Grass, Sedge and Rush families
Dicot Characteristics

Flower parts in 4's or 5's.

Seed with two cotyledons.

Wood with concentric growth rings.

Leaf with net venation.

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Monocot Characteristics

- petal (tepal)
- sepal (tepal)
- cotyledon

Flower parts in 3's.

Seed with one cotyledon.

- vascular bundle

Stem with vascular bundles.

Leaf with parallel venation.

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Monocots are divided into two major lines (informal groups)

- **Petaloid** monocots – showy flowers e.g. Liliaceae, Orchidaceae

- **Graminoid** monocots – small inconspicuous flowers; increasing specialization towards wind pollination; parallel leaf venation

  e.g. Poaceae, Cyperaceae, Juncaceae
Poaceae

- One of the largest plant families
  - 10,000 species worldwide, 160 in El Dorado County
- Important crop plants worldwide
  - Corn, rice, wheat, oats, barley, rye
  - Sugarcane
- Important ecologically
  - Grasslands - Savanna, steppe, prairie or pampas ecosystems
  - Bamboo forests
## Three families in El Do County

<table>
<thead>
<tr>
<th>Family</th>
<th>Native</th>
<th>Rare</th>
<th>Serpentine</th>
<th>Speciose genera</th>
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<tbody>
<tr>
<td>Poaceae (Grass)</td>
<td>160</td>
<td>6</td>
<td>12</td>
<td>Agrostis 24,</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Elymus 18</td>
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<td>Poa 19</td>
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<tr>
<td>Cyperaceae (Sedge)</td>
<td>123</td>
<td>11</td>
<td>4</td>
<td>Carex 92</td>
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<td></td>
<td></td>
<td></td>
<td>Cyperus 8</td>
</tr>
<tr>
<td>Juncaceae (Rush)</td>
<td>45</td>
<td>1</td>
<td>0</td>
<td>Juncus 39</td>
</tr>
</tbody>
</table>
'Sedges have edges, rushes are round, grasses have knees that bend to the ground.'
The 'knees' of grasses are joint-like nodes found along round, hollow stems. The stems of sedges and rushes are solid; in cross-section the stems of rushes are round, while those of sedges are triangular and so have edges.
Grasses (Poaceae) define “grasslands”
- Annual to perennial life history
- Changes in CA grasslands due to introduced European grasses

Sedges (Cyperaceae) are perennials plants generally found in shady wetlands and meadows
- Tules are esp. important in fresh water marshes

Rushes (Juncaceae) are annual to perennial plants of meadows and wetlands
Carex xerophila
“new” species
Chaparral Sedge

Stipa pulchra
Purple Needle grass
CA’s State grass

Juncus baliticus  Baltic Rush