

ISOLEPIS

Description: Slender annuals or more rarely perennials with erect nodeless culms, tufted or on slender rhizomes, and leaves basal and often reduced to sheaths; OR aquatic elongate perennials with slender culms rooting at the nodes, sometimes floating. **Inflorescence** a pseudolateral sessile head of 1-several (occasionally numerous) spikelets with numerous flowers. **Involucral bracts** 0-2 exceeding inflorescence, usually lowest erect and leaf-like, often falling early. **Glumes** spirally arranged, mostly folded laterally when immature but spreading almost flat at maturity. **Hypogynous bristles** absent. **Stamens** 1-3. **Style** 2- or 3-fid, not thickened at base, deciduous. **Nut** trigonous or lenticular or rarely subglobose, smooth or trabeculate or verruculose but not rugose.

Distribution and occurrence: World: c. 70 species, widespread, especially Africa & Australia. Australia: c. 29 species (c. 15 species endemic), all States.

	Key to the genus <i>Isolepis</i>	
1	Style 2-fid	2
	Style 3-fid	6
2	Culms weak, floating or creeping, usually long and leafy (at least in water); lowest involucral bract glume-like or with a short thickened appendage, usually shorter than inflorescence; spikelet always 1	3
	Culms usually erect, to 45 cm high; involucral bract solitary, leaf-like, usually as long as or exceeding the inflorescence, to as long as the culm; spikelets 1–15	5
3	Spikelets ovate to broad-elliptic in outline, only slightly flattened, c. 15-flowered, 5–8 mm long	<i>Isolepis crassiuscula</i> ACT, ST
	Spikelets more or less elliptic in outline, slender, strongly flattened, 5–10(–15)-flowered, 3–5 mm long	4
4	Glumes 2.5–3.3 mm long, usually dark red-brown to blackish; stamens 3; anthers 1.5–2.7 mm long; nut obovoid with angles slightly ribbed	<i>Isolepis producta</i> ST
	Glumes 1.7–2.8 mm long, occasionally with red-brown patches; stamens 2(–3); anthers 0.5–1.0 mm long; nut broad-obovoid to ellipsoid, angles not ribbed	<i>Isolepis fluitans</i> ACT, ST
5	Spikelets usually 3–15 per inflorescence, often proliferating; stamens 1 or rarely 2; nut 0.7–1 mm long	<i>Isolepis inundata</i> ACT, ST
	Spikelet 1, not proliferating; stamens 2 or rarely 3; nut 1.4–1.8 mm long	<i>Isolepis fluitans</i> ACT, ST
6	Plant with a long-creeping, thick, woody rhizome to 10 mm diam. (formerly <i>I. nodosa</i>)	<i>Ficinia nodosa</i> ACT
	Plants tufted or with a filiform rhizome	7
7	Nut longitudinally striate and transversely trabeculate	<i>Isolepis hookeriana</i> ST
	Nut surface smooth or minutely reticulate, punctulate or verruculose	8
8	Slender perennial with numerous spikelets clustered in a more or less dense head, usually proliferating; culms 1–3 mm diam	<i>Isolepis prolifera</i>
	Small perennials or annuals with 1–15 spikelets per inflorescence, sometimes proliferating; culms mostly filiform, usually less than 1 mm diam	9
9	Glumes arranged distichously (in two rows) so spikelet is laterally flat	<i>Isolepis levynsiana</i>

		ACT, ST
	Glumes arranged spirally so spikelet is clearly 3-dimensional, more or less terete	10
10	Spikelets squarrose; glumes with long mucro about as long as the body of the glume; nut about a third as long as glume body	<i>Isolepis hystrix</i>
	Spikelets not squarrose; glumes not long-mucronate, occasionally short-mucronulate; nut mostly at least half as long as glume (except in <i>Isolepis congrua</i> and <i>I. victoriensis</i>)	11
11	Stamens 3	12
	Stamens 1 or 2	20
12	Nut less than 0.7 mm long	13
	Nut 0.7–1.5 mm long	14
13	Nut dark brown to black; glumes 1–1.5 mm long, with sides irregularly but conspicuously 2–5-nerved	<i>Isolepis platycarpa</i> ACT, ST
	Nut straw-coloured to dark red-brown; glumes 0.8–1.2 mm long, with sides nerveless or rarely with 1 nerve at edge of midrib	<i>Isolepis australiensis</i>
14	Plant with leaves to twice as long as culms and involucral bracts same length as culms	<i>Isolepis montivaga</i> ACT, ST
	Plants with leaves and involucral bracts shorter than culms	15
15	Glumes obtuse	16
	Glumes acute	18
16	Nut with angles not well-defined, dark brown to black, 0.5–0.8 mm long; tufted annual or ?short-lived perennial	<i>Isolepis platycarpa</i> ACT, ST
	Nut with angles well-defined, pale yellow to dark grey-brown, 0.7–1.1 mm long; perennials, mostly shortly rhizomatous	17
17	Nut yellow-brown to dark grey-brown, half to two-thirds as long as glume; glumes mostly straw-coloured to orange-brown or red-brown	<i>Isolepis cernua</i> ACT, ST
	Nut pale yellow to pale red-brown, about seven-eighths as long as glume; glumes straw-coloured tinged dark red-brown to mostly dark red-brown	<i>Isolepis subtilissima</i> ACT, ST
18	Glumes with sides strongly 4–6-nerved, shining; tufted annual	<i>Isolepis marginata</i> ACT, ST
	Glumes with sides irregularly and finely 2–4-nerved, dull; usually rhizomatous perennials	19
19	Nut unequally trigonous, remaining on bare axis after glumes and involucral bracts fall	<i>Isolepis aucklandica</i> ACT, ST
	Nut equally trigonous, not remaining on bare axis	<i>Isolepis habra</i> ACT, ST
20	Nut 0.4–0.6 mm long	21
	Nut 0.7–1.5 mm long	25
21	Glumes with 3 or 4 nerves spread over each side	22
	Glumes with sides markedly hyaline, with 1 nerve or none on each side close to	23

	midrib	
22	Glumes 1.2–2 mm long; spikelets 2–7 per inflorescence, 3.5–6 mm long; involucre bract 1–6 cm long (often as long as culm); nut straw-coloured	<i>Isolepis gaudichaudiana</i> ACT, ST
	Glumes 0.5–1 mm long; spikelets 1–3 per inflorescence, 1.5–3 mm long; involucre bract less than 1 cm long; nut dark brown to black	<i>Isolepis sepulcralis</i> ACT
23	Hyaline sides of glumes 0.4–0.6 mm wide, with the cell outlines clearly visible at 15–20 times magnification (cells usually c. 0.1 mm long, 0.05 mm wide); glumes 1.5–2 mm long (rarely as short as 1.3 mm); nut broad-ellipsoid to broad-obovoid, with the sides more or less concave, the angles acute, prominent; leaf blades often 4–9 cm long	<i>Isolepis congrua</i>
	Hyaline sides of glumes 0.2–0.3(–0.4) mm wide, with inconspicuous cell outlines; glumes 0.8–1.6 mm long; nut obovoid to broad-obovoid, with the sides convex or flat, the angles obtuse; leaf blades usually less than 3 cm long	24
24	Glumes usually hyaline tinged dark red-brown, 0.8–1.2 mm long, nerveless or rarely with 1 nerve close to the midrib on each side; nut half to two-thirds as long as glume, pale brown to dark red-brown	<i>Isolepis australiensis</i>
	Glumes usually hyaline, rarely with red-brown patches, 1.1–1.6 mm long, with 1 nerve at the midrib margin on each side; nut about a third as long as glume, white with underlying red-brown to blackish at maturity	<i>Isolepis victoriensis</i>
25	Plant with leaves to twice as long as culms and involucre bracts 1–6 cm long, mostly as long as culms	26
	Plants with leaves and involucre bracts shorter than the culms (bracts to 2 cm long)	27
26	Nut 0.6–0.8 mm long, more or less equally trigonous, with angles well-defined, straw-coloured, minutely punctulate, glistening; spikelets 2–7 per inflorescence	<i>Isolepis gaudichaudiana</i> ACT, ST
	Nut 0.9–1.3 mm long, unequally trigonous, with angles not well-defined, straw-coloured to grey-brown, smooth with a minutely reticulate pattern under the surface, shining; spikelets 1–3 per inflorescence	<i>Isolepis montivaga</i> ACT, ST
27	Glumes with the broad midrib produced in a relatively stout excurved or straight mucro	28
	Glumes mucronulate or with the midrib not produced at all	29
28	Hyaline sides of glumes 0.2–0.3(–0.4) mm wide, with inconspicuous cell outlines, 1–3-nerved; nut unequally trigonous	<i>Isolepis stellata</i>
	Hyaline sides of glumes 0.4–0.6 mm wide, with the cell outlines clearly visible at 15–20 times magnification, nerveless or with 1 nerve close to midrib; nut equally trigonous	<i>Isolepis congrua</i>
29	Glumes straw-coloured to orange-brown or red-brown; nut yellow-brown to dark grey-brown; inflorescence not proliferating	<i>Isolepis cernua</i> ACT, ST
	Glumes straw-coloured with dark red-brown patches to uniformly dark red-brown; nut pale yellow to pale red-brown; inflorescence often proliferating	30
30	Spikelets usually 3–15 per inflorescence; nut with third angle not well-defined; inflorescence often proliferating	<i>Isolepis inundata</i> ACT, ST
	Spikelets 1–3 per inflorescence; nut with all three angles well-defined;	31

	inflorescence occasionally proliferating	
31	Nut unequally trigonous, 0.7–1 mm long, 0.5–0.7 mm diam., about seven eighths as long as glume; glumes 0.8–1.3 mm long; culms to 10 cm high	<i>Isolepis subtilissima</i> ACT, ST
	Nut equally trigonous, 0.8–1.4 mm long, 0.6–0.8 mm diam., about three-quarters as long as glume; glumes 1.3–1.8 mm long; culms 7–30 cm high	<i>Isolepis habra</i> ACT, ST

Isolepis aucklandica

Synonyms: *Scirpus aucklandicus* (Hook.f.) Boeck.

Description: Small clump-forming perennial, with short filiform rhizome. Culms filiform, to 12 cm high. Leaves reduced, shorter than culms. Spikelet 1 (rarely 2), 1–2.5 mm long; involucre bract much longer than spikelet, caducous, with base partially enclosing spikelet. Glumes acute, not or scarcely mucronate, sides irregularly several-nerved, 1.2–2 mm long, pale brown often dotted or tinged dark red-brown, deciduous. Stamens 3, rarely fewer in upper flowers; anthers 0.5–0.8 mm long. Style 3-fid. Nut unequally trigonous, with angles acute, ellipsoid, two-thirds to three-quarters as long as glume, 0.8–1.5 mm long, 0.6–0.9 mm diam., minutely reticulate, shining, pale yellow to grey-brown; often persistent on bare rachilla.

Flowering: summer.

Distribution and occurrence: Grows in stream banks and swamps at high altitudes (to alpine); higher tablelands (Barrington Tops, Brindabella Ra., and Kosciusko area). NSW subdivisions: NT, ST. Other Australian states: Qld Vic. Tas.

Characteristically, this species is found with the glumes and involucre bract fallen, leaving the nuts persistent on the bare axis of the spikelet.

Isolepis cernua, Nodding Club-rush

Synonyms: *Synonyms:* *Scirpus cernuus* Vahl, *Scirpus psammophilus* S.T.Blake, *Isolepis cernua* (Vahl) Roem. & Schult. var. *cernua*

Description: Small tufted or clump-forming, rhizomatous perennial. Culms filiform, 2–20 cm high. Leaves reduce; blade to 4 cm long. Spikelet 1, occasionally to 3, 2–6 mm long; involucre bract usually shortly exceeding spikelets, to 1 cm long. Glumes obtuse, with sides +/- conspicuously 2–6-nerved, 1–2 mm long, straw-coloured to orange- or red-brown. Stamens 3. Style 3-fid. Nut unequally trigonous with third angle usually obvious, obovoid to broad-ellipsoid or broad-obovoid, half to two thirds as long as glume, 0.8–1 mm long, 0.5–0.8 mm diam., minutely reticulate, glistening, yellow-brown to dark grey-brown.

Flowering: spring-summer.

Distribution and occurrence: Grows in moist places, from sea fronts to forest openings at higher altitudes; inland to upper Hunter Valley and Albury area. NSW subdivisions: NC, CC, SC, CT, ST, CWS, SWS. Other Australian states: Qld Vic. Tas. W.A. S.A.

A variable species that may include several forms over its world range.

Isolepis crassiuscula

Synonyms: *Scirpus crassiusculus* (Hook.f.) Benth.

Description: Aquatic perennial, with culms leafy, submerged and elongated or creeping and rooting at nodes or erect and tufted (on 'dry' land). Spikelet solitary, ovate to broad-elliptic in outline, slightly flattened, c. 15-flowered, 5–8 mm long; involucre bract shorter than to slightly exceeding spikelet, glume-like or with short thickened appendage. Glumes obtuse, conspicuously numerous-nerved, 3–4 mm long, whitish or straw-coloured, often with orange-brown to dark red-brown dots or patches. Stamens 2 or 3; anthers 1.0–1.5 mm long. Style 2-fid. Nut plano-convex, with well-defined margins, obovoid to ellipsoid, about half as long as glume, 1.5–2 mm long, 0.8–1.4 mm diam., smooth, minutely reticulate, shining, grey-brown.

Flowering: spring-summer.

Distribution and occurrence: Grows in high altitude to alpine swamps along the tablelands. NSW subdivisions: NT, CT, ST. Other Australian states: Qld Vic. Tas.

These are coarser plants and with nerves more prominent on glumes than in *I. producta* and *I. fluitans*. Occurs at higher altitudes than either of those species.

Isolepis fluitans, Floating Club-rush

Synonyms: *Scirpus fluitans* L

Description: Slender, aquatic or dry-land perennial. Culms weak, filiform, leafy, submerged and elongated or creeping and procumbent or erect and tufted and to 10 cm high. Spikelets solitary, elliptic in outline, strongly flattened, 5-10-flowered (rarely to 15 flowers), 3-5 mm long; involucre shorter than to slightly exceeding spikelet, glume-like or with a short thickened appendage. Glumes obtuse, conspicuously numerous-nerved, 1.7-2.8 mm long, straw-coloured with red-brown patches. Stamens 2 or rarely 3; anthers 0.5-1.0 mm long. Style 2-fid. Nut plano-convex, with angles not well-defined, broad-obovoid to ellipsoid, half to three-quarters as long as glume, 1.4-1.8 mm long, c. 1 mm diam., smooth, minutely reticulate, shining, grey-brown to dark brown.

Flowering: spring-summer.

Distribution and occurrence: Grows in swamps and streams; scattered along coast and tablelands. NSW subdivisions: CC, SC, NT, ST, SWS. Other Australian states: Qld Vic. Tas. W.A. S.A.

Isolepis gaudichaudiana, Benambra Club-sedge

Synonyms: *Scirpus inundatus* var. *floribundus* Benth.

Description: Small, tufted annual or ?perennial. Culms filiform, 3-10 cm high. Leaves with blade to 2 cm long. Spikelets 2-7 per inflorescence, rarely a solitary spikelet, 3.5-6 mm long; involucre 1-6 cm long (usually at least half as long as culm, often as long as culm). Glumes obtuse, mucronulate, sides not or indistinctly irregularly several-nerved, 1.2-2 mm long, whitish to straw-coloured. Stamen 1. Style 3-fid. Nut +/- equally trigonous, angles well-defined, ellipsoid to broad-ellipsoid, about half as long as glume, 0.6-0.8 mm long, 0.5-0.7 mm diam., minutely punctulate, glistening, straw-coloured.

Flowering: summer.

Distribution and occurrence: Widespread but scattered in moist open situations; south from Armidale area. NSW subdivisions: CC, NT, CT, ST, CWS, SWS. Other Australian states: Vic. Tas.

Apparently intermediate in characters between *I. inundata* and *I. montivaga* (e.g. this has 1 stamen as in *I. inundata* but the spikelets look similar to those of *I. montivaga*). These species need further study. *I. montivaga* differs in having a larger nut (to c. 1.3 mm long, about two-thirds as long as glume), unequally trigonous with the third angle often not clearly defined, darker yellow to grey-brown. It only occurs at higher altitudes. The involucre bracts in *I. inundata* are always much shorter than the culms (to 1.5 cm long), unlike both *I. montivaga* and this species. There is a dwarfed form with slightly smaller nut (c. 0.7 mm long) and glumes (c. 1.2 mm long) from the Brindabella Ra. to the Kosciusko area, behaving as a pioneer annual in solifluction trenches in grassland.

Isolepis habra

Synonyms: *Scirpus habrus* Edgar

Description: Slender shortly rhizomatous perennial, occasionally proliferating. Culms filiform, 7-30 cm high. Leaves well-developed; blade to 12 cm long. Spikelets 2 or 3, rarely reduced to 1, 2-3 mm long; involucre exceeding inflorescence. Glumes +/- acute, not or scarcely mucronate, sides +/- conspicuously 3- or 4-nerved, 1.3-1.8 mm long, straw-coloured tinged red-brown or uniformly dark red-brown. Stamens 2 or rarely 3 in the lower flowers in a spikelet, 1 in upper; anthers 0.5-0.7 mm long. Style 3-fid. Nut equally trigonous, with angles well-defined, ellipsoid to broad-ellipsoid or ovoid, about three-quarters as long as glume, 0.8-1.4 mm long, 0.6-0.8 mm diam., minutely roughened, glistening, straw-coloured to pale red-brown.

Flowering: spring-summer.

Distribution and occurrence: Grows in moist places, south from near Dorrigo. NSW subdivisions: NC, SC, NT, CT, ST. Other Australian states: Vic. Tas.

Isolepis hookeriana

Description: Small tufted annual. Culms filiform, to 12 (rarely to 25) cm high. Leaves reduced; blade to 10 mm long. Spikelets 1-4 per inflorescence, 1.5-5 mm long; involucre bract shorter than to slightly exceeding inflorescence. Glumes obtuse, sides nerveless or 1- or 2-nerved, 1.2-1.5 mm long, straw-coloured to dark red-brown. Stamens 3 or rarely 2. Style 3-fid. Nut terete, globose to broad-ellipsoid, about half as long as glume, 0.5-0.7 mm long, 0.4-0.5 mm diam., striate and trabeculate, white to olive-grey or blackish, opalescent.

Flowering: winter-spring.

Distribution and occurrence: Grows in moist situations; widespread but scattered on coast and tablelands, west to Bourke, Mt Hope, and Moama. NSW subdivisions: CC, NT, CT, ST, NWS, CWS, SWS, NWP, SWP. Other Australian states: Qld Vic. Tas. W.A. S.A.

Isolepis inundata

Synonyms: *Scirpus inundatus* (R.Br.) Poir.

Description: Slender, tufted or shortly rhizomatous perennial, often proliferating. Culms 5-50 cm high, to 1 mm diam. Leaves reduced; blade to 6 cm long. Spikelets 3-15 per inflorescence or rarely a solitary spikelet, 2-6 mm long; involucre bract equalling or exceeding spikelets, to 1.5 cm long. Glumes obtuse to subacute, with sides irregularly 2-5-nerved, 1.5-2 mm long, straw-coloured with often extensive dark red-brown to blackish patches on sides. Stamens 1 or rarely 2. Style usually 3-fid. Nut unequally trigonous or rarely biconvex, third angle not well-defined, broad-obovoid to obovoid or broad-ellipsoid, half to two-thirds as long as glume, 0.7-1 mm long, 0.6-0.8 mm diam., minutely reticulate to verruculose, glistening, pale yellow to pale red-brown.

Flowering: spring-summer.

Distribution and occurrence: Widespread in moist places; on the coast and tablelands, inland to near Yetman, Munghorn Gap and Griffith; also in Qld, Vic, Tas, SA and WA. NSW subdivisions: NC, CC, SC, NT, CT, ST, CWS, SWS, NWP, SWP. Other Australian states: Qld Vic. Tas. W.A. S.A.

**Isolepis levynsiana*

Synonyms: *Cyperus tenellus* L.f.

Description: Dwarf tufted annual. Culms filiform, trigonous to compressed, 1-8 cm high. Leaves filiform, not septate-nodulose, shorter than culms. Inflorescence a pseudolateral, digitate cluster of 1-4 sessile spikelets; involucre bracts leaf-like, 1 erect, shorter or longer than inflorescence. Spikelets flattened, 4-8 mm long, 2-2.5 mm wide, 4-20-flowered; rachilla not winged, persistent. Glumes obtuse or shortly acuminate, with sides 2-5-nerved, 1.5-1.7 mm long, greenish to pale brown, often tinged red-brown. Stamens 1-3. Style 3-fid.

Nut triquetrous, ellipsoid to obovoid, half to two-thirds as long as glume, 0.8-1.0 mm long, 0.6-0.7 mm diam., pale to mid-brown.

Flowering: spring-summer.

Distribution and occurrence: Widespread across south-eastern NSW and southern Australia in general. Native of S Afr. Grows in damp, open situations, often disturbed; sporadically naturalized near habitation. NSW subdivisions: *NC, *CC, *SC, *CT, *ST, *CWS, *SWS, *SWP. Other Australian states: *Qld *Vic. *Tas. *W.A. *S.

**Isolepis marginata*

Synonyms: *Scirpus antarcticus* auct. non L

Description: Small tufted annual. Culms filiform, to 10 cm high. Leaves with blade shorter than culms, to 4 cm long. Spikelets 1-6 (rarely to 12) per inflorescence, 3-7 mm long; involucre bract erect or spreading, longer than spikelets. Glumes rather rigid, with stout midrib, sides shining with 4-6 conspicuous nerves, 1.5-2 mm long, straw-coloured, often with red-brown to blackish patches. Stamens 3. Style 3-fid. Nut equally trigonous, obovoid to ellipsoid or broad-ellipsoid, angles subacute, about two thirds the length of glume, 0.8-1.2 mm long, 0.5-0.7 mm diam., minutely roughened or reticulate, +/- shining, straw-coloured to dark brown.

Flowering: spring.

Distribution and occurrence: Scattered in moist, often disturbed, situations. Native of S Afr. NSW subdivisions: *CC, *SC, *CT, *ST, *CWS, *SWS, *SWP, *SFWP. Other Australian states: *Vic. *Tas. *W.A. *S.A.

Isolepis montivaga

Synonyms: *Scirpus montivagus* S.T.Blake

Description: Densely tufted small perennial with short rhizome. Culms filiform, 0.5-4 cm high. Leaves longer than culms; blade to 6 cm long. Spikelets 1-3, +/- hidden amongst leaves, 3-7 mm long; involucre bract to as long as culm, to 3 cm long. Glumes acute, not or scarcely mucronate, with the midrib prominently thickened distally, sides faintly and irregularly several-nerved, 1.5-2.2 mm long, whitish to straw-coloured, often flecked red-brown. Stamens 2 or 3 in lowermost flowers of a spikelet, 1 in upper; anthers 0.5-1 mm long. Style 3-fid. Nut unequally trigonous, obovoid or ellipsoid, with angles not well-defined, half to two-thirds as long as glume, 0.9-1.3 mm long, 0.5-0.8 mm diam., minutely reticulate, shining, straw-coloured to grey-brown.

Flowering: summer.

Distribution and occurrence: Grows in subalpine and alpine bog areas and moist open places in the Kosciusko area. NSW subdivisions: ST. Other Australian states: Vic.

Leaves and involucre bracts are very long compared with culm height.

Isolepis multicaulis is listed in Census of Plants of the Australian Capital Territory, Version 4, 2017 but it is not listed on PlantNet Flora Online.

Isolepis platycarpa

Synonyms: *Scirpus platycarpus* S.T.Blake

Description: Small, tufted annual or ?short-lived perennial. Culms filiform, 2-20 cm high. Leaves reduced; blade to 15 mm long. Spikelets 1 or 2, 2.5-4.5 mm long.; involucre bract mostly exceeding inflorescence. Glumes obtuse, sides irregularly but conspicuously 2-5-nerved, 1-1.5 mm long, whitish or straw-coloured or tinged orange-brown or dark red-brown. Stamens 3. Style 3-fid. Nut unequally trigonous to plano-convex, with rounded angles, broad-obovoid to obovoid or broad-ellipsoid, half to two-thirds as long as glume, 0.5-0.8 mm long, 0.5-0.7 mm diam., minutely reticulate, glistening, dark brown to black.

Flowering: spring-summer.

Distribution and occurrence: Grows in moist situations, scattered south from Gresford, west to Albury. NSW subdivisions: NC, CC, SC, CT, ST, SWS. Other Australian states: Vic. Tas. W.A. S.A.

Isolepis producta

Synonyms: *Scirpus productus* C.B.Clarke

Description: Aquatic perennial, occasionally producing little tubers. Culms leafy, submerged and elongated, or creeping and rooting at nodes. Spikelet solitary, elliptic in outline, strongly flattened, 5-10-flowered, 3-5 mm long; involucre bract 1, shorter than or equalling spikelet, glume-like or with a short thickened appendage. Glumes obtuse, conspicuously numerous-nerved, 2.5-3.3 mm long, usually dark red-brown to blackish or straw-coloured tinged dark red-brown. Stamens 3; anthers 1.5-2.7 mm long. Style 2-fid. Nut plano-convex, with angles slightly ribbed, obovoid, about half as long as glume, c. 1.5 mm long, c. 1.0 mm diam., smooth, minutely reticulate, shining, grey-brown.

Flowering: spring-summer.

Distribution and occurrence: Grows in lagoons, swamps and streams; on the coast and tablelands, south from Llangothlin Lagoon. NSW subdivisions: CC, SC, NT, CT, ST. Other Australian states: Vic. Tas. W.A. S.A.

Isolepis subtilissima

Description: Small perennial with short filiform rhizome. Culms filiform, to 10 cm high. Leaves well-developed; blade to 9 cm long. Spikelets 1 or rarely to 3, 2-5 mm long; involucre bract exceeding inflorescence, to 2 cm long. Glumes usually obtuse, not mucronate, with several ill-defined nerves on sides, 0.8-1.3 mm long, straw-coloured tinged dark red-brown to mostly dark red-brown. Stamens 1

(rarely 2 or 3 in lower flowers); anthers 0.2-0.5 mm long. Style 3-fid. Nut unequally trigonous, obovoid to broad-ellipsoid, nearly as long as glume, 0.7-1.1 mm long, 0.5-0.7 mm diam., minutely roughened, glistening, pale yellow to pale red-brown.

Flowering: spring-summer.

Distribution and occurrence: Widespread on tablelands in moist places. NSW subdivisions: NC, NT, CT, ST. Other Australian states: Qld Vic. Tas.