

3rd Update on the Shenandoah Valley Raptor Study Area May 4, 2022

They are hatching!!!

After a month of tedious incubation, mostly by mothers and sometimes by the males, the kestrel eggs are hatching. Below see the happy moments captured by the endoscope camera we've employed this spring. Note the bird band shining on her leg. This photo gives us a lot of information: banded female kestrel on eggs and baby kestrels = hatch day. So, there is no need to climb a ladder to open the box now. We schedule banding the chicks in 16 days – simple!



Below is our endoscope mounted on our old box plug. Note the high-tech materials we use to keep the cord in place. The camera and lights are on the end of the black cylinder above Jill's watchband. You can see the weird sheen the light gives the kestrels eyes inside the otherwise dim nestbox.



Endoscopic camera & monitor cost us around \$80 on Amazon but, beware, the box plugger, duct & painter's tape is not included. The monitor is too dim to see in sunlight (hence towel over head – see below) but it has enough battery power to last all day long (maybe 2). Anyhow, we have used the camera to see inside several boxes and it's saved us from climbing the ladder maybe a dozen times so far this year.



Remember this goofy shot? Jill has the blue endoscope monitor under her “hood” taking a photo or two.

Recaptures of SVRSA kestrels by others and Vice Versa

Every year we attempt to capture all breeding females using SVRSA nestboxes. Over the years we’ve captured 100s of female kestrels inside boxes and a good percentage are banded birds wearing our own bands from years past. Up to this year, we had only 1 “foreign” banded female kestrel in our boxes – meaning that someone beside us had put the band on the bird. In 2018 we caught our first “foreign” banded female kestrel breeding in a SVRSA box. She was initially banded as a nestling in a Buck’s County Pennsylvania box 3 years prior (230 miles NE). Last year, Dr. “Zig” Ziegenfus banded a nestling female in his nest box near Cross Keys (just SE of Harrisonburg, VA) and we captured her recently breeding in one of our boxes (our 2nd foreign recap)! She is just shy of 1 year old which is the normal age to begin breeding for kestrels. She has flown about 15 miles north of her natal box.

The SVRSA has begun producing kestrels that go off to breed in other nest box programs, mostly those monitored/banded by Alan Williams. Frankly, this has likely always occurred, but

most nest box monitors did NOT attempt catching breeding adults – something we cringe at because they are missing a lot of data. Nowadays, most nest box programs are attempting to catch breeders. At least 6 birds banded in the SVRSA have been captured breeding in Alan's boxes.

Here are a few examples:

- A nestling female in SVRSA box #27 hatched in 2011 was caught in 2019 one of Roger Jones' (now Alan Williams' box as an 8-year-old BREEDING female).
- An adult wild female bred in a SVRSA box in 2015 was later was recaptured in 2019 and 2020 in two different Rappahannock County nest boxes near Fletcher's Mill & Sperryville.
- A nestling male in a SVRSA box hatched in 2017 was caught in 2019 one of Alan Williams' boxes in Luray as a 2-year-old male.
- We produced a nestling female last year and she turned up this year on eggs in Alan's nestbox over in Page County.



Some Boring Stats

To date in 2022, we have 69 of 82 available nest boxes occupied (meaning they have at least 1 kestrel egg). That beats our long-term (2008-2021) average occupancy (82%) by 2%. However, the season is still ongoing, and we are checking the remaining unoccupied boxes every 2 weeks. There are 298 eggs at the moment but that is only a snapshot in time, so we expect many more eggs. Only 1 kestrel nestbox (that we know of) has failed and we suspect a 3-egg clutch at is possibly abandoned; it will be the 2nd nest failure. Normally about 15% of boxes fail each year,

but that is very dependent on the weather (especially in May). Eggs in at least 8 boxes have hatched so far, so next week we'll begin banding chicks.

We have captured 66 breeding females and, as an added bonus, 11 males.

Of these 66 females:

- 17 were unbanded (we call them “wild” and consider them at least 1 year old if we cannot age them as SY by their pointed tail feathers, narrow subterminal band, or fault bars).
- 28 were recaptures of previously banded wild females (8 at least 2 years old, 9 at least 3 years old, 3 at least 4 years old, 3 at least 5 years old, 4 at least 6 years old, 1 at least 7 years old (probably her last season);
- 21 were banded as nestlings (so they are known age): (3 are 1-years old, 4 are 2 years old, 7 are 3 years old, 1 is 4 years old, 4 are 5 years old, 2 are 6 years old.

We've a lot of history on most of these birds, some of whom have been recaptured in nestboxes for 5 and 6 years in a row.



Found this scenario the other day. Looks like the kestrel won this box. We shall see. This year we are seeing very few starlings compared to other seasons. Not sure if the competition for boxes is higher with more kestrels than ever – or starlings are decreasing in our study area!

Bluebird boxes are active too

Ben Spory and Jill are shown below checking a bluebird box.



We had just been reading about the current wave of *Avian Influenza* and had actually considered suspending banding activities. But we reasoned that the chance of encountering AI while checking nestboxes was quite low. Ben opened this box to check for bluebirds and found a dead tree swallow inside. ARGGG!! Here was exactly our most feared scenario. Jill frantically looked for some tape to seal the box because we didn't have the proper protective equipment (PPE). Meanwhile Ben noticed the bird's head had been nearly scalped. Too bad for the female TRES, but we were relieved because it was probably not dead due to AI. It appeared that the skin on her scalp had been peeled back. Could have been caused by fighting with a house sparrow over the nestbox or maybe she hit a high tension fence while feeding.



Aside from that brief scare, the other bluebird boxes are mostly occupied by Eastern Bluebirds or Tree Swallows with maybe one chickadee nest. None have hatched yet. We have several bluebird boxes near our kestrel boxes to study interspecies interactions. Mostly it appears bluebirds don't care too much, and TRES definitely will nest adjacent to a kestrel box.

Speaking of fights between species, see the evidence below. It may have been a female kestrel dinner for a screech owl. We'll keep checking this box to see what happens.



The photo below shows two kestrel nestboxes, one to the left side and, though you can't actually see it, another kestrel box on the far driveway. Both have been active at the same time and are

located 418 yards/383 m apart. Given quality habitat, kestrels can nest quite close to one another. There is a large hayfield in between the boxes.



Fox squirrels gone – now box has kestrels

We thought the squirrels were cute but now they have fledged and kestrels are nesting in the box. We recently captured the female on 3 eggs. She was banded (by us) as a nestling in June 2017 so she is 5 years old. Surprisingly, this is her first recapture – begging the question, “Where has she been nesting for the past 4 years?” A handful of birds we band as nestlings turn up in our boxes after several years. We think they have been breeding in SVRSA in “natural” (non-nestbox) cavities. Fairly impossible to prove. More food for thought - none of the 2000+ kestrels we have banded has turned up somewhere outside our study area and come back to breed in the SVRSA. We’ve had breeders leave SVRSA and breed elsewhere, but they don’t come back.

Gone but not forgotten!



One hazard of having your partner hand down a bird from the ladder. She pooped on the top of Lance's hat, and it just oozed down into his beard. The kestrel looks upset too.

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