

3rd Update on the Shenandoah Valley Raptor Study Area May 18, 2025

Currently in the Study Area ...

We have been busy catching nesting adult females in our 90 kestrel nest boxes plus we've banded 13 early clutches of kestrel chicks. To be exact, we have placed bird bands on 63 chicks in 13 early boxes.



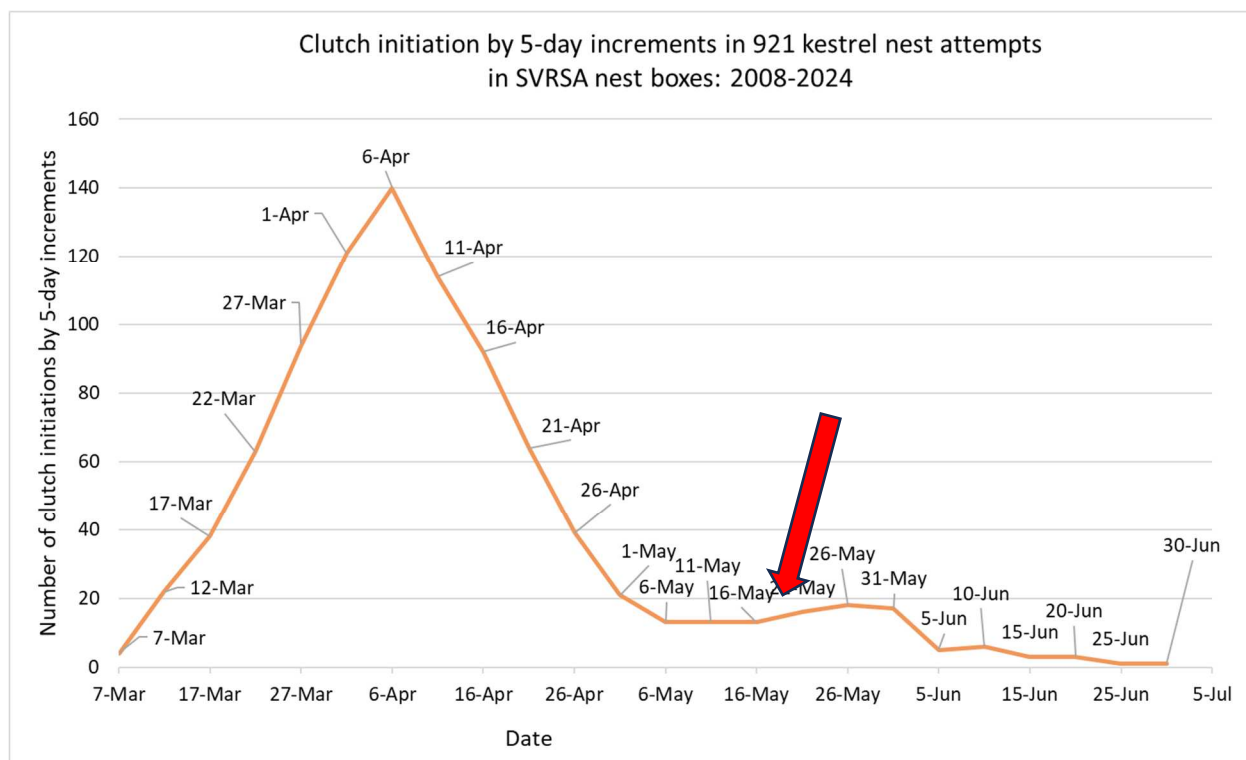
Five fluffy 2 week-old kestrels in a bucket with lunch (a dead vole).

Early kestrel nests produce the most chicks per box. Out of 65 eggs, the earliest nesters hatched 63 chicks that survived to banding age (12-18 days old). The other 2 eggs were either infertile or didn't hatch for other reasons (such as contamination, as in rotten eggs). This works out to 4.8 chicks per clutch, which is much higher than our long-term average of 4.2 kestrel chicks per successful nest box. However, we expect the later kestrel nests to be less productive which will bring that metric down to average by the end of the season.



Photo by Liam McGranaghan showing Lance handing up the bucket holding banded kestrel chicks to Jill to return them to their nest box. Wonderful day that was!

At the moment, we are banding chicks whose mothers' laid eggs about 55 days previously, i.e. – before March 24. As you can see from the graph below, peak egg laying date is April 6th which means our peak chick banding date is 55 days later = late May. As of today in the SVRSA, 77 nest boxes have been or are currently occupied with kestrel eggs (86% occupancy). To date, 10 occupied boxes have already failed (13%). However, of these 10 failed boxes, 4 have second kestrel nest attempts. If kestrels fail early in the season, they generally attempt to lay a second clutch, not necessarily using the same nest box. Hence, we have a wide range of clutch initiation dates after the peak (the noticeable bulge to the right of the peak on graph below). It appears that we are near the height of second nest attempts while, at the same time, we are banding the first successful nests from March and early April.



A few days ago Tim Rocke reported 2 recaptures of breeding kestrels in his newly established kestrel nest box program near Luray. He installed 13 kestrel nest boxes and has just returned from vacation to catch adult females incubating eggs in his nest boxes. Tim recaptured two banded female kestrels that we produced in our study area! One was a yearling attempting her first nest, and the other was a 2-year-old female, both were banded as nestlings in 2024 & 2023 respectively. Upon checking the bird band numbers, we learned that both these birds were hatched and raised **in the same nest box**, located on the western edge of the SVRSA. They were hatched and banded a year apart and had different mothers. We know this because we caught and banded the females while they were incubating eggs. Banding returns can be magical. Thanks Tim.

However, some band returns are depressing. As we were driving through Forestville a few days ago, Jill noticed a dead kestrel at the 4-way stop sign. We did a U-turn and went back to peel up a female kestrel that had been flattened by a vehicle a day or two ago. Unbelievably, there was a legible bird band on her leg. She had been captured and banded April 18th **this year** on 5 eggs in a nest box about 4 miles south of Forestville. Knowing what to expect, we visited her nest box and found 5 deceased kestrel chicks plus a couple of rotting carcasses that the male kestrel had provided. Female kestrels tear up meat and feed the chicks up to around 3 weeks of age. Males are the sole provider of food for the family until chicks can thermoregulate when the female pitches in. He was doing his job; there was a dead vole, grasshopper, and a blackbird chick in the box – all uneaten. Interestingly, while we were cleaning out the nest box, a Redtail hawk kept screaming at us. There is an active redtail nest about 120 m away from the kestrel box! We wonder if that redtail had chased the female kestrel, resulting in her death...



They might look okay but all were cold and dead. Note that plenty of food is next to them, but the chicks had no mother to tear it up and feed them.



Chad climbed up and looked into a different nest box and counted an astounding 9 kestrel eggs in a kestrel box on May 10th. These eggs were probably from two separate clutches laid by two different females. By May 16th all eggs disappeared from the box and we saw no kestrels nearby. This box used to be in a quiet hayfield, but they built a repair garage for tractors and semis right there at the nest box. All the noise and activity is probably why kestrels have failed twice this year. Some snake had a really good meal from this box. We'll take it down and relocate it next year. Our habitat in the study area is in constant flux and we try to position boxes in optimal locations for maximizing kestrel productivity.



This photo of Lance's hand being abused by a kestrel was taken by Liam McGranaghan. The kestrel's reactions to being captured in nest boxes vary greatly. Some are quiescent, while others act like they are fighting for their lives, struggling, biting and footing!

Barn Owls – in decline??

Since 2004, we've banded 533 barn owls in our study area plus some from Harrisonburg to Dayton. This total includes barn owls banded by us and Ben Spory. This year we have banded 10 barn owlets (so far). It is still early in their breeding season, but we are concerned that this past winter (remember that very cold and miserable February?) has reduced the breeding population of barn owls. There are a couple of known nesting sites we have yet to check, but so far this year we have only two active sites. They are both nest sites on floors of old silos where we've documented regular barn owl breeding each year.

One silo had a rambunctious adult barn owl who “came at us” while we were checking inside the silo for eggs. She landed on the open door near enough for Jill to grab but jumped away as quickly as she’d come. There were 6 barn owl eggs on the floor. Bethanie got a photo of this owl standing in the silo after she failed to scare us away. By zooming in, we could read a partial band number (2247-????). Unfortunately, that could have been any of 132 barn owls we’ve banded in recent years. The next time we visited the silo, we were ready with a net to catch the banded owl, but she quickly flew up to the top of the silo, out of reach. So, we will never know her complete band number or her history, but there’s a good chance she is a locally hatched bird that we’d banded as a chick in the SVRSA between 2021 and 2024.



Tyto furcata, the new name for American Barn Owl (formerly *Tyto alba*), standing on floor of old silo. Note the blackish owl pellets scattered about. This silo has been hosting barn owls for a long time and is a safe and dependable site that has produced untold numbers of barn owl fledglings. Since we've been checking there have been barn owls nesting and we have banded a total of 68 barn owls at that one silo. The landowners know of, and appreciate, the owls.



Bluebirds, swallows and chickadees ~ oh my!

To date, we have captured 2 adult bluebirds, 2 adult tree swallows, and one adult chickadee in our bluebird boxes. The chickadee was a rare surprise, and we captured the female on newly-hatched babies, so tiny!





Note the moss and very fine materials brought in by the chickadees.



Of course we have plenty of young bluebirds growing in our boxes; these are ready for banding and will fledge in 10-14 days.



A messy House Sparrow nest in a bluebird box. This species occasionally nests in our boxes and we usually let them stay, even though they are not native to North America.

Screech owl boxes are not a total bust this year

We have a single occupied screech owl box (same as last year). The female was banded while incubating 5 eggs and recently we returned to band her 4 chicks.



Chad holding one of 4 screech owls from the box on the tree (hidden behind his head).



Young screech owls look grumpy but really are a delight to work with, until they poop on everything. Really can't blame them for losing control though.



Painted water turtle that we rescued while she was crossing the road. She was released in our pond. We also stop for snakes in the road!

In a recent memo to all bird banders in North America, USGS wrote:

“If you discuss or share your banding projects to any public platform or social media, please indicate all banding, marking, and sampling is being conducted under a federally authorized Bird Banding Permit issued by the U.S. Geological Survey.”

If you are deeply interested in our work, go to our Research Gate page to read any of our published papers, photos and other items: [ResearchGate](#)

Feel free to forward to friends and let them know we will add them to our email list if they contact us: saltlick2003@gmail.com

Lance & Jill Morrow