

Telopea 1 (1): 58–65, Plate VI (1975).

CONOSPERMUM SM. (PROTEACEAE) IN EASTERN AUSTRALIA

L.A.S. JOHNSON AND D.J. MCGILLIVRAY
(Received January 1974)

ABSTRACT

Johnson, L.A.S. and D.J. McGillivray (National Herbarium of New South Wales, Royal Botanic Gardens, Sydney, Australia) 1975. *Conospermum* Sm. (Proteaceae) in Eastern Australia. *Telopea* 1 (1): 58–65, Plate VI. A key is provided to the seven species of *Conospermum* in eastern Australia. *Conospermum burgessiorum* sp. nov. (p. 58, plate VI) and *C. longifolium* ssp. *mediale* ssp. nov. (p. 64) are described; *C. longifolium* ssp. *angustifolium* (Meisn.) comb. et stat. nov. (p. 64) is published. *C. ellipticum* Sm. and *C. ericifolium* Sm. are synonymized under *C. taxifolium* Sm. Informal recognition of the various forms of *C. taxifolium* is proposed. Infra-specific classification of *C. longifolium* Sm. is clarified by the recognition of three subspecies. A revised description based on more recent collections is given for *C. sphacelatum* Hook. Selected references and synonymy are provided for all species.

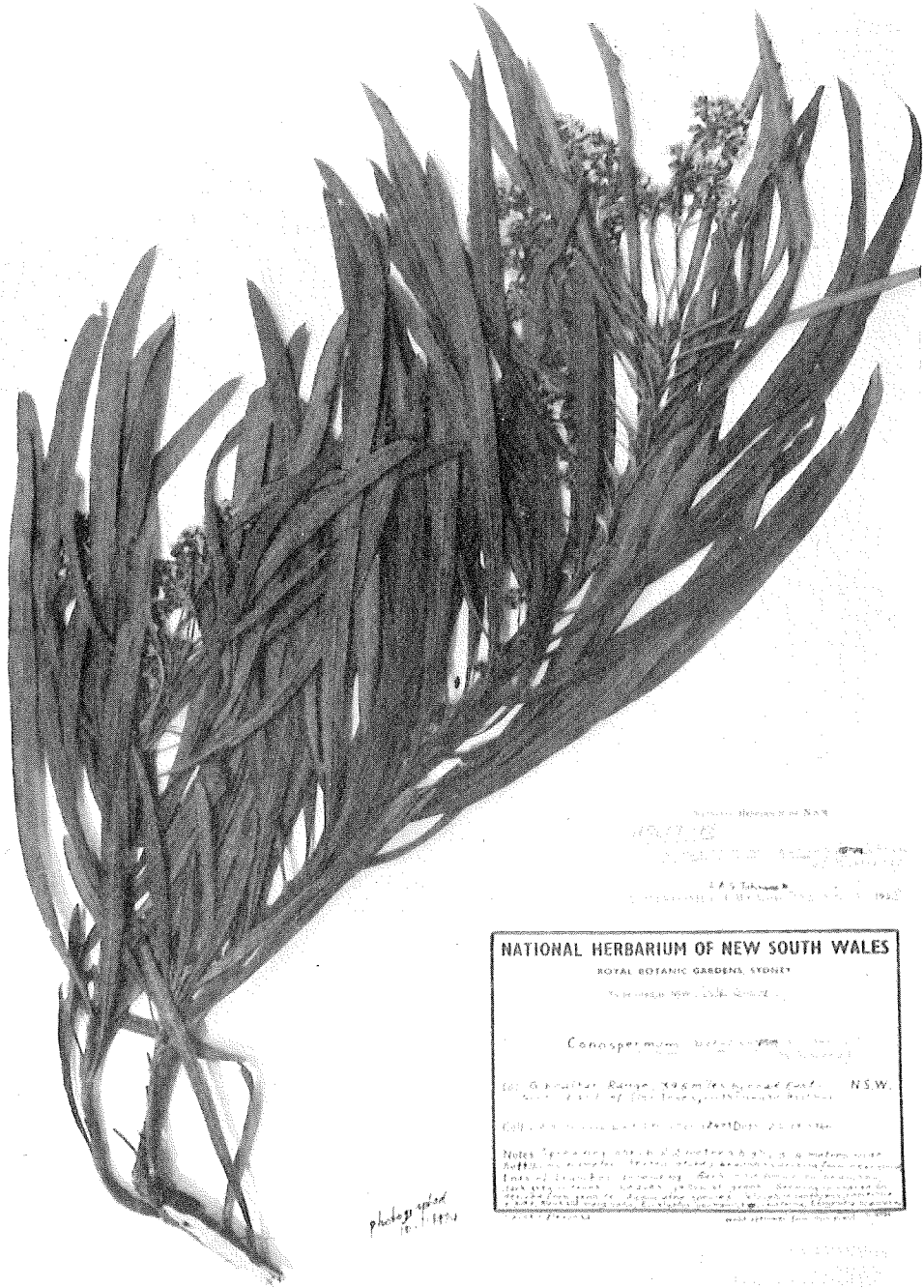
KEY TO SPECIES

1. Erect or spreading shrubs with flat leaves, apices of tepals divergent at anthesis.
 2. Perianth limb and perianth tube almost equal in length. Shrubs with several to many spreading branches.
 3. Leaves 12–25 cm long, 4–10 mm wide, lateral veins visible on both surfaces 1. *C. burgessiorum* Johnson et McGillivray
 - 3.* Leaves 6–12 cm long, 1–4 mm wide, lateral veins inconspicuous or evident on the lower surface only 2. *C. mitchellii* Meisn.
 - 2.* Perianth limb noticeably shorter than the perianth tube. Shrubs with few to many branches (commonly erect or ascending).
 4. Leaves less than 5 cm long, perianth commonly 8 mm or less in length.
 5. Leaves spreading arcuate; peduncles erect, almost parallel, longer than the branches of the inflorescence; flowers usually blue 3. *C. patens* Schlectd.
 - 5.* Leaves ascending to spreading, not arcuate; peduncles erect to ascending and rarely parallel, usually not conspicuously longer than the branches of the inflorescence; flowers cream to white 4. *C. taxifolium* Sm.
 - 4.* Leaves more than 5 cm long, perianth often more than 8 mm long.
 6. Leaves glabrous, oblanceolate to linear, inflorescence more than 15 cm long, coma of hairs on ovary and fruit 2–2.5 mm long 5. *C. longifolium* Sm.
 - 6.* Leaves finely hairy, linear, inflorescence less than 15 cm long, coma of hairs on ovary and fruit 2.8–4 mm long 6. *C. sphacelatum* Hook.
 - 1.* Procumbent shrub, mature leaves sub-terete, apices of tepals convergent at anthesis 7. *C. tenuifolium* R. Br.

Specimens cited on the following pages have been seen unless otherwise indicated.

1. *Conospermum burgessiorum* L. Johnson et D. McGillivray, sp. nov.

Aff. *C. mitchellii* Meisn. sed habitu robustiore, foliis duplo longioribus latoribusque 12–20 (–25) cm longis, 4–8 (–10) mm latis, venis manifestis, fructibus majoribus 2.5 mm longis, coma 0.6 mm longa differt.



Services Herbarium of NSW
1971/72
National Herbarium of New South Wales
2/4 York Street
Sydney, N.S.W. 2012

NATIONAL HERBARIUM OF NEW SOUTH WALES
ROYAL BOTANIC GARDENS, SYDNEY
Sydney, New South Wales, Australia

Conospermum burgessiorum L. Johnson et D. McGillivray, sp. nov.

100. G. Muller Range, 19 km N.E. of Muller Range, N.S.W.
1000 m alt. 10.10.1972. L. Johnson & D. McGillivray

Coll. by L. Johnson & D. McGillivray 10.10.1972

Notes: Specimens with a few flowers, 10-15 cm high, 1-2 m long, 1-2 cm wide, 1-2 mm thick. Leaves lanceolate, 10-15 cm long, 1-2 cm wide, 1-2 mm thick. Flowers white, 1-2 cm diameter. Fruits green, 1-2 cm long, 1-2 mm wide. Seedling 10 cm high, 1-2 mm wide. Seedling 10 cm high, 1-2 mm wide.

photographed
10.10.1972

HOLOTYPE: *Conospermum burgessiorum* L. Johnson et D. McGillivray, sp. nov. (McGillivray 2403 & Johnson); see p. 58.

HOLOTYPE: NEW SOUTH WALES: Northern Tablelands: Gibraltar Range, 39.5 miles (63 km) by road ENE. of Glen Innes on the Gwydir Highway, *D.J. McGillivray 2403 and L.A.S. Johnson*, 20.9.1966 (located in the National Herbarium of New South Wales). ISOTYPES: yet to be distributed. See plate VI.

The species has been described as *Unnamed species* by Beadle, Stud. Fl. NE. New South Wales 2: 233 (1973).

An erect to spreading shrub 1.5–3 m high, branches numerous, branchlets robust, finely sericeous, soon becoming glabrous except in the leaf axils. *Leaves* ascending, commonly slightly curved, flat, shortly petiolate to subsessile, linear to narrowly elliptical or narrowly obovate, 12–20 (–25) cm long, 4–8 (–10) mm wide; leaf base very narrowly cuneate, leaf apex acute with a terminal umbo; lateral and intramarginal veins visible on both surfaces. *Inflorescences* consisting of axillary and subterminal spicate panicles shorter than or equal to the subtending leaves; peduncles pubescent; floral bracts ovate acute, c. 2.5 mm long, sheathing, subvillous, blue; perianth 6–8 (–10) mm long, pubescent (floral tube sometimes glabrous), cream to white; lower limb 3–4 (–5) mm long; pistil 4.5–6 mm long. *Fruit* conical, 2.5 mm long, shortly pilose except for a glabrous to sparsely pubescent apex, coma 0.6 mm long.

DISTRIBUTION: Queensland, in the Stanthorpe to Wallangarra area (Darling Downs district) and New South Wales, on the Gibraltar Range (Northern Tablelands). The species usually occurs in shrubby sclerophyll woodland on soils derived from siliceous granites.

SELECTED SPECIMENS: QUEENSLAND: $\frac{1}{2}$ mile (0.4 km) from Amiens on Cottonvale road, *Frazier NSW 96907*; Eukey via Stanthorpe, *Goebel 11.1944* (BRI 058845); Ballandean, near Stanthorpe, *Young* (BRI 058843); Wyberba, *McDonagh 8*, 11.1956 (BRI); near Wallangarra, *Pedley*, 10.1963 (CANB 139703). NEW SOUTH WALES: Gibraltar Range, NE. of Glen Innes, *Gray 3088 & Jessup*, 12.1953 (CANB); 34 miles [54 km] NE. of Glen Innes, *Burgess NSW 72525*, 9.1960; 41 miles [65.5 km] NE. of Glen Innes on the Gwydir Highway, and c. 1.5 miles [2.5 km] NE. of the entrance to Gibraltar Range National Park, *Williams NSW 100431*, 12.1966.

The species is named in honour of the Rev Colin Burgess and his son Mr Peter Burgess. They recognized it as a species distinct from *C. longifolium* Sm., which has flowers with the floral limb noticeably shorter than the floral tube. It is closely related to *C. mitchellii* Meisn. from western Victoria, but differs from it in its more robust habit, broader leaves with visible venation, and larger fruits with a shorter coma. *C. mitchellii* has leaves 6–12 cm long, 1–4 mm wide, with inconspicuous venation; the fruits are 2 mm long with a coma 1.5–1.8 mm long.

2. *Conospermum mitchellii* Meisn. in DC. Prodr. 14: 320 (1856); Bentham, Fl. Austral. 5: 371 (1870), *Cochrane et al.*, Flowers & Pl. Victoria: 45 incl. t. 101, col. (1968); Willis, Handb. Pl. Victoria 2: 37 (1973), HOLOTYPE: VICTORIA: *Major Mitchell's Expedition*, 1836 (CGE).

C. mitchellii var. *dallachii* Meisn. in DC. Prodr. 14: 321 (1856), 'β? *Dallachii*'. TYPE: Victoria: In montibus Grampians Australiae felicis, Ferd. Müller. (Not seen).

DISTRIBUTION: South western Victoria and in the Otways. According to Willis, *loc. cit.*, the species also occurs in south eastern South Australia, but we have seen no collections to confirm this.

3. *Conospermum patens* Schlecht. in Linnaea 20: 587 (1847); Meisner in DC. Prodr. 14: 320 (1856); F. Mueller, Pl. Indig. Colony Victoria: t. 70 (1864–65); Bentham, Fl. Austral. 5: 371 (1870); Black, Fl. South Australia 2: 159 incl. fig. 38 (1924), ed. 2, 2: 263 incl. fig. 315 (1948); Willis, Handb. Pl. Victoria 2: 38 (1973). HOLOTYPE: SOUTH AUSTRALIA: Circa fluv. Gawler ad port Adelaide, *Behr 58* (HAL).

C. cucullatum Gandoger in Bull. Soc. Bot. France 66: 231 (1919). HOLOTYPE: SOUTH AUSTRALIA: Highbury, Maiden s.n., 1901 (LY).

C. helichrysoides Gandoger *ibid.* 231 (1919). HOLOTYPE: New South Wales [sphalm.], 1902 (ex Herb. Walter), LY. [The type was collected in Victoria or South Australia.]

DISTRIBUTION: Victoria—Wimmera and the Grampians; South Australia—southern and south eastern part of the state, north to the Mount Lofty and Barossa Ranges, south to the Eyre Peninsula and Kangaroo Island.

4. *Conospermum taxifolium* Sm. in Rees Cycl. 9: (1806); R. Brown in Trans. Linn. Soc. London 10: 154 (1810); W.J. Hooker in Bot. Mag. 54: t. 2724 (1827); Meisner in DC. Prodr. 14: 319 (1856); Bentham, Fl. Austral. 5: 372 (1870); Bailey, Queensland Fl. 4: 1322 (1901); Beadle, Evans & Carolin, Handb. Vasc. Pl. Sydney Distr. 182 (1963); Curtis, Stud. Fl. Tasmania 3: 600 (1967); Beadle, Evans and Carolin, Fl. Sydney Region: 216 (1972); Willis, Handb. Pl. Victoria 2: 38 (1973); Beadle, Stud. Fl. NE. New South Wales 2: 223 fig. D1–D4, 233 (1973). *C. taxifolium* var. *smithii* Meisn. in DC. Prodr. 14: 319 (1856), '*a Smithii*', *nomen illeg.* *C. taxifolium* var. *typicum* Domin in Biblioth. Bot. 22 (89¹): 578 (1921) *nomen illeg.* HOLOTYPE: New South Wales, Mr White, 1792 (LINN, photograph seen). See (d) *type form* p. 61.

C. ellipticum Sm. in Rees Cycl. 9: (1806), *synon. nov.*; R. Brown in Trans. Linn. Soc. London 10: 153 (1810); Meisner in DC. Prodr. 14: 322 (1856); Bentham, Fl. Austral. 5: 373 (1870); Beadle, Evans & Carolin, Handb. Vasc. Pl. Sydney Distr.: 182 (1963); Beadle, Evans & Carolin, Fl. Sydney Region: 215 (1972). HOLOTYPE: New South Wales, Mr White, 1792 (LINN, photograph seen). See (b) *broad-leaved form*, p. 61.

C. ericifolium Sm. in Rees Cycl. 9: (1806), *synon. nov.*; R. Brown in Trans. Linn. Soc. London 10: 154 (1810); Rudge in Trans. Linn. Soc. London 10: 292, t. 17 f.1 (1811); W.J. Hooker in Bot. Mag. 55: t. 2850 (1828); Meisner in DC. Prodr. 14: 319 (1856); Bentham, Fl. Austral. 5: 372 (1870); Beadle, Evans & Carolin, Handb. Vasc. Pl. Sydney Distr.: 182 (1963); Beadle, Evans & Carolin, Fl. Sydney Region: 216 (1972). HOLOTYPE: New South Wales, Mr White, 1792 (LINN, photograph seen). See (a) *narrow-leaved form*, p. 61.

C. falcifolium Knight, Proteaceae: 95 (1809), Type not seen; *fide* R. Brown, Prodr.: 368 (1810). See (f) "*common form*", page 61.

C. rigidum Knight, Proteaceae: 95 (1809), Type not seen; *fide* R. Brown, Prodr.: 368 (1810). See (b) *broad-leaved form*, p. 61.

C. imbricatum Sieber ex Spreng., Syst. Veg. 4 (2): 46 (1827); *C. ellipticum* var. *imbricatum* (Sieber ex Spreng.) Benth., Fl. Austral. 5: 373 (1870). TYPE: NEW SOUTH WALES: Sieber Fl. Nov. Holl. No. 44. not seen; ISOTYPE: MEL. See (b) *broad-leaved form*, p. 61.

C. affine Schultes et Schultes f., Syst. Veg. Mant. 3: 274 (1827). TYPE: NEW SOUTH WALES: Sieber Fl. Nov. Holl. No. 42, not seen; *fide* Bentham, Fl. Austral. 5: 372 (1870). See (f) "*common form*", p. 61.

C. erectum R. Grah. in Edinburgh New Philos. J. 1828: 171 (1828), Type not seen; *fide* Meisner in DC. Prodr. 14: 319 (1856). See (a) *narrow leaved form*, p. 61.

C. lanceolatum R. Br., Prodr. Suppl. Prot. Nov.: 10 (1830); *C. taxifolium* var. *lanceolatum* (R. Br.) Benth., Fl. Austral. 5: 372 (1870). HOLOTYPE: NEW SOUTH WALES: Five Islands, Mr A. Cunningham 33 (BM). See (f) "*common form*", p. 61.

C. propinquum R. Br., Prodr. Suppl. Prot. Nov.: 10 (1830). HOLOTYPE: Port Jackson, Caley, 1803 (BM). See (f) "*common form*", p. 61.

C. spicatum R. Br., Prodr. Suppl. Prot. Nov.: 10 (1830). HOLOTYPE: NEW SOUTH WALES: Hunter's River, Col. Paterson (BM). See (f) "*common form*", p. 61.

C. lavandulifolium A. Cunn. ex Meisn. in Lehmann's Pl. Preiss. 1: 519 nota (1845); *C. taxifolium* var. *lavandulifolium* (A. Cunn. ex Meisn.) Domin in Biblioth. Bot. 22 (89¹): 579 (1921). TYPE: QUEENSLAND: Moreton Bay, A. Cunningham, not seen. See (f) "*common form*", p. 61.

C. linifolium A. Cunn. ex Meisn. in Lehmann's Pl. Preiss. 1: 518 nota (1845); *C. taxifolium* var. *linifolium* (A. Cunn. ex Meisn.) Benth., Fl. Austral. 5: 372 (1870). TYPE: QUEENSLAND: Peel's Island, Moreton Bay, A. Cunningham; not seen. ISOTYPES: K (ex herb. A. Cunningham, ex herb. Hooker). See (f) "*common form*", p. 61.

C. taxifolium var. *brownii* Meisn. in DC. Prodr. 14: 320 (1856), 'β. *Brownii*'. SYNTYPES: Brown (fide sp. autogr. in herb. DC.), Sieber n. 42, ex parte, Sieber Fl. Mixta n. 471; not seen. See (f) "common form", below.

C. taxifolium var. *hookeri* Meisn. in DC. Prodr. 14: 320 (1856), 'α. ? *Hookeri*'. LECTOTYPE (here designated): TASMANIA: Spring Bay, Backhouse (K.) See (c) *Tasmanian form*, below.

C. taxifolium var. *leianthum* Benth., Fl. Austral. 5: 372 (1870), 'var. ? *leianthum*'. HOLOTYPE: Tasmania, Story (K.). ISOTYPES: MEL. See (c) *Tasmanian form*, below.

Within *Conospermum taxifolium* there is a great deal of variation and although it is possible to define infraspecific entities, as it is to a lesser extent with other species of *Conospermum*, there is little merit in giving them formal recognition until a clearer picture of the whole genus is developed. A detailed examination of the morphology of this species, especially of leaves and flowers, has led us to conclude that, at this stage, the most practical way of improving its classification is to introduce, informally, the following forms which were already known or became evident during the study of this species:—

(a) The *narrow-leaved form*, previously known as *C. ericifolium* Sm., with leaves c. 1 mm wide, occurs on the Central Coast of New South Wales from Port Jackson north to Toukley in shrubby woodland to heath. At the northern end of its range it merges with the "common form" of the species. Some specimens from populations in the Nowra-Jervis Bay area on the South Coast resemble the *narrow-leaved form*.

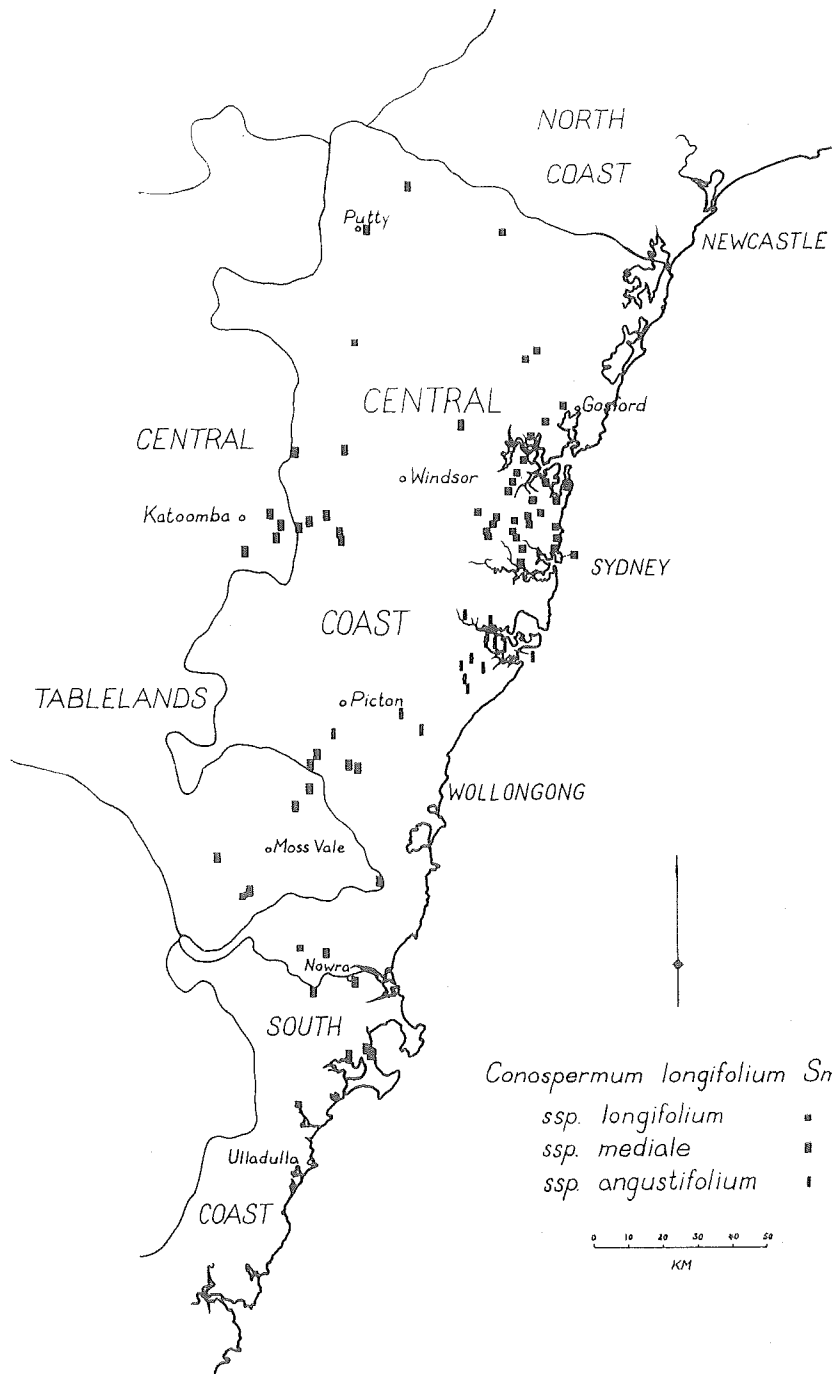
(b) The *broad-leaved form*, previously known as *C. ellipticum* Sm., with leaves usually more than 4 mm wide and wrinkled when dried, occurs from an isolated occurrence in a variable population at Bouddi State Park on the coast just north of Broken Bay, and in near-coastal situations from North Head (Port Jackson) to Jervis Bay. It is also known from a single collection made at Crafts Wall, north of Kanangra Walls in the Central Tablelands. Beside the Princes Highway just north of Sublime Point this form is represented by a population in which the leaves are shorter than usual. The type of *C. imbricatum* Sieber ex Spreng, possibly came from this locality. Occasionally individual variants resembling the broad-leaved form occur well outside the latter's range, e.g., on the North Coast of New South Wales.

(c) The *Tasmanian form*, which is the only entity occurring on the Tasmanian mainland, has very narrowly obovate leaves usually 1–2 mm wide; in some specimens the leaves are reminiscent of those in *C. patens*, but the peduncles are always much shorter than those of the latter.

(d) The *type form* of the species occurs in the eastern and south-eastern suburbs of Sydney in coastal heaths from Port Jackson south to La Perouse. It has linear to narrowly obovate leaves c. 2 mm wide with the same wrinkled appearance when dried as the *broad-leaved form* — in general appearance it is intermediate between the *broad-leaved form* and the *narrow-leaved form*.

(e) The *Blue Mountains form* has linear to narrowly elliptical leaves usually 1–1.5 mm wide; it intergrades with the "common form" in the mountains of the Great Divide to the north of the Blue Mountains.

(f) The "common form" is an assemblage of various populations and intergrading forms which are here lumped together. It includes plants, not contained in the foregoing entities, from the northern end of the species' range (the Blackdown Tableland and on the Queensland coast north to about the Elliott River, south of Bundaberg) to coastal far eastern Victoria; also Flinders Island (Bass Strait). In New South Wales this form is known from the Coast and Tablelands with isolated occurrence on the Western Slopes (Warialda, "the Pilliga" and near Bylong).



MAP 1. Distribution of *Conospermum longifolium* Sm.

In swampy situations on the Northern Tablelands of New South Wales a variant is found which resembles *C. patens* in possessing spreading arcuate leaves and long parallel peduncles. However, it does not appear to have blue flowers or the characteristic slightly humped leaf-base of *C. patens*. Some specimens from this area and from coastal southern Queensland are more or less intermediate between this variant and the more widespread "common form".

Conospermum taxifolium is known to hybridize with *C. longifolium* Sm. with which it sometimes forms hybrid swarms, and, more rarely with *C. tenuifolium* R. Br.

In several forms of *C. taxifolium* occasional specimens with lax spicate inflorescences reminiscent of the genus *Synaphea* have been observed, e.g., the type of the name *C. spicatum* R. Br. is such a variant.

5. ***Conospermum longifolium* Sm.**, Exot. Bot. 2: 45, t. 82 (1806); R. Brown in Trans. Linn. Soc. London 10: 154 (1810); Meisner in DC. Prodr. 14: 321 (1856); Carey in Proc. Linn. Soc. New South Wales 55: 714 fig. 20-22, 715 (1930); Beadle, Evans & Carolin, Handb. Vasc. Pl. Sydney Distr.: 182 (1963); Mass, Austral. Wildfl. Magic: 59 fig. (1967); Beadle, Evans & Carolin, Fl. Sydney Region: 215 (1972). HOLOTYPE: New South Wales, Mr White, 1791 & 1792 (LINN, photograph seen).

For synonymy see subspecies.

DISTRIBUTION: See Map, p. 62. The species occurs in dry sclerophyll forest, dry sclerophyll woodland or heath on sandy soils, commonly on stony ridges or slopes, on the Central Coast, South Coast and Southern Tablelands of New South Wales.

KEY TO SUBSPECIES

1. Leaves subspathulate to narrowly obovate, more than 8 mm wide A. *C. longifolium* ssp. *longifolium*
- 1.* Leaves narrowly obovate to linear, less than 8 mm wide.
 2. Widest leaves more than 4 mm wide B. *C. longifolium* ssp. *mediale*
 - 2.* Widest leaves less than 4 mm wide C. *C. longifolium* ssp. *angustifolium*

The division into subspecies developed from the simple observation that the broadest-leaved plants (ssp. *longifolium*) of the species occurred in the northern and eastern part of the species' range (south to Port Jackson) and the narrowest-leaved plants (ssp. *angustifolium*) in the lower Georges River-Waterfall-Appin area. The remaining parts of its distribution are occupied by plants having an intermediate leaf form except in a few separate localities and in zones of intergradation. There are single-collection records of *C. longifolium* ssp. *longifolium* at West Cambewarra, Conjola and Bundanoon; its existence at Twofold Bay requires verification.

C. longifolium ssp. *longifolium* and ssp. *mediale* intergrade in the Putty area at the north-western and northern edges of their respective distributions.

C. longifolium ssp. *mediale* occurs from the Putty area south to Belanglo (W. of Moss Vale) and the Jervis Bay region, including the Kurrajong to Mt Tomah area and the Blue Mountains from Mt Solitary to Glenbrook.

C. longifolium ssp. *mediale* and ssp. *angustifolium* intergrade in the Appin-Bargo area.

The formal treatment for the subspecies follows:—

A. *Conospermum longifolium* Sm. ssp. *longifolium*

C. smithii Pers., Synopsis Pl. 1: 116 (1805), *nomen inval.*

C. longifolium var. *lingulatum* Meisn. in DC. Prodr. 14: 321 (1856), '*α. lingulatum*'.
SYNTYPES: Not seen.

C. longifolium var. *intermedium* Meisn. in DC. Prodr. 14: 321 (1856), '*β. intermedium*'.
TYPE: as for *C. longifolium* Sm.

C. scolopendrinum Gandoger in Bull. Soc. Bot. France 66: 232 (1919). HOLOTYPE:
NEW SOUTH WALES: Port Jackson, Tovey 10.1898 (LY).

B. *Conospermum longifolium* subspecies *mediale* L. Johnson et D. McGillivray, subsp. nov.

A subspeciebus alteris latitudine foliorum intermedia (foliis latissimis 4–8 mm latis) differt.

HOLOTYPE: NEW SOUTH WALES: Balmoral, N. of Hill Top, L.A.S. Johnson NSW 47631, 1.10.1959 (Located in the National Herbarium of New South Wales).

SYNONYMY:

C. scorzonerifolium Gandoger in Bull. Soc. Bot. France 66: 232 (1919). HOLOTYPE:
NEW SOUTH WALES: Blue Mountains, Bäuerlen 8.1899 (LY).

C. *Conospermum longifolium* subspecies *angustifolium* (Meisn.) L. Johnson et D. McGillivray, comb. et stat. nov.

BASIONYM: *C. longifolium* var. *angustifolium* Meisn. in DC. Prodr. 14: 321 (1856), '*γ angustifolium*'. SYNTYPES: Sieber Fl. Nov. Holl. 40; Anderson. (Not seen). ISOSYNTYPE: Sieber Fl. Nov. Holl. 40 (MEL).

SYNONYMY:

? *C. acinacifolium* R. Grah. in Edinburgh Philos. J. 1826: 171 (1826), *fide* Bentham, Fl. Austral. 5: 370 (1870).

C. commutatum Schultes et Schultes f., Syst. Veg. Mant. 3: 275 (1827). TYPE: Sieber Fl. Nov. Holl. 40 (Not seen). ISOTYPE: MEL.

C. longifolium var. *angustifolium* R. Br. ex Benth., Fl. Austral. 5: 370 (1870), *nomen inval.* SYNTYPES: BM, K.

6. ***Conospermum sphacelatum* Hook. in Mitchell's Trop. Australia: 342 (1848); Meisner in DC. Prodr. 14: 320 (1856); Bentham, Fl. Austral. 5: 371 (1870); F.M. Bailey, Queensland Fl. 4: 1322 (1901). HOLOTYPE: QUEENSLAND: Small Shrub. Sandstone Rocks, Sub-Tropical New Holland [c. 25° S., 147° 10' E.] Mitchell 324, 6.10.1846 [the date of collection given in Mitchell's journal, although the specimen is dated, incorrectly, 'Sept 30' when Mitchell was in the vicinity of the present day town of Blackall] (K). ISOTYPES: MEL, NSW.**

Shrub, usually 40–70 cm high, sparingly branched; branchlets tomentose to velutinous. Leaves erect to ascending, linear to narrowly obovate, sometimes almost filiform, 5–10 cm long, 1–3 mm wide; leaf base attenuate; leaf apex acute with a conspicuous ovate to conical umbo; leaf surface sericeous to subvelutinous, sometimes almost glabrous; mid-vein conspicuous. Inflorescence consisting of terminal or sub-terminal panicles 9–15 cm long, each with 8–12 branches, the lower ones sometimes branched again; peduncles sericeous to tomentose, terminal and subterminal peduncles stouter than those in axillary positions; floral bracts broadly ovate to cordate, sericeous; perianth 8.5–10.5 mm long, pubescent; limb 3.5–4 mm long; limb segments markedly divergent; mid-lobe of lower limb 2.0–2.7 mm long; pistil 6.0–7.5 mm long; ovary turbinate, villous, surmounted by a coma of hairs 2.8–4.0 mm long. Fruits not seen.

DISTRIBUTION: QUEENSLAND; restricted to the Leichhardt District; it occurs in stony situations on sandstone.

SPECIMENS EXAMINED: Carnarvon Gorge, *Althofer* 7.1949 (BRI 058856); Nogoia River, E. of Mt Playfair, *Gittins T21*, 7.1966 (BRI); Isla Gorge, 16 miles [25 km] SSW. of Theodore, *Hockings 4*, 9.1963 (BRI).

Conospermum sphacelatum appears to be closely related to *C. longifolium* with which it shares several characteristics, viz., erect to ascending leaves, terminal and subterminal peduncles stouter than those in axillary positions and perianth limb noticeably shorter than the perianth tube.

7. *Conospermum tenuifolium* R. Br. in Trans. Linn. Soc. London 10: 154 (1810); Meisner in DC. Prodr. 14: 321 (1856); Bentham, Fl. Austral. 5: 370 (1870); Maiden, Ill. New South Wales Pl. 2: 50, t. 18 (1908); Beadle, Evans & Carolin, Handb. Vasc. Pl. Sydney Distr.: 182 (1963); Mass, Austral. Wildfl. Magic: 59 fig. (1967); Beadle, Evans & Carolin, Fl. Sydney Region: 215 (1972). TYPE: (BM).

C. repens Sieber ex Schultes et Schultes f., Syst. Veg. Mant. 3: 276 (1827), *nomen illeg.* TYPE: *Sieber Fl. Nov. Holl. No. 45* (Not seen). ISOTYPE: MEL.

DISTRIBUTION: Endemic to Central Coast, South Coast (near Nowra) and Central Tablelands of New South Wales.

ACKNOWLEDGEMENTS

We wish to thank the Directors of the following herbaria for loans of specimens of *Conospermum*:—

Queensland Herbarium (BRI), University of New England (NE), Herbarium Australiense (CANB), National Herbarium of Victoria (MEL), State Herbarium of South Australia (AD), University of Tasmania (HO), British Museum of Natural History (BM), and Royal Botanic Gardens, Kew (K).