

### What Do You See?



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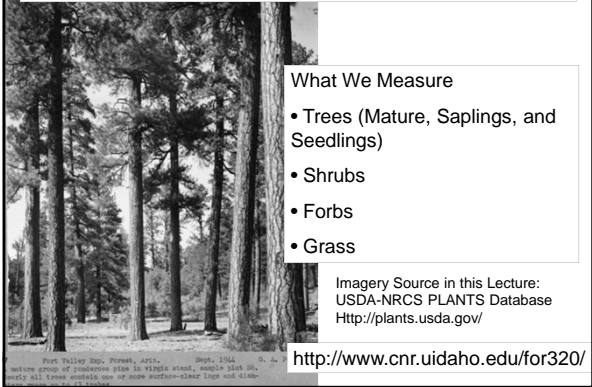
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### FOR 274: Forest Measurements and Inventory



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### Why Do We Care?



Different species have different uses and values.



Characteristics that help in determining species include:

- Bark color, pattern, and texture
- Tree form and shape
- Number of needles per fascicle
- Length and shape of needles
- Cone size and shape
- Geographic location
- Topographic location (elevation, valleys, ridge tops, etc)

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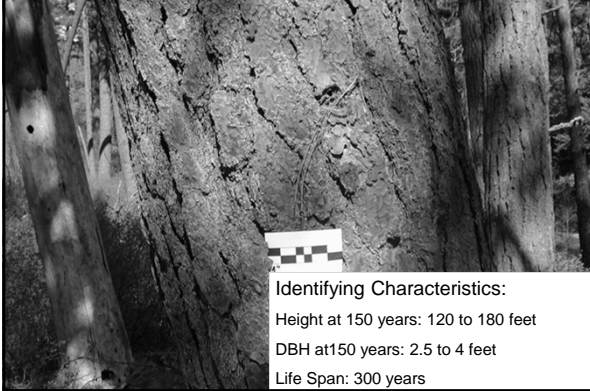
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Trees: Ponderosa Pine



Identifying Characteristics:  
 Height at 150 years: 120 to 180 feet  
 DBH at 150 years: 2.5 to 4 feet  
 Life Span: 300 years

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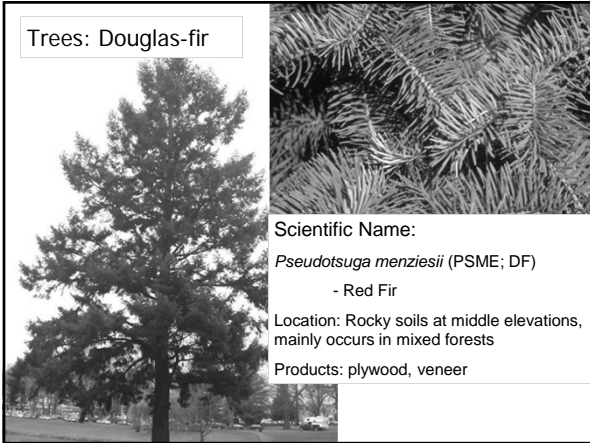
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Trees: Douglas-fir



Scientific Name:  
*Pseudotsuga menziesii* (PSME; DF)  
 - Red Fir  
 Location: Rocky soils at middle elevations,  
 mainly occurs in mixed forests  
 Products: plywood, veneer

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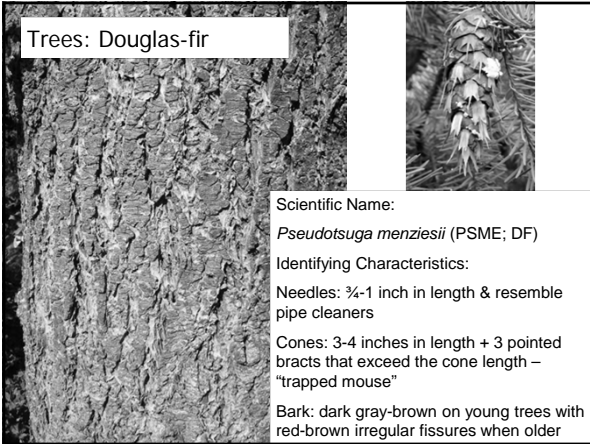
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Trees: Douglas-fir



Scientific Name:  
*Pseudotsuga menziesii* (PSME; DF)  
 Identifying Characteristics:  
 Needles: ¾-1 inch in length & resemble  
 pipe cleaners  
 Cones: 3-4 inches in length + 3 pointed  
 bracts that exceed the cone length –  
 "trapped mouse"  
 Bark: dark gray-brown on young trees with  
 red-brown irregular fissures when older

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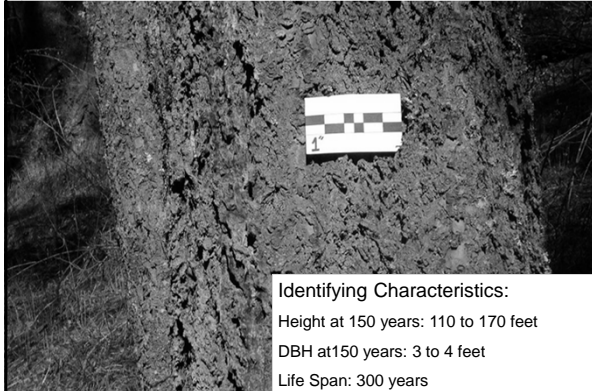
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Trees: Douglas-fir



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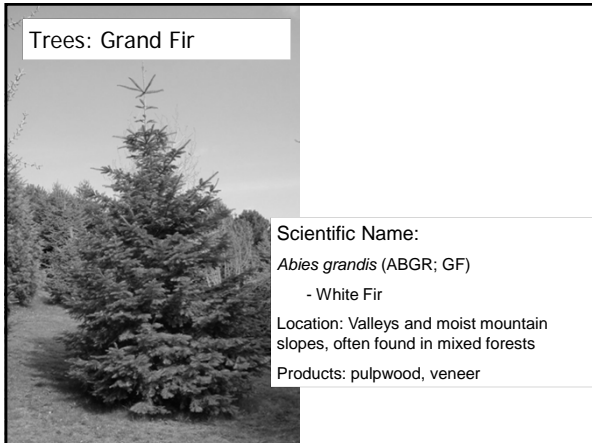
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Trees: Grand Fir



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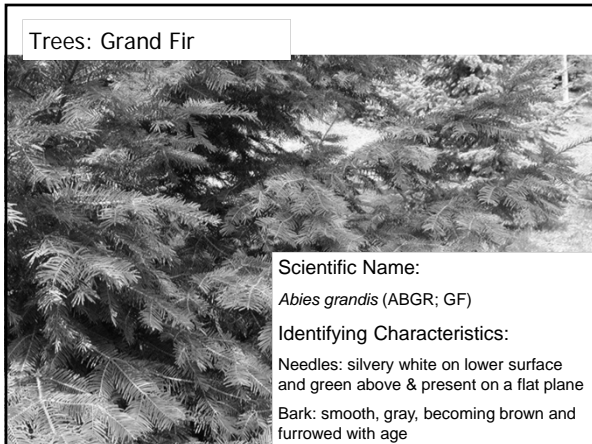
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Trees: Grand Fir



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Trees: Western Larch



Scientific Name:

*Larix occidentalis* (LAOC; WL)  
- Tamarack

Location: Mountain slopes and gravel valleys, sandy/loamy soils, often found in mixed forests

Products: construction, paneling, flooring, utility poles, firewood

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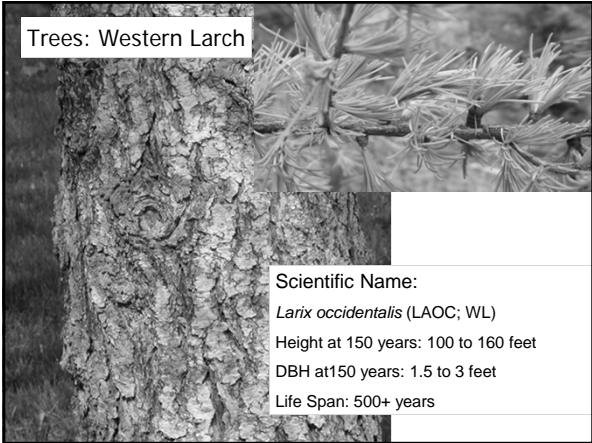
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Trees: Western Larch



Scientific Name:

*Larix occidentalis* (LAOC; WL)  
Height at 150 years: 100 to 160 feet  
DBH at 150 years: 1.5 to 3 feet  
Life Span: 500+ years

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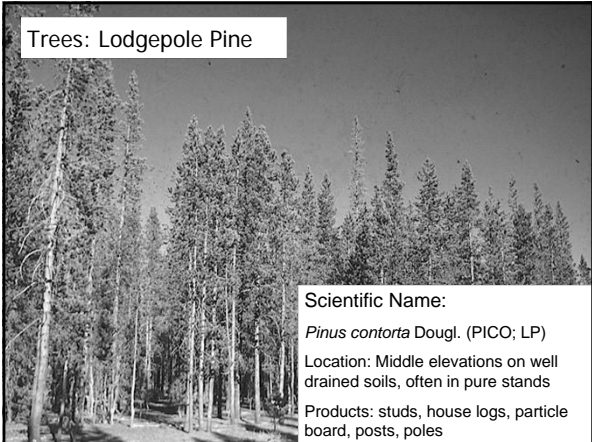
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Trees: Lodgepole Pine



Scientific Name:

*Pinus contorta* Dougl. (PICO; LP)  
Location: Middle elevations on well drained soils, often in pure stands  
Products: studs, house logs, particle board, posts, poles

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Trees: Lodgepole Pine



Scientific Name:  
*Pinus contorta* Dougl. (PICO; LP)  
Height at 150 years: 70 to 110 feet  
DBH at 150 years: 1 to 2 feet  
Life Span: 150 years

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Trees: Engelmann Spruce



Scientific Name:  
*Picea engelmannii* (PIEN; ES)  
Location: Cold air drainages, higher altitudes  
Products: piano sounding boards, violins

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Trees: Engelmann Spruce



Scientific Name:  
*Picea engelmannii* (PIEN; ES)  
Identifying Characteristics:  
Crown: very narrow cone shapes  
Seed Cones: Violet to deep purple  
Bark: red to purple-brown with thin scales  
Height at 150 years: 80 to 150 feet  
DBH at 150 years: 1.5 to 2.5 feet  
Life Span: 350 years

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Trees: Western Redcedar

Scientific Name:  
*Thuja plicata* (THPL; WC)

Identifying Characteristics:  
 Bark: gray-reddish brown  
 Leaves: pointed, scale-like and evergreen  
 Cones: small brown & ellipsoid

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Trees: Western Redcedar

Scientific Name:  
*Thuja plicata* (THPL; WC)

Height at 150 years: 100 to 160 feet  
 DBH at 150 years: 2 to 8 feet  
 Life Span: 1,000+ years

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Trees: Western White Pine

Scientific Name:  
*Pinus monticola* (PIMO3; WP)

- State Tree of Idaho
- silver pine, mountain white pine

Products: door frames, interior paneling, toothpicks, matchsticks

Identifying Characteristics:  
 Cones: large (8") shaped like a banana

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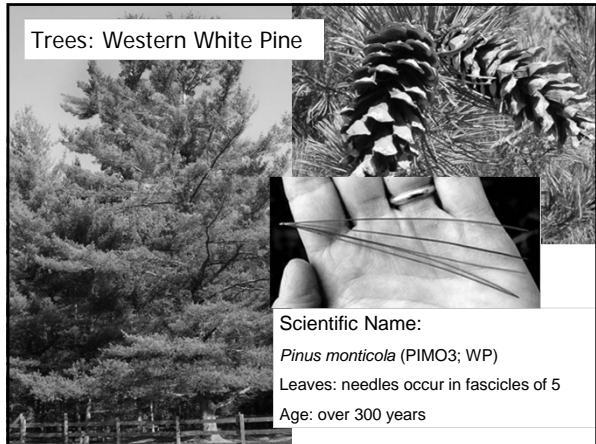
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Trees: Western White Pine



Scientific Name:  
*Pinus monticola* (PIMO3; WP)  
 Leaves: needles occur in fascicles of 5  
 Age: over 300 years

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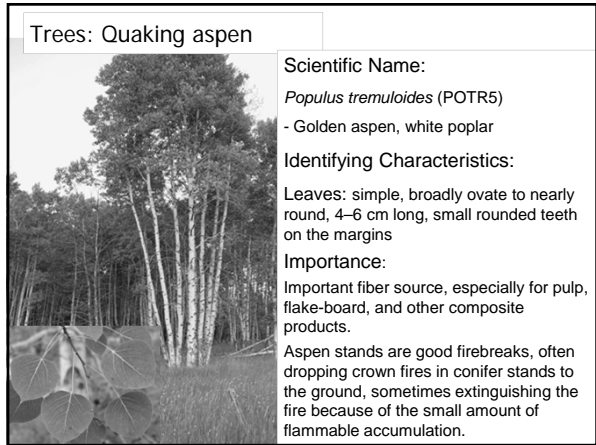
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Trees: Quaking aspen



Scientific Name:  
*Populus tremuloides* (POTR5)  
 - Golden aspen, white poplar

Identifying Characteristics:  
 Leaves: simple, broadly ovate to nearly round, 4–6 cm long, small rounded teeth on the margins

Importance:  
 Important fiber source, especially for pulp, flake-board, and other composite products.  
 Aspen stands are good firebreaks, often dropping crown fires in conifer stands to the ground, sometimes extinguishing the fire because of the small amount of flammable accumulation.

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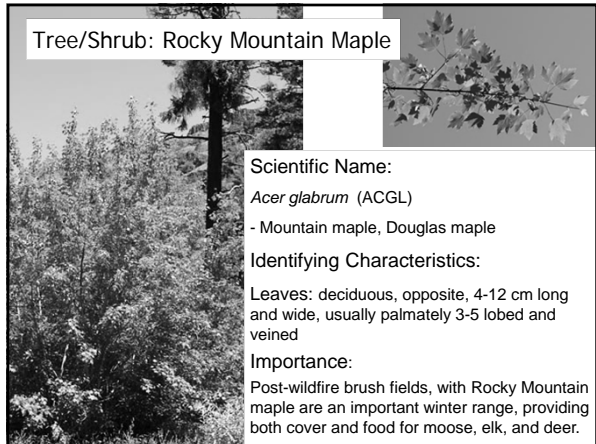
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Tree/Shrub: Rocky Mountain Maple



Scientific Name:  
*Acer glabrum* (ACGL)  
 - Mountain maple, Douglas maple

Identifying Characteristics:  
 Leaves: deciduous, opposite, 4-12 cm long and wide, usually palmately 3-5 lobed and veined

Importance:  
 Post-wildfire brush fields, with Rocky Mountain maple are an important winter range, providing both cover and food for moose, elk, and deer.

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Tree/Shrubs: Scouler's willow



Scientific Name:

*Salix scouleriana* (SASC)

Identifying Characteristics:

Leaves: appear reverse egg shaped with tapering bases, smooth to weakly toothed margins and reddish-strigulose beneath.

Importance:

In Ponderosa pine forests, preferred by deer, elk, moose and bighorn sheep.

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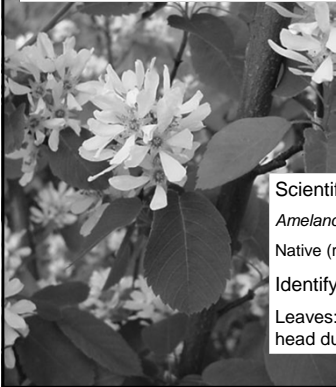
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Shrubs: Serviceberry



Scientific Name:

*Amelanchier alnifolia* (AMAL2)

Native (rose family)

Identifying Characteristics:

Leaves: Resemble a "Bart Simpson" head due to serrated upper half

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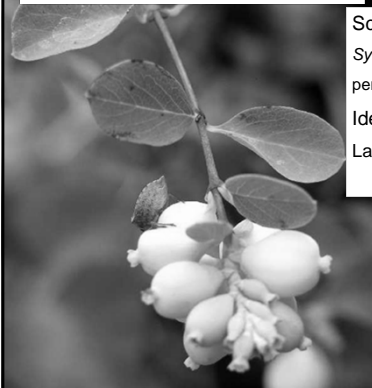
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Shrubs: Snowberry



Scientific Name:

*Symphoricarpos albus* (SYAL)

perennial, native

Identifying Characteristics:

Large opposite leaves

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Shrubs: Ninebark (Mallow Ninebark)

Scientific Name:  
*Physocarpus malvaceus* (PHMA5)  
 Rosaceae family

Identifying Characteristics:  
 Bunches of white flowers, striped / flaky stems

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Shrubs: Oceanspray

Scientific Name:  
*Holodiscus discolor* (HODI)  
 Rosaceae family

Identifying Characteristics:  
 Bunches of white flowers, flowers are draped over shrub

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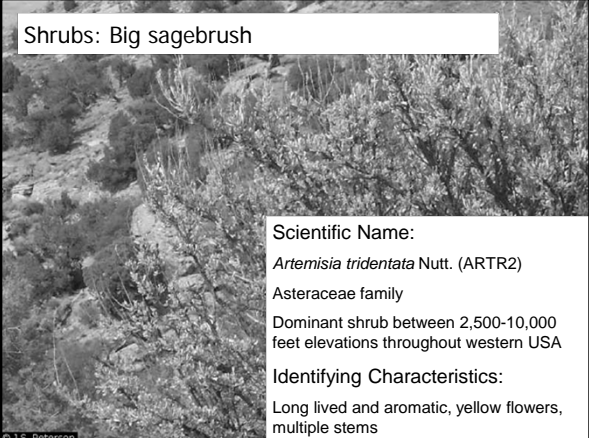
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Shrubs: Big sagebrush



Scientific Name:  
*Artemisia tridentata* Nutt. (ARTR2)  
 Asteraceae family

Dominant shrub between 2,500-10,000 feet elevations throughout western USA

Identifying Characteristics:  
 Long lived and aromatic, yellow flowers, multiple stems

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Shrubs: Redosier dogwood



Scientific Name:  
*Cornus sericea* (COSE16)  
 Cornaceae family

Identifying Characteristics:  
 Multiple stems, grows 6-9 feet, deciduous

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Shrubs: Rubber rabbitbrush



Scientific Name:  
*Ericameria nauseosa* spp. (ERNA spp)  
 Asteraceae family

Identifying Characteristics:  
 Grows up to 8 feet tall, blooms June to September

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Forbs: Common Yarrow (Milfoil)



Scientific Name:  
*Achillea millefolium* L. (ACMI2)  
 Asteraceae family

Identifying Characteristics:  
 Bunches of white flowers on top of forb,  
 Grows up to 2 feet tall, leaves are fern like

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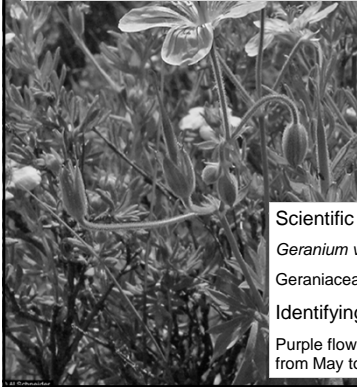
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Forbs: Sticky purple geranium



Scientific Name:

*Geranium viscosissimum* (GEV12)

Geraniaceae family

Identifying Characteristics:

Purple flowers on a single stem, blooms from May to August

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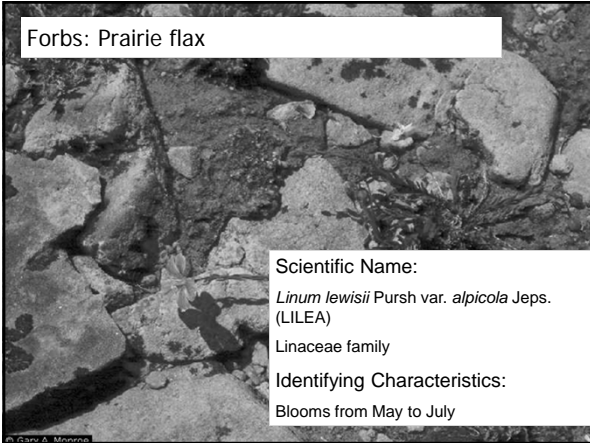
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Forbs: Prairie flax



Scientific Name:

*Linum lewisii* Pursh var. *alpicola* Jeps. (LILEA)

Linaceae family

Identifying Characteristics:

Blooms from May to July

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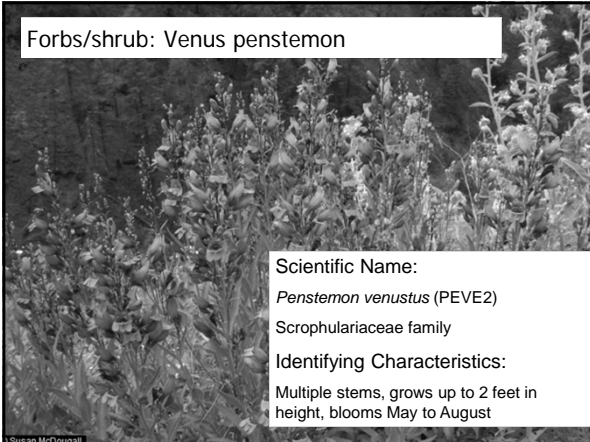
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Forbs/shrub: Venus penstemon



Scientific Name:

*Penstemon venustus* (PEVE2)

Scrophulariaceae family

Identifying Characteristics:

Multiple stems, grows up to 2 feet in height, blooms May to August

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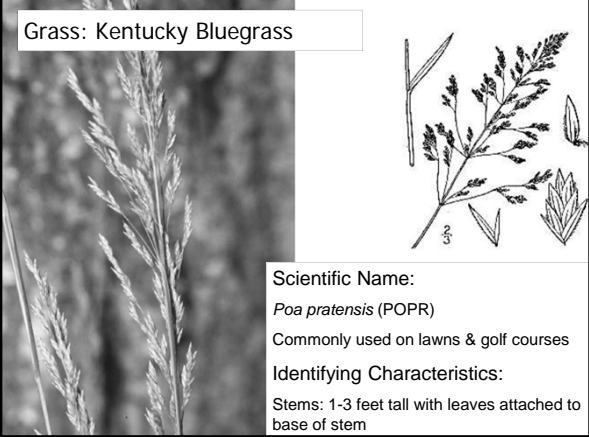
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Grass: Kentucky Bluegrass



Scientific Name:  
*Poa pratensis* (POPR)  
 Commonly used on lawns & golf courses  
 Identifying Characteristics:  
 Stems: 1-3 feet tall with leaves attached to base of stem

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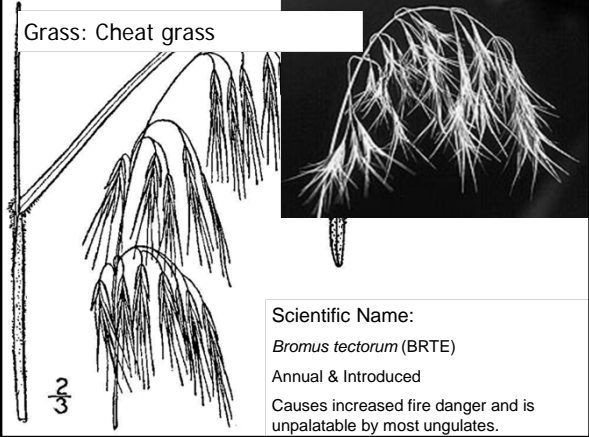
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Grass: Cheat grass



Scientific Name:  
*Bromus tectorum* (BRTE)  
 Annual & Introduced  
 Causes increased fire danger and is unpalatable by most ungulates.

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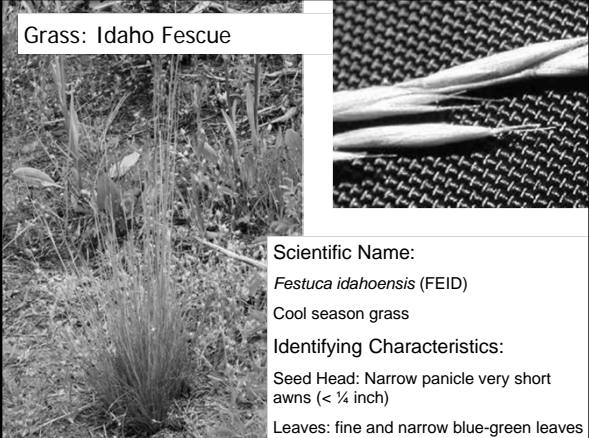
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Grass: Idaho Fescue



Scientific Name:  
*Festuca idahoensis* (FEID)  
 Cool season grass  
 Identifying Characteristics:  
 Seed Head: Narrow panicle very short awns (< 1/4 inch)  
 Leaves: fine and narrow blue-green leaves

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Grass: Bulbous Bluegrass



Scientific Name:  
*Poa bulbosa* (POBU)  
perennial, introduced  
Cool season short-lived grass

Identifying Characteristics:  
the dark-purple bulblets have emerging leaves

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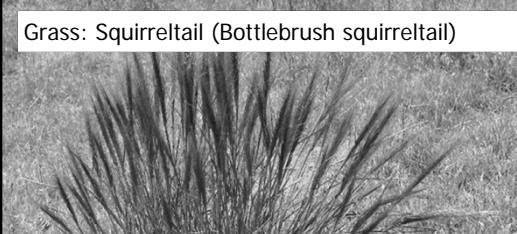
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Grass: Squirreltail (Bottlebrush squirreltail)



Scientific Name:  
*Elymus elymoides* (ELEL5)  
Poaceae family  
perennial

Identifying Characteristics:  
Cool season bunchgrass, grows up to 20",  
blooms from May to July

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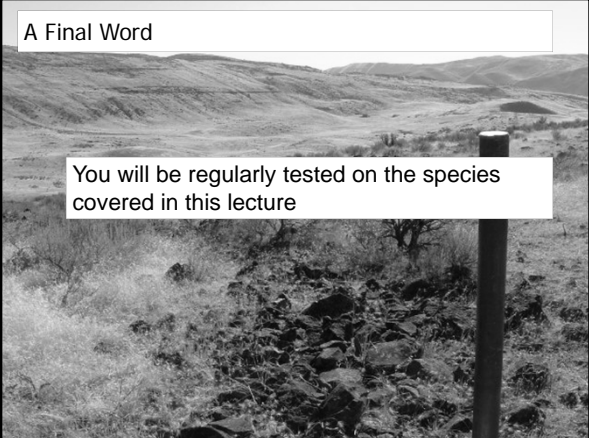
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A Final Word



You will be regularly tested on the species covered in this lecture

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