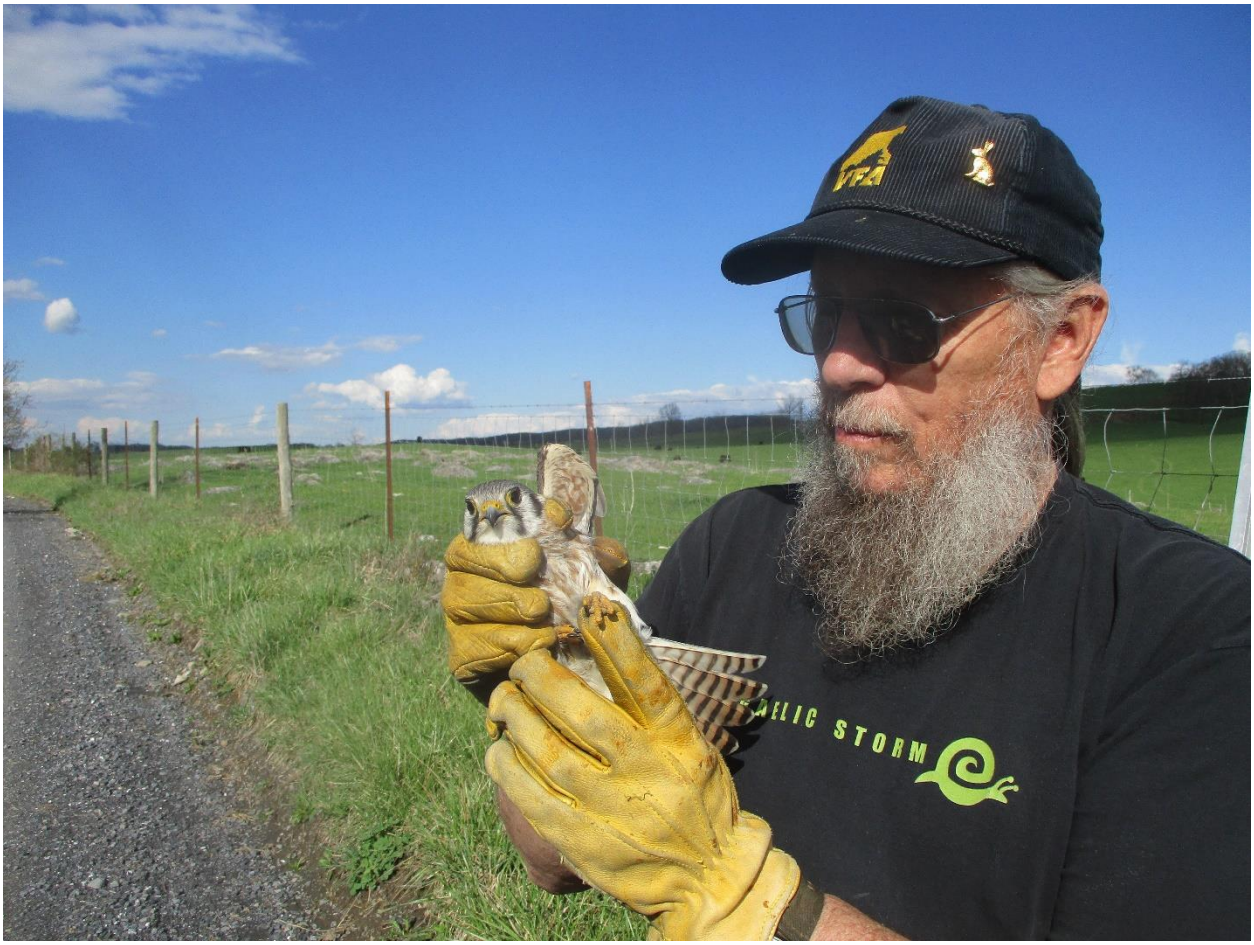
2nd Update
Shenandoah Valley Raptor Study Area
April 16, 2021

Hello, we've lots to report on our kestrel nest box program in the Shenandoah Valley Raptor Study Area (SVRSA) since our March update. Our 14th year!!!



Of the 83 nest boxes that are available this year, we have thus far found 29 occupied by kestrels (defined as at least 1 kestrel egg inside). Typically, the peak of clutch initiation is April 8th so new clutches are being begun each day. But we still have not checked a good proportion of boxes (26) and, since kestrels cannot use a box occupied by squirrels, the preliminary occupancy rate is 29 out of 51 (available and checked) boxes = 57%. This is on track for kestrel occupancy to end up at 75-85% this season. Many females are using the same boxes as they have in

previous years. Other females, however, move to new boxes every year. Since we don't catch many male kestrels, it is difficult to determine whether pairs stay together year over year. We know of at least one instance of a kestrel pair splitting up and mating with others. This was due to a Cooper's hawk infringing on the kestrels' territory/box. We call it a divorce.

Thus far this year we have caught 14 female kestrels in boxes with eggs, along with 2 males and one more female in a box without eggs. Age structure for the females with eggs is: two 1-year olds, five 2-year olds, two 3-year olds, three 4 year olds and two 5 year olds. We haven't caught any kestrels at least 6 years old and we anticipate a couple will be captured this season. Finding several age classes of breeding females might suggest a stable population.

Here is a typical clutch of 5 kestrel eggs. Fun fact: biologists speculate that kestrels once nested out in the open like peregrines on ledges, because the color and

dappling on kestrel eggs acts as camouflage. To date we have recorded 112 kestrel eggs in boxes – many more to come this month! We expect nearly 300 this season.

We talked to a local resident who had noticed the kestrel population along highway 42 was dramatically higher these past few years. These types of observations are very gratifying to us. People who stop to see what we are doing generally depart by saying “Thank you for your efforts” - or something along those lines. However, development throughout the valley is occurring at a rapid rate. Kestrels are fairly tolerant of human disturbance, but they are hesitant to nest too close to excessive noise or human activity.

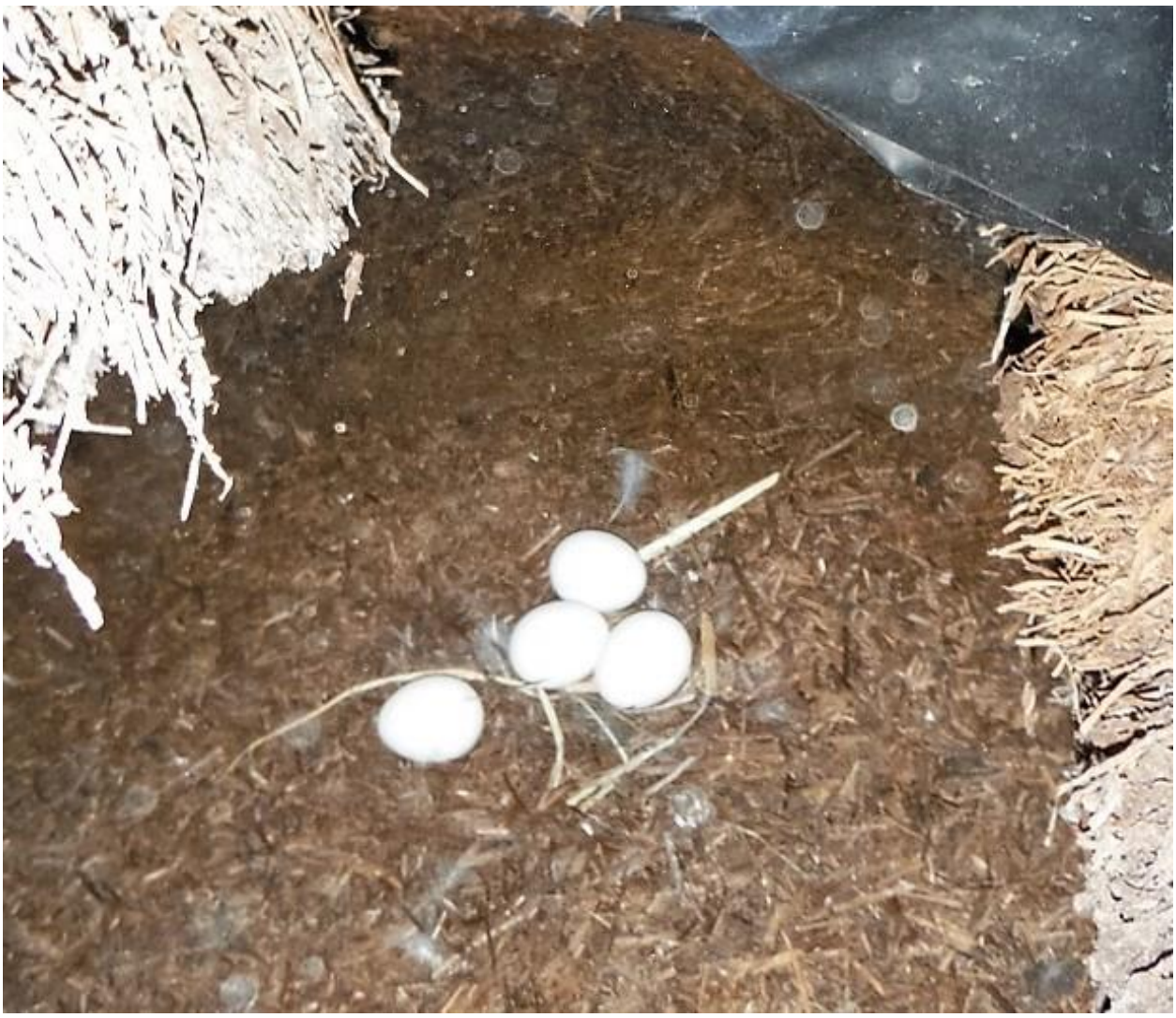
About 15% of the time eggs are incubated by the male kestrel. We captured a male (NW of Timberville on Flatrock Rd.) incubating 5 eggs who appeared to have something stuck to his upper beak. In addition, his cere (the yellow skin surrounding the nostrils, or nares) was swollen and perhaps so too was the yellow skin in front of his eyes. Another odd thing was that the nasal post, a feature of all falcons, appeared to be missing from both nares. We suspect some type of infection or trauma has caused blood to leak out and dry on his beak. We are

extremely interested to hear any comments from you all regarding this bird's condition. Thank you, Ben, for this wonderful photograph (great cell phone)!

Black snakes will climb up utility poles to kestrel boxes to eat eggs and hatchlings. Some of our poles have predator guards but most do not. By having some unprotected boxes, it is possible to estimate "normal" levels of predation. We actually caught a snake "red-handed" inside a kestrel box a couple years ago. A couple days ago we opened a box to find one intact kestrel egg along with crushed eggshells from 1 or 2 other eggs. It appears to be the work of a snake who crushed the eggs, extracted the liquid and spit out the shells. We noted the first black snake of the year on that same day (coincidence? we think not.)! Uncertain whether this nest has failed or not. We removed the squashed eggshells, replenished the bedding

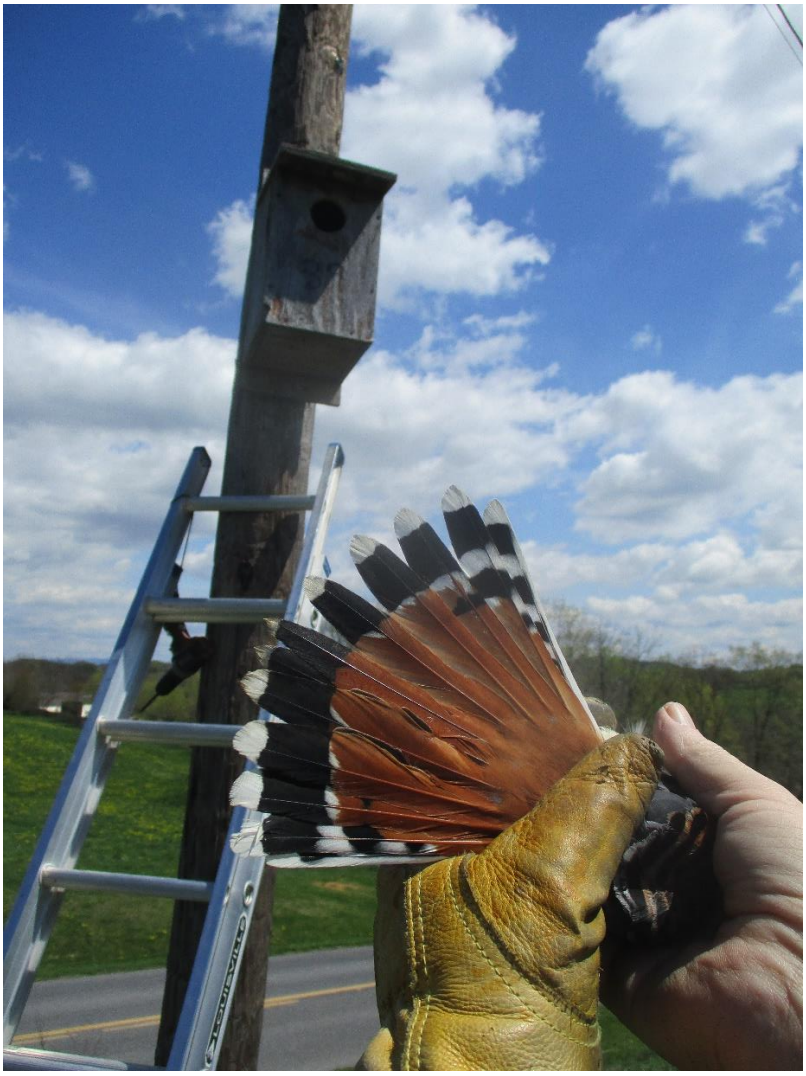
and replaced the intact egg with hopes the kestrels were not deterred from using this box.

So far this year we have removed 6 starling nests from kestrel boxes. Since starlings usually start nesting after kestrels, we think kestrels can defend their boxes from starlings. Need to set up a camera to record what is really going on! Same sort of thing happens at bluebird boxes with fights between bluebirds, tree swallows and house sparrows all wanting to use the same box. To date, we have recorded 4 bluebird eggs this season.



Normally we monitor several barn owl nesting sites in abandoned silos within the study area. As long as there is no climbing involved, we are checking silos known to contain nesting owls. So far, we have found one clutch of eggs resting on old silage in the bottom of a silo.

In addition, we are keeping an eye out for nesting redtail hawks, Coopers hawks and other raptors. To our knowledge, Loggerhead shrikes no longer nest in the study area after the rough pasture they nested in was turned into a cornfield.



We anticipate publication of our kestrel productivity paper in Maryland Birdlife any day now and will make this paper available to you all once it comes out.

Feel free to forward to friends and let them know we'll gladly add them to our email list if they contact us: Lance & Jill Morrow saltlick2003@gmail.com