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Hidden in plain sight – rediscovery of two historic pressed plant specimen albums made by botanical collector William Bäuerlen

Kevin Mills¹ and Jane Johnston²

¹12 Hyam Place, Jamberoo 2533, NSW AUSTRALIA. email: <u>kevinmillskma@gmail.com</u> ²P.O. Box 472, Berry 2535, NSW AUSTRALIA. email: janemjohnston@gmail.com

Abstract

Two 19th Century albums of pressed native plant specimens, one of flowering plants and one of ferns held by the Berry Museum, in Berry on the NSW South Coast are described and assessed as to their origin. The albums together contain 155 specimens almost entirely of indigenous plants: 90 species of flowering plants and 61 fern species. The albums have significant historical and botanical value.

The popularity of fern albums in 19th Century Australia is discussed. Both albums were inscribed in 1886 by John Stewart of Broughton Creek (later renamed Berry), New South Wales. Stewart has hitherto been credited with their compilation by the Museum. However, newly gathered evidence points to their compilation by the botanical collector William (Wilhelm) Bäuerlen (1840–1917), and to Stewart only having owned the albums. Notes on Bäuerlen's life and his interest in fern albums are included.

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Introduction

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The Berry Museum, the small volunteer-run museum of the Berry & District Historical Society Inc. in the Shoalhaven town of Berry, New South Wales, has two albums of pressed plant specimens in its collection. These were inscribed in 1886 by John Stewart of Broughton Creek (later renamed Berry). We describe these albums, highlighting some points of interest about them and provide an analysis of the species contained within, including a plant species list using currently accepted taxonomic nomenclature. We contend that John Stewart (1845–1932) inscribed the albums in 1886 as owner, not compiler, and set out a compelling combination of evidence to attribute compilation of the albums to the botanical collector Wilhelm Bäuerlen (1840–1917), also known in Australia as William. There are various spellings of Bäuerlen in the literature; we have chosen to use the spelling used by Bäuerlen himself.

The albums

The two albums are similar in most ways. The album of catalogue number B70.1 (26 cm W x 31.5 H) has 34 pages of specimens of flowering plants. Album B70.2 (37 cm W x 28 cm H) contains 31 pages of fern fronds. They have green and black leather covers, and both originally had spines embellished with gold horizontal stripes. Inside at the back of each album, a small sticker names the manufacturer, 'M. W. & CO. London' and the album types, 'No. 6106' (B70.1) and 'No. 6107' (B70.2). Both have a front page that is blank except for an inscription, 'John Stewart Broughton Creek 26 August 1886'. This is followed by a decorative frontispiece page. The remainder of the pages feature decoratively arranged plant specimens that are adhered to thin cardboard pages, showing one to four species per page.



Figure 1. Exterior of album B70.1, the flowering plants album with the original spine. Photo: Jane Johnston.



Figure 2. Corner of the decorative frontispiece from the flowering plants album B70.1, inset with Stewart's inscription. Photo: Phil Bragg.



Figure 3. Example page from the fern album B70.2. The species are *Asplenium flabellifolium* Cav. (misidentified here as *Asplenium flabellatum* Kunze) and *Asplenium flaccidum* G.Forst. Photo: Phil Bragg.

The flowering plants album contains 90 angiosperm species represented by 90 specimens. There are 88 native species, including a tree, a sedge and various shrubs, vines, orchids and herbs, and two introduced species. The fern album contains 61 species of native ferns, represented by 65 specimens; four species of fern appear twice. The 61 species represent 48 % of the indigenous species found in the region which total 128 (Mills 2023). Taxonomic names and associated numbering for each species are handwritten on every page, though we note that one specimen, Caustis flexuosa, in the flowering plant album is not named. Appendix 1 contains a complete list of the species contained in both albums, providing the names written in the albums and the current names, along with other relevant information. Although not all of the 151 species represented in the albums could have been collected close to Berry, most could have been collected in the surrounding districts of Shoalhaven,

Illawarra and Southern Highlands. Also, some species only occur in districts much further away, including the NSW Northern Rivers region and Victoria, districts in which Bäuerlen was known to have collected.

The specimens and the albums in general are in remarkably good condition for their age. The Museum arranged for some professional conservation treatment on both albums in 2023, at which time a new plain black leather spine was attached to the fern album; the original spine was already detached.

The albums were owned by John Stewart (1845–1932), whose inscription noted his hometown of Broughton Creek. This was then a private town on the Coolangatta Estate (established by Alexander Berry and Edward Wollstonecraft in 1822) and later renamed Berry. Aside from Stewart's inscriptions, and the species names and numbering associated with the specimens, nothing else is written on the albums or the covers. The donors' names (Mrs and Mrs Stewart Blow) and the 1979 donation date are the only facts about these albums known to the Museum.

The Berry Museum's interpretative material previously presented John Stewart as the collector of the specimens and compiler of the albums. While the origin of the albums has not previously been questioned, our research indicates compellingly that the albums should be attributed to William Bäuerlen.

Method

The authors were independently investigating Bäuerlen's activities in the Shoalhaven when the albums were brought to the attention of KM by co-author JJ. At the Berry Museum, the albums were inspected, page by page, scrutinising the specimens and any markings. KM identified the species and determined the current taxonomic names. Joint study of correspondence by and to Bäuerlen in the Powerhouse Museum Archives was valuable for contextual information, and for evidence of Bäuerlen's handwriting. The great-granddaughter of John Stewart, Barbara Heriot, was contacted for Stewart's family history and samples of Stewart's handwriting. Barbara Heriot is the daughter of donors Mr and Mrs Stewart Blow (Stewart's grandson and his wife), now both deceased.

Our initial scepticism regarding Stewart as the creator of the plant albums arose early in the investigation, as Stewart was not known as a botanical person; the correct names of most of the plants would have been known by very few people at that time. Initial historical research by JJ, including a review of 1880s botanical collection data from the area around Berry (Australasian Virtual Herbarium), highlighted Bäuerlen's activities in the district in the 1880s in specimen collecting and in making and selling albums of pressed ferns. Our hypothesis became that that the albums were compiled by Bäuerlen and obtained by Stewart, who inscribed them as owner.

Pressed plant specimen albums: Historical context

According to sources including Kew Gardens (www.kew.org/read-and-watch/a-brief-history-of-plants-in-books), Luca Ghini (1490–1556), a professor of botany at the University of Bologna, was the first person to press and mount plant specimens onto paper, which he did for teaching purposes. A long history of plants being mounted on paper has ensued; in the nineteenth-century the making albums of pressed plants as a leisure pursuit

was particularly fashionable. This history is a research speciality for Dr Molly Duggins (Lecturer in Australian Art at the National Art School). According to Duggins (pers. comm., 2023), this fashion began in Western Europe in the early nineteenth century and spread internationally. By the 1840s, it was becoming very popular in England and was well in swing in Australia by the 1880s. In England and in Australia, it was fuelled by the 'picturesque' tourist movement and the expansion of the railway network improving access to country areas. In the late 1880s, people were outdoors exploring Australia's landscapes in unprecedented numbers. Two very different publications from 1886 give a sense of how expeditions to see Australia's natural wonders were being encouraged: *The Picturesque Atlas of Australasia* (Garran 1886) and *The Railway Guide of New South Wales* (NSW Government 1886).

Albums of pressed plants were typically kept by the compilerowner as a memento of personal experience to look at alone or in conversation with others, such as when entertaining guests at home (M. Duggins, pers. comm., 2023). These albums held value as 'social' objects, but sometimes specimens were swapped or bought, and some enterprising individuals created and sold ready-made pressed plant albums.

In Australasia, English-born Mary Ann Armstrong, also known as Mrs C. C. Armstrong, prepared albums on an ambitious scale. Duggins (2016) describes Armstrong's work to produce paper-based merchandise that featured pressed New Zealand ferns, including albums, cards, stationery and pictures. She began this work in New Zealand in the 1870s and continued in Australia after she moved to Melbourne in the late 1880s. Armstrong's work was visible in Australia; she presented her work and was recognised with prizes at the Sydney International Exhibition of 1879 and the Melbourne International Exhibition of 1880. The 'South Pacific Fern Album' series (late 1880s to early 1890s) is an example of her later and more elaborate work, produced in limited edition in conjunction with a publisher. Copies of this work are held by the State Library of New South Wales.

Armstrong and others who produced fern-themed merchandise at this time were entrepreneurially harnessing and feeding 'pteridomania', meaning fern mania, a term coined by the British clergyman, naturalist and writer Charles Kingsley in 1855 (https://www.historic-uk.com/CultureUK/Pteridomania-Fern-Madness/) to express the then immense popularity of ferns. Living and pressed ferns were popular, as were fern motifs in all manner of designed objects, furniture, tableware, clothing and more. The term was also used in the British colonies in Australia and New Zealand, where the phenomenon crossed social classes and peaked in the last quarter of the nineteenth century. How it manifested has been richly described by authors including Whittingham (2012), Bonyhady (2000), Horne (2005) and Duggins (2016).

William Bäuerlen (1840-1917)

William Bäuerlen was born on 27 October 1840 in Neidernall, Württemberg, Germany and died in Sydney on 28 October 1917 (Wilson 1990). In 1863, at the age of 23, he migrated to Australia on board the ship *San Francisco* from Hamburg to Moreton Bay, Queensland (Hamburg Passenger Lists, 1850–1934). For this voyage, he registered his occupation as a miller, but in Australia he became known as a skilled and prolific botanical collector. Approximately 8500 collections by Bäuerlen (sometimes instead

recorded as Baeuerlen) from eastern Australia and New Guinea are recorded in the Australasian Virtual Herbarium. Wilson (1990) notes that 'at least 70 species and infraspecific taxa have been described from his herbarium specimens' and 'about 20 of those taxa are named after him'.

Bäuerlen established himself in botany in the 1880s. By 1883, he had been contracted to collect for Baron Ferdinand von Mueller, the Government Botanist of Victoria (Wilson 1990). From mid-1886, Bäuerlen was also contracted to collect for Joseph Maiden, then the Curator at the Technological Museum (now the Powerhouse Museum) in Sydney. Bäuerlen was later appointed to the staff as Botanical Collector (1890-1905) (Wilson 1990). He was also the sole botanical collector of the Geographical Society of Australasia's Bonitow expedition to Papua New Guinea, and this resulted in the first of his only two publications as author; the Agricultural Society of Shoalhaven published Bauerlen's account of this Bonito expedition as The Voyage of the Bonito following his lecture on the expedition for the Society in Nowra in March 1886 (Bauerlen 1886). The other publication was Part 1 of The Wild Flowers of New South Wales, illustrated by Gertrude Lovegrove (Bäuerlen & Lovegrove 1891), which was self-funded by Bäuerlen and published by Angus & Robertson in a small print run in 1891. Wilson (1990) and Martin (2013) provide further insight into his life, noting that relatively little is known about some periods of his life, including his early years in Australia.

Newspaper pieces for the period 1883–1886 indicate that Bäuerlen gained an income and raised his profile by delivering lectures across the Shoalhaven and Illawarra (mostly on electricity) and by selling albums of pressed ferns he had compiled. The short newspaper pieces that ran about his fern albums include the following from *The Shoalhaven Telegraph* (16 August 1883)

The Ferns of Illawarra - This may fairly be said to be the title of a 'book' just completed and issued to the order of Mr. S. Matthews, of Cambewarra, by Mr. W. Bauerlin [sic], whose name has appeared [sic] in these columns recently as a lecturer on the wonders of electricity. The 'book' is a demi-folio volume of some 60 pages (card board) upon which appear in proper succession, beautifully preserved specimens of the ferns of the Illawarra and Shoalhaven districts. Mr Bauerlin is certainly an expert in the art of selecting specimens and of preserving them. We observe that Mr Bauerlin classifies and names the individual ferns; thus the book is not only valuable on account of the beauty of its contents, but in that it is the key to the botany of the fern family of the coast district, of which, probably, so complete a collection has never previously been made. Mr. Bauerlin has many orders for his books which are cheap, and we wish him success.

Incidentally, Mr Samuel Matthews of Cambewarra is the husband of Georgina Matthews, née McKenzie, the sister of Kenneth McKenzie who designed *Meroogal*, a historic house in Nowra that is now part of the Museums of History NSW. Bäuerlen was part of the Meroogal social circle, and Kenneth McKenzie and Bäuerlen were close friends, as discussed in Martin (2013).

Bäuerlen may have been inspired to make and sell fern albums after learning about others who were doing so, perhaps Armstrong, and perhaps even by seeing her work at those International Exhibitions. We have no evidence to hand to know

if this was so, or if he came up with the idea independently. In either case, his fern album enterprise is unsurprising; Bäuerlen was someone with developing interests and skills in botany who, like Armstrong, must have been well aware of the remarkable fern diversity in his local area and of the then extraordinary marketability of ferns, given the pteridomania phenomenon of the time.



Figure 4. Wilhelm Bäuerlen, c.1900. Photo: L. Herbst, Sydney. Caroline Simpson Library & Research Collection, Museums of History NSW.

Compilation by Bäuerlen: compelling evidence

Handwriting

The handwriting of the scientific names in the albums is vastly different from Stewart's handwriting, as seen from Stewart's inscriptions in the albums and another sample provided to us by Stewart's great-granddaughter. Instead, it closely resembles handwriting known to be by Bäuerlen; it is strikingly close to certain samples in the Powerhouse Museum's Archives – letters and specimen labels that Bäuerlen deemed important enough to write in his fair and more decorative hand. Compare, for instance, the characteristic decorative flourishes on the capital letters H, L & B in Figure 5 from the Stewart fern album with those in Figure 6, a label for *Helipterum strictum* (Lindl.) Benth. (now *Rhodanthe stricta* (Lindl.) Paul G. Wilson) in a volume of pressed specimens from the Asteraceae family (Powerhouse Museum Archives MRS/264), and Figure 7, Bäuerlen's 'Lovegrove letter' to Joseph Maiden (Powerhouse Museum Archives MRS/203-3/87).

Additionally, the umlaut above the 'ä' in 'Lomaria Bäuerlenii' and 'Correa Bäuerlenii' in the Stewart albums also suggests Bäuerlen's writing, in the context of labelling in the Asteraceae family volume (Powerhouse Museum Archives MRS/264). This album includes several specimens labelled as collected by Bäuerlen, but only some of those specimens have labels written in Bäuerlen's own, easy-to-distinguish hand; those labels written by Bäuerlen are the only ones where his surname is written Bäuerlen, not Bauerlen.



Figure 5. Page from fern album B70.2. Compare the letters H, L & B between this page and Figures 6 & 7. The species are *Blechnum camfieldii* Tindale (here incorrectly as *Lomaria Bauerlenii* instead of the previous name *Lomaria capensis* var. *bauerlenii* F.M.Bailey) and *Hymenophyllum bivalve* (G.Forst.) Sw. Photo: Phil Bragg.





Figure 6. a. Specimen and collection label for *Helipterum strictum* (Lindl.) Benth. (now *Rhodanthe stricta* (Lindl.) Paul G. Wilson) from a volume of specimens of the plant family Compositae (Asteraceae), 1886–1890. Powerhouse Museum Archives MRS/264 b. Close up of the collection label. Photos: Jane Johnston.

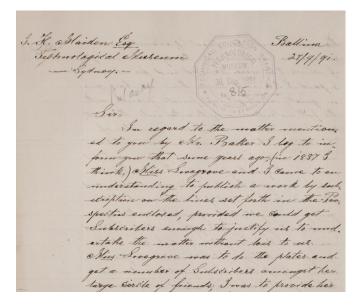


Figure 7. Extract from a letter from Bäuerlen to Maiden, 1891. Powerhouse Museum Archives, MRS/203-3/87. Photo: Emma Bjorndahl.

Species included

The fern Lastreopsis hispida (Sw.) Tindale is in Stewart's fern album under its historical name, Aspidium hispidum Sw. (Figure 8). Bäuerlen was the collector of the only herbarium specimen of this species, held at NSW, to have been recorded as collected on the NSW South Coast, in 1884 at 'Broughers Creek' (Brogers Creek) in Kangaroo Valley. The presence of this species in the album along with its correct name suggests Bäuerlen as the compiler, notwithstanding the possibility that anyone could collect such a specimen. Bäuerlen's overall collection history (1886 and prior), as reflected in the herbarium specimens collected by Bäuerlen or Bauerlen on record in the Australasian Virtual Herbarium, indicates travels into certain areas for botanical collecting activities that might explain those species in the albums that are only found in locations distant from Berry; see Appendix 1.



Figure 8. The fern *Lastreopsis hispida (Sw.) Tindale*, named *Aspidium hispidum* in album B70.2. One frond has been lost, as indicated by the shadow on the sheet. Photo: Kevin Mills.

Layout

In the fern album, pages with multiple species have the ferns arranged radially, with the cut ends of the fronds usually tidied from view under roundels made of pressed moss, lichen or both. In the flowering plant album, the specimens are in a bouquet arrangement. These arrangements appear intended to be attractive and to show the specimens' botanical features. Nearly every specimen exhibits fertile material, flowers or fertile fern fronds; the ferns are frequently presented as a pair of fronds – one fertile, one infertile, side by side. Where some of the flowering plants have distinctive leaf undersides, both sides of a leaf are displayed, sometimes simply by a part of one specimen being folded or twisted over before being glued down, such as shown in Figure 9.



Figure 9. The tree species *Callicoma serratifolia* Andrews in album B70.1; the specimen arrangement shows the upper and lower sides of the leaves. Photo: Kevin Mills.

Duggins (pers. comm. 2023) recognises the arrangements as typical for pressed plant albums of the time and that the bouquet arrangements are in the style of the florilegia. While it is possible that anyone could create the specimen arrangements in Stewart's albums, without having seen similar ones, it is far more likely that the compiler was someone aware that others, including Mary Ann Armstrong, were already arranging pressed specimens into albums in similar ways. Bäuerlen is more likely to have created the specimen arrangements than Stewart, given that Bäuerlen had greater botanical knowledge and was part of the Australian botany community.

Numbers: size, pages and species

Of the historical newspaper pieces that we have found on Bäuerlen's fern albums, the above piece in *The Shoalhaven Telegraph* is the only one that indicates an album size, stating 'demi folio'. According to the *Authors' & Printers' Dictionary* (Collins 1912), a 'Demy folio' is, width first, 17.5 by 11.25 inches, which equates to 44.5 by 28.5 cm. The size is broadly in keeping with Stewart's fern album at 37 by 28 cm.

Numeric information in the newspaper pieces suggests variation between different albums in the number of pages of specimens and of represented species. Such variation between albums seems expected for homemade albums, especially when Bäuerlen may have purchased different kinds of 'blank' albums over the period when he produced them. Thus, differences in this kind of information between the Stewart fern album and any one newspaper report of a fern album by Bäuerlen doesn't preclude attribution of Stewart's fern album to Bäuerlen.

Stewart's fern album at 61 species (represented by 65 specimens) over 31 pages compares with these numbers mentioned in newspapers: '50 fern varieties' in *The Shoalhaven Telegraph*, 5 July 1883; '60 pages' in *The Shoalhaven Telegraph*, 16 August 1883; and 'more than eighty varieties' in *The Kiama Reporter and Illawarra Journal*, 26 Oct 1883.

Proximity to Stewart

By 1883 Bäuerlen was based in the Shoalhaven region (Wilson 1990). His collection records (Australasian Virtual Herbarium) and historical newspaper pieces about his lectures indicate his ongoing presence in the area, with collecting trips elsewhere, until 1886. Bäuerlen was giving his postal address as the post office at Cambewarra, a village only 12 km from Broughton Creek (Berry), by 8 July 1886. This is the date of the first letter by Joseph Maiden to Bäuerlen (Powerhouse Museum's Archive, MRS/203-3/87). Other letters indicate that Bäuerlen lived at Cambewarra at least until 31 August 1886, before moving to a property at Braidwood by 16 September. Bäuerlen's home base was geographically close to Stewart's on 26 August 1886, when Stewart inscribed the albums.

Furthermore, Stewart's inscription date of 26 August being so close to Bäuerlen's move to the Braidwood area between 31 August and 16 September, is a detail that arguably supports Bäuerlen being the compiler of the albums. For instance, this date proximity could fit the scenario of Bäuerlen promising the albums to Stewart and providing them to him shortly before he moved to Braidwood. Bäuerlen and Stewart were also socially as well as geographically proximal. They lived in a region of small towns with multiple social interconnections and, if not also via other possible shared interests and contacts, local agricultural societies would have presented multiple opportunities to meet.

John Stewart

Stewart migrated to Australia from Scotland in 1864 to join his father William Stewart and William's two siblings, who were already living at a property called *Mananga* at Broughton Creek,

then owned by Berry and Wollstonecraft's Coolangatta Estate. The brothers William and Donald worked for this estate. John Stewart established his own auction business, first registered in 1873. He sold land, buildings, furniture and animal stock and, judging by advertisements in local newspapers in 1886, was already regionally prominent by then, with one office in Broughton Creek. Later, around 1890, Stewart partnered with Mark Morton, who later became an MLA and was instrumental in founding Morton National Park, to establish Stewart and Morton Auctioneers. This business grew to a major regional scale with several offices, a head office in Nowra, and a scope that ended up including the sale and transport of cattle out of the region, including interstate.

By August 1886, Stewart was married with six children, living with his family at *Mananga*, and involved in local societies. This included as a founding committee member of the Broughton Creek Horticultural and Agricultural Society in 1883 and it's newly elected President in April 1886, a role he continued until 1888. Later, he undertook several other important roles in the district, including the Mayor of Broughton Creek in 1892. Stewart was clearly an important figure in the Berry area, and his ownership of the albums adds to their local historical significance.



Figure 10. John Stewart, photo by Samuel Cocks of Kiama, c.1920s. Berry & District Historical Society Inc.

Compilation by Stewart ruled out

John Stewart can be safely ruled out as the compiler of the albums. Firstly, an amateur botanist at that time would be highly unlikely to achieve the near-perfect species identification that is demonstrated by the handwritten scientific names, allowing for naming updates since. Secondly, we have found no evidence of Stewart having been involved in botany or plant collecting at any level.

John Stewart's grandson and his wife, now both deceased, donated the albums to the Berry & District Historical Society in 1979. The Museum's collection record for the albums does not

indicate any communication to the Museum by the donors of John Stewart having had any role in the creation of the albums; the donors' daughter, Barbara Heriot, does not recall any family story of John Stewart having collected plants. John Stewart has no mentions in records of Australian botanical history, in a search of several obvious sources: as a plant collector in the Australasian Virtual Herbarium, in the records at the Library of the Royal Botanic Gardens, Melbourne, as a correspondent with Baron Ferdinand von Mueller, who engaged a vast group of amateur botanic collectors around Australia (P. Bertling, pers. comm., 2023); or in the list of known nineteenth century collectors compiled by George (2009).

Though there is no written documentation linking Stewart to Bäuerlen, Stewart would have had opportunities to meet Bäuerlen, not least through the Shoalhaven Agricultural and Horticultural Society, including at their annual show in February 1884, when Bäuerlen 'exhibited a set of specially bound volumes of the ferns of the Illawarra' (Martin 2013) or at his lecture about the *Bonito* expedition for the Society in Nowra in March 1886. Our research suggests that Stewart would have been involved in the activities of both the Broughton Creek and Shoalhaven societies, for reasons including that the Broughton Creek society was a 'splinter' from the Shoalhaven society, including with its initial financial support when it was agreed in 1883 that two societies could be supported in the area.

Botanical interest

No collection locations are provided for the specimens but the albums provide insight into species that were likely present in the Illawarra-Shoalhaven in the 1880s; almost all can still be found in that region. Several are notable for their rarity. Lastreopsis hispida, mentioned above, is listed as endangered in NSW and thought to be extinct on the NSW South Coast (Mills 2023). Of the nine Lastreopsis hispida collections in NSW herbaria, eight are from the Blue Mountains (Mt Wilson area), the other is a Bäuerlen specimen from Brogers Creek, Kangaroo Valley. The specimen in the fern album would be the second collection from the NSW South Coast, if it was obtained there. Another threatened species Solanum celatum A.R.Bean in the flowering plant album is endemic to the area between Wollongong, Goulburn, and Tomerong; see Figure 11. This species is quite common in Kangaroo Valley where Bäuerlen's specimen may well have been gathered.

The specimens and albums have botanical history significance in being compiled and almost certainly collected by Bäuerlen, an important 19th Century botanical collector. Nine NSW plant species are named in his honour, five by Ferdinand von Mueller. One of those, Correa baeuerlenii F.Muell., appears in the flowering plants album (Figure 12). The type specimen was gathered by Bäuerlen in 1884 "on stony banks of rivulets of the Upper Clyde" (von Mueller 1884). It has an interesting disjunct distribution, a population in the upper Clyde River valley-Budawang Range area, the type locality, and another some 60 km to the south, in the Biamanga-Mimosa Rocks area. A specimen identified as 'Lomaria Bauerlenii' in the fern album, but now known as Blechnum camfieldii author, was named Lomaria capensis var. bauerlenii by Frederick Bailey in 1884, the type specimen 'found by Mr. W. Baeuerlen in the Illawarra districts of N.S.Wales' (Bailey 1884).



Figure 11. The shrub *Solanum celatum* A.R.Bean in album B70.1. The dense stellate hairs are typical of this species. Photo: Kevin Mills.



Figure 12. The shrubs *Correa baeuerlenii* F.Muell. (right) and *Correa lawrenceana* Hook. (left) in album B70.1; the latter is probably variety *macrocalyx*. Photo: Phil Bragg.

Possibility of other Bäuerlen albums

Despite searching for plant albums across a wide range of likely Australian collecting institutions, including historical societies on the NSW South Coast, no additional albums have been located. The Stewart albums may well be the only surviving copies of a series of albums produced by Bäuerlen in the 1880s, but as the historical newspaper pieces suggest he sold numerous fern albums, it is possible that others still exist in public or private

ownership. Future discoveries in Australian collecting institutions are not precluded, even in the institutions already consulted; cataloguing can affect the level to which objects are discoverable in a collection and/or a copy could be newly acquired. Copies may also be held privately. In the light of this possibility, Johnston (2023) requested news of any similar albums through the project email address SeekingWB@gmail.com. We extend this call to readers of *Cunninghamia*.

If more albums could be located and studied, some of the remaining mysteries about Bäuerlen's pressed plant albums and his early years in Australia may be resolved. To help with the recognition of other albums, we highlight three points.

- First, albums compiled by Bäuerlen may not be marked with his signature or initials. The foremost clues suggesting as album by Bäuerlen are his characteristic handwriting, combined with similarity to the Stewart albums in the arrangement of specimens and other elements of format.
- Secondly, as Bäuerlen may have purchased different 'blank' albums, there may be variations in the exterior appearance, size and number of pages, as well as in the species included and the number of species represented.
- Thirdly, we have found no historical record of Bäuerlen selling albums of flowering plants, as opposed to ferns. This raises the question of whether Stewart's flowering plant album was a 'one-off' by Bäuerlen for Stewart at that time, perhaps related to that first-time election of Stewart as President of the Broughton Creek Horticultural and Agricultural Society in 1886.

Conclusion

A combination of evidence convincingly demonstrates that two albums of pressed plants once owned by John Stewart, and now held by the Berry & District Historical Society, were compiled by William Bäuerlen. John Stewart is ruled out as the compiler; he inscribed them to mark his ownership. The albums are of considerable historical and botanical significance; the absence of specific locations and dates for specimens is made up by the contextual evidence provided in this paper.

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Appendix 1 List of plants contained in the two albums (B70.1, B70.2) held at the Berry Museum. Album 1 totals - 34 pages, 90 specimens, 90 species. Album 2 totals - 31 pages, 65 specimens, 61 species.

Current names are those used by Australian Plant Census.

Page No./Specimen No.	Current Name	Notes	Habit
FLOWERING PLANTS ALBUM 1 (B70.1)			
John Stewart, Broughton Creek, 26 th	lug. 1886.		
Page 1			
1. Sturmia reflexa	Cestichis reflexa, syn. Liparis reflexa	moss; flowers	orchid
2. Tetratheca thymifolia	Tetratheca thymifolia	flowers	shrub
3. Acacia hakeoides	Acacia myrtifolia	flowers; incorrect original ID	shrub
4. Viola hederacea	Viola hederacea	flowers	herb
Page 2			
1. Ranunculus lappaceus	Ranunculus Iappaceus	moss; flowers	herb
2. Brachycome scapiformis	Brachyscome spathulata	flowers	herb
3. Viola betonicifolia	Viola betonicifolia	flowers	herb
Page 3			
1. Kennedya rubicunda	Kennedia rubicunda	flowers	creeper
2. Billardiera scandens	Billardiera mutabilis	flowers; also on frontispiece	creeper
Page 4			
1. Indigofera australis	Indigofera australis	flowers	shrub
2. Correa alba	Correa alba	flowers	shrub
Page 5			
1. Actinothus helianthi	Actinotus helianthi		herb
2. Callistemon linearis	Callistemon linearis		shrub
3. Sarchochilus Hillii	Sarcochilus falcatus	flowers; leaves not S. hillii	orchid
Page 6			
1. Isotoma axillaris	Isotoma axillaris	flowers	herb
2. Diuris maculata	Diuris maculata	flowers	orchid
3. Sowerbya juncea	Sowerbaea juncea	flowers lost	herb
Page 7			
1. Helichrysum semipapposum	Chrysocephalum semipapposum	moss; flowers	herb
2. Boronia Barkeriana	Boronia barkeriana	flowers	herb
3. Goodenia stelligera	Goodenia stelligera	flowers	herb
4. Boronia parviflora	Boronia parviflora	specimen lost	herb
Page 8			
1. Scaevola aemula	Scaevola aemula	flowers	herb
2. Helichrysum rosmariniformis	Ozothamnus rosmarinifolius	flowers	shrub
Page 9			
1. Helypterum incana	Leucochrysum alpinum	flowers; alpine	herb
2. Humea elegans	Calomeria amaranthoides	flowers	herb
-	Caustis flexuosa	no name provided in album	sedge
Page 10			
I. Gompholobium grandiflorum	Gompholobium grandiflorum	flowers	shrub
2. Didiscus pilosa	Trachymene composita var. composita	flowers	herb
3. Pultenaea daphnoides	Pultenaea daphnoides	flowers	shrub
Page 11			
1. Scavola hispida	Scaevola ramosissima	flowers	herb
2. Helichrysum lucidum	Xerochrysum bracteatum	flowers	herb
Page 12			
1. Mirbelia grandiflora	Mirbelia platylobioides	flowers	shrub
2. Howittia trilocularis	Howittia trilocularis	flowers	shrub
1. Mirbelia grandiflora	• •		

Page No./Specimen No.	Current Name	Notes	Habit
Page 13			
1. Grevillea Miqueliana	Grevillea miqueliana	flowers; Victoria	shrub
2. Rubus mollucanus	Rubus moluccanus var. trilobus	flowers	vine
Page 14			
1. Boronia ledifolia	Boronia ledifolia	flowers	shrub
2. Lythrum hyssopifolium	Lythrum salicaria	flowers; incorrect original ID	herb
3. Goodia latifolia	Goodia latifolia	flowers	shrub
Page 15			
1. Gompholobium latifolium	Gompholobium latifolium	flowers	shrub
2. Pultenea stricta	Pultenaea stricta	flowers; Victoria/SA	shrub
3. Bauera rubioides	Bauera rubioides	flowers	shrub
4. Pimelia colorrans	Pimelea stricta	flowers	shrub
Page 16			
1. Pelargonium australe	Pelargonium australe	flowers	herb
Page 17			
1. Comesperma sphaerocarpa	Comesperma sphaerocarpum	flowers	herb
2. Boronia pinnata	Boronia pinnata	flowers	shrub
Page 18			
1. Alternanthera driandra	Alternanthera denticulata	flowers	herb
2. Commelina cyanea	Commelina cyanea	flowers	herb
Page 19			
1. Leptorhynchus nitidus	Leptorhynchos nitidulus	flowers	herb
2. Dampiera stricta	Dampiera stricta	flowers	herb
3. Cassinia quinquefaria	Cassinia quinquefaria	flowers	shrub
4. Dracophyllum secondum	Dracophyllum secundum	flowers	herb
Page 20			
1. Eriostemon phylicioides	Leionema diosmeum	flowers	shrub
2. Dodonaea viscosa	Dodonaea viscosa	flowers	shrub
3. Solanum aviculare	Solanum celatum	flowers; incorrect original ID	shrub
Page 21			
1. Acacia longifolia	Acacia longifolia ssp. longifolia	flowers	shrub
2. Bossiaea heterophylla	Bossiaea heterophylla	flowers	shrub
Page 22			
1. Kennedya prostrata	Kennedia prostrata	flowers	creeper
Page 23			
1. Callicoma serratifolia	Callicoma serratifolia	flowers	tree
Page 24			
1. Correa Lawrenciana	Correa lawrenceana	flowers	shrub
2. Correa Bauerlenii	Correa baeuerlenii	flowers	shrub
Page 25			
1. Oxylobium trilobatum	Podolobium ilicifolium	flowers	shrub
Page 26			
1. Hibbertia volubilis	Hibbertia dentata	flowers; incorrect original ID	creeper
2. Cassia australis	Senna barronfieldii	flowers	shrub
Page 27			
1. Stypandra longifolia	Stypandra glauca	flowers	herb
2. Tecoma jasminoides	Pandorea pandorana	flowers	vine
Page 28			
1. Eriostemon lepidotus	Phebalium squamulosum	flowers	shrub
2. Pimelia linifolia	Pimelea linifolia	flowers	shrub
3. Trifolium arvense	Trifolium arvense	flowers, roots; introduced	herb

Page No./Specimen No.	Current Name	Notes	Habit
Page 29			
1. Eriostemon saligna	Crowea saligna	flowers	shrub
2. Baeckea crenulata	Baeckea brevifolia	flowers; incorrect original ID	shrub
3. Platylobium formosum	Platylobium formosum	flowers	shrub
Page 30			
1. Oxylobium cordifolium	Oxylobium cordifolium	flowers	shrub
2. Pultenea pycnocephala	Pultenaea pycnocephala	flowers; North Coast of NSW	shrub
3. Epacris impressa	Epacris impressa	flowers	shrub
Page 31			
1. Kennedya monophylla	Hardenbergia violacea	flowers	creeper
2. Styphelia amplexicaulis	Leucopogon amplexicaulis	flowers	shrub
3. Goodenia ovata	Goodenia ovata	flowers	shrub
Page 32			
1. Linum marginale	Linum marginale	flowers	shrub
2. Sprengelia incarnata	Sprengelia incarnata	flowers	shrub
3. Erythraea australis	Schenkia australis	flowers	herb
4. Anthemis cotula	Anthemis cotula	flowers; introduced	herb
Page 33			
1. Acianthus fornicates (1)	Acianthus fornicatus	flowers; numbers mixed up	orchid
2. Pterostylis parviflora (4)	Pterostylis parviflora	flowers	orchid
3. Glossodia major (3)	Glossodia major	flowers	orchid
4. Pterostylis acuminata (2)	Pterostylis acuminata	flowers	orchid
5. Caladenia suavuolens (6)	Lyperanthus suaveolens	flowers	orchid
Page 34			
1. Pultenea ternata	Pultenaea spinosa	flowers	shrub
2. Helypterum dealbatum	Argentipallium dealbatum	flowers; Victoria/Tas.	herb
3. Pultenea retusa	Pultenaea retusa	flowers	shrub
4. Chloanthes stochaedis	Chloanthes stoechadis	flowers	herb
FERN ALBUM 2 (B70.2)			
John Stewart, Broughton Creek, 2	26 th Aug. 1886		
Page 1			

comin otomart, Broagmon orcon, 20	, , , , , , , , , , , , , , , , , , ,		
Page 1			
1. Botrychium ternatum	Botrychium australe	lichen; fertile frond	fern
2. Pteris paradoxa	Pellaea calidirupium	fertile frond	fern
3. Polypodium australe	Notogrammitis billardierei	fertile frond	fern
4. Hymenophyllum javanicum	Hymenophyllum australe		fern
Page 2			
1. Notholaena distans	Cheilanthes austrotenuifolia	moss, lichen; fertile frond	fern
2. Gramanitis rutaefolia	Asplenium subglandulosum	tablelands	fern
Page 3			
1. Adiantum plumosum	Adiantum aethiopicum	moss, lichen; fertile frond	fern
2. Polypodium scandens	Dendroconche scandens	fertile frond	fern
3. Trichomanes apiifolium	Abrodictyum cordatum	fertile frond	fern
Page 4			
1. Asplenium umbrosum	Diplazium australe		fern
Page 5			
1. Aspidium aculeatum	Polystichum australiense	moss (2), lichen; fertile frond	fern
2. Doodia blechnoides	Blechnum rupestre	fertile frond	fern
Page 6			
1. Asplenum falcatum	Asplenium polyodon	moss, lichen; fertile frond	fern
2. Lomaria capense	Blechnum wattsii	fertile frond	fern

Page No./Specimen No.	Current Name	Notes	Habit
Page 7			
1. Davallia pixidata	Davallia solida var. pyxidata	lichen; fertile frond	fern
2. Hymenophyllum tunbridgense	Hymenophyllum cupressiforme		fern
Page 8			
1. Asplenium bulbiferum	Asplenium gracillimum	moss (2), lichen; fertile frond	fern
Page 9			
1. Adiantum hispidulum	Adiantum hispidulum	moss, lichen; fertile frond	fern
2. Lomaria Patersonii	Blechnum patersonii		fern
Page 10			
1. Asplenium marinum	Asplenium obtusatum ssp. northlandicum moss, lichen; fertile frond		fern
2. Asplenium marinum var. dimorphum	Asplenium difforme		fern
3. Adiantum diaphanum	Adiantum diaphanum	fertile frond	fern
Page 11			
1. Todea barbara	Todea barbara	lichen; fertile frond	fern
Page 12			
1. Doodia caudata	Blechnum rupestre	lichen; fertile frond	fern
2. Todea Fraseri	Leptopteris fraseri	locally rare	fern
3. Trichomanes venosum	Polyphlebium venosum	fertile frond	fern
Page 13			
1. Aspidium acuminatum	Lastreopsis acuminata	moss (2), lichen; fertile frond	fern
Page 14			
1. Asplenium flaccidum	Asplenium flaccidum	lichen; fertile frond	fern
2. Asplenium flabellatum	Asplenium flabellifolium	fertile frond	fern
Page 15			
1. Gleichenia Hermanii	Dicranopteris linearis	lichen; locally extinct	fern
2. Gleichenia dicarpa	Gleichenia dicarpa		fern
Page 16			
1. Aspidium molle	Christella dentata	lichen; fertile frond	fern
2. Notholaena vellea	Cheilanthes distans		fern
Page 17			
1. Lomaria discolor	Blechnum nudum	lichen; fertile frond	fern
2. Lindsaya linearis	Lindsaea linearis	fertile frond	fern
3. Lindsaya trichomanoides	Lindsaea trichomanoides	fertile frond; rare	fern
Page 18			
1. Lindsaya microphylla	Lindsaea microphylla	lichen; fertile frond	fern
2. Asplenium Trichomanes	Asplenium trichomanes	fertile frond; limestone	fern
Page 19			
1. Asplenium nidus	Asplenium australasicum	moss; fertile frond	fern
2. Lomaria alpina	Blechnum penna-marina ssp. alpina	fertile frond; alpine	fern
3. Aspidium capense	Rumohra adiantiformis	fertile frond	fern
Page 20			
1. Aspidium hispidum	Lastreopsis hispida	fertile frond	fern
Page 21			
1. Lomaria Bauerlenii	Blechnum camfieldii	lichen	fern
2. Hymenophyllum bivalve Page 22	Hymenophyllum bivalve		fern
1. Asplenium javanicum	Deparia petersenii ssp. congrua	moss, lichen; fertile frond	fern
2. Blechnum cartilagineum	Blechnum cartilagineum	fertile frond	fern
Page 23			
1. Pteris tremula	Pteris tremula	moss, lichen; fertile frond	fern
2. Schizaea rupestris	Schizaea rupestris	fertile frond	fern

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Page No./Specimen No.	Current Name	Notes	Habit
Page 24			
1. Lomaria fluviatilis	Blechnum camfieldii	moss, lichen; fertile frond; Incorrect original ID	fern
2. Schizaea dichotoma	Schizaea dichotoma	fertile frond	fern
Page 25			
1. Pteris vespertilionis	Histiopteris incisa	fertile frond	fern
2. Pteris umbrosum	Pteris umbrosa		fern
Page 26			
1. Aspidium ramosum	Arthropteris tenella	fertile frond	fern
2. Polypodium serpens	Pyrrosia rupestris	fertile frond	fern
-	Arthropteris beckleri	not named	fern
Page 27			
1. Pteris aquiline	Pteridium esculentum	fertile frond	fern
2. Lomaria pinnata	Blechnum nudum cristate form		fern
3. Aspidium unitum	Arthropteris beckleri	fertile frond	fern
Page 28			
1. Polypodium punctatum	Hypolepis glandulifera	moss, lichen; fertile frond	fern
Page 29			
1. Hymenophyllum flabellatum	Hymenophyllum flabellatum	fertile frond	fern
Page 30			
1. Platycerium alciocornis	Platycerium bifurcatum	Platycerium piece; fertile	fern
2. Pteris falcata	Pellaea nana	fertile frond	fern
3. Dicksonia antarctica	Dicksonia antarctica		fern
Page 31			
1. Polyhpodium pustulatum	Zealandia pustulata	lichen; fertile frond	fern
2. Trichomanes digitatum	Hymenophyllum lyallii	fertile frond	fern