



The Ferrum Nature Society Bulletin

Dedicated to the appreciation and conservation of our natural world

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Nature's events:

Coldest month?

According to weather archives for Rocky Mount, January is the coldest month of the year with an average temperature of 25.5°F. It is also the snowiest, with an average of 5.8 inches. Farmer's Almanac is calling for slightly higher temperatures and slightly lower precipitation in our region for the month of January. In January 2006, we had no snow and 5 days with temperatures above 60°F. We also had a thunderstorm on January 13! Forecast for the first week of January? Highs in the upper 50s.

Sky calendar:

Full moon January 3 - called the "Wolf Moon". The Earth is at its perihelion on this day - its closest distance from the sun all year (only about 3 million miles!).

Planets - Saturn is close to the moon early this month. Jupiter and Venus are also visible, but both are low on the horizon.

Meteor shower - The Quadrantid meteor shower reaches its peak on January 4, but will be shown up by the moon.

A hybrid sparrow for Christmas - Clyde Kessler

On Christmas Day this year I had quite an exciting surprise gift at my parent's house (Herman & Nannie Lou Kessler) near Ferrum. Among the twenty or so Dark-eyed Juncos (*Junco hyemalis*) [AKA snowbird] and a few White-throated Sparrows (*Zonotrichia albicollis*) visiting a bird feeder at the edge of the yard or foraging on the ground was a quite different looking bird. It was a hybrid sparrow-half junco, half white-throat. Its back plumage looked more like a white-throat's back, and the rest looked more like a junco. It also had a very noticeable white-throat.

Occurrences of hybridization among sparrows is likely rare in nature, and thus seldom observed. Because of the striking differences in plumage between a junco and a white-throat, this hybrid more easily stands out in a crowd of sparrows. So there are more reports of this hybridization than for any other sparrows.

In an Internet search and a brief read through articles and books about sparrows, I found that many of the reported sightings and specimens of Junco x White-throats are from Maryland and Virginia. One hybrid in Maryland sang a mix of its parent species songs: the first half was a musical junco trill, and second half a clear whistled rendition of "Peabody, Peabody, Peabody" notes [the song of the whitethroat often is "transcribed" as Poor Sam Peabody, Peabody Peabody]. If the sparrow visiting my parents' bird feeder stays until spring, and it starts singing, I wonder what its song will be like.

I also noticed that several ornithologists over time have wondered about the close genetic and morphological relationships between the various sparrow genera. They believe *Melospiza*, *Zonotrichia* and *Junco* are closely related genera with a few hybrids between *Melospiza* and *Zonotrichia* species and



Dark-eyed Junco

HYBRID
Dark-eyed Junco - White-throated Sparrow



White-throated Sparrow

All photos by Bruce Grimes

between *Zonotrichia* and *Junco* species known throughout the eastern US and Canada. In fact, some scientists have suggested that all *Melospiza* and some of the members of *Junco* be included in *Zonotrichia*.

Some ornithologists are curious about the behaviors of the hybrid. Does it behave more like one parent species than the other, or a combination as in the singing of the 1991 Maryland hybrid? One behavior that I noticed in the sparrow near the bird feeders was scratching the ground for food, a bit like the way a chicken does, and definitely identical or nearly so to the scratching that White-throated Sparrows use in finding seeds and insects in leaf litter. I am not sure if it is associated more with white-throats or with juncos, but individuals of both species would often peck at this bird, but then they postured and pecked at many other birds as well.

Hibernation behavior the Eastern Box Turtle

David Ellington

The Eastern Box Turtle (*Terrapene carolina*) is a common terrestrial turtle found throughout the eastern United States. Like most ectotherms, box turtles enter a state of torpor during the winter months. Hibernation is essential to the survival of the Eastern Box Turtle since cold temperatures and a scarcity of food in winter would cause a high mortality rate for this species. In preparation for hibernation, the turtle burrows into the soil within a forest.

I studied the hibernation behavior of the Eastern Box Turtle with respect to their behavior immediately preceding hibernation and during the period when they selected hibernation sites. The experiment started in early September and continued until late November, 2006.

The study was conducted on Ferrum Mountain and Ferrum Ridge north of the College. Five turtles were tracked to observe when they went into hibernation and how air temperature influenced their hibernation behavior.

All five turtles were actively moving throughout September and were usually found on the surface of the leaf litter. The first frost occurred in the study area on October 13th and the first killing frost occurred on October 15th. In early October, the distance of their movements between tracking dates began to decrease, and they were often found beneath the surface of the leaf litter. All of the turtles, however, continued some movement, with an average distance of 30m.

Two turtles had settled into their hibernation location by October 26. Two other turtles settled into their hibernation locations by November 13. One turtle was still moving as late as November 29, but only with distances

< 3m. The hibernation location of these turtles was



Box turtle in its hibernation location with transmitter and temperature sensor attached. *Photo by Todd Fredericksen*

approximately 2-4 cm underneath the soil and appeared to allow for the turtles external body to reach a relatively stable body temperature, compared to the ambient temperatures. Once the turtles began to hibernate, each of the carapaces were parallel with the soil surface and approximately 2-4 cm below the humus layer.

Turtles entered their hibernation locations from late October to late November. All hibernation sites were within each turtle's individual home range and, in general, turtles did not show a preference for any specific microsite conditions or topographical locations for hibernation locations.



Tiffany Garnett holds a Tufted Titmouse captured during mist netting during the winter bird count. *Photo by Todd Fredericksen.*

Results of the Franklin County Winter Bird Count - 2006

The weather was clear and cold on Saturday, December 9, but by the afternoon, temperatures had climbed into the 50s. The 24-hour annual bird count for the county yielded 57 confirmed species and 1392 individual birds. The most abundant species was the European Starling (170 birds), followed by the American Crow (152) and Dark-eyed Junco (116). Eastern bluebirds were especially numerous this year (82), but Cedar Waxwings, the most numerous bird species on the count last year, was not sighted. Other interesting birds included an American Coot on Adams Lake, a Common Raven sighted near Syon Abbey on the Parkway, and a Swamp Sparrow in eastern Franklin County.