Phenology is the study of cyclic and seasonal changes in nature, particularly in regards to plants and animals. These changes can be crucial to the survival of certain species. For example, if nectar eaters are looking for food before the spring wildflowers are blooming, being off schedule can have devastating effects.

You may remember the unbearable attacks of mosquitoes last September? We had unusual late rains and warmth, and a next generation of mosquitoes hatched after mosquito eaters like swallows and bats had already left for the season. It is possible that we were suffering due to the lack of mosquito predators. Scientists use phenology data to study the effects climate change is having on the natural world and us. But keeping your own phenology calendar can be fun as well. Use a journal or a calendar and record the first time you see a species in the spring, the first time you notice a certain type of wildflower, the first time you see young birds leaving the nest, the first time you notice that species are gone from the area in the fall. Be sure to record the day’s weather as well. Hit the trails and see if we are following a typical year or not, and start to record your own observations so you can check them against future years as well.

Based on my own phenology calendars that I have been keeping for the last 15-20 years, I can tell you approximately when to look for which species this spring. Male red-winged blackbirds and flocks of sandhill cranes almost always return in the last two weeks of February. Being omnivores, they can find something to eat that early in the year. Chickadees, which stayed around all winter, may begin their song call in February. You may also see skunk cabbage blooming in February, even in the snow! They generate their own heat and can thaw the ground around themselves.

In early March, look for spring beauties in the woods, one of our earliest wildflower bloomers. And listen for chorus frogs. They start looking for a mate as soon as their ponds and wetlands begin to thaw. March also brings the migrating waterfowl through our area. Wetlands, ponds, and puddles will be filled with hooded and common mergansers, pied-billed grebes, blue and green-winged teal, and more! Near the end of March, be on the lookout for killdeer, turkey vultures, and meadowlarks, as well as the wildflowers bloodroot and hepatica.

In early April, the groundhogs and ground squirrels come out of hibernation, as do the garter snakes, brown snakes, and red-bellied snakes. Leopard frogs will begin calling. Wildflowers over the next couple of weeks may include dutchman’s breeches, trout lilies, trillium, toothwort, and woodland phlox. By mid April the insect eaters are back – swallows, dragonflies, and warblers of all kinds are flying around eating their fill. Goslings will begin to appear in mid to late April and American toads and grey tree frogs will begin calling. Shorebirds also begin arriving in April.

By early May, the woodlands are full of color as birds like indigo buntings, orioles, scarlet tanagers, and rose breasted grosbeaks return to the area. Blooming wildflowers include wild geraniums, may apples, shooting stars, and columbine. You may see crane colts (young) at this time and begin to hear green frogs calling.

Of course there is so much more to see, hear, and record so feel free to follow your own list of favorite species. Also keep in mind that these natural events may vary by as much as two weeks or more due to changes in weather patterns.
Phenology: the study of plant and animal cycles and how they are influenced by seasonal and environmental changes. Recording phenological data is a great way to engage your inner scientist and to get more closely in touch with the cycles of nature.

Hike, Observe, Repeat.
Below are some notable occurrences and species you will begin seeing in the springtime. Go for a hike a few times a month and see when you first are able to observe these species.

Male Red Winged Blackbirds are one of the first migrating birds to appear in the spring.

- **Date:**
- **Location/ecosystem:**
- **Conditions/temperature:**

Many species of insect will become active as spring progresses. Record the first insect you see.

- **Date:**
- **Species:**
- **Location/ecosystem:**
- **Conditions/temperature:**

Spring gets more noisy too. Don’t forget to use your ears! Record the first bird or frog sound you hear.

- **Date:**
- **Species:**
- **Location/ecosystem:**
- **Conditions/temperature:**

Reptiles and amphibians will begin coming out of hibernation to warm themselves in the sun. Record the first cold-blooded critter you see.

- **Date:**
- **Species:**
- **Location/ecosystem:**
- **Conditions/temperature:**

Spring wildflowers will begin to bloom as temperatures warm. Record the first blooming flower you see.

- **Date:**
- **Species:**
- **Location/ecosystem:**
- **Conditions/temperature:**

Tips and Tricks for Phenology Hikes

- Don’t know what species you’re seeing? Take a picture to look it up in a field guide later, or embrace your inner artist and draw a picture!
- Bring binoculars to observe species more closely.
- Watch animals for a short time and try to figure out what they are doing…are they…. Building a nest? Looking for food? Staking out their territory?