



# The Ferrum Nature Society Bulletin

Dedicated to the appreciation and conservation of our natural world

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## Nature's events:

Spring unfolds rapidly in the Blue Ridge this month. The land begins to breathe again with newly emerging leaves, quickly on the heels of colorful blossoms of flowering dogwood, redbud, and a wide variety of orchard and ornamental tree species. Forest understories are more colorful as spring ephemeral wildflower species finish their short-lived blossoming period before their habitat is darkened by the leaves of canopy trees. Voices of frogs and toads echo in the night and mornings are greeted by the full song of birds, some returning from the deep South or the tropics. Make sure to have those hummingbird feeders full by the middle of the month!

## Sky calendar:

**Full moon** - April 2.  
the milk moon.

**Planets** - Venus is the bright light in the western sky after dusk. Look for Saturn, as well in the Southern sky. Saturn lingers near the moon later this month and look for Venus and the moon hanging very close together on the evening of April 19.

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### Mythical, Magical, Majestic

#### Bloodroot

- Nell Fredericksen



Bloodroot (*Sanguinaria canadensis*) is one of the earliest of the spring ephemerals to appear in our area. Bloodroot is a unique plant in many aspects. It is characterized by a single 8-12 petaled pure white flower that emerges first in early spring (March-May). The flower is then followed by a single multi-lobed leaf that lasts into mid-summer. Bloodroot has a distinct blood red sap that it stores in a below ground rhizome, thus the name. Seeds of this plant have a unique organ called an eliasome. Eliasomes attract ants who carry the seeds to their nests, eat the eliazome and then throw the seed into trash piles where it can later germinate.

Bloodroot has a long history of medicinal and ceremonial uses. The bright red sap was used as both a body paint and fabric dye by Native Americans. Bloodroot sap contains toxic alkaloids, the main one called sanguinarine which is a strong escharotic - a substance that kills tissue. Native Americans reportedly used a tea brewed from these rhizomes to prove guilt or innocence in tribal disputes. Theoretically, a guilty party, upon

ingesting this tea would not have a natural regurgitative response due to nervousness (attributed to their guilt) and thus would die due to ingestion of this toxin. An innocent, however, would not have a suppressed regurgitative response and thus be able to "get rid" of the ingested toxin, survive and thus prove their innocence. Needless to say this may not have been a very exact method of proving innocence or guilt!

Bloodroot has also be attributed with anti-cancer properties and historically used in salves purported to cure any form of cancer, both internal and external. Salves of this nature can be found even today touted as an alternative to chemotherapy, radiation, and surgery. However, there is no scientific proof that these salves show any anti-cancer properties and many of these salves have caused severe burning of the skin.

Recently the main toxin in bloodroot, sanguinarine, has been approved by the FDA for use in toothpaste as an anti-bacterial. Even though this has been approved by the FDA there remains some concern about bloodroots association with oral precancerous lesions called Leukoplakia. Even given its very toxic nature, the alkaloids in bloodroot are being studied for their possible medicinal uses as antibacterial, diuretic, emetic, fungicide, antiseptic to pesticide agents. In addition another alkaloid in Bloodroot, berberine, is being studied for its ability to reduce brain tumors,



## The Spotted Salamander

- Tiffany Garnett



Photo: Todd Fredericksen

The spotted salamander (*Ambystoma maculatum*) is one of my favorite amphibians, mostly because of its unique pattern of yellow or orange spots on its dorsum. Spots usually extend from the head to the tail. In some populations the spotted salamander has orange spots and orange spotting varies among local and regional populations.

Adults grow to 5-7" long, are terrestrial and mainly fossorial. They feed on invertebrates such as earthworms and insects. Males can be identified by a series of ridges that are parallel on the inside of the cloaca and run perpendicular to the cloacal slit. Females are usually larger than males. Breeding occurs in the winter with females laying clutches of 300+eggs in nearby wetlands. The eggs hatch into aquatic larvae that remain in their aquatic habitat for 2-4 months. They then metamorphose into their terrestrial adult form. Larvae and hatchlings are both an olive green color. Larvae do not have much spotting and hatchlings have no spotting when they emerge. In addition, larvae have a white or a lighter colored underbelly.

The spotted salamander resides in parts of southern Canada and throughout the eastern United States. Adults are more common in bottom land forests and in floodplains. However, they do occur in mountainous regions as long as suitable breeding sites are available. Mature deciduous forests with vernal pools offer optimal habitats, but populations also inhabit coniferous and mixed coniferous-deciduous forest.



## An Early Vireo

- Todd Fredericksen

Leaves are just emerging from the trees, but there is one species of songbird that does not seem to mind singing among the barren branches. The blue-headed vireo (*Vireo solitarius*) can be heard singing from in forests in our area as early as mid-March. I heard the first one on March 27 this year. The song has been describes as an interrupted series of slurred notes. Each note ends with either a downward or upward slur and is often whistle-like in tone. The bird seems to ask a question and then repeatedly answers it. Blue-headed vireos seem to sing longer than most birds. I have heard them singing as late as September.

Blue-headed vireos spend their winter in the coastal regions of the southeastern U.S. to the middle Central America. It breeds on the fringes of the Appalachian and Blue Ridge Mountains and throughout southern Canada. This species forages for insects in the mid to upper forest canopy and nests there as well. It seems to like hardwood forests with a good bit of white pine and, from my experience, appears to like areas with Mountain Laurel in the understory. It weaves a cup nest of spider webs, grasses, moss, and hair between a forked branch in the upper half of the forest canopy. The nest is used to raise 3-5 young per year.

Blue-headed vireos are often heard but hard to see, especially when the canopy begins to be filled with foliage. Catching a glimpse of one in your binoculars, you will see a prominent white eye ring resembling spectacles on a dull bluish head. The belly is white, but the sides are yellow and the back is olive green.



Photo by Jay Gilliam

## Turners Creek Trail Wildflower Walk

The Ferrum Nature Society and Ferrum Outdoors are sponsoring a wildflower walk along a Turners Creek trail at the home of Jim and Jerryanne Bier (1024 Whetstone Road, Ferrum) at 4pm April 16. The Nature Society members will have a pot-luck picnic at 5:30 pm to which Ferrum College students and community members are invited (as guests - no requirement to bring anything). Another walk will commence after dinner at about 6:30 pm for those who couldn't make the 4 pm tour.

Bob Pohl, Todd Fredericksen, and Jim Bier will guide the walk.

Please RSVP to Jim or Jerryanne Bier [jbier@ferrum.edu](mailto:jbier@ferrum.edu) or 365-2230 if you can, so we are sure to have enough drinks and transportation for students (returning to campus both before and after the pot-luck). This will also give us a contact list in case we have to reschedule due to a downpour. A van will leave from campus at 3:50 pm 4/16. You are invited to walk the trails anytime. Call Jim or Jerryanne for directions. Spring Beauty, Little Brown Jug, Bloodroot, and Virginia Bluebells are already blooming!