



## The demise of *Styphelia biflora* (Ericaceae: Styphelieae)

A.R. Bean

Queensland Herbarium and Biodiversity Science, Department of Environment and Science, Mt Coot-tha Road,  
Toowong 4066, Queensland

Corresponding author: [tony.bean@des.qld.gov.au](mailto:tony.bean@des.qld.gov.au)

A.R. Bean  <https://orcid.org/0000-0002-4116-2810>



© Copyright of this paper is retained by its authors, who, unless otherwise indicated, license its content under a CC BY 4.0 license

---

### Abstract

An examination of the type of *Leucopogon biflorus* R.Br. (current name *Styphelia biflora* (R.Br.) Spreng.) has shown that it belongs in *Styphelia setiger* (R.Br.) Spreng., hence *S. biflora* is placed in the synonymy of *S. setiger*. The next available name for the taxon previously known as *Styphelia biflora* is *Leucopogon sparsus* A.Cunn. ex DC. The new combination *Styphelia sparsa* (A.Cunn. ex DC.) A.R.Bean is made here. A lectotype is chosen for both *Leucopogon sparsus* and *L. setiger* R.Br.

Cite this paper as: Bean AR (2024). The demise of *Styphelia biflora* (Ericaceae: Styphelieae). *Australian Journal of Taxonomy* 65: 1–3. doi: <https://doi.org/10.54102/ajt.qbczg>

---

### Introduction

Robert Brown (Brown 1810) named seven *Leucopogon* species from the Sydney area (designated "(J.)" in his Prodomus), viz. *L. appressus*, *L. biflorus*, *L. deformis*, *L. esquamatus*, *L. juniperinus*, *L. muticus* and *L. setiger*. All of these species have been subsequently recorded multiple times from the Sydney region, except *L. biflorus*, whose closest occurrence to Sydney is near Dubbo, some 400 km away.

Candolle (1839) accepted both *L. biflorus* and *L. setiger*, and added *L. sparsus* A.Cunn. ex DC., based on a collection made by Allan Cunningham from the Liverpool Plains. It is notable that Candolle's description of *L. biflorus* is briefer than usual and is not followed by the annotation "(v.s.)", hence he apparently did not see any specimen of it.

Mueller (1864) wrote "L. setiger is not reliably recognised from the diagnoses published so far, and perhaps it should be united with *L. biflorus*", and a few years

later (Mueller 1867) he reduced *L. biflorus* to a synonym of *Styphelia setiger*. That was quickly overturned by Bentham (1868), who stated that "the long peduncles and narrow sepals [of *L. setiger*] appear to me to be constant, and give it a very different aspect [compared to *L. biflorus*]". In making this comment, Bentham reveals that he did not examine the type of *L. biflorus*, which also has long peduncles and narrow sepals. Also, he attributed the Port Jackson collection of *L. biflorus* to Brown, when in fact the collection was made by Pater-son. Nevertheless, all botanists since that time have followed Bentham's opinion.

Close examination of type material shows that the type of *L. biflorus* matches that of *L. setiger*, and it is here reduced to a synonym of that name. However, the species that for many years has been recognised under the name *L. biflorus* is distinct and warrants recognition; it is here recombined (using the next-available name as a basionym) as *Styphelia sparsa* (A.Cunn. ex DC.) A.R.Bean.

---

This paper was submitted on 15 May 2024 and published on 19 June 2024 (2024-06-18T22:17:52.637Z). It was reviewed by Peter Jobson and Darren Crayn, and edited by Subject Editor Tim Hammer under the guidance of Associate Editor Kevin Thiele. *Australian Journal of Taxonomy*. ISSN: 2653-4649 (Online).

## Taxonomy

### *Styphelia setigera* (R.Br.) Spreng., *Syst. Veg.* ed. 17, 1: 659 (1824).

Basionym: *Leucopogon setiger* R.Br., *Prodr.* 545 (1810). Type: Middle Harbour, [Sydney,] February 1803, R. Brown s.n. (lecto: BM 001040171, here chosen; isolecto: BM 001040172).

*Leucopogon biflorus* R.Br., *Prodr.* 545 (1810); *Styphelia biflora* (R.Br.) Spreng., *Syst. Veg.* ed. 17, 1: 659 (1824). Type: 'perhaps from Middle Harbour', Port Jackson, undated, W. Paterson s.n. (holo: BM 001040082).

I have examined the high-quality image of the holotype of *L. biflorus* at BM, and made the following observations and measurements:

Branchlets seemingly glabrous; leaves lanceolate, ± flat, strongly discolorous, 7.0–8.3 × 1.7–1.9 mm, including a pungent acumen 0.8–1.1 mm long. Inflorescence axillary, peduncle 3.9–7.3 mm long, bearing 1 terminal flower, and often with a second sub-terminal flower. Sepals acute, 2.6–3.1 mm long, glabrous; corolla lobes 1.9–2.3 mm long, bearing dense hairs 0.6–0.8 mm long on inner surface, outer surface glabrous. Style protruding from spent flower, c. 3.3 mm long, glabrous (at least on protruding part), stigma not expanded.

All of these features and measurements agree very well with herbarium specimens of *L. setiger*, and published descriptions of it. Particularly diagnostic is the relatively long peduncle. The glabrous outer surface of the sepals and corolla lobes exclude the similar *S. exolasia* F.Muell. It is clear that *L. biflorus* and *L. setiger* are conspecific, confirming the opinion of Mueller.

*Distribution:* Endemic to New South Wales. It extends from Wollemi National Park, NW of Sydney, to Eden on the south coast (AVH 2024).

*Notes:* The lectotype of *L. setiger* has a label handwritten by Robert Brown giving the location 'Middle Harbour'. The type of *L. biflorus* similarly has a label handwritten by Robert Brown specifying the collector as Colonel Paterson, and the locality as given above.

---

### *Styphelia sparsa* (A.Cunn. ex DC.) A.R.Bean *comb. nov.*

Basionym: *Leucopogon sparsus* A.Cunn. ex DC., *Prodr.* 7(2): 751 (1839). Type: New South Wales. rocky hills near Liverpool Plains, May 1825, A. Cunningham s.n. (lecto: G 00455450, here chosen; isolecto: MEL 669027).

[*Leucopogon biflorus* auct. non R.Br.]

The earliest available name for the taxon previously identified as *Styphelia biflora* is *Leucopogon sparsus* A.Cunn. ex DC. The new combination *Styphelia sparsa* (A.Cunn. ex DC.) A.R.Bean is made here.

*Distribution:* In Queensland, *S. sparsa* extends as far north as Blackdown Tableland (west of Rockhampton), as far east as Brisbane, and west to Mount Playfair in the Carnarvon Ranges. In New South Wales, it extends west to the Pilliga State Forest, south to around Dubbo, and east to Glenreagh.

*Notes:* The name *Leucopogon biflorus* (now *Styphelia biflora*) has been misapplied by all authors since Bentham (1868).

The type of *L. sparsus* bears only leaves and flower buds, but it is sufficient to fix the application of the name. There is only one species in that geographical area (Coonabarabran-Gunnedah-Coolah) that has leaves of this size, shape and orientation and with the long spinose acumen, the short peduncles, and the flowers often in pairs. The other species recorded on AVH (2024) from this area, namely *S. triflora*, *S. viridis*, *S. attenuata*, *L. affinis* and *S. mutica*, are quite different in their leaf morphology and/or inflorescence structure.

*Styphelia sparsa* is distinguished by its divaricate leaves with a long pungent acumen, the short peduncle, long pendulous flowers (often in pairs) with white corolla and sepals, and the relatively long style with unexpanded stigma. Like other widespread species, it is quite variable, but none of the variants seems worthy of taxonomic recognition.

Cunningham climbed seven hills or mountains during his 1825 expedition, looking for interesting and new plants and to take bearings to other mountains (Whitehead 2017). It is still unclear from which hill he collected *S. sparsa*.

Bentham (1868) included *Leucopogon similis* Sond. (published in 1845) as a synonym of *L. biflorus*. The identity of *L. similis* remains in doubt; I have not been able to find any type material for this name. The protologue refers to a specimen in the Paris herbarium, but staff at P have been unable to find any potential type for the name.

## Disclosures

No conflict of interest

## Acknowledgments

I am grateful to the staff at P for their efforts to find type material of *Leucopogon similis*, and to Kevin Thiele for helpful suggestions with the text.

## References

- AVH (2024). The Australasian Virtual Herbarium. Council of Heads of Australasian Herbaria, <<https://avh.chah.org.au>>, accessed 3 May 2024.
- Bentham, G. (1868). *Leucopogon*. In *Flora Australiensis*, Volume 4, pp. 176–225. L. Reeve & Co.: London.
- Brown, R. (1810). *Prodromus Florae Novae Hollandiae et Insulae van-Diemen*.

Candolle, A.P. de (1839). *Leucopogon*. In *Prodromus systematis naturalis regni vegetabilis* 7(2): 743--754. Treuttel & Wurtz: Paris.

Mueller, F. (1864). *Leucopogon biflorus*. *Fragmenta Phytographiae Australiae* 4: 104.

Mueller, F. (1867). *Styphelia setigera*. *Fragmenta Phytographiae Australiae* 6: 45.

Whitehead, J. (2017). Tracking and mapping the explorers Volume 5; Cunningham's 1825 expedition across the Liverpool Plains. J. Whitehead: Coonabarabran.



This paper was typeset using Prince

[www.princexml.com](http://www.princexml.com)