

2018 Peregrine Falcon Report



Photo by Deanna Picklesimer Chicks and adult at Duke Energy East Bend Station nesting box.

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Historical Overview

The American Peregrine Falcon (*Falco peregrinus anatum*) experienced severe population decline during the mid-1900's. This decline was mostly attributable to eggshell thinning caused by the widespread use of the pesticide DDT. By the 1970's, populations east of the Mississippi River had vanished with only a few hundred nesting pairs remaining in the western portion of the country (USFWS 2003). Prior to re-establishment, the last active nest in Kentucky was documented in the late 1930's (Mengel 1965).

Starting in the 1970's, cooperative efforts by both public and private organizations nation-wide contributed to a successful species recovery. The recovery of the peregrine falcon can be credited mostly to the outlawing of DDT in 1972 and widespread hacking (release of juvenile birds into the wild) (USFWS 2003). Hacking efforts in Kentucky occurred from 1993-2003, with 82 falcons released in urbanized areas and 32 released in cliff habitats.

In 1997, the peregrine falcon was re-established as a breeding species in Kentucky when two young fledged from the Kennedy Bridge in Louisville. Since then, the number of territorial pairs has steadily increased and productivity has skyrocketed. To date, 533 eggs have been laid and 406 young have fledged from Kentucky nests since 1997 (Table 1).

In 1999, the peregrine falcon was removed from the Federal List of Threatened and Endangered Wildlife, but post-delisting monitoring was conducted for 16 years after this change in status. In 2015, regionally coordinated post-delisting endangered species monitoring in the eastern United States ended, when the species was determined to be stable. However, the peregrine falcon remains federally protected by the Migratory Bird Treaty Act, and listed as a Species of Greatest Conservation Need in Kentucky's State Wildlife Action Plan (KDFWR 2005). Therefore, falcon monitoring and management will be continued in Kentucky to ensure peregrine falcons maintain healthy population levels and in hopes that the species will re-colonize natural habitats.



KDFWR trail camera photo from KU Ghent Generating Station.



Photo by Loren Taylor of adult perched at Lexington Vine Center nesting box.

In an attempt to increase nest site availability and productivity, the Kentucky Department of Fish and Wildlife Resources (KDFWR) has placed nest boxes at many locations throughout Kentucky. Productivity and survival of peregrine falcons is monitored through the re-sighting of colored leg bands. When possible, each peregrine falcon is fitted with a United States Geological Survey (USGS) leg band etched with a unique nine-digit number and a bi-colored band with a unique series of colors, letters, and numbers. Re-sighting of leg bands is often accomplished using a spotting scope or photographs, and allows biologists to distinguish individuals and to verify the origins and history of the falcon.

For more information regarding peregrine falcons in Kentucky and the Midwest, visit the Midwest Peregrine Falcon Society website at: <http://midwestperegrine.org/>.

2018 Statewide Peregrine Falcon Inventory

This year was the statewide inventory for peregrine falcons. All nest boxes and previously known falcon territories were monitored for nesting activity. Bridges (17) along the Ohio River, as well as natural cliffs along the Kentucky, Rockcastle and the south fork of the Cumberland River were also surveyed for falcon presence. During these surveys, two nesting pairs and two solitary adults were discovered on bridges along the Ohio River. No new nests or territories were found on natural cliffs.

2018 Nesting Season Summary

During the 2018 nesting season, 20 territories were occupied by at least one adult, 17 territories had territorial peregrine falcon pairs (Table 2). This includes the Russell-Ironton bridge pair, monitored by the Ohio Department of Natural Resources (ODNR). Fifteen territorial pairs attempted to nest, with 14 successful nests, and one failed nesting attempt (Table 2). This season 47 eggs were documented, 40 chicks hatched and 33 young fledged.

Ten nesting pairs utilized nest boxes supplied by KDFWR on manmade structures (buildings, power stacks, and bridges) during 2018. These nests produced 25 young. This year, the Russell-Ironton bridge pair utilized a nest box. Three nests were observed on bridges, not within nest boxes, with all three successfully fledging young (6). Two nesting attempts were documented on cliffs, one on a retired quarry (manmade) and the other on a natural cliff. The quarry nest produced 2 young; unfortunately, the natural cliff nest failed.

KDFWR banded 19 chicks this season at seven accessible nest sites. Banded chicks were tested for the parasite *Trichomonas*, with only one testing positive. The test came back positive 2 weeks after banding, which was approximately the fledging date, and therefore the chick was not treated. Nest boxes were cleaned out after fledging to minimize the presence of mites the following year.

Trail cameras and spotting scopes were used to re-sight colored leg bands and to monitor nesting activity. KDFWR was able to identify 13 individuals during the 2018 nesting season by re-sighting leg bands.



Photo by Jim Barnard of Loren Taylor holding a banded chick from EKPC Spurlock Power Station



KDFWR trail camera photo of adult at EKPC Spurlock Power Station.

The Mill Creek Generating Station webcam was operational this nesting season, providing video of the peregrine falcons nesting, from courtship through fledging. The live feed webcam can be accessed at: <http://lge-ku.com/environment/mill-creek-falcon-cam>. Clips of key moments during the nesting seasons can be viewed on the Kentucky falcon YouTube channel at: <https://www.youtube.com/user/KentuckyFalcons>.

Nesting Territories

Power Generating Stations

LG&E Cane Run Power Station (Jefferson Co.)

An unbanded pair of falcons occupied this territory during the nesting season, confirmed by the trail camera at this nest box. The pair produced 4 eggs, three chicks hatched and all three fledged. The chicks were banded on May 7, 2018.



KDFWR trail camera photo of adult with prey.

Banded Young		
Name	Sex	Band
Hanzo	M	92/C (b/bu)
Avenger	M	93/C (b/bu)
Frozen	U	81/K (b/bu)

LG&E Mill Creek Station (Jefferson Co.)

An unbanded pair occupied this territory during the nesting season, likely the same pair as last year. The pair produced 4 eggs, 4 chicks hatched, and all 4 fledged. The chicks were banded on May 7, 2018. Unfortunately, on July 6, Baron was found deceased, likely due to a collision with a building.

Banded Young		
Name	Sex	Band
Duke	M	94/C (b/bu)
Baron	M	95/C (b/bu)
Duchess	F	82/K (b/bu)
Contessa	F	83/K (b/bu)

Duke Energy East Bend Station (Boone Co.)

This year Kory, *R/*C (b/g), again nested at East Bend. Kory fledged from the LG&E Trimble County Generating Station in 2008. She has nested at East Bend since 2009, but was unconfirmed last year. She paired with an unidentified banded male. The chicks were banded on May 15, 2018. Unfortunately, the female chick was found deceased on June 1, 2018.

Banded Young		
Name	Sex	Band
Red	M	49/Z (b/bu)
Unnamed	F	50/Z (b/bu)



Photo by Loren Taylor of female with eggs.



Photo by Deanna Picklesimer of chick after banding.

KU Ghent Generating Station (Carroll Co.)

Oliver, 14/H (b/g), and Emma May, D/98 (b/r), nested at Ghent this season, confirmed through a trail camera at the nest box. Oliver fledged from LG&E Trimble County Generating Station in 2001. He has been a breeder at Ghent since 2004, and holds the Kentucky longevity record for occupying a territory (14 years). Emma May hatched in 2015 at the DOW Chemical Company. This is the first year we have confirmed her holding a territory. They laid 3 eggs and had 1 chick fledge from the nest, Nolyn, 22/S (b/bu). All



KDFWR trail camera photo of adult female.

Banded Young		
Name	Sex	Band
Conrad	M	21/S (b/bu)
Nolyn	M	22/S (b/bu)
Derrick	M	23/S (b/bu)

three chicks were banded on June 18, 2018. The other 2 young displayed signs of a throat infection at the time of banding and were taken to a rehabilitation facility. After further testing, it was determined they were negative for *Trichomonas*, but are scheduled for release this fall.

EKPC Spurlock Power Station (Mason Co.)



KDFWR trail camera photo of adult female.

A.J., 48/P (b/g), and Spurlo, 46/K (b/r), occupied Spurlock again this nesting season. A.J. has been occupying this territory since 2005. He hatched at Miami Ft. Station in Cleves, OH in 2004. Spurlo was banded as an adult at the Spurlock Station in 2015. She was believed to have been the female at this location for several years prior to banding. This year four eggs were laid, two chicks hatched and 2 chicks fledged. The chicks were banded on May 14, 2018.

Banded Young		
Name	Sex	Band
Li'l Sebastian	M	96/C (b/bu)
Jean-Ralphio	M	20/S (b/bu)

Other Manmade Structures

Carmeuse Natural Chemicals (Pendleton Co.)

Carmeuse was a nesting territory for the eighth year in a row. The adults were unidentified this year. The male was an unknown banded individual and the female was unbanded. Four chicks were first observed late April and all fledged.



Photo by Rasheda Juric of adult and young at nest box.

Vine Trade Center (Fayette Co.)

Monaca, 02/BR (b/g), and Moses, M/24 (b/r), occupied this territory again during 2018. Monaca hatched at the Monaca-East Rochester Bridge in Monaca, Pennsylvania in 2014. She has been nesting in downtown Lexington since 2016. Moses hatched at the EKPC Spurlock Power Station in 2014. They laid four eggs, hatched 2 chicks, and fledged 2 chicks.



KDFWR trail camera of adult male at nest box.

Banded Young		
Name	Sex	Band
Rashly	F	87/K (b/bu)
Lexi	F	48/Z (b/bu)

Gallatin Steel (Carroll Co.)



Photo by Rashelle Juric of fledgling.

This year Gallatin was occupied by Britomartis, 30/K (b/r), and an unknown banded male. Britomartis hatched in 2013 at the Milton-Madison Bridge. This is the first year we recorded her full breeding season. Last year, Britomartis occupied this territory and while the nest was reported late in the season there were sightings of 4 young successfully fledging. This year the pair laid three eggs, hatched three chicks, and fledged all young. Britomartis was found deceased on May 26, 2018 and the cause of death is unknown.

Kentucky Lake Dam Bridge (Marshall Co.)

Although peregrines have been sighted hunting at this location in the past, this is the first year that falcons were recorded breeding at the Kentucky Lake Dam. One adult was banded, but not identified. The pair fledged 2 young from this site.

L&I Railroad Bridge (Jefferson Co.)

Mathew, 95/A (b/r), occupied this site again this year with likely the same unbanded female as last year. Mathew hatched in 2010 at LG&E Trimble County Generating Station. He has occupied this territory in Louisville since 2016. The pair laid two eggs, hatched two chicks and fledged all young.

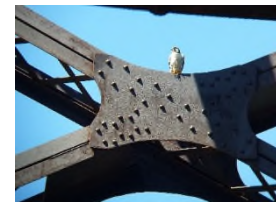


Photo by Brehan Furfey of adult.

Milton-Madison (US-421) Bridge (Trimble Co.)



Photo by Debbie Crawford of adult female.

Kessel, *R/*A (b/g), nested again at this territory with an unbanded male, likely the same as the previous year. Kessel has occupied this territory since 2010. Kessel hatched in 2008 at the LG&E Trimble County Generating Station. The pair successfully fledged 3 chicks. The chicks were banded on May 8, 2018.

Banded Young		
Name	Sex	Band
Sandy	F	84/K (b/bu)
Anna	F	85/K (b/bu)
Harlan	M	86/K (b/bu)



Photo by Debbie Crawford of chicks.

Carrollton (US-42) Bridge (Carroll Co.)

A pair of unbanded falcons were observed at the Carrollton Bridge this nesting season. They hatched and successfully fledged two chicks this year.



Photo by Rashelle Juric of adult female.

Russell-Ironton Bridge (Greenup Co.)

This year, the pair of falcons occupying the Russell-Ironton Bridge territory utilized the nest box. The pair was monitored by Ohio Department of Natural Resources (ODNR). They reported 2 chicks hatched and both successfully fledged.

Cliffs

Old Quarry (Franklin Co.)

This nesting season the territory was occupied by an unconfirmed banded female and a banded male with only a partial band read (b/g). Last year, Old Quarry was occupied by Kogi, 68/Y (b/g), and her mate (male, (b/g)), which only had the color combination band confirmed. The falcon pair this year hatched and successfully fledged 2 chicks.



Photo by Rashelle Juric of adult male.

Dix River (Mercer Co.)

This year Tyrion, M/13 (b/r), and Lady Dee, D/97 (b/r), nested again at Dix River. This pair has occupied the territory since 2016, though last year was the first to successfully fledge young. This year the pair produced 3 chicks, however, none of the chicks fledged. Tyrion was replaced during the breeding season by an unbanded male.

Inactive Nest Boxes

BREC Coleman Station (Hancock Co.)

BREC DB Wilson Power Station (McLean Co.)

Columbia – Sussex Corporation (Kenton Co.)

Combs-Hehl (I-275) Bridge (Campbell Co.)

Kenton County Building (Kenton Co.)

501 High Street, Frankfort (Franklin Co.)

Central Bank, Lexington (Fayette Co.)

KU E.W. Brown Power Station (Mercer Co.)

Logan Street, Louisville (Jefferson)

North American Stainless (Carroll Co.)

The Dow Chemical Company (Jefferson Co.)

Kentucky-Hatched Falcons in Other States

Dean Mitchell Powerplant (Gary, IN)

Aurora, 95/E (b/r), has occupied this territory since 2012. She hatched at the Dow Chemical Company in Jefferson Co. Kentucky in 2009. She paired with an unbanded male and produced one fledgling.

Gallagher Power Plant (New Albany, IN)

Isis, 21/H (b/r), has occupied this territory for 9 years. She hatched at the LG&E Mill Creek Power Station in Jefferson Co. Kentucky in 2009. She paired with an unidentified banded male and produced two fledglings.

Territorial Pairs & Solitary Adults

Territorial Pairs (non-nesting)

Sciotoville Railroad Bridge (Greenup Co.)

This territory was occupied by a pair of unknown banded falcons. While they were exhibiting territorial behaviors there was no nesting activity confirmed.

Simon Kenton (US-68/62) Bridge (Mason Co.)

An unidentified territorial pair was observed displaying nesting behavior but no chicks were confirmed.

Solitary Adults

Glover Cary (HWY-2262) Bridge (Daviess Co.)

An unbanded adult falcon was observed at the bridge during the 2018 inventory.

Shawneetown (KY-56) Bridge (Union Co.)

An unbanded adult was observed at this bridge during the 2018 inventory.

LG&E Trimble Co. Station (Trimble Co.)

A solitary adult female was observed at this territory throughout the nesting season, however no nesting activity was observed. Late in the season three peregrine falcons were observed in flight around this territory; one of the individuals appeared to have juvenile plumage.

Table 1. Peregrine Falcon Nesting Success (1997–2018)

<i>Year</i>	<i>Nests Attempted</i>	<i>Successful Nests</i>	<i>Eggs Laid</i>	<i>Chicks Hatched</i>	<i>Young Fledged</i>
1997	1	1	2	2	2
1998	1	1	1	1	1
1999	2	2	6	6	3
2000	3	2	8	5	5
2001	4	3	7	4	7
2002	5	4	14	11	10
2003	4	4	12	10	10
2004	5	5	16	16	15
2005	5	5	15	15	14
2006	6	4	15	14	11
2007	8	8	28	26	21
2008	7	6	23	21	19
2009	11	10	40	35	35
2010	10	9	31	23	23
2011	13	7	31	21	21
2012	10	9	35	30	28
2013	11	9	39	34	30
2014	10	8	41	31	23
2015	11	10	37	26	22
2016	12	11	40	38	34
2017	16	14	45	43	39
2018	15	14	47	40	33
Totals	170	146	533	452	406

Table 2: Peregrine Falcon Territory Activity (1997–2018)

<i>Territory Name</i>	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total Fledged
Carmeuse Natural Chemicals														P/1	P/0	P/2	P/3	P/4	P/3	P/3	P/3	P/4	23
Carrollton (US-42) Bridge																					P/1	P/2	3
Dix River																			P	P	P/2	P/0	2
Downtown Frankfort														P/2	P	P/4	P/3	P/4	P/1	P/3	P/1	P/2	20
Downtown Lexington																P	P	P	P	P/2	P/4	P/2	8
Downtown Louisville	P/2	P/1	P/2	P/4	P/0	P/1	P	P/2	P/2	P/0	P/3	P	P/2	P/3	P	S	P/0	P	P/1	P	P/2	P/2	27
Downtown Maysville																						P	
Downtown Owensboro																						S	
Duke Energy East Bend Station											S	P	P/2	P/2	P/0	P/2	P/2	P/3	P/2	P/4	P/4	P/1	22
East South Shore Railroad Bridge																						P	
EKPC Spurlock Power Station										P	P/4	P/3	P/4	P	P/0	P/4	P/4	P/1	P/2	P/3	P/3	P/2	30
Gallatin Steel																					P/4	P/3	7
Kentucky Lake Dam Bridge																						P/2	2
KU Ghent Generating Station				P/0	P/3	P/4	P/4	P/4	P/4	P/2	P/1	P/2	P/4	P/3	P/5	P/4	P/4	P/2	P/3	P/4	P/3	P/1	57
LG&E Cane Run Power Station																	P/2			P/4	P/3	P/3	12
LG&E Mill Creek Power Station										P	P/2	P/3	P/4	P/4	P/2	P/3	P/4	P/0	P/3	P/3	P/3	P/4	35
LG&E Trimble Co. Station			P/1	P/1	P/1	P/0	P/2	P/4	P/2	P/4	P/3	P/3	P/4	P/4	P/3	P/3	P/4	P/4	P/0	P/3	P/4	S	50
Milton-Madison (US-421) Bridge						P/2	P/1	P/1	P/2	P/2	P/3	P/4	P/4	P/0	P/4	P/3	P/4	P/4	P/4	P/4	P/2	P/3	47
Russell-Ironton Bridge					P/3	P/3	P/3	P/4	P/4	P/3	P/4	P/4	P/4	P/3	P/2	P	P/0	P/1	P	P/1	P/0	P/2	41
Shawneetown Bridge																						S	
The Dow Chemical Company													P/4	P/1	P/4	P/3		P/0	P/3	P	P		15

2018 Peregrine Falcon Cooperator of the Year Award

The Kentucky Department of Fish and Wildlife Resources is pleased to present this year's Cooperator of the Year Award to:

Kentucky Utilities Ghent Generating Station, Carroll County, KY.



KDFWR trail camera photo of adult male at Ghent Generating Station nesting box.

This award recognizes exceptional support of our peregrine falcon program. We greatly appreciate the generous cooperation and contributions provided by LG&E-KU, and the Ghent Station staff for their cooperation and assistance with the peregrine falcon program. This year two of the falcon chicks were removed from the nest during banding since they showed signs of throat infection. The chicks were transported to a rehabilitation facility, for further testing and treatment. The chicks are now healthy and scheduled for release this fall. The Ghent staff were instrumental during the special attention this nest required this year, going above and beyond to assisting KDFWR staff along the way. Our sincerest thanks to LG&E-UK and the Ghent Generating Station staff for their involvement in the 2018 peregrine falcon nesting season.

Acknowledgements

With the help of the following companies, organizations and dedicated individuals the Kentucky peregrine falcon monitoring and banding program was a great success in 2018. We would like to send our deepest thanks to Jim Barnard and Rashelle Juric of the Kentucky Department of Fish and Wildlife Resources and the following (in alphabetical order):

Big Rivers Electric Corporation (BREC)

Kenneth C. Coleman Generating Station

D.B. Wilson Generating Station

Carmeuse Lime and Stone

Kenny Flack

Kevin Blevins

Lexington Financial Center Building

Nick Schwendeman

Central Bank Building

Diana Halverson

Columbia-Sussex Building

Duke Energy (DE)

East Bend Generating Station

J.R. Wood

Craig Daniels

Deanna Picklesimer

East Kentucky Power Cooperative (EKPC)

Josh Young

EKPC Spurlock Station

Bill Gatherwright

Alvin Staggs

Gallatin Steel

Patrick Underwood

Indiana DNR (IDNR)

John Castrale, Volunteer

Indiana Department of Transportation

Kentucky Transportation Cabinet (KYTC)

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Doug Pugh

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Bob Barnett

Nancy Bryant

E.W. Brown Generating Station

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Del Striegel

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Wingspan of Kentucky

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