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Peregrine Falcon Research and Management Program In New Jersey, 2023

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Tiercel 68/BX at Cliffside Park nest site, 2023. By K. Clark





Celebrating the 50th anniversary of the NJ Endangered and Nongame Species Conservation Act ~ 1973-2023

<u>Program</u> <u>Objective</u>: To enhance the population of the peregrine falcon (Falco peregrinus anatum), restoring them to a self-sustaining level throughout their range in New Jersey.

Summary of Results

The 2023 New Jersey peregrine falcon population dipped slightly with 42 total pairs occupying sites, and 35 known to lay eggs. Successful pairs numbered 29, producing 71 young, for a productivity rate of 2.03 (known) young per active nest and a success rate of 83% (Table 1). A brief summary of data collected during the 2023 nesting season follows:

- The coastal region (Atlantic coast) had 19 occupied sites with 16 active pairs that produced 2.31 young/nest and 52% of the young produced statewide. Most coastal nests are on towers and buildings, but also include two coastal bridges.
- The Delaware River region (Salem County and north) supported six pairs that produced 2.67 young per nest (16 young). These nests were all on bridges this year, after the demolition of the Logan Generating plant.
- The urban region of northeastern NJ supported seven nests that produced 1.57 young/nest with 11 young fledged. Most of these nests are on bridges with two on buildings.
- Natural cliff and quarry sites in northern NJ supported nine pairs, six of which were active and produced 1.17 young/nest (7 known fledged) and had the lowest success rate at 50%.

We were able to band 63 of the 82 young produced (71 fledged), with an aluminum federal band and a bicolor (black over green) band engraved with an alpha-numeric code.

Pairs that nested on natural and quarry cliffs numbered nine this year but two were not monitored for activity. Three known-outcome nests were successful in fledging seven chicks. Access to some sites has made close monitoring difficult or impossible. Weather and intense storms did not seem to cause widespread failures at cliffs, however, nest success and productivity remained lower than the other regions.

The <u>webcam</u> on the roof of Union County courthouse provided excellent views, and <u>cameras</u> on two Delaware River bridges were also active.

ENSP biologists monitored peregrine sightings near beach-nesting bird colonies throughout the season, on the lookout for individual peregrines that resided for extended periods. The ENSP is committed to monitoring problem situations and devising corrective action to protect sensitive beach-nesting bird populations from predation.

Resightings and Recoveries

We used trail cams, cameras, and optics to read the leg bands on 32 nesting adults. A minimum of 13 adults were unbanded and thus unidentifiable to origin and age. The oldest female was 15 years of age. The median age of males remained in the 7-8 year range for 11 males and 15 females. The information that these identifications provide is valuable for relating peregrine origin and age to nest success, site fidelity and turnover rate in the population.

In addition to resightings at NJ nest sites, we have reports of peregrines sighted here and elsewhere:

Date	Band	Notes A 2007 Jersey City male, 40/S was known to nest in NYC. Injured and in rehab at Raptor Trust for several months, released June 2023. On 7/12/23, he returned to TRT after being grounded in NYC again. Evidently
07/12/23	40/S	after release he returned to his NYC nesting area.
		2014 Wildwood Crest female (AKA "Jo Durt"), 82/AN is known to nest in Stafford Twp. She was seen
01/11/23	82/AN	1/11/2023 with mate not far from nest.
02/14/23	BD/66	A 2018 AC female, she was seen in Manahawkin.
01/06/23	BD/87	2018 Tuckahoe female, she nested at Tuckahoe in 2023 with male 78/AM, her biological father.
05/31/23	BE/50	2018 Brig male, he was sighted at AC Sheraton hotel, where the nest was inactive.

01/10/23	BE/52	2019 AC male, he was sighted on Holgate water tower spring 2022 and at Holgate during 2022
10/07/23	BH/22	2021 Brig male, he was photographed at Sedge Island WMA on 10/7/2023.
06/25/23	BH/33	2022 AC male, he was found 6/25/2023 in Pleasantville and taken to Tri-State Bird Rescue.
10/31/23	BH/41	2022 Tacony-Palmyra Bridge male, photographed 10/27-31/23 Camden Co, Farnham park area.
01/04/23	BH/43	2022 AC male, BH/43 photographed 1/4/2023 at Forsythe; killed by vehicle Linwood 2/6/2023.
02/06/23	BH/54	2022 Palisades male, sighted 2/6/2023 in Teaneck, and 4/6/2023 at Jamaica Bay NWR.
11/25/23	BH/55	2022 Salem male, photographed 11/25/23 at Forsythe NWR.
12/10/23	BH/65	A 2023 AC fledgling, he was photographed at Forsythe 11/25/2023 and 12/10/2023.
06/22/23	BH/66	Fledged from Golden Nugget nest site, died of trauma injuries post-fledging at Harrahs.
06/26/23	BH/83	2023 Edgewater fledgling seen on 6/26/23 shortly after fledging. Recaptured 9/28/23 at Assateague.
09/03/23	BH/84	2023 Brig fledgling photographed 9/3/2023 at Forsythe.
04/24/23	BM/03	A 2019 Ocean Gate female, sighted 11/2/2022 VA Beach town center where she nested in 2022, 2023.
12/16/23	BM/11	A 2019 Sedge female, found dead 5/23/23 near Barnegat Light Water tower.
05/12/23	BM/31	2020 Ocean Gate female, nested at Swan Bay in 2023.
04/24/23	BM/37	2020 AC female photographed 1/3/2023 at Pt Pleasant inlet tower.
03/04/23	BM/42	2020 Bayside female, was recaptured 9/24/22 at Assateague banding station.
01/06/23	BM/44	2020 Somers Point, seen in Tuckahoe 11/20/2022 - 1/6/2023. Found dead on Ocean City Beach 2/24/23.
01/10/23	BM/80	2021 Union Co CH female, found dead in Pelham Bay Park, NY on 1/10/2023.
09/24/22	BM/98	2022 Sea Isle female was recaptured 9/24/22 at Assateague banding station.
08/12/23	BN/12	2023 Ocean Gate female was photographed at Forsythe on 8/12/23.
10/30/23	BN/16	2023 Tacony-Palmyra female was found dead in New Orleans, LA. No known cause of death.
06/29/23	BN/36	2023 Stafford female was killed on the bridge, 6/29/23, immediately post-fledging.
09/18/23	BN/43	2023 Brig female was photographed at Forsythe on 9/10/23 and 9/18/23.

Conclusions

The peregrine population remained about the same in 2023 and nest success and productivity was near average. Thirty-eight percent of nests were in the coastal region and produced 52% of chicks with an overall 81% success rate. The coastal region nests are primarily on towers and buildings, the structures that have the highest productivity rate (average 2.25 over ten years). A similar success rate was observed for the Delaware River nests (on bridges) where 5 of 6 nests were successful in producing 16 young; all bridges have a 10-year average productivity of 1.9 young/active nest. Seven urban sites produced 1.57 young per nest with 57% successful nests. Natural sites had the lowest success rate at 50% and 1.17 chicks per active nest (10-year average 1.09). Frequent turnover at one site caused lack of nesting, but failures or inactive nests at others could not be explained. This year proved again that proper management of nest sites on buildings and bridges is important to annual success statewide, and providing safe, undisturbed nesting sites continues to be key for a stable and productive population.

Staff and project volunteers continued to use our online data management system, *NestStory*TM. NestStory enables us to track all nests through each nesting season, and to track individually marked birds resignted here and elsewhere. We documented banded birds wherever possible, and continue to see relatively low turnover rate of nesting adults at NJ nests. Banding and resignting data will be used to study the population demography and dispersal.

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This project was funded by people who support the NJ Tax Check-Off for Wildlife, purchase Conserve Wildlife license plates, and donate to Conserve Wildlife Foundation of NJ. Funds were also provided by U.S. Fish and Wildlife Service's *Wildlife and Sport Fish Restoration Program*.



Clockwise from top left: BH/54 in Teaneck by Chris Takacs; 21/CD in Boonton by Mike Girone; BH/65 at Forsythe by Rich Nicol; 43/CB at Island Beach by Alex Tongas..

Table 1. Site-	specific results of	peregrine f	falcon nesting	in New Jersey	by region, 2023.

Site Name	Occupied	Active	Young Hatched	Yng at 3- 4 wks	Young Fledged	2023 Comments	Yng/Active @Fledging	Succ%
Atlantic City-Water tower	Y	Y	3	2	2	3rd chick fostered at Tuck		
AC Sheraton	Y	Ν						
Bayside Prison Water Twr	Y	Y	2	2	2	1 died post-fledging (vehicle)		
Drag Island 2	Ν	Ν				Plant demolished		
Drag Island 1	Y	Y	1	1	1	Managed		
Forsythe NWR/Barnegat	Y	Y		3	3			
Forsythe /Seaview	Y	Y	4	4	4	1 died post-fledging (electric)		
Golden Nugget AC	Y	Y	3	2	2	1 died post-fledging (window)		
Hilton/Grand/Atl Club	Y	Y		unk	1	1 fledgling found, released		
Marmora WMA	Y	Y	4	4	4			
Ocean City-Longport Br	Y	Y		· ·	-			
Ocean Gate	Y	Y	4	4	4			
Route 35 Bridge-Belmar	N	N		•				
Route 72 /Bonnet Island	Y	Y	4	4	4	3 died post-fledging (vehicle,+)		
Rumson-Oceanic Dr Br	Y	N?	_	<u>т</u>		5 thet post-fieldging (venicie, +)		
Sedge Island WMA	Y	Y Y	2	2	2			
Stone Harbor	Y	Y I	4	4	4			
Swan Bay WMA	Y Y	Y Y	3	3	3			
Tuckahoe WMA	Y Y	Y Y	0		3	Fostered from ACUA		
	Y Y	Y Y		1				
Rt 70 Manahawkin Bridge			4	4	0	Failed pre-fledging		
Wildwood Crest-Grand	N	N	20	(1	27	2.54		0.10/
SUBTOTAL COASTAL	18	16	38	41	37	2.56	2.31	81%
Ben Franklin Br.	Y	Y	4	4	4	1 died on bridge (vehicle)		
Betsy Ross Bridge	Y	Y		2	2			
Bordentown Rt 295	Y	Y	1	1	0	1 died pre-fledging		
Burlington-Bristol Br.	Y	Y	5	5	4	1 died at fledging		
Logan Generating Plant	N	N				Building demolished		
Salem Nuclear Plant	N?	N?						
Tacony-Palmyra Br.	Y	Y	4	4	4	1 died at fledging		
Walt Whitman Bridge-NJ	Y	Y		unk	2	1 recov/rel.; 2nd obs once.		
SUBTOTAL DELAWARE R.	6	6		18	16	3.00	2.67	83%
Natural Site C-1	Y	Ν						
Natural Site C-2	Y	Y		2	2			
Natural Site C-3	N	N						
Natural Site C-5	Y	Y		2	2	1 died post fledging		
Natural Site C-6	Y	Y		1	0			
Natural Site C-9	Y	Y	1	0	0	Hatched but did not fledge		
Natural Site C-10	Y	Y	U	0	0	Suspected failure		
Natural Site C-11	Y	Ν						
Natural Site C-12	Y	U	U	U	U			
Natural Site C-13	U	U	U	U	U			
Natural Site C-14	Y	Y	3	3	3			
SUBTOTAL NATURAL	9	6	U	8	7	1.33	1.17	50%
Boonton Bridge	Y	Y		0	0			
Cliffside Park	Y	Y	2	2	2	Balcony nest, new in 2023		
Elizabeth-Union Co CH	Y	Y	4	4	4	,		
Route 80 Hackensack Br	Y	Y	2	2	2	1F fledgling rec/tr/banded		
Newark downtown	Y	Y	-	3	3	Obs by P. Monti.		
Newark Bay Br	U	U						
NJTP Br/Rahway	N	N						
Pulaski Skyway Bridge	Y	N						
Route 1 Br./Raritan-NB	N I	N				No birds obs.		
Route 3 Br./Hackensack	Y	Y		2	0	100 01105 005.		
	Y Y	Y Y		2				
Rt 46 Br/Little Ferry-RP				2	0			
Secaucus-Kearny NJTP Br	U	U						
Vince Lombardi –NJTP Br SUBTOTAL URBAN	U	U						
CUPTOTAL UDDAN	8	7	U	15	11	2.14	1.57	57%

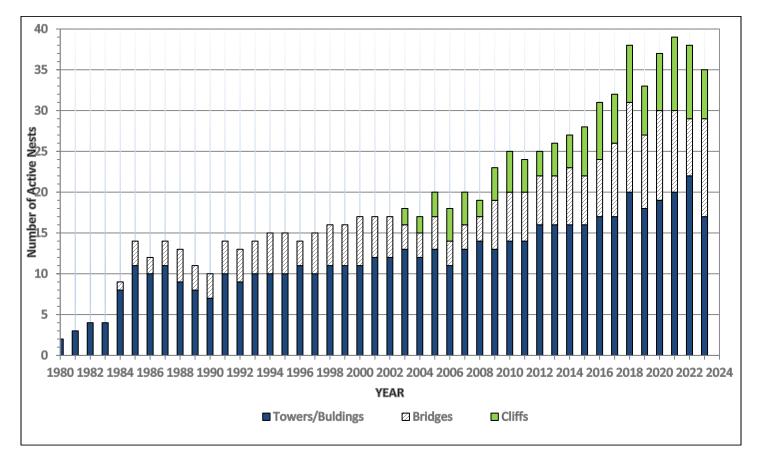


Figure 1. Nesting pairs on towers/buildings, bridges, and cliffs, 1980-2023. Note these types are different from the geographical categories in Table 1.

This project is funded by people who donate to the NJ Tax Check-Off for Wildlife and buy Conserve Wildlife license plates, and by the U.S. Fish and Wildlife Service's Wildlife and Sportfish Restoration Program



Little Egg Foundation provides the support for NestStory, the nest tracking program that allows real-time compilation of eagle nest data in NJ. **neststory**

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