



## *Australopyrum calcis subsp. optatum*

### Common Name(s):

Canterbury limestone wheat grass

### Current Threat Status (2012):

Threatened - Nationally Endangered

### Distribution:

Endemic. South Island. Canterbury. Known from Mt Cass, the vicinity of Castle Hill (where it is known from Castle Hill, Prebble Hill and Flock Hill) and from the Limestone Valley Road near Pleasant Point.

### Habitat:

A species of base-rich substrates and soils derived from these. Now only known from limestone outcrops where it grows under overhangs, in crevices or under shrubs and trees growing in and around the rock outcrops. One old herbarium specimen suggests it once grew on alluvial terraces.

### Features\*:

Slender, stoloniferous red-green to dark green perennial grass. Leaf-sheath 25-50 mm, reddish green. Auricles 0.1-0.5 mm. Ligule 0.6-1.25 mm, lacerate. Collar dark brown to purple. Leaf-blade 60-250 x 0.5-3.5 mm, flat, thin, upper surface finely hairy on nerves; underside with conspicuous white midrib and 2 lateral ribs. Culm 170-600 mm, slender, reddish, nodes swollen, dark-brown to black, internodes glabrous with uppermost shortly-hairy. Inflorescence a spicate raceme 30-130 mm; spikelets 4-13, overlapping; rachis internodes shortly hairy, margins toothed. Spikelets 10-14 mm. Glumes unequal, lower 2.5-4 mm, upper 3.7-5.5 mm, narrowly to broadly-triangular, 3-5-nerved, undersides prickle toothed, upper invested with short white hairs. Lemma 9-11 mm; undersides with stiff 0.3 mm long teeth, awn 1.5-4 mm. Palea 5.3-7 mm, apex bidid. Callus 0.25-0.4 mm upperside with short stiff hairs. Anthers 2.4-2.8 mm. Ovary 0.8-1 mm, stigma-styles 1.8-2 mm. Seed 3.5-4 mm, linear.

### Flowering:

October to December

### Fruiting:

November to February

### Threats:

Vulnerable to browsing animals damaging the shrublands shading the limestone overhangs in which this species grows, thereby allowing the spread of weed species and altering light levels, and although not especially palatable, plants are browsed. There is a total of perhaps 2000 plants: approximately 100 of these are at Mt Cass, and the largest sub-population of approximately 1000.

### \*Attribution:

Description modified from Edgar and Connor (2000)

### References and further reading:

Edgar, E.; Connor, H.E. 2000: Flora of New Zealand. Vol. V. Grasses. Christchurch, Manaaki Whenua Press. 650 pp.

### For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=99](http://nzpcn.org.nz/flora_details.asp?ID=99)



**Caption:** *Australopyrum calcis* ssp *optatum*

**Photographer:** Brian Molloy



**Caption:** Mt Cass

**Photographer:** Carol Jensen