

Correa alba Andrews var. *rotundifolia* DC. (Rutaceae): an old name for a newly recognised variety endemic to south-eastern Tasmania

B.-K. Choi^{a,b,c} and M. F. Duretto^a

^a Tasmanian Herbarium, Tasmanian Museum & Art Gallery, Private Bag 4, Hobart, Tasmania 7001, Australia

^b School of Plant Science, University of Tasmania, Private Bag 55, Hobart, Tasmania 7001, Australia

^c Present address: Laboratory of Plant Systematics, Department of Biology, Kyung Hee University, Seoul 130-701, South Korea; e-mail: cbokyung@gmail.com

Introduction

Correa alba Andrews (Rutaceae), though easily identifiable, has had a complicated taxonomic history. The genus and species were first described by Andrews (1798) from material that was grown from seed collected by Sir Joseph Banks from Port Jackson [Sydney] (Table 1). Soon after this Salisbury (1808) indicated that he had never seen plants with petals that were entirely white and so thought the specific epithet, *alba*, was inappropriate. He erected the new name *C. cotinifolia* Salisb. which, as *C. alba* is given in synonymy under var. α , is illegitimate. Labillardiere (1800) described *Mazeutoxeron* Labill. and *M. rufum* Labill. from material he collected in south-eastern Tasmania in 1793 (Table 1). Ventenat (1803) transferred this species to the genus *Correa* Andrews and later, Candolle (1824) published it as a variety of *C. alba*: *C. alba* var. *rotundifolia* DC. The epithet '*rotundifolia*' was again used by Lindley (1838) when he described *C. rotundifolia* Lindl. This taxon was based on material collected from Glenelg River [western Victoria] by T.L. Mitchell in 1836. Bentham (1863) reduced this species to a variety of *C. alba*, *Correa alba* var. *rotundifolia* (Lindl.) Benth., an illegitimate combination as it is a later homonym of *C. alba* var. *rotundifolia* DC. (Table 1). Wilson (1961) determined that the taxon described by Lindley warranted taxonomic recognition and so created the new name *C. alba* var. *pannosa* Paul G. Wilson based on *C. rotundifolia*.

Correa alba is found in near-coastal areas from Kangaroo Island [requires confirmation – see *Distribution* under var. *pannosa*] and the Southern Lofty Region (South Australia) through southern Victoria and to the North Coast of New South Wales. It is also found on the islands of the eastern side of Bass Strait and has a patchy distribution on the northern and eastern coasts, and nearby islands, of the island of Tasmania. Currently two varieties are recognised (see Wilson 1961,

Abstract

The name *Correa alba* Andrews var. *rotundifolia* DC. (Rutaceae) is resurrected for a newly recognised variety endemic to south-eastern Tasmania. *Mazeutoxeron rufum* Labill., the basionym, is lectotypified. A key to the three varieties of *C. alba* is provided as are descriptions and notes.

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1998; Anderson 1986; Duretto 1999; Anonymous 2001; Weston & Harden 2002; Ross & Walsh 2003; Walsh & Stajsic 2007). *Correa alba* var. *alba* is found in New South Wales, eastern Victoria and Tasmania. *Correa alba* var. *pannosa* is found in western Victoria and south-eastern South Australia.

Correa alba var. *alba* shows some variation which was noted by Wilson (1961) who noted that plants in the north had leaves that were 'thinly tomentose below' while plants from further south had leaves that were 'thickly ferruginous tomentose' (see Fig. 1). Typical var. *alba* is found on the East Coast of Tasmania north from Triabunna and across northern Tasmania, on the islands of eastern Bass Strait through eastern Victoria and in coastal New South Wales. The abaxial surface of the leaves has a dense indumentum of stellate hairs that are mostly sessile (Fig. 1A-D). A form from south-eastern Tasmania, the Tasman and Forestier peninsulas, the South Arm area (near Hobart) and Bruny Island, is easily distinguishable in that it has large hairs that are stalked (Fig. 1I-L). There is a 50 km wide gap, between Dunalley and Triabunna, separating the two forms. This second form from the south-east of Tasmania, with the stalked hairs, matches the type material of *Mazeutoxeron rufum* and so the name *C. alba* var. *rotundifolia* DC. can be applied to it (see *Typification* under this variety). *Correa alba* var. *rotundifolia* is similar in appearance to *C. alba* var. *pannosa* as both have large stalked hairs (Fig. 1E-L), but the stalks and rays of the hairs are shorter in var. *rotundifolia*. Also the stalks of the hairs of *C. alba* var. *pannosa* often have a large number of rays along their length, whereas they are smooth and rayless except at the tip in var. *rotundifolia* (see key to varieties below).

Materials and methods

Research was carried out on both herbarium specimens and on material collected in the field. Herbarium material (c. 200 specimens) from the Tasmanian Herbarium (HO), the National Herbarium of Victoria (MEL) and the National Herbarium of Australia (CANB) was studied. This covered the full geographical distribution of *C. alba*. Plant collections of *C. alba* were made in south-eastern Tasmania, in the South Arm area (two populations) and the Tasman Peninsula (three populations). Specimens from three to five widely spaced plants were collected from each population sampled. Specimens have been lodged at the Tasmanian Herbarium. The typical form of *C. alba* var. *alba* was observed in the field by BKC at Swansea, Oyster Bay, Freycinet Peninsula (Tas.) and Jervis Bay (ACT).

For Scanning Electron Microscopy (SEM), leaves of selected specimens were mounted on aluminium stubs using double-sided or carbon tape with carbon paint. Specimens were then coated with platinum using a JFC-1100E ion sputtering device, and examined and photographed at 7kV and 10kV using HITACHI S-4700.

Terminology for describing the hairs is complex and not fully covered in e.g. Hewson (1988). In *C. alba* var. *pannosa* and var. *rotundifolia* the stellate hairs are stalked. In the latter the stalk is usually smooth (i.e. lacking outgrowths) and terminates in a tuft of multidirectional rays. In var. *pannosa* the stalk often has a number of simple rays (similar to those of the terminal tuft) emerging from it. These simple rays are often clustered and so the hair often looks like two to four stalked stellate hairs placed on top of each other. As such it would be misleading to call the hair dendritic (branched like a tree) or branched (see Fig. 1).

Table 1: Nomenclatorial history of *Correa alba*

Name	Date	Basionym	Accepted name
<i>Correa alba</i> Andrews	1798		<i>C. alba</i>
<i>C. cotinifolia</i> Salisb.	1808	<i>C. alba</i> Andrews	<i>C. alba</i>
<i>Mazeutoxeron rufum</i> Labill.	1800		<i>C. alba</i> var. <i>rotundifolia</i> DC.
<i>C. rufa</i> (Labill.) Vent.	1803	<i>M. rufum</i> Labill.	<i>C. alba</i> var. <i>rotundifolia</i> DC.
<i>C. alba</i> var. <i>rotundifolia</i> DC.	1824	<i>M. rufum</i> Labill.	<i>C. alba</i> var. <i>rotundifolia</i> DC.
<i>C. rotundifolia</i> Lindl.	1838		<i>C. alba</i> var. <i>pannosa</i>
<i>C. alba</i> var. <i>rotundifolia</i> (Lindl.) Benth.	1863	<i>C. rotundifolia</i> Lindl.	<i>C. alba</i> var. <i>pannosa</i>
<i>C. alba</i> var. <i>pannosa</i> Paul G. Wilson	1961	<i>C. rotundifolia</i> Lindl.	<i>C. alba</i> var. <i>pannosa</i>

Taxonomy

Correa alba Andrews, *Bot. Repos.* 1: t.18 (1798)

Correa cotinifolia Salisb., *Parad. Lond.* t. 100 (1808), *nom. illeg.*, based on above.

Type: NEW SOUTH WALES. Port Jackson, raised in 1793 from seeds given by J. Banks to J. Vere (holotype [see Wilson 1961, p. 38]: *Bot. Repos.* 1: t. 18).

Rounded, spreading, multi-stemmed, woody shrub to 3 m high, to 4 m in diameter, large plants often supported by other vegetation; stems stellate tomentose, glabrescent with age; stellate hairs white to red-brown. *Leaves* simple, petiolate; petiole 2–8 mm long; lamina elliptic to obovate to orbicular, rarely ovate or lanceolate or oblanceolate, 5–46 mm long, 2.5–28.5 mm wide, discolorous; tip acute to obtuse; margins entire; adaxial surface greyish green, with a sparse to moderately dense indumentum of stellate hairs that are often eventually deciduous; abaxial surface densely white or greenish white or reddish brown, stellate tomentose. *Flowers* axillary, often solitary though up to 5 flowers per inflorescence not uncommon and then usually one flower opening at a time; peduncles to 9 mm long; bracts leaf-like; bracteoles minute; pedicels 0.5–6.5 mm. *Calyx* cuplike, 2.5–7 mm long, truncate to slightly dentate to dentate or broadly lobed. *Petals* partially fused in bud, free at anthesis, white or rarely pink, 7–17 mm long, 1.5–5 mm wide, adaxial surface glabrous, abaxial surface sparsely to densely stellate tomentose, stellate hairs with rays 0.3–1.8 mm long. *Cocci* hairy, 4–7 mm long, 3–5 mm wide.

Distribution: *Correa alba* is found in near coastal areas from Kangaroo Island [requires confirmation – see *Distribution* under var. *pannosa*] and the Southern Lofty

Region (South Australia) through southern Victoria and to the North Coast of New South Wales. In Tasmania it is found on the islands on the eastern side of Bass Strait and has a patchy distribution on the northern and eastern coasts of the Tasmanian mainland and offshore islands. It is apparently absent from King Island.

Habitat: The species occurs in near coastal situations on foredunes, cliffs and headlands. It is found growing on both calcareous and siliceous substrates (sand and/or rock) in heath or woodland.

Notes: *Correa alba* readily hybridises with other species of *Correa* (see Wilson 1961; Anderson 1986; Duretto 1999).

Infraspecific variation: Three varieties are recognised for the species. The rank of variety is appropriate (as opposed to subspecies and species) as the distinctions between the taxa are based on few characters, and these mostly pertaining to hairs, and some problematic specimens do exist (see *Notes* under var. *pannosa*).

Conservation status: Overall the species appears to be secure with the typical variety secure and the other two being rare but found in reserves (see below). *Correa alba* is used extensively in horticultural and revegetation plantings. In Hobart, the two Tasmanian varieties (var. *alba* and var. *rotundifolia*) are both available and commonly used, sometimes in mixed plantings, even though var. *alba* is not indigenous to the area. Care should be taken to use only locally sourced material for any revegetation or coastal planting programs to avoid polluting local gene pools.

Key to varieties of *Correa alba*

- | | | |
|----|---|-----------------------------|
| 1 | Stellate hairs on abaxial surface of leaves not stalked or occasionally stalked; stalks, when present, to 0.05 mm long (NSW, Vic., Tas.)..... | 1. var. <i>alba</i> |
| 1: | Stellate hairs on abaxial surface of leaves stalked; stalks to 2 mm long (SA, Vic., Tas.)..... | 2 |
| 2 | Indumentum of branches and sometimes the abaxial surface of the leaves and calyx uneven and appearing floccose; stalks of stellate hairs long, with some at least 0.75–2.0 mm long, many with rays emerging below the terminal tuft of rays, especially on branches; rays of at least some of the hairs 0.5–1.0 mm long (SA, Vic.)..... | 2. var. <i>pannosa</i> |
| 2: | Indumentum of the branches and the abaxial surface of the leaves and calyx smooth and even; stalks of stellate hairs to 0.5 (–0.75) mm long, mostly smooth, viz. without rays emerging below terminal tuft; rays to 0.5 (–0.75) mm long (Tas.)..... | 3. var. <i>rotundifolia</i> |

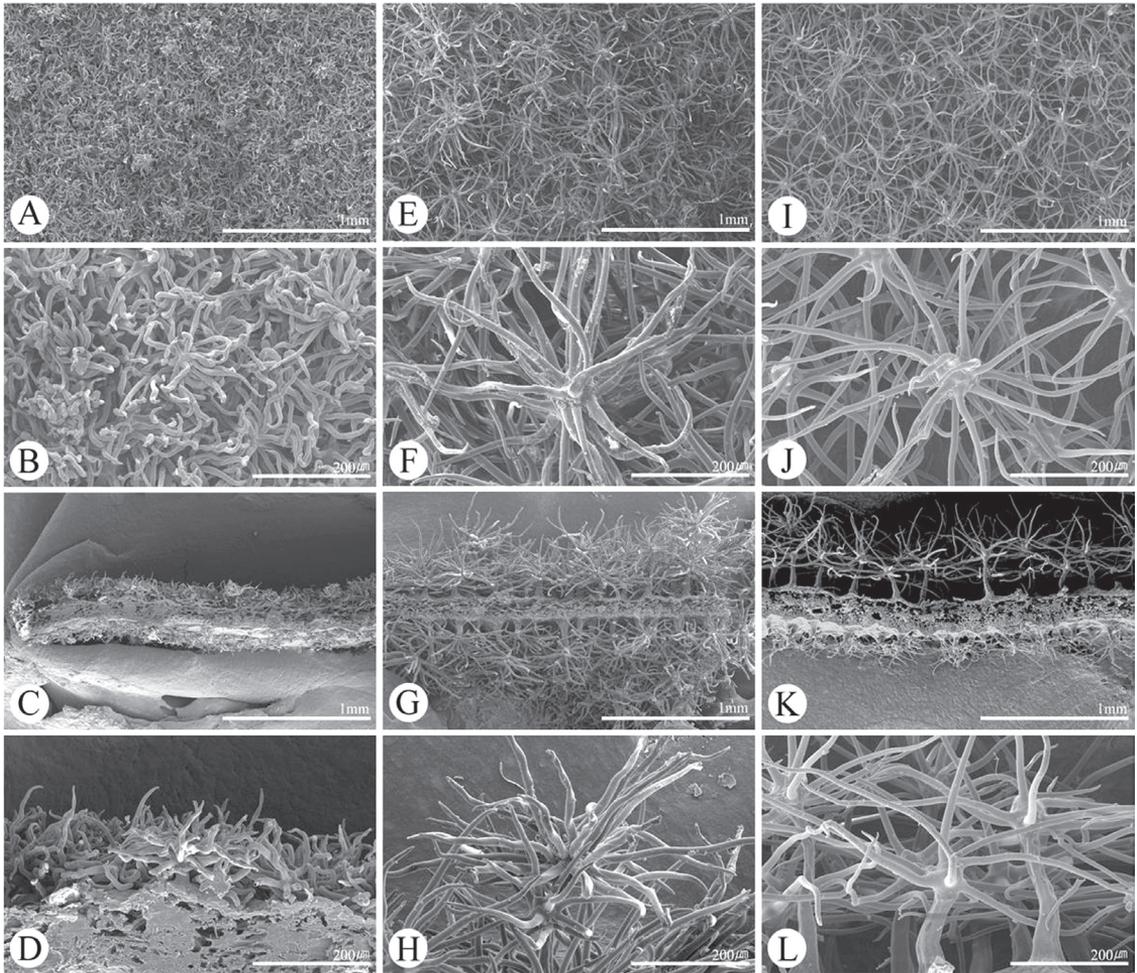


Figure 1. Leaf hairs of *Correa alba*: A–D, *C. alba* var. *alba* (Duretto 2070 et al., HO); E–H, *C. alba* var. *pannosa* (Whibley 10166, HO); I–L, *C. alba* var. *rotundifolia* (Choi 22 & Duretto, HO). A, B, E, F, I, J – abaxial surface; C, G, K – cross section with abaxial surface on top; D, H, L – cross section with detail of hair on abaxial surface. A, C, E, G, I, K – $\times 50$; B, D, F, H, J, L – $\times 200$.

1. *Correa alba* Andrews var. *alba*

Shrub to 1.5 (NSW, Vic.) and 3 (Tas.) m high; *stems* and *leaves* stellate tomentose (Fig. 1A–D), indumentum smooth in appearance, stellate hairs usually white, sometimes red-brown, mostly sessile, or sometimes with stalks to 0.05 mm long and without rays below terminal tuft, rays 0.1–0.25(–0.5) mm long. *Leaves* with petioles 2.5–7 mm long; lamina 7–46 mm long, 4.5–28.5 mm wide. *Peduncles* 1–6.5 mm long; pedicels 1.25–6.5 mm. *Calyx* 3.25–7 mm long. *Petals* 8.5–17 mm long, 1.5–4.5 mm wide.

Selected specimens (of c. 170 examined): **AUSTRALIAN CAPITAL TERRITORY.** Cave Beach, Jervis Bay, 35°00'S 150°42'E, *F.W.Howes* 27, 13.viii.1980 (CANB). **NEW SOUTH**

WALES. North Entrance Peninsula, Tuggerah Beach, 33°18'S 151°32'E, *W.Bishop, J.Dalby & T.James* 812, 22.viii.1985 (CANB); La Perouse, 33°59'30"S 151°14'E, *R. Coveny* 11249 & *M.Taylor*, 30.viii.1982 (CANB); Jemisons Beach, 500 m S of Potato Point, 36°06'30"S 150°08'15"E, *J.Liney s.n.*, 12.viii.1993 (CANB); Wallaga Lake, Haywards Beach, Tilba road, 36°24'20"S 150°03'50"E, *N.Schultz* 103, 23.iv.1994 (CANB, MEL). **VICTORIA.** Quarry Beach, c. 7 km SW of Mallacoota, 37°36'S 149°44'E, *P.C.Jobson* 3517, 15.iv.1995 (CANB, MEL); Tidal River, Wilson's Promontory, *I.Hastings*, 12.viii.1971 (MEL); Blairgowrie, track leading from Spray Point Road through Ocean Reserve to Bass Strait, Mornington Peninsula, 38°22'S 144°46'E, *J.H.Ross* 2533, 4.iv.1981 (HO, MEL). **TASMANIA.** Craggy Island (15km NW of Flinders Island), 39°41'S 147°41'E, *S.Harris*, 7.xii.1986 (HO); Sentinel Island, 39°49'S 147°46'E, *J.S.Whinray* 8987 (AD, CANB, HO); Coastal dune E of the south eastern corner of East River,

Flinders Island, 40°7'S 148°13'E, *J.S.Whinray 8246* (NSW, CANB, AD, HO); Kangaroo Island, 40°41'S 144°49'E, *A.M.Buchanan 9115*, 28.xii.1986 (HO); Turners beach, Ulverstone, 41°10'S 146°14'E, *L.Richley 268*, 28.vi.1976 (HO); E Rocky Cape, 40°51'S 145°30'E, *M.Allan*, 22.iii.1979 (HO); Boat Harbour, 40°57'S 145°38'E, *J.H.Hemsley 6160*, 21.iv.1967 (HO); Eddystone Point, 40°59'S 148°21'E, *A.C.Rozefelds 445*, 21.i.1997 (HO); Round Hill Point near Jeanneret Beach, 41°14'S 148°17'E, *M.F.Duretto 2070* et al., 4.i.2006 (HO, MEL); Bicheno, The Gulch, 41°52'S 148°18'E, *A.Moscal 6227*, 12.ii.1984 (HO); Friendly Point, 42°3'S 148°18'E, *A.M.Buchanan 7161*, 9.ix.1985 (HO); Sleepy Bay, Freycinet N.P., 42°08'S 148°20'E, *F.E.Davies 1256* et al., 25.i.1989 (CANB, HO, MEL); Moreys Bay hut, Schouten Island, 42°18'S 148°16'E, *M.F.Duretto 1501*, 28.ii.2002 (HO); Grindstone Beach, S end, 42°26'S 147°59'E, *A.M.Gray 1745*, 13.xi.2006 (AD, HO, MEL).

Distribution: *Correa alba* var. *alba* ranges from the North Coast of New South Wales, through eastern Victoria to Port Phillip Bay. In Tasmania it is found on the islands of eastern Bass Strait, and on the Tasmanian mainland, and some off shore islands, in the north and south on the East Coast to just north of Triabunna (Fig. 2).

A specimen of var. *alba* purportedly from Louisa Island [*G.White*, HO 29699] off the southern end of Tasmania, is far removed from other collections of this variety. The only other collections of *C. alba* from

the South-West botanical region of Tasmania are of var. *rotundifolia* from Bruny Island and maybe South Cape (see below). Curiously the specimen is a perfect match for (leaf colour etc.) and of the same vintage as a herbarium specimen collected from Ulverston (*Richley 268*) in the State's north. The collection details of the specimen from Louisa Island are in doubt and require confirmation.

Phenology: Flowering material has been collected all year but mainly from February to September; fruiting material has been collected from November to January.

Notes: *Correa alba* var. *alba* may intergrade with *C. alba* var. *pannosa* between Port Phillip Bay and around Cape Otway (Victoria) (see Duretto 1999; and *Notes* under var. *pannosa*). Specimens of var. *alba* from Freycinet Peninsula and surrounding islands sometimes have a large number of stalked hairs overtopping a layer of sessile hairs (e.g. *Davies 1256*) and approach var. *rotundifolia* in appearance but do not appear to be part of a cline.

Conservation Status: The variety is widespread, found in several reserves in each of the States it is found in, and so, appears to be secure.

2. *Correa alba* var. *pannosa* Paul G.Wilson, *Trans. Roy. Soc. South Australia 85: 40* (1961) Fig. 1E-H.

Correa rotundifolia Lindl. in T.L.Mitchell, *Three Exped. Australia 2:217* (1838); *C. alba* var. *rotundifolia* (Lindl.) Benth., *Fl. Austral. 1:354* (1863), *nom illeg.* non DC. (1824).

Type: VICTORIA. Near mouth of Glenelg River, 15.viii.1836, *T.L. Mitchell 287* (holotype: CGE [*fide* Wilson 1961, 1998]; isotype: MEL 516687).

Shrub to 1 m high; indumentum of stems and leaves densely stellate tomentose (Fig. 1E-H), white to red-brown, uneven and floccose in appearance, often eventually deciduous leaving stalks; stellate hairs usually stalked, stalks to 2 mm long and often with clustered rays emerging along the length below the terminal tuft, all rays (0.25–)0.5–0.75(–1.0) mm long. *Leaves* with petioles 2–4.5 mm long; lamina 5.5–15.5(–20 Cape Otway area) mm long, 4.5–13 mm wide, indumentum often with two hair sizes, larger hairs with usually red-brown rays to 0.75 (–1.0) mm long, smaller

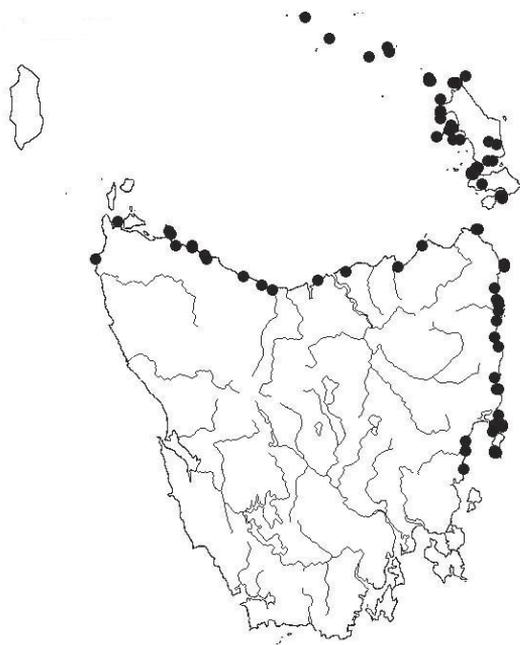


Figure 2. Distribution of *Correa alba* var. *alba* in Tasmania, based on herbarium specimens.

hairs with usually white rays to 0.5 mm long. *Peduncles* to 3.5 mm long; pedicels 0.5–2 mm long. *Calyx* 2.5–3.5 mm long. *Petals* 7–10 mm long.

Selected specimens seen (of 23): **SOUTH AUSTRALIA.**

Between Kingston and Salt Creek, 36°36'S 139°51'E, *Hj.Eichler 17785*, 15.ix.1963 (CANB); between Parsons and Waitpinga beaches (11km SW of Victor Harbor), Fleurieu Peninsula, 35°33'S 138°37'E, *R.Schodde 616*, 27.i.1958 (AD, CANB, HO); Newland Head, 35°39'S 138°31'E, *D.J.E.Whibley 10166*, 28.v.1986 (CANB, HO); Glenelg River, between Dry Creek and Donovan's Landing, *D.N.Kraehenbuehl 954*, 8.x.1963 (MEL). **VICTORIA.** Lower Glenelg NP, cliff top walk W of end of North Nelson Road, 37°59'S 141°1'E, *M.F.Duretto 1520*, 1.x.2002 (HO, MEL); along a scenic drive at Cape Nelson, *J.C.Anway 447*, 24.xi.1965 (MEL); Bats Ridge, c. 12 km W of Portland, *J.H.Seebeck*, 15.v.1972 (MEL); Above Shelly Beach, Bridgewater Bay, 38°22'S 141°25'E, *K.L.Wilson 1169* & *L.Johnson*, 18.ii.1975 (MEL, NSW).

Distribution: *C. alba* var. *pannosa* is patchily distributed from Kangaroo Island and Southern Lofty Region (South Australia), along the coast to the Cape Otway area (Victoria). The presence on Kangaroo Island (see Anonymous 2001) requires confirmation.

Phenology: Flowering material has been collected from January to October while fruiting material has been collected from July to October.

Notes: Specimens from Port Campbell to Apollo Bay have larger leaves and sepals than plants in western Victoria and South Australia. They also have smaller hairs and leaves that are more obovate (verses mostly oblanceolate). These specimens have been treated as intermediates between var. *alba* and var. *pannosa* (e.g. past determinations) and superficially are similar to var. *rotundifolia*. With typical var. *pannosa* they share the large hairs with rays along the length of the stalk and are treated here as part of that variety. In addition to the forms outlined above, *C. alba* var. *pannosa* and var. *alba* appear to intergrade between Port Phillip Bay and the Cape Otway area (see Duretto 1999). Further detailed field and laboratory studies are required to determine if these plants are indeed intermediates or warrant taxonomic recognition.

Conservation Status: *Correa alba* var. *pannosa* is considered to be rare both in Victoria (Ross & Walsh 2003; Walsh & Stajsic 2007) and South Australia (Anonymous 2001).

3. *Correa alba* var. *rotundifolia* DC., *Prod.* 1: 719 (1824)

Mazeutoxeron rufum Labill., *Voy. Rech. Perouse* 2: 12 (1800), *Atlas* t. 17 (1800); *Correa rufa* (Labill.) Vent., *Jard. Malm.* 1: sub. t. 13 (1803). Type citation: cap méridional [South Cape], Tas., Feb. 1793, *J.J.H. de Labillardiere*.

Type: **NEW HOLLAND.** *J.J.H. de Labillardiere* (lectotype here designated: FI [ex Herb. Labillardiere, Herb. Webbianum 32375], images CANB, HO). (Fig. 3)

Shrub to 3 m high, to 4 m wide; indumentum of stems and leaves stellate tomentose (Fig. 11-L), rough and uneven in appearance, most hairs red-brown, stellate hairs mostly stalked, stalks 0.1–0.5(–0.75) mm and without rays along length, rays 0.2–0.5(–0.75) mm long. *Leaves* with petioles 3–8 mm long; lamina 5–28 mm long, 2.5–27 mm wide. *Peduncle* 1–9 mm; pedicel 0.75–3 mm. *Calyx* 3–6 mm long. *Petals* 8–14 mm long.

Selected specimens (c. 55 specimens examined):

TASMANIA. Cape Frederick Hendrick, Forestier Peninsula, 42°52'S 147°58'E, *P.Collier 2577*, 23.viii.1987 (HO); Dunalley Beach, N end, 42°54'S 147°48'E, *B.Choi 10–16* & *M.F.Duretto*, 12.viii.2006 (BKC10, 15 & 16 – HO; BKC11 – HO, KHUS; BKC12 – HO, NSW; BKC13 – HO, MEL; BKC14 – HO, K); Below Tessellated Pavement, 43°00'S 147°55'E, *M.Wapstra*, 19.ix.2006 (HO, MEL); Droughty Point, 42°56'E 147°25'E, *A.M.Buchanan 3243*, 8.iv.1984 (HO); Pirates Bay, Tasman Peninsula, 43°2'S 147°56'E, *B.Choi 17–19* & *M.F.Duretto*, 12.viii.2006 (BKC17 – HO, PRE; BKC18 – CHR, HO; BKC19 – HO, NE); Lime Bay Nature Reserve, 42°59'S 147°40'E, *P.Collier 1520*, 8.viii.1986 (HO); NW of Pediton Ponds, Cape Pillar, 43°13'S 147°58'E, *A.M.Buchanan 3294*, 15.iv.1984 (HO); Tasman Island, 43°14'S 148°0'E, *R.P.Minchin*, 1.iv.1993 (HO); Opossum Bay, South Arm, 42°59'S 147°24'E, *A.M.Olsen*, 14.iii.1957 (HO); Calverts Beach, E end, 43°1'S 147°29'E, *B.Choi 1–3* & *M.F.Duretto*, 11.viii.2006 (BKC1 – HO, MEL; BKC2 – AD, HO; BKC3 – HO, NSW); Lookout near Goat Bluff, near W end of Calverts Beach, 43°1'S 147°28'E, *B.Choi 4–9* & *M.F.Duretto*, 11.viii.2006 (BKC4 – H, HO; BKC5, 6 & 8 – HO; BKC7 – HO, MEL; BKC9 – AD, HO); Betsey Island, 43°3'S 147°29'E, *K.Harris*, 15.x.1983 (HO); White Beach, Tasman Peninsula, 43°7'S 147°43'E, *B.Choi 20–24* & *M.F.Duretto*, 12.viii.2006 (BKC20 – DNA, HO; BKC21 – HO; BKC22 – HO, KHUS, KRA; BKC23 – HO, MO; BKC24 – CANB, HO); Wedge Island, 43°8'S 147°40'E, *F.Duncan*, 6.viii.1986 (HO); North Bruny Island, The Neck, far NE end, at Mars Bluff, 43°14'S 147°24'E, *J.D.Briggs 1499*, 22.iv.1984 (CANB, HO, MEL); Grass Point, South Bruny Island, 43°21'S 147°21'E, *A.M.Buchanan 8375*, 30.iii.1986 (HO); Southerly Bight, Labillardiere Peninsula, South Bruny Island, 43°25'S 147°5'E, *A.M.Buchanan 4218*, 8.xi.1984 (HO).



Figure 3. Lectotype of *Mazeutoxeron rufum* Labill. (FI) = *Correa alba* var. *rotundifolia* DC.

Typification: The specimen of *Mazeutoxeron rufum* illustrated by Labillardiere (1800, plate 17) is difficult to determine on leaf characters alone but the flowers do have unfused petals that reflex back which agrees with Labillardiere's description "Quatre petals sont attachés au fond du calice" as noted by Wilson (1998). As *C. alba* is the only species in the genus with these features the taxon can quite confidently be identified as *C. alba*. Wilson (1998) indicated that the type material of *M. rufum* appeared to be largely vegetative and appears to be a mixture of both *C. alba* and *C. backhouseana* Hook. Colour photographs of the material at the University Herbarium in Florence (FI) have been studied and there are collections made by Labillardiere of both species. There is one collection of *C. alba* amongst these specimens (Fig. 3) and this specimen (Herb. Webbianum 032375) matches the form found in south-eastern Tasmania; this specimen is chosen as the lectotype following Art. 9.12 of the International Code of Botanical Nomenclature (McNeill et al. 2006).

Labillardiere (1800) indicated the material of *M. rufum* came from South Cape where he camped and collected. *Correa alba* has not been collected again from this area though *C. backhouseana* is common there.

Labillardiere did travel and collect on Bruny Island. It is conceivable that he collected *C. alba* from the island and his collections got confused on the long journey home. Nelson (1974) has given several examples of where Labillardiere has obviously attached the wrong collection information to a specimen with some species attributed to Tasmania which do not occur in that State. In addition, South Cape and the southern half of Bruny Island are not far apart and share similar floras, both being in the South-West floristic region. It is not inconceivable that *C. alba* var. *rotundifolia* did, or does, occur at South Cape.

Distribution: *Correa alba* var. *rotundifolia* is endemic to south-eastern Tasmania where it is found on the Tasman and Forestier Peninsulas, the South Arm area (east of Hobart) and Bruny Island, and surrounding minor islands (Fig. 4).

Phenology: Flowering material has been collected from March to December; and fruiting material from March and November.

Conservation status: The populations of *C. alba* var. *rotundifolia* seen during this study were often large but fairly localised. More extensive surveys are required to assess the conservation status of the variety.

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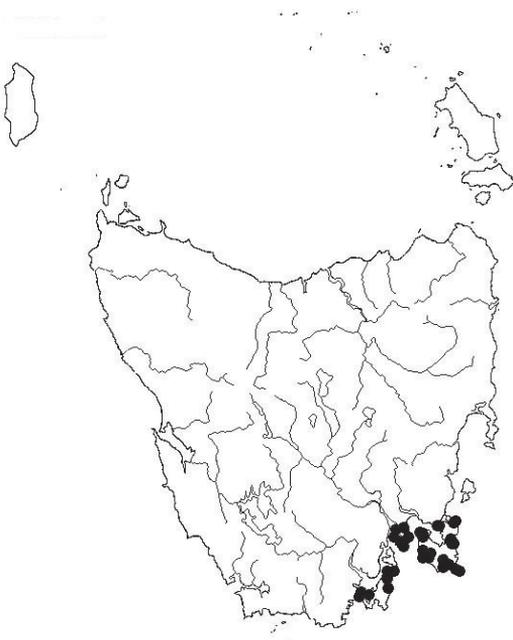


Figure 4. Distribution of *Correa alba* var. *rotundifolia* DC, based on herbarium specimens.

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References

- Anderson, R. (1986). 'Correa', in J.P. Jessop & H.R. Toelken (eds), *Flora of South Australia Part II, Leguminosae-Rubiaceae*. pp. 771-777. South Australian Government Printing Division: Adelaide.
- Andrews, H.C. (1798). *The Botanist's Repository 1*. (published by the author).
- Anonymous (2001). 'Electronic Flora of South Australia Fact Sheet: *Correa alba* Andrews (Rutaceae)' [<http://flora.sa.gov.au/factsheets.html> – accessed June 2007].
- Bentham, G. (1863). *Flora Australiensis*, Vol. 1. Lovell, Reed and Co.: London.
- Candolle, A.P. de (1824). *Prodromus systematis naturalis regni vegetabilis, Pars 1*. Treuttel et Wurtz: Paris.
- Duretto, M.F. (1999). 'Rutaceae', in N.G. Walsh & T.J. Entwisle (eds), *Flora of Victoria, Dicotyledons Cornaceae to Asteraceae*. **4**, 153-197. Inkata Press: Melbourne.
- Hewson, H.J. (1988). *Plant Indumentum: A Handbook of Terminology*. Australian Fauna and Flora Series No. 9. Bureau of Flora and Fauna: Canberra.
- Labillardiere, J.J.H. de (1800). *Relation du Voyage à la recherche de la Pérouse 2*. Chez H.J.Jansen, imprimeur-libraire: Paris.
- Lindley, J. in Mitchell T.L. (1848). *Journal of an Expedition into the Interior of Tropical Australia in search of a Route from Sydney to the Gulf of Carpentaria*. Longman, Brown, Green and Longmans: London.
- McNeill, J., Barrie, F.R., Burdet, H.M., Demoulin, V., Hawksworth, D.L., Marhold, K., Nicolson, D.H., Prado, J., Silva, P.C., Skog, J.E., Wiersema, J.H. and Turland, N.J. (2006). *International Code of Botanical Nomenclature (Vienna Code)*. *Regnum Vegetabile* **146**. A.R.G. Gantner Verlag KG: Liechtenstein.
- Nelson, E.C. (1974). The locations of collection and collectors of specimens described by Labillardiere in 'Novae Hollandiae Plantarum Specimen' – additional notes. *Papers and Proceedings of the Royal Society of Tasmania* **108**, 159-170.
- Ross, J.H. and Walsh, N.G. (2003). *A Census of the Vascular Plants of Victoria*. (7th edn). Royal Botanic Gardens Melbourne: Melbourne.
- Salisbury, R.A. (1808). *The Paradisus Londinensis: containing plants cultivated in the vicinity of the Metropolis*. (Eds R.A. Salisbury, W. Hooker). William J. Hooker: No. 6 Frith Street, London.
- Ventenat, E.P. (1803). *Jardin de la Malmaison*. de L'Imprimerie de Crapelet: Paris.
- Walsh, N.G. and Stajsic, V. (2007). *A Census of the Vascular Plants of Victoria*. (8th edn). Royal Botanic Gardens Melbourne: Melbourne.
- Weston, P.H. and Harden, G.J. (2002). 'Correa', in G.J. Harden (ed), *Flora of New South Wales* **2**, 289-292. UNSW Press: Sydney.
- Wilson, P.G. (1961). A taxonomic revision of the genus *Correa* (Rutaceae). *Transactions and Proceedings of the Royal Society of South Australia* **85**, 21-53.
- Wilson, P.G. (1998). Notes on the genus *Correa* (Rutaceae). *Nuytsia* **12(1)**, 89-105.