 8, figs 1-8 (1870).	bei einer von Leichhardt in Australien gesammelten Pflanze	К
Phallaceae Aseroe actinobola Corda, Icones Fung. cogn .6: 23 (1854) = Aseroe rubra Labill., Novae Hollandiae Plantarum Specimen 2: 124 (1806).	Mr. Leichardt theilte die Zeichnung und Beschreibung des frischen und so merkwürdigen Pilzes folgends mit	К
Poaceae Aristida leichhardtiana Domin, Regni Veg. 9: 551 (1911)	Queensland: Dry-beef Creek, coll. Leichhardt.	BRI
Poaceae Aristida vagans var. gracillima Benth., Fl. Austral. 7: 563 (1878) = Aristida gracilipes (Domin) Henrad, Med. Rijks-Herb 54: 209 (1926)	Cameroons Brush, Leichhardt	BRI
Poaceae Festuca latispicea F.Muell., Fragm. 8: 127 (1874) = Glyceria latispicea (F.Muell.) Benth., Fl. Austral. 7: 658 (1878)	Ad Gwydir et Myall-Creek, Leichhardt	MEL
Poaceae Festuca loliiformis F.Muell., Fragm. 8: 128 (1874) = Tripogon loliiformis (F.Muell.) C.E. Hubb., Bull. Misc. Inform. 10: 448 (1934)	Ad Moreton's Bay et Charley's Creek, Leichhardt	cited but not located[not at K or BM]
Poaceae Panicum buncei F.Muell. ex Benth., Fl. Austral. 7: 487 (1878)	Queensland. Bokhara Flats, Leichhardt	K, BRI
Poaceae Sporobolus caroli Mez, Repert. Spec. Regi. Veg. 299 (1921)	Australien, Liverpool-plains (Herb. hort. Sydney)	MEL
Pontederiaceae Limnostachys cyanea F.Muell., Fragm. 1: 24 (1858) = Monochoria cyanea (F.Muell.) F.Muell., Fragm. 8: 44 (1873)	In terra Arnhem's Land. Leichhardt	K, MEL
Proteaceae Grevillea leichardtii S.Moore, J. Linn. Soc. Bot. 45: 211 (1920) = Grevillea pungens R.Br., Trans. Linn. Soc. London 10: 175 (1810)	N. Australia, "Sandy scrubland west side of gulf" [Carpentaria]; Leichardt	BM, K, MEL
Proteaceae Grevillea leiophylla F.Muell. ex Benth., Fl. Austral. 5: 471 (1870).	Queensland. Glasshouse ranges, Moreton Bay, F.Mueller, and probably the same neighbourhood, Leichhardt	MEL, NSW
Proteaceae Grevillea rubicunda S.Moore, J. Linn. Soc. Bot. 45: 210 (1920)	N. Australia, "Westward of the Gulf [Carpentaria], table-land of the South Alligator"; Leichardt	BM

Proteaceae <i>Grevillea singuliflora</i> F.Muell., <i>Fragm</i> . 6: 92 (1867)	Ad rivum Dogwood-Creek Dogwood Creek, Leichhardt	BM, MEL
Proteaceae Lomatia silaifolia var. induta F.Muell. ex Benth., Fl. Austral. 5: 537 (1870) = Lomatia silaifolia var. silaifolia (Sm.) R.Br., Trans. Linn. Soc. London 10: 199 (1810)	Brisbane river, Moreton Bay, Leichhardt, F. Mueller	ВМ, К
Ranunculaceae Clematis aristata var. leichhardtiana Kuntze, Verh. Bot. Vereins Prov. Brandenburg 26: 156 (1885)	Australia (!1842 Leichhardt, mus. bot. berol.); Norfolk Island; Lord Howe's Island; Nova Caledonia (!Gillivray)	cited but not located[not at K or BM]
Rhamnaceae <i>Emmenosperma alphitonioides</i> F.Muell., <i>Fragm.</i> 3: 63 (1862)	ad amnem Piri Creek; Dr Ludw. Leichhardt	cited but not located[not at K or BM]
RosaceaeRubus moorei F.Muell. var. leichhardtianus Domin, Regni. Veg. 1133 (1913) = Rubus moorei F.Muell. var. moorei	New South Wales: From the Creek Brush to Archers Station, leg. Leichhardt	MEL
RubiaceaeAsperula geminifolia F.Muell., Fragm. 5: 147 (1899)	In pratis ripariis inter flumina Dawson's River et Brisbane's River; Leichhardt, F.M.; nec non prope urbem Newcastle, Leichhardt	cited but not located[not at K or BM]
RutaceaeEriostemon leichardtii F.Muell. Fragm. 5: 5 (1866) = Halfordia kendack (Montrouz.) Guillaumin, Notulae Systematicae (Paris) 98 (1911)	Secus rivos silvaticos in vicinia sinus marini Moreton Bay. Dr. Ludw. Leichhardt	MEL
Rutaceae Eriostemon trachyphyllus var. leichhardtii Benth., Fl. Austral. 1: 333 (1863) = Philotheca glasshousiensis (Domin.) P.I.Forst., Austrobaileya 7: 178 (2005)	"From Brroa" (N.S.Wales?) Leichhardt	MEL
Rutaceae Flindersia leichardtii C.DC., Monographic Phanerogamarum 1: 731 (1878) = Flindersia bennettiana Benth., Fl. Austral. 1: 389 (1863)	In Moreton Bay (Leichardt in herb. Mus. Par.)	Р
Santalaceae <i>Choretrum candollei</i> F.Muell. ex Benth., <i>Fl. Austral.</i> 6: 219 (1873)	N.S.Wales. Liverpool plains, Leichhardt	MEL
Sapindaceae Euphoria leichhardtii Benth. var. hebepetala Benth., Fl. Austral. 1: 468 (1863) = Arytera foveolata F.Muell., Trans. & Proc. Philos. Instit. Vic. 3: 24 (1859)	"Nurrum Nurrum", Leichhardt (Herb. F.Muell.)	MEL
Sapindaceae Euphoria leichhardtii Benth. Fl. Austral. 1: 468 (1863) = Dimocarpus longan Lour., Fl. Cochin. 233 (1790)	Queensland (?), Leichhardt (Herb. F. Muell.).	MEL
Sapindaceae Harpullia leichhardtii F.Muell. ex Benth., Fl. Austral. 1: 470 (1863)	N.Australia. Port Essington, Leichhardt	MEL

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Simaroubaceae Ailanthus punctata F.Muell., Fragm. 3:42 (1863] = Pentaceras australis (F.Muell.) Benth., [Rutaceae] Fl. Austral. 1: 365 (1863)	in silvis Australiae orientalis subtropicae; e.g. MacConnell's Brush, L. Leichhardt	cited but not located[not at K or BM]
Solanaceae Anthocercis leichhardtii F.Muell., Fragm. 6: 142 (1868) = Duboisia leichhardtii (F.Muell.) F.Muell., Syst. Census Austral. Pl. 97 (1883)	In Australia orientali extratropica; Leichhardt	K, MEL
Sterculiaceae Commersonia leichhardtii Benth., Fl. Austral. 1: 242 (1863)	Queensland. Head of Boyd river, Leichhardt, in Herb. F. Muell.	MEL
Stereaceae Thelephora leichhardtiana Lev., Ann. Sci. Nat. ser.3, 5: 148 (1846) = Stereum ostrea Blume & Nees, Epicr. Syst. Mycol. 547 (1838)	Queensland.	K
Urticaceae Hyrtanandra lythroides F.Muell., Fragm. 5: 194 (1866) = Pouzolzia hirta (Blume) Hassk., Cat. Hort. Bogor 800 (1844)	Ad flumen Lynd's River ejus originem versus, nec non ad fluvium South Alligator-River in terra tabulari; Dr. Leichhardt.	cited but not located[not at K or BM]
Urticaceae Elatostema reticulatum Wedd., Ann. Sci. Nat. Bot. ser. 4, 1:188 (1854)	Nov. Holland. (Leichhard, pl. exs., n.?).	NSW
Urticaceae Urera leichardiana Wedd., Ann. Sci. Nat. ser 4, 1: 178 (1854) = Dendrocnide photinophylla (Kunth) Chew, Gard. Bull. Singapore 21: 205 (1965)	Nov. Holland. (Leichard, pl. exs. n. 26).	P
Urticaceae Urera excelsa Wedd., Ann. Sci. Nat. ser 4, 1: 178 (1854) = Dendrocnide excelsa (Wedd.) Chew, Gard. Bull. Singapore 21: 205 (1965)	Nova Hollandia (Leichhard, pl. exs. n. 17).	P
Verbenaceae Vitex leichhardtii F.Muell., Fragm. 3: 58 (1862) = Gmelina leichhardtii (F.Muell.) Benth., Fl. Austral. 5: 66 (1870).	In silvis ad amnem Myall Creek Australiae orientalis subtropicae; Dr. Ludwig Leichhardt.	MEL
Zygophyllaceae Tribulus minutus Leichh. ex Benth., Fl. Austral. 1: 291 (1863)	Queensland (?), Leichhardt's Expedition.	K, MEL, NSW



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