A taxonomic reassessment of *Styphelia cuspidata* (R.Br.) Spreng. (Ericaceae) with the description of two new species *S. cognata* A.R.Bean and *S. lucens* A.R.Bean

A.R. Bean

Summary

Bean, A.R. (2020). A taxonomic reassessment of *Styphelia cuspidata* (R.Br.) Spreng. (Ericaceae) with the description of two new species *S. cognata* A.R.Bean and *S. lucens* A.R.Bean. ***Austrobaileya* 10(4): 604–611**. A morphological reassessment of specimens identified as *Styphelia cuspidata* (R.Br.) Spreng. (syn. *Leucopogon cuspidatus* R.Br.) has revealed the existence of three taxa that differ at species rank. In this paper, these three species, all endemic to Queensland, are described, compared and illustrated. Two new species, *Styphelia cognata* A.R.Bean and *S. lucens* A.R.Bean are named.

Key Words: Ericaceae; *Leucopogon*; *Styphelia*; *Styphelia cognata*; *Styphelia cuspidata*; *Styphelia lucens*; Australia flora; Queensland flora; new species; taxonomy

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Introduction

A wide ranging phylogenetic analysis of the Tribe *Styphelieae* of Ericaceae (Puente-Lelièvre *et al.* 2016) confirmed previous studies showing *Leucopogon* R.Br. to be polyphyletic, necessitating either numerous extra generic names, or the merging of many of its species into *Styphelia* Sm. The authors have chosen the second option, arguing that the splitting option would result in the recognition of some genera that had no morphological diagnostic features. Since that paper, Hislop & Puente-Lelièvre (2017) and Crayn *et al*. (2019) have published new species of *Styphelia* using the expanded circumscription. The necessary new combinations in *Styphelia* have recently been published (Crayn *et al.* 2020).

Specimens filed under *Leucopogon cuspidatus* R.Br. (now *Styphelia cuspidata* (R.Br.) Spreng.) were observed by the present author to be heterogeneous, and a detailed examination revealed that three taxa were involved, *S. cuspidata* and two new species, described here as *S. lucens* A.R.Bean and *S. cognata* A.R.Bean.

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Materials and methods

This paper is based on a morphological study of herbarium specimens at BRI, as well as specimen images, indicated as *i.d.v.* (*imago digitalis visa*), held at BM, NSW, K, L, P, G and MEL. All measurements are based on dried material with dimensions inclusive, i.e. 1.0–1.7 is given as 1–1.7.

Morphological characteristics of the three species previously comprising *S. cuspidata sens. lat.* and the putative close relative *S. trichostyla* (J.M.Powell) Hislop, Crayn & Puente-Lel. are compared in **Table 1**.

In the specimen citations, Mountain or Mount is abbreviated as Mt and National Park as NP.

Taxonomy

Styphelia cognata A.R.Bean **sp. nov.** With affinity to *S. cuspidata*, but differing by the shorter and narrower leaves (5.4–9 × 1.5–2.1 mm), the often 1-flowered inflorescences, the narrower fruits (1.4–1.5 mm diameter) and the glabrous style. **Typus:** Queensland. Port Curtis District: Glen Geddes siding forestry reserve, 15 May 1998, *G.N. Batianoff 98059R & T. Ryan* (holo: BRI; iso: AD, DNA, K, MEL, NSW).

[*Styphelia cuspidata* (R.Br.) Spreng. *pro parte*]

Shrub 0.3–1.5 m high. Young branchlets white, grey or brown, with dense hispidulous patent hairs *c*. 0.05 mm long. Older stems glabrescent, with fissured grey to brown bark. Leaves spirally arranged, strongly antrorse, obovate to oblanceolate, the larger ones 5.4–9 × 1.5–2.1 mm, *c*. 0.1 mm thick, apex acuminate (acumen pungent, 0.8–1.6 mm long), base cuneate; petiole indistinct, *c*. 0.5 mm long, or absent. Lamina concave, mostly glabrous but with tiny hairs (0.03–0.05 mm long) near the base and apex, margins glabrous. Upper surface very shiny, venation scarcely evident; lower surface dull, with 6–9 slightly raised parallel veins (measured at base of leaf; 9–13 when measured midway along leaf), midrib not differentiated. Inflorescence borne in upper leaf axils of each branchlet, usually 1-flowered, sometimes 2-flowered. Peduncle 1–1.5 mm long. Fertile bract broadly ovate to orbicular, *c*. 0.8 × 0.7 mm, brown, apex obtuse to subacute, both surfaces glabrous, venation obscure. Bracteoles broadly elliptical, cymbiform, 2.2–2.5 × 1.2–1.3 mm, brown, surfaces glabrous, margin ciliolate, venation obscure, apex apiculate. Sepals lanceolate, 2.8–3.4 mm long, 0.8–0.9 mm wide, slightly longer than corolla tube, pale brown, apex acute to acuminate, glabrous except for tiny hairs in the apical 0.5 mm, margins glabrous, venation obscure. Corolla tube cylindrical, 2.2–2.9 mm long, 0.9–1.4 mm diameter, white, outer surface glabrous, inner surface glabrous on proximal two-thirds, densely hairy on distal one-third. Corolla lobes narrowly deltate, recurved at anthesis, 1.8–2.7 mm long, outer surface glabrous, inner surface densely hairy (obscuring corolla surface) except on apical 0.2–0.4 mm, hairs 0.25–0.4 mm long. Stamens with anthers brown, glabrous, 0.7–0.85 mm long, partially exserted from corolla tube, sterile tips absent, filament attached to upper half of anther; filaments straight, inserted near top of corolla tube. Nectary lobed, *c*. 0.4 mm long. Ovary glabrous, *c*. 0.7 mm long and 0.6 mm diameter, 5-locular. Style straight, glabrous, 2.7–3.6 mm long, slightly exserted from corolla, stigma expanded. Fruits ellipsoidal, 2.5–2.9 mm long, 1.4–1.5 mm diameter, 5-locular, but often only 1 or 2 seeds developing; surface longitudinally striate, glabrous, yellow (*Powell 4669*, *Gittins 878*) when fresh. **Fig. 1A &B, 2A**–**D**.

***Additional selected specimens examined*: Queensland.** Port Curtis District: Marlborough Station, *c*. 43 km NW of Yaamba, Aug 2006, *Harte s.n.* (BRI [AQ752024]); Princhester Conservation Park, Jan 1996, *Hunter JB873* (BRI); Mt Bonnie Doon, Rockhampton, Jan 1989, *Specht 203 & Reeves* (BRI); 4 km W of Kunwarara, between Canoona and Princhester, track to microwave tower, Jun 2011, *Forster PIF38206* (BRI, NSW); 17.5 miles [28.2 km] NW of Yaamba, Aug 1963, *Speck 1714* (BRI, CANB); Atkinsons Road, Canoona, 25 km from Bruce Highway, Mar 1994, *Bean 7536 & Forster* (AD, BRI); 1 km W of Glen Geddes railway siding, May 1989, *Powell 4668* (BRI, MEL, MO, NSW, NY); 1 km W of Glen Geddes rail siding, May 1992, *Forster PIF9890* (BRI, MEL, NSW); 2 km W of Glen Geddes rail siding, Jan 1992, *Forster PIF9403* (BRI, K, MEL, NSW); Glen Geddes, 2–3 km from Bruce Highway, Apr 2008, *Reeves 3466 & Batianoff* (BRI, E, NSW); 300 m S along Bruce Highway from junction with Raspberry Creek road, N of Yaamba, Feb 2014, *Halford QM1206 & Guymer* (BRI, PE); Site 5+, Glen Geddes, N of Rockhampton, Dec 1998, *Batianoff 9812243 et al.* (BRI, MEL, NSW); Glen Geddes on E side of Bruce Highway, between Shoalwater Bay turnoff and Canoona, Mar 1992, *Champion 590* (BRI); Canoona/Yaamba, Shoalwater bay turnoff, Oct 1991, *Batianoff 911016 & Franks* (AD, BRI, MEL, NSW); Canoona, Aug 1964, *Gittins 878* (BRI); *c*. 2 km SE on back road to Canoona, May 1989, *Powell 4669* (BRI, CANB, MEL, NSW, NY); Canoona, *c*. 30 miles [48 km] NNW of Rockhampton, Sep 1943, *Blake 15323* (BRI); Spinifex Hill, The Caves, Livingstone Shire council quarry, Sep 2001, *Batianoff 010916* (BRI).

***Distribution and habitat*:** *Styphelia cognata* is confined to a limited area north of Rockhampton, between Marlborough and The Caves (**Map 1**). It grows on hilly terrain in open woodland of *Corymbia xanthope* (A.R.Bean & Brooker) K.D.Hill & L.A.S.Johnson and *Eucalyptus fibrosa* F.Muell. subsp. *fibrosa*, on shallow soils derived from serpentinite.

***Phenology*:** Flowers are recorded for every month of the year; fruits are recorded for January, April, May, August, September and December.

***Affinities*:** *Styphelia cognata* is closely allied to *S. cuspidata*, but differs by the leaves 5.4–9 × 1.5–2.1 mm (10–18 × 2–4 mm for *S. cuspidata*), the inflorescences 1(–2)-flowered ((1–)2–4-flowered for *S. cuspidata*), the

corolla tube 2.2–2.8 mm long (1.5–1.9 mm long for *S. cuspidata*), and the style glabrous (style conspicuously hairy in lower half for *S. cuspidata*).

***Conservation status*: Least Concern** (IUCN 2012). The species is known from a minimum of 11 subpopulations, and is known from Princhester Conservation Park.

***Etymology*:** The epithet is from the Latin *cognatus* meaning 'closely related'. This is in reference to its overall similarity to *S. cuspidata*.

Styphelia cuspidata (R.Br.) Spreng., *Syst. Veg., ed. 16 [Sprengel]* 1: 657 (1824); *Leucopogon cuspidatus* R.Br., *Prodr. Fl. Nov. Holland.* 545 (1810). **Type:** [Queensland. Port Curtis District:] Northumberland Islands, 29 September 1802, *R. Brown (Bennett Number 2463)* (lecto: BM 001040149 *i.d.v.* [here designated]; isolecto: BRI [AQ0430205], G 00455453 *i.d.v.*, L 0006521 *i.d.v.*, MEL 1512188 *i.d.v.*, P 00760530 *i.d.v.*, P 00760530 *i.d.v.*).

Leucopogon sp. (Border Island G.N.Batianoff 9009182); Crayn (2018).

Shrub 0.4–1.5 m high. Young branchlets white, grey or brown, with dense hispidulous patent hairs *c*. 0.05 mm long. Older stems glabrescent, with fissured grey to brown bark. Leaves spirally arranged, antrorse, obovate to oblanceolate, the larger ones 10–18 × 2–4 mm, *c*. 0.15 mm thick, apex acuminate (acumen pungent, 0.8–1.5 mm long), base cuneate; petiole indistinct, *c*. 0.5 mm long, or absent. Lamina flat or concave, margins glabrous or with short stiff hairs. Upper surface very shiny, mostly glabrous but with tiny hairs (0.03–0.05 mm long) near the base and apex, venation usually visible; lower surface dull, greenish-white, with 6–9 slightly raised parallel veins (measured at base of leaf; 9–13 measured midway along leaf), midrib not differentiated, glabrous or with tiny hairs (0.03–0.05 mm long) throughout. Inflorescence comprising (1–)2–4 flowers borne in upper leaf axils of each branchlet. Peduncle 0–1 mm long. Fertile bract broadly ovate to orbicular, *c*. 0.6 × 0.5 mm, pale brown, apex acute, both surfaces glabrous, venation obscure. Bracteoles broadly elliptical, cymbiform, 1–1.3 × 1–1.1 mm, brown, surfaces glabrous, margin glabrous, venation obscure, apex apiculate. Sepals lanceolate, 2.3–3.1 mm long, 0.8–0.9 mm wide, slightly longer than corolla tube, pale brown, apex acute, glabrous except for tiny hairs in the apical 0.5 mm, margins entire, venation obscure. Corolla tube campanulate, 1.5–1.9 mm long, 1.1–1.5 mm wide at distal end, white, outer surface glabrous, inner surface glabrous on proximal two-thirds, densely hairy on distal one-third. Corolla lobes narrowly deltate, recurved at anthesis, 1.8–2.2 mm long, outer surface glabrous, inner surface densely hairy (obscuring corolla surface) except on apical 0.2–0.4 mm, hairs 0.3–0.4 mm long. Stamens with anthers brown, glabrous, 0.9–1.1 mm long, partially exserted from corolla tube, sterile tips absent, filament attached near mid-point of anther; filaments straight, inserted near top of corolla tube. Nectary lobed, 0.3–0.4 mm long. Ovary glabrous, *c*. 0.8 mm long and 0.8 mm diameter, 5-locular, with one ovule per loculus. Style straight, densely hairy on proximal half, 1.8–3.1 mm long, slightly exserted from corolla, stigma expanded. Fruits ellipsoidal, 2.8–3.3 mm long, 1.8–2.2 mm diameter, 5-locular, but often only 1 or 2 seeds developing; surface smooth or faintly ribbed, glabrous, yellow (*Powell 4671*) or orange (*Bean 2880*) when fresh. **Fig. 1C & D, 2E–H**.

***Additional selected specimens examined*: Queensland.** North Kennedy District: Cateran Bay, Border Island, Sep 1990, *Batianoff 9009182* (BISH, BRI, LAE); Hook Island, Nov 1985, *Batianoff 3602* (BRI); Gulnare Inlet, Pinnacle Rock, Whitsunday Island, Sep 1990, *Batianoff 900915 & Herzle* (BISH, BRI, LAE, SAR); Roma Peak, *c*. 40 km S of Bowen, Jun 1991, *Bean 3362* (BRI, CANB, NSW). South Kennedy District: Redcliff Island, near Finlaysons Point, Seaforth, Aug 1992, *Batianoff 9208132* (AD, BRI); Cascade Creek area, Cape Hillsborough NP, *c*. 30 km NW of Mackay, May 1991, *Bean 3122* (BRI); road to council park, Cape Hillsborough NP, May 1989, *Powell 4667* (BRI, CANB, HO, NSW). Leichhardt District: "Killarney", Jul 1991, *Thompson 206* (BRI); Sydney Heads, close to top, Jun 1991, *Champion 521* (BRI). Port Curtis District: Shoalwater Bay, Pyri Pyri sector, Aug 1999, *Brushe JB1818 et al.* (BRI); Burwood property, *c*. 30 km SW of St Lawrence, Jan 1998, *Elson s.n.* (BRI [AQ659253]); Mt Wheeler, SE side, Aug 1993, *Forster PIF13794 et al.* (BRI, MEL, NSW); Mt Hedlow, 16 km E of Rockhampton, *Anderson 3440* (BRI, NSW);

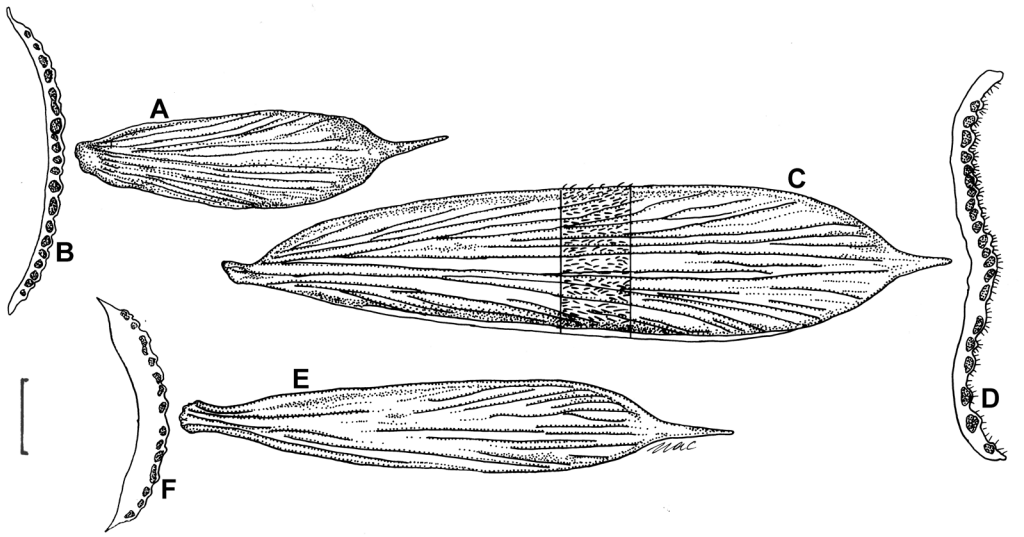

Fig. 1. Leaves of ***Styphelia*** species. ***S. cognata***. A. lower leaf surface. B. cross-section of leaf (upper surface on left). ***S. cuspidata***. C. lower leaf surface. D. cross-section of leaf (upper surface on left). ***S. lucens***. E. lower leaf surface. F. cross-section of leaf (upper surface on left). For A,C,E, scale bar = 1.2 mm; for B,D,F, scale bar = 0.5 mm. A,B from *Champion 590* (BRI); C,D from *Bean 3122* (BRI); E,F from *Batianoff 9403242* (BRI). Scale bar = 10 mm at ×1 magnification. Del. N. Crosswell.

Mt Hedlow, NE of Rockhampton, Apr 1991, *Bean 2880* (BRI); Mt Jim Crow, near Yeppoon, May 1989, *Powell 4671* (BRI, MEL, MO, NSW, NY); upper slopes of Mt Windham, Great Keppel Island, Nov 1987, *Batianoff 9452 & Dillewaard* (BRI); Barren Island, SE of Great Keppel Island, Nov 1987, *Batianoff 9668 & Dillewaard* (BRI, NSW).

***Distribution and habitat*:** *Styphelia cuspidata* is endemic to the central Queensland coast from Hook Island and Roma Peak in the north, to Great Keppel Island and Mt Wheeler in the south (**Map 1**). It inhabits shrublands on hillsides and mountainsides with skeletal soil. The geology is often trachyte.

***Phenology*:** Flowers are recorded for every month of the year; fruits are recorded for March, May, June, July, August and November.

***Typification*:** In 1974, Chew Wee-lek annotated a sheet of *Leucopogon cuspidatus* at BM as the lectotype, but I can find no publication in which the lectotypification was formalised. Therefore, a lectotype is chosen here, and the sheet annotated by Chew is selected.

Bentham (1868: 216) reduced *Acrotriche aristata* Benth. to synonymy with *Leucopogon cuspidatus,* and that synonymy is maintained in the *Australian Plant Census* (APC 2019) and *Plants of the World online* (POWO 2019). There is a single specimen at G (G 00455486) that is reputed to be a type of *Acrotriche aristata* (JSTOR 2019). However, this specimen does not match the protologue very well; both flowers and fruits are well described in the protologue, but neither fruits nor flowers are apparent on the G specimen. G 00455486 is perhaps a syntype of *Lissanthe rigida* Benth., which was named by Bentham in the same publication, and on the same page of the publication. With the exclusion of G 00455486, there is no known authentic specimen of *Acrotriche aristata*. If Bentham did not annotate any specimen with this name, it will be very difficult to confirm authentic material, because the protologue does not list a collector, and the locality given is merely "Australia". *Acrotriche aristata* is unlikely to be synonymous with *Styphelia cuspidata* or its allies because the protologue

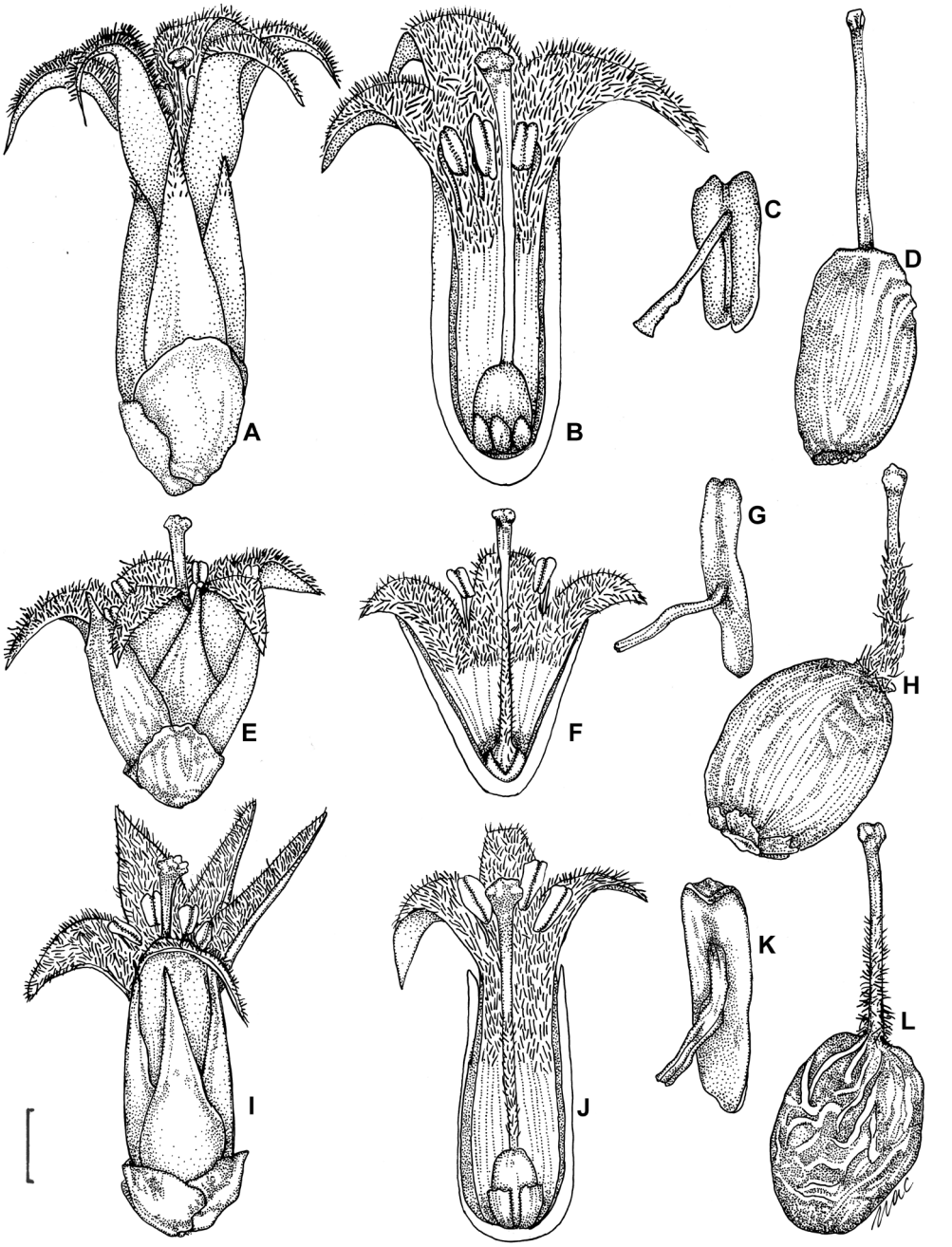

Fig. 2. Flowers and fruits of ***Styphelia*** species. ***S. cognata***. A. lateral view of flower. B. longitudinal section of flower. C. anther showing filament attachment. D. fruit and style. ***S. cuspidata***. E. lateral view of flower. F. longitudinal section of flower. G. anther showing filament attachment. H. fruit and style. ***S. lucens***. I. lateral view of flower. J. longitudinal section of flower. K. anther showing filament attachment. L. fruit and style. For A,B,E,F,I,J scale bar = 0.83 mm; for C,G,K, scale bar = 0.33 mm; for D,H,L, scale bar = 1 mm. A from *Reeves 3466* (BRI); B,C from *Champion 590* (BRI); D from *Gittins 878* (BRI); E–G from *Bean 3122* (BRI); H from *Forster PIF13794* (BRI); I–L from *Batianoff 9403242* (BRI). Scale bar = 10 mm at ×1 magnification. Del. N. Crosswell.

says that the fruits are "oblong", and the branchlets "villous". In *S. cuspidata*, the fruits are ellipsoidal (described by Bentham (1868: 216) as "ovoid"), and the branchlet hairs are hispidulous (described by Bentham (1868: 215) as "minutely pubescent"), while the term 'villous' suggests hairs that are long and shaggy.

***Affinities*:** *Styphelia cuspidata* is morphologically very close to *S. trichostyla*, but *S. cuspidata* differs by the shorter hairs on the branchlets, the shorter leaf acumen, and the shorter style (**Table 1**). The two species are allopatric, with *S. trichostyla* reaching its northern limit at Kroombit Tops, SW of Gladstone. Vegetative specimens of *S. cuspidata* are very similar to a form of *S. mitchellii* (Benth.) F.Muell. that occurs in the Port Curtis District; however, the latter has a corolla tube 5.5–9.5 mm long and a glabrous style 8.5–9.5 mm long.

***Note*:** Brown made his collection of the type of *Styphelia cuspidata* on 29 September 1802, from either Middle Percy Island or nearby Pine Island (Vallance *et al.* 2001). Surprisingly, there are no modern collections of *S. cuspidata* from any of the Percy Islands (AVH 2020).

***Conservation status*: Least Concern** (IUCN 2012). The species is known from several conservation reserves, and is common where it occurs.

Styphelia lucens A.R.Bean **sp. nov.** With affinity to *S. cuspidata* but differing by the somewhat glossy lower leaf surface, the narrower leaves (1.3–1.9 mm wide), the longer anthers (1.3–1.4 mm long), and the much longer corolla lobes (2.5–3.2 mm long). **Typus:** Queensland. North Kennedy District: NE upper slope, Gloucester Island, site 8, 20 April 1994, *G.N. Batianoff 940484 & S. Figg* (holo: BRI; iso: AD, BISH, DNA, L, MEL).

[*Styphelia cuspidata* (R.Br.) Spreng. *pro parte*].

Shrub 0.5–2 m high. Young branchlets white, grey or brown, with dense hispidulous patent hairs 0.02–0.05 mm long. Older stems glabrescent, with fissured grey to brown bark. Leaves spirally arranged, strongly antrorse, oblanceolate, the larger ones 7–12 × 1.3–1.9 mm, *c.* 0.2 mm thick, apex acuminate (acumen pungent, 0.8–1.5 mm long), base cuneate; petiole indistinct, *c.* 0.5 mm long, or absent. Lamina concave, mostly glabrous but with tiny hairs (0.02–0.05 mm long) near the base and apex, margins entire. Upper surface dark green, very shiny, venation scarcely evident; lower surface pale green, somewhat shiny, with 6–9 slightly raised parallel veins (measured at base of leaf; 9–13 measured midway along leaf), midrib not differentiated. Inflorescence comprising 1–2 flowers borne in upper leaf axils of each branchlet. Peduncle 0.5–1 mm long. Fertile bract broadly ovate to orbicular, *c.* 1 × 0.8 mm, brown, apex acute, both surfaces glabrous, venation obscure. Bracteoles broadly elliptical, cymbiform, 1.2–1.6 × 1.1–1.4 mm, brown, surfaces glabrous, margin glabrous, venation obscure, apex acute. Sepals lanceolate, 2.8–3.4 mm long, 0.8–1 mm wide, slightly longer than corolla tube, pale brown, apex acute to acuminate, glabrous except for tiny hairs in the apical 0.5 mm, margins entire, venation obscure. Corolla tube cylindrical, 2–3 mm long, 0.9–1.2 mm diameter, white, outer surface glabrous, inner surface glabrous on proximal half, densely hairy on distal half. Corolla lobes narrowly deltate, recurved at anthesis, 2.5–3.2 mm long, outer surface glabrous, inner surface densely hairy (obscuring corolla surface) except on apical 0.2–0.3 mm, hairs 0.2–0.4 mm long. Stamens with anthers brown, glabrous, 1.3–1.4 mm long, partially exserted from corolla tube, sterile tips absent, filament attached to upper part of anther; filaments straight, inserted near top of corolla tube. Nectary lobed, *c.* 0.5 mm long. Ovary glabrous, *c.* 0.9 mm long and 0.9 mm diameter, 5-locular. Style straight, densely hairy on proximal half, 2.8–3.9 mm long, slightly exserted from corolla, stigma capitate. Fruits ellipsoidal, 2.6–3.4 mm long, 1.6–2 mm diameter, 5-locular, but often only 1 or 2 seeds developing; surface longitudinally striate, glabrous, orange (*Jensen 3952 et al.*; *Bean 4202*) or yellow (*Cumming 22156 & Thompson*) at maturity. **Fig. 1E &F, 2I–L**.

***Additional selected specimens examined*: Queensland.** North Kennedy District: Return Creek track, Taravale, SW of Paluma, May 2009, *Bean 28856 & Jensen* (BRI); 3.3 km S of Taravale Homestead on the Loop Track, Mount Zero–Taravale Wildlife Sanctuary, Jun 2018, *Jensen 3952 et al.* (BRI, CNS); 15 km W of Bluewater, NW of Townsville, Apr 1992, *Bean 4383* (BRI, NSW); Near Mt Cook, Magnetic Island, Aug 1982, *Sandercoe 931* (BRI); Arcadia–Horseshoe Bay, Magnetic Island, Nov 1964, *Jackes s.n.* (BRI [AQ744298]); 1 km NW of Frederick Peak, 25 km SW of Townsville, May 1991, *Bean 3088* (BRI, NSW); Mt Abbot, 50 km W of Bowen, Mar 1992, *Bean 4202* (BRI); *ibid*, Jul 1992, *Bean 4750* (BRI); Mt Bertha, Gloucester Island, Mar 1994, *Batianoff 9403313 et al.* (AD, BISH, BRI); W side of road to Monties Resort [Gloucester Island], Mar 1994, *Batianoff 9403242 & Dillewaard* (AD, BISH, BRI, DNA, MEL); Monties Resort, Cape Gloucester, Mar 1994, *Batianoff 9403243A & Dillewaard* (BRI); Pear Rock hill, Mt Stewart Range, 13 km WNW of Homestead, Mar 2004, *Cumming 22156 & Thompson* (BRI).

***Distribution and habitat*:** *Styphelia lucens* extends from Gloucester Island (E of Bowen) to Taravale (NW of Townsville), mainly close to the coast but with an outlier at Mt Stewart Range, near Pentland (**Map 1**). It grows in shrubland on skeletal soils mainly derived from granite.

***Phenology*:** Flowers have been recorded from March to August, with one record in November. Fruits are recorded from March to July.

***Affinities*:** *Styphelia lucens* is related to *S. cuspidata*, but differs by the pale green, somewhat thicker leaves with a glossy lower surface, the leaves 1.3–1.9 mm wide (2–4 mm wide for *S. cuspidata*), the anthers 1.3–1.4 mm long (0.9–1.1 mm long for *S. cuspidata*), the corolla tube cylindrical (campanulate for *S. cuspidata*), and the corolla lobes 2.5–3.2 mm long (1.5–1.9 mm long for *S. cuspidata*).

***Conservation status*: Least concern** (IUCN 2012). Known from numerous subpopulations with some from National Parks.

***Etymology*:** The epithet is from the Latin *lucens* meaning 'shining'. This is in reference to the glossy leaves in this species.

Table 1. Comparison of *Styphelia cognata, S. cuspidata, S.lucens* and *S. trichostyla*

Species	Style indumentum	Style length	Leaf acumen length	Anther length	Corolla lobe length	Leaf width
Styphelia cognata	glabrous	2.7–3.6 mm	0.8–1.6 mm	0.7–0.85 mm	1.8–2.7 mm	1.5–2.1 mm
Styphelia cuspidata	densely hairy in lower half	1.8–3.1 mm	0.8–1.5 mm	0.9–1.1 mm	1.5–1.9 mm	2–4 mm
Styphelia lucens	densely hairy in lower half	2.8–3.9 mm	0.8–1.5 mm	1.3–1.4 mm	2.5–3.2 mm	1.3–1.9 mm
Styphelia trichostyla	densely hairy in lower half	3.3–4 mm	1.5–2.5 mm	0.8–1 mm	1.7–2.4 mm	1.7–2.7 mm

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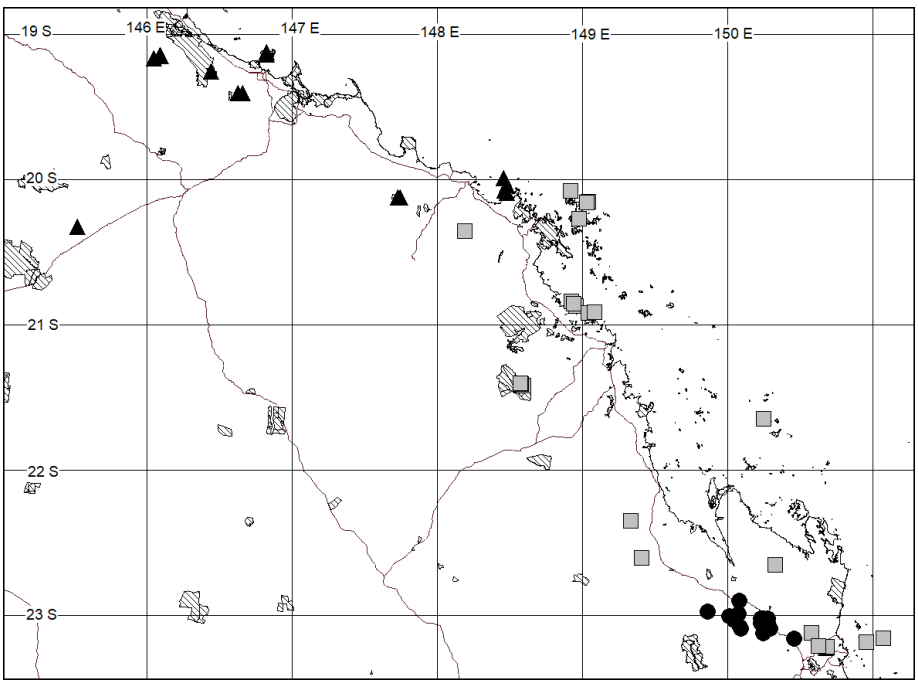

Map 1. Distribution of ***Styphelia cognata*** ●, ***S. cuspidata*** ■, ***S. lucens*** ▲.