

Date of Publication: 23 March 2015

A journal of plant ecology for eastern Australia



ISSN 0727-9620 (print) • ISSN 2200-405X (Online)

I saw a good deal of the country much more than any other collector An assessment of the botanical collections of Eugene Fitzalan (1830–1911)

John Leslie Dowe

Australian Tropical Herbarium, James Cook University, Cairns, Queensland,4870, AUSTRALIA john.dowe@jcu.edu.au

Abstract: I saw a good deal of the country much more than any other collector¹. Eugene [Fitzherbert Albini] Fitzalan (1830–1911) came to Australia from Ireland about 1849. His first significant appointment as a botanical collector was on the Queensland Government's expedition to investigate the estuary of the Burdekin River in 1860, commanded by Joseph W. Smith RN on the Schooner Spitfire. Fitzalan was engaged as a plant collector by Ferdinand Mueller, the Government Botanist for the Colony of Victoria. Following the Burdekin Expedition of 1860, Fitzalan became a pioneer settler in 1861, at the newly proclaimed township of Bowen (Port Denison) from where he undertook collecting excursions to Mount Dryander, Mount Elliot, Townsville, Cairns, Daintree River and Cooktown, whilst establishing and managing a seed and plant nursery business. He was a contemporary and/or collecting companion of F.M.Bailey, Charles Weldon Birch, Edward Bowman, John Dallachy, Amalie Dietrich, Stephen Johnson, Walter Hill, Frederick Kilner, L.G. Nugent and Walter Froggatt. Fitzalan moved to Cairns in 1886, and became active in the initial development of the Cairns Municipal Botanical Reserve, the site of the future heritage-listed Cairns Botanic Gardens. Fitzalan's collections number to about 2200 herbarium specimens. This number places him in the top five most productive collectors in Queensland for the 1860–1900 period. His specimens were initially dispatched to Ferdinand Mueller in Melbourne, and most are now conserved in the National Herbarium of Victoria [MEL]. A small number of specimens and duplicates are conserved in other Australian and international herbaria, including BM, BR, BRI, FI, G, HAL, K, NSW, U and W. About 90 of Fitzalan's collections are relevant to typification, and he is eponymously connected to at least 12 taxa, of which five are the currently used names. As well as examining Fitzalan's primary plant collecting activities, this work provides a broad biographical background and assesses his horticultural contributions.

Key words: Eugene Fitzalan, Mueller's collectors, Queensland early botany, historical plant records for Queensland

Cunninghamia (2015) 15: 87–133 doi 10.7751/cunninghamia.2015.15.005

Introduction

The period in Australian botanical research from the early 1850s through to the late 1890s has been termed the *Muellerian Era* (Barker & Barker 1990) on account of the dominance of Ferdinand Mueller's taxonomic work (Maroske 2014). Mueller, as Government Botanist for the Colony of Victoria, established an extensive network of plant collectors (Maroske 1993), and much of the botanical progress in the Australian colonies was initiated and encouraged by Mueller in collaboration with his collectors and fellow taxonomists (Home *et al.* 1998; Maroske & Vaughan 2014).

The 1860s marked the beginning of a rapid increase in botanical investigation in the newly declared colony of Queensland. Eugene [Fitzherbert Albini] Fitzalan (b. 12 July 1830, Londonderry, Ireland; d. 20 June 1911, South Brisbane) (Figure 1) was among the first plant collectors engaged by Mueller to venture into remote areas not yet settled by Europeans in the new colony. Through his botanical collections and horticultural endeavours, Fitzalan made a significant contribution to the advancement of studies into the colony's flora. Fitzalan collected about 2200 botanical specimens (AVH 2014) in Queensland between 1860 and 1896. About 90 of his specimens are important as type materials for new taxa that were thus described. He is eponymously involved in at least 12 taxa, of which five are the currently used names (Table 1; Figure 2) and his name is commemorated in a number of geographical features and landmarks (Table 2). Fitzalan undertook a number of significant expeditions and excursions (Table 3). Some of these were the first botanical ventures into those areas, such as the Burdekin Expedition [1860], Mount Elliot [1863, 1872], Mount Dryander [1869, 1872] and Daintree River [1875, 1876].

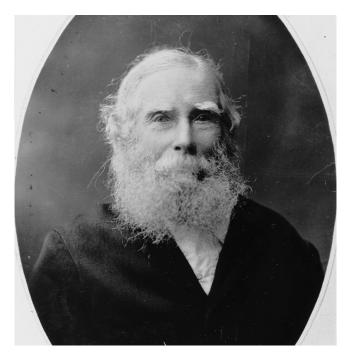


Fig. 1. Eugene (Fitzherbert Albini) Fitzalan, circa 1909. Photographer unknown. Reproduced with permission of the State Library of Queensland.

Fitzalan remains a somewhat enigmatic individual, with speculation about his childhood, ancestry and education in Ireland. Apart from a few details that Fitzalan himself provided during his lifetime, no documentation has been traced about his early life. It may be that some of the claims made by various authors about his ancestry and education were assumptions extrapolated from a few fragments of dubious information (Froggatt 1935; Turner 1943; Desmond 1994; Anon. [Friends of the Botanic Gardens, Cairns] 2001; Holmes 2002; Rutherford 2002; Grimwade *et al.* 2005;

Table 1. Taxa named for Eugene Fitzalan. The original epithet is listed first and the currently used name follows in parentheses, if different. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Adiantum hispidulum var. fitzalani F.M.Bailey (= Adiantum diaphanum Blume) (Pterid.). Type: Qld. Daintree River, 1875, *E.Fitzalan s.n.*; holo: MEL0692085.

^{(Dendrobium fitzalanii F.M., Epi. Queensland' (Orchid.) . Hill, W. (1875) Catalogue of the plants in the Queensland Botanic Garden [p. 35]. James. C. Beal: Brisbane. Type: not designated. Nomen dubium.}

Eria fitzalani F.Muell. (= *Hymeneria fitzalanii* (F.Muell.) M.A.Clem. & D.L.Jones). Type: Holotype not located. Neotype: Qld. Massey Creek, McIlwraith Range, 4 Sept. 1979, *J.R. Clarkson* 2604; BRIAQ0381865.

"Erythrina fitzalanii (W.H.)" (Fab.). Burdekin expedition: botanical research. The Mercury (Hobart), Monday 26 November 1860, p. 3. "Amongst the ornamental plants the Erythrina fitzalanii (W.H.), a scarlet flowering coral tree, twelve feet in height, is the gem of those collected during the expedition. Trees of it in flower were seen by the party six miles distant". Type: not designated. Nomen dubium.

Eulophia fitzalanii F.Muell. ex Benth. (= *Eulophia bicallosa* (D.Don) P.F.Hunt & Summerh.) (Orchid.). Type: Qld. Mt Dryander, *E. Fitzalan s.n.*: holo: MEL677527.

Ficus fitzalani Miq. (= *Ficus opposita* Miq.) (Mor.). Type: Qld. Cape Cleveland, *E.Fitzalan s.n.*; U0004664.

Fitzalania F.Muell. (= *Meiogyne* Miq. (Annon.). Type species: *Fitzalania heteropetala* (F.Muell.) F.Muell. (= *Meiogyne heteropetala* (F.Muell.) D.C.Thomas, Chaowasku & R.M.K.Saunders). Type citation: *In insulis Cumberland Islands et prope portum Denison. E. Fitzalan.* Type: Qld. Cumberland Islands & Port Denison, *E.Fitzalan s.n.*; syn: BRIAQ0332759, MEL2064812–16, NSW453651.

Gardenia fitzalanii F.Muell. (= *Atractocarpus fitzalanii* (F.Muell.) Puttock) (Rubi.). Type: Qld. Cape Upstart & Magnetic Island, *E.Fitzalan s.n.*; holo: MEL598569.

Lepistemon fitzalani F.Muell. (= Lepistemon urceolatus (R.Br.) F.Muell.) (Convolvul.). Type: Qld. Trinity Bay, *E.Fitzalan s.n.*: MEL0304420.

Macropteranthes fitzalanii F.Muell. (Combret.). Type: Qld. Port Denison, *E.Fitzalan s.n.*; lecto: MEL1005516.

Musa fitzalanii F.Muell. (Mus.). Type: Qld. Daintree River, 1875, *E.Fitzalan 3*; syn: MEL657778–657782. NB: Possibly extinct, not subsequently recollected.

Psychotria fitzalanii Benth. (Rubi.). Type: Qld. Burdekin Expedition, *E.Fitzalan s.n.*; K000777505.

DIA 2014; Nelson 2014). An assessment of those claims is presently being made (Dowe & Nelson *in prep.*), and will not be discussed here. Suffice to say, Fitzalan claimed to have had horticultural training in Ireland, prior to his emigration to Australia (Maiden 1922; Kelly 1973; Hall 1978; Sundowner 1986; George 2009; Nelson 2014).

In addition to the lack of evidence about Fitzalan's early life, there is also mystery about his move to Australia. There are no known records of a Eugene Fitzalan [or spelling variants] arriving in Australia during the period 1848–1850. However, there were migrants, whose names were never officially recorded, arriving as crew or steerage passengers. The steerage section of a ship provided the cheapest rate of

Table 2. Geographic features and place names commemoratingEugene Fitzalan. Nomenclature is that presented in DRNM(2014).

Fitzalan Island [S20° 19' 50.4", E148° 57' 37.6"], Whitsunday Group, Queensland: Formally named in 1933 by Lieut. Commander C.G. Little, RAN of HMAS *Moresby*.

Fitzalan Point [S20° 19' 42.2", E148° 57' 46.3"], (no longer used) the most southern point of Whitsunday Island, immediately adjacent to Fitzalan Island.

Fitzalan Passage [S20° 18' 37.7", E148° 55' 52.1"], between Henning Island and Whitsunday Island, Queensland.

Fitzalan Creek [S16° 54' 02.4", E145° 44' 58.3"], Cairns, passes through Edge Hill and the Cairns Botanical Gardens, Queensland.

Fitzalan Garden [S16° 54' 00.8", E145° 44' 57.8"], a section in the Cairns Botanical Gardens.

Fitzallan Close [S16° 54' 54.4", E145° 43' 13.0"], Kanimbla, Cairns, Queensland.

Fitzalan Street [S19° 59' 48.1", E148° 13' 40.8"], Bowen, Queensland.

Table 3. Time-line of Eugene Fitzalan's primary plant collecting activities.

?1854:	Tasmania, dates not recorded
?1858-60:	Moreton Bay area, dates not recorded
1860:	The Burdekin Expedition, 22 August - 18 October
1861–1886:	Port Denison (Bowen)
1863:	Mount Elliot, Townsville area, August [collected with John Dallachy]
1869:	Mount Dryander, 5–8 November [collected with Frederick Kilner]
1870–74:	Whitsunday Islands
1872:	Mount Dryander, June (collected with Frederick Kilner) and July (collected with John Rainbird); Townsville area, September
1875–77:	Trinity Bay [Cairns], Cooktown and Daintree River
1880:	Daintree River
1881:	Mount Elliot (collected with John Rainbird) and Townsville area, November
1882:	Townsville area, February
1882:	Cairns area
1883:	Whitsunday area
1886–1896:	Cairns area
1887:	Atherton Tablelands

passage, and the names of many steerage passengers were not documented. This contrasts with those migrants who arrived on organised plans where details of name, occupation and origin were recorded on arrival in Australia.

In contrast, Fitzalan's activities, movements and enterprises in Australia after 1852 are well documented (Dowe & Nelson *in prep.*). Through his nursery and seed collection and distribution activities, Fitzalan also made a significant contribution to horticulture in Queensland (Table 4).

This work aims to provide an assessment of Fitzalan's botanical collections within an historical context. Nine expeditions and excursions are examined in detail, and summaries of the itineraries and botanical activities are provided. For each, the specimens used in typification and in taxonomic citations are identified. As well as examining the way his collections were used in taxonomic research, the species lists provide an indication of floristic composition at the time at the locations where he collected.

The Burdekin Expedition, 1860

The Burdekin Expedition was among the first coastal surveys that the newly established Queensland Colonial Government arranged and funded. Queensland separated from New South Wales on 6 June 1859 (State of Queensland 1998), and the Colonial Declaration took place on 10 December of the same year (Queensland Government Gazette 1859). By August 1860, the Queensland Government (1860) had authorised the expedition, and the necessary personnel, equipment and vessels were organised (Smith 1860). Broadly, the expedition was seen as a way to foster settlement in north Queensland, and to ascertain agricultural and pastoral potential. In particular, it was to locate the mouth of the Burdekin River, and to determine if the river was navigable and suitable as a port.

The circumstances which led to Eugene Fitzalan being engaged as the botanical collector on the expedition are not documented. Prior to this, he had been collecting for

Table 4. The main horticultural activities in which EugeneFitzalan was involved.

1855: Proprietor of Elvaston Gardens, Barwon River, Geelong 1860: Proprietor of a plant and seed shop, Brisbane [Edward Street] 1860-1897: Donations to, and exchanges with, the Melbourne Botanic Gardens, Geelong Horticultural Improvement Association, Brisbane Botanic Gardens, Calcutta Botanic Gardens and Bogor Botanic Gardens 1861-1870 Established gardens in Bowen 1872-1886: Proprietor of Willow Vale Gardens, Bowen 1873-1897: Donations to, and exchange with, the Queensland Acclimatisation Society 1879-1886: Curator of Bowen Botanical Reserve 1887-1897: Caretaker/Curator of Cairns Botanical Reserve 1887-1897: Proprietor of Rosebank, Cairns 1897-1911: Florist, West End, Brisbane

Ferdinand Mueller in Tasmania and near Brisbane (MELISR 2014). Fitzalan's Tasmanian collections are scant and poorly documented (Mueller 1869) but his Brisbane collections show a significant increase in numbers and improvement in quality, which suggests that upon moving to Brisbane he had become more involved with botanical activities. The terms of his contract are not known. For the Burdekin Expedition, he was on secondment to the Queensland Government but with his salary provided by the Victorian Government. In correspondence from Fitzalan to the Premier's Department in 1868, he wrote that "*I accompanied this expedition as a botanical collector in the pay of the Melbourne Government*"². His plant collections were first examined by the Queensland Government Botanist Walter Hill in Brisbane, and then subsequently sent to Mueller in Melbourne.

There are a number of reports that have relevance to the itinerary, botanical activities and collections of the Burdekin Expedition (see Dalrymple 1860; Fitzalan 1860; Hill 1860a, 1860b; Mueller 1860b; Smith 1860). As the focus here is botanical, much of the incidental and exploration consequences are not dealt with. There were minor discrepancies between dates of events between the reports, so a consensus approach has been taken. All quotes are verbatim with the original spelling retained. Locations are kept as the original followed by the current name in square brackets. Similarly for distances, originally given in imperial measurements, but converted to metric and included in square brackets. Species identifications are largely tentative, but based on analysis of the available descriptions and known herbarium specimens collected by Fitzalan during the



Fig. 2. Plant species named for Eugene Fitzalan. Top left: *Atractocarpus fitzalanii* (F.Muell.) Puttock) (Photo: J.L.Dowe). Top right: *Hymeneria fitzalanii* (F.Muell.) M.A.Clem. & D.L.Jones) (Photo: J.L. Dowe). Bottom left: *Macropteranthes fitzalanii* F.Muell. (Photo: Steve Pearson). Bottom right: *Psychotria fitzalanii* Benth. (Photo: J.L.Dowe).

expedition. Where there is a probable connection between the species and an herbarium specimen, the relevant herbarium specimen record is given after the species in square brackets. The majority of Fitzalan's herbarium specimens are conserved in MEL [National Herbarium of Victoria]. There has been no attempt to provide typification or corrected identifications for the specimens as these aspects are beyond the scope of this present work.

The collection labels originally provided by Fitzalan in many cases have not survived, and those which have survived provide limited information. Very few are dated, and locality descriptors are very broad: for example Burdekin Expedition, Burdekin River Estuary, Cumberland Islands or Port Denison, etc. (Figure 3). Taxonomy is that presented in the Australian Plant Census (2014) and Australian Plant Name Index (2014), and place names follow those provided by DNRM (2014).

The Burdekin Expedition itinerary

On the evening of **Wednesday 22 August 1860**, the crew boarded H.M. Colonial Schooner *Spitfire* which was anchored at Customs House, Brisbane. The *Spitfire* (Figure 4) was a rigged ketch of 60 tons [54.4 MT], length of 62 feet

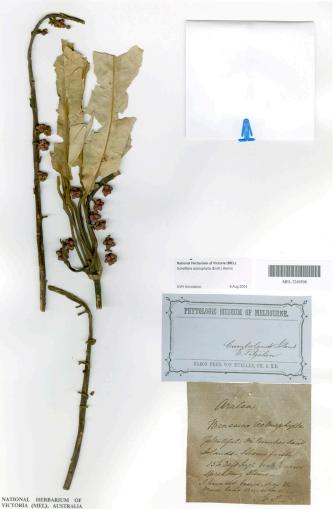
[18.9 m], beam of 16 feet [4.8 m] and draught of 5 feet 6 inches [1.7 m] (Jones 1998). The ship's company included:

- Commander Joseph W. Smith RN (b. ?; d. ?), a Royal Navy Officer who was employed by the Queensland Government to command the Burdekin Expedition and was formerly Master of H.M.S. *Herald* (Jones 1998).
- George Elphinstone Dalrymple (b. 6 May 1826, Aberdeenshire, Scotland; d. 22 Jan.1876, England), explorer, public servant, politician and Commissioner of Crown Lands for Queensland [1860-1863] (Farnfield 1968; Austin & Lack 1972).
- Robert Phippen Stone (b. 1837; d. 11 May 1885), surveyor and cartographer and assistant to Joseph W. Smith and 3rd Master of the *Spitfire*.
- Mr Bousfield (also Bausfield), Master of the Spitfire.
- Eugene Fitzalan, botanical collector.
- seven seamen.
- two Aborigines, James Alexander and the other name not recorded.

The following day, **Thursday 23 August**, the *Spitfire* departed Brisbane and spent the next few days anchored off Moreton Island, allowing the ship's chronometers and other equipment to be calibrated, and for water to be taken on board. On the morning of **Sunday 26 August**, the ship sailed from Cape Moreton, and headed north.

Analea Brassiae Actinophyla Elentiful On Cumberland Clands - blooms freely 20/1 high with ed dung the ave not forma

Fig. 3. Example of a specimen collected by Eugene Fitzalan. **Left:** *Schefflera actinophylla* [as *Brassiaea actinophylla*] [MEL2249598] collected from the Cumberland Islands during the Burdekin Expedition. Reproduced with permission from the National Herbarium of Victoria (MEL), Royal Botanic Gardens Melbourne. **Right:** Detail of label of *Schefflera actinophylla*.



It appears that one of the first land-falls was Lady Elliot Island, as Mueller (1860b) reported that the orchid '*Phajus australis* F.M.' ³ was collected from "*Lady Elliot's Island, off Wide Bay*" during the expedition. It is suspected that this is possibly a labelling error, as habitats suitable for swamp orchids do not occur on the island. However, specimens of *Phaius australis* are extant in MEL, and correctly identified. There was no date recorded for this event, but the most likely date that they would have been in the vicinity of Lady Elliot Island was around **Tuesday 28 August**. None of the other reports mentioned making land-fall at Lady Elliot Island [or indeed any land-fall in the first three days of the Expedition].

On the morning of **Thursday 30 August**, they entered the Fitzroy River mouth, and were at anchor at Rockhampton by the evening. A few days were spent at Rockhampton, and Fitzalan "saw here for the first time a splendid deciduous tree, known as the Leichhardt tree ⁴... I brought samples of it sawn into boards with me to Brisbane, and feel convinced that when polished it will be an ornamental satin wood" (Fitzalan 1860). On **Saturday 1 September**, they departed Rockhampton in the afternoon and anchored about 10 miles [16 km] downstream in the Fitzroy River for the night. The following day, **Sunday 2 September**, the *Spitfire* became grounded in the lower reaches of the Fitzroy River, and Fitzalan (1860) noted that it "gave some of us the chance of going ashore for a couple of hours".

At high tide on Monday 3 Sept, the Spitfire was able to depart the Fitzroy River, and traversed Keppel Bay before anchoring off Curtis Island, near Sea View Hill [Sea Hill] for the night. At daylight on **Tuesday 4 September**, they departed Curtis Island, and sailed through the day and the night. High Peak Island was passed at about 8.30 am on Wednesday 5 September and by noon Percy Island No. 1 [South Island] was being approached. Some observations on the vegetation were provided by Fitzalan (1860) that "there is an abundance of pine here, of a better quality than that of Moreton Bay 5". By mid-afternoon, the ship was anchored in a harbour formed by Percy Island No. 1 [South Island], Percy Island No. 2 [Middle Island] and Percy Island No. 6 [North East Island]. In the late afternoon, a party, including Fitzalan, went ashore at Percy Island No. 1 [South Island] near the Beale's Creek watering place [exact location not known], but returned to the ship for the night.

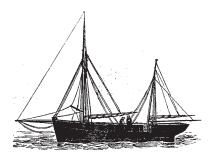


Fig. 4. H.M. Colonial Schooner *Spitfire*. Illustrated Sydney News 1855, 14 April.

On the morning of **Thursday 6 September**, a party, including Fitzalan, went ashore to collect additional water and Fitzalan (1860) "found some interesting plants here, one of which may probably be used as an ornamental timber - the Calophyllum ⁶. *The trunk of the tree I saw was about two feet in diameter,* very hard and close-grained, and prettily veined; it would be good for turning purposes, and I believe would answer the purpose of the wood engraver. I got specimens of several ornamental shrubs 7 here". Hill (1860a) elaborated on Fitzalan's collections: "On Percy Island was found growing in the sandy soil a calophyllum⁸, a beautiful spreading tree, about fifty feet in height and twenty-four inches in thickness. The tree, when wounded, exudes a yellowish, bitter juice, frequently hardened to a gum... On this island was also seen a yam⁹, which is greatly sought after by the natives". Dalrymple (1860) reported on some of Fitzalan's activities and also an event involving other voyagers who had previously visited the island: "the botanical collector attached to the expedition, here obtained specimens of a new and very beautiful terrestrial orchid, Vanda Ceruliensis¹⁰. Mr. Hill, Director of the Botanical Gardens at Brisbane, first discovered this beautiful plant on No. 2 Percy in 1854; but the attack of the aborigines, which resulted in the murder of his [Walter Hill's] companion, Mr. Strange, obliged him to abandon his specimens". Some clarification of the identity of Dalrymple's 'Vanda Ceruliensis' was provided by Hill (1860b): "Two beautiful plants of the Dendrobium luridum ¹¹, and its variety, with yellow flowers, were also collected on the island".

At about 2.30 pm in the afternoon of Thursday 6 September, they departed Percy Island No. 1 [South Island], then sailed between Percy Island No 2 [Middle Island], Sphinx Island and Pine Island. Prudhoe Island was passed at about at 9.00 pm, and they continued to sail during the night (Figure 5). At 10.00 am on Friday 7 September they passed Flinders' 'L' Island [Scawfell Island], and at noon passed Flinders' 'M' Island [Brampton Island]. Observations of the abundance of pines were made here by Mueller (1860b) based on Fitzalan's notes: "Araucaria cunninghami Aiton. 12...Cumberland Islands...Mr. Fitzalan offers on this pine the following notes:- "Very abundant from Percy's Islands upwards. On Percy Islands it differs but little from the Moreton Bay pines, except in the invariable regularity of its branches, these being in regular tiers opposite". In response to what may have been the sound of a gunshot, they anchored off the northern shore of 'M' Island [Brampton Island] and went ashore in the afternoon at about 2.00 pm for about one hour to investigate. On approaching an Aboriginal campfire, they determined that the noise possibly came from an exploding rock that had been placed in the fire. The camp and canoes had been recently abandoned in fright by the Aboriginal inhabitants, and Fitzalan (1860) related that "we found in every one of the canoes a piece of the stem of an orchid¹³, which is plentiful on the islands, about six inches long, for which we could not conjecture the use". Anchoring off 'H' Island [Carlisle Island], they spent the night there (Figure 5).

Hill (1860b) listed these species for the Percy and Cumberland islands:

 Sapotaceae, a handsome tree ¹⁴, wood solid, heavy, close grained, fruit not eatable. Percy Island.
 Fabaceae, a small shrub ¹⁵. Percy Islands. 88. Fabaceae, a small shrub ²⁰. Cumberland Island.
89. Proteaceae, a pretty shrub ²¹. Cumberland Island.

72. Orchidaceae, an epiphytic plant ¹⁶, one of the most beautiful of the Australian orchids, with spikes of olive-coloured flowers, and 2 feet long. Percy Island.

90. Clusiaceae, a beautiful tree ¹⁷, *with thick milky sap. Percy Island.*

120. Convolvulaceae, seeds 18. Percy Island.

65. Pinaceae, a magnificent tree ¹⁹, timber white, close grained, can be procured in great quantities on Cumberland and other islands.

On the morning of **Saturday 8 September** they departed 'H' Island (Carlisle Island], to sail past Linhe Peak [Linne Island] and other islands of the Sir James Smith's Group. Further observations were made by Dalrymple (1860) on the abundance of pines and that they have "*many characteristics of the Pinus Cunninghamei*²², *approach more to the Pinus Cookei*²³ *of the New Caledonian variety*". At nightfall they sailed past Shaw's Peak [Shaw Island], and anchored off the western point (Figure 6). On the morning of **Sunday 9 September** they departed Shaw Island, and by 8.00 am had entered the Whitsunday Channel, narrowly missing a small underwater pinnacle peak which they named Spitfire Rock.

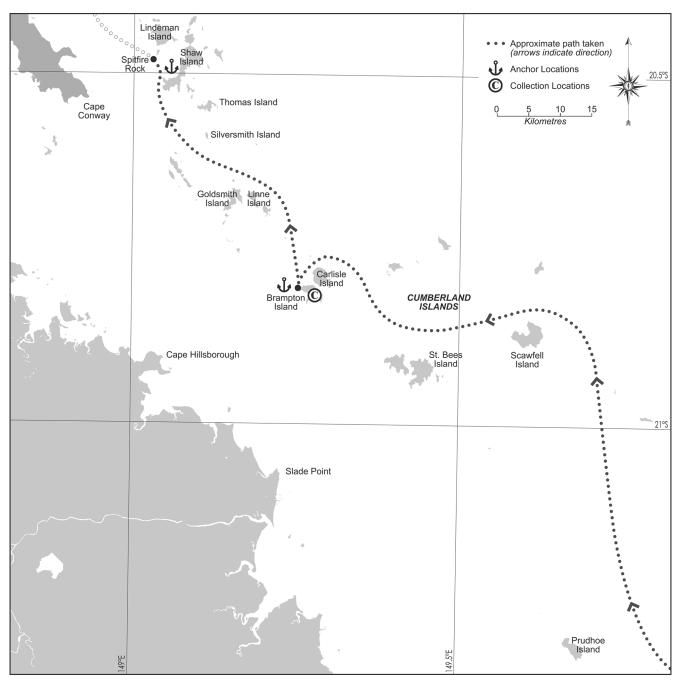


Fig. 5. Map of the approximate path taken during the Burdekin Expedition, Prudhoe Island to Shaw Island, 7–8 September 1860. Prepared by Claire Burton, Cairns Regional Council.

They passed through the straits between Cape Conway, Pine Head [Pine Island] on one side and Pentecost Island, Whitsunday Island, and Passage Islands [Hamilton Island and Dent Island] on the other, and at about 2.00 pm rounded Molle Head and entered Port Molle to anchor in the south of the harbour opposite a beach on the northern face of Smith's Boomerang Island or Fitzalan's Molle Island [Long Island]. Here they went ashore for about four hours. On Long Island Fitzalan (1860) observed an Erythrina in flower: "we saw in the centre of one of the patches of scrub...a tree of such an intense scarlet that it was visible at a distance of several miles. I made my way to this spot, and found it to be a new *Erythrina*²⁴, *completely covered with large scarlet blossoms*, but without a single leaf on it. This is the most beautiful tree I have ever seen". Smith (1860) was similarly impressed with the Erythrina: "Here [Long Island], and at every place we visited, geological and botanical specimens were obtained; among the latter, a most beautiful flower of a scarlet color, completely covering the few trees which we saw. Upon close examination it was observed that, at this season, there were no leaves on the tree, which has a whitish bark, and is about 20 ft in height. I regret to find that unfortunately we failed in preserving our specimens of this magnificent flower". Hill (1860b) provided a provisional name for the Erythrina: "Amongst the ornamental plants the Erythrina fitzalanii (W.H.)²⁵, a scarlet flowering coral tree, twelve feet in height, is the gem of those collected during the expedition. Trees of it in flower were seen by the party six miles distant". Fitzalan (1860) summarised the vegetation on Long Island: "Molle Island [Long Island] has a greater variety of trees and shrubs than any place of its size I have ever been on, many of them new and interesting species. There was a palm ²⁶ on this island which we saw while coasting along that was new to me, but we could not get to it, as we had but four hours on the island". Similarly, Dalrymple (1860) provided a synopsis on the vegetation: "The Seaforthia 27 and Pandanus palms²⁸, the Araucaria cookie²⁹, bottle trees³⁰, acacias³¹, a splendid scarlet flowering Erythrina ³², and Hybiscus ³³, were observed in the thickets of Molle Head. Eucalypti ³⁴, Ash ³⁵, Tea-trees ³⁶, Figs (Ficus elastica ³⁷) formed the forest of the lower hills and flats". Hill (1860b) provided additional remarks on the plants that were collected: "At Port Molle, a beautiful Apocynaceae ³⁸ was discovered, loaded with scarlet fruit, which is not eatable. The tree when wounded exudes a milky juice, and is very adnate, approximating to gutta percha ³⁹".

Hill (1860a) listed these species for Port Molle:

2. Araliaceae, a small growing tree ⁴⁰. Port Molle.

51. Euphorbiaceae, a shrub, with bright green foliage ⁴¹. Port Molle.

91. Fabaceae, a small tree ⁴². Port Molle.

92. Asteraceae, an herbaceous plant ⁴³. Port Molle.

96. Graminaceae, a small growing grass ⁴⁴. Port Molle.

105. Compositae, a very showy herbaceous plant ⁴⁵. Port Molle.

114. Euphorbiaceae, herbaceous plant ⁴⁶. Port Molle.

They departed Port Molle at daylight on Monday 10 September, moving to about 5 miles (8 km) off-shore. By about 6.00 pm, they passed within about 1 mile [1.6 km] of Cape Gloucester, and by about 8.00 pm rounded the northern tip [Gloucester Head] of Gloucester Island, where they anchored for the night (Figure 6). On the morning of **Tuesday 11 September**, anchor was weighed and they entered Edgecumbe Bay, passing within about 1 mile [1.6 km] to the south of Middle Island and entered Port Sinclair [Port Denison]. By 10.00 am they were anchored off Stone Island, facing the centre of the port. Soon after, Smith (1860) reported that "Messrs. Dalrymple and Stone, with a small party, ascended the western heights of Mount Gordon". Dalrymple (1860) provided some notes on the vegetation observed and collected on Mount Gordon: "A new Hybiscus ⁴⁷ was found in the scrub of the hill top: also a bush with hook-shaped thorns, like the 'Wait-a-bit thorn" of the Cape of Good Hope ⁴⁸. Quantities of the small fig ⁴⁹ were also found on the summit of Mount Gordon". They returned to the ship and remained anchored off Stone Island for the night.

Hill (1860a) listed this species for Mount Gordon:

42. Sapotaceae, a small tree ⁵⁰. Mount Gordon.

At daylight on Wednesday 12 September, they departed Port Sinclair [Port Denison]. They moved to within about 1¹/₂ miles [2.4 km] off Cape Edgecumbe, and by 3.00 pm were sailing close to the coast near Cape Upstart (Figure 7). In late afternoon they anchored off the western side of Cape Upstart and went ashore for a couple of hours. They proceeded inland and Dalrymple (1860) "named the hill I ascended Mount Myrtacea, from a very fragrant and pretty species of the myrtle ⁵¹ with small white blossoms scented like hawthorn, found among the rocks of its summit by Mr. Fitzallan". A number of new species were observed by Fitzalan (1860) in this area: "It was here I first met with the native cotton tree ⁵², but it was only in blossom. There is a palm very plentiful here which the natives gather the fruit of, and in great quantities of it; it is a cycas ⁵³". Hill (1860b) attempted an identification based on Fitzalan's collection: "At Cape Upstart, the arborescent Gomphocarpus ⁵⁴ (or native cotton) was seen partly covered with its beautiful yellow flowers, while other parts of the tree were laden with pods containing the fibrous substances". The cycas was annotated by Mueller (1860b) based on Fitzalan's notes: "Cycas media *R.Br.*⁵⁵...*Cape Upstart. This plant attains, according to Mr.* Fitzalan's notes, a height of 70 feet". Mueller (1860b) further accounted for "Gardenia ochreata F.M. 56...Abundant on the granite hills of Cape Upstart. Mr. Fitzalan observes that the fruit is eaten by the natives". They remained at anchor here for the night.

Hill (1860a) listed these species for Cape Upstart:

5. Rubiaceae, an ornamental tree ⁵⁷. Cape Upstart.

21. Malvaceae, a small tree ⁵⁸. Cape Upstart.

27. Myrtaceae, a small tree ⁵⁹. Cape Upstart.

29. Fabaceae, a small tree with graceful pendant foliage ⁶⁰. Cape Upstart.

57. Cedrelaceae, a lofty tree ⁶² with cylindrical stem and ample head, well clothed with pinnate foliage. Cape Upstart.

58. Pittosporaceae, a shrub ⁶³, with spikes of white blossoms. Cape Upstart.

102. Moraceae, a tree ⁶⁴ about 30 feet high, with soft wood. Cape Upstart.

During **Thursday 13 September**, Dalrymple and Fitzalan rowed across Upstart Bay and went ashore to climb to the top of a hill [Big Hill near Wunjunga] to make observations (Figure 7). They returned to the *Spitfire* and remained at

anchor off the western side of Cape Upstart for that night. During the morning of **Friday 14 September**, they went ashore at Cape Upstart and ascended Station Hill [Signal Hill] where Fitzalan (1860) "sowed some pumpkin seed on the top of the Cape, and everywhere we went ashore". They returned to the boat and weighed anchor and sailed past Cape Bowling Green at about 9.00 am. Travelling close to the coast during the rest of the day, they sailed into the night, before reaching Cape Cleveland at about 8.00 am on **Saturday 15 September**, and anchoring off the west coast in the vicinity of White Rock (Figure 8). At about 9.00 am, Fitzalan, Dalrymple and James Alexander went ashore, as noted by Fitzalan (1860) "while Mr Smith and Mr. Stone were taking observations on a rock which stood some distance out from

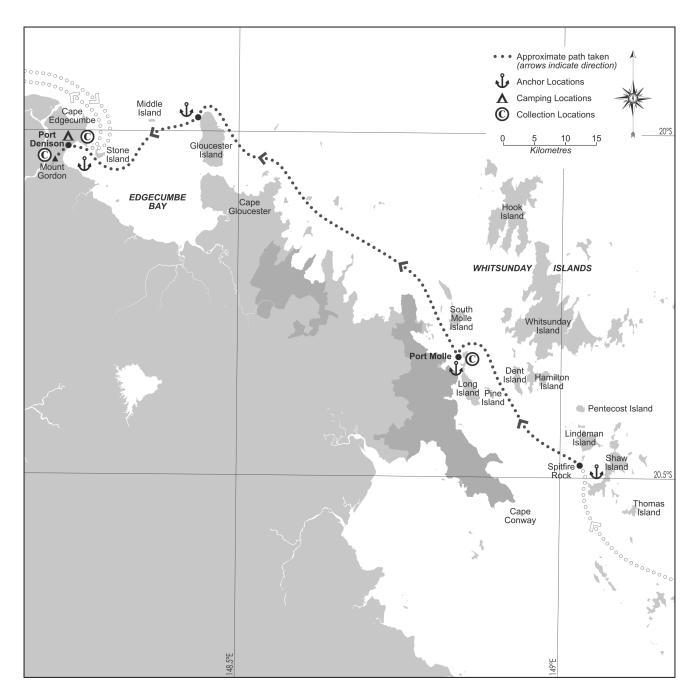


Fig. 6. Map of the approximate path taken during the Burdekin Expedition, Shaw Island to Port Denison, 9–11 September 1860. Prepared by Claire Burton, Cairns Regional Council.

the shore protected by the boat's crew, Mr. Dalrymple and myself went upon the beach". They remained at anchor here on **Sunday 16 September** until the morning of **Monday 17 September**, after which they sailed to the northern side of Magnetical Island [Magnetic Island] and into Halifax Bay. At about 5.00 pm, somewhere near the northern cape of Magnetic Island they went ashore and Fitzalan (1860) reported that "having sprung our topmast we went ashore on this island to cut a pine spar to replace it in case it broke. There is plenty of pine ⁶⁵ on this island. The wood is very hard and white, and would not swim". At about 7.00 pm, they anchored for the night in Halifax Bay on the western side of Magnetic Island between it and the mainland, with Bay Rock to the W/N by 1½ miles [2.4 km]. Hill (1860a) listed these species for Upstart Bay and Magnetic Island.

53. Apocynaceae, a tall tree ⁶⁶, with some beauty. Upstart Bay.

84. Fabaceae, a climber ⁶⁷. Signal Hill, Upstart Bay.
25. Myrtaceae, one of the species known under the name of Blue Gum and Grey Gum ⁶⁸. Plentiful on Magnetical Island.

34. Myrtaceae, a small shrub ⁶⁹. Magnetical Island.
69. Fabaceae, a small shrub ⁷⁰, growing on the granite hills. Magnetical Island.

85. Fabaceae, a shrub ⁷¹, with silvery leaves. Magnetical Island.

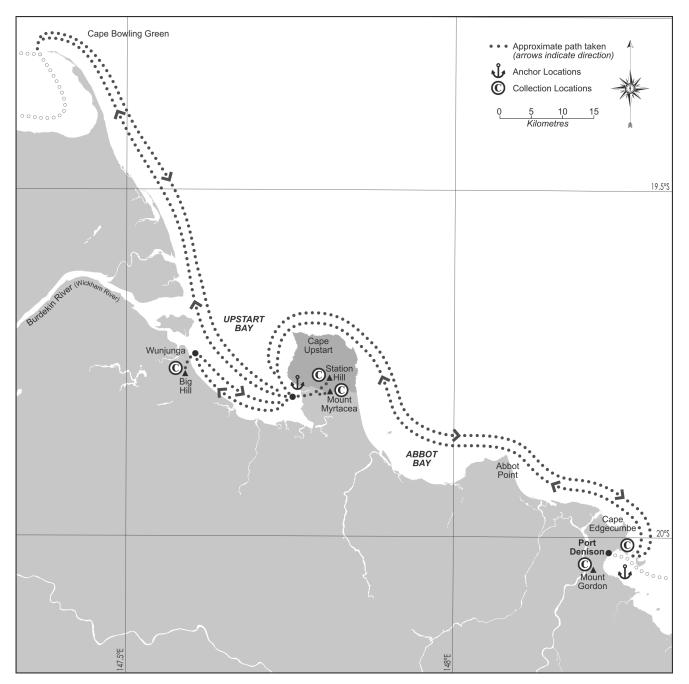


Fig. 7. Map of the approximate paths taken during the Burdekin Expedition, Port Denison to Cape Bowling Green, 12–14 September, 26 September–9 October 1860. Prepared by Claire Burton, Cairns Regional Council.

Hill (1860b) and Mueller (1860b) listed respectively these species for Magnetic Island: "*The Araucaria cunninghamii* (var glauceae) ⁷² was also among the collection...a tree was cut on Magnetical Island. Its wood was remarkably white and close grained", and "Loranthus vitellinus ⁷³ ... On the branches of Eucalypti, Bursaria, Ficus, arborescent Grevilleae and other trees, Magnetical Island, Fitzalan".

Tuesday 18 September was spent examining the coast of Halifax Bay, to as far north as "*latitude 19 deg. south*" [just south of the Palm Islands]. They returned to the same anchorage as the previous night near Magnetic Island. At daybreak on **Wednesday 19 September**, they went ashore on a southern headland of Halifax Bay [Cape Pallarenda], where they climbed a hill to get observations. From here they sailed into Cleveland Bay where they anchored for the night.

Hill (1860a) listed these species for Halifax Bay:

86. Malvaceae, a small tree ⁷⁴, 20 to 30 feet high. Halifax Bay.

104. Fabaceae, small shrub 75. Halifax Bay.

119. Fabaceae, seeds ⁷⁶. Halifax Bay.

During Thursday 20 September, Fitzalan and Stone examined the coast of Cleveland Bay, and Dalrymple and Smith rowed up Crocodile Creek for about 8 miles [12.9 km], with Smith (1860) reporting that he "despatch[ed] Mr. Stone with the botanical collector in one boat". They remained at anchor here for the night. At daybreak on Friday 21 September, they went ashore and climbed the most western peak of Cape Cleveland. Returning to the boat, they moved slightly further north, where Fitzalan and a companion [Mr Stone?] were put ashore to walk across the northern part of Cape Cleveland, and to rendezvous with the boat on the eastern shore. Fitzalan (1860) noted that "it was here [eastern point of Cape Cleveland] I found the pods of the native cotton ⁷⁷, but as the pods were not ripe the cotton cannot be considered a fair sample; I doubt if they had obtained their full size. This tree, if it does not become useful, will be at least highly ornamental". It was also here that Fitzalan collected a species of Hoya as annotated by Mueller (1860b): "Hoya dalrympliana 78 ... On granite hills at Cape Cleveland...The interest evinced during the expedition by Mr. Dalrymple in the botanical investigations of Mr. Fitzalan has prompted me to name this new plant in honour of that gentleman". A plant reputed to be toxic was noted by Hill (1860b): "At Cape Cleveland fruits of the Cycas circinalis⁷⁹ were obtained and eaten by the party, and found to be very agreeable". Upon meeting the boat after their traverse of Cape Cleveland, they sailed into the western part of Bowling Green Bay, and at sunset anchored about 9 miles (14 km) to the south-east of Cape Cleveland for the night.

Hill (1860a) listed these species for Cleveland Bay and Cape Cleveland:

121. Malvaceae, seeds ⁸⁰. Cleveland Bay.
122. Celastraceae, a small tree ⁸¹. Cleveland Bay.
9. Rubiaceae, an ornamental tree ⁸², same as No. 5
[Cape Upstart]. Cape Cleveland.

10. Anacardiaceae, a robust growing tree ⁸³ with large primate [pinnate] leaves, and producing large racemes of purple fruit. Cape Cleveland.

1. Rubiaceae, a small shrub ⁸⁴. Cape Cleveland.

12. Meliaceae, a large growing tree with primate [pinnate] *leaves* ⁸⁵. *Cape Cleveland.*

23. Fabaceae, a shrub of little value ⁸⁶. Top of Cape Cleveland.

28. Myrtaceae, a large tree ⁸⁷ with stout trunk and spreading branches, full of foliage; wood close grained and hard. Common at Cape Cleveland.

41. Thymelaceae, a shrub ⁸⁸, 6 to 8 feet high. Cape Cleveland.

66. Fabaceae, a handsome spreading shrub ⁸⁹. Cape Cleveland.

71. Verbenaceae, a nice flowering shrub ⁹⁰. Cape Cleveland.

77. Fabaceae, a beautiful shrub ⁹¹ with yellow flowers. Cape Cleveland.

82. *Malvaceae*, *a shrub* ⁹². *Cape Cleveland*.

93. Fabaceae, a small shrub 93. Cape Cleveland."

110. Malvaceae, a large shrub 94. Cape Cleveland."

125. Sterculiaceae, seeds 95. Cape Cleveland."

Mueller (1860b) listed this species for Cape Cleveland: "*Pseudanthus pimeloides Sieber* ⁹⁶...*Flowers, according to Mr. Fitzalan, white in a recent state*".

On the morning of Saturday 22 September, they moved closer to the coast and anchored off Mount Elliot. Fitzalan and a 'companion' rowed up a narrow mangrove-lined stream [Haughton River] for about 12 miles [19.3 km]. At about 1.00 pm they went ashore for 'dinner', after which they returned downstream and re-joined the boat which remained at anchor for the night. On Sunday 23 September, they examined the coast of Bowling Green Bay, and anchored near the mouth of a small creek [Barratta Creek], where they spent the night. The following day, Monday 24 September, Fitzalan, Dalrymple and Smith rowed along the coast of Bowling Green Bay, and then up the small creek [Barratta Creek] for about 18 km, where they camped overnight on an open flat. The following morning, Tuesday 25 September, they rowed down the small creek [Barratta Creek], and joined the boat at about 1.00 pm. They weighed anchor and sailed out of Bowling Green Bay and through the night into Upstart Bay, anchoring in the afternoon of Wednesday 26 September on the northern side of Cape Upstart, near the anchorage place of the previous week for the night.

Hill (1860a) listed these species for Bowling Green Bay:

65. Staticeae, a very showy herbaceous plant ⁹⁷. Bowling-green Bay.

95. Fabaceae, a small plant ⁹⁸, resembling the sensitive plant. Bowling-green Bay.

A party, including Fitzalan, went ashore at Cape Upstart on **Thursday 27 September**, spending all day there. On **Friday 28 September**, they anchored off the western coast of Upstart Bay [near Wunjunga], where they went ashore to climb a hill, Beach Mount [Big Hill], to gain a view of the Wickham River [Burdekin River] mouth. They had climbed this hill on a previous visit, but undertook this second climb with the new knowledge that the Wickham River was most likely the Burdekin River. They departed about midday, setting a direct course for Port Sinclair [Port Denison] and sailed through the night.

They entered Port Sinclair [Port Denison] at about 4.00 pm on **Saturday 29 September**, and anchored off Stone Island. They remained at anchor here until Tuesday 9 October. Meanwhile, Fitzalan spent all of **Sunday 30 September** on Stone Island: *"This is the Garden Island of Sinclair"*

and Gordon – the garden being a patch of swampy ground in which a yam ⁹⁹, of which the natives are very fond, is plentiful...I brought away samples of them". On **Monday 1 October**, Fitzalan went ashore where he engaged in various plant collecting and gardening activities and noted that "there is a tree here very abundant, which bears a very agreeable plum ¹⁰⁰. One tree will produce several bushels of these plums, and the wood of it will be found useful for the turner and the engraver, having a grain very much like box... I spent one day here [near the native wells] making a garden, where I planted about half a hundred of potatoes, some maize, sorghum, cotton, melon, pumpkin, cabbage, carrot, onion, and some of most European vegetable seeds. I also planted some ginger given me by Mr. Hill for that purpose".

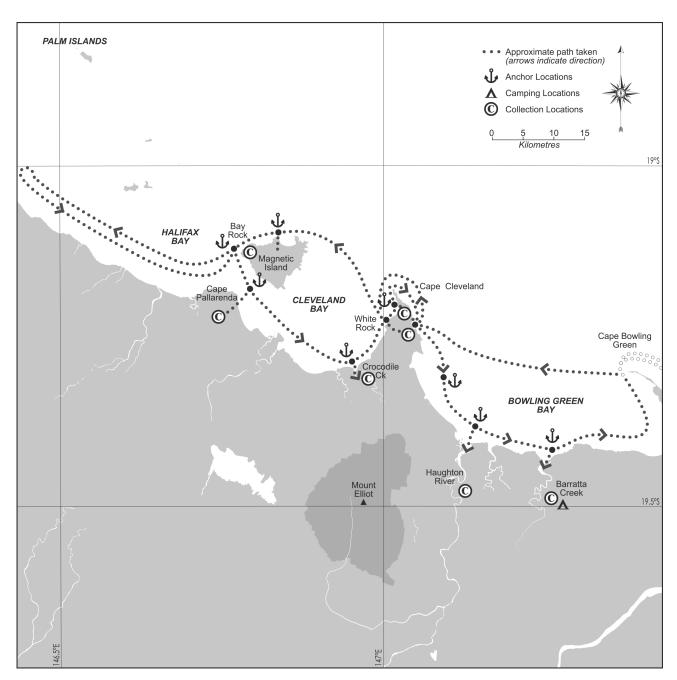


Fig. 8. Map of the approximate paths taken during the Burdekin Expedition, Cape Bowling Green to Halifax Bay, 15–25 September 1860. Prepared by Claire Burton, Cairns Regional Council.

On **Friday 5 October**, Dalrymple (1860) reported that "*by sundown Mr. Fitzallan had completed two gardens*".

Hill (1860a) listed these species for Port Denison:

*4. Rubiaceae, a noble tree*¹⁰¹, greatly resembling the habit of the Moreton Bay fig, fruit not esteemed. Port Denison.

17. Ehretiaceae, a small shrub ¹⁰². Port Denison.

20. Fabaceae, a handsome spreading tree ¹⁰³. Port Denison.

24. Myrtaceae, a beautiful small tree ¹⁰⁴ with dense foliage, producing clusters of fruit, not eatable, the wood emits an agreeable aromatic fragrance. Port Denison.

31. Sterculiaceae, a beautiful tree ¹⁰⁵, *particularly when in fruit. Port Denison.*

32. Rubiaceae, a pretty flowering shrub ¹⁰⁶. *Port Denison.*

37. Myrtaceae, a large tree, 80 to 90 feet high ¹⁰⁷*. Port Denison.*

38. Myrtaceae, a small tree with dense foliage ¹⁰⁸*. Port Denison.*

43. Apocynaceae, a shrub ¹⁰⁹, 10 to 12 feet high, flowers sweet scented. Port Denison.

48. Ebenaceae, a large growing tree ¹¹⁰, timber, close-grained and firm. Port Denison.

52. Rubiaceae, a large shrub ¹¹¹, with little beauty. Port Denison.

55. Moraceae, a climber of robust habit ¹¹². Port Denison.

61. Meliaceae, a tree of considerable size ¹¹³, with fine spreading branches. Port Denison.

73. Orchidaceae, an epiphyte ¹¹⁴, same as No. 72, except that the flowers are yellow. Port Denison.

101. Graminaceae, a grass ¹¹⁵ of no value for fodder. Port Denison.

115. Herbaceous plant ¹¹⁶. Port Denison.

124. Fabaceae, a small tree ¹¹⁷. Port Denison.

127. Apocynaceae, seeds ¹¹⁸. Port Denison.

129. Asclepiadaceae, seeds ¹⁹⁹. Port Denison.

130. Fabaceae, seeds ¹²⁰. Port Denison.

Mueller (1860b) listed these species for Port Denison: *Pisonia aculeata L.*¹²¹ ...*Sinclair Island* [Stone Island]. *A robust climbing plant, according to Mr. Fitzalan.*

Derris uliginosa Benth. ¹²²Flowers, according to Mr. Fitzalan, pale pink.

Guettarda speciosa Linné. ¹²³ ... *Port Sinclair* [Port Denison]... *Mr. Fitzalan contends that it forms on the above locality a large tree.*

They departed Port Sinclair [Port Denison] on **Tuesday 9 October**, sailing directly south. There are no records of landfalls or activities for the next nine days. On the morning of **Thursday 18 October**, they arrived at Cape Moreton, and then at Government Wharf, Brisbane at about 11.00 pm of the same day.

99

Results of Burdekin Expedition

The Burdekin Expedition was one of the first major botanical enterprises in the newly established Colony of Queensland and the results presented a significant milestone in the development of botanical research for the colony. About 140 specimens were collected by Fitzalan during the Expedition. Considering that the Expedition lasted for 57 days, this is a modest number of specimens, averaging only three per day. However, as only 30 days were spent ashore, and many of the landings lasted for no more than a few hours, an average of about six specimens per day was therefore achieved.

The specimens were originally examined by Walter Hill, the Queensland Government Botanist when the Expedition returned to Brisbane. Hill (1860a) provided an annotated list, but only to the designation of family. The specimens were subsequently dispatched to Ferdinand Mueller, the Victorian Government Botanist at the Melbourne Botanic Gardens, and he produced a detailed and thorough botanical treatment (Mueller1860b). Hill did not operate an herbarium in Brisbane whilst he was Queensland Government Botanist (Holland 2005). Mueller also took the opportunity to include summaries of some genera and included descriptions of species that were not actually collected by Fitzalan during the Expedition, but details explaining this were clearly provided by Mueller.

Mueller (1860b) provided annotated descriptions of 88 taxa in his treatment. Of these, 15 were described as new species but only ten pertained directly to the Burdekin Expedition (Table 5). Subsequently, other new species were described from Fitzalan's Burdekin Expedition specimens that Mueller had not included in his initial treatment. A further 16 were described in Bentham's *Flora Australiensis*, 11 in Mueller's *Fragmenta Phytographiae Australiae*, and one each in *Adansonia* and the *Journal de Botanique Néerlandaise* (Table 5). In total, about 40 new taxa were described from Fitzalan's specimens collected on this Expedition. A summary of all the species collected during the Burdekin Expedition is presented in Table 6.

Excursions to Mount Dryander

Three excursions were carried out by Eugene Fitzalan and his companions to Mount Dryander, and are here described on the information that was presented in various reports, and an assessment of the herbarium records in the Royal Botanical Gardens, Melbourne (MEL). The three excursions included:

- Mount Dryander via Port Molle, November 1869 (Anon. [Perceval] 1869): Plant collectors were Fitzalan and/or Frederick Kilner.
- Mount Dryander via Whitsunday Island, June 1872 (Anon. [Kilner] 1872a, 1872b): Plant collectors were Fitzalan and/or Frederick Kilner.

•

•

• Mount Dryander via overland approach from the west, July 1872 (Anon. [Fitzalan & Rainbird] 1872): Plant collector was Fitzalan.

Mount Dryander is located about 42 km south-east of Bowen and 16 km west of Airlie Beach and rises to about 800 m elevation. It was named after Jonas Carlsson Dryander (1748–1810) Swedish botanist and librarian for Sir Joseph Banks, by Lieutenant Phillip Parker King RN during the voyage of HM Colonial Cutter *Mermaid*, July 1820. Mount Dryander contains significant areas of low-altitude notophyll vine forest and a considerable number of endemic, rare and threatened, and/or vulnerable species (Thurgate & Maloney 1996).

Mount Dryander via Port Molle, November 1869

Unlike the Burdekin Expedition of 1860 that was organised and funded by the Queensland Government, the Mount Dryander excursion of 1869 has little existing documentation as it was not an official undertaking. Decisions concerning the planning remain unknown. The only published sources of information about the excursion, to my knowledge, include a single newspaper report (Anon. [Perceval] 1869) that was rerun with minor variations in a number of Australian newspapers, and in which it was stated that the explorers went *"in search of objects botanical, zoological, and topographical"*. The only record of the botanical activities to be mentioned in this report was that *"the botanist had discovered several new varieties of plants, some of them of great beauty"*.

There are about 50 herbarium specimens collected by Fitzalan that can be positively attributed to this excursion as they are either dated, or were cited in the literature of post– 1869 but pre–1872, the year of the two succeeding excursions to Mount Dryander (AVH 2014). In addition to the dated specimens there are about 40 to which an approximate date or date-range cannot be applied. Some of these may well have been collected during the 1869 excursion but this is unable to be determined on the present evidence. In addition, there are about 15 species of land snails that were collected by John Rainbird during the excursions. These aspects will be discussed further under the individual excursions or in the conclusion.

The 1869 excursion consisted of six persons:

- Eugene Fitzalan, botanical collector.
- Frederick Kilner (b. ? 1837, Germany; d.? 1905) was the Harbour Master and Sub-collector of Customs at Bowen 1863–1872, and an amateur plant collector with about 230 specimens collected by him, predominantly of marine algae, conserved in MEL, and a few in BRI and NSW. The species *Ochrosia kilneri* F.Muell. (*Neisosperma kilneri* (F.Muell.) Fosberg & Sachet), *Acetabularia kilneri* J.Agardh, *Caulerpa kilneri* J.Agardh (*Caulerpa*)

lentillifera J.Agardh),*Cladophora kilneri* Sonder and *Desmia kilneri* J.Agardh (*Portieria kilneri* (J.Agardh) P.C.Silva), were named for him.

- John Rainbird (b. 14 July 1817, Blackmore, Essex, England; d. 18 October 1908, Bowen) was a resident of Bowen 1862–1908, and was an amateur naturalist specialising in conchology, ornithology, herpetology and entomology. About 48 malacology collections by Rainbird are conserved in the Australian Museum, Sydney (A. Miller *pers. com.*). The snail *Helix rainbirdii* Cox, 1870 (*Bentosites yulei* Forbes, 1851) was named for him.
- Augustus George Perceval (b. 2 May 1829; d. 19 August 1896) was an accountant, journalist, author (Perceval 1881) and public administrator who resided in Bowen from 1864 to 1873. Perceval was active in public matters and community life at Bowen. In 1868 he was the Secretary of the Bowen Library and Museum; in 1869 was the Honorary Secretary of the Bowen Cemetery; and 1866–1874 worked as a journalist and sub-editor for the *Port Denison Times*^{124, 125}.
- Two unnamed boat men.

The itinerary described here is taken from a single report in the *Port Denison Times* (Anon. [Perceval] 1869). The tracks taken (Figure 9) were estimated by ascertaining topographical, environmental and geological features that were mentioned and described in the report. Labels and other notes with the botanical collections now conserved in MEL provided only the barest geographical descriptors, such as '*Mt Dryander*' or '*Edgecumbe Bay*', with no indication of elevation, position or precise collection date. Of the specimens that are dated, it appears that dates may have been added later, possibly when they were dispatched from Port Denison or when they arrived at the Melbourne Botanic Gardens, as many of the dates do not coincide with those known for the excursion.

The excursion departed Bowen at about 3.00 pm, on Monday, 5 November 1869. An offer was made by Captain Saunders of the Steamer Tinonee "to tow the boat part of the way". The Tinonee was an iron, twin screw steamship of 279 gross tons [253 MT], length of 193 feet 7 inches [59 m], breadth of 21 feet 4 inches [6.5 m] and draft of 10 feet 5 inches [3.2 m] (Hoskin 2007–2009). The steamer arrived at Port Molle at about 8.00 pm of the same day (Figure 10). The excursion party "was cast adrift" and "after a long pull the boat was hauled ashore at the head of a harbour [Shute Bay] " (but see Blackwood 1997 who proposed that it was Pioneer Bay) where they camped for the night. In the morning "the tide was a long way out, so they resolved to wait until it came in, and in the meantime to look about them. It was found that the steamer had taken them a good deal too far, and that it would be necessary for them to retrace their steps a considerable distance before they could commence the land part of their journey". During the day of Tuesday, 6 November, they rowed northward "on round

Table 5. Type specimens collected by Eugene Fitzalan during the Burdekin Expedition, August-October 1860. Original species names are retained and the currently used name follows in parentheses. Collections list the location and the specimens relevant to typification, but the status of the typification is not provided as it is beyond the scope of this work. The publication details of the protologue are provided. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Taxon	Collections	Publication
Acacia leptostachya Benth.	Port Denison, 1860, <i>Fitzalan</i> : BM000796781, BM000796782, BM000796784, K000806623, MEL2078167, MEL2078169, NSW183648	Fl. Austral. 2: 406 (1864)
Alyxia thyrsiflora Benth. (Alyxia spicata R.Br.)	Burdekin River & Port Denison, 1860, <i>Fitzalan</i> ; K000894092, W0049218	Fl. Austral. 4: 309 (1868)
Antidesma parvifolium Thwaites & F.Muell.	Edgecumbe Bay & Port Denison, 1860, <i>Fitzalan</i> ; MEL0251036, MEL0251037, MEL0251054, MEL0515968– MEL0515971, MEL0515973– MEL0515975	Fragm. 4(26): 86 (1864)
Atylosia marmorata Benth. (Cajanus marmoratus (Benth.) F.Muell.	Port Denison, 1860, Fitzalan; MEL0091579	Fl. Austral. 2: 263 (1864)
Atylosia pluriflora F.Muell. ex Benth.	Burdekin Expedition, 1860, Fitzalan; K, MEL [specimens not	Fl. Austral. 2: 264 (1864)
Cajanus confertiflorus F.Muell.	located] Magnetic Island, 1860, <i>Fitzalan</i> ; K000279381, MEL0061471, MEL0061472	Rep. Burdekin Exped. 9 (1860)
Cajanus grandifolius F.Muell. (Cajanus reticulatus var. grandifolius (F.Muell.) Maesen	Cape Upstart, 1860, Fitzalan; MEL0061459, MEL0061460	Rep. Burdekin Exped. 9 (1860)
Canarium australianum F.Muell.	Burdekin River Estuary & Cape Cleveland, 1860, <i>Fitzalan</i> ; MEL2290901	Fragm. 3(17): 15 (1862)
Canthium lamprophyllum F.Muell. (Psydrax lamprophylla (F.Muell.) Bridson	1860, Fitzalan; [no relevant specimens]	Fragm. 2(15): 133 (1861)
Capparis ornans F.Muell. ex Benth.	Port Denison, 1860, <i>Fitzalan</i> ; K000651064, MEL0590420 – MEL0590422	Fl. Austral. 1: 95 (1863)
Cartonema brachyantherum Benth.	Port Denison, 1860, <i>Fitzalan</i> ; MEL0247909	Fl. Austral. 7: 92 (1878)
Cassia acclinis F.Muell. (Senna acclinis (F.Muell.) Randell	Edgecumbe Bay, 1860, Fitzalan; MEL2071409	Fragm. 4(24): 13 (1863)
Cochlospermum gillivraei Benth.	Cape Cleveland, Cape Upstart & Port Denison, 1860, <i>Fitzalan</i> ;	Fl. Austral. 1: 106 (1863)
Croton arnhemicus var. urenifolius Baill.	K000675859, MEL0081431, MEL0081432– MEL0081440 Edgecumbe Bay & Port Denison, 1860, <i>Fitzala</i> n; MEL0231243, MEL0231249, MEL0231251	Adansonia 6: 300 (1866)
Cupania punctulata F.Muell. (Lepiderema punctulata (F.Muell.) Radlk.)	Edgecumbe Bay, 1860, Fitzalan; MEL1586087, MEL1586089	Fragm. 3(17): 12 (1862)
<i>Cyanospermum australe</i> F.Muell. [Australian Plant Census excluded name]	1860, Fitzalan; [no relevant specimens]	Rep. Burdekin Exped. 10 (1860)
Elaeodendron melanocarpum F.Muell.	Port Denison, 1860, Fitzalan; BR6981228, MEL2136469	Fragm. 3(20): 62 (1862)
<i>Eucalyptus drepanophylla</i> Benth. (<i>Eucalyptus crebra</i> F.Muell.)	Burdekin Expedition, 1860, <i>Fitzalan</i> ; G00227657, K000347645, MEL0073656	Fl. Austral. 3: 221 (1867)
Eugenia carissoides F.Muell.) (Eugenia reinwardtiana (Blume) DC)	Port Denison, 1860, <i>Fitzalan</i> ; K000821554, MEL0060216, MEL0060221	Fragm. 3(22): 130 (1863)
	Cape Cleveland, 1860, <i>Fitzalan</i> : MEL0239354	J. Bot. Néerl. 1: 242 (1862)
Ficus platypoda var. petiolaris Benth. (Ficus rubiginosa Desf. Ex Vent.)	Cape Cleveland & Port Denison, 1860, <i>Fitzalan</i> ; MEL0239504, MEL0239478	Fl. Austral. 6: 169 (1873)
fitzalanii (F.Muell.) Puttock)	s Cape Upstart, Halifax Bay & Magnetic Island, 1860, <i>Fitzalan</i> ; MEL0598569	Rep. Burdekin Exped. 12 (1860)
Grewia orientalis var. latifolia Benth. (Grewia oxyphylla Burret)	Port Denison, 1860, Fitzalan; MEL1599178–MEL1599182	Fl. Austral. 1: 270 (1863)
Hoya dalrympleana F.Muell. (Hoya australis R.Br. ex J. Traill var. australis)	Cape Cleveland, 1860, Fitzalan; MEL0073610	Rep. Burdekin Exped. 16: (1860)
Indigofera pratensis F.Muell.	Port Denison, 1860, Fitzalan; MEL 586229	Rep. Burdekin Exped. 10 (1860)
(Cav.) Tirveng.)	Port Denison, 1860, <i>Fitzalan</i> ; K000761786, HAL0114223, MEL2266019, MEL2266461	Fragm. 2(15): 132 (1861)
Labichea nitida Benth.	Burdekin River estuary, 1860, <i>Fitzalan</i> ; MEL0640529	Fl. Austral. 2: 293 (1864)
(Lagunaria queenslandica Craven) Leptosema chambersii F.Muell.	n. Port Denison, 1860, <i>Fitzalan</i> ; K000659929, MEL2223634, MEL2223638 Burdekin Expedition, 1860, <i>Fitzalan</i> ; [no specimens located]	Fl. Austral. 1: 218 (1863) Rep. Burdekin Exped. 8 (1860)
(Brachysema chambersii (F.Muell.) Benth.		
Leptosema oxylobioides F.Muell. (Brachysema oxylobioides (F.Muell.) Benth.	Port Denison, 1860, Fitzalan; [no specimens located]	Rep. Burdekin Exped. 8 (1860)

Table 5. cont.

Taxon	Collections	Publication
Loranthus vitellinus F.Muell. (Dendrophthoe vitellina (F.Muell.) Tiegh.)	Magnetic Island, 1860, <i>Fitzalan</i> ; HAL0110273, MEL0591630, MEL2237734, MEL2237735	Rep. Burdekin Exped. 12 (1860)
Myrcia australasica F.Muell.(Memecylon umbellatum Burm.f., excluded name)	Magnetic Island, 1860, <i>Fitzalan</i> ; [no specimens located]	Rep. Burdekin Exped. 7 (1860)
Neptunia gracilis var. major Benth. (Neptunia major (Benth.) Windler)	Bowling Green Bay & Burdekin River, 1860, Fitzalan; MEL0596305	Fl. Austral. 2: 300 (1864)
Panax macrosciadeus F.Muell. (Mackinlaya macrosciadea (F.Muell.) F.Muell.)	Cumberland Islands & Port Molle, 1860, Fitzalan; MEL0247913	Fragm. 2(14): 108 (1860)
Polycarpaea synandra var. densiflora Benth. (Polycarpaea spirostylis var. densiflora (Benth.) Pedley)	Port Denison, 1860, Fitzalan; K000723256, MEL0049116	Fl. Austral. 1: 165 (1863)
Psychotria fitzalanii Benth.	Port Molle, 1860, Fitzalan; K000777505	Fl. Austral. 3: 428 (1867)
Ratonia distylis Benth. (Arytera distylis (Benth.) Radlk.)	Port Denison, 1860, Fitzalan; MEL0108778	Fl. Austral. 1: 462 (1863)
Terminalia melanocarpa F.Muell.	Edgecumbe Bay, 1860, <i>Fitzalan</i> ; MEL2245930, MEL2245931, MEL2245934	Fragm. 3(20): 92 (1862)
Uraria cylindracea Benth. (Uraria lagopodioides (L.) Desv. Ex Dc)	Port Denison, 1860, Fitzalan; MEL2064211	Fl. Austral. 2: 237 (1864)
Uvaria heteropetala F.Muell. (Meiogyne heteropetala (F.Muell.) D.C.Thomas, Chaowasku & R.M.K.Sanders)	Cumberland Islands, 1860, Fitzalan; MEL2064812–MEL2064816	Fragm. 3(17): 1 (1862)

two or three headlands" and finally they entered "the head of a very nice harbour [Woodwark Bay], with a fine stretch of sandy beach". Before sunset, they climbed a saddle on the peninsula between Woodwark Bay and Double Bay [east branch] "to take observations for the next day's trip" and from this point could observe that "a spur evidently led direct up to the main ridge of Mount Dryander". Camp for the night of Tuesday 6 November was set up on a sandy beach at the head of Woodwark Bay.

On the morning of Wednesday 7 November, the walking party, consisting of Fitzalan, Kilner, Rainbird and Perceval, started with the goal of ascending Mount Dryander. In the meantime, the boat proceeded northward to the adjacent Double Bay [east branch], where the walking party would rendezvous following their ascent and descent of the mountain. Soon after commencement, the walking party had "some little difficulty in wading across an abominable mud flat ¹²⁶" at the head of Double Bay [east branch] in an attempt to shorten the distance to a ridge that they sought to begin their ascent. At the "first stream they came to" after crossing the mudflats "they bogied and breakfasted". Following on, they walked "through several miles of beautiful country" toward the mountain and "came to a convenient place for commencing the ascent of the main range of Mount Dryander". The climb started "through open forest ¹²⁷ for some two-thirds of the ascent until they came to a dense scrub 128" and they decided to leave their swags there. Perceval remained with the swags whilst Fitzalan, Kilner and Rainbird made the ascent to the top of the main ridge. At this point, Perceval inscribed a large ligatured AP "on a gum tree facing the entrance to the scrub". The ascending party continued along the ridge for some distance, and concluded this section by "marking a tree at the furthest point". They did not proceed to the summit or "get onto the high peaks

that rise above the ridge" as cloud had begun to envelope the higher parts and obtaining views of the surrounding country was deemed to be impossible. The party returned to their swags, and they "*descended to a bay in the low range of hills to which we have before alluded as separating Port Dalrymple from its twin harbour*", i.e. the east branch of Double Bay from the west branch of Double Bay. Following a prearranged smoke signal, the party re-joined the boat and made camp for the night of 7–8 November somewhere on the inner shores of Double Bay [east branch].

On the morning of Thursday 8 November, the walking party "started for a course across a neck of land to the twin harbour [Double Bay, west branch], and thence over some few miles of the country at the head of it". They ventured no more than "a mile or two from the beach". During the walk they observed, from a distance "a pass [Earlando Gap] through the mountains round the northern foot of Mount Dryander". After reaching the northern limit of their exploration, they returned to the camp of the previous night at Double Bay [east branch], and at about 1.00 pm departed for Bowen. The homeward journey north was much slowed as it was "against a dead head wind nearly the whole way". It is assumed that three camps were made during the return journey, but their locations, and any botanical activities, were not recorded. They arrived at Bowen at about 11.00 pm on the evening of Monday 12 November.

Mount Dryander via Whitsunday Island, June 1872

The itinerary presented here is taken from the report written by Kilner (Anon. [Kilner] 1872a, 1872b). The aim of the excursion was to "*make a short voyage of discovery to* Whitsunday Islands, returning to Mount Dryander and the inner passage to Bowen". The party consisted of five persons:

- Frederick Kilner, leader and author of the report.
- Eugene Fitzalan, botanical collector.
- John Rainbird, conchologist.
- Rev. J.K. Black, A.M., [Church of England, Trinity Church, Bowen] general collector.
- An Aborigine named Jimmy.

On **Monday 2 June 1872,** their four-oared boat was hoisted onto the Steamer *Tinonee* at Port Denison. They departed, rounded Cape Gloucester where they had their "*first view of the graceful Hoop Pine*¹²⁹ (*Araucaria glauca*) which grows rather thickly here in a shady gorge sheltered by two spurs that run down to the sea". They passed Hook Island and Dent Island, and when near Whitsunday Island their boat was lowered and they rowed ashore (Figure 10). They landed near Fitzalan Point in a sheltered bay where the "atmosphere was here filled with the most fragrant perfumes exhaled from a tree resembling the Bauhinia¹³⁰, in full bloom, beneath the outspreading branches and broad shady leaves of which we pitched out tent" and camped for the night at a location that was "fringed with a coral reef; behind us a luxuriant forest of towering pines of immense growth, covering the higher parts of the island". To the west was an opening to Long Island and with views extending toward Port Molle.

After breakfast on the morning of **Tuesday 3 June**, they walked to the "*Falls*" near Fitzalan Point. Blackwood (1997)

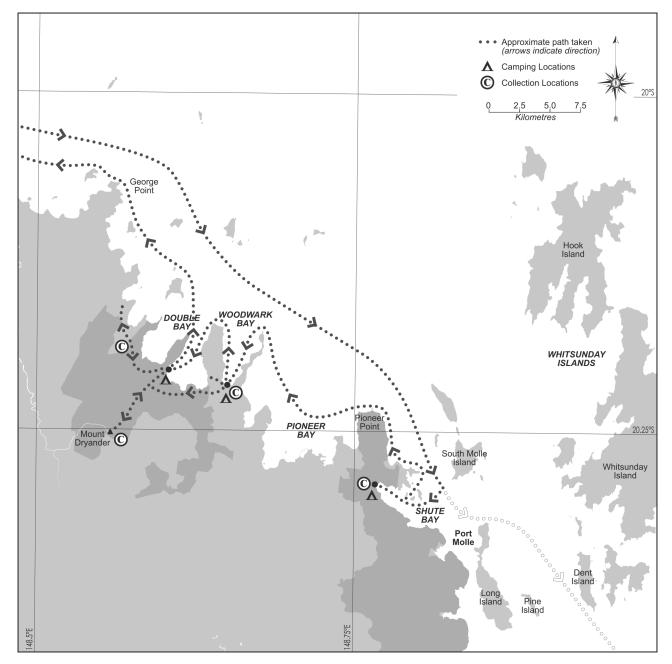


Fig. 9. Map of the approximate paths taken during the excursion to Mount Dryander, 5–12 November 1869. Prepared by Claire Burton, Cairns Regional Council.

Table 6. List of species collected by Eugene Fitzalan during the Burdekin Expedition, 1860. The list is derived from herbarium record data and published accounts. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Lady Elliot Island

Phajus australis F.Muell. (Phaius australis F.Muell.)

Percy Island No. 1 [South Island]

Calophyllum inophyllum L.

Dendrobium undulatum R.Br.(Dendrobium discolor Lindl.)

Morinda citrifolia L.

Plectranthus parviflorus Willd.

Tournefortia orientalis R.Br. (Heliotropium sarmentosum (Lam.) Craven)

Turraea pubescens Hell.

Cumberland Islands

Araucaria cunninghamii Mudie var. cunninghamii

Brassaia actinophylla Endl. (Schefflera actinophylla (Endl.) Harms) Callitris verrucosa (A.Cunn. ex Endl.) F.Muell. (Callitris intratropica R.T.Baker & H.G.Sm.)

Colubrina asiatica (L.) Brongn.

Lotus australis Andrews

Panax macrosciadeus F.Muell. (Mackinlaya macrosciadea (F.Muell.) F.Muell.)

Petalostigma quadriloculare F.Muell.

Uvaria heteropetala F.Muell. (Meiogyne heteropetala (F.Muell.) D.C.Thomas, Chaowasku & R.M.K.Saunders)

Port Molle [Long Island]

Brassaia actinophylla Endl. (Schefflera actinophylla (Endl.) Harms) Canthium lamprophyllum F.Muell. (Psydrax lamprophylla (F.Muell.) Bridson)

- Cissus opaca F.Muell. (Clematicissus opaca (F.Muell.) Jackes & Rossetto)
- Crotalaria mitchellii Benth. (Crotalaria novae-hollandiae DC. var. novae-hollandiae)

Euphorbia hypericifolia L.

- Glycosmis subvelutina F.Muell. (Micromelum minutum (G.Forst.) Wight & Arn.)
- Helichrysum bracteatum (Vent.) Andrews (Xerochrysum bracteatum (Vent.) Tzvelev)

Labichea rupestris Benth.

Melia azederach L.

- Panax macrosciadeus F.Muell. (Mackinlaya macrosciadea (F.Muell.) F.Muell.)
- Pogonolobus reticulatus F.Muell. (Coelospermum reticulatum

(F.Muell.) Benth.) Psychotria fitzalanii Benth.

Sophora tomentosa L.

Tabernaemontana orientalis R.Br.

Edgecumbe Bay

Antidesma parvifolium Thwaites & F.Muell.

Cassia acclinis F.Muell. (Senna acclinis (F.Muell.) Randell

Croton arnhemicus var. urenifolius Baill.

Cupania punctulata F.Muell. (Lepiderema punctulata (F.Muell.) Radlk.)

Terminalia melanocarpa F.Muell.

Port Sinclair [Bowen], Mount Gordon

Brachychiton ramiflorum R.Br. (Brachychiton paradoxus Schott & Endl.) Dilivaria ilicifolia (L.) Pers. (Acanthus ilicifolius L.)

Cape Upstart

Acacia simsii A.Cunn. ex Benth. Bursaria spinosa Cav. Cycas media R.Br.

Gardenia fitzalanii F.Muell. (Atractocarpus fitzalanii (F.Muell.) Puttock)

Gardenia ochreata F.Muell. (Larsenaikia ochreata (F.Muell.) Tirveng.)

Melaleuca leucadendron L.f.

Pimelea collina R.Br. (Pimelea linifolia var. collina (R.Br.) Threfall) Trichodesma zeylanicum (Burm.f.) R.Br.

Tristania conferta R.Br. (Lophostemon confertus (R.Br.) Peter G.Wilson & J.T.Waterh.)

Cape Upstart – Station Hill [Signal Hill*]

Cajanus grandifolius F.Muell. (Cajanus reticulatus var. grandifolius (F.Muell.) Maesen)

Tristania conferta R.Br. (Lophostemon confertus (R.Br.) Peter G.Wilson & J.T.Waterh.)

Signal Hill appears to be a typographical error for Station Hill, in Mueller's Essay.

Magnetical Island [Magnetic Island]

Myrcia australasica F.Muell. (Memecylon umbellatum Burm.f.) Cajanus confertiflorus F.Muell.

Canthium coprosmoides F.Muell. (Cyclophyllum coprosmoides (F.Muell.) S.T.Reynolds & R.J.F.Hend.)

Dampiera ferruginea R.Br.

Tristania conferta R.Br. (Lophostemon confertus (R.Br.) Peter G. Wilson & J.T.Waterh.)

Gardenia fitzalanii F.Muell. (Atractocarpus fitzalanii (F.Muell.) Puttock)

Loranthus vitellinus F.Muell. (Dendrophthoe vitellina (F.Muell.) Tiegh.)

Halifax Bay

Gardenia fitzalanii F.Muell. (Atractocarpus fitzalanii (F.Muell.) Puttock)

Pariti tiliaceum (L.) A.St.-Hil. (Hibiscus tiliaceus L.)

Cleveland Bay

Maba geminata R.Br. (Diospyros geminata (R.Br.) F.Muell.) Melhania oblongifolia F.Muell. Sida indica L. (Abutilon indicum (L.) Sweet)

Cape Cleveland

Bauhinia hookeri F.Muell.

Celastrus dispermus F.Muell. (Denhamia disperma (F.Muell.) M.P.Simmons)

Clerodendrum inerme (L.) Gaertn.)

Conospermum linifolium A.Cunn. ex Meisn. (Conospermum taxifolium C.F.Gaertn.)

Crotalaria laburnifolia L.

Dipodium punctatum (Sm.) R.Br.

Ficus fitzalanii Miq. (Ficus opposita Miq.)

- Ficus platypoda var. petiolaris Benth. (Ficus rubiginosa Desf. ex Vent.)
- Hoya dalrympleana F.Muell. (Hoya australis R.Br. ex J.Traill

subsp. australis)

Persoonia falcata R.Br.

Pseudanthus pimeleoides Sieber ex Spreng.

Tecoma australis R.Br. (Pandorea pandorana (Andrews) Steenis)

Bowling Green Bay

Statice australis Spreng. (Limonium australe (R.Br.) Kuntze) Neptunia gracilis var. major Benth. (Neptunia major (Benth.) Windler)

Burdekin River Estuary

Brassaia actinophylla Endl. (Schefflera actinophylla (Endl.) Harms) Canarium australianum F.Muell.

Labichea nitida Benth.

Neptunia gracilis var. major Benth. (Neptunia major (Benth.) Windler)

Port Sinclair [Bowen), Sinclair Island [Stone Island]

Guilandina bonduc L. (*Caesalpinia bonduc* (L.) Roxb.)

Morinda citrifolia L. *Pisonia aculeata* L.

Scaevola suaveolens R.Br. (Scaevola calendulacea (Andrews) Druce)

Port Sinclair/Port Denison [Bowen]

Abrus precatorius L.

Acacia farnesiana (L.) Willd. *Acacia leptostachya* Benth.

Alvxia spicata R.Br.

Antidesma parvifolium Thwaites & F.Muell.

Atylosia marmorata Benth. (Cajanus marmoratus (Benth.) F.Muell.) Blumea wightiana DC. (Blumea mollis (D.Don) Merr.)

Busbeckia corymbiflora F.Muell. (*Capparis lucida* (Banks ex DC.) Benth.

Canthium lamprophyllum F.Muell. (Psydrax lamprophylla (F.Muell.) Bridson)

Capparis ornans F.Muell. ex Benth.

Cartonema brachyantherum Benth.

Careya arborea Roxb. (Planchonia careya (F.Muell.) R.Knuth)

Cochlospermum gregorii F.Muell.

Cochlospermum gillivraei Benth.

Croton arnhemicus var. urenifolius Baill.

Derris uliginosa Benth. (Derris trifoliata Lour.)

Eucalyptus drepanophylla Benth. (Eucalyptus crebra F.Muell.)

Eucalyptus platyphylla F.Muell.

Elaeodendron melanocarpum F.Muell.

Eugenia carissoides F.Muell. (*Eugenia reinwardtiana* (Blume) DC.) *Ficus platypoda* var. *petiolaris* Benth. (*Ficus rubiginosa* Desf. ex Vent.)

Grewia orientalis var. latifolia Benth.

Guettarda speciosa L.

- Indigofera pratensis F.Muell.
- Ixora thozetiana F.Muell. (Aidia racemosa (Cav.) Tirveng.)
- Lagunaria patersonia var. bracteata Benth. (Lagunaria queenslandica Craven)
- Leptosema chambersii F.Muell. (Brachysema chambersii (F.Muell.) Benth.)
- Leptosema oxylobioides F.Muell. (Brachysema oxylobioides (F.Muell.) Benth.)

Lippia nodiflora Rich. (Phyla nodiflora (L.) Greene)

Melaleuca leucadendra (L.) L.

Owenia cerasifera F.Muell. (Pleiogynium timorense (DC.) Leenh.)

- *Polycarpaea synandra* var. *densiflora* Benth. (*Polycarpaea spirostylis* var. *densiflora* (Benth.) Pedley)
- Ratonia distylis Benth. (Arytera distylis (Benth.) Radlk.)

Saccharum fulvum R.Br. (Eulalia aurea (Bory) Kunth)

Sterculia quadrifida R.Br.

Tournefortia argentea L.f. (*Heliotropium foertherianum* Diane & Hilger

Uraria cylindracea Benth. (*Uraria lagopodioides* (L.) Desv. *Xerotes multiflora* R.Br. (*Lomandra multiflora* (R.Br.) Britten

Burdekin Expedition - location not specified

Atylosia pluriflora F.Muell. ex Benth.

Canavalia obtusifolia (Lam. DC. (Canavalia rosea (SW.) DC.) Cyanospermum australe F.Muell.

Eucalyptus drepanophylla Benth. (Eucalyptus crebra F.Muell.) Lactaria calocarpa (Hassk.) Hassk. (Ochrosia elliptica Labill.)

proposed that the "Falls" are on a stream that discharges into the ocean to the east of Fitzalan Point. On the way they "passed through a peculiar kind of grass ¹³¹ of a very fattening nature for cattle, that never grows rank and is not to be met with on the mainland". Here the stream of crystal clear water runs through a channel of solid rock, and descends into cascades and falls into large rocky basins. The "borders of this stream clothed with pines, orchids, ferns, and gigantic creepers ... high up on its sloping side is the Cassia (elongata)¹³² a fragrant flowering tree with blossoms hanging in rich clusters like the English Laburnum ¹³³". They ascended to the summit of a hill immediately behind the beach, from which they obtained views of the "peaks of Pentecost, the rough outline of the crag called the Lion, the numerous islands...some covered with pines and Kennedy Beech (Argyrodendron trifoliatum) 134, intersected with running creeks lined with Palms (Seaforthia ¹³⁵ and Kentia Forsteriana ¹³⁶), while several were covered with grass of a bright green from which one is called Green Island [Lindeman Island?]". During the ascent "one of our party... caught hold of the stinging nettle (Urtica ------)¹³⁷, and the pain was so excruciating". On returning to camp "we brought back a large number of young pines and also some seed... land shells we found here...Helix maclayi ¹³⁸, H. pachystyla ¹³⁹, H. coxeni ¹⁴⁰, black H. o'connellii ¹⁴¹ and Pupina ¹⁴²".

On Wednesday 4 June, they departed Whitsunday Island. Heading west, they sailed across an open channel and passed near a bare rocky island without vegetation [Pelican Island?] on the approach to Long Island and Pine Island. This island was noted as "a favourite resort of sea-birds of various kinds, where in the proper season a great variety of eggs may be procured". They crossed the channel and sailed into a bay of the next 'green' island [South Molle Island?] where they landed and "spent an hour in adding to our collection a number of shells chiefly obtainable here (Helix cerata)¹⁴³, some pines, palms (Kentia forsteriana)¹⁴⁴ and palm seeds... also fortunate in getting several Umbrella Trees (Brassice actinophyllum) ¹⁴⁵, and a giant bean hanging from the tops of trees, in a pod as much as five feet in length, produced by a creeper (Sp. Cassia) ¹⁴⁶...the beans are a subject of great attraction to bushmen as matchboxes". From here they carried along the coast off Molle Island [South Molle Island or North Molle Island] and entered an unnamed bay [Pioneer Bay] that was bounded by Port Molle Ranges [Conway Range] on the east and Mount Dryander on the west. They were unable to land as it was too shallow, and rowed on to Port Dalrymple [Double Bay, east branch] where they made camp for the night.

On the morning of **Thursday 5 June**, they started for Mount Dryander which was about 2 miles [3.2 km] away, passing through a plain with good soil and luxuriant grass and reached a stream of permanent water [unnamed]. They began to ascend via the stream which had a broad and stony watercourse. In the stream they "found the seeds in long pods of the Cassia ¹⁴⁷ (elongata) evidently washed down from the mountain, and the palm (Seaforthia) ¹⁴⁸ was of striking luxuriance". During the ascent they "met with a rare species of fig tree (Ficus) ¹⁴⁹, evidently the same as

that described by Mr Guilfoyle...as the Banyan Tree...parts of the trunk grow up from the branching roots, standing out from the base like walls, and for shade and shelter the tree is unequalled. Further up we came upon a splendid specimen of the flame tree (Brachychiton acerifolia)¹⁵⁰; when young it resembles the Bottle Tree (sterculia) in appearance...when in blossom is covered with a mass of gorgeous red flowers, from which it takes its name". After a rapid ascent, they struck a perpendicular face of solid rock that extended a long distance round on both sides and formed a barrier to further progress. They estimated that this location was about half way up the mountain. They began the descent from here, but "before doing so Mr. F. clambered up a steep rock and secured the only specimen we saw on our journey of a very rare orchid (Dendrobium speciosum)¹⁵¹. So far as we are aware it is only to be found in one other place in this neighbourhood, viz. in an inaccessible part of Roma Peak ¹⁵²". At this location, the "trees here were covered with orchids and ferns...as many as a dozen various species clustered on one tree (Adiantum ¹⁵³, Asplenium ¹⁵⁴, Pteris ¹⁵⁵, Ophioglossum ¹⁵⁶, etc.)". In addition to the plants, there were "several water beetles and snakes of rare kinds, and many varieties of shells (Vitrina superba ¹⁵⁷, H. coxeni ¹⁵⁸, H. inforius ¹⁵⁹, H. cunninghamii ¹⁶⁰, and H. rainbirdii ¹⁶¹). One of these was named after its discoverer, our companion Mr. Rainbird". Following their descent, they reached their camp at sunset.

On the morning of **Friday 6 June**, they commenced their return to Port Denison. The journey took them past Grassy Island and Gumbrell Island, round George Point and past Saddleback Island and into the Gloucester Passage. Taking

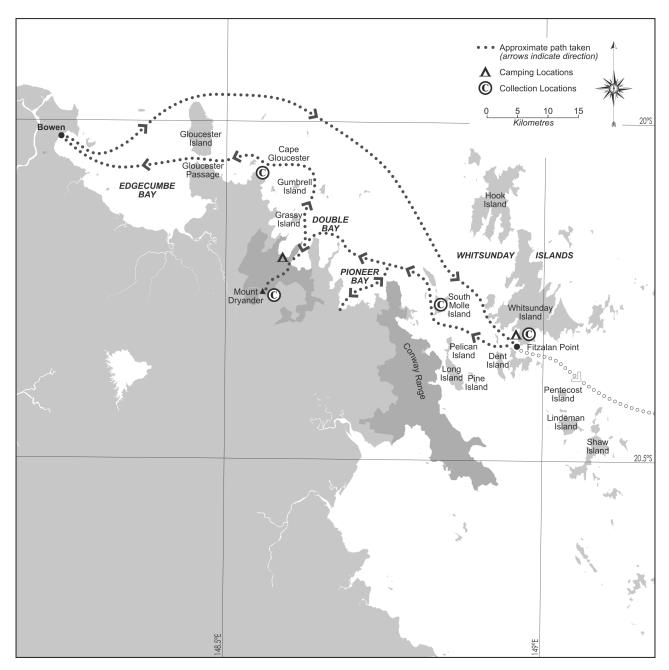


Fig. 10. Map of the approximate paths taken during the excursion to Mount Dryander, 2–6 June 1872. Prepared by Claire Burton, Cairns Regional Council.

the opportunity, they landed briefly after lunch at Gloucester Point "*where a few shells (Helix kilneri)*¹⁶² *were procured*". Recommencing, they travelled via the inner passage [Gloucester Passage] into Edgecumbe Bay, and reached Bowen on the evening of the same day.

Mount Dryander via overland approach, July 1872

One month after visiting Mount Dryander in June 1872, Fitzalan again joined with John Rainbird, and another unnamed companion [not Frederick Kilner], on a third excursion to Mount Dryander, but this time following an overland route starting on horseback (Anon. [Fitzalan & Rainbird] 1872). On the morning of **Monday 2 July 1872**, they left Bowen with the aim "to stand on the top of Mount

Dryander". On the two previous attempts to reach the summit of Mount Dryander, Fitzalan and his party were not successful because of adverse weather conditions and difficult terrain. This attempt was to be from the west, and during a time of the year when weather was usually fine and mild. There was now a road heading south from Bowen toward Proserpine, completed about 1867 (Port Denison Almanac 1867) and this would have been taken for the first section of the excursion. By midday they had reached Glencoe, Adelaide Point "where we were hospitably entertained and liberally supplied by Mr MacDonald ¹⁶³". This halt would have been at the homestead of John Graham MacDonald at Adelaide Point, which was about 13 km south of Bowen (Figure 11). Adelaide Point was named for MacDonald's wife Adelaide Mary Anne Amelia MacDonald (née Graham), and the house and garden were considered to be the finest in north Queensland at that

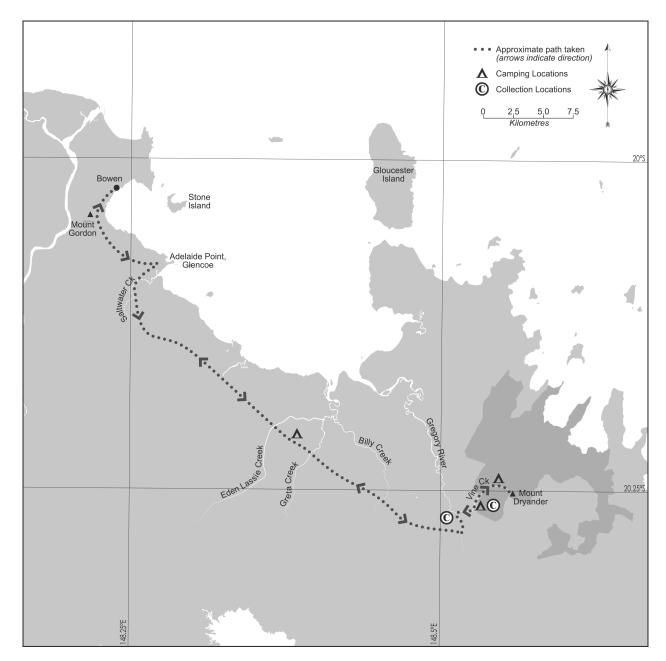


Fig. 11. Map of the approximate path taken during the excursion to Mount Dryander, 2–5 July 1872. Prepared by Claire Burton, Cairns Regional Council.

time (Pike 1996). Soon after leaving Glencoe, they crossed Saltwater Creek [Duck Creek] and then camped for the night between Longford [Eden Lassie Creek] and Gretta [Greta] Creek. They noted "an abundance of wild pigs...one so formidable in size...we should have thought twice before firing at him".

On the morning of **Tuesday 3 July** they crossed Billy Creek, and then came to Gregory River which was "*lined* on both sides with a narrow fringe of thick scrub ¹⁶⁴". They ascertained that they were below the 'falls', and went along the banks of the Gregory River for about 4 miles [6.4 km], and crossed it near "a good hut, erected by Messrs. Eymer and Corkhill". They proceeded on to Vine Creek, at the base of the mountain, and made camp for the night. At this location they noted that "there is a tree ¹⁶⁵ to be met with here in considerable quantities remarkable for its fibre producing qualities".

Early on the morning of Wednesday 4 July, they "strolled along the creek [Vine Creek] and were delighted to discover some rare specimens of a handsome long-leaved orchid (Cymbidium)¹⁶⁶. The Stag-Horn ¹⁶⁷ and Bird's-nest ferns ¹⁶⁸ clustered round the palms presented a beautiful contrast to the fine dark coloured Acacia (angustifolius)¹⁶⁹ with which most of the creeks were bordered". At this location, Rainbird collected a specimen of "a handsome shell (Helix murina) ¹⁷⁰". Soon after, they commenced the ascent of Mount Dryander, intending to spend the night on the summit. The ascent was "extremely easy...by the route we adopted". They noted the presence of "tall tapering pines 171, interspersed with the Beech ¹⁷², Fig ¹⁷³, Umbrella ¹⁷⁴ and Flame trees ¹⁷⁵". In addition to the flora, their "attention was fully occupied with the variety of land shells". As they ascended, they collected the "most beautiful but the most fragile shell to be met with in these parts (Vitrina superba) 176", and "came upon two of the largest shells we have so far found in northern Queensland (H. Cunninghamii 177 and H. Inforius ¹⁷⁸)". They also "met with another shell (Balea australis) ¹⁷⁹ found by McGillavray at Port Molle". As they gained altitude their water bags broke because of the strain put on them by brushing against the vegetation, and in particular getting entangled in "the most formidable creeping vine we have ever met with, usually known as "the lawyer" ¹⁸⁰. It is in its earlier career a most graceful looking shrub, like the cocoa-nut, but its stalks, resembling sugar cane, are covered

with a formidable set of spines". Accordingly, without water, they had to abandon the idea of spending the night on the summit. Nevertheless, they were able to reach the summit where they "obtained an abundant supply of other varieties (Vittaria elongata ¹⁸¹, Polypodium tenellum ¹⁸², lanceolata ¹⁸³, Pteris crenata ¹⁸⁴, Davallia elegans ¹⁸⁵and Asplenium polypodoides) ¹⁸⁶". As they ascended higher their bundles of plants increased and "amid such a great variety it was difficult to make a choice...collected...some of the rare kinds (Dendrobium canaliculatum) ¹⁸⁷ and a small but handsome orchid with flag leaves (Cryptostylis ovata ¹⁸⁸)". As they reached the summit, they "came upon a complete plantation of Tree Ferns (Alsophila leichhardtii)¹⁸⁹. The striking way in which the leaves branch out in a cluster overhanging the stem all round, like an open parachute, is peculiary beautiful". As they were "completely shut in by the towering pines ¹⁹⁰ and overshadowing trees of every variety", they needed to climb a tree for a view, which "stretch[ed] far away in the distance from the foot of Mount Dryander... lands intersected with running creeks, lined with tall palms (Seaforthia)¹⁹¹". They proceeded along the summit ridge "until we reached one of the three prominent peaks which from many points of the compass meet the eye in aspects of Mount Dryander". Here they remarked that there were "rare trees, shrubs, numerous parasitic orchids and ferns, but beneath our feet a perfect carpet of the rarest kinds of moss ¹⁹² rivalling in freshness of colour and softness the finest Brussels and Turkey manufactures ¹⁹³, and in many places they hung like a thick covering of Berlin wool ¹⁹⁴ from the rocks on which we walked ". At this location they inscribed a tree with their names and the date. At the very summit was "a high shelving rock surrounded by a mass of ferns and a large number of fig trees (Ficus magnifolia)¹⁹⁵". At about 4.00 pm they began their descent, and eventually reached the top of the first spur to make camp for the night. On the morning of Thursday 5 July, they descended to Vine Creek, where they located their horses, and commenced the journey back to Bowen. As there were no further travel details, it is assumed that they returned directly to Bowen.

Results of the Mount Dryander excursions

At least 90 species were collected during the Mount Dryander excursions. Of these, four collections were described as new

Table 7. Type specimens collected by Eugene Fitzalan and/or Frederick Kilner from Mount Dryander. Original species names are retained and the currently used name follows in parentheses. Collections list the location and the specimens relevant to typification, but the status of the typification is not provided as it is beyond the scope of this work. The publication details of the protologue are provided. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Species	Collection	Publication
Ochrosia kilneri F.Muell. (Neisosperma kilneri (F.Muell.) Fosberg & Sachet)	1871, Fitzalan & Kilner; MEL 1587728	Fragm. 7(56): 129 (1871)
<i>Eulophia fitzalanii</i> F.Muell. ex Benth. (<i>Eulophia bicallosa</i> (D.Don) P.F.Hunt & Summerh.)	a 1871, Fitzalan; MEL 0677527	Fl. Austral. 6: 300 (1873)
<i>Cleisostoma brevilabre</i> F.Muell. (<i>Plectorrhiza brevilabris</i> (F.Muell.) Dockrill	Undated, Fitzalan; MEL 1540850	Fragm. 11(91): 87 (1880)
Solanum sporadotrichum F.Muell.	Undated, Kilner & Fitzalan; MEL 0012282	Australas. Chem. Drugg. 5: 48 (1882)

species by Mueller (Table 7). The species collected on the expeditions are listed in Table 8. Fitzalan was the primary collector but a few specimens are cited with Kilner as a co-collector and there are a small number where Kilner was recorded as the sole collector. There is no evidence to suggest that Rainbird, Perceval or Rev. J.K. Black had any involvement with plant collecting on any of the Mount Dryander excursions.

Fitzalan was engaged by Ferdinand Mueller as the plant collector on the Dryander excursions. In correspondence to Joseph Hooker (Kew Gardens, England), Mueller wrote ¹⁹⁶, in 1869, that "*Mt Dryander has been ascended by Mr Kilner & Mr Fitzalan. Beyond a new Cassia* ¹⁹⁷ *no novelties seem to occur, but the Mount gives us some new localities*". In correspondence from Fitzalan to Mueller ¹⁹⁸, in 1871, it was noted that "*I enclose you specimens of the New Tree* ¹⁹⁹ *from Mount Dryander — I will send by next mail the notes you require on the woods — and some good specimens for the Museum a specimen of this tree amongst them*". This letter was included with one of the sheets associated with the type specimen of *Ochrosia kilneri* F.Muell. (*Neisosperma kilneri* (F.Muell.) Fosberg & Sachet). The first

citations concerning the Mount Dryander specimens occurred in December 1870 (Mueller 1870), soon after the first excursion of 1869 (Table 9).

As noted, Rainbird was a collector of land snails on the Mount Dryander excursions. In the account of the excursion of 1869, Perceval noted that "the naturalist [Rainbird] had least reason to be satisfied with his trip, not having succeeded in finding live specimens of the particular sort which were the especial object of his search. But he found some dead ones, and hopes that he may have better success at a more suitable season". John Rainbird collected at least 15 specimens of land snails whilst on the Mount Dryander excursions. Helix rainbirdii Cox, 1870 [Bentosites yulei Forbes, 1851], was described for one of his collections (Cox 1870) and Helix dryanderensis Cox, 1872 [Offachloritis dryanderensis Cox, 1872] was named for the locality (Cox 1872). Rainbird is cited as the collector of many natural history specimens from Queensland ²⁰⁰.

Mount Elliot Excursions, 1863 and 1872

Table 8. Species collected by Eugene Fitzalan during the Mount Dryander excursions in 1869, and June and July 1872, based on MELISR and AVH herbarium record data. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Abutilon sp. Acacia longissima H.L.Wendl. Acacia oswaldii F.Muell. Alpinia caerulea (R.Br.) Benth. Antidesma parvifolium Thwaites & F.Muell. Arthropteris tenella (G.Forst.) J.Sm. ex Hook.f. Atalaya rigida S.T.Reynolds Bazzania sp. 'queenslandica' Blechnum cartilagineum Sw. Bosistoa pentacocca (F.Muell.) Baill. Callicarpa pedunculata R.Br. Calochlaena dubia (R.Br.) M.D.Turner & R.A.White Capparis canescens Banks ex DC. Capparis sepiaria L. Carallia brachiata (Lour.) Merr. Clausena brevistyla Oliv. Commersonia bartramia (L.) Merr. Crotalaria juncea L. Crotalaria mitchellii Benth. subsp. mitchellii Cryptocarya triplinervis R.Br. Cyathea rebeccae (F.Muell.) Domin Denhamia cunninghamii (Hook. M.P.Simmons) Denhamia disperma (F.Muell. M.P.Simmons) Desmodium heterocarpon var. strigosum van Meeuwen Dioscorea transversa R.Br. Diospyros geminata (R.Br.) F.Muell. Doodia aspera R.Br. Doryopteris concolor (Langsd. & Fisch.) Kuhn Endiandra compressa C.T.White Eulophia bicallosa (D.Don) P.F.Hunt & Summerh. Euroschinus falcatus Hook.f. var. falcatus Ficus watkinsiana F.M.Bailey Flindersia schottiana F.Muell. Ganophyllum falcatum Blume Glycosmis trifoliata (Blume) Spreng. Gossia bidwillii (Benth.) N.Snow & Guymer Grevillea parallela Knight Grevillea pteridifolia Knight Heliotropium sarmentosum (Lam.) Craven Hibbertia scandens (Willd.) Dryand) Homalanthus populifolius Graham

Hypoestes floribunda R.Br. var. floribunda Lagunaria queenslandica Craven Larsenaikia jardinei (F.Muell. ex Benth.) Tirveng. Lastreopsis tenera (R.Br.) Tindale Mackinlaya macrosciadea (F.Muell.) F.Muell. Maclura cochinchinensis (Lour.) Corner Melaleuca sp. Melastoma malabathricum L. subsp. malabathricum Melodorum leichhardtii (F.Muell.) Benth. Micromelum minutum (G.Forst.) Wight & Arn. Monochoria cyanea (F.Muell.) F.Muell. Niemeyera antiloga (F.Muell.) T.D.Penn. Neisosperma kilneri (F.Muell.) Fosberg & Sachet Nephrolepis obliterata (R.Br.) J.Sm. Niemeyera antiloga (F.Muell.) T.D.Penn. Nymphoides indica (L.) Kuntze Parsonsia straminea (R.Br.) F.Muell. Pavetta australiensis Bremek. var. australiensis Pellaea falcata (R.Br.) Fee Pimelea latifolia R.Br. subsp. latifolia Piper interruptum Opiz Pittosporum venulosum F.Muell. Plectorrhiza brevilabris (F.Muell.) Dockrill Pleioluma brownlessiana (F.Muell.) Swenson & Munzinger Pollia macrophylla (R.Br.) Benth. Pothos longipes Schott Pyrrhobryum spiniforme (Hedw.) Mitt. Solanum graniticum A.R.Bean Solanum sporadotrichum F.Muell. Swainsona sp. Syzygium australe (H.L.Wendl. ex Link) B.Hyland Syzygium claviflorum (Roxb.) Wall. ex Steud. Tabernaemontana orientalis R.Br. Tapeinosperma pseudojambosa (F.Muell.) Mez Terminalia sp. Trophis scandens (Lour.) Hook. & Arn. subsp. scandens Turraea pubescens Hell. Vitex melicopea F.Muell. Vitex trifolia L. var. trifolia Vittaria elongata Sw.

Fitzalan undertook a number of excursions to Mount Elliot. Two of these, in 1863 and 1872, were botanically significant, whilst others such as those performed in 1878 and 1881, were minor diversions made when on route to other locations and with no significant ascent of the mountain.

The excursions to Mount Elliot described here include:

- Mount Elliot with John Dallachy, 2–14 August 1863.
- Mount Elliot Bunya-bunya search excursion, 2– 17
 [?] September 1872.

Mount Elliot is situated about 30 km south-east of Townsville and about 45 km north-west of Ayr, and rises to about 1235 m elevation. The derivation of the name Mount Elliot is not known, but it was mentioned by Philip Parker King [as Mount Eliot] in his account of his 1819 voyage (King 1827). Mount Elliot consists of two sections; the eastern sector rising to about 800 m elevation, and separated from the main massif by a low ridge. The eastward facing slopes of the main massif contain notophyll rainforest, whilst the western part has wet sclerophyll forest and Araucarian vine forest. The lower elevation open Eucalypt forests display a close affinity with southern Queensland and the higher altitude rainforest show a distinct affinity to the wet tropics area (Bean 2014).

As with most of Fitzalan's collecting excursions, there is no, or only scant, documentation concerning preparation and logistics, and there are no known reports or records for the 1863 excursion. Of the 1872 excursion there is only a single report that was rerun in various newspapers (Anon. [Fitzalan] 1872). However, the physical record of the herbarium specimens, mainly conserved in BM, BRI, K and MEL, that were collected from Mount Elliot offer a structure in which the excursions can be explained and described.

Mount Elliot excursion with John Dallachy, August 1863

On this excursion, Fitzalan was accompanied by John Dallachy, the experienced plant collector who was also engaged by Ferdinand Mueller. John Dallachy (b.?1805/8, Morayshire, Scotland; d. 4 June 1871, Vale of Herbert, Queensland) was a trained gardener, plantation manager, nurseryman and botanical collector. He collected extensively in Victoria and Queensland, primarily around Rockhampton, Townsville, Seaview Range, Cardwell, and Rockingham Bay. His collections number to ca 6000 specimens, mainly in MEL, but many in BRI, K, PH, among other herbaria (George 2009).

Prior to moving to Queensland in 1862, Dallachy had been living in Victoria and was Superintendent of Melbourne Botanic Gardens [1849–1857] before the position was held by Ferdinand Mueller (Blake 1955; George 2009). Following this he was the herbarium curator for Mueller until 1861. Dallachy collected near Brisbane in late 1862, near Rockhampton in early 1863, and was in Bowen from April–June 1863. Although not documented, it appears that Fitzalan and Dallachy became known to each other and undertook the trip to Mount Elliot as a joint enterprise. Following the excursion, Dallachy became a pioneer settler in Cardwell which remained his main area of residence until his death in 1871 (Blake 1955).

Table 9. Primary citations for specimens collected by Eugene Fitzalan during the excursions to Mount Dryander, arranged in chronological order. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Taxon	Publication
Sersalisia sericea (Aiton) R.Br.	Fragm. 7(55): 112 (1870)
Amorphospermum antilogum F.Muell. (Niemeyera antiloga (F.Muell.) T.D.Penn.)	Fragm. 7(55): 113 (1870)
Polypodium tenellum G.Forst. (Arthropteris tenella (G.Forst.) J.Sm. ex Hook.f.)	Fragm. 7(55): 121 (1870)
Vittaria elongata Sw.	Fragm. 7(55): 121 (1870)
Hibbertia volubilis Andrews (Hibbertia scandens (Willd.) Dryand.)	Fragm. 7(56): 125 (1871)
Ochrosia kilneri F.Muell. (Neisosperma kilneri (F.Muell.) Fosberg & Sachet)	Fragm. 7(56): 129 (1871)
Cystoseira prolifera J.Agardh (Hormophysa cuneiformis (J.F.Gmelin) P.C.Silva	Fragm. 7(56): 136 (1871)
Pittosporum venulosum F.Muell.	Fragm. 7(57): 140 (1871)
Eulophia sp.	Fragm. 8(59): 30 (1873)
Monochoria cyanea(F.Muell.) F.Muell.	Fragm. 8(60): 44 (1873)
Pollia cyanococca F.Muell.	Fragm. 8(62): 63 (1873)
Eulophia fitzalanii F.Muell. ex Benth. (Eulophia bicallosa (D.Don) P.F.Hunt & Summerh.)	Fl. Austral. 6: 300 (1873)
Potamogeton tenuicaulis F.Muell. (= Potamogeton octandrus Poir.)	Fragm. 8(68): 217 (1874)
Cymodocea serrulata (R.Br.) Asch. & Magnus	Fragm. 8(68): 218 (1874)
Ptychosperma elegans (R.Br.) Blume	Fragm. 8(68): 222 (1874)
Hibiscus elsworthii F.Muell.	Fragm. 8(70): 242 (1874)
Flindersia schottiana F.Muell.	Fragm. 9(78): 133 (1875)
Pothos loureiri Hook. & Arn. (Pothos longipes Schott)	Fl. Austral. 7:158 (1878)
Cleisostoma brevilabre F.Muell. (Plectorrhiza brevilabris (F.Muell.) Dockrill	Fragm. 11(91): 87 (1880)
Solanum sporadotrichum F.Muell.	Australas. Chem. Drugg. 5: 48 (1882)

During the whole of 1863, Dallachy collected about 750 specimens, from various localities in Queensland between Rockhampton and Cleveland Bay (AVH 2014; MELISR 2014). Of this number, at least 60 specimens are labelled as collected from Mount Elliot under his name alone. It is not possible to determine the exact number of specimens that Fitzalan collected during the 1863 excursion, as most of his specimens were undated. In total, there are about 230 specimens from all the excursions to Mount Elliot that were collected solely under the name Fitzalan. Other specimens, known to have been collected during the 1863 excursion, were co-collected and labelled as either Fitzalan & Dallachy (at least 10 specimens) or Dallachy & Fitzalan (at least four specimens) (MELISR 2014).

There are no known reports or accounts known for this excursion. The earliest documentation about the venture, to my knowledge, was provided by Mueller in a letter written on 25 September 1863 to William Hooker at Kew Gardens, England, in which Mueller wrote that "Messrs Fitzalan & Dallachy have just returned from Mount Elliot" ²⁰¹. Specimens from the excursion were first described as new species (Table 10) as early as October 1863 (Mueller 1863a, 1863b), only two months after Fitzalan and Dallachy had completed the excursion. Other new species were described throughout 1864 and then up to 1868, by either Mueller or George Bentham (Table 10). At this time, Bentham was preparing the first volumes of Flora Australiensis, and Mueller sent specimens from Melbourne to Kew for this purpose (Daley 1927). Further correspondence from Mueller to August Petermann²⁰² in August 1864, noted that Mueller had "received much from north-eastern Australia, and recently Musa australiensis, described as Musa banksi 203" which Fitzalan had collected from Mount Elliot during the 1863 expedition. For typification notes on Musa banksii see George (2010).

Mount Elliot Bunya-bunya search excursion, September1872

This excursion was intended to locate populations of Araucaria bidwillii 204, and to ascertain if "the fine tree known as the bunya-bunya existed on Mount Elliott". Some reports "led botanical writers to suppose that it was a new species of Araucaria, and to desire that specimens should be procured". Literature references to the mentioned 'botanical writers' have not been located. However, in a report of an excursion to Mount Roundback undertaken by Fitzalan, John Rainbird and Augustus William Simpson 205, in early August of 1872 (Anon. [Fitzalan et al.] 1872), it was noted that "on our way from Townsville we had touched at Mount Elliot, with which a good deal of interest is connected for various reasons, with the intention of ascending it and ascertaining for ourselves the correctness of several questions which hitherto have been only conjecture. We reserve for further notice what we came to the knowledge of, merely stating that the Bunya Bunya tree, the existence of which on Mount Elliot has been disputed, undoubtedly grows there, and its fruit forms one of the chief articles of diet of the natives.

Mr. Mark Reid, of Woodstock, who succeeded in procuring some of the fruit from them [Mount Elliot Aborigines], was first informed of its whereabouts, which was subsequently reported by Mr. Macmillan to the Acclimatization Society of Brisbane". Araucaria bidwillii is now known to occur in only two disjunct populations, one near Gympie in south-eastern Queensland and the other near Mount Molloy in north-eastern Queensland (Hill 1998), and does not occur on Mount Elliot. Fitzalan collected a specimen of Araucaria cunninghamii var. cunninghamii from Mount Elliot 206, but it is undated and therefore cannot be assigned to any particular excursion. Fitzalan would have been very familiar with Araucaria cunninghamii var. cunninghamii as it was the primary timber that he used when constructing the government buildings at Bowen during his building contracts of 1861-1862. It is possible that there may have been confusion as to the identity of the bunya-bunya from sources other than Fitzalan, and the Mount Elliot reports possibly referred correctly to Araucaria cunninghamii var. cunninghamii. To facilitate identification of the pine, Fitzalan took with him "a good-sized branch of the real bunya-bunya (Araucaria Bidwellii)". It is not explained how Fitzalan acquired this, but it is possible that plants at that time were cultivated in Bowen.

On Tuesday 2 September 1872, Fitzalan in the company of his "frequent companion, Mr. Rainbird" departed Bowen and proceeded on the road northward toward Mount Elliot [see Mount Dryander excursion above for biographical details about John Rainbird). After travelling for about three days, they stopped at Woodstock Station, a pastoral property then owned by John Melton Black and Robert Towns (Pike 1996; Carver 1993) (Figure 12). Woodstock Station was one of the first pastoral runs established in the Mount Elliot area [ca 1862] and pre-dates the formation of the Ross River port in 1864 which was to become Townsville in 1865 (Pike 1996). The original Woodstock Station was to the southeast of Mount Elliot near the junction of Majors Creek and Haughton River (Jack 1878), and not to be confused with the present township of Woodstock which is about 30 km to the north-west of this location (Figure 12). From Woodstock Station "and after a couple of days' scrub-hunting on the Haughton, where my companion found a new Helix ²⁰⁷, we started for the mountain, some 12 miles [19.3 km] distant". Haughton River, which has its source in the Mingela Range to the south-west of Mount Elliot enters Bowling Green Bay to the east of Mount Elliot. Fitzalan's reference could relate to the middle reaches of the river as that area is about 12 miles [19.3 km] on average from Mount Elliot.

On about **6 September**, they ascended the mountain, presumably from the east or south-east, and "kept up the search for seven days, following the creeks and gorges to their sources, and ascending the mountain at various points". Fitzalan observed that "there are no tropical scrubs ²⁰⁸on Mount Elliott such as botanists delight in...on top you find yourself in open grassy forest ²⁰⁹, timbered with messmate ²¹⁰, stringy barks ²¹¹, and forest oak ²¹²". After realising that the search for the bunya-bunya was not going to be successful, they "came to the conclusion that the black fellows were right and that it [Araucaria bidwillii] did not sit down" on

the mountain. 'Sit down' was a corrupted-English term used by the Aborigines to describe something being present at a place, i.e., the pine did not 'sit down' on Mount Elliot. In spite of this, Fitzalan "got many specimens of interest, and amongst others some seed and specimens of a very handsome new palm²¹³ of dwarf habit and rapid growth" and that "Mr. R. also found some new land shells²¹⁴". The assumption that they approached the mountain from the east is supported by the fact that the Araucaria cunninghamii var. cunninghamii the species which Araucaria bidwillii may have been confused with, only occurs on the western ridges and slopes (Figure 12). In addition, Fitzalan noted that "there are some fine dense palm scrubs²¹⁵ on some of the running creeks on the eastern side of the mountain". Furthermore, if they had approached the mountain from the west or north-west, the populations of *Araucaria* would have been seen, as they are very conspicuous in that area. The populations are otherwise not able to be seen from the east or south. Considering the timing mentioned in the report, they would have returned to Bowen about **17 September**.

Results of the Mount Elliot excursions

Fitzalan collected about 240 specimens from all the excursions he took to Mount Elliot. There are a further 60 specimens that were collected by John Dallachy during the 1863 excursion, and about 15 specimens are recorded as being co-collected by them. In total, this amounts to about 315 species collected during the excursions.

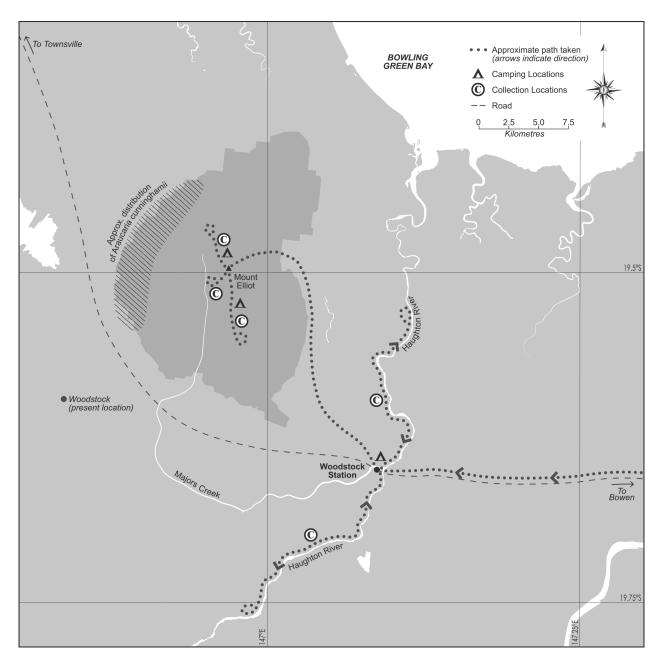


Fig. 12. Map of the approximate paths taken during the excursion to Mount Elliot, 2–17 September 1872. Prepared by Claire Burton, Cairns Regional Council.

Fourteen type specimens were collected (Table 10), representing mainly understory shrubs and trees. None of these taxa are endemic to Mount Elliot, but overall indicate a close association with taxa from areas to the north. An examination of the relevant literature produced about 38 citations for specimens collected from Mount Elliot by Fitzalan and Fitzalan & Dallachy (Table 11). The first citations were provided by Mueller within months of them returning from the 1863 excursion - an indication of the characteristic efficiency that Mueller applied to his plant taxonomy. A list of all species, from all the Mount Elliot excursions, is presented in Table 12.

Whitsunday Island Excursion, June 1874

The Whitsunday Island excursion of June 1874, was described in an informal newspaper report that appeared in the *Port Denison Times* ²¹⁶. The participants were only identified by characterised monikers: Fitzalan was named as '*Palmseed*' and John Rainbird as '*Muttonfish*'. The true identities of the other four party members are not known.

The excursion was made during **June 1874**, but exact dates were not recorded. The excursion departed Bowen at 4.00 pm, and the first night camp was made at Gloucester Passage

(Figure 13). The excursion passed between Saddleback Island and George Point during the following morning, and the second night camp was made on Gumbrel [Gumbrell] Island. The next morning on Gumbrell Island, "the party amused themselves by fossicking in the scrub for land shells and plants, and found growing in wild profusion the scented sage (Salvia)²¹⁷ and the same sort of convolvulus that grows on the beach at Port Denison, but having a pure white flower ²¹⁸". The party sailed onto Double Cone Island where "all hands went to the reef, which is exposed at the lowest tides, seeking shells, reptilia &c., which are obtained by following the water as it recedes". Continuing on, they passed round Pioneer Point and entered Port Molle, where they camped for the third night on Little Pine Island [Shute Island] for the night. The following morning they landed on Long Island to obtain water from 'Flinders' Well'. The fourth night camp was made on Henning Island, where "all hands went fossicking for what they could find in the scrub with which this island is almost covered ²¹⁹. Palmseed found a great quantity of his namesakes ²²⁰, and all got plenty of the beans thought so much of for matchboxes ²²¹".

Whitsunday Island was reached late in the afternoon, and the fifth night camp was made. The following day the area around Fitzalan's Point was explored, where there was "*a blue bean* ²²² of the same size and shape as the common red variety ²²³

Table 10. Type specimens collected by Eugene Fitzalan or co-collected with John Dallachy during the Mount Elliot excursions, 1863–1881. Original species names are retained and the currently used name follows in parentheses. Collections list the location and the specimens relevant to typification, but the status of the typification is not provided as it is beyond the scope of this work. The publication details of the protologue are provided. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Taxon	Collection	Publication
Ardisia pseudojambosa F.Muell. (Tapeinosperma pseudojambosa (F.Muell) Mez	1863, Fitzalan 6; MEL1612768, MEL1612770	Fragm. 4(26): 81 (1864)
Argophyllum lejourdanii F.Muell.	1863, Fitzalan & Dallachy; K000739401, MEL0568353, MEL0568354	Fragm. 4(25): 33 (1863)
Chionanthus effusiflorus F.Muell.[Australian Plant Census excluded name]	1863, Dallachy & Fitzalan; No known specimens	Fragm. 4(26): 83 (1864)
Cordyline manners-suttoniae F.Muell.	Fitzalan; K000644213, MEL645614;	Fragm. 5(40): 195 (1866)
Eucalyptus hemiphloia var. parviflora Benth. (Eucalyptus crebra F.Muell.)	Fitzalan: No known specimens	Fl. Austral. 3: 217 (1867)
Ficus magnifolia F.Muell. (Ficus copiosa Steud.)	1863, Fitzalan & Dallachy; MEL1063140, MEL1063142	Fragm. 4(25): 50 (1863)
Macaranga mallotoides F.Muell. (Macaranga involucrata (Wall.) Baill. Ex Mull.Arg.)	Fitzalan; MEL0708347	Fragm. 4(29): 139 (1864)
Mallotus pycnostachys F.Muell. (Mallotus mollissimus (Geiseler) Airy Shaw)	<i>Fitzalan</i> ; MEL0232432, MEL0232433, MEL0232434	Fragm. 4(29): 138 (1864)
Musa banksia F.Muell.	1863, <i>Fitzalan</i> ; MEL0621535; BRIAQ0023362, EBC29543	Fragm. 4(28): 132 (1864)
Psoralea cephalantha F.Muell. (Lotodes cephalantha (F.Muell.) Kuntze)	1863, Fitzalan & Dallachy; K000217483, MEl1563596 MEL1563594, MEL1563595, MEL1563597	6;Fragm. 4(25): 35 (1863)
Ptychosperma beatricae F.Muell. (Archontophoenix alexandrae (F.Muell.) H.Wendl. & Drude)	1881 & 1882, <i>Fitzalan</i> ; BRIAQ0342251, FI029, MEL0516567, MEL0516568, MEL0516569, MEL0516570, MEL0516578, MEL0516579, MEL0516581 – 83	Australas. Chem. Drugg. 4(46): 77 (1882)
Rhynchosia cunninghamii Benth. (Rhynchosia acuminatissima Miq.)	Fitzalan; K000279359, K000279361, MEL2046612	Fl. Austal. 2: 266 (1864)
Strychnos psilosperma F.Muell. (Strychnos axillaris Colebr.)	1863, Fitzalan & Dallachy ; K, MEL707285, MEL707282, MEL707283	Fragm. 4(25): 44 (1863)
Vincetoxicum leptolepis Benth. (Cynanchum leptolepis (Benth.) Domin)	Fitzalan 83; BRIAQ0333129, MEL0113313	Fl. Austral. 4: 331 (1868)

but it was not the season". The sixth night camp was made on Whitsunday Island. The next morning they commenced the journey back to Bowen, landing on Double Cone Island where they camped for the seventh night. As the tides were favourable for shelling, another day and night were spent on the island. Fitzalan and Rainbird 'went off together to make a day of it in their own particular line...every one was very fortunate and collected some nice specimens". After the ninth night camp was made in the Gloucester Passage, Bowen was reached in the evening of the next day.

Results of the Whitsunday Island Excursion

There appears to have been no new species collected or significant new distribution records made during this excursion. A list of plant species, collected during 1874 but otherwise lacking exact location data, is presented in Table 13.

Daintree River Excursions, 1875 and 1876

The Daintree River was first explored in December 1873 by George Elphinstone Dalrymple during the North-east Coast Expedition and Dalrymple named it for Richard Daintree (1832-1878), geologist, Agent-General for Queensland [1872–1876], photographer and plant collector (Dalrymple 1874). It was noted by Walter Hill (1874), the Queensland Government Botanist who accompanied Dalrymple on the North-east Coast Expedition, that the Daintree River was "bordered with dense vegetation extending for miles back from their banks ²²⁴" and that "timber suitable for building purposes is almost everywhere to be obtained ²²⁵". Hill's collections of 1873 represented the first botanising to occur on the Daintree River (Mueller 1874b, 1875). During 1874, and in response to Dalrymple's and Hill's encouraging descriptions, southern companies sent timber-getters to the river to look for stands of millable timber (Franken 2008), and by late 1874 the area was being coined as 'The Cedar

Table 11. Primary citations for specimens collected by Eugene Fitzalan during the excursions to Mount Elliot, arranged in chronological order. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Taxon	Citation
Triumfetta pilosa Roth	Fragm. 4(25): 28 (1863)
Rubus rosifolius Sm.	Fragm. 4(25): 32 (1863)
Argophyllum lejourdanii F.Muell.	Fragm. 4(25): 33 (1863)
Psoralea cephalantha F.Muell. (Lotodes cephalantha (F.Muell.) Kuntze)	Fragm. 4(25): 35 (1863)
Strychnos psilosperma F.Muell. (Strychnos axillaris Colebr.)	Fragm. 4(25): 44 (1863)
Pimelea latifolia R.Br.	Fragm. 4(25): 49 (1863)
Ficus magnifolia F.Muell. (Ficus copiosa Steud.)	Fragm. 4(25): 50 (1863)
Ardisia pseudojambosa F.Muell. (Tapeinosperma pseudojambosa (F.Muell) Mez	Fragm. 4(26): 81 (1864)
Chionanthus effusiflorus F.Muell.[APC excluded name]	Fragm. 4(26): 83 (1864)
<i>Epicarpurus orientalis</i> Blume	Fragm. 4(26): 89 (1864)
Musa banksii F.Muell.	Fragm. 4(28): 132 (1864)
Mallotus pycnostachys F.Muell. (Mallotus mollissimus (Geiseler) Airy Shaw)	Fragm. 4(29): 138 (1864)
Macaranga mallotoides F.Muell. (Macaranga involucrata (Wall.) Baill. Ex Mull.Arg.)	Fragm. 4(29): 139 (1864)
Nephelia (Cupania) semiglauca (Guioa semiglauca (F.Muell.) Radlk.)	<i>Fragm.</i> 4(30): 158 (1864)
Rhynchosia cunninghamii Benth. (Rhynchosia acuminatissima Miq.)	<i>Fl. Austal.</i> 2: 266 (1864)
Ixora klanderiana F.Muell. (Ixora timorensis Decne.)	Fragm. 5(31): 18 (1865)
Freycinetia excelsa F.Muell.	<i>Fragm.</i> 5(32): 40 (1865)
Aglaia elaeagnoidea (A.Juss.) Benth.	<i>Fragm.</i> 5(37): 145 (1866)
Cordyline manners-suttoniae F.Muell.	Fragm. 5(40): 195 (1866)
Piper novae-hollandiae Mig. (Piper hederaceum (Mig.) C.CD. var. hederaceum)	Fragm. 5(40): 198 (1866)
Vitis oblonga Benth. (Cissus oblonga (Benth.) Planch.)	Fragm. 5(40): 210 (1866)
Melaleuca genistifolia Sm. (Melaleuca decora (Salisb.) Domin)	Fl. Austral. 3: 144 (1866)
Eucalyptus hemiphloia var. parviflora Benth. (Eucalyptus crebra F.Muell.) – Fitzalan's Ironbark	Fl. Austral. 3: 217 (1867)
Vincetoxicum leptolepis Benth. (Cynanchum leptolepis (Benth.) Domin)	Fl. Austral. 4: 331 (1868)
Sloanea langii F.Muell.	Fragm. 8(58): 3 (1872)
Pollia cyanococca F.Muell.	Fragm. 8(62): 63 (1873)
Geophila reniformis (D.Don (Geophila repens (L.) I.M.Johnst.)	Fragm. 8(65): 147 (1873)
Myriophyllum verrucosum Lindl.	Fragm. 8(66): 163 (1874)
Ceratophyllum demersum L.	Fragm. 8(66): 163 (1874)
Notholaena vellea R.Br. (Cheilanthes brownii (Kuhn) Domin)	Fragm. 8(66): 176 (1874)
Colocasia antiquorum Schott (Colocasia esculenta (L.) Schott	Fragm. 8(67): 187 (1874)
Xerotes longifolia (Labill.) R.Br. (Lomandra longifolia Labill.)	Fragm. 8(68): 210 (1874)
Abutilon micropetalum Benth.	Fragm. 9(78): 131 (1875)
Cedrela toona Roxb. Ex Rottler (Toona ciliata M.Roem.)	Fragm. 9(78): 133 (1875)
Owenia acidula F.Muell.	Fragm. 9(78): 134 (1875)
Cephaelis reniformis Kunth (Geophila reniformis (L.) I.M.Johnst.)	Fragm. 9(80): 187 (1875)
Nelumbo nucifera Gaertn.	Fragm. 10(85): 77 (1876)
Lygodium scandens (L.) Sw. (Lygodium flexuosum (L.) Sw.)	Fragm.10(87): 118 (1877)
Hibiscus splendens C.Fraser ex Graham	Fragm. 11(89): 31 (1878)
Polypodium rigidulum Sw. (Drynaria rigidula (Sw.) Bedd.)	Fl. Austral. 7:771 (1878)
Hibbertia volubilis Andrews (Hibbertia scandens (Willd.) Dryand.)	Fragm. 11(92): 94 (1880)
Plagiochila pendula Hampe & Gottsche (Plagiochila metcalfii Steph.)	Fragm. 11 (Suppl.): 55 (1880)
Ptychosperma beatricae F.Muell. (Archontophoenix alexandrae (F.Muell.) H.Wendl. & Drude)	Australas. Chem. Drugg. 4(46): 77 (1882)

Country' because of the abundance of valuable timbers ²²⁶. At the high rates of extraction, the accessible timber was rapidly depleted and large areas of forest were decimated ²²⁷. By the 1880s, most of the timber camps were abandoned and only a few settlers remained (Pike 1996).

It is against this background that Fitzalan visited the Daintree River in 1875 and again in 1876. It is not known under what circumstances Fitzalan visited the area and he was not mentioned as a member of any of the exploration parties that were active during this time. There are no known detailed published records or accounts of either of Fitzalan's excursions to the Daintree River. The exact dates of the Daintree River excursions are not known, although shipping notifications indicate that Fitzalan visited Sydney in 1875, arriving there on the *S.S. Leichhardt* on 3 June. The details about his return journey have not been located. He appears

to have visited Cooktown and the Daintree River area during July/August 1875 and it was noted that "Mr Fitzalan, well known to residents in the north as a botanist, has been in this neighbourhood for several weeks past, collecting plants. He informs us he has been successful beyond expectation in obtaining some plants new to botany, and in getting a large number of fine specimens of species, already known. A portion of the plants collected are for shipment to England, but the majority go to Baron von Mueller"²²⁸. Some of the new plants were noted in forthcoming reports: "As the genus Leichhardtia of the Asclepiads was subsequently reduced to Marsdenia, he [Mueller] now proposes to transfer the honoured name of Leichhardt to a new genus of the Menispermeae, founded on a plant recently discovered by Mr. E. Fitzalan, near Daintree River" 229. This revised taxonomy was published by Mueller (1876), before July 1876, suggesting that it was a collection

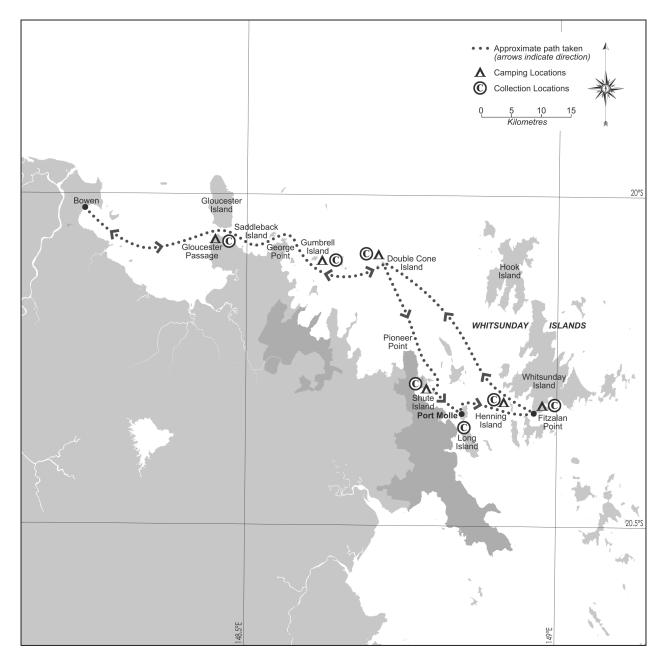


Fig. 13. Map of the approximate paths taken during the excursion to Whitsunday Island, June 1874. Prepared by Claire Burton, Cairns Regional Council.

Table 12. Species collected by Eugene Fitzalan during the Mount Elliot excursions. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Abroma fastuosa R.Br. Acacia maidenii F.Muell. Adiantum aethiopicum L. Adiantum hispidulum Sw. Aglaia elaeagnoidea (A.Juss.) Benth. Ajuga australis R.Br. Albizia canescens Benth. Alocasia brisbanensis (F.M.Bailey) Domin Alyxia spicata R.Br. Ampelopteris prolifera (Retz.) Copel. Antidesma parvifolium Thwaites & F.Muell. Apocynaceae Araucaria cunninghamii Aiton ex A.Cunn. var. cunninghamii Archidendron grandiflorum (Sol. ex Benth.) I.C.Nielsen Archontophoenix alexandrae (F.Muell.) H.Wendl. & Drude Argophyllum lejourdanii F.Muell. Atalaya hemiglauca (F.Muell.) F.Muell. ex Benth. Atalaya rigida S.T.Reynolds Atractocarpus fitzalanii (F.Muell.) Puttock subsp. fitzalanii Baloghia inophylla (G.Forst.) P.S.Green Blechnum cartilagineum Sw. Brachychiton acerifolius (A.Cunn. ex G.Don) Macarthur & C.Moore Breynia cernua (Poir.) Mull.Arg. Bryidae Bursaria incana Lindl. Callicarpa pedunculata R.Br. Calochlaena dubia (R.Br.) M.D.Turner & R.A.White Calophyllum inophyllum L. Capparis mitchellii Lindl. Carallia brachiata (Lour.) Merr. Cassia brewsteri (F.Muell.) Benth. Castanospermum australe A.Cunn. & C.Fraser ex Hook. Ceratophyllum demersum L. Cheilanthes brownii (Kuhn) Domin Cheilolejeunea imbricata (Nees) S.Hatt. Cissus cardiophylla (F.Muell.) Jackes Cissus oblonga (Benth.) Planch. Clerodendrum floribundum var. angustifolium Moldenke Clerodendrum longiflorum var. glabrum Munir Cordyline cannifolia R.Br. Cordyline manners-suttoniae F.Muell. Corymbia setosa (Schauer) K.D.Hill & L.A.S.Johnson Coveniella poecilophlebia (Hook.) Tindale Crotalaria mitchellii Benth. subsp. mitchellii Crotalaria retusa L. Cryptocarya triplinervis R.Br. var. triplinervis Cullen badocanum (Blanco) Verdc. Cupaniopsis wadsworthii (F.Muell.) Radlk. Cycas media R.Br. subsp. media Cyclosorus interruptus (Willd.) H.Ito Cynanchum leptolepis (Benth.) Domin Cyperus lucidus R.Br. Dendrophthoe glabrescens (Blakely) Barlow Denhamia cunninghamii (Hook.) M.P.Simmons Dioscorea bulbifera L. Dolichandrone heterophylla (R.Br.) F.Muell. Doodia aspera R.Br. Dysoxylum gaudichaudianum (A.Juss.) Miq. Ehretia acuminata R.Br. var. acuminata Elattostachys bidwillii (Benth.) Radlk. Endiandra compressa C.T.White Entada rheedii Spreng. Eucalyptus crebra F.Muell. Eucalyptus melanophloia F.Muell. Eucalyptus moluccana Roxb. Eucalyptus persistens L.A.S.Johnson & K.D. Hill

Eucalyptus platyphylla F.Muell. Eucalyptus tereticornis Sm. Eucalyptus xanthoclada Brooker & A.R.Bean Eugenia reinwardtiana (Blume) DC. Ficus adenosperma Miq. Ficus copiosa Steud. Ficus opposita Miq. Ficus rubiginosa Desf. ex Vent. f. rubiginosa Freycinetia excelsa F.Muell. Ganophyllum falcatum Blume Geophila repens (L.) I.M.Johnst. Goodenia grandiflora Sims. Gossia bidwillii (Benth.) N.Snow & Guymer Grevillea parallela Knight Grevillea pteridifolia Knight Grevillea striata R.Br. Guioa acutifolia Radlk. Hakea arborescens R.Br. Heritiera littoralis Dryand. Hibiscus splendens C.Fraser ex Graham Homalanthus populifolius Graham Hovea longipes Benth. Hydrilla verticillata (L.f.) Royle Hypoestes floribunda R.Br. var. floribunda Ixora timorensis Decne. Jasminum didymum subsp. racemosum (F.Muell.) P.S.Green Kennedia rubicunda (Schneev.) Vent. Larsenaikia jardinei (F.Muell. ex Benth.) Tirveng. Lastreopsis tenera (R.Br.) Tindale Limnophila sp. Limnophila brownii Wannan Lomandra hystrix (R.Br.) L.R.Fraser & Vickery Lophostemon grandiflorus subsp. riparius (Domin) Peter G.Wilson & J.T.Waterh. Lopidium struthiopteris (Brid.) M.Fleisch. Lotodes cephalantha (F.Muell.) Kuntze Lygodium flexuosum (L.) Sw. Macaranga involucrata (Wall.) Baill. ex Mull.Arg. Mallotus mollissimus (Geiseler) Airy Shaw Mallotus philippensis (Lam.) Mull.Arg. Mallotus polyadenos F.Muell. Melaleuca bracteata F.Muell. Melastoma malabathricum L. subsp. malabathricum Melia azedarach L. Melodorum leichhardtii (F.Muell.) Benth. Musa banksii F.Muell. Myriophyllum verrucosum Lindl. Myristica globosa subsp. muelleri (Warb.) W.J.de Wilde Myristica insipida R.Br. Myrsine porosa F.Muell. Neisosperma poweri (F.M.Bailey) Fosberg & Sachet Nelumbo nucifera Gaertn. Neolitsea brassii C.K.Allen Niemeyera antiloga (F.Muell.) T.D.Penn. Ottelia ovalifolia (R.Br.) Rich. subsp. ovalifolia Owenia acidula F.Muell. Pachygone ovata (Poir.) Hook.f. & Thomson Pararchidendron pruinosum (Benth.) I.C.Nielsen var. pruinosum Pavetta australiensis Bremek. var. australiensis Persoonia falcata R.Br. Philydrum lanuginosum Banks & Sol. ex Gaertn. Pimelea latifolia R.Br. subsp. latifolia Pisonia aculeata L. Pisonia umbellifera (J.R.Forst. & G.Forst.) Seem. Pittosporum revolutum Dryand. Pittosporum venulosum F.Muell. Platysace valida (F.Muell.) F.Muell. Pleiogynium timorense (DC.) Leenh. Potamogeton octandrus Poir. Proiphys amboinensis (L.) Herb. Pseudocyphellaria diplomorpha (Mull.Arg.) D.J.Galloway

Psilotum nudum (L.) P.Beauv. Psydrax odorata f. australiana S.T.Reynolds & R.J.F.Hend. Pteridium esculentum x Pteridium revolutum Pteridium revolutum (Blume) Nakai Pteris tremula R.Br. Ptilotus helipteroides (F.Muell.) F.Muell. Pyrrhobryum spiniforme (Hedw.) Mitt. Pyrrosia rupestris (R.Br.) Ching Racopilum cuspidigerum var. convolutaceum (Mull.Hal.) Zanten & Dijkstra Rhynchosia acuminatissima Miq. Rubus moluccanus L var. moluccanus Rubus probus L.H.Bailey Senna gaudichaudii (Hook. & Arn.) H.S.Irwin & Barneby Sloanea langii F.Muell. Solanum erianthum D.Don Stephania japonica var. timoriensis (DC.) Forman Strychnos axillaris Colebr. Syzygium australe (H.L.Wendl. ex Link) B.Hyland Tabernaemontana pandacaqui Lam. Tapeinosperma pseudojambosa (F.Muell.) Mez Terminalia sericocarpa F.Muell. Teucrium argutum R.Br. var. argutum Toona ciliata M.Roem. Triumfetta pilosa Roth Turraea pubescens Hell. Utricularia australis R.Br. Vitex melicopea F.Muell. Vitex trifolia var. subtrisecta (Kuntze) Moldenke Vittaria elongata Sw. Ximenia americana L.

made by Fitzalan in 1875. *Leichhardtia*, sensu Mueller, was later placed as a section under *Phyllanthus* L. (Diels 1931) in the Phyllanthaceae.

Results of the Daintree excursions

Mueller had engaged Fitzalan to collect for him in the Daintree area and about 200 specimens were subsequently gathered during the excursions (AVH 2014; MELISR 2014). Of these, ten specimens represented type materials (Table 14). The first citations related to Fitzalan's Daintree collections appeared in November 1875 (Table 15). In correspondence to Edward Ramsay in January 1876 230, Mueller commented on Fitzalan's 1875 collections: "Mr Fitzalan's last collections disappointed me; he lost his time about terrestrial & other common ferns, and missed meanwhile the trees which likely would have contained a fair percentage of novelty. We know now however through him two more Musas ²³¹ sufficiently accurately for naming". This apparent remiss on Fitzalan's behalf is evident in the specimens; of the species collected by him in the Daintree in the 1875 excursion, 56 of the 160 species (35%) collected were Pteridophytes. Nevertheless, three fern collections from that excursion were described as new species (Table 14). There is no explanation why Fitzalan concentrated on the Pteridophytes during the 1875 excursions, and correspondingly there were no Pteridophytes collected during the 1876 excursion during which a total of about 40 plant species were collected (Table 16).

Table 13. Species possibly collected by Eugene Fitzalan during the Whitsunday Island Excursion, June 1874. Taxonomy follows that presented in Australian Plant Census (2014), Australian Plant Name Index (2014) and Bryophytes (2014).

Acacia decora Rchb. Acacia leptostachya Benth. Adiantum hispidulum Sw. Allocasuarina torulosa (Aiton) L.A.S.Johnson Ampelopteris prolifera (Retz.) Copel. Blechnum cartilagineum Sw. Bosistoa pentacocca (F.Muell.) Baill. Buchnera tetragona R.Br. Cajanus reticulatus (Aiton) F.Muell. Capparis sepiaria L. Cassia brewsteri (F.Muell.) Benth. Ceratophyllum demersum L. Cheilanthes tenuifolia (Burm.f.) Sw. Clerodendrum inerme (L.) Gaertn. Colocasia esculenta (L.) Schott Cordyline murchisoniae F.Muell. Coronidium lanuginosum (A.Cunn. ex DC.) Paul G.Wilson Coveniella poecilophlebia (Hook.) Tindale Crotalaria medicaginea Lam. Croton acronychioidesF.Muell. Cullen leucanthum (F.Muell.) J.W.Grimes Cyathea rebeccae (F.Muell.) Domin Cycas media R.Br. Deeringia amaranthoides (Lam.) Merr. Dioscorea transversa R.Br. Doodia caudate (Cav.) R.Br. Doryopteris concolor (Langsd. & Fisch.) Kuhk Drosera indica L. Drynaria rigidula (SW.) Bedd. Ehretia acuminate R.Br. Elaeagnus triflora Roxb. Entada rheedii Spreng. Eremophila mitchellii Benth Goniophlebium percussum (Cav.) W.H.Wagner & Grether Grevillea parallela Knight Hanslia ormocarpoides (DC.) H.Ohashi Heliotropium sarmentosum (Lam.) Craven Jasminum simplicifolium G.Forst. Lagunaria queenslandica Craven Lastreopsis tenera (R.Br.) Tindale Miliusa brahei (F.Muell.) Jessup Murdannia gigantea (Vahl) G.Bruckn. Ochrosia elliptica Labill. Parsonsia plaesiophylla S.T.Blake Pipturus argenteus (G.Forst.) Wedd. Platostoma longicorne (F.Muell.) A.J.Paton Pollia macrophylla (R.Br.) Benth. Proiphys amboinensis (L.) Herb. Psydrax saligna S.T.Reynolds & R.J.F.Henderson Pteris ensiformis Burm.f. Pteris tremula R.Br. Ptilotus nobilis (Lindl.) F.Muell. Pyrrosia rupestris (R.Br.) Ching Scaevola spinescens R.Br. Senna surattensis (Burm.f) H.S.Irwin & Barneby Solanum dianthophorum Dunal Sterculia quadrifida R.Br. Stylidium velleioides A.R.Bean Thuidium cymbifolium (Dozy & Molk.) Dozy & Molk. Thysanotus banksia R.Br. Trema orientalis (L.) Blume Velleia spathulata R.Br. Xerochrysum bracteatum (Vent.) Tzvelev Xyris complanata

Table 14. Type specimens collected by Eugene Fitzalan on the Daintree River excursions, 1874–1875. Original species names are retained and the currently used name follows in parentheses. Collections list the location and the specimens relevant to typification, but the status of the typification is not provided as it is beyond the scope of this work. The publication details of the protologue are provided. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Taxon	Collection	Publication
Adiantum hispidulum var. fitzalani Bail. (Adiantum diaphanum Blume)	1874?, <i>Fitzalan</i> ; BR5631407, BRIAQ0142440, MEL0692079	Compr. Cat. Queensland Pl. 641 (1913)
Albizia ramiflora F.Muell. (Archidendron ramiflorum (F.Muell.) Kosterm.	1875, <i>Fitzalan</i> ; BRIAQ022811, MEL0079719, MEL0079772, MEL0079742	Fragm. 9(80): 178 (1875)
Elaeocarpus grahamii F.Muell.	1875, <i>Fitzalan</i> ; BRIAQ0185003, BRIAQ0335730, MEL2226073, MEL2226074, MEL2226076, MEL2226077	Fragm. 10(81): 3 (1876)
Grammitis ampla F.Muell. ex Benth. (Colysis ampla (F.Muell. ex Benth.) Copel.)	1875, Fitzalan; P00626878	Fl. Austral. 7: 777 (1878)
Leichhardtia clamboides F.Muell. (Phyllanthus clamboides (F.Muell.) Diels)	Fitzalan; K001056764; NSW247354	Fragm. 10(84): 68 (1876)
<i>Musa banksii</i> var. <i>muelleriana</i> Domin (<i>Musa banksii</i> F.Muell.)	1875, Fitzalan; BRIAQ0067959, MEL0621528, MEL0621529	Biblioth. Bot. 20(85): 536 (1915)
Musa fitzalanii F.Muell.	1875, <i>Fitzalan</i> ; BRIAQ0023360, MEL0657777, MEL0657778, MEL0657779, MEL0657780, MEL0657781, MEL0657782	Fragm. 9(80): 188 (1875)
Musa hillii F.Muell. (Musa jackeyi W.Hill)		Fragm.9(79): 169 (1875)
Selaginella australiensis Baker	1875 & 1882, Fitzalan; BRIAQ0174209, MEL2063105	J. Bot. 21: 144 (1883)
Tetracera wuthiana F.Muell. (Tetracera nordtiana var. wuthiana (F.Muell.) Hoogland	1876, Fitzalan; MEL2227163, MEL2283236	Fragm. 10(83): 49 (1876)

Table 15. Primary citations for specimens collected by Eugene Fitzalan during the excursions to the Daintree River, arranged in chronological order. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Taxon	Citation
Orthosiphon stamineus Benth. (Orthosiphon aristatus (Blume) Miq.)	Fragm. 9(79): 161 (1875)
Musa hillii F.Muell. (Musa jackeyi W.Hill)	Fragm. 9(79): 169 (1875)
Albizia ramiflora F.Muell. (Archidendron ramiflorum (F.Muell.) Kosterm.	Fragm. 9(80): 178 (1875)
Gardenia hirta F.Muell. (Atractocarpus hirtus (F.Muell.) Puttock)	Fragm. 9(80): 181 (1875)
Musa fitzalanii F.Muell.	Fragm. 9(80): 188 (1875)
Kentia minor (W.Hill) F.Muell. (Linospadix minor (W.Hill) Burret)	Fragm. 9(80): 195 (1875)
Caesalpinia nuga (L.) W.T.Aiton (Caesalpinia crista L.)	Fragm. 10(81): 7 (1876)
Elaeocarpus grahamii F.Muell.	Fragm. 10(81): 3 (1876)
Jacksonia ramosissima Benth.	Fragm. 10(82): 37 (1876)
Tetracera wuthiana F.Muell.	Fragm. 10(83): 49 (1876)
Corymbis veratrifolia (Reinw.) Rchb.f. (Corymborkis vertrifolia (Reinw.) Blume	Fragm. 10(83): 64 (1876)
Leichhardtia clamboides F.Muell. (Phyllanthus clamboides (F.Muell.) Diels)	Fragm. 10(84): 68 (1876)
Ipomoea denticulata R.Br. (Xenostegia tridentata (L.) D.F.Austin & Staples)	Fragm. 10(87): 112 (1876)
Ipomoea bona-nox L. (Ipomoea alba L.)	Fragm. 10(87): 113 (1876)
Ptychosperma normanbyi (W.Hill) F.Muell. (Normanbya normanbyi (W.Hill) L.H.Bailey)	Fragm. 11: (89): 56 (1878)
Alsophila rebeccae F.Muell. (Cyathea rebeccae (F.Muell.) Domin)	Fl. Austral. 7: 710 (1878)
Alsophila australis R.Br. (Cyathea australis (R.Br.) Domin)	Fl. Austral. 7: 711 (1878)
Grammitis ampla F.Muell. ex Benth. (Colysis ampla (F.Muell. ex Benth.) Copel.)	Fl. Austral. 7: 777 (1878)
Acacia crassocarpa F.Muell. (Acacia crassicarpa A.Cunn. ex Benth.)	Fragm. 11(90): 69 (1879)
Selaginella australiensis Baker	J. Bot. 21: 144 (1883)
Adiantum hispidulum var. fitzalani Bail. [= Adiantum diaphanum Blume]	Compr. Cat. Queensalnd Pl. 641 (1913)
Musa banksii var. muelleriana Domin (Musa banksii F.Muell.)	Biblioth. Bot. 20(85): 536 (1915)

Table 16. Species collected by Eugene Fitzalan from the Daintree River area. The list is divided by year and plant type, either Pteridophytes or Angiosperms. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

1873-74?

Blechnum orientale L. Cephalomanes obscurum (Blume) K.Iwats

1875, Pteridophytes

Acrostichum aureum L. Adiantum diaphanum Blume Angiopteris evecta (G.Forst.) Hoffm. Antrophyum callifolium Blume Arthropteris palisotii (Desv.) Alston Asplenium nidus L. Blechnum cartilagineum Sw. Blechnum orientale L. Bolbitis quoyana (Gaudich.) Ching Cephalomanes atrovirens C.Presl Christella subpubescens (Blume) Holttum Coveniella poecilophlebia (Hook.) Tindale Cyathea cooperi (Hook. ex F.Muell.) Domin Cyathea rebeccae (F.Muell.) Domin Dicranopteris linearis (Burm.f.) Underw. Diplazium dietrichianum (Luerss.) C.Chr. Diplazium dilatatum Blume Doodia caudata (Cav.) R.Br. Goniophlebium percussum (Cav.) W.H.Wagner & Grether Goniophlebium subauriculatum (Blume) C.Presl Helminthostachys zeylanica (L.) Kaulf. Lycopodiella cernua (L.) Pic.Serm. Lygodium reticulatum Schkuhr Nephrolepis acutifolia (Desv.) H.Christ Pronephrium asperum (C.Presl) Holttum Pteridium esculentum x Pteridium revolutum Pteris pacifica Hieron. Pteris tremula R.Br. Pteris tripartita Sw. Ptisana oreades (Domin) Murdock Pyrrosia longifolia (Burm.f.) C.V.Morton Schizaea dichotoma (L.) Sm. Selaginella australiensis Baker Selaginella longipinna Warb. Vittaria elongata Sw.

1875, Angiosperms

Acanthus ilicifolius L. Archidendron lucyi F.Muell. Archidendron ramiflorum (F.Muell.) Kosterm. Atractocarpus fitzalanii (F.Muell.) Puttock subsp. fitzalanii Atractocarpus hirtus (F.Muell.) Puttock Barringtonia racemosa (L.) Spreng. Breynia cernua (Poir.) Mull.Arg. Caesalpinia crista L. Calamus sp. Casearia dallachii F.Muell. Centotheca lappacea (L.) Desv. Cerbera floribunda K.Schum. Cleistanthus apodus Benth. Commersonia macrostipulata Guymer Connarus conchocarpus F.Muell. subsp. conchocarpus Cordyline cannifolia R.Br. Cryptocarya triplinervis var. riparia B.Hyland Cyperus gunii Hook.f. Cyrtococcum oxyphyllum (Hochst. ex Steud.) Stapf Dapsilanthus ramosus (R.Br.) B.G.Briggs & L.A.S.Johnson Dapsilanthus spathaceus (R.Br.) B.G.Briggs & L.A.S.Johnson Davidsonia pruriens F.Muell. Dioclea hexandra (Ralph) Mabb.

Diploglottis sp. Dodonaea polyandra Merr. & L.M.Perry Durandea jenkinsii (F.Muell.) Stapf Dysoxylum spp Echinochloa dietrichiana P.W.Michael Eustrephus latifolius R.Br. ex Ker Gawl. Flagellaria indica L. Floscopa scandens Lour. Garovaglia powellii subsp. muelleri (Hampe) During Harpullia rhyticarpa C.T.White & W.D.Francis Hetaeria sp. Hibiscus tiliaceus L. Hydriastele wendlandiana (F.Muell.) H.Wendl. & Drude Hypolytrum latifolium Rich. ex Pers. Ipomoea alba L. Ipomoea gracilis R.Br. Leptochloa fusca (L.) Kunth subsp. fusca Leptochloa sp. Lithomyrtus obtusa (Endl.) N.Snow & Guymer Melaleuca sp. Melastoma malabathricum L. subsp. malabathricum Millettia pinnata (L.) Panigrahi Morinda sp. Musa banksii F.Muell. Musa fitzalanii F.Muell. Musa jackeyi W.Hill Normanbya normanbyi (W.Hill) L.H.Bailey Orthosiphon aristatus (Blume) Miq. Panicum trichoides Sw. Plectranthus foetidus Benth. Pleuranthodium racemigerum (F.Muell.) R.M.Sm. Pollia macrophylla (R.Br.) Benth. Pothos longipes Schott Pseuderanthemum variabile (R.Br.) Radlk. Rhysotoechia robertsonii (F.Muell.) Radlk. Schoenoplectus mucronatus (L.) Palla ex J.Kern Scirpodendron ghaeri (Gaertn.) Merr. Solanum dallachii Benth. Syzygium angophoroides (F.Muell.) B.Hyland Syzygium hemilamprum (F.Muell.) Craven & Biffin subsp. hemilamprum Tabernaemontana pandacaqui Lam. Tapeinochilos ananassae (Hassk.) K.Schum. Tectaria confluens (F.Muell. ex Baker) Pic.Serm. Tournefortia sarmentosa Lam. Trema tomentosa var. viridis (Planch.) Hewson Tristaniopsis exiliflora (F.Muell.) Peter G.Wilson & J.T.Waterh. Vigna sp. Youngia japonica (L.) DC.

1876, Angiosperms

Acacia crassicarpa A.Cunn. ex Benth. Aleurites rockinghamensis (Baill.) P.I.Forst. Ampelocissus acetosa L. Archidendron ramiflorum (F.Muell.) Kosterm. Atractocarpus sessilis (F.Muell.) Puttock Banksia sp. Barringtonia sp. Bombax ceiba var. leiocarpum A.Robyns Cananga odorata (Lam.) Hook.f. & Thomson Cucuma australasica Hook.f. Cyclophyllum maritimum S.T.Reynolds & R.J.F.Hend. Davidsonia pruriens F.Muell. Dillenia alata (DC.) Martelli Erythrophleum chlorostachys (F.Muell.) Baill. Eucalyptus leptophleba F.Muell. Eupomatia laurina R.Br. Gmelina dalrympleana (F.Muell.) H.J.Lam Hakea pedunculata F.Muell. Lophostemon suaveolens (Sol. ex Gaertn.) Peter G.Wilson & J.T.Waterh. Mischocarpus grandissimus (F.Muell.) Radlk. Pandanus solmslaubachii F.Muell. Platysace valida (F.Muell.) F.Muell. Pleomele angustifolia (Medik.) N.E.Br. Polyscias australiana (F.Muell.) Philipson Syzygium tiernayanum (F.Muell.) T.G.Hartley & L.M.Perry Tetracera nordtiana F.Muell. var. nordtiana Tristaniopsis exiliflora (F.Muell.) Peter G.Wilson & J.T.Waterh.

1880, 1882

Adiantum diaphanum Blume Derris sp.

Undated, Pteridophytes

Adiantum hispidulum Sw. Adiantum silvaticum Tindale Arthropteris palisotii (Desv.) Alston Asplenium laserpitiifolium Lam. Blechnum orientale L. Calochlaena dubia (R.Br.) M.D.Turner & R.A.White Dicranopteris linearis (Burm.f.) Underw. var. linearis Dicranopteris linearis var. altissima Holttum Diplazium dameriae Pic.Serm. Diplazium dietrichianum (Luerss.) C.Chr. Lomariopsis kingii (Copel.) Holttum Pronephrium asperum (C.Presl) Holttum Pteris marginata Bory Pteris pacifica Hieron. Selaginella australiensis Baker Selaginella longipinna Warb.

Undated, Angiosperms

Blumea lacera (Burm.f.) DC. Caesalpinia subtropica Pedley Centotheca lappacea (L.) Desv. Cyperus odoratus L. Cyrtococcum oxyphyllum (Hochst. ex Steud.) Stapf Doryphora aromatica (F.M.Bailey) L.S.Sm. Elaeocarpus grahamii F.Muell. Entada rheedii Spreng. Eucalyptus leptophleba F.Muell. subsp. leptophleba Eucalyptus pellita F.Muell. Gillbeea whypallana Rozefelds & Pellow Homalanthus populifolius Graham Hoya pottsi Traill Linospadix minor (W.Hill ex F.Muell.) F.Muell. Melastoma malabathricum L. subsp. malabathricum Mischocarpus grandissimus (F.Muell.) Radlk. Musa jackeyi W.Hill Panicum trichoides Sw. Phyllanthus clamboides (F.Muell.) Diels Pittosporum rubiginosum A.Cunn. Plectranthus spectabilis S.T.Blake Rourea brachyandra F.Muell. Syzygium tiernayanum (F.Muell.) T.G.Hartley & L.M.Perry Tetracera nordtiana var. wuthiana (F.Muell.) Hoogland

General botanical collections

During the periods when Fitzalan was not engaged in longer expeditions or excursions, he consistently collected plant specimens from near his residences or during incidental travel. Table 17 presents the type specimens related to collections he made around Port Denison (Bowen) during the period 1860 to 1886. Table 18 lists additional type specimens collected from locations not already listed. Species collected in Tasmania (Mueller1869), ca 1853–1854 are listed in Table 19, and those collected from around Brisbane, labelled as Moreton Bay and Pine River, ca 1860 are listed in Table 20. Table 21 lists species collected at Port Denison, Bowen and Edgecumbe Bay and species collected in the upper Burdekin River are listed in Table 22. Species collected in the Cairns, Trinity Bay and Port Douglas areas are listed in Table 23 and those from Cooktown in Table 24. Species without a designated location are listed in Table 25.

Conclusion

Eugene Fitzalan holds a significant place in the development of botanical research in Queensland. For the period in which he was active [1860–1890], his number of collections (about 2200 specimens), places him in the group of the most active botanical collectors. Many of his collections represent the first botanical excursions to a number of localities, such as Mt Dryander, Mt Elliot and Daintree River. In as such, his specimens represent an example of the species that were present at that time and offer the potential to compare with extant species compositions for those areas. Fitzalan's contribution to horticulture was also significant. He was active in establishing a number of private gardens, as well as public gardens in Bowen and Cairns. The Cairns Botanical Gardens is now an internationally recognised heritage-listed facility featuring tropical plants. He introduced a number of species into horticulture, such as Atractocarpus fitzalanii [brown Gardenia], Hymeneria fitzalanii [common fuzz orchid] and Cycas species, which are today of significant importance in commercial and amenity horticulture. This work has placed Fitzalan into an historical context, with regard to details of his excursions and the plant species that he collected.

Table 17. Type specimens collected by Eugene Fitzalan in the Port Denison (Bowen) area, 1860–1886. Original species names are retained and the currently used name follows in parentheses. Collections list the location and the specimens relevant to typification, but the status of the typification is not provided as it is beyond the scope of this work. The publication details of the protologue are provided. Taxonomy follows that presented in Australian Plant Census (2014), Australian Plant Name Index (2014) and Guiry & Guiry (2014).

Taxon	Collections	Publication
Sargassum ambiguum Sond. (Sargassum polycystum C.Agardh)	Port Denison, Fitzalan; MEL0688742	Abh. Verh. Naturwiss. Vereins Hamburg 5: 41 (1871)
Sargassum cristaefolium var. condensatum Sond.	Port Denison, Fitzalan; No specimens located	Abh. Verh. Naturwiss. Vereins Hamburg 5: 42 (1871)
Gracilaria polyclada Sond. (Hydropuntia edulis (Gmel.) Gurgel & Fredericq)) Port Denison, <i>Fitzalan</i> ; MEL0629918, 0629887	Abh. Verh. Naturwiss. Vereins Hamburg 5: 56 (1871)
Dicranema setaceum Sond. (Sarconema filiforme (Sond Kylin)	.)Port Denison, <i>Fitzalan</i> ; No specimens located	Abh. Verh. Naturwiss. Vereins Hamburg 5: 58 (1871)
Sarcopetalum brahei F.Muell. (Miliusa brahei (F.Muell. Jessup)) Port Denison, 1874, <i>Fitzalan</i> ; BRIAQ0332779, MEL0234171, MEL0234172	Fragm. 8(66): 159 (1874)
Cycas normanbyana F.Muell. (Cycas media R.Br.)	Port Denison, April 1874, <i>Fitzalan</i> ; MEL0269419	Fragm. 8(66): 169 (1874)
Alyxia thyrsiflora Benth. (Alyxia spicata R.Br.)	Port Denison, <i>Dallachy & Fitzalan</i> ; K000894092, MEL0223096 – 0223097, W0049218	Fl. Austral. 4: 309 (1868)
Helichrysum boormanii var. tryonii Domin (Coronidium lanuginosum (A.Cunn. ex DC) Paul G. Wilson)	Port Denison, 1874, <i>Fitzalan</i> ; MEL0262825, MEL0262827	Biblioth. Bot. 22(89): 1124 (1930)
Ptilotus dissitiflorus var. longifolius Benl (Ptilotus nobilis var. semilanatus (Lindl.) A.R.Bean)	Port Denison, 1874, Fitzalan; MEL2282812, MEL2281813	Muelleria 1(2): 107 (1959)
Macropteranthes fitzalanii F.Muell.	Port Denison, <i>Fitzalan</i> ; K000786635, MEL1005516	Fragm. 8(66): 160 (1874)
Muehlenbeckia rhyticarya F.Muell. ex Benth.	Port Denison, Fitzalan; K000831375	Fragm. 5(35): 92 (1865)
Claoxylon angustifolium Mull.Arg.	Port Denison (F.Mueller in herb DC); MEL0707739	Linnaea 34: 165 (1865)
Myrtus racemulosa var. conferta Benth. (Gossia bidwille (Benth.) N.Snow & Guymer)	ii Port Denison, <i>Fitzalan</i> ; K000821466, MEL0092365 – 0092367, MEL0092370 – 0092372	Fl. Austral. 3: 276 (1867)
Pluchea dentex Benth.	Port Denison, <i>Fitzalan</i> ; DNAD0061619, MEL1621083	Fl. Austral. 3: 529 (1867)
Hypoestes floribunda subsp. densiflora Benth. (Hypoestes floribunda var. pubescens Benth.)	Port Denison, Fitzalan; MEL0601956	Fl. Austral. 4: 554 (1868)
Andropogon sericeus var. polystachyus Benth. (Dichanthium sericeum var. polystachyum (Benth.) B.K.Simom)	Port Denison, <i>Fitzalan</i> ; MEL1547445, MEL1547456 – 1547458	Fl. Austral. 7: 530 (1878)
Chrysopogon parviflorus var. spicigerus Benth. (Capillipedium spicigerum S.T.Blake)	Port Denison, Fitzalan; MEL1546073	Fl. Austral. 7: 538 (1878)
Cyperus fulvus var. canescens (C.B.Clarke ex Domin (Cyperus fulvus R.Br.)	Port Denison, Fitzalan; MEL2197982	Pflanzenr. 101: 456 (1936)
Ficus platypoda var. petiolaris Benth. (Ficus rubiginosa Desf. ex Vent.	Port Denison, Fitzalan; MEL0239478	Fl. Austral. 6:170 (1873)

Table 18. Type specimen collected by Eugene Fitzalan, not accounted for elsewhere. Original species names are retained and the currently used name follows in parentheses. Collections list the location and the specimens relevant to typification, but the status of the typification is not provided as it is beyond the scope of this work. The publication details of the protologue are provided. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Taxon	Collections	Publications
Ledgeria foliata F.Muell. (Pseudovanilla foliata (F.Muell.) Garay)	Pine River, <i>Fitzalan</i> ; MEL0677528-MEL0677531	Fragm. 2(16): 167 (1861)
Desmodium nemorosum F.Muell. ex Benth.	Pine River, Fitzalan MEL2126066	Fl. Austral. 2: 232 (1864)
<i>Myrtus hillii</i> Benth. (<i>Gossia hillii</i> (Benth.) N.Snow & Guymer)	Moreton Bay, <i>Fitzalan</i> ; MEL0092357; NSW144690; NSW144689	Fl. Austral. 3: 275 (1867)
Hibiscus elsworthii F.Muell. [APC excluded name]	Edgecumbe Bay, Fitzalan; No specimens located	Fragm. 8(70: 241 (1874)
Eucalyptus torelliana F.Muell.) (Corymbia torelliana F.Muell.) K.D.Hill & L.A.S.Johnson)	Trinity Bay, 1877, Fitzalan; MEL1610979	Fragm. 10(87): 106 (1877)
Eugenia myrsinocarpa F.Muell. (Gossia myrsinocarpa (F.Muell.) N.Snow & Guymer)	a Trinity Bay, 1877, <i>Fitzalan</i> ; MEL0060539, MEL0060540	Vict. Naturalist 8(12): 200 (1892).
Lepistemon fitzalanii F.Muell. (Lepistemon urceolatus (R.Br.) F.Muell.)	Trinity Bay, <i>Fitzalan</i> ; MEL0304420, MEL0304420	Fragm. 10(87): 111 (1877)
Eria fitzalanii F.Muell. (Hymeneria fitzalanii (F.Muell.) M.A.Clem. & D.L.Jones)	Mulgrave River, Fitzalan; No specimens located in MEL	S. Sci. Rec. 2(11): 252 (1882)
Cycas kennedyana F.Muell. (Cycas media R.Br. var. media)	Normanby Ranges, 1881, Fitzalan; MEL0269419	Australas. Chem. Drugg. 4: 85 (1882)

Table 19. Species collected by Eugene Fitzalan in Tasmania, ca 1853–1854. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Acacia oxycedrus Sieber ex DC. Aotus ericoides (Vent.) G.Don Callistemon sieberi DC. Correa backhouseana Hook, var. backhouseana Correa glabra Lindl. Correa reflexa (Labill.) Vent. var. reflexa Daviesia ulicifolia Andrews subsp. ulicifolia Dillwynia cinerascens R.Br. Epacris impressa Labill. Gentianella gunniana (L.G.Adams) Glenny Gompholobium huegelii Benth. Gynatrix pulchella (Willd.) Alef. Leptospermum lanigerum (Sol. ex Aiton) Sm. Leucopogon australis R.Br. Melaleuca ericifolia Sm. Melaleuca squarrosa Donn ex Sm. Ozothamnus ferrugineus (Labill.) Sweet Pimelea ligustrina Labill. subsp. ligustrina Pimelea linifolia Sm. subsp. linifolia Pultenaea gunnii Benth. subsp. gunnii

Viminaria juncea (Schrad. & J.C.Wendl.) Hoffmanns.

Acknowledgements

For assistance with species identifications I would like to thank Irene Champion (Mackay), Steve Pearson (Airlie Beach), Russell Cumming, Keith Townsend and John Elliott (Townsville), Stuart Worboys (CNS, Cairns) and Andrew Ford (CSIRO, Cairns). For herbarium assistance I would like to thank Alison Vaughan (MEL), Paul Forster and Peter Bostock (BRI), Frank Zich (CNS) and Nanette Hooker (JCT). Sara Maroske and Sally Stewart (MEL) are thanked for arranging access to Ferdinand Mueller's correspondence. Alison Miller and Rose Docker (Australian Museum) are thanked for assistance with information about John Rainbird. Haidi Beard is thanked for assistance with access to the Library holdings of James Cook University, Townsville. Paul Sayer (Brisbane History Group) is thanked for information about Fitzalan's residences and businesses in Brisbane. For access to Cairns Regional Council archives, I would like to thank David Warmington (Cairns Botanic Gardens). Claire Burton and Ramis Sinan (Cairns Regional Council) are thanked for preparing the maps [NB: The maps, prepared by Cairns Regional Council remain the property of Cairns Regional Council. Use of or copying of these figures in whole or part without specific authorization is absolutely prohibited]. Ian Walker (Bowen) is thanked for assistance with historical information about Bowen. Ann Mills and the Bowen Historical Society Research Team are thanked for access to the Bowen Historical Society Library and archives. Michael Webb (Kuranda) provided background information about biographical information. Alan Broughton (Cairns Historical Society) provided information about the archives and library of that society. Charles Nelson and Angela Chestnutt (UK) are thanked for information about Fitzalan's Irish background.

Table 20. Species collected by Eugene Fitzalan in the Moreton Bay and Pine River areas, ca 1860. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Acacia fimbriata A.Cunn. ex G.Don Acacia maidenii F.Muell. Acacia paradoxa DC. Acacia suaveolens (Sm.) Willd. Acacia ulicifolia (Salisb.) Court Acacia uncifolia (J.M.Black) OLeary Adiantum aethiopicum L. Adiantum formosum R.Br. Alyxia buxifolia R.Br. Alyxia ruscifolia R.Br. Aphanopetalum resinosum Endl. Arytera divaricata F.Muell. Astrotricha longifolia Benth. Atalaya multiflora Benth. Backhousia myrtifolia Hook. & Harv. Boronia rosmarinifolia A.Cunn. ex Endl. Bursaria spinosa Cav. subsp. spinosa Bursaria tenuifolia F.M.Bailey Callicarpa pedunculata R.Br. Callistemon viminalis (Sol. ex Gaertn.) G.Don ex Loudon Capparis arborea (F.Muell.) Maiden Castanospermum australe A.Cunn. & C.Fraser ex Hook. Cenchrus caliculatus Cav. Chamaecrista concinna (Benth.) Pedley Cissus hypoglauca A.Gray Citrus australasica F.Muell. Coelospermum paniculatum F.Muell. var. paniculatum Comesperma defoliatum F.Muell. Commersonia bartramia (L.) Merr. Conospermum taxifolium C.F.Gaertn. Cordyline petiolaris (Domin) Pedley Corymbia gummifera (Gaertn.) K.D.Hill & L.A.S.Johnson Cryptocarya laevigata Blume Daviesia squarrosa Sm. Daviesia villifera A.Cunn. ex Benth. Deeringia amaranthoides Merrill Deeringia arborescens Domin Desmodium nemorosum F.Muell. ex Benth. Dianella caerulea Sims Dianella longifolia R.Br. Dicranopteris linearis (Burm.f.) Underw. Dodonaea triquetra J.C.Wendl. Doodia media R.Br. Elaeocarpus reticulatus Sm. Epacris microphylla R.Br. Erythrina vespertilio Benth. Eucalyptus acmenoides Schauer Eupomatia laurina R.Br. Glycine clandestina J.C.Wendl. Goodenia ovata Sm. Gossia bidwillii (Benth.) N.Snow & Guymer Gossia hillii (Benth.) N.Snow & Guymer Gratiola peruviana L. Hardenbergia violacea (Schneev.) Stearn Hibiscus heterophyllus Vent. subsp. heterophyllus Holcus lanatus L.

Hovea acutifolia A.Cunn. ex G.Don Hybanthus stellarioides (Domin) P.I.Forst. Hymenosporum flavum (Hook.) F.Muell. Indigofera australis Willd. subsp. australis Indigofera decora Lindl. Jacksonia scoparia R.Br. ex Sm. Kennedia rubicunda (Schneev.) Vent. Lastreopsis munita (Mett.) Tindale Leucopogon pimeleoides A.Cunn. ex DC. Lindsaea fraseri Hook. Lobelia gibbosa Labill. Lophostemon confertus (R.Br.) Peter G.Wilson & J.T.Waterh. Lophostemon suaveolens (Sol. ex Gaertn.) Peter G.Wilson & J.T.Waterh. Lysiana exocarpi (Behr.) Tiegh. Lythrum salicaria L. Mallotus philippensis (Lam.) Mull.Arg. Medicosma cunninghamii (Hook.) Hook.f. Melaleuca bracteata F.Muell. Melaleuca sieberi Schauer Melastoma malabathricum L. subsp. malabathricum Ozothamnus diosmifolius (Vent.) DC. Pandorea floribunda (A.Cunn. ex DC.) Guymer Pararchidendron pruinosum (Benth.) I.C.Nielsen var. pruinosum Parsonsia straminea (R.Br.) F.Muell. Pavetta australiensis Bremek. var. australiensis Persoonia cornifolia A.Cunn. ex R.Br. Persoonia falcata R.Br. Persoonia stradbrokensis Domin Phyllota phylicoides (Sieber ex DC.) Benth. Pimelea linifolia Sm. subsp. linifolia Pittosporum revolutum Dryand. Plumbago zeylanica L. Pollia crispata Benth. Pothos longipes Schott Proiphys cunninghamii (Aiton ex Lindl.) Mabb. Pseuderanthemum variabile (R.Br.) Radlk. Pterocaulon sphacelatum (Labill.) F.Muell. Rhodomyrtus psidioides (G.Don) Benth. Rubus rosifolius Sm. var. rosifolius Sambucus australasica (Lindl.) Fritsch Sambucus gaudichaudiana DC. Smilax australis R.Br. Sophora fraseri Benth. Stenocarpus sinuatus (Loudon) Endl. Stephania japonica var. discolor (Blume) Forman Syzygium floribunda F.Muell. Syzygium smithii (Poir.) Nied. Tabernaemontana pandacaqui Lam. Turraea pubescens Hell. Vigna vexillata var. angustifolia (Schumach. & Thonn.) Baker Viola hederacea Labill. subsp. hederacea Vitex trifolia L. var. trifolia Wilkiea macrophylla (R.Cunn.) A.DC. Zanthoxylum brachyacanthum F.Muell.

Table 21. Species collected by Eugene Fitzalan at Port Denison, Bowen and Edgecumbe Bay. Taxonomy follows that presented in Australian Plant Census (2014), Australian Plant Name Index (2014) and Guiry & Guiry (2014).

Abroma fastuosa R.Br. Abrus precatorius L. subsp. precatorius Acacia decora Rchb. Acacia excelsa Benth. subsp. excelsa Acacia holosericea A.Cunn. ex G.Don Acacia julifera Benth. Acacia leptocarpa A.Cunn. ex Benth. Acacia leptostachya Benth. Acacia maidenii F.Muell. Acacia multisiliqua (Benth.) Maconochie Acacia oswaldii F.Muell. Acacia pendula A.Cunn. ex G.Don Acacia salicina Lindl. Acanthus ilicifolius L. Acronychia laevis J.R.Forst. & G.Forst. Adiantum aethiopicum L. Adiantum formosum R.Br. Adiantum hispidulum Sw. Aegialitis annulata R.Br. Aeschynomene brevifolia L.f. ex Poir. Aidia racemosa (Cav.) Tirveng. Ailanthus triphysa (Dennst.) Alston Albizia canescens Benth. Albizia procera (Roxb.) Benth. Alectryon coriaceus (Benth.) Radlk. Allocasuarina littoralis (Salisb.) L.A.S.Johnson Allocasuarina torulosa (Aiton) L.A.S.Johnson Alocasia brisbanensis (F.M.Bailey) Domin Alphitonia incana (Roxb.) Teijsm. & Binn. ex Kurz Alstonia constricta F.Muell. Alstonia scholaris (L.) R.Br. Alyxia ruscifolia R.Br. Alyxia spicata R.Br. Ampelopteris prolifera (Retz.) Copel. Antidesma parvifolium Thwaites & F.Muell. Argophyllum lejourdanii F.Muell. Argyrodendron polyandrum L.S.Sm. Argyrodendron trifoliolatum F.Muell. Artanema fimbriatum D.Don Arthropteris tenella (G.Forst.) J.Sm. ex Hook.f. Arytera distylis (F.Muell. ex Benth.) Radlk. Arytera divaricata F.Muell. Atalaya hemiglauca (F.Muell.) F.Muell. ex Benth. Atalaya rigida S.T.Reynolds Austrosteenisia blackii (F.Muell.) R.Geesink var. blackii Baloghia inophylla (G.Forst.) P.S.Green Basilicum polystachyon (L.) Moench. Bauhinia hookeri F.Muell. Blechnum cartilagineum Sw. Bosistoa pentacocca var. connaricarpa (Domin) T.G.Hartley Bothriochloa bladhii (Retz.) S.T.Blake subsp. bladhii Brachychiton acerifolius (A.Cunn. ex G.Don) Macarthur & C.Moore Brachychiton bidwillii Hook. Brachychiton compactus Guymer Breynia cernua (Poir.) Mull.Arg. Brunoniella acaulis (R.Br.) Bremek. subsp. acaulis Buchnera linearis R.Br. Buchnera tetragona R.Br. Bursaria incana Lindl. Bursaria tenuifolia F.M.Bailey Caesalpinia bonduc (L.) Roxb. Cajanus confertiflorus F.Muell. Cajanus marmoratus (R.Br. ex Benth.) F.Muell. Cajanus reticulatus var. grandifolius (F.Muell.) Maesen Callicarpa candicans (Burm.f.) Hochr. Callicarpa pedunculata R.Br. Callistemon viminalis (Sol. ex Gaertn.) G.Don ex Loudon

Calochlaena dubia (R.Br.) M.D.Turner & R.A.White Calophyllum inophyllum L. Calytrix microcoma Craven Camptacra gracilis (Benth.) Lander Canarium australianum F.Muell. var. australianum Capillipedium spicigerum S.T.Blake Capparis canescens Banks ex DC. Capparis lasiantha R.Br. ex DC. Capparis lucida (Banks ex DC.) Benth. Capparis ornans F.Muell. ex Benth. Capparis sepiaria L. Capparis umbonata Lindl. Cardiospermum halicacabum L. var. halicacabum Carissa ovata R.Br. Cartonema brachyantherum Benth. Cassia brewsteri (F.Muell.) Benth. Casuarina cunninghamiana Miq. subsp. cunninghamiana Casuarina equisetifolia L. subsp. equisetifolia Caulerpa cupressoides (Vahl) C.Agardh Celtis philippensis Blanco var. philippensis Ceratophyllum demersum L. Cerbera manghas L. Chamaecrista absus (L.) H.S.Irwin & Barneby Chamaecrista mimosoides (L.) Greene Chamaesyce macgillivrayi (Boiss.) D.C.Hassall Cheilanthes tenuifolia (Burm.f.) Sw. Chrysopogon fallax S.T.Blake Claoxylon angustifolium Mull.Arg. Clausena brevistyla Oliv. Clematicissus opaca (F.Muell.) Jackes & Rossetto Clerodendrum floribundum var. angustifolium Moldenke Clerodendrum floribundum var. coriaceum (R.Br.) Moldenke Clerodendrum floribundum var. ovatum (R.Br.) Domin Clerodendrum inerme (L.) Gaertn. Cochlospermum gillivraei Benth. Coelospermum reticulatum (F.Muell.) Benth. Colocasia esculenta (L.) Schott Colubrina asiatica (L.) Brongn. var. asiatica Commersonia bartramia (L.) Merr. Cordia dichotoma G.Forst. Cordia subcordata Lam. Cordyline manners-suttoniae F.Muell. Cordyline murchisoniae F.Muell. Coronidium elatum (A.Cunn. ex DC.) Paul G.Wilson Coronidium lanuginosum (A.Cunn. ex DC.) Paul G.Wilson Corymbia citriodora (Hook.) K.D.Hill & L.A.S.Johnson Corymbia clarksoniana (D.J.Carr & S.G.M.Carr) K.D.Hill & L.A.S.Johnson Corymbia gummifera (Gaertn.) K.D.Hill & L.A.S.Johnson Corymbia polycarpa (F.Muell.) K.D.Hill & L.A.S.Johnson Coveniella poecilophlebia (Hook.) Tindale Crinum angustifolium R.Br. Crotalaria calvcina Schrank Crotalaria juncea L. Crotalaria laburnifolia L. Crotalaria medicaginea var. neglecta (Wight & Arn.) Baker Crotalaria mitchellii Benth. subsp. mitchellii Crotalaria montana var. angustifolia (Gagnep.) Niyomdham Crotalaria verrucosa L. Croton acronychioides F.Muell. Croton arnhemicus Mull.Arg. Croton phebalioides F.Muell. ex Mull.Arg. Cryptocarya triplinervis R.Br. var. triplinervis Cullen australasicum (Schltdl.) J.W.Grimes Cullen leucanthum (F.Muell.) J.W.Grimes Cyanthillium cinereum (L.) H.Rob. Cyathea cooperi (Hook. ex F.Muell.) Domin

Cyathea rebeccae (F.Muell.) Domin Cycas media R.Br. subsp. media Cymbopogon bombycinus (R.Br.) Domin Cymodocea rotundata (Ehrenb. & Hempr. ex Asch.) Asch. & Scweinf. Cyperus exaltatus Retz. Cyperus fulvus R.Br. Cyperus iria L. Cyperus nervulosus (Kuk.) S.T.Blake Cyperus nutans subsp. eleusinoides (Kunth) T.Koyama Cyperus ramosus (Benth.) Kuk. Dactyloctenium aegyptium (L.) P.Beauv. Dactyloctenium radulans (R.Br.) P.Beauv. Dampiera ferruginea R.Br. Deeringia amaranthoides Merrill Deeringia arborescens Domin Dendrocnide moroides (Wedd.) Chew Dendrolobium umbellatum (L.) Benth. Dendrophthoe glabrescens (Blakely) Barlow Dendrophthoe vitellina (F.Muell.) Tiegh. Denhamia cunninghamii (Hook.) M.P.Simmons Denhamia disperma (F.Muell.) M.P.Simmons Denhamia oleaster (Lindl.) F.Muell. Dianella longifolia R.Br. Dichanthium sericeum subsp. polystachyum (Benth.) B.K.Simon Dictyota dichotoma (Huds.) J.V.Lamour. var. dichotoma Dioscorea transversa R.Br. Diospyros australis (R.Br.) Hiern Diospyros geminata (R.Br.) F.Muell. Diospyros humilis (R.Br.) F.Muell. Dipteracanthus australasicus F.Muell. subsp. australasicus Dodonaea lanceolata var. subsessilifolia J.G.West Doodia aspera R.Br. Doodia caudata (Cav.) R.Br. Doryopteris concolor (Langsd. & Fisch.) Kuhn Drosera indica L. Drynaria quercifolia (L.) J.Sm. Drynaria rigidula (Sw.) Bedd. Drypetes deplanchei (Brongn. & Gris) Merr. Dysoxylum gaudichaudianum (A.Juss.) Miq. Dysoxylum rufum (A.Rich.) Benth. Echinochloa dietrichiana P.W.Michael Ehretia acuminata R.Br. var. acuminata Ehretia acuminata var. pilosula (F.Muell.) I.M.Johnst. Elaeagnus triflora Roxb. var. triflora Elaeodendron melanocarpum F.Muell. Elattostachys bidwillii (Benth.) Radlk. Entada rheedii Spreng. Epipremnum pinnatum (L.) Engl. Eragrostis elongata (Willd.) Jacq. Eragrostis tenellula (Kunth) Steud. Eremophila mitchellii Benth. Eremophila polyclada (F.Muell.) F.Muell. Erythrina variegata L. Erythrina vespertilio Benth. Erythroxylum australe F.Muell. Eucalyptus crebra F.Muell. Eucalyptus persistens L.A.S.Johnson & K.D. Hill Eucalyptus platyphylla F.Muell. Eucalyptus raveretiana F.Muell. Eucalyptus tereticornis Sm. Eucheuma denticulatum (Burm.f.) Collins & Herv. Eugenia reinwardtiana (Blume) DC. Euphorbia hirta L. Euphorbia mitchelliana Boiss. var. mitchelliana Eustrephus latifolius R.Br. ex Ker Gawl. Exocarpos latifolius R.Br. Ficus copiosa Steud. Ficus hispida L.f. var. hispida Ficus opposita Miq. Ficus racemosa L. var. racemosa Ficus rubiginosa Desf. ex Vent. f. rubiginosa

Fimbristylis microcarya F.Muell. Flemingia lineata (L.) Roxb. ex W.T.Aiton Flindersia schottiana F.Muell. Flueggea virosa subsp. melanthesoides (F.Muell.) G.L.Webster Ganophyllum falcatum Blume Gastrolobium grandiflorum F.Muell. Geijera salicifolia Schott Geodorum densiflorum (Lam.) Schltr. Glinus oppositifolius (L.) A.DC. Glycosmis trifoliata (Blume) Spreng. Gomphrena humilis R.Br. Goniophlebium percussum (Cav.) W.H.Wagner & Grether Gossia bidwillii (Benth.) N.Snow & Guymer Gossypium australe F.Muell. Grevillea parallela Knight Grevillea pteridifolia Knight Grevillea striata R.Br. Grewia oxyphylla Burret Grewia retusifolia Kurz Guettarda speciosa L. Gymnanthera oblonga (Burm.f.) P.S.Green Gynura drymophila (F.Muell.) F.G.Davies var. drymophila Gyrocarpus americanus Jacq. Hakea lorea (R.Br.) R.Br. subsp. lorea Halicoryne spicata (Kuetz.) Solms Halodule uninervis (Forssk.) Asch. Halophila spinulosa (R.Br.) Asch. Hanslia ormocarpoides (DC.) H.Ohashi Harnieria hygrophiloides (F.Muell.) R.M.Barker Harpullia pendula Planch. ex F.Muell. Heliotropium muelleri (I.M.Johnst.) Craven Heliotropium ovalifolium Forssk. Heliotropium sarmentosum (Lam.) Craven Heliotropium ventricosum R.Br. Helminthostachys zeylanica (L.) Kaulf. Hibiscus heterophyllus Vent. subsp. heterophyllus Hibiscus meraukensis Hochr. Hibiscus sturtii Hook. var. sturtii Hibiscus tiliaceus L. Homalanthus populifolius Graham Homalium circumpinnatum F.M.Bailey Hoya australis R.Br. ex Traill subsp. australis Hydropuntia edulis (S.G.Gmel.) Gurgel & Fredericq Hydropuntia urvillei Montagne Hypericum gramineum G.Forst. Hypnea nidifica J.Agardh Hypnea pannosa J.Agardh Hypnea rugulosa Mont. Hypnea spinella (C.Agardh) Kuetz. Hypoestes floribunda R.Br. var. floribunda Hypoestes floribunda var. pubescens Benth. Ipomoea eriocarpa R.Br. Jacksonia ramosissima Benth. Jacquemontia paniculata (Burm.f.) Hallier f. Jania micrarthrodia J.V.Lamour. Jasminum didymum G.Forst. subsp. didymum Jasminum didymum subsp. racemosum (F.Muell.) P.S.Green Jasminum simplicifolium subsp. australiense P.S.Green Labichea nitida Benth. Lagunaria queenslandica Craven Lastreopsis tenera (R.Br.) Tindale Laurencia brongniartii J.Agardh Laurencia dendroidea J.Agardh Leea indica (Burm.f.) Merr. Lepiderema punctulata (F.Muell.) Radlk. Leptospermum neglectum Joy Thomps. Leptospermum polygalifolium Salisb. Limnophila brownii Wannan Limonium solanderi (L.) Mill. Lindernia crustacea (L.) F.Muell. Lithomyrtus obtusa (Endl.) N.Snow & Guymer

Litsea glutinosa (Lour.) C.B.Rob. Lomandra multiflora (R.Br.) Britten subsp. multiflora Lophostemon grandiflorus subsp. riparius (Domin) Peter G.Wilson & J.T.Waterh. Ludwigia octovalvis (Jacq.) P.H.Raven Lysiana spathulata (Blakely) Barlow subsp. spathulata Lysiana subfalcata (Hook.) Barlow Lythrum hyssopifolia L. Macaranga involucrata (Wall.) Baill. ex Mull.Arg. Macaranga tanarius (L.) Mull.Arg. Macropteranthes fitzalanii F.Muell. Meiogyne heteropetala (F.Muell.) D.C.Thomas, Chaowasku & R.M.K.Saunders Melaleuca dealbata S.T.Blake Melaleuca leucadendra (L.) L. Melaleuca nervosa (Lindl.) Cheel Melaleuca viridiflora Sol. ex Gaertn. Melanamansia glomerata (C.Agardh) R.E.Norris Melastoma malabathricum L. subsp. malabathricum Melia azedarach L. Melodorum leichhardtii (F.Muell.) Benth. Memecylon pauciflorum Blume var. pauciflorum Micromelum minutum (G.Forst.) Wight & Arn. Miliusa brahei (F.Muell.) Jessup Millettia pinnata (L.) Panigrahi Mimusops elengi L. Mischocarpus stipitatus S.T.Reynolds Monochoria cyanea (F.Muell.) F.Muell. Monococcus echinophorus F.Muell. Murdannia gigantea (Vahl.) G.Brueckn. Murraya paniculata (L.) Jack Myrsine variabilis R.Br. Nauclea orientalis (L.) L. Neolitsea brassii C.K.Allen Nephrolepis acutifolia (Desv.) H.Christ Nephrolepis biserrata (Sw.) Schott Nephrolepis hirsutula (G.Forst.) C.Presl Niemeyera antiloga (F.Muell.) T.D.Penn. Notelaea microcarpa R.Br. Ochrosia elliptica Labill. Oldenlandia galioides (F.Muell.) F.Muell. Orthosiphon aristatus (Blume) Miq. Pandorea linearis (F.M.Bailey) Guymer Pandorea pandorana (Andrews) Steenis Pararchidendron pruinosum (Benth.) I.C.Nielsen var. pruinosum Parsonsia lanceolata R.Br. Parsonsia plaesiophylla S.T.Blake Parsonsia straminea (R.Br.) F.Muell. Paspalum scrobiculatum L. Passiflora aurantia G.Forst. var. aurantia Pavetta australiensis Bremek. var. australiensis Pellaea nana (Hook.) Bostock Pellaea paradoxa (R.Br.) Hook. Perotis rara R.Br. Persoonia falcata R.Br. Petalostigma pubescens Domin Phyla nodiflora (L.) Greene var. nodiflora Pimelea haematostachya F.Muell. Pimelea latifolia R.Br. subsp. latifolia Pipturus argenteus (G.Forst.) Wedd. Pisonia aculeata L. Pittosporum ferrugineum subsp. linifolium (A.Cunn.) L.W.Cayzer, Crisp & I.Telford Planchonella pohlmaniana (F.Muell.) Pierre ex Dubard Planchonia careya (F.Muell.) R.Knuth Platostoma longicorne (F.Muell.) A.J.Paton Pleurosorus rutifolius (R.Br.) Fee Pluchea dentex R.Br. ex Benth. Plumbago zeylanica L. Pollia macrophylla (R.Br.) Benth. Polyalthia nitidissima (Dunal) Benth.

Polycarpaea spirostylis F.Muell. Portulaca bicolor F.Muell. Portulaca napiformis F.Muell. Proiphys amboinensis (L.) Herb. Psychotria daphnoides A.Cunn. ex Hook. var. daphnoides Psydrax odorata f. australiana S.T.Reynolds & R.J.F.Hend. Psydrax saligna S.T.Reynolds & R.J.F.Hend. f. saligna Pteridium revolutum (Blume) Nakai Pteris ensiformis Burm.f. Pteris tremula R.Br. Pterocaulon sphacelatum (Labill.) F.Muell. Ptilotus nobilis subsp. semilanatus (Lindl.) A.R.Bean Ptychosperma elegans (R.Br.) Blume Pyrrosia rupestris (R.Br.) Ching Rhynchosia acuminatissima Miq. Rhynchosia minima (L.) DC. Santalum lanceolatum R.Br. Sarcostemma viminale subsp. brunonianum (Wight & Arn.) P.I.Forst. Sargassopsis decurrens (R.Br. ex Turner) Trevisan Sargassum carpophyllum J.Agardh Sargassum flavicans (Mert.) C.Agardh Sargassum gracile J.Agardh Sargassum ilicifolium (Turner) C.Agardh Sargassum microcystum J.Agardh Sargassum polycystum C.Agardh Sargassum spinuligerum Sond. Scaevola spinescens R.Br. Scaevola taccada (Gaertn.) Roxb. Schoenoplectus tabernaemontani (C.C.Gmel.) Palla Secamone elliptica R.Br. Semecarpus australiensis Engl. Senna acclinis (F.Muell.) Randell Senna alata (L.) Roxb. Senna circinnata (Benth.) Randell Senna clavigera (Domin) Randell Senna gaudichaudii (Hook. & Arn.) H.S.Irwin & Barneby Senna surattensis (Burm.f.) H.S.Irwin & Barneby subsp. surattensis Senna surattensis subsp. sulphurea (DC. ex Collad.) Randell Sersalicia sericea (Aiton) R.Br. Setaria australiensis (Scribn. & Merr.) Vickery Solanum dianthophorum Dunal Solanum erianthum D.Don Solanum sporadotrichum F.Muell. Solanum viridifolium Dunal Sophora tomentosa subsp. australis Yakovlev Sorghum nitidum (Vahl) Pers. Sorghum plumosum (R.Br.) P.Beauv. var. plumosum Spermacoce brachystema R.Br. ex Benth. Sterculia quadrifida R.Br. Sticta myrioloba (Mull.Arg.) D.J.Galloway Strychnos psilosperma F.Muell. Stylidium velleioides A.R.Bean Syringodium isoetifolium (Asch.) Dandy Syzygium australe (H.L.Wendl. ex Link) B.Hyland Tabernaemontana orientalis R.Br. Tabernaemontana pandacaqui Lam. Tacca leontopetaloides (L.) Kuntze Tephrosia astragaloides R.Br. ex Benth. Tephrosia brachyodon Domin Terminalia melanocarpa F.Muell. Terminalia muelleri Benth. Teucrium argutum R.Br. Thalassia hemprichii (Ehrenb.) Asch. Thalassodendron ciliatum (Forssk.) Hartog Thecanthes cornucopiae (Vahl) Wikstr. Thespesia populneoides (Roxb.) Kostel. Thuidium cymbifolium (Dozy & Molk.) Dozy & Molk. Thysanotus banksii R.Br. Trema orientalis (L.) Blume Trema tomentosa (Roxb.) H.Hara var. tomentosa Trema tomentosa var. aspera (Brongn.) Hewson

Cunninghamia 15: 2015

Tribulus cistoides L. Trichodesma zeylanicum var. latisepalum F.Muell. Trichosanthes ovigera Blume Trophis scandens (Lour.) Hook. & Arn. subsp. scandens Turraea pubescens Hell. Uraria lagopodioides (L.) Desv. ex DC. Urena lobata L. Vachella bidwillii (Benth.) Kodela Vachellia nilotica (L.) P.J.H.Hunter & Mabb. Velleia spathulata R.Br. Vitex melicopea F.Muell. Vitex trifolia L. var. trifolia Vitex trifolia var. subtrisecta (Kuntze) Moldenke Waltheria indica L. Wikstroemia indica (L.) C.A.Mey. Wrightia saligna (R.Br.) F.Muell. ex Benth. Xerochrysum bracteatum (Vent.) Tzvelev Ximenia americana L. Xylocarpus moluccensis (Lam.) M.Roem. Xyris complanata R.Br. Zostera capricorni Asch.

Table 22. Species collected by Eugene Fitzalan in the upper Burdekin River area. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Alstonia constricta F.Muell. Bauhinia acuminata L. Cynanchum bowmanii S.T.Blake Dampiera adpressa A.Cunn. ex DC. Diospyros humilis (R.Br.) F.Muell. Eremophila mitchellii Benth. Flindersia dissosperma (F.Muell.) Domin Grevillea pteridifolia Knight Hakea lorea (R.Br.) R.Br. subsp. lorea Hibiscus meraukensis Hochr. Jacksonia ramosissima Benth. Keraudrenia hookeriana Walp. Vachellia bidwillii (Benth.) Kodela

Table 23. Species collected by Eugene Fitzalan in the Cairns, Trinity Bay and Port Douglas areas. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Abroma fastuosa R.Br. Acacia calyculata A.Cunn. ex Benth. Acacia leptocarpa A.Cunn. ex Benth. Acacia simsii A.Cunn ex Benth. Adenostemma lavenia (L.) Kuntze Adiantum atroviride Bostock Allocasuarina littoralis (Salisb.) L.A.S.Johnson Alphitonia whitei Braid Alstonia muelleriana Domin Asplenium laserpitiifolium Lam. Banksia aquilonia (A.S.George) A.S.George Beilschmiedia obtusifolia (F.Muell. ex Meisn.) F.Muell. Boea hygroscopica F.Muell. Bursaria incana Lindl. Cajanus reticulatus (Aiton) F.Muell. Callitris macleayana (F.Muell.) F.Muell. Canavalia papuana Merr. & L.M.Perry Cephalomanes obscurum (Blume) K.Iwats Chamaecrista nomame (Siebold) H.Ohashi Clematis pickeringii A.Gray Codiaeum variegatum var. moluccanum (Decne.) Mull.Arg. Colysis ampla (F.Muell. ex Benth.) Copel. Cordyline cannifolia R.Br. Coronidium elatum (A.Cunn. ex DC.) Paul G.Wilson Coronidium rupicola (DC.) Paul G.Wilson Corymbia torelliana (F.Muell.) K.D.Hill & L.A.S.Johnson Cryptocarya lividula B.Hyland Cyathea rebeccae (F.Muell.) Domin Delarbrea michieana (F.Muell.) F.Muell. Dendrobium semifuscum Lavarack & P.J.Cribb Deplanchea tetraphylla (R.Br.) F.Muell. Diplazium dietrichianum (Luerss.) C.Chr. Diplazium dilatatum Blume Doodia media R.Br. Drosera finlaysoniana Wall. ex Arn. Duboisia myoporoides R.Br. Elaeagnus triflora Roxb. var. triflora Eucalyptus reducta L.A.S.Johnson & K.D.Hill Eucalyptus tereticornis Sm. Gonocarpus acanthocarpus (Brongn.) Orchard

Gossia myrsinocarpa (F.Muell.) N.Snow & Guymer Gouania australiana F.Muell. Grevillea glauca Banks & Sol. ex Knight Grevillea sessilis C.T.White & W.D.Francis Hakea plurinervia F.Muell. ex Benth. Harpullia frutescens F.M.Bailey Helicia australasica F.Muell. Hypoestes floribunda R.Br. var. floribunda Hypoestes floribunda var. pubescens Benth. Jasminum simplicifolium subsp. australiense P.S.Green Leea indica (Burm.f.) Merr. Lepistemon urceolatum (R.Br.) F.Muell. Leucas decemdentata (Willd.) Sm. Leucopogon leptospermoides R.Br. Lithomyrtus obtusa (Endl.) N.Snow & Guymer Lygodium japonicum (Thunb.) Sw. Macaranga involucrata (Wall.) Baill. ex Mull.Arg. Mallotus mollissimus (Geiseler) Airy Shaw Medicosma fareana (F.Muell.) T.G.Hartley Melastoma malabathricum L. subsp. malabathricum Micromelum minutum (G.Forst.) Wight & Arn. Mitrasacme oasena Dunlop Momordica charantia L. Myrsine variabilis R.Br. Neosepicaea jucunda (F.Muell.) Steenis Nephrolepis hirsutula (G.Forst.) C.Presl Notothixos leiophyllus K.Schum. Ophioglossum pendulum L. Orthosiphon aristatus (Blume) Miq. Oxalis corniculata L. Palmeria scandens F.Muell. Pipturus argenteus (G.Forst.) Wedd. Pitaviaster haplophyllus (F.Muell.) T.G.Hartley Pittosporum rubiginosum A.Cunn. Platostoma longicorne (F.Muell.) A.J.Paton Plectranthus scutellarioides (L.) R.Br. Polyosma hirsuta C.T.White Polyscias elegans (C.Moore & F.Muell.) Harms Polyscias murrayi (F.Muell.) Harms Pothos longipes Schott

Psilotum complanatum Sw. Pteridium esculentum (G.Forst.) Cockayne Pteris pacifica Hieron. Ptisana oreades (Domin) Murdock Rhodomyrtus macrocarpa Benth. Rhynchosia acuminatissima Miq. Rhysotoechia mortoniana (F.Muell.) Radlk. Rubus moluccanus var. trilobus A.R.Bean Sarcopteryx martyana (F.Muell.) Radlk. Schelhammera multiflora R.Br. Selaginella longipinna Warb. Sloanea langii F.Muell. Solanum campanulatum R.Br. Solanum viridifolium Dunal Sterculia quadrifida R.Br. Stylidium graminifolium Sw. ex Willd. Syzygium cryptophlebium (F.Muell.) Craven & Biffin Timonius timon (Spreng.) Merr. Todea barbara (L.) T.Moore Tricoryne anceps R.Br. subsp. anceps Triumfetta pilosa Roth Vandasina retusa (Benth.) Rauschert Vitex trifolia L. var. trifolia Wahlenbergia caryophylloides P.J.Sm. Xerochrysum bracteatum (Vent.) Tzvelev Youngia japonica (L.) DC. Zanthoxylum ovalifolium Wight Zieria obovata (C.T.White) J.A.Armstr.

Table 24. Species collected by Eugene Fitzalan at Cooktown. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Acrostichum speciosum Willd. Banksia dentata L.f. Blepharocarya involucrigera F.Muell. Bombax ceiba var. leiocarpum A.Robyns Buchanania arborescens (Blume) Blume Bursaria tenuifolia F.M.Bailey Deplanchea tetraphylla (R.Br.) F.Muell. Dillenia alata (DC.) Martelli Ixora timorensis Decne. Lamprolobium fruticosum Benth. Lomandra banksii (R.Br.) Lauterb. Lycopodiella cernua (L.) Pic.Serm. Melaleuca saligna Schauer Melaleuca viridiflora Sol. ex Gaertn. Melastoma malabathricum L. subsp. malabathricum Neoroepera banksii Benth. Nymphaea immutabilis S.W.L.Jacobs Premna serratifolia L. Santalum lanceolatum R.Br. Thalassodendron ciliatum (Forssk.) Hartog Thryptomene oligandra F.Muell. Vandasina retusa (Benth.) Rauschert

Table 25. Species collected by Eugene Fitzalan but without the locality indicated. Taxonomy follows that presented in Australian Plant Census (2014) and Australian Plant Name Index (2014).

Acacia riceana Hensl. Acacia verticillata (L'Her.) Willd. subsp. verticillata Acanthus ilicifolius L. Adiantum hispidulum Sw. Aidia racemosa (Cav.) Tirveng. Alyxia spicata R.Br. Araucaria cunninghamii Mudie var. cunninghamii Atractocarpus fitzalanii (F.Muell.) Puttock Bowenia spectabilis Hook. ex Hook.f. Brachychiton albidus Guymer Cajanus confertiflorus F.Muell. Caladenia carnea R.Br. Calanthe triplicata (Willemet) Ames Cassia brewsteri (F.Muell.) Benth. Cepobaculum canaliculatum (R.Br.) M.A.Clem. & D.L.Jones Clerodendrum inerme (L.) Gaertn. Corymbia citriodora (Hook.) K.D.Hill & L.A.S.Johnson Corymborkis veratrifolia (Reinw.) Blume Crinum flaccidum Herb. Croton phebalioides F.Muell. ex Mull.Arg. Cycas media R.Br. subsp. media Cymbidium canaliculatum R.Br. Cymbidium madidum Lindl. Dampiera ferruginea R.Br. Dendrobium discolor Lindl. Dendrophthoe vitellina (F.Muell.) Tiegh. Dillwynia cinerascens R.Br. Dillwynia glaberrima Sm. Dipodium punctatum (Sm.) R.Br. Duboisia myoporoides R.Br. Endiandra compressa C.T.White Eucalyptus crebra F.Muell. Eulophia bicallosa (D.Don) P.F.Hunt & Summerh

Huperzia phlegmarioides (Gaudich.) Rothm. Lepiderema punctulata (F.Muell.) Radlk. Lepidozamia hopei (W.Hill) Regel Leptosema oxylobioides F.Muell. Leucopogon ericoides (Sm.) R.Br. Lotus australis Andrews Melastoma malabathricum L. subsp. malabathricum Microsorum membranifolium (R.Br.) Ching Millettia pinnata (L.) Panigrahi Morinda citrifolia L. Nervilia holochila (F.Muell) Schltr. Pavetta australiensis Bremek. var. australiensis Pavetta granitica F.Muell. ex Bremek. Phaius australis F.Muell. Phlegmariurus phlegmaria (L.) T.Sen. & U. Sen. Plectorrhiza brevilabris (F.Muell.) Dockrill Plectranthus graveolens R.Br. Polyalthia nitidissima (Dunal) Benth. Pseudovanilla foliata (F.Muell.) Garay Psydrax odorata f. australiana S.T Reynolds & R.J.F.Hend. Ptychosperma elegans (R.Br.) Blume Senna circinnata (Benth.) Randell Senna magnifolia (F.Muell.) Randell Tephrosia purpurea var. sericea Benth. Teratophyllum brightiae (F.Muell.) Holttum Terminalia porphyrocarpa Benth. Thelychiton speciosus (Sm.) M.A.Clem. & D.L.Jones Trachyrhizum agrostophyllum (F.Muell.) Rauschert Trichodesma zeylanicum (Burm.f.) R.Br. var. zeylanicum Turraea pubescens Hell. Xerochrysum bracteatum (Vent.) Tzvelev.

References

- Anon. [Fitzalan, E.] (1872) A trip to Mount Elliott. Port Denison Times, Saturday, 5 October 1872, p. 2.
- Anon. (Fitzalan, E. & Rainbird, J.) (1872) Port Denison Rambles No. 2. Port Denison Times, Saturday, 27 July 1872, p. 2.
- Anon. [Fitzalan, E. et al.] (1872) Port Denison Rambles No. 3. Port Denison Times, Saturday, 24 August 1872, p. 2.
- Anon. [Friends of the Botanic Gardens, Cairns] (2001) *Eugene Fitzalan: botanist, explorer, pioneer, poet and visionary.* Friends of the Botanic Gardens: Cairns.
- Anon. [Kilner, F.] (1872a) Account of a short excursion in the neighbourhood of Port Denison. *Port Denison Times*, Saturday, 22 June 1872.
- Anon. [Kilner, F.] (1872b) Account of a short excursion in the neighbourhood of Port Denison (Continued from our last.). Port Denison Times, Saturday, 29 June 1872.
- Anon. [Perceval, A.G.] (1869) [Mount Dryander]. *The Port Denison Times*, Saturday, 13 November 1869, p. 2.
- Australian Plant Census (2014) Australian Plant Census, IBIS database, Centre for Australian National Biodiversity Research, Council of Heads of Australasian Herbaria. Accessed October 2014. http://www.chah.gov.au/apc/index. html
- AustralianPlantNameIndex(2014)AustralianPlantNameIndex,IBISdatabase,CentreforAustralianNationalBiodiversityResearch,AustralianGovernment,Canberra,AccessedOctober2014.http://www.cpbr.gov.au/cgi-bin/apniImage: Conberce of the second second
- AVH (2014) Australia's Virtual Herbarium, Council of Heads of Australasian Herbaria, http://avh.chah.org.au/ Accessed August-November 2014.
- Austin, C.G. & Lack, C. (1972) Australian Dictionary of Biography, 4. Adb.anu.edu.au. Accessed October 2014.
- Barker, R.M. & Barker, W.R. (1990) Botanical contributions overlooked: the role and recognition of collectors, horticulturists, explorers and others in the early documentation of the Australian flora, in P.S. Short (ed.) *History of systematic botany in Australasia*, pp 37–85. Australian Systematic Botany Society Inc.: South Yarra, Victoria.
- Bean, T. (2014) Mt. Elliott. www.sgapqld.org.au. Accessed October 2014.
- Blackwood, R. (1997) *The Whitsunday Islands: an historical dictionary*. Central Queensland University: Rockhampton.
- Blake, S.T. (1955) Some pioneers in plant exploration and classification. *Proceedings of the Royal Society of Queensland* 66: 1–19.
- Bryophytes (2014) *Bryophytes*. Bryophytes.plant.siu.edu/index. html. Accessed November 2014.
- Carver, P. (1993) *Captain Robert Towns (1794–1873)*. Maritime Museum of Townsville: Townsville.
- Cox, J.C. (1870) Descriptions of eight new species of shells from Australia and the Solomon Islands. *Proceedings of the Zoological Society of London 1870*: 170–172.
- Cox, J.C. (1872) Descriptions of new land-shells from Australia and the south-sea islands. *Proceedings of the Zoological Society of London 1872*: 18–20.
- Daley, C. (1927) The history of *Flora Australiensis*. Victorian Naturalist 44, 63–278 [intermittent].
- Dalrymple, G.E. (1860) Report of the proceedings of the Burdekin Expedition, Part 2. In: Report of the proceedings of the Queensland Government schooner "Spitfire" in search of the mouth of the River Burdekin, on the north-eastern coast of Australia: and the exploration of the portion of that coast, extending from Gloucester Island to Halifax Bay, pp 12–38. T.P. Pugh's Printing Office: Brisbane.
- Dalrymple, G.E. (1874) Narrative and reports of the Queensland north-east coast expedition, 1873. *Queensland. Votes & Proceedings*. 1874, Vol 2. Part 2: pp 1–41 [615–655].

- Desmond, R. (1994) *Dictionary of British and Irish botanists and horticulturists including plant collectors, flower painters and garden designers.* Taylor & Francis Ltd and the Natural History Museum: London.
- DIA (2014) *The Dictionary of Irish Architects* lists the work and biographies of *architects, builders, and craftsmen* who were active in Ireland between 1720 and 1940. http://www.dia.ie/ irish-architects-dictionary_Accessed August 2014.
- Diels, F.L.E. (1931) Aufklürung der Gattung Leichhardtia F.v. M. Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem 11(104): 308–310.
- DNRM (2014) *Queensland Place Names Search*. Department of Natural Resources and Mines. www.dnrm.qld.gov.au. Accessed October 2014.
- Farnfield, J. (1968) Frontiersman: a biogeography of George Elphinstone Dalrymple. Oxford University Press: Melbourne.
- Fitzalan, E. (1860) Report on the Burdekin Expedition. *Moreton Bay Courier*, Thursday 1 November 1860, pp 2–3.
- Franken, F. (2008) Daintree selections. In: P.W.Burden (ed), *Remembering the Douglas Shire*, pp 42–45. Douglas Shire Council: Mossman.
- Froggatt, W.W. (1935) The forgotten orchid hunter. Eugene Fitz Herbert Albini Fitzalan. *Australian Naturalist* 9(5): 120.
- George, A. S. (2009) *Australian botanist's companion*. Four Gables Press: Kardinya, Western Australia.
- George, A.S. (2010) Australian type material in the Economic Botany Collection, Royal Botanic Gardens, Kew. *Muelleria* 28(2): 163–171.
- Grimwade, G. et al. (2005) Cairns Botanical Gardens Cultural Heritage Study, prepared for the Botanic Gardens Master Plan, December 2005.
- Guiry, M.D. & Guiry, G.M. (2014) AlgaeBase. World-wide electronic publication, National University of Ireland, Galway. http://www.algaebase.org; Accessed October-November 2014.
- Hall, N. (1978) *Botanists of the eucalypts*. CSIRO: Melbourne.
- Hill, K.D. (1998) Pinophyta. Flora of Australia 48: 545–596.
- Hill, W. (1860a) Appendix B. List of specimens collected by Mr. Fitzalan, during the expedition to the north-eastern coasts of Queensland. In: Smith, J.W. & Dalrymple, G.E., Report of the proceedings of the Queensland Government schooner "Spitfire" in search of the mouth of the River Burdekin, on the north-eastern coast of Australia: and the exploration of the portion of that coast, extending from Gloucester Island to Halifax Bay, pp 39–42. T.P. Pugh's Printing Office: Brisbane.
- Hill, W. (1860b) Local Intelligence. *Moreton Bay Courier*, Saturday 27 October, 1860, p. 2.
- Hill, W. (1874) [Appendix]. Narrative and reports of the Queensland north-east coast expedition, 1873. *Queensland. Votes & Proceedings 1874*, Vol 2. Part 2, pp 48–53 [pp 662–667].
- Holland. A. (2005) The Queensland Herbarium celebrating 150 years. Australian Systematic Botany Society Newsletter 122: 9–10.
- Holmes, R. (2002) Bid to unravel threads of early botanist's life. *Cairns Sun*. Wednesday, 9 January 2002, p. 6.
- Home, R.W., Lucas, A.M., Maroske, S., Sinkora, D.M. & Voigt, J.H. (1998) Regardfully yours: selected correspondence of Ferdinand von Mueller. Vol.1: 1840–1859. Peter Lang: Bern.
- Home, R.W., Lucas, A.M., Maroske, S., Sinkora, D.M. & Voigt, J.H. (2002) Regardfully yours: selected correspondence of Ferdinand von Mueller. Vol. 2: 1860–1875. Peter Lang: Bern.
- Hooper, C. (2002) Angor to Zillmanton: stories of north Queensland deserted towns. Colin Hooper.
- Hoskin, J.E. (2007–2009) Flotilla-Australia. http://www.flotillaaustralia.com. Accessed September. 2014.
- Jack, R. L. (1878) Geological sketch map of the district between Charters Towers Goldfield & the coast. In: R. Thomas (ed.) *The classic Robert Logan Jack map collection* (1999), Queensland Department of Mines & Energy and Ross Thomas.

- Jones C. (1998) The colonial gunboat Spitfire. *Journal of the Royal Historical Society of Queensland* 16(11): 477–485.
- Kelly, G. (1973) Eugene Fitzalan: botanist, pioneer & poet, 1830– 1911. Bowen Historical Society: Bowen, Queensland.
- King, P.P. (1827) Narrative of a survey of the intertropical and western coasts of Australia: performed between the years 1818 and 1822, Vol. 1. John Murray: London.
- Maiden, J.H. (1922) Records of Australian botanists. 2nd supplement. Journal & Proceedings of the Royal Society of New South Wales 55: 150–169.
- Maroske, S. (1993) 'The whole great continent as a present.' Nineteenth-century Australian women workers in science, in F. Kelly (ed.) *On the edge of discovery*, pp 13–34. Text Publishing: East Melbourne.
- Maroske, S. (2014) 'A taste for botanic science': Ferdinand Mueller's female collectors and the history of Australian botany. *Muelleria* 32, 72–91.
- Maroske, S. & Vaughan, A. (2104) Ferdinand Mueller's female plant collectors: a biographical register. *Muelleria* 32, 92–172.
- MELISR (2014) Database of the National Herbarium of Victoria. Royal Botanic Gardens: Melbourne. Accessed August-November 2014.
- Mueller, F. (1860a) Annual Report of the Government Botanist and Director of the Botanical and Zoological Garden. John Ferres: Melbourne.
- Mueller, F. (1860b) Essay on the plants collected by Mr. Eugene Fitzalan during Lieut. Smith's expedition to the estuary of the Burdekin. John Ferres: Melbourne.
- Mueller, F. (1863a) Argophyllum lejourdanii . Fragmenta phtyographiae Australiae 4(25): 33.
- Mueller, F. (1863b) *Fitzalania. Fragment phytographiae Australiae* 4(25): 33–34.
- Mueller, F. (1869) Contributions to the phytogeography of Tasmania. *Monthly Notices of Papers & Proceedings of the Royal Society of Tasmania for 1868*: 7–13.
- Mueller. F. (1870) Sersalisia sericea. Fragment phytographiae Australiae 7(55): 112.
- Mueller, F. (1874b) Gouania hillii. Fragmenta phytographiae Australiae 8(66): 163.
- Mueller, F. (1875) Ganophyllum falcatum. Fragmenta phytographiae Australiae 9(80): 193.
- Mueller, F. (1876) Leichhardtia. Fragmenta phytographiae Australiae 10(84): 67–68.
- Nelson, C. (2014) A bushman botanist. *The Irish Garden* 23(9): 46–48.
- Perceval, A.G. (1881) *Pioneer Paper. Northern Queensland.* Labour News Publishing Office: London.
- Pike, G. (1996) *Queensland frontier*, 3rd Edition. Glenville Pike.
- Port Denison Times Almanac (1867) North Queensland Itinerary, for 1867. pp 52–63. F.T. Rayner: Bowen.
- Prakash, R., Gopikrishna, V. & Kandaswamy, D. (2005) Guttapercha: an untold story. *Endodontology* 17(2): 32–36.
- Queensland Government (1860) Votes & Proceedings of the Legislative Assembly. No. 12–15, 20–26 June 1860.
- Queensland Government Gazette (1859) *Proclamation*. No.1, p. 1, 10 December 1859.
- Rutherford, D. (2002) Eugene Fitzalan pioneer of the Flecker Botanic Garden. *Bulletin of the Historical Society, Cairns* 493: 1–3.
- Simmonds, N.W. (1956) Botanical results of the banana collecting expedition. *Kew Bulletin* 11(3): 463–489.

- Smith, J.W. (1860) Report of the proceedings of the Burdekin Expedition, Part 1. In: Report of the proceedings of the Queensland Government schooner "Spitfire" in search of the mouth of the River Burdekin, on the north-eastern coast of Australia: and the exploration of the portion of that coast, extending from Gloucester Island to Halifax Bay, pp 1–11. T.P. Pugh's Printing Office: Brisbane.
- State of Queensland (1998) *Colony of Queensland*. Letters Patent dated 6 June 1859. www.legislation.qld.gov.au. Accessed October 2014.
- Sundowner (1986) Around the campfire with sundowner [Eugene Fitzalan, a little remembered pioneer naturalist of early Bowen and Cairns]. *North Queensland Register*, September 11 1986.
- Thurgate, M.E. & Maloney, J.M. (1996) *The Central Queensland Coast Biogeographic Region: Regional Assessment and Analysis of National Estate Representation.* James Cook University: Townsville.
- Turner, G. (1943) A Bowen pioneer. Cummins & Campbell's Monthly Magazine 19(2): 29.

Manuscript accepted 2 March 2015

Footnotes

¹ Correspondence: Eugene Fitzalan to Ferdinand Mueller, 1882, 6 March [RB MSS M8, Library, Royal Botanic Gardens Melbourne].

² Correspondence: Eugene Fitzalan to the Premier's Department. 1868, May (Queensland State Archives).

- ³ Phaius australis F.Muell. [MEL1540855]
- ⁴ Nauclea orientalis (L.) L. [MEL2051994; MEL2051995]
- ⁵ Araucaria cunninghamii Mudie var. cunninghamii

[MEL0286923]. The Moreton Bay pine is the same taxon, but the southern populations appear to have been regarded as having inferior quality timber.

- ⁶ Calophyllum inophyllum L. [BRI AQ0166185; MEL 0075476;
- MEL 0075484; MEL 0075508; MEL 0075497]

7 identity not known

- ⁸ Calophyllum inophyllum L. [see ⁶]
- ⁹ possibly *Dioscoria transversa* R.Br. [no relevant specimens]
- ¹⁰ Dendrobium discolor Lindl. [misapplication of the name Vanda coerulescens Griff.] [MEL0624113]
- ¹¹ *Dendrobium discolor* Lindl. ['*Dendrobium luridum* W.Hill' was a proposed name]
- ¹² Araucaria cunninghamii Mudie var. cunninghamii [see ⁵]
- ¹³ possibly *Dendrobium discolor* Lindl. [MEL0624113]
- ¹⁴ *Mimusops elengi* L. [MEL 2191065; MEL 2192448; MEL 2192451]
- ¹⁵ possibly *Lotus australis* Andrews [MEL0279509]
- ¹⁶ possibly *Dendrobium discolor* Lindl. [see¹⁰]
- ¹⁷ Calophyllum inophyllum L. [see ⁶]
- ¹⁸ identity not known
- ¹⁹ Araucaria cunninghamii Mudie var. cunninghamii [see ⁵]
- ²⁰ possibly *Lotus australis* Andrews [MEL0279509]
- ²¹ possibly *Conospermum taxifolium* C.F.Gaertn. [MEL 1526084]
- ²² Araucaria cunninghamii Mudie var. cunninghamii
- ²³ Araucaria columnaris Hook.
- ²⁴ Erythrina variegata L. [MEL 2113384]
- ²⁵ Erythrina variegata L. [Erythrina fitzalanii W.Hill was a
- proposed name]
 - ²⁶ identity not known
 - ²⁷ Ptychosperma elegans (R.Br.) Blume [MEL 0213375; MEL
 - 2148951; MEL 2148956; MEL 2148960]
 - ²⁸ Pandanus tectorius Parkinson [no known specimen]
 - ²⁹ Araucaria cunninghamii Mudie var. cunninghamii
 - 30 Brachychiton spp

- ³¹ Acacia spp
- ³² Erythrina variegata L. [see ^{24 & 25}]
- ³³ possibly *Hibiscus heterophyllus* Vent subsp. *heterophyllus*
- [MEL0018725] or Hibiscus meraukensis Hochr. [MEL0018686] ³⁴ Eucalyptus and Corymbia spp
- ³⁵ possibly Corymbia tessellaris (F.Muell.) K.D.Hill &
- L.A.S.Johnson
- 36 Melaleuca spp
- ³⁷ Ficus sp.
- ³⁸ Ochrosia elliptica Labill. [MEL 1587754]
- ³⁹ Gutta percha was the name given to a type of latex, usually from species of Palaquium that was used extensively for insulation and in dentistry (Prakash et al. 2005).
- ⁴⁰ Mackinlaya macrosciadea (F.Muell.) F.Muell. [MEL 0247913]
- ⁴¹ possibly *Claoxylon angustifolium* Mull.Arg. [MEL 0707740]
- ⁴² possibly Sophora tomentosa L. [MEL 0019113; MEL 0019086; MEL 0019088]
- ⁴³ Xerochrysum bracteatum (Vent.) Tzvelev [MEL0061207]
- ⁴⁴ possibly *Eragrostis* sp. [MEL2134015]
- ⁴⁵ identity not known
- ⁴⁶ possibly *Euphorbia hypericifolia* L. [no relevant specimens]
- ⁴⁷ possibly *Hibiscus sturtii* Hook. [MEL2223546].
- ⁴⁸ possibly Maclura cochinchinensis (Lour.) Corner [no relevant specimens]
- possibly Ficus opposita Miq. [MEL0239354]
- 50 identity not known
- ⁵¹ possibly Archirhodomyrtus beckleri (F.Muell.) A.J.Scott [no relevant specimens]
- ⁵² Cochlospermum gillivraei Benth. [MEL 0081439]
- ⁵³ Cycas media R.Br. [MEL 0269944; MEL 0269949]
- ⁵⁴ Cochlospermum gillivraei Benth. [see ⁵²]
- ⁵⁵ Cycas media R.Br. [see ⁵³]
- ⁵⁶ Larsenaikia ochreata (F.Muell.) Tirveng. [MEL 0598351; MEL 0598353; MEL 0713513]
- ⁵⁷ possibly Atractocarpus fitzalanii (F.Muell.) Puttock [MEL 05985691
- ⁵⁸ possibly *Hibiscus heterophyllus* Vent subsp. *heterophyllus* [MEL0018725]
- 59 identity not known
- ⁶⁰ possibly *Millettia pinnata* L. [MEL2093468]
- 61 identity not known
- 62 possibly Toona ciliata M.Roem. or Paraserianthes toona
- (F.M.Bailey) I.C.Nelson [no relevant collections]
- ⁶³ Bursaria incana Lindl. [MEL0066044]
- ⁶⁴ Ficus sp.
- 65 Araucaria cunninghamii Mudie var. cunninghamii
- ⁶⁶ possibly Alstonia scholaris (L.) R.Br. [no relevant specimens]
- ⁶⁷ possibly *Canavalia rosea* (Sw.) DC. [no relevant specimens]
- ⁶⁸ possibly *Eucalyptus crebra* F.Muell. [MEL 0703988] or *E*. tereticornis Sm. [MEL 0707234]
- 69 possibly Memecylon pauciflorum Blume [now classified in the Memecylaceae] [no relevant specimens]
- ⁷⁰ Cajanus confertiflorus F.Muell. [MEL 0091588; MEL 0061471-2]
- ⁷¹ possibly *Sophora tomentosa* L. [no relevant specimens] ⁷² Araucaria cunninghamii Mudie var. cunninghamii [MEL 0286923]
- 73 Dendrophthoe vitellina (F.Muell.) Tiegh. [MEL 0591630; MEL 0591630; MEL 2237734]
- 74 Hibiscus tiliaceus L. [MEL 2223595]
- 75 identity not known
- 76 identity not known
- ⁷⁷ Cochlospermum gillivraei Benth. [MEL0081439]
- ⁷⁸ Hoya australis R.Br. ex J.Traill var. australis [MEL 0073610]
- ⁷⁹ Cycas media R.Br. [MEL2136950, MEL2136951]
- 80 identity not known

- ⁸¹ possibly Denhamia disperma (F.Muell.) M.P.Simmons [no relevant specimens]
- 82 possibly Atractocarpus fitzalanii (F.Muell.) Puttock
- 83 possibly Canarium australianum F.Muell. [MEL 0532416; MEL 2290901]
- 84 identity not known
- 85 possibly Aglaia elaeagnoidea (A.Juss.) Benth. [no relevant
- specimens]
- ⁸⁶ identity not known
- 87 possibly one of a few Corymbia spp or Eucalyptus tereticornis Sm. [MEL 0707234]
- ⁸⁸ possibly *Phaleria octandra* (L.) Baill. [no relevant specimens] ⁸⁹ identity not known
- 90 possibly Clerodendrum floribundum R.Br. [MEL 0098165] or
- Clerodendrum inerme (L.) Gaertn. [MEL0098258, MEL0098286]
- ⁹¹ possibly *Crotalaria laburnifolia* L. [no relevant specimens]
- 92 possibly Abutilon or Hibiscus sp.
- ⁹³ identity not known
- ⁹⁴ possibly *Hibiscus heterophyllus* Vent. [no relevant specimens]
- 95 Sterculia quadrifida R.Br. [MEL 2226804; MEL 2226815]
- ⁹⁶ Pseudanthus pimeleoides Sieber ex Spreng. [no relevant specimens]
- 97 Limonium solanderi Lincz. [MEL 0044384; MEL 0044385]
- 98 Neptunia major (Benth.) Windler [MEL 0596305]
- ⁹⁹ possibly *Dioscoria* sp.
- ¹⁰⁰ *Pleiogynium timorense* DC.) Leenh. [no relevant specimens]
- ¹⁰¹ Guettarda speciosa L. [MEL2266812; MEL 2266057]
- 102 Ehretia acuminata R.Br. [MEL 0657360]
- ¹⁰³ Millettia pinnata (L.) Panigrahi [MEL 2093275; MEL

2093278; MEL 2093280; MEL 2093281; MEL 2093282; MEL 2093476; MEL 2093478]

- ¹⁰⁴ identity not known
- ¹⁰⁵ *Sterculia quadrifida* R.Br. [MEL2226802]
- ¹⁰⁶ possibly Morinda citrifolia L. [MEL 0010114]
- ¹⁰⁷ possibly *Eucalyptus platyphylla* F.Muell. [MEL 0703561] or
- Eucalyptus tereticornis Sm. [MEL 0707234]
- ¹⁰⁸ identity not known
- ¹⁰⁹ Alyxia spicata R.Br. [MEL 0223097]
- ¹¹⁰ Diospyros geminata (R.Br.) F.Muell. [MEL2223158; MEL 22328221
- 111 Psydrax odorata (G.Forst.) A.C.Sm. & S.P.Darwin [MEL 15382291
- ¹¹² Trophis scandens (Lour.) Hook. & Arn. [MEL 2210549]
- ¹¹³ Melia azederach L. [MEL 0119044–6; MEL 0119054]
- ¹¹⁴ Dendrobium discolor Lindl.
- ¹¹⁵ possibly *Eulalia aurea* (Bory) Kunth [no relevant specimens]

¹²⁴ Rockhampton Bulletin. Telegraphic messages. Saturday, 13

¹²⁵ The Mail. Earldom of Egmont Australian-born claimant.

¹²⁶ Samphire open-forblands on saltpans occur in many of the bay

¹²⁷ Eucalyptus open forest and woodland communities occur in this

128 Complex notophyll vineforest and semi-evergreen vine thickets

129 Araucaria cunninghamii Mudie var. cunninghamii [no relevant

- 116 identity not known
- 117 identity not known
- 118 identity not known
- 119 identity not known
- 120 identity not known

August 1870, p. 2.

heads in this area.

occur in this area.

specimens]

area.

- ¹²¹ Pisonia aculeata L. [MEL 2218020]
- ¹²² Derris trifoliata Lour. [MEL 1517640]
- ¹²³ Guettarda speciosa L. [see ¹⁰¹]

Saturday, 18 May 1929, p. 3.

¹³⁰ Lysiphyllum hookeri (F.Muell.) Pedley [MEL 0069755]

¹³¹ possibly *Themeda triandra* Forssk. [no relevant specimens]

¹³² Cassia sp. (Paluma Range)

¹³³ Laburnum anagyroides Medik.

¹³⁴ possibly Argyrodendron polyandrum L.S.Sm. [BRI

AQ0081161] or Argyrodendron trifoliolatum F.Muell. [MEL

2223875; MEL 2223876; MEL 2223878]

¹³⁵ *Ptychosperma elegans* (R.Br.) Blume [MEL 0213375; MEL

2148951; MEL 2148956]

¹³⁶ Archontophoenix alexandrae (F.Muell.) H.Wendl. & Drude [no relevant specimens]

¹³⁷ Dendrocnide moroides (Wedd.) Chew [no relevant specimens]

¹³⁸ *Helix macleayi* Cox, 1864

¹³⁹ Xanthomelon pachystylum Pfeiffer, 1845

¹⁴⁰ Gloreugenia coxeni Cox, 1871

¹⁴¹ Sphaerospira oconnellensis Cox, 1871

¹⁴² Pupina meridionalis Pfeiffer, 1864

¹⁴³ Sphaerospira coxi Crosse, 1866

¹⁴⁴ Ptychosperma elegans (R.Br.) Blume [no relevant specimens]

¹⁴⁵ Schefflera actinophylla (Endl.) Harms [no relevant specimens]

¹⁴⁶ possibly *Entada phaseoloides* (L.) Merr. or *Entada rheedii*

Spreng.; the so-called match-box bean [no relevant specimens]

¹⁴⁷ Cassia sp. (Paluma Range) [no relevant specimens]

¹⁴⁸ Ptychosperma elegans (R.Br.) Blume [no relevant specimens]

¹⁴⁹ Ficus watkinsiana F.M.Bailey [MEL 0239415]

¹⁵⁰ *Brachychiton acerifolius* (A.Cunn. ex G.Don) F.Muell. [no relevant specimens]

¹⁵¹ *Thelychiton speciosus* (Sm.) M.A.Clem. & D.L.Jones [no relevant specimens]

¹⁵² Roma Peak is an isolated rocky massif to about 610 m elevation, 40 km to the west of Mount Dryander.

elevation, 40 km to the west of Mount Dryander.

¹⁵³ *Adiantum* sp; probably not this genus as it is terrestrial rather than epiphytic.

¹⁵⁴ Asplenium sp.

¹⁵⁵ *Pteris* sp. [possibly *Doryopteris concolor* (Langsd. & Fisch.) Kuhn [MEL 1558921]; although it is a terrestrial species rather than epiphytic.

¹⁵⁶ Ophioglossum sp.

¹⁵⁷ Fastosarion superba Cox, 1871

¹⁵⁸ Gloreugenia coxeni Cox, 1871

¹⁵⁹ Sphaerospira informis Mousson, 1869

160 Pedinogyra hayii Griffith & Pidgeon, 1833

¹⁶¹ Bentosites yulei Forbes, 1851

¹⁶² Helix kilneri [a name of no standing]

¹⁶³ John Graham MacDonald (b. 5 September 1834; d. 29 May 1918) was one of the pioneer settlers of Bowen, arriving in 1861 as a member of Dalrymple's overland party. He acquired extensive land holdings throughout north Queensland, but was to later relinquish them because of financial problems. In 1872 he became Gold Commissioner at Gilberton, a now-abandoned township on the upper Gilbert River, and a Police Magistrate at Charters Towers (Pike 1996; Hooper 2002).

¹⁶⁴ Semi-deciduous notophyll/mesophyll vine forest fringing watercourses is an Endangered regional ecosystem.

¹⁶⁵ possibly *Pandanus cookii* Martelli [no relevant specimens]

¹⁶⁶ *Cymbidium madidum* Lindl. [no relevant specimens]

¹⁶⁷ *Platycerium* sp. [correctly as Elk-horn ferns, as there are no Stag-horn ferns in this area]

¹⁶⁸ possibly Asplenium australasicum (J.Sm.) Hook.

¹⁶⁹ The vegetation here is low microphyll vine forest to semievergreen vine thick with *Acacia fasciculifera* F.Muell. ex Benth. [no relevant specimens]

¹⁷⁰ Helix murina Pfeiffer, 1866

¹⁷¹ Araucaria cunninghamii Mudie var. cunninghamii

172 possibly Argyrodendron polyandrum L.S.Sm. [BRI

AQ0081161] or Argyrodendron trifoliolatum F.Muell. [MEL

2223875; MEL 2223876; MEL 2223878]

¹⁷³ Ficus sp.

¹⁷⁴ Schefflera actinophylla (Endl.) Harms [no relevant specimens]

¹⁷⁵ Brachychiton acerifolius (A.Cunn. ex G.Don) F.Muell. [no

relevant specimens]

- ¹⁷⁶ Fastosarion superba Cox, 1871
- ¹⁷⁷ Pedinogyra hayii Griffith & Pidgeon, 1833
- ¹⁷⁸ Sphaerospira informis Mousson, 1869
- ¹⁷⁹ Coelocion australis Forbes, 1851
- ¹⁸⁰ Calamus australis Mart. [no relevant specimens]
- ¹⁸¹ Vittaria elongata Sw. [MEL2155631]
- ¹⁸² Arthropteris tenella (G.Forst.) J.Sm. ex Hook.f. [MEL0239184]

¹⁸³ possibly *Polypodium lanceola* Mett. or *Belvisia mucronata*

(Fee) Copel. [no relevant specimens]

¹⁸⁴ Pteris ensiformis Burm.f. [no relevant specimens]
¹⁸⁵ Davallia denticulata (Burm.f.) Mett. ex Kuhn [no relevant specimens]

¹⁸⁶ *Asplenium polypodioides* (Blume) Mett. This is possibly an identification provided by Mueller, but it is a *nom. illeg*.

¹⁸⁷ Cepobaculum canaliculatum (R.Br.) M.A.Clem. & D.L.Jones [no relevant specimens]

¹⁸⁸ identity not known: *Cryptostylis ovata* R.Br. is endemic to Western Australia.

¹⁸⁹ possibly Cyathea rebeccae (F.Muell.) Domin as Cyathea leichhardtiana (F.Muell.) Copel. is not recorded for Mount Dryander. [MEL2152299]

¹⁹⁰ Araucaria cunninghamii Mudie var. cunninghamii

¹⁹¹ possibly *Archontophoenix alexandrae* (F.Muell.) H.Wendl. & Drude, not *Ptychosperma elegans* (R.Br.) Blume, as the habitat is not correct for the latter species.

¹⁹² Notophyll mossy evergreen vine forest. The Rare *Ristantia waterhousei* Peter G.Wilson & B.Hyland occurs here, and epiphytic species are common at this elevation.

¹⁹³ *Brussels* carpet was a machine made floor covering with the loops of the pile uncut, and *Turkey* produced the highest quality crafted carpets during this period.

¹⁹⁴ *Berlin wool* is a fine worsted yarn used for knitting and embroidery.

¹⁹⁵ Ficus copiosa Steud. [no relevant specimens]

¹⁹⁶ Correspondence: Ferdinand Mueller to Joseph Hooker. 1869, 4 December (Royal Botanic Gardens Melbourne).

¹⁹⁷ possibly *Cassia brewsteri* (F.Muell.) Benth. [MEL0253197]

¹⁹⁸ Correspondence: Eugene Fitzalan to Ferdinand Mueller. 1871,

20 April (Royal Botanic Gardens Melbourne).

¹⁹⁹ *Neisosperma kilneri* (F.Muell.) Fosberg & Sachet [MEL1587729]

²⁰⁰ Sydney Morning Herald. Port Denison Items. Wednesday, 10 January 1866, p. 5.

²⁰¹ Correspondence: Ferdinand Mueller to William Hooker. 1863,
25 September (Royal Botanic Gardens Kew. Directors' letters, vol. LXXV, Australian and Pacific letters 1859–65, letter no. 175).

²⁰² Correspondence: Ferdinand Mueller to August Petermann. 1864, 26 August (Home *et al.* 2002; Royal Botanic Gardens Melbourne).

²⁰³ 'Musa australiensis'. Nomen dubium. This was a name used in correspondence by Mueller. Correctly Musa banksia F.Muell. [BRIAQ0023362, MEL0621530 – 0621537]

²⁰⁴ Araucaria bidwillii Hook.

²⁰⁵ Augustus William Simpson, a collector of beetles, was in residence at Salisbury Station 1870 –1873. *Rockhampton Bulletin*. Salisbury Station. Friday, 21 February 1873.

²⁰⁶ Araucaria cunninghamii Mudie var. cunninghamii

[MEL0255286]

²⁰⁷ Helix L. is a genus of land snails, Class Gastropoda.

²⁰⁸ Notophyll vine forests occur on the eastern slopes and valleys, but otherwise the dominant vegetation is wet sclerophyll and tall open forests, and with Araucarian vine forest on the western slopes.

²⁰⁹ possibly Arundinella nepalensis Trin., Chionachne cyathopoda (F.Muell.) F.Muell. ex Benth., Imperata cylindrica (L.) P.Beauv., Ottochloa spp and Themeda spp [no relevant specimens]

²¹⁰ *Eucalyptus crebra* F.Muell. [MEL1608355, MEL0703989]

²¹¹ possibly *Eucalyptus resinifera* Sm. [no relevant specimens]
 ²¹² Allocasuarina torulosa (Aiton) L.A.S.Johnson [MEL0538075]

²¹³ Archontophoenix alexandrae (F.Muell.) H.Wendl. & Drude.

Archontophoenix cunninghamiana (H.Wendl.) H.Wendl. & Drude occurs on the high slopes and ridges (*pers. comm.* Andrew Ford; *pers. obs.* J.L. Dowe).

²¹⁴ Land snails collected by Rainbird from Mount Elliot have not been located.

²¹⁵ Archontophoenix alexandrae (F.Muell.) H.Wendl. & Drude and *Livistona decora* (W.Bull.) Dowe are dominant species in riparian forests on the eastern flanks of Mount Elliot.

²¹⁶ *Port Denison Times*. A Trip to Whitsunday. Saturday, 18 July 1874, pp 2, 3.

²¹⁷ possibly *Plectranthus diversus* S.T.Blake or *Plectranthus parviflorus* Willd.

[no relevant collections]

²¹⁸ Ipomoea macrantha Roem. & Schult. [no relevant collections]

²¹⁹ Notophyll vine forest +/- *Araucaria cunninghamii* extend to the beach over most of the island.

²²⁰ *Ptychosperma elegans* (R.Br.) Blume forms extensive populations here.

²²¹ Entada rheedii Spreng. [MEL0595411]

²²² Blue bean is possibly *Rhynchosia acuminatissima* Miq. [no relevant collections]

²²³ Red bean is possibly *Abrus precatorius* L. [no relevant collections]

 $^{\rm 224}$ Various formations of mesophyll rainforests were extensive in the area.

²²⁵ Red cedar, *Toona ciliata* M.Roem., was the most sought-after timber in the area.

²²⁶ *The Queenslander*. The Cedar Country. Saturday, 7 November 1874, p. 6.

²²⁷ *The Queenslander*. Forest conservancy. Saturday, 29 December 1877, p. 16.

²²⁸ *Rockhampton Bulletin*. Northern News. Saturday, 4 September, 1875, pp 2, 3.

²²⁹ Sydney Morning Herald. Botanical. Tuesday, 1 August 1876, pp 4, 5.

²³⁰ Correspondence: Ferdinand Mueller to Edward Ramsay. 1876,
28 January (ML MSS.562, Letters to E. P. Ramsay 1862–91,
Mitchell Library, State Library of New South Wales, Sydney).

²³¹ Mueller named three *Musa* species based on Fitzalan's

collections: *Musa banksii* F.Muell. (collected from Mount Elliot), *Musa fitzalanii* F.Muell. and *Musa hillii* F.Muell., both collected from the Daintree area. For discussion about species identities see Simmonds (1956).