

## **Union County Falcon Cam Nestbox News – 2017**

*Please scroll down to start from the beginning of the nesting season.*

*July 12*

91/BA and the male peregrine falcon have both been spotted around the nest over the past few days, though their presence long term as we move forward remains to be seen. Per CWF Habitat Program Manager Ben Wurst, just because the falcons are not near the cameras does not mean they have left the area. Toxicology report information for the eyas was also received. From Betty Ann Kelly at UCNJ,

"Here is the toxicology report information for the eyas. Please note that most tox guidelines for what is toxic vs. not are devised for adult birds, not small chicks. The report done by the vet states that the lead level was high, and the exposure to DDE and PCBs was significant for a small chick. Lead is known for neurological effects, which is what Wildlife Biologist, Kathy Clark noted and surmised might be happening when our chick could not hold its head up."

*June 9*

It has certainly been a difficult season for the falcons at the Union County nest. We're sad to report that the last remaining chick from the Union County nest died earlier today. Although a NJDEP biologist was on her way to retrieve the sick chick in hopes of removing it and transporting it to a rehab facility, the eyas did die prior to her arrival. The remains of the eyas have been removed and will be tested. We hope to determine what went wrong with this chick, which may also shed light on why the other eyas died earlier in the week and was removed by the resident male.

*June 5*

Life as a peregrine falcon is not easy. One of the young eyas died in the past 24 hours. It was removed by the male this morning. As we've watched this new pair attempt to raise their first brood of eyases, we've seen first hand how fragile life is. Before the young even fledge, they need the perfect recipe to survive and thrive. This cool, wet spring has been tough on many long time successful nests along the coast of New Jersey, who are the backbone for the state population. On top of that, urban falcons have to deal with another threat, a pigeon-borne disease called trichomoniasis, which usually causes small lesions in the mouth and throat and can kill young falcons if not treated for the protozoan. Usually early signs of the disease will show a dirtiness around the bill of young falcons, like the lone eyas at the Jersey

City eyrie. The nestling there was given antibiotics on Saturday. The eyases here did not show signs of the disease, so there was no plans to treat them.

*June 3*

Viewers have watched this new pair incubate the huge brood of her and the previous females eggs while wondering which eggs would hatch first. After the window for hatching of the previous females passed, we looked towards the hatch date for the new female. The first of 91/BA's eggs hatched on May 30 and the second on May 31. We watched as this unexperienced adult female attempted to feed her *hours old* eyas (young falcon) and then drug the prey (pigeon) atop it. Will her third egg hatch? It seems unlikely at this point, but 91/BA will continue to sit on the eggs until her young get too big to brood.

If all goes well, we are planning to band these two eyas on June 22. Stay tuned for more updates on when this will occur. We will look into streaming the banding online.

*May 18*



Four 5-7 day old peregrine falcons at a nest site in Ocean County, NJ.

While everything is quiet in Elizabeth, we're busy conducting nest checks for hatching throughout the state. The overall effects of the Nor'Easter that hit last weekened are still unknown. One falcon nest on an osprey platform failed. The eggs started to hatch only a couple of days before the storm, and when falcons nest in the open on ledges of cliffs and buildings, then their young are much more vulnerable to severe weather. Historically speaking, Mother's Day storms have flooded out nests along the Palisades for years now. As we get more and more severe storms with

heavy rain in mid-late May, they increase the likelihood of failure at natural nest sites.

In addition, we try to visit nests shortly after hatching to treat the young for a parasitic wingless fly that can kill hatchling falcons if left untreated. Pictured are 5-7 day old falcons at a nest site in Ocean County that were treated for the parasitic fly yesterday. They were pretty loaded with the flies and we are hopeful that our efforts to treat them will result in a 100% fledge rate for this nest!

*May 9*

Well, we're past the window for when the previous female's eggs would have hatched. Despite the fact that they're addled, 91/BA and her mate will continue to incubate them until her own hatch during the last week of May. While they are getting a later start than many other falcons throughout New Jersey (most nests already have young or are hatching), their chances of successfully raising young this year looks quite good.

*May 3*



Four eggs on April 25, 2017. The two more vibrantly colored eggs are those from the new female.

We're on **hatch watch** for the two eggs laid by 91/BA's predecessor. We can ID one of those eggs as the very light and dark colored eggs. Falcon eggs hatch in the order they are laid and I believe the darkest was laid first. We are still not sure if the eggs are viable and if they don't hatch before the weekend, then they it's likely that they will never hatch. Unhatched eggs are collected at falcon nests throughout New Jersey and the contents can be analyzed for contaminants like PCBs, heavy metals, DDT/DDE, and brominated flame retardants, which can have detrimental effects on peregrine falcon health and reproduction. Despite having samples from a wide variety of nest sites throughout various regions of the state, the funding to pay for such analysis is expensive and has not been performed in decades. While we know that the level of these potentially harmful toxins is not high enough to cause reproductive failure (as it was with DDT in the 1950s and 60s), it is unknown some more new age pollutants (like flame retardants) effect the reproductive health of peregrines.

If the two eggs don't hatch then 91/BA will likely continue to incubate them with the others until they hatch in another 3 weeks.

*April 27*

Right on Schedule. This morning, 91/BA laid another egg. She's getting right down to business. Much more than the laid back female 41/AX who nests atop 101 Hudson St. in Jersey City... If 91/BA lays another egg then we'll have a *super* full clutch of 6 eggs (someone call Guinness Book of World Records!!!).

*April 25*

As you can see, things are getting a bit interesting in Elizabeth. The new female, who is just barely old enough to breed, has laid her first two eggs. Now she is incubating both her rivals eggs and her own. The first two eggs were laid on March 22 and March 24 and incubation began around March 28. Typically falcons incubate for 32 days, but with some of the gaps in steady incubation that could push hatching till early next week, but either way, we will be watching for hatching starting on April 29, *if the eggs survived...* If they don't hatch before May 5-6 then the chances of them hatching diminish.

The new eggs just complicate things even more. If just one of her rivals eggs hatches, it puts her own eggs in serious jeopardy of survival. Her efforts to incubate would slow as the young get older as her instincts would force her to care for your rivals young over her own. All of this depends on whether or not the eggs hatch. For that, only time will tell!

*April 12*



The male continues to incubate two eggs.

Not much has changed since our last entry. The male seems committed to make sure that his brood survives, despite losing his previous mate. The pair has been seen performing courtship displays, including bowing "e-chup" calls. The new female, 91/BA has even come into the nest and toyed with the idea of incubating the eggs but has yet to claim them as hers.

*April 6*

What we've witnessed over the past 48 hours has been the true, unfiltered behavior of nesting peregrine falcons and evolution at work. Natural selection is the process of evolution where only the fittest survive to produce offspring. As it turns out, 91/BA "Cadence" is more fit than the resident female. We are in communication with employees of Union County, who are watching for the possibility of finding the injured resident female. If she is found and brought to a local rehabilitator then we will hear about it.

It will be interesting to watch and see how this season unfolds. With the resident female being defeated by 91/BA, the male is still trying to ensure the survival of his (and her) offspring. However, he will need to eat, so he will need to leave the eggs to forage. If the eggs are not kept warm, then the embryos will fail to develop. We're doubtful that 91/BA would incubate another bird's eggs, but nothing is certain at this point. Either way, he will need to develop his relationship with her (the new female) and the chances of these eggs hatching is slim. Only time will tell what the ultimate outcome would be.

*April 5*

The fate of the resident female remains uncertain. The pair has fought since late February to defend their territory against Cadence, the relentless female from Rochester, NY, who today appears in and around the nest while the male continues to incubate the eggs. At two years old, Cadence is young to lay eggs of her own although it is possible. Only time will tell if she will adopt the nest with the male, and how the two will interact as incubation of the two eggs has already begun.

*April 4 (Contd.)*

The 2 year old intruding female 91/BA, named Cadence from Rochester, NY was spotted again at the nest on top of the Union County Courthouse. A tangle above the nest between the two females did not help the resident female who already had an injured (left) wing. These territorial battles can be extensive and leave all involved exhausted. Kathy Clark, ENSP Zoologist was watching and at one point she saw 91/BA hit the resident female at around 5:30pm. After that, the resident female was not seen again.

*April 4*



The male peers out the nestbox while incubating two eggs.

Incubation has begun and the battles seem to have ended, with the resident (unbanded) female successfully defending her eyrie (nest), despite gaining some new battle scars. Viewers have watched the male perform the majority of incubation duties, which is usually done by the female. She's obviously been under a great deal of stress from defending her eyrie and should settle down more on the eggs as they get back to their normal routine. Peregrines begin incubating after they lay a full clutch. With there being only two eggs (most lay between 3-4 eggs) this is likely due to stress from the battles this spring. The second egg should have been laid on March 26 since peregrines typically lay an egg every other day (second egg was laid in the evening of March 24). We believe that she could have "dropped" an egg, which means that she could have laid the egg during a mid-air battle with the intruding female. A reduced clutch is not a bad thing and the peregrine falcon population has been quite stable over the past several years. Nests on towers and buildings continue to be the "backbone" for the continued stability for the statewide population, while nests on natural cliff sites continue to be much less stable due to their inherent nature of being susceptible to predators and weather.

Hatching should begin during the last week of April.

*March 29*

Female intruder returns to nest and a battle ensues with footage of the female peregrine falcons locking talons and falling from the sky. Both resident male and

female peregrine falcons are viewed on the livestream later that afternoon. Intruder has been successfully chased off for the time being.

*March 25-28*

Periodic sightings of intruder. Resident male and female take turns defending nest and incubating eggs.

*March 24*

The resident peregrine falcons defends nest against intruding female and sustains injuries to her chest and left wing. She lays 2nd egg following this altercation.

*March 22*

The resident female lays the first egg.

*March 18*

Possible juvenile red-tail hawk spotted near the nest, resident pair attempted to chase hawk away.

*Late February 2017*

A second female peregrine falcon is first spotted near the nest. We now know that this is Cadence (91/BA) from Rochester NY.

*February 2017*

Pair continues to strengthen their bond, courtship behavior caught on video.