KEY TO UNCINIA

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Uncinias, which we often call hook grasses, but should more correctly call hook sedges, are a distinctive (and sometimes dreaded) feature of our forests and grasslands. There are more than 30 species in the New Zealand Flora to pester us. They tend to look very much alike and the hooked fruit certainly all cling tenaciously to our legs and sox. Like members of the closely related genus *Carex* they belong to the monocotyledon family Cyperaceae, the sedges. *Carex* and *Uncinia* species sometimes grow together and may closely resemble one another (e.g. *Uncinia uncinata* and *Carex cockayneana*). Whereas *Carex* is most prominent in wetlands, *Uncinia* species mainly occur in forests and grasslands.

Uncinia leaves are grassy and usually have rough margins and midribs. The inflorescences are terminal spikes of spirally arranged flowers borne on a stem or culm; sometimes with a leafy bract at the base of the spike. Male flowers are at the top of the spike and female spikelets occur below. Each female spikelet is subtended by a glume which may fall at fruit maturity or remain after the seed is shed. The fruit (a nut) is actually enclosed by a flask-like utricle from which the end of the spikelet stalk protrudes, with a terminal modified glume that forms the infamous hook (Latin *uncus)* from which the genus gets its name. The utricle plus the fruit is detached and dispersed, but in the key below, for the sake of simplicity, this whole unit is called a seed.

The following key is intended to provide a way of sorting out the different species with limited recourse to a hand lens.

1.	More than 20 seeds per head	2
	Seeds less than 20 per head	5
2	Seeds 20-35 per head, crowded, mature at right angles; leaves to 20 cm long	*divaricata*
	Seeds more than 35 per head; leaves over 20 cm long	3
3.	Glumes smaller than seeds	*uncinata*
	Glumes greater than seeds, plants usually stout	4
4.	Basal bracts and leaves red-brown, glumes very long	*ferruginea*
	Basal bracts and leaves yellowish	*clavata*
5.	Plants reddish, bract absent (in bogs)	6
	Plants not reddish	7
6.	Plants strongly tufted	*egmontiana*
	Plants weakly tufted to rhizomatous	*rubra*
7.	Leaves over 2 mm wide	8
	Leaves up to 2 mm wide	12
8.	Head without bract, (grasslands and upper forest)	*fuscovaginata*
	Head with bract, (forest)	9
9.	Stem glabrous	10
	Stem scabrid	11
10.	4-6 leaves/stem, flattened to prostrate clumps, (lower forest)	*zotovii*
	6-11 leaves/stem, dense tussock, (upper forest)	*caespitosa*

11.	Plants yellow-green, glossy, seed scabrid	*scabra*
	Plants dark green, seed glabrous	*laxiflora*
12.	Leaves 1 mm or less wide	13
	Leaves 1 mm or more wide	20
13.	Plants densely tufted	14
	Plants loosely tufted to rhizomatous	15
14	Glumes persistent, seed smooth	*silvestris*
	Glumes deciduous, seed strongly nerved	*banksii*
15	Plants yellow-green, (Fiordland southward)	*aucklandica*
	Plants bright to dark green	16
16.	Basal bracts red or dull brown	17
	Basal bracts straw coloured	*longifructus*
17.	Basal bracts dull brown or fawn	18
	Basal bracts red brown, leaves bright green	*filiformis*
18	Leaves bright green, (grassland and scrub)	19
	Leaves dark green, (forest)	*angustifolia*
19.	Seed few, strongly nerved	*nervosa*
	Seed many (>10), shiny	*involuta*
20.	Plants of scrub and grassland	21
	Forest plants	26
21.	Plants tufted	24
	Plants rhizomatous, turf forming	22
22.	Seeds scabrid, glumes persistent	23
	Seeds glabrous, glumes deciduous	*drucei*
23.	Leaves 1-1.5 mm, soft; spikes 2-3 mm	*elegans*
	Leaves 1.5-3 mm, stiff; spikes 1-3 cm	*sinclairii*
24.	Leaves shorter than seed head	25
	Leaves longer than seed head	*hookeri*
25.	Leaves bright green, scabrid	*viridis*
	Leaves weakly scabrid (Fox Peak S. to Otago)	*purpurata*
26.	Leaves rush-like, 1-2 per culm	*strictissima*
	Leaves not rush-like, >2 per culm	27
27.	Dense tussocks	28
	Loose tussocks or turf	31
28.	Bract, if present, short	29
	Head with long bract, dense tussock	*silvestris*
29.	Basal bracts light brown to red	30
	Basal bracts dark brown	*affinis*
30	Seed glabrous, leaves 20-35 cm long	*astonii*
	Seed scabrid, leaves 30-40 cm long	*distans*
31.	Plant forms loose tufts	32
	Plant rhizomatous, (alpine grasslands)	*fuscovaginata*
32.	Stem smooth	33
	Stem scabrid, bract absent	*leptostachya*
33.	Leaves 0.5-1.5 mm wide, bract occasionally present	34
	Leaves 1.5-2 mm wide, bract present	34
34.	Leaves shorter than stem, dark green	*angustifolia*
	Leaves longer than stem, bright green	*banksii*
35.	Leaves shorter than stem, plant forms flattened tufts	*rupestris*
	Leaves longer than stem, head with long bract	*gracilenta*

Glossary

bract:	an often long, leafy process attached just below the seed head
basal bracts:	reduced leaves at the base of each set of leaves, enclosing a stem
glume:	a small chaffy bract covering each utricle in the seed head
scabrid (of stem):	rough to touch
(of seed):	teeth visible with a hand lens, especially at the base of the hook
utricle:	the swollen part below the hook - actually a special organ loosely enveloping the nut-like fruit.
stem: (or culm),	the main axis supporting and bearing the seed head

References

Moore, LB; Edgar, E 1970: *Flora of New Zealand Vol II.* Govt. Printer, Wellington.

Simpson MAJ, Edgar E 1979: Sedges (Cyperaceae) of Banks Peninsula, including (Kaitorete) Ellesmere Spit, Lyttleton Hills & north to New Brighton. *Canterbury Botanical Society Journal 13*: 3-19a.

ARE WE MISSING SOMETHING?

Again, as in New Zealand, arborescent ferns, with the aspect of palms, give these distant landscapes an appearance which is seen in no other part.

The impenetrable virgin forest alarms us by its sombre and terrible aspect. On one side vigorous parasites assail the aged trees, forming with them an inextricable net-work which the axe can scarcely cleave, whilst all progress through it is impeded by bushes and tall herbs, where so many redoubtable enemies lie concealed. During the day all is silent: the frightful heat paralyzes the tenants of this realm of vegetation, and sleep reigns everywhere. But when night arrives all becomes full of life; birds, mammals, and reptiles declare war on one another, and every part rings with groans and hoarse cries of pain and death.

Pouchet, The Universe 1884