

LEPIDOSPERMA

Description: Perennials, often with creeping rhizomes and clump-forming. **Culms** nodeless, compressed or terete. **Leaves** basal; blade isobilateral, culm-like, or occasionally reduced to sheathing scales; ligule present. **Inflorescence** panicle-like, simple or compound; involucre bracts usually shorter than inflorescence. **Spikelets** terete, with 1 bisexual flower (rarely 2) and usually 1 or more male flowers below it. **Glumes** 4-8, spirally arranged; lowest 2-4 empty, mostly shorter than upper fertile glumes; uppermost glume usually reduced. **Hypogynous scales** usually 6, rarely 3, basally inflated at maturity, often bristle-like and scabrous above, falling with nut. **Stamens** 3. **Style** 3-fid, continuous with ovary, persistent and fused with nut, shortly conical to pyramidal, acute to obtuse. **Nut** trigonous to terete, crowned by paler style base, usually smooth at maturity but often irregularly wrinkled, with 3 pale ribs (not always obvious) extending from style base down sides of nut.

Nuts vary little between species, but hypogynous scales can vary within one taxon, often bearing a bristle-like apical appendage.

Distribution and occurrence: World: c. 70 species, Asia, Australia, New Zealand, New Caledonia. Australia: c. 65 species (c. 60 species endemic), all States except N.T.

Taxa not yet included in identification key - *Lepidosperma sieberi*

Key to the genus <i>Lepidosperma</i>		
1	Culms terete, or compressed so as to be oval in cross section (with rounded margins), or 4-angled, or irregularly angular, sometimes grooved, or more or less biconvex with 1 flat acute margin and the other rounded to broad-acute (<i>Lepidosperma semiteres</i>)	2
	Culms flat or concavo-convex or with 1 face convex, or biconvex with 2 clearly defined acute margins	10
2	Rachis strongly flexuous	3
	Rachis straight or scarcely curved	4
3	Leaf sheaths very dark red-brown to dark grey-brown, straw-coloured near apex; fertile glumes 8-11 mm long, scarcely longer than basal sterile glumes; nut 4-5 mm long; hypogynous scales 3, plus 3 swollen stamen filaments	<i>Lepidosperma forsythii</i>
	Leaf sheaths straw-coloured to reddish; fertile glumes 7-9 mm long, to twice as long as the basal sterile glumes; nut 2.8-4 mm long; hypogynous scales 5 or 6, inflated; stamen filaments not swollen	<i>Lepidosperma filiforme</i> ST
4	Spikelets in dense clusters, more or less appressed to central axis of more or less oblong inflorescence	5
	Spikelets loosely arranged along more or less spike-like branches of inflorescence	7
5	Culms 4-angled (strongly so at least in part)	<i>Lepidosperma quadrangulatum</i>
	Culms terete or oval in cross section	6
6	Culms terete but deeply to shallowly 1- or 2-grooved; nut with rounded fused style base	<i>Lepidosperma neesii</i>
	Culms oval in cross section; nut with pyramidal fused style base	<i>Lepidosperma evansianum</i>
7	Culms subterete with 1 acute, flat margin, or irregularly angular, or biconvex with 1 acute margin and 1 rounded; spikelets spreading	<i>Lepidosperma semiteres</i>

	Culms terete or slightly compressed but without acute margins; spikelets appressed to spikelike branches	8
8	Leaf sheaths blackish or very dark red-brown	<i>Lepidosperma urophorum</i> ACT, ST
	Leaf sheaths straw-coloured, reddish, or orange-brown	9
9	Leaf sheaths straw-coloured to reddish; spikelets 6–10 mm long; fertile glumes 7–9 mm long	<i>Lepidosperma filiforme</i> ST
	Leaf sheaths orange-brown to red-brown; spikelets 4–5 mm long; fertile glumes c. 4 mm long	<i>Lepidosperma clipeicola</i>
10	Culms rather spongy, compressible, strongly biconvex	<i>Lepidosperma longitudinale</i> ST
	Culms tough, not or scarcely compressible, flat to biconvex	11
11	Inflorescence with loosely arranged spikelets and/or small inflorescence with few spikelets	12
	Inflorescence with more or less densely clustered, numerous spikelets	18
12	Inflorescence 7–65 cm long, with long, more or less spreading branches	13
	Inflorescence 0.8–8 cm long, spike-like or with short branches more or less appressed to main axis	15
13	Culms with margins viscid, scabrous, often ciliate	<i>Lepidosperma viscidum</i> ST
	Culms with margins scabrous or smooth but not viscid or ciliate	14
14	Culms flat, or slightly convex on 1 face, or concavo-convex, 30–100 cm long, 2–8 mm wide	<i>Lepidosperma laterale</i> ACT, ST
	Culms biconvex, or margins flat with central biconvex ridge, or strongly convex on 1 face and flat on the other, 70–180 cm long, 5–15 mm wide	<i>Lepidosperma elatius</i>
15	Rachis flexuous	<i>Lepidosperma tortuosum</i> ST
	Rachis straight or scarcely curved	16
16	Leaves equalling or exceeding inflorescences (to twice as long)	<i>Lepidosperma curtisiae</i> ACT, ST
	Leaves shorter than inflorescences	17
17	Spikelets mostly 3.5–4 mm long; culms usually biconvex	<i>Lepidosperma gunnii</i> ACT, ST
	Spikelets mostly 5–8.5 mm long; culms usually flat or concavo-convex	<i>Lepidosperma laterale</i> ACT, ST
18	Inflorescence more or less ovate in outline with spreading branches, 2–7 cm diam	19
	Inflorescence more or less narrow-oblong in outline, with branches more or less appressed to central axis, 1–2 (rarely to 3) cm diam	<i>Lepidosperma limicola</i> ST
19	Culms with central biconvex ridge and thin, broad, flattened margins, 5–20 mm wide	<i>Lepidosperma gladiatum</i>
	Culms flat, concavo-convex, or convex on 1 face and flat on the other, 3–7 mm wide	20

20	Culm margins scabrous to scaberulous, somewhat cutting; culms flat, concavo-convex, or convex on 1 face	<i>Lepidosperma concavum</i>
	Culm margins smooth but cutting, often becoming erose with age; culms biconvex or convex on 1 face	<i>Lepidosperma latens</i> ST

Lepidosperma curtisiae

Description: Small tufted perennial with very short rhizome. Culms rigid, erect, +/- convex on one face, flat on the other, +/- striate, glabrous, smooth, 2-17(-25) cm high, 0.7-1.7 mm wide; margins minutely scabrous. Leaves similar in form to culms but usually more flattened and much longer (to twice as long as culms), 0.7-2.0(-2.5) mm wide; sheath straw-coloured above, dark brown at base, rarely reddish, not viscid, +/- dull. Inflorescence narrow-ovate to oblong in outline, erect, 1-3(-5) cm long, 0.5-1 cm diam.; involucre bract shorter to longer than inflorescence. Spikelets few, 4.5-6 mm long. Glumes 4-7, acute to long-acute, mostly mucronate, scaberulous, red-brown; 2 or 3 lowest empty, shorter than fertile glumes; fertile 4.0-5.5 mm long. Scales 6, about a third the length of nut, yellowish. Anthers 0.8-2.7 mm long, excluding appendage 0.2-0.5 mm long. Nut ovoid to narrow-ellipsoid, 2.5-3.5 mm long, 1.3-1.5 mm diam., grey-green to dark brown, smooth, shining.

Flowering: spring-summer.

Distribution and occurrence: Often grows in exposed situations at higher altitudes, also in heath and woodland; (eastern edge of the tablelands). NSW subdivisions: CC, SC, NT, CT, ST. Other Australian states: Vic. Tas. S.A.

Leaves are often twice as long as the culms in Vic. and Tas., but on the CC and CT they often only equal the culms. The style is rarely 4-fid.

Lepidosperma filiforme

Synonyms: *Lepidosperma flexuosum* R.Br.

Description: Slender, tufted perennial with very short rhizome. Culms rigid, erect, terete or slightly compressed, glabrous, smooth, 30-100 cm high, 0.7-2 mm diam. Leaves terete above, channelled near base, often more compressed than culms and shorter, to 1 mm diam., or reduced; sheath straw-coloured to reddish, not viscid, dull. Inflorescence linear to fan-shaped in outline, erect to spreading, rachis straight or flexuous (especially on longer branches), 1-12 cm long, 0.5-8 cm diam.; involucre bract shorter than inflorescence. Spikelets few to numerous, 6-10 mm long. Glumes 4-6, pale red-brown to grey-brown; 2 or 3 lowest empty, shorter than fertile glumes, acute, mucronate, glabrous; fertile 7-9 mm long, long-acute, scaberulous. Scales 5 or 6, a quarter to a third the length of nut, whitish to yellowish. Anthers 2.5-4.3 mm long, excluding appendage 0.8-1.3 mm long. Nut narrow-obovoid to ovoid, 2.8-4.0 mm long, 1.2-1.8 mm diam., grey-green to red-brown, smooth, shining.

Flowering: spring.

Distribution and occurrence: Grows in heath, woodland and forest on sandy soils in coastal areas; south from Evans Head, and on the eastern edge of the tablelands south from Point Lookout area. NSW subdivisions: NC, CC, SC, NT, CT, ST. Other Australian states: Vic. Tas. ?S.A.

L. flexuosum had been distinguished on the basis of more flexuous rachis and on reddish coloration of leaf sheaths. However, the variation seen in N.S.W. in degree of flexing of rachis, and the variation everywhere in colour of leaf sheaths (usually yellowish but reddish often and both colours can be found in the same population), do not seem to correlate. Since all other characters vary little, the two species are here united.

Lepidosperma gunnii

Description: Slender, tufted perennial with short rhizome. Culms rigid, erect, biconvex or rarely flattened on 1 face, glabrous, smooth, 15-40 cm high, 1-2(-2.5) mm wide; margins smooth to scabrous. Leaves similar in form to culms but shorter, 1-2.5 mm wide; sheath mostly straw-coloured or with dark brown base or mostly reddish, not viscid, +/- shining. Inflorescence +/- linear in outline, narrow, erect, 2-8 cm long, 0.5-1 cm diam.; involucre bract shorter than inflorescence. Spikelets few, 3.5-4(-5.5) mm long. Glumes 4-7, scaberulous near apex, red-brown; 2 or 3 lowest empty, shorter than fertile glumes, acute,

mucronate; fertile 2.5-3.5(-4.5) mm long, long-acute. Scales 6-8, a third to half the length of nut, yellowish. Anthers 1.7-2.2 mm long, excluding appendage c. 0.5 mm long. Nut ovoid, 2.5-3.3 mm long, 1.2-1.7 mm diam., pale brown, wrinkled to smooth, shining.

Flowering: Spring-summer.

Distribution and occurrence: Grows in woodland and heath, often in damper areas, on a range of substrates, mainly eastern edge of tablelands and south from Hornsby on the coast; CWS: only upper Hunter Valley. NSW subdivisions: NC, CC, SC, NT, CT, ST, NWS, CWS. Other Australian states: Qld Vic. Tas.

Close to *L. laterale*, with which it may be found growing occasionally.

Lepidosperma latens

Description: Tufted perennial with short rhizome. Culms rigid, erect, biconvex, or convex on 1 face and +/- flat on other, glabrous, smooth, 35-60 cm high, 3.5-4.5 mm wide; margins acute, cutting, readily erose with age, yellowish. Leaves often flatter than culms or convex on 1 face, flat on the other, shorter than culms, 2.5-4 mm wide; sheath straw-coloured at apex, otherwise very dark brown to black, occasionally viscid, very smooth and +/- shining. Inflorescence ovate to oblong in outline, erect, 5-12 cm long, 2-4 cm diam.; involucre shorter than inflorescence. Spikelets +/- few, 6-7 mm long. Glumes 5 or 6, red-brown with blackish apex and mucro, glabrous or puberulous; lowest 3 or 4 sterile, shorter than fertile glumes, obtuse to acute, mucronate; fertile 5.5-7.0 mm long, obtuse and mucronate to long-acute. Scales 6, about a quarter the length of nut, whitish to yellowish. Nut narrow-ellipsoid to narrow-ovoid, c. 2.8 mm long, 1.2-1.4 mm diam., dark grey to red-brown, smooth, shining.

Flowering: Spring-summer.

Distribution and occurrence: Grows in heath and open woodland on sandy soils, most commonly in the Blue Mtns to the Budawang Ra., extending east to Sydney region and with apparently isolated occurrences on the Koonyum Ra. NSW subdivisions: NC, CC, SC, CT, ST

Previously confused with *L. laterale* and *L. viscidum*. *L. limicola* has similar bases and biconvex culms but it has an oblong inflorescence with appressed clusters of spikelets, and has culm margins very scabrous, and grows in swamps.

Lepidosperma laterale

Synonyms: *Lepidosperma lineare* R.Br., *Lepidosperma laterale* var. *angustum* Benth., *Lepidosperma angustifolium* Hook.f.

Description: Tufted perennial with very short rhizome. Culms rigid, erect, flat to slightly convex on one face or concavo-convex, glabrous, smooth or rarely scabrous, 30-100 cm high, (2-)3-8 mm wide; margins scabrous or rarely smooth. Leaves similar in form to culms but shorter, 3-8 mm wide; sheath reddish or dark grey-brown at base, straw-coloured at apex, rarely all straw-coloured, not viscid, +/- shining. Inflorescence +/- linear in outline, erect to somewhat spreading, 4-20(-38) cm long, 1-1.5 cm diam.; involucre shorter than inflorescence. Spikelets +/- few, (4-)5-8.5 mm long. Glumes 4-6, puberulous, red-brown to grey-brown; 2-4 lowest empty, shorter than fertile glumes, acute, mucronate; fertile (3.5-)4.0-6.5 mm long, long-acute. Scales 6, a quarter to a third the length of nut, pale brown. Anthers c. 1.8 mm long, excluding appendage c. 0.7 mm long. Nut ovoid, 2.5-4 mm long, 1.3-2.0 mm diam., pale to dark brown, wrinkled to smooth, shining.

Flowering: spring-summer.

Distribution and occurrence: Widespread, west to Lockhart area. Also Qld, Vic, Tas, SA; New Caledonia, New Zealand. Grows in a range of habitats, especially woodland and forest, mostly on sandy soils, often on rocky hillsides. NSW subdivisions: NC, CC, SC, NT, CT, ST, NWS, CWS, SWS, SWP. Other Australian states: Qld Vic. Tas. S.A.

A variable species, whose limits compared with the preceding and following species are not clear. Several varieties have been recognized in this species, but they do not seem to be useful categories. The style is sometimes 4-fid.

Lepidosperma limicola

Synonyms: *Lepidosperma limicolum* subsp.

Description: Tufted perennial with short vertical rhizome. Culms rigid, erect, biconvex, striate, glabrous, smooth, 60-150 cm high, 3-6 mm wide; margins very scabrous, cutting, yellowish. Leaves similar in form to culms (or rounded on one edge) but shorter, 2.5-5 mm wide; sheath yellowish near apex, dark grey-brown or blackish at base, not viscid, shining. Inflorescence oblong in outline, narrow, erect, dense, 5-15 cm long, 1-2 (rarely to 3) cm diam.; involucre bract shorter than inflorescence. Spikelets numerous, 5-9 mm long. Glumes 5-7, glabrous, red-brown to grey-brown; 3 lowest empty, shorter than fertile glumes, acute, mucronate; fertile 5.0-7.0 mm long, long-acute to acute. Scales 5 or 6, a quarter to half the length of nut, yellowish. Anthers 2.3-3.8 mm long, excluding appendage 0.5-0.8 mm long. Nut narrow-ellipsoid to ellipsoid, 2.5-3.5 mm long, 1.0-1.5 mm diam., pale brown to greyish brown, smooth, shining.

Flowering: Spring-summer.

Distribution and occurrence: Occasional near coast, mainly on coastal ranges and eastern part of tablelands. Grows in swamps. NSW subdivisions: NC, CC, SC, NT, CT, ST. Other Australian states: Qld Vic.

Lepidosperma longitudinale, Pithy Sword-sedge

Description: Clump-forming perennial with short thick rhizome. Culms rigid but compressible, erect, thickly biconvex, glabrous, smooth, 60-200 cm high, 5-10 mm wide; margins acute but smooth, yellowish. Leaves similar in form to culms but shorter and often less strongly biconvex, 3-10 mm wide; sheath yellow-brown to grey-brown at base, often reddish near apex (culm bases similarly coloured), not viscid, shining. Inflorescence elongated-oblong in outline, narrow-erect to spreading, dense, 15-50 cm long, 2-8 cm diam.; involucre bract shorter than inflorescence. Spikelets numerous, 6-8 mm long. Glumes 5-7, acute, often mucronate, red-brown; lowest 1-3 empty, shorter than fertile glumes; fertile 5-6 mm long. Scales 6, a quarter to half the length of nut, whitish. Anthers 1.8-3.2 mm long, excluding appendage 0.5-0.8 mm long. Nut narrow-ellipsoid, 2.5-3.5 mm long, 1.5-1.7 mm diam., pale to dark brown, smooth, shining.

Flowering: Spring.

Distribution and occurrence: mainly in coastal areas, extending inland to lower Blue Mtns (Glenbrook). Grows in swampy areas. NSW subdivisions: NC, CC, SC, NT, CT, ST. Other Australian states: Qld Vic. Tas. W.A. S.A.

The culms can be readily compressed with the fingers, and the margins are not cutting, unlike those of *L. limicola*.

Lepidosperma sieberi

Description: Tufted perennial with short vertical rhizome. Culms rigid, erect, flat, or convex on one face, or concavo-convex, glabrous, smooth or striate, 20-60 cm high, 3-7 mm wide; margins scabrous or scaberulous, sharp. Leaves similar in form to culms but usually shorter, 3-6 mm wide; sheath straw-coloured or rarely reddish near apex, dark yellow-brown to grey-brown at base, not viscid, ± dull. Inflorescence ovate to oblong in outline, erect, ± dense, 3-15 cm long, 2-4 cm diam.; involucre bract shorter than inflorescence (rarely longer if inflorescence is depauperate). Spikelets numerous, 5-8 mm long. Glumes 6-8, puberulous, red-brown to grey-brown; 2 or 3 lowest empty, shorter than fertile glumes, obtuse to acute, mucronate; fertile 6-7 mm long, long-acute to acute. Scales 6, one-third to three-fifths the length of nut, whitish. Anthers 2.5-4.0 mm long, excluding appendage 0.3-1.0 mm long. Nut ovoid to obovoid, 2.7-4.0 mm long, 1.3-1.8 mm diam., pale to dark brown, shining, smooth.

Flowering: Spring-summer.

Distribution and occurrence: Grows in heath, woodland and forest on sandy soils; mainly coastal areas, also Hilltop, and the Budawang Ra. NSW subdivisions: NC, CC, SC, CT, ST. Other Australian states: Qld Vic. Tas. S.A.

This was long confused with *L. concavum*, which is a somewhat more robust species restricted to the Sydney coastal region. [The description here has yet to be finalised]

Lepidosperma tortuosum

Description: Small tufted perennial with very short rhizome. Culms rigid, often somewhat twisted, biconvex centrally with flat margins, striate, scabrous to smooth, 10-35 cm high, 0.5-1.5(-2.0) mm wide; margins scabrous. Leaves slightly biconvex with central groove on each face, shorter than culms, 0.5-

1.5(-2.0) mm wide; sheath yellow-brown to reddish, not viscid, +/- shining. Inflorescence +/- ovate, of several small clusters of spikelets with flexuous rachis, 0.8-4 cm long, 0.5-1 cm diam.; involucre bract shorter than to longer than inflorescence. Spikelets few, 5-8 mm long. Glumes 5-7, red-brown with straw-coloured patches to grey-brown; 3 or 4 lowest empty, much shorter than fertile glumes, obtuse, mucronate, glabrous; fertile 4-5 mm long, acute, scaberulous. Scales 6, a third to two-thirds the length of nut, whitish. Nut ellipsoid to ovoid, 2.0-2.7 mm long, c. 1.5 mm diam., grey-green, +/- smooth, shining.

Flowering: Spring-summer.

Distribution and occurrence: On the eastern edge of the tablelands, south from Timbarra, extending east to Carrai Plateau. Grows in mountain heath and woodland. NSW subdivisions: NC, SC, NT, CT, ST.

Other Australian states: Vic. Tas. ?S.A.

The rachis is occasionally not very flexuous (e.g. in some specimens from the CT).

Lepidosperma urophorum

Description: Tufted perennial with very short rhizome. Culms rigid, erect to arching, terete or often shallowly concave on one side or obscurely trigonous, striate, glabrous, smooth, 60-150 cm high, 0.8-1.8 mm diam. Leaves usually reduced, to 2 cm long, or similar in form to culms but shorter, < 1 mm diam.; sheath blackish to very dark red-brown (culms often reddish near base), not viscid, +/- dull. Inflorescence fan-shaped or linear in outline, consisting of 1 to several slender spikes, 3-8 cm long, 0.5-2 cm diam.; involucre bract shorter than inflorescence. Spikelets +/- few, 5-7 mm long. Glumes 4 or 5, puberulous to glabrous, grey-brown to red-brown; 2 lowest empty, slightly shorter than fertile glumes, obtuse to acute, mucronate; fertile 4-5.5 mm long, acute, mucronate. Scales 6, a third to half the length of nut, yellowish. Nut narrow-ellipsoid to ovoid, 3.0-4.0 mm long, 1.5-2.3 mm diam., pale brown to dark greyish, wrinkled to smooth.

Flowering: Spring-summer.

Distribution and occurrence: South from Bulga State Forest. Grows in forest, often near streams on sandy soils. NSW subdivisions: NC, CC, SC, NT, CT, ST. Other Australian states: Vic.

Lepidosperma viscidum

Description: Clump-forming perennial with short rhizome. Culms rigid, erect, flat or with one surface slightly convex, glabrous, smooth, 35-60 cm high, 2.5-8 mm wide; margins scabrous, viscid, often ciliate. Leaves similar in form and length to culms, 2-7 mm wide; sheath straw-coloured or rarely reddish near apex, dark brown to blackish at base, +/- viscid, shining. Inflorescence oblong to ovate in outline, erect, occasionally viscid, 7-22 cm long, 1.5-3 cm diam.; involucre bract shorter than inflorescence. Spikelets numerous, 4-7 mm long. Glumes 5 or 6, puberulous near apex or glabrous, red-brown to blackish brown; 2 lowest empty, shorter than fertile glumes, obtuse to acute, mucronate; fertile 4-6 mm long, long-acute. Scales 6, to a quarter the length of nut, pale red-brown. Anthers 1.7-2.5 mm long, ? Nut narrow-ellipsoid to narrow-ovoid, 2.3-3.0 mm long, 1.2-1.5 mm diam., pale to dark brown, smooth, shining.

Flowering: Spring.

Distribution and occurrence: Grows from Sydney to Jervis Bay and inland to the Blue Mtns and the ranges south from Sandy Hollow, possibly farther north. Grows in heath and woodland on sandy and rocky sites. NSW subdivisions: NC, CC, SC, NT, CT, ST. Other Australian states: Qld Vic. Tas. S.A. In mallee regions, there is a possibly separate taxon, which differs from typical *L. viscidum* in having less scaberulous, non-ciliate margins and with the culm surface rather like that of *L. concavum*. This form is found in the Murray Mallee and Lowan Mallee regions in Vic., and the SFWP (NE of Euston only) in N.S.W. and S.A.