# FIRST SUCCESSFUL NESTING OF PEREGRINE FALCON (FALCO PEREGRINUS) ALONG CENTRAL PARK, NEW YORK COUNTY, SPRING 2014-2015

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The Peregrine Falcon (*Falco peregrinus*) has a long association with New York City (NYC) and the birders of the five boroughs. Here we present a short account of the first Peregrine Falcons to nest on a site overlooking Central Park. We also briefly summarize the history of Peregrine Falcons on Manhattan Island (New York County), with emphasis on the mid-town area between 34<sup>th</sup> and 72<sup>nd</sup> streets.

The earliest record we could find of Peregrine Falcons in NYC was an overwintering bird at the Brooklyn Bridge in 1890 (Anonymous 1890). In the early 20<sup>th</sup> century, birders were already on the lookout for the occasional Peregrine Falcons in Manhattan (Clarke 1912). Peregrines continued to winter in NYC throughout the first half of the 20<sup>th</sup> century. Herbert and Herbert (1965) wrote, "By 1946 the number of wintering Peregrines in Manhattan and the Bronx had risen to 16, but by 1952 the number had dropped to 7. Females dominated the New York skyscrapers and appeared to have territorial attachments for certain buildings." More recently, Peregrine Falcons have been observed hunting migrating birds at night at the Empire State Building, occasionally in spring, and more commonly from August through October (DeCandido and Allen 2006).

From 1943-1946, Peregrine Falcons first nested in Manhattan, at the St. Regis Hotel (55th street and 5th Avenue). In 1943 young were fledged, but by 1946 the young Peregrines were removed because the noise they made bothered some of the tenants. Rosalie Edge, who did much to establish the Hawk Mountain Sanctuary, was the person who removed the young birds from the nest cornice outside the penthouse of actress Olivia de Havilland (Furmansky 2009). In total, from 1943-1953, this pair of Peregrines hatched four clutches of eggs on two mid-town buildings. At another nest site in Manhattan in June 1945, two recently fledged Peregrines were captured near their nest on West End Avenue at 72<sup>nd</sup> street (Anonymous 1945). These birds were removed by employees of

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the ASPCA. One was kept by the ASPCA and the other went on display at the Central Park Zoo.

Among those studying New York's Peregrines was Joseph Hickey, one of the founding members of the Bronx County Bird Club in the 1920s (Farrand 1991). Hickey (1969) described the species' decline and extirpation in the eastern United States during the mid 20th Century. This was followed by an extensive project at Cornell University to re-establish Peregrines as a breeding bird in the eastern United States (Cade 1974). As part of this re-introduction program, the first Peregrines were released in NYC on 29 July 1980 on the Manhattan Life Insurance Company Building on 57th street between 6th and 7th Avenues (Spencer 1980). In the spring of 1983, Peregrine Falcons were discovered nesting at two NYC bridges, the Verrazano Narrows and the Throgs Neck (Frank 1994).

Since 2012, about 12-18 Peregrine pairs have nested annually in NYC. This is likely the largest urban Peregrine population in the world, with some pairs nesting less than one kilometer apart (Loucks 1998). Most nests are located on bridges, and most are within 100 meters of a large body of water such as the Hudson River, East River, Long Island Sound, etc. New York County has the largest number of nest sites of the five boroughs: 4-8 pairs breed on Manhattan Island each year. Most, if not all of these pairs remain on territory year-round.



**Figure 1**. Peregrine Falcons nesting along Central Park, New York. View from the nest on Central Park West at  $62^{\rm nd}$  street, looking to the northeast. Adult female Peregrine and nest box (with two young) at lower left, 8 June 2014. © Robert DeCandido PhD

In late 2010, a pair of Peregrine Falcons took up residence at the southwest part of Central Park, Manhattan at 25 Central Park West between 62nd and 63rd Streets, known as the Century building (Figure 1). In spring 2011, the female laid several eggs in a small (0.5 meters wide), east facing ledge of the 32<sup>nd</sup> floor of the south tower of the building. The nest is positioned so that it is shielded from hot afternoon sun as well as strong westerly winds and storms. The eggs did not hatch, probably because they were laid on the bare cement of this small terrace (a ledge with a sunken well): in rainy weather, the small terrace would partially flood. In 2012, no eggs were laid here, but adults were present. In February 2013, gravel was placed on the nest ledge by the owners of the apartment, and two different sets of eggs were laid; the first clutch of three in early April; and the second clutch in early May, the last egg laid on 8 May 2013. However, none of the eggs hatched. The NYS Department of Environmental Conservation (NYS-DEC) collected one of the unhatched eggs of the second clutch, and after lab analysis concluded that it was infertile. In the winter of 2013-14, a nest box was secured on the ledge and the bottom filled with gravel. Four eggs were laid beginning on 2 April. Two of the four eggs ultimately hatched, both on 10 May, approximately 11 hours apart (at approx. 1000am and 0900pm). The young male left the nest on Day 39 (18 June). Young male Peregrines average 39-46 days to fledge after hatching (Palmer 1988). Females average 41-49 days to leave the nest (Palmer 1988): the young female fledged on Day 43 (22 June). Upon making its first flight, the male was not seen again until 9 July. The young female was seen regularly within 0.5km of the nest at least until 8 July. Both of the young birds and the adults were seen together in late July.

What is the provenance of the adult Peregrines at the 2014 nest? The female is unbanded (Figure 2). From looking closely at feather molt and plumage patterns, particularly the dark markings on her cheeks, we believe that she is most likely the same bird that appeared at this site in 2011. Photos from 2011 taken by L. Marcus show the female was mostly in adult plumage, but retained some first-year (brownish) feathers - indicating that this falcon was hatched in spring 2010.

The adult male (Figure 3) is the second since this nest site was established in 2011. The current male has a US Fish and Wildlife band (2206-42367) on his right leg, and two separate color bands (black over green band with silver code 04 over AW) on the left leg. He was banded by C. Nadareski of the NYC DEP at Riverside Church (New York County) on 27 May 2011, making this male a little over three years old. He probably replaced the original male sometime in 2012. Both adults have remained roosting within 50 m of the nest throughout the year from 2012 to the present.



**Figure 2**. Unbanded adult female Peregrine Falcon feeds ten day old nestlings on 20 May 2014 at the Central Park West nest. Photograph © Deborah Allen.

Perhaps the most salient feature of these Peregrines is how tolerant they are of humans. From 2012 through 2014, the nest building underwent major renovations, with workers on scaffolding on all faces of the building for much of the year. Building management networked with the apartment owners to keep work done near the nest site to a minimum during incubation and the nestling stages. However, with all the human-related activity on the outside of the building, and people inside the building sometimes visible to the Peregrines through the adjacent glass windows, the adults and young Peregrines became habituated to people. In 2014, these birds rarely reacted to the movement of people nearby, continuing their behavior (preening, sleeping, feeding young, etc.) with no signs of distress or alteration of their behavior.

Observation of prey delivery to the nest and prey remains in the nest box, indicated that much of the diet consisted of Rock Pigeons (*Columba livia*) from April through June 2014. The adult male brought smaller items including European Starling (*Sturnus vulgaris*; beginning in May juveniles made up the bulk of the starling prey); House Finch (*Haemorhous mexicanus*); and rarely, American Goldfinch (*Spinus tristis*). The female was seen capturing Rock Pigeons in flight over Columbus Circle in late May and June. Other prey occasionally captured included Blue Jay (*Cyanocitta cristata*) and Northern



**Figure 3**. Banded adult male Peregrine Falcon delivers a male House Finch to the Central Park West nest on 14 June 2014. His left leg bands indicate he was banded by C. Nadareski as a nestling at nearby Riverside Church, New York, on 27 May 2011. Photograph © Deborah Allen.

Flicker (*Colaptes auratus*). On 17 June, the male brought two Chimney Swifts (*Chaetura pelagica*) to the nest within an hour. In Pennsylvania, the state biologist in charge of monitoring Peregrine Falcons there stated that he had never observed Peregrines capture Chimney Swifts in flight, nor seen their prey remains at any of the 40 or so nest sites in that state (*fide* A. McMorris).

As biologists we try to observe and document as reliably as possible the most salient facts about the birds we study here in New York City. We were unprepared for the drama that began to unfold in mid-June 2014 surrounding the Peregrines we had been studying above Central Park.

We were aware that the owners of the apartment where the Peregrines were nesting had not applied for a permit from the New York City Landmarks Preservation Board to put up a nest box on their small planting ledge, nor had they consulted the Board of the building, the landmarked Century:

https://en.wikipedia.org/wiki/The\_Century\_(Central\_Park\_West,\_Manhattan

We were also aware that the policy of the Endangered Species Unit of the NYS-DEC was to discourage Peregrines from nesting at private residences and to encourage these falcons to nest on public or corporate-sponsored buildings. Indeed, one of us (rdc) was contacted in 2013 and chastised by a senior official of the NYS-DEC after learning that advice had been given to the owners of the apartment in the Century building on how to build and properly site a Peregrine nest box. We subsequently learned that the NYS-DEC prefers Peregrines to nest on public buildings because they can have easy access to the nest to band the young, etc. On the other hand, when Peregrines nest at a private residence, the owners are under no obligation to allow access to anyone from the NYS-DEC or other agencies. However, in spring 2014 we encouraged (and the owners of the apartment readily agreed) to allow access multiple times to DEC employees.

In mid-June 2014, just before the young Peregrines fledged, Joseph Pane of the NYS-DEC sent a letter (Pane 2014) to the Board of the Century informing them that adult falcons could be dangerous to people in defense of their young. He also noted in his letter that "there are many terraces and upper open spaces surrounding your building, including the nearby rooftop playground of the Ethical Culture Fieldston School" implying that children might be in danger. In the next few days, the Board met and ruled that the nest box had to be removed. By September the nest box had been removed from the ledge. This did not affect the success of the already fledged Peregrines in 2014. In the spring of 2015, the adults raised two young by once again nesting on the narrow ledge without the Peregrine nest box. Unfortunately, given what the owners of the apartment had been through with the Condominium Board as well as the NYS-DEC, they understandably no longer allowed access to anyone to observe the Peregrines.

In summary, we believe this nest site at the Century building is a good one for Peregrine Falcons. The prey base seems to be sufficient throughout the year: both adults remain in the area of the nest after the breeding season through the winter. The nest ledge is shaded from hot afternoon sun, as well as protected from strong winds and rain coming from a westerly direction. One possible danger to young Peregrines is the number of glass buildings in the area collisions with reflective glass have been observed at urban nest sites (White et al. 2002). However, compared to other nest sites in Manhattan (e.g., 55 Water Street or the Brooklyn Bridge), it is unlikely that the young Peregrines will land on a roadway and be struck by a vehicle as we have observed at other locations in New York City. Going forward, we recommend that the nest box be returned to the ledge because (a) the adult falcons selected that spot to nest beginning in spring 2011, and did not successfully raise young here until the installation of the nest box in 2014; and (b) in years with inclement weather, particularly spring seasons with much rain, it is unlikely the eggs will hatch on the narrow ledge that is easily flooded. Finally, though great strides have been made in the protection of raptors and their nests in New York City, state and local government agencies and others including co-op and condo boards should make the best interest of the raptors they monitor their primary consideration. This includes siting nest boxes; best (limited) use practices for pesticides to kill rodents; habitat management for species declining in New York City such as American Kestrels (*Falco sparverius*) and Eastern Screech-owls (*Megascops asio*); and species reintroductions where feasible. Raptors and their nest sites here in the city can be quite effective ambassadors of the urban environment. We have frequently seen their profound positive effects on people, especially the many individuals who had not paid much attention to birds previously.

## **ACKNOWLEDGMENTS**

When Linda Marcus and Stephen Nislick first noticed Peregrine Falcons perching outside their apartment, and then showing interest in nesting on their terrace, they began working tirelessly with building management and others to get these birds to nest successfully at this site. We thank them for access to watch their Peregrines close-up – and many hours of hospitality, discussion, kindness and friendship.

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**Figure 4.** Just fledged (hatch-year) Peregrine Falcon at the Brooklyn Bridge on 28 May 1999. Photograph © Deborah Allen.