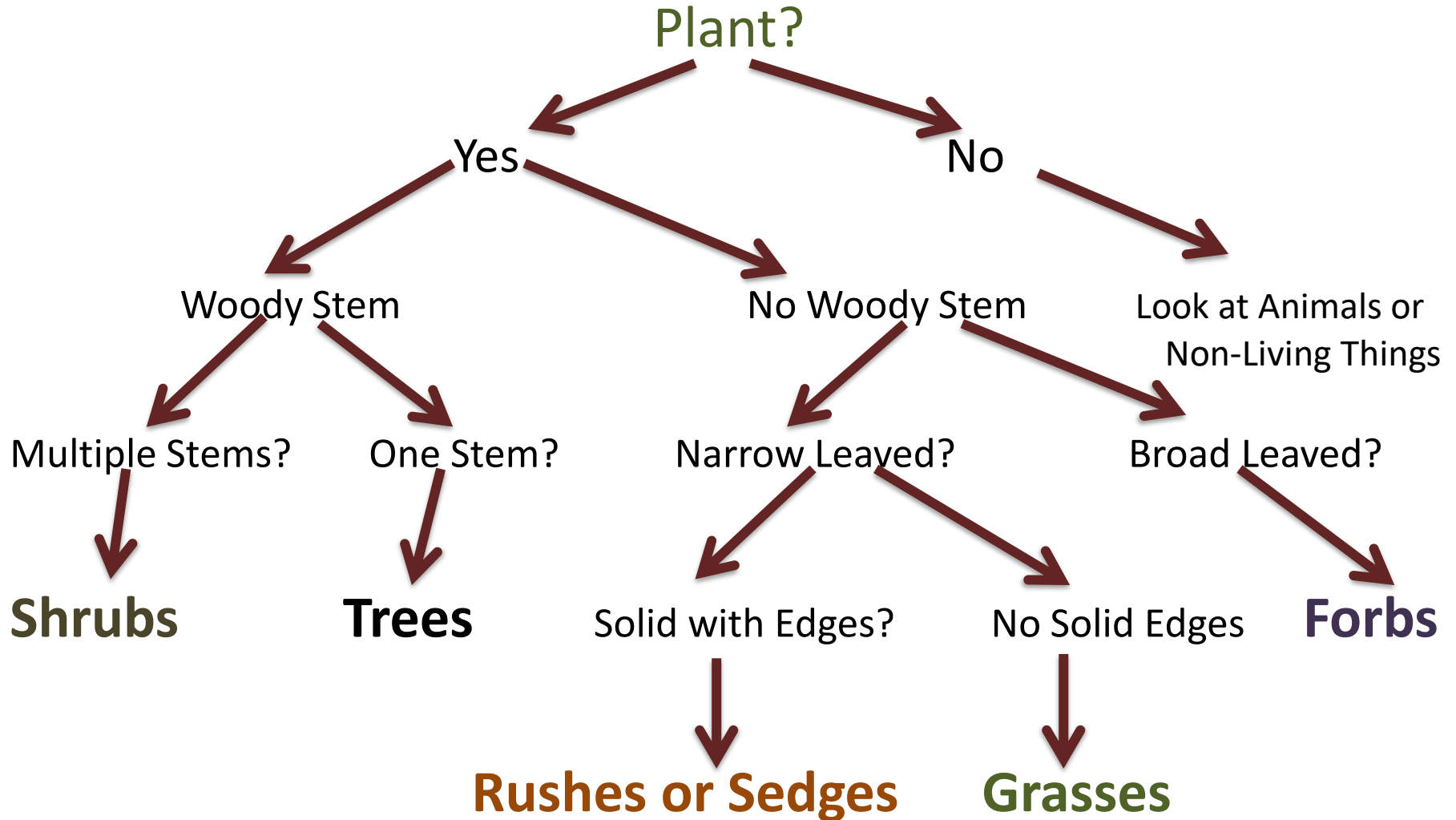


# What are you looking at?



# Grasses

## Facts:

- Grasses are our most valuable forage plant, they make up 90% of total grazing.
- Many are highly palatable (tasty and nutritious) but will decrease in vigor and decrease the quality of the range with over-grazing.
- Bunch grasses in particular (e.g. Fescue) are very sensitive to over-utilization. They do not reproduce vegetatively and are poor seed producers.

## Vocabulary:

- **Increaser:** Shorter than decreaser, not as nutritious. Will take place of decreasers when overgrazing occurs.
- **Decreaser:** Nutritious for grazers, will reduce in productivity when heavily grazed.
- **Invasive Species:** Non-native species. Will replace native plants. Most have little or no grazing value.

# Grasses- Foothills Rough Fescue

## (*Festuca campestris*)

### Identification

- 3-10 dm tall, densely tufted bunch-grass
- **Blade:**
  - 2-4 mm wide, 50 cm long
  - Flat to inrolled
- **Sheath:** Split with margins overlapping
- Purplish at base, no **auricles**
- Narrow **collar**, seed-head is panicle 10-20 cm wide

### Facts:

- Found on montane slopes, dominant in foothills grasslands
- Most valued forage grass in foothills region.
- Good forage-plant “cures” on stem
- **Decreaser** (ultimately replaced by forbs, other grasses and shrubby cinquefoil)
- Poor germination
- Large root system, great for water retention and slope stabilization



# Grasses- Plains Rough Fescue

## (*Festuca hallii*)



### Identification

- 2-6 dm tall, densely tufted bunch-grass, joined by rhizomes
- **Blade:**
  - 1-1.4mm wide, 30 cm long
  - Always inrolled
- **Sheath:** Round, rigid, purplish at base
- **Auricles** absent
- Indistinct, yellowish **collar**, seed-head is panicle 6-15 cm wide



### Facts:

- Found in parkland areas
- Lower protein content than other fescues but still good forage
- Good forage-plant “cures” on stem
- **Decreaser** (ultimately replaced by forbs, other grasses and shrubby cinquefoil)
- Poor germination, seeds are expensive and in short supply. Have very slow-growing rhizomes.
- Large root system, great for water retention and slope stabilization

# Grasses- Rye Grass (Macoun's wild Rye)

## *(Agrohordeum macourii)*

### Identification

- 5-10 dm tall
- **Blade:**
  - 5 mm wide, 5-20 cm long
  - Flat to inrolled
- **Sheath:** Round, split, purplish at base
- No **auricles**
- Indistinct **collar**,
- seed-head is Spike

### Facts:

- Frequent in prairie and parkland regions
- Moist meadows
- It is an OK forage crop
- Increaser that is very locally abundant (will take-over on over-grazed rangeland)
- Not Rhizomatous



# Grasses- Kentucky Bluegrass

## (*Poa pratensis*)

### Identification

- 3-10 dm tall, mat-forming grass
- **Blade:**
  - 5 mm wide, 5-40 cm long
  - Nearly Rounded
- **Sheath:** Split for ½ the length of the blade
- No **auricles**
- Narrow, divided **collar**, seed-head is **panicle**

### Facts:

- Meadow Species
- Often chosen because can withstand a short clipping
- Invasive, persistent plant that will take-over from natives
- **Increaser**
- Common in heavily grazed areas



# Grasses- Smooth Bromegrass

(*Bromus inermis* Leyss.)

## Identification

- 2-15 dm tall, extensive rhizomes
- **Blade:**
  - 5-15 mm wide, 15-40 cm long
  - W shape
- **Sheath:** rounded, veined, hairless
- No **auricles**
- Narrow **collar**, seed-head is **panicle**

## Facts:

- Brought to Canada from Hungary
- Does not tolerate flooding
- Establishes easily and rapidly (**invasive** plant)
- Excellent for site stabilization but spreads quickly by rhizome and seed
- Invades native rangeland





# Forbs

## Facts

- Most easily recognized members of the Plant Kingdom (herbaceous flowering plant).
- However, for grazing animals, they are not very good and often indicate poor range quality.
- They often increase with increased grazing pressure (**INCREASERS**)
- Some can be toxic to livestock and many are unpalatable and not consumed by grazers.
- However, some members of the Legume family can be very nutritious to grazers. Some are poisonous.
- Legumes can also fix atmospheric Nitrogen- an important nutrient for plants.



# Forbs- Showy Fleabane

## (*Erigeron speciosus*)

- Blades alternate (sometimes entirely basal)
- Pinnate blades, wedge shaped
- **Flower:**
  - Heads radiate
  - Very showy, mostly blue
  - Flowers 1-15 Bracts in 1-2 series
- Common in grasslands
- Poor forage value
- **Increaser**



# Forbs- Wood Lily

## *(Lilium phildeplphicum)*

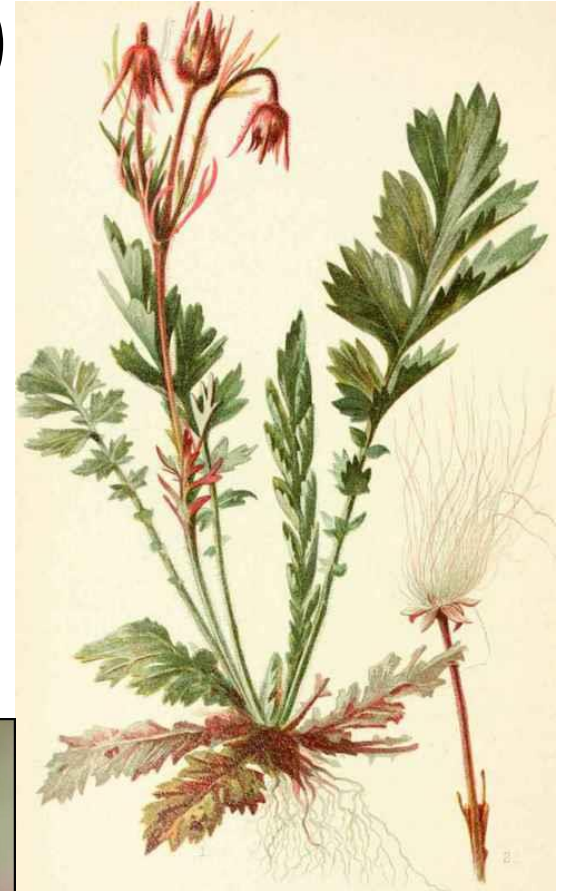
- Leaves in alternate arrangement, uppermost are whorl around stem
- Pinnate blades, wedge shaped
- **Flower:**
  - Singly on erect stems
  - 6 bright orange petals
  - 6 brown-purple anthers that emerge from centre
- **Do not respond well to being picked, will never recover.**



# Forbs: Three-flowered Avens (Prairie Smoke)

## *Geum triflorum*

- Woody rhizomes
- Blades mostly basal
- 9-19 widely shaped segments
- **Flowers:**
  - Calyx 5 lobed, small bracts
  - 5 petals, styles basally jointed
- Common in grasslands
- Poor forage value
- **Increaser**





# Forbs-Locoweed sp. (*Oxytropis* sp.)

- Densely tufted, stems mostly lacking
- Leaves pinnate or in whorls
- Several seeds, kidney shaped
- **Flowers:**
  - In spikes or racemes
  - White, yellow, purple
- Common in grasslands
- Poor forage value
- Poisonous to livestock  
(early yellow species)
- **Increasers**



# Forbs-White Prairie Aster

## *(Aster falcatus)*

- 1-6 dm tall
- Rhizomes, clustered stems with rough white hairs
- Linear leaves, alternate, simple, toothed
- Spiny tipped 7 cm long, 5mm wide
- **Flowers:**
  - At ends of upper branches
  - White rays, 7-10mm 20 or more/head
- In most regions that are dry and open
- Lots of nutrients required
- Poor Forage value



# Forbs-Biennial Sagewort

## *(Artemisia biemis)*

- Red stems
- Leaves, twice pinnate
- Feathery, short gray hairs, narrow and toothed
- Leafy inflorescence
- Yellowish, tubular flowers
- Less common
- Weedy behaviour





# Forbs- Goldenrod

## *(Solidago sp.)*

- Fibrous roots
- **Flower**
  - Rays, short and yellow
  - Disk flower
  - Flowers in mid-late summer





# Forbs-Cut-leaved Anemone

## *Anemone multiflida*

- 1-5 dm tall, several basal leaves
- **Blades:**
  - 2-3 ternate, ultimate segments narrow
- Globuse seed head
- **Flowers**
  - white, pink, red, purple and yellow
  - Petals absent
  - Perfect flowers
- Common in grasslands
- Poor forage value
- **Increaser**



# Forbs-Prairie Crocus

## (*Anemone patens*)

- 1-4 dm tall, basal blades, long stalked
- **Flower:**
  - Solitary
  - Petals absent
  - Perfect flower
  - Pale blue → purple
  - Silky hairs on back
  - Styles becoming feathery
- Common in grasslands
- Poor nutritional value
- Wind dispersor
- **Increaser**



# Forbs-Golden Bean

## *(Thermopsis rhombifolia)*

- Leaves with 3 leaflets
- Oval, 2-3 cm long
- **Flowers:**
  - Short, deep yellow, 2 cm long
  - 10 stamens
  - Pods, silky 4-8 cm long
- Very common in the grasslands
- Poor forage value
- **Increaser**



# Shrubs

## **Facts:**

- Their quantity varies greatly from one eco-region to the next.
- In the foothills grassland there are many shrubs and trees.
- Forage value varies greatly:
  - Some can be toxic
  - Some are unpalatable and useless to livestock and game.
  - Some are highly nutritious and very important as winter forage source.
- Very important for cover and habitat for wildlife.
- They are persistent and aggressive and have the potential to increase as range conditions decrease.



# Shrubs- Shrubby Cinquefoil

## (*Potentilla fruticosa*)

- Leaves compound, alternate
- 3-5 elliptical leaflets
- **Flower:** most commonly yellow, single flowered



# Shrubs- Buffaloberry

## *(Shepherdia canadensis)*

- Woody stems
- Spots on back of leaves and stems
- Flowers before the leaves come out
- Red Berries
- Buds set before winter, good winter forage



© Sue Crispin

# Shrubs- Silverberry

- Silvery leaves and berries
- Berries powdery on the inside, present through winter
- First nations used to thicken sauce
- Seed was used for decoration
- Roots and Stems can be grounded into tea to create a natural blood thinner

