

On Wednesday August 3rd we were fortunate in being addressed by Mr. Cook on the subject of Sedges. As Mr. Cook's lecture was too technical for reproduction, we print instead his very useful key to our local sedges.

SEDGES OF AUCKLAND DISTRICT

AID TO IDENTIFICATION

<u>Sedges</u>	<u>Grasses</u>	<u>Rushes</u>
Stems solid	Stems hollow	
" not jointed	" jointed	
Sheaths not split to base	Sheaths split to base	
Stamens usually 2-3	Stamens usually 2-3	
Anthers basifixed	Anthers versatile	
Filaments flat	Filaments capillary	
Fruit a nut	Fruit a caryopsis	Flower with a perianth of 6 glumes arranged in 2 rows.
Flowers enclosed in a glume or scale.		Fruit a capsule 1-3celled. Stamens usually 6.

[Anther basifixed (joined to filament at base).



Anther versatile (swinging freely).



Caryopsis: a one-seeded fruit in which the wall of the fruit is fused with the outer wall of the seed.

Culm: A hollow, jointed stem.

Panicle: A branched raceme.

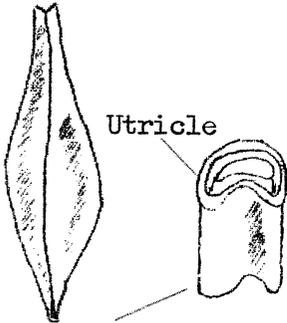
Rhachilla: the axis of a spikelet.

Utricle: a (usually) membranous sac enclosing the fruit proper. It is characteristic of the genera Carex and Uncinia.

Carex littorosa

Uncinia caespitosa

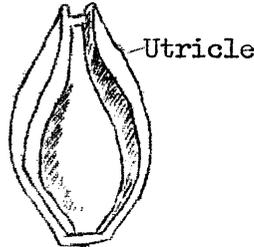
Utricle (X5)



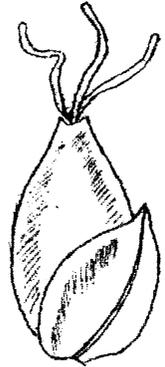
Cross section of utricle showing nut (X5).



Longitudinal section of utricle showing nut (X8).



Flowers enclosed in utricle (X6)



After
Cheeseman - Ed.

GROUP A. GLUMES DISTICHOUS (ARRANGED IN 2 VERTICAL ROWS)

SPIKELETS COMPRESSED..

1. Spikelets subtended by long leafy bracts, stems 3-sided, flowers numerous ... Cyperus.
 - a. Heads green or greenish-yellow, 12-40 flowered, Plant 1-2 ft. Cyperus eragrostis (vegetus)
 - b. Heads red-brown or black, 5-20 flowered, Plant 2-4 ft. Cyperus (mariscus) ustulatus
2. Leafy bracts absent, flowers few, glumes 4-10, stems not trigonous (3-sided) ... Schoenus.
 - a. Leaves not evident
 - (1) Plant 1-2 ft. rush-like, spikelets $\frac{1}{3}$ - $\frac{1}{2}$ in. long, glumes 6-9, sheaths red-brown, mouth not fringed ... S. brevifolius.
 - (2) 1-3 ft. rush-like, spikelets $\frac{1}{4}$ - $\frac{1}{3}$ in., sheaths almost black, mouth fringed with cobwebby hairs S. tendo.
 - b. Leaves grasslike.
 - (1) Creeping. Spikelets 1-3 (1-2 flowered) in axils of leaves ... S. foliatus (axillaris)
 - (2) 6-14 ins. erect. Spikelets $\frac{1}{8}$ - $\frac{1}{6}$ in. 1-3 flowered, chestnut brown or black on numerous small, terminal and lateral heads subtended by short bracts. S. apogon.

GROUP B. GLUMES ARRANGED ALL ROUND THE RHACHILLA.

- B1. Spikelet terminal; bract absent Eleocharis
a. 1-3 ft., stout, stems septate E. sphacelata
b. 4-15 ins. Sheath with purplish thickening at mouth,
mouth truncate E. acuta
Sheath mouth oblique and not so thickened E. cunninghamii.
- B2. Spikelet lateral, bract present Scirpus
- (1) Styles 2.
- a. 8-16 ins., spikelets 6-20, clustered, stems compressed,
soft, leaves none S. sulcatus var. distigmata
b. 1-3 ft., culms trigonous, spikelets large, $\frac{1}{2}$ - $\frac{3}{4}$ ins.,
sessile, 2-5 with long leaf-like bracts. S. caldwellii.
c. 3-5 ft., stems trigonous, Styles 2 and 3, Spikelets
 $\frac{1}{2}$ - $\frac{3}{4}$ ins. on long peduncles S. medianus.
- (2) Styles 3.
- a. 3-6 ins., erect, slender, Spikelets 1-2 cylindric
- littoral-stamens 2-3, fruit brownish S. cernuus.
b. 2-10 ins. erect or spreading
Spikelets several $1/10$ - $1/6$ in. stamens 1, fruit pale. S. inundatus.
c. 1-6 ins. very slender, spreading
Spikelets 1-3 dark, fruit dark, small. S. "cernuus"
d. 1-2 ft. Spikelets 10-30, long, $\frac{1}{4}$ - $\frac{1}{2}$ in.
usually proliferous, stamens 3, fruit pale. S. prolifer.
e. 1-3 ft. rigid, littoral, spikelets
clustered, numerous ... S. nodosus.
f. 2-3 ft., yellowish, spikelets arranged in spiral
manner around upper part of the stem (sand dunes)
... S. frondosus.
g. 1-2 ft. culms trigonous, spikelets $\frac{1}{4}$ " , 1-4,
sessile ... S. americanus.
h. 2-6 ft., culms cylindric, spongy, spikelets in
umbel ... S. lacustris.
i. 5-8 ft., culms trigonous, spikelets $\frac{1}{2}$ - $\frac{3}{4}$ in.
bracts long, leaf-like ... S. perviridis.
- S. medianus has 2 & 3-fid styles - see 1c above.

Distribution

Littoral

S. cernuus
S. americanus
S. frondosus
S. caldwellii
S. medianus

Inland

S. "cernuus"
S. inundatus
S. prolifer
S. sulcatus var. distigmata
S. lacustris
S. perviridis

B3. Cladium

Leaves broad, flat, iris-like

- a. Inflorescence a panicle C. sinclairii
b. Culms 4-sided, inflorescence contracted C. vauthiera
c. Culms terete, 3-6 ft., culms septate-stout, leaves stem-like, inflorescence a panicle C. articulatum
d. 1-3 ft. Panicle contracted, fruit small, white, corky C. teretifolium
e. 1-3 ft. Panicle contracted, lower branches distant, fruit yellow C. glomeratum
f. 1-3 ft. culms wiry, panicle narrow, fruit pale yellow with dark tip frequently suspended from top of glume which is spreading, long and narrow C. gunnii
g. 1-2 ft. culms wiry, panicle little branched with sheaths at intervals on stems bearing flattened blades - littoral C. junceum
h. 1-1½ ft. culms very slender, filiform spikelets very small, 1/8 - 1/6 in. glumes almost distichous, nut pale with large dark tip C. capillaceum

B4. Gahnia - densely tufted plants resembling toe-toe in habit of growth.

- a. 6-18 ins. nut black, small leaves exceeding stems, panicle narrow, contracted G. gahniaeformis
b. 2-4 ft. nut 1/4 in., red brown, tip dark panicle loose G. pauciflora
c. 2-4 ft., nut 1/6 in., black panicle narrow, stems leafy G. lacera
d. 3-5 ft., nut 1/6 in. red-brown G. setifolia
e. 5-8 ft., nut 1/4 in. black G. xanthocarpa

GROUP C. (A) NUT IN UTRICLE OR SAC.

Dense flowered

1. Rhachilla produced into a bristle Uncinia
 - a. 9-20 ins., Spikelet long 6" male portion above $\frac{1}{3}$ - $\frac{1}{4}$ of spikelet, leaves $\frac{1}{8}$ - $\frac{1}{4}$ in. U. australis
 - b. 6-14 ins., spikelet $1\frac{1}{2}$ - 3 ins., pale, male portion very short, leaves $\frac{1}{15}$ - $\frac{1}{6}$ ins., utricles suddenly narrowed above U. caespitosa

Lax-flowered

- a. 1-2 ft. rush-like, spikelet $1\frac{1}{2}$ - 5", very slender leaves $\frac{1}{12}$ - $\frac{1}{10}$ in., utricles scabrid above U. leptostachya
- b. 9-20 ins., leaves $\frac{1}{20}$ - $\frac{1}{10}$ ins., spikelet $1\frac{1}{2}$ - 4 ins., glumes about $\frac{1}{2}$ of utricles U. riparia
2. Rhachilla not exerted, male and female flowers usually borne in separate spikelets.

Styles 2.

- a. 1 - 3 ft. panicle contracted C. virgata
- b. 1-3 ft. " nodding C. secta
- c. $1\frac{1}{2}$ - 4', spikelets numerous, 1 - 4" long, 1 - 6 male, 8-24, 1 - 4" long, leaves broad, culms stout, utricles turgid. C. ternaria
- d. 1-2', Spikelets 4-8, 1 - 3 ins. long, 1 - 3 male, glumes shorter and narrower than utricles, utricles compressed C. subdola
- e. 6-18 ins. Spikelets 3-5, approximate, pale brown culms very slender C. testacea
- f. 12-24 ins. Spikelets 4-8, 1-2 ins., long, narrow, erect, distant, male spikelets 1-3, unequal in length, very slender, leaves keeled, culms very slender C. lucida

Styles 3.

- a. Very small, 1-6 ins., spikelets approximate, concealed by leaves C. breviculmis
- b. 4-8 ins., leaves glaucous, green, recurved, utricles large, brown, $\frac{1}{2}$ - $\frac{3}{4}$ ins., littoral C. pumila
- c. 9-24 ins., leaves $\frac{1}{30}$ - $\frac{1}{12}$ in., spikelets 3-5 utricles turgid, saline swamps C. littorosa
- d. 1 - $2\frac{1}{2}$ ft., leaves broad, $\frac{1}{3}$ - $\frac{1}{4}$ ins., spikelets 4-8 C. dissita

- e. 1-3 $\frac{1}{2}$ ft., leaves 1/10 - 1/6 ins., spikelets 5-10
on long peduncles, 1-4 male C. solandri
- f. 1-1 $\frac{1}{2}$ ft., spikelets 4-9, distant, 1-3 male, 1-3
ins x $\frac{1}{8}$ in., red brown, 2-3 lower, remote on long
peduncles, utricles narrow, ribbed, leaves $\frac{1}{8}$ - $\frac{1}{4}$ ins.
C. vacilans
- g. 1 $\frac{1}{2}$ - 3 ft., spikelets 5-10, 1 $\frac{1}{2}$ - 3 ins. long x $\frac{1}{4}$ - $\frac{1}{3}$ in.,
green, leaves harsh, 1/5 - $\frac{1}{3}$ in. C. forsteri
- h. 1-3 ft., spikelets 3-5, clustered pale or yellowish green,
utricles spreading or reflexed, leaves soft grassy,
 $\frac{1}{3}$ - $\frac{1}{2}$ in. C. pseudo-cyperus

GROUP D. LEPIDISPERMUM LATERALE.

2 - 4 ft. leaves flat 1/5 - $\frac{1}{4}$ ins. broad, panicle erect,
fruit yellow with swollen tip.

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We print below extracts from an interesting letter from
Mr. A. Walker of 25a Princes Street, Auckland :

"The Lapageria rosea mentioned in 'information requested'
was once growing in the Domain gardens (probably still
is), the old part opposite the Burns statue, in a clump
of growth near the entrance; it was also very tall, but
I don't think it ever flowered, probably it needed
pruning. It was a very attractive, well-shaped, flower-
ing shrub in Durban streets.

The golden Solandra, grown from a cutting from Mr. J.W.
Kealy's plant, has thrived remarkably here, more so at
the back of the house than in the front. It was
literally covered in bloom last year. Will always be
glad to supply cutting of this to anyone who lives in
a frost-free part if you know of such."

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