

# Spring Phenology

## Facilitator Guide

Date: \_\_\_\_\_

Time: \_\_\_\_\_

### Animals

#### Birds



Red-winged blackbird



Sandhill crane



Bald eagle

#### Amphibians and Reptiles



Bull (gopher) snake



Painted turtle



Leopard frog

#### Mammals



Tracks (deer)



Muskrat hut (made of cattails)



Scat

Beaver lodge (made of wood branches)

#### Invertebrates



Woolly bear caterpillar



Beetles

(Buried under tree bark or in soil)



Millipede

### Non-Living



SNWR is in the Anoka Sandplain, so soils tend to be sandy in composition. In the spring, they may be water logged and feel like mud.



In spring, the amount of daylight increases.

### Early Spring Blooms



Wood anemone (woodlands)



Trout lily (woodlands)



Hoary puccoon (prairie)



Prairie violet (prairie)



Dandelion



Pussy toes (prairie)



Pasque flower (prairie)

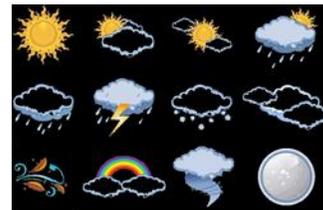


Marsh marigold (wetlands)



Early buttercup (open woods, prairie)

### Weather



Cloud coverage and type



Wind meter



Thermometer

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### Animals

- **Sit with eyes closed and listen to sounds around you.** Count on fingers each time a different sound is heard. How many different sounds did you hear? How would you describe the sounds? (shrill, bubbly, loud, soft, quiet) What made the sounds? (likely candidates include geese, wind, people, traffic) Did you hear frogs/toads? Did you hear the high pitched, bird-like chirping of the spring peeper or the long “cre-e-e-ek” sound of the Western chorus frog? Why or why not? In the spring, many animals are calling to one another for mating and protection.
- **Look out over the open water, search for movement.** Look for muskrats (or their homes made of cattails), turtle heads popping up, beaver lodges. These animals just survived a long winter!
- **Search for birds (in the water, sky, or trees).** The refuge is home to an amazing number of birds. Many birds would go extinct without its habitat in which to breed, build nests, raise young, feed, and rest along migratory routes. Eaglets have just begun to hatch. Loons and wood ducks arrive as the ice leaves. Later, newly returned migrant songbirds will be in full song to establish territories and attract mates.
- **Walk the trails and search for signs of animals who have left their tracks or other evidence behind like deer tracks, rodent holes, animal scat.** Do you think you would find more animals in the oak savanna or the wetland? Why or why not?
- **Once on the dock, search for signs of macroinvertebrates and fish.** If you find any, do they all swim the same way? Are they all the same size? What colors do you see? Are they in a lifecycle stage?
- **In the prairie,** as the ground thaws, pocket gophers push soil above ground and other insects scurry on the surface. Snakes bask in sunlight to warm themselves.

### Non-Living

- **Soil:** Squeeze the soil between your fingers and smell it – is this habitat dry or soggy? What are the qualities of the soil: Hard or soft? Wet or dry? Silt (like garden soil), sandy (like a beach), or clay (like Play-Doh)? Record findings. Spring soil can be waterlogged, or soaked with water.
- **Water/Moisture:** Is there a lot of water or only a little in the wetlands? Is the water shallow or deep? Where does wetland water come from? Pool elevations remain fairly stable because Schoolhouse Pool is spring-fed. In most refuge wetlands, water comes from the St. Francis River as well as precipitation. Ice-out occurs on refuge pools, lakes, and marshes in the spring.
- **Sunlight:** Is there a lot of sunlight or just a little in each habitat? How does it influence the plants growing there? Are the days longer or shorter in spring vs. winter?

### Plants

**\*\* Beware of poison ivy in the oak savanna!!\*\***

- **In the prairie, instruct students to get on their hands and knees and move away plants until they find soil.** Do they see any signs of the plant lifecycle? Are there new sprouts coming to the surface? Can they find seeds in the soil? What will happen to the dead, brown plants above the soil?
- **In the spring, many new flowers begin to bloom:** Look for Pasque flowers and dandelions in the prairie, yellow blossom of marsh marigolds in wetland edges, and wood anemone in the woodlands.
- **In the tree tops, look for the gold hue changing to green in the treetops.** What do you see? Look for buds swelling, trees flowering, and branches leafing out. What other observations can you make about the trees?
- **Ask students to pick up a leaf and do a leaf rubbing.** Then ask them to pick up another, different leaf and compare. How are the two similar, different? Using prompts like shape, veins, color, and size of the leaves may help the students.
- **Can you find a plant with berries? Seeds?** Why or why not? (Note that some poison ivy plants may have small off-white berries on their bare, woody stems.)
- **Instruct students to spend time drawing one understory plant.** Have them use their senses to explore—observe, smell, touch.

### Weather

- **Spring is usually when the first rain and thunderstorms occur.** This is a change to the water cycle!
- **Weather is always changing in the spring**—snow, rain, wind, or maybe temps in the 70s!
- **Have students notice the weather differences between habitats and elevations.** What changes do they detect from one to another?
- **Feel the air/wind against your cheeks** as you turn in a circle – is it windy or calm? Is it the same in all directions? Does it feel different if you sit vs stand?
- **How will today’s weather influence animal activity?**
- **Instruct students to record the weather** according to their teacher’s expectations.