

Cyperaceae

The Cyperaceae contains several genera with certain shared characteristics. As described earlier, the flowers lack both petals and sepals. The flowers arise from the axil of a single scale. The flowers are usually arranged in spikes or clusters. The flowers are either single sex and enclosed by a sack-like perigynium or are bisexual. The flowers are usually located on different spikes or on different parts of the same spike, or they. The stems, especially near the base, are often triangular in cross-section and are solid (not hollow). The leaves on the stem are arranged in 3 rows. Except in the genus *Carex* there is no ligule where the blades come off the stems. Six genera of Cyperaceae have been found in the Boquet wetlands being monitored: *Carex*, *Cyperus*, *Eleocharis*, *Eriophorum*, *Schoenoplectus*, and *Scirpus*.

Carex (Sedges): The flowers are unisexual and are born in spikes, each flower in the axil of a scale. The spikes can be unisexual or bisexual and are often arranged in a terminal raceme. The pistillate flowers are individually enclosed in a sack-like structure called the perigynium, from the tip of which the style protrudes. Species have either 2 or 3 stigmas and the achene is accordingly either flattened or rounded/triangular. This is the largest genus in the family and to date includes 25 species in the Boquet wetlands. These species can be difficult to identify as the gross visual characters are either similar or misleading; it is necessary to use the key provided just before the *Carex* species accounts

Cyperus (Flatsedges): The flowers are bisexual, each in the axil of a scale with 3 stamens and a 2-3 cleft style. The flowers and accompanying scales are arranged in two rows, giving the spike a flattened appearance. Only one species, *Cyperus strigosus*, has been found in the Boquet wetlands.

Eleocharis (Spike-Rush): The spikelet is terminal with few to many flowers, each in the axil of a scale. The flowers are arranged in a spiral. Flowers are bisexual, 1-3 stamens and a 2-3 cleft style. The mature achene has a tubercle on top, derived from an enlarged base to the style. Four species have been found to date; the following key will help you to identify which you have:

- 1a) Spikelet not more than twice as thick as stem; stem 1-2 mm thick ... *E. robbinsii*
- 1b) Spikelet at least twice as thick as stem ... 2
- 2a) Plants with rhizomes 2 mm or more in diameter ... 3
- 2b) Plants with thread-like rhizomes ... *E. acicularis*
- 3a) Stems flattened ... *E. compressa*
- 3b) Stems rounded ... *E. palustris*

Eriophorum (Cotton-Grass): The spikelet is usually terminal with few to many flowers, each in the axil of a scale. The flowers are arranged in a spiral. Flowers are bisexual, 1-3 stamens and a 2-3 cleft style. There are numerous elongated bristles around the bases of the flowers so the spike forms a cottony tuft. Only one species, *Eriophorum virginicum*, has been found in the Boquet wetlands

Schoenoplectus: The spikelet is terminal with few to many flowers, each in the axil of a scale. The flowers are arranged in a spiral. Flowers are bisexual, 1-3 stamens and a 2-3 cleft style. There is a single erect bract arising at the base of the inflorescence that appears to be a continuation of the stem, so the inflorescence appears to be lateral. Two species have been found:

- 1a) Lower stem round, easily compressed with fingers ... *S. tabernaemontanae*
- 1b) Lower stem triangular, not easily compressed ... *S. pungens*

Scirpus (Bulrush): The spikelet is terminal with few to many flowers, each in the axil of a scale. The flowers are arranged in a spiral. Flowers are bisexual, 1-3 stamens and a 2-3 cleft style and bristles in place of petals/sepals. Two or more bracts, each longer than the spikelet, spread out from beneath the inflorescence, leaving the inflorescence clearly terminal at the top of the stem. Five species have been found:

- 1a) Bristles smooth, much longer than achene ... 2
- 1b) Bristles with teeth, not (if present) as long as achene ... 3
- 2a) Scales blackish ... *S. atrocinctus*
- 2b) Scales reddish-brown ... *S. cyperinus*
- 3a) Bristles blunt-ended with thin-walled blunt-ended teeth along outer 2/3 of bristle ... *S. atrovirens*
- 3b) Bristles sharp-ended with thin-walled sharp-ended teeth along whole length of bristle ... 4
- 4a) Styles 3-branched; bristles brittle, easily broken off ... *S. expansus*
- 4b) Styles 2-branched; bristles not brittle, not easily broken off ... *S. microcarpus*