

Lab 10 - Monocots, part 2 (Graminoid Monocots)

Graminoid (grass or grass-like) herbs are herbs that are or merely look like grasses, with their parallel veined, linear leaves. These include mainly the grasses, sedges, and rushes; however, I am including the cattails in this lot too. In agricultural/pastoral or ecological circles, and especially in relation to grasslands, “graminoid” herbs are distinguished on this basis from “forbs”.

I. Families to Know on Sight (no keying allowed for lab quizzes or final)

1. Cyperaceae (p. 193)

Minimum Diagnostics: Graminoid herbs with triangular, solid stems; leaves with closed (tubular) sheath; flowers small & tightly clustered into spikelets which are often clustered into panicles, perianth lacking or of 1-6 bristles; fruit a small 3-angled or flattened achene.

2. Poaceae or Gramineae (p. 302)

Minimum Diagnostics: Graminoid herbs with round or terete, hollow stems; leaves with open sheath; flowers tightly clustered in spikelets (sometimes spikelets of just one flower), calyx modified in to two conspicuous bracts (the palea & lemma), corolla reduced to inconspicuous lodicules; fruit a small, variously shape caryopsis.

3. Juncaceae (p. 183)

Minimum Diagnostics: Graminoid herbs with round, solid stems; leaves terete or flat with closed or open sheaths; inflorescence subtended by 1 erect, involucre bract; flowers not as tightly clustered as in grasses or sedges, perianth in two whorls of 3 membranous or papery, conspicuous tepals; fruit a 3-valved capsule.

II. Genera to Know (you can write your own key to genera and use on lab final)

Typhaceae

1) *Typha*

Cyperaceae

2) *Cyperus*

3) *Carex*

Juncaceae

4) *Juncus*

Poaceae or Gramineae

5) *Digitaria*

6) *Miscanthus*

7) *Panicum*

8) *Phragmites*

9) *Phyllostachys*

10) *Poa*

11) *Setaria*

12) *Zea*

III. Economic Notes

The grass family includes the major grain crops wheat (*Triticum*), rice (*Oryza*), corn (*Zea*), barley (*Hordeum*), and oats (*Avena*). Also includes the sugar cane (*Saccharum*) and many species of bamboo (e.g., *Bambusa*, *Phyllostachys*) important in ornamental horticulture and the construction industry.