



The Ferrum Nature Society Bulletin

Dedicated to the appreciation and conservation of our natural world

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Hawk Watch:

Join us on the Blue Ridge Parkway at Rocky Knob from 10AM-2 PM Saturday, September 15, to watch hawks. It will be near the peak of migration for Broad-winged Hawks. Contact Todd or Nell for details.



Nature's events:

Birds going South

The peak of songbird and raptor migration occurs this month. Look for unusual birds passing through.

Leaves falling off

Blackgum, dogwood, and hickories are some of the first trees to turn color and lose their leaves.

Sky calendar:

Full moon - September 26th. This is the full moon closest to the Autumnal Equinox and is thus called the Harvest Moon.

Planets - Mars is visible before dawn in the east. Jupiter is close to the moon in the southern sky. Venus becomes a morning star at the end of the month.

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The unique predator avoidance strategy of five-lined skinks

Nell Fredericksen



Many of us are familiar with the common Five-lined skink. They can easily be seen out basking on our decks or walkways on warm sunny days and we notice them so easily because in addition to their black bodies with five white parallel stripes; many have bright blue tails (the tails are pale in the older adults). But have you ever wondered why those tails are so blue?

Let me explain. The Five-lined Skink (*Eumeces fasciatus*) is a common lizard throughout Virginia. It prefers partially wooded habitat with plenty of open areas for basking. These animals have a fairly high active body temperature, and when warm they are quite fast. But to get warm, they must be out and visible. They range in size from 12-21 cm, making them about the right size for a prey item.

Common predators of these skinks include raccoons, foxes, opossums, snakes, several birds and raptors, and even house cats. Such high predation pressure throughout their evolutionary history has resulted in the development of a very unique predator escape mechanism.

When threatened by a predator, there are several behavioral responses. The first response is to try to run and seek cover. If this is not successful, then they will freeze, raise their tails and wave them with a sinuous motion. This movement in combination with the bright coloration attracts the attention of the predator and, more than likely, the predator will strike at

the moving and brightly colored part. At that point, the tail is lost and while the predator is occupied with the twitching and wiggling tail, the lizard can then make its escape.

The loss of a tail is much more involved than just a behavioral offering and subsequent biting off of the tail. These tails are anatomically designed to be lost. It is not the predator that pulls or bites off the tail, it is the lizard that "decides" where the tail will break off.

Lizard tails, in general, are pretty simple structures, consisting of vertebra, muscle, and skin. Many can be used for fat storage and can aid in locomotion. However, skink tails have a few added perks. Each individual vertebra has a fracture plane in its middle. At this point, there is also a specialized band or ring of muscle that when constricted, puts pressure on the fracture plane, splitting the bone in two, and the tail comes off at that point. This muscle constriction also serves as a tourniquet, reducing blood loss to just barely a drop.

Skinks are not limited to just one tail - they can regenerate a new one in only a few weeks. However, the new tail is not made of bone, rather, it consists of a hard cartilage rod, minimal muscle and a more grayish colored skin. These new tails can be lost again, but only at the original fracture plane or, if any still exist, at a fracture plane closer to the body.

All in all, this is one of the most unique forms of predator avoidance in a Virginia species.



No camouflage for this beetle!

Jessica Scott

Beetles are a diverse group of insects that are members of the order Coleoptera which means “hard wings.” One unmistakable example of the variation of a beetle is none other than the Eastern Hercules Beetle, *Dynastes tityus*. The male differs from the female by having protruding horns that are missing on the female which brings about other nicknames for this invertebrate such as “Rhinoceros” and “Unicorn Beetle.” Even though the horns look dangerous, this beetle is not fierce.

Male Hercules
Beetle
The Bug Guide



Typically, this beetle is found in the eastern part of the United States even all the way in Indiana and New Jersey. If an individual were in a parking lot at night with lights that was near a forest, more than likely the Eastern Hercules Beetle would be seen since it is attracted to lights during its flight at nighttime. The adult beetles also like fermented sap and fruits; the larval stage feeds on the center most part of trees that are deteriorating, and two years later, it will become an adult. On average, the Eastern Hercules Beetle sustains live for about three years. This beetle can grow as large as close to three inches and sometimes even larger since it is one of the biggest beetles in the United States.



Female Hercules Beetle - The Bug Guide

Usually, the males are larger than the females, and the pigments of color are different. The male tends to have a lighter shade of gray or olive green with black spots while the female tends to be darker with brown splotches and black spots. Something interesting is that two beetles do not have exactly the same sized or amount of black spots. It is becoming much more difficult to find this invertebrate in the natural state since the Eastern Hercules Beetle likes to mate in older trees, and it seems that older trees are frequently vanishing. If anyone ever has the opportunity to see this beetle, do not run away from it but take in the amazing sight of the gentle Eastern Hercules Beetle.

Black gum provides early fall color show

Todd Fredericksen

Black Gum (*Nyssa sylvatica*) is a common understory or midstory tree in Piedmont and Blue Ridge forests. Having tough cross-grained wood that warps easily, it does not provide much value for timber. It certainly brightens the September landscape, however, because it is among the first trees to turn colorful in the fall. The bright red is produced by a pigment called anthocyanin.



The Fall Webworm, (*Hyphantria cunea*), is having a banner year. This native insect builds tent-like nest in many species of trees during the late summer - persimmon, black walnut, and sourwood seem to be favorite hosts. Look closely and you will see an enormous gathering of moth larvae spinning their web and munching on leaves. Damage to trees is usually not very significant because defoliation does not occur until late in the year.