

CARPHA

Description: Perennial herbs with short rhizome. **Culms** tufted, nodeless, trigonous. **Leaves** basal; ligule absent. **Inflorescence** condensed, 1-3 loosely head-like or obconical clusters of shortly pedicellate spikelets. **Spikelets** compressed, 1-flowered. **Rachilla** short, straight, not produced beyond the flowers. **Glumes** 4 or 5, distichous, the lower ones empty, about half the size of upper glumes, the uppermost glume bristly to linear and thin-textured. **Hypogynous bristles** 6, antrorsely plumose for most or all of their length, falling with nut. **Stamens** 3. **Style** base continuous with ovary, terete, rigid, persistent; stigmas 3. **Nut** trigonous, shortly stipitate.

Distribution and occurrence: World: 4 or 5 species, Australia, New Guinea, New Zealand & South America. Australia: 4 species (3 species endemic), N.S.W., Vic., Tas.

Key to the genus <i>Carpha</i>		
1	Spikelets 8-12 mm long; body of nut 2.5-3.5 mm long, 0.8-1.0 mm diam.; hypogynous bristles 7-10 mm long; leaf sheaths pale to dark yellow-brown	<i>Carpha alpina</i> ST
1*	Spikelets 13-18 mm long; body of nut 3.5-4.5 mm long, c. 1.2 mm diam.; hypogynous bristles 12-15 mm long; leaf sheaths pale red-brown or dark yellow-brown near base, paler above	<i>Carpha nivicola</i> ST

Carpha alpina

Description: Tufted perennial, very shortly rhizomatous. Culms rigid, glabrous, striate but smooth, 2-10 cm high, 0.7-1.5 mm diam. Leaves +/- stiff, somewhat channelled, flattened distally, mostly shorter than the culms, 0.5-1.5(-2) mm wide; sheath yellow-brown, striate but shining.

Inflorescence of 1-3 loose clusters, 1-10 cm long; 1 or 2 involucre bracts as long as or slightly exceeding inflorescence. Spikelets 2-10 per cluster, 8-12 mm long. Glumes mostly papery, straw-coloured, very narrow-elliptic, acute, keeled above, the lowest 2 or 3 empty, about half the length of the upper glumes, two larger glumes 8.5-9.5 mm long, with a bristly or +/- linear empty glume above. Hypogynous bristles 7-10 mm long, pale red-brown, plumose except the tips, antrorsely scabrous for 1-1.5mm. Anthers c. 2.3mm long, excluding apical appendage c. 0.1mm long. Nut narrow-ellipsoid, on a short stipe c. 0.5 mm long, the body 2.5-3.5 mm long, 0.8-1.0 mm diam., the persistent style base 3-5 mm long; minutely reticulate, glistening, pale to dark red-brown.

Flowering: summer.

Distribution and occurrence: in bogs, fens and other wet alpine and subalpine areas, often colonizing disturbed sites; in the Kosciusko area. NSW subdivisions: ST. Other Australian states: Vic. Tas.

Carpha nivicola

Synonyms: *Carpha alpina* var. *subacaulis* Kuek.

Description: Tufted perennial, shortly rhizomatous. Culms rigid, terete, glabrous, striate but smooth, (2-)10-30 cm high, 0.5-1.5 mm diam. Leaves +/- stiff, channelled, flattened distally, mostly shorter than culms, 1.5-3 mm wide; sheath red-brown or dark yellow-brown near base, often paler above, often striate but shining. Inflorescence a loose cluster of 10-20 spikelets, 3-6 cm long; 1 or 2 involucre bracts longer than inflorescence. Spikelets 13-18 mm long. Glumes narrow-elliptic, acute, keeled above, straw-coloured or yellowish or red-dotted, the 2 outer small and empty, the 2 larger glumes 10-16 mm long, with a +/- hyaline, +/- linear empty glume above. Hypogynous bristles 12-15 mm long, yellow to pale red-brown, plumose except often the tips antrorsely scabrous for up to 1mm. Anthers 2.3-4mm long, excluding apical appendage 0.1-0.2mm long. Nut narrow-ellipsoid, on a short stipe c. 0.5 mm long, the body 3.5-4.5 mm long, c. 1.2 mm diam., the persistent style base 6-9 mm long; pale red-brown, minutely reticulate, glistening.

Distribution and occurrence: Grows in bogs, fens and other wet alpine to subalpine areas, often colonizing disturbed sites; in the Kosciusko area. NSW subdivisions: ST. Other Australian states: Vic.