2024 Maine Peregrine Falcon Program Report



Photo by Gilbert Bouchard

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Photo by Michael Tessier

2024 Summary

Peregrine falcons, the fastest animals on Earth and one of the most widespread birds of prey, capture the admiration of all who encounter them. Maine's peregrine population is distinctive for its reliance on practical, hands-on conservation and the strong partnerships it inspires across urban and remote landscapes. This state-listed endangered species remains vulnerable due to its small population and sensitivity to nesting disturbance, underscoring the importance of collaborative stewardship across diverse environments.

The conservation status and current trajectory of peregrines in Maine are best understood considering the species' dramatic history. Peregrines were extirpated from the state for over 30 years following the widespread use of DDT in the mid-20th century. After this pesticide was banned and national recovery programs began, peregrines returned to nest in Maine in 1988. As their range expanded, monitoring all breeding sites became increasingly difficult. From 2019 to 2021, the Maine Department of Inland Fisheries and Wildlife (MDIFW) prioritized visiting all known active sites (Call 2019b, 2020, 2021b) to improve understanding of the population and help develop partnerships. Since then, site visits have focused on locations where knowledge of nesting activity informs local decisions, or as survey capacity allows.

Whether nesting on cliffs, quarries, buildings, bridges, or towers, peregrines are particularly vulnerable to disturbances during the breeding season. Identifying nest locations is essential for guiding nearby activities and ensuring both human safety and successful nesting. Adult peregrines aggressively defend their nest sites, which can pose potential hazards for people and increase risks to eggs or chicks if the adults are disturbed. As young birds approach fledging, disturbances may trigger premature flight attempts and fatal falls. The MDIFW Raptor Biologist collaborates closely with various partners to develop proactive, site-specific conservation strategies that mitigate risks and support population stability.

Maine's peregrine conservation efforts extend beyond addressing nest disturbances. Work includes conservation planning, expanding partnerships within the state and at regional, national, and international scales, tailoring outreach to diverse audiences, monitoring mortality and disease, contributing to regional banding efforts, maintaining a breeding season database, and conducting annual surveys and reports.

In 2024, 47 sites were visited, 33 peregrine pairs were observed, and a single peregrine was documented at three sites. Of those, 26 pairs attempted to nest. One nest failed, while 25 successfully produced a total of 59 chicks. At least 46 young reached 28 days of age (considered fledgling), and 24 were observed in flight. Among the successful nests, 13 were on cliffs, and 12 were in urban or human-made structures: five on buildings (one using a nest box), three in quarries, two on bridges (both using nest trays), and two on old osprey nests atop towers. Overall productivity was 1.39 (46 fledglings / 33 pairs), closely matching recent annual averages (1.31, 2019–2023). Two sites with consistent pair presence and breeding activity were unoccupied, and no other adjacent alternate site is known (59A Granite Hill Quarry and 69 Dragon Fields Quarry).

Despite this relative stability in productivity in Maine, there is growing concern across the Atlantic Flyway and beyond. In 2024, states such as New Jersey and Virginia reported sharp declines in productivity and

unusually high adult turnover, raising alarms among peregrine biologists (Roach & Clark, 2024; Watts, 2024). In New Jersey, the productivity rate fell from 2.34 young/nest in 2023 to 1.81 in 2024, with a nest success rate dropping from 83% to 63%. There was also an exceptionally high adult turnover rate between 2023 and 2024, likely linked to Highly Pathogenic Avian Influenza (HPAI). Similar patterns were observed in Virginia, where the state's adult turnover more than doubled to 40%, with higher rates along the coast (63.2%). Past research from the Center for Conservation Biology (CCB) showed that peregrines breeding along Virginia's Delmarva Peninsula obtain over 70% of their diet from migratory shorebirds, while inland pairs depend far less on these species. This suggests that diet and geographic location may influence risk, with shorebirds potentially acting as an important vector for HPAI transmission. Researchers also documented unoccupied nests and subadult birds occupying territories, suggesting a diminished pool of mature breeding birds and reduced breeding capacity.

In Maine during 2024, five peregrines admitted to the Center for Wildlife were tested for HPAI, and all returned negative results. While this limited sample size cannot rule out broader impacts, these results offer a cautiously optimistic contrast to the alarming trends observed farther south and underscore the importance of continued disease surveillance.

Evidence from across North America and beyond indicates a broader pattern of decline in peregrine falcons, with trends echoing those observed in New Jersey and Virginia. Along the Yukon River in Alaska, territory occupancy declined by 14% in 2021, 28% in 2022, and 34% in 2023 (Ambrose, [Watts, 2024]). In other parts of the U.S., monitoring programs have documented significant drops in occupancy as well: 48% in Montana (Sumner), 30% in New Mexico (Johnson), and 43% in Nevada (Barnes, [Watts, 2024]). Declines have also been documented in California and Washington (Gallagher, 2024). Similar declines have been reported internationally, including in Denmark, southwest France, Germany, Malaysia, the Netherlands, central Norway, northern Russia, southern Sweden, and Switzerland (Lindquist, 2025). The pace and scale of these losses represent the most significant threat to peregrines since the DDT era.

These troubling developments underscore the importance of continued monitoring, data sharing, and disease surveillance to understand emerging threats better and adapt conservation strategies accordingly. While Maine's peregrine population remained relatively stable in 2024, these broader trends highlight the need for vigilance and collaboration to ensure its long-term viability.



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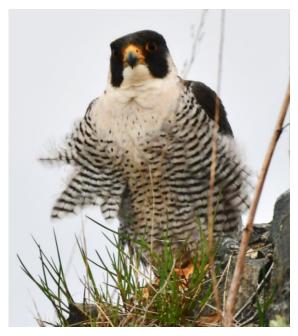


Photo by Michael Boardman

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Background

The peregrine falcon (*Falco peregrinus*) nearly vanished from the continental United States due to the widespread use of the pesticide DDT, which caused eggshell thinning and reproductive failure. In the Eastern U.S., peregrines were believed to be entirely extinct by 1964 (Enderson et al., 1995). The species was listed in 1970, triggering a nationwide conservation effort that included banning DDT and other harmful chemicals, as well as breeding falcons in captivity for release in the wild. These initiatives were highly successful, and in 1999, the peregrine falcon was removed from the federal list of endangered species after meeting recovery criteria such as population growth, improved reproductive performance, and the absence of environmental contaminants in its eggs (U.S. Fish and Wildlife Service 1999). Despite the federal delisting, peregrines remain on Maine's endangered species list. Their recovery in Maine and throughout the Northeast has been a conservation success. However, they continue to benefit from focused monitoring and management due to their small population size, sensitivity to disturbance during the breeding season, and the limited number of successful breeding pairs.

Most peregrines in Maine today are either descendants of birds released through reintroduction efforts (photo below) or members of the tundra subspecies (*Falco peregrinus tundrius*). The American peregrine falcon subspecies (*F. p. anatum*), once native to Maine, was the subspecies that disappeared due to DDT.

Between 1994 and 1997, 144 captive-bred peregrines from a mix of subspecies were released in Maine, many of which remained to breed and live in the state. The Tundra subspecies, by contrast, does not breed in Maine but migrates through the spring and fall. It has also been removed from the Federal list of endangered species and is not considered endangered at the state level.

The Maine Peregrine Falcon Program, in collaboration with a wide range of partners, works to protect and conserve this iconic raptor. The program carries out key conservation actions influencing peregrine populations and habitats statewide. These efforts include monitoring breeding success, banding, understanding, and addressing potential threats to the population (e.g., causes of mortality, contaminants, disease), long-range conservation planning, assessing and resolving issues at nest sites, data management, and engaging in broad outreach and collaboration. The overarching goal is to support a stable peregrine falcon population in Maine and contribute to the stability of the regional metapopulation across the Northeast.



Charlie Todd, Photo by MDIFW

Survey Methods

A standardized survey protocol and a list of known or potential breeding sites were developed in 2019 (Call 2019a). Contact erynn.call@maine.gov for more details if you are interested in getting involved. Maine's typical peregrine falcon breeding season spans from March 15 through August. Fledglings may remain at nest sites for up to five weeks, sometimes into the fall, before they disperse, while adults may be present in their territory year-round. Like their parents, these young birds often remain non-migratory. During the breeding season, survey visits to sites should document the presence or absence of an adult or pair, evidence of nesting or incubation, nest location, the number and age of chicks, the number of young at 28 days old or older (considered fledglings), and any juveniles observed in flight.

Observations of peregrines during the breeding season, away from known nest sites (Tables 1 and 2), in areas without suitable breeding habitats nearby can be submitted to Maine eBird. If birds are observed in suitable breeding habitats during the breeding season, please consider emailing further details. Outside the breeding season, all peregrine sightings, regardless of location, can also be reported to Maine eBird.

It is crucial to minimize disturbances at both urban and cliff sites. Surveys should be conducted briefly, just long enough to gather the required data, and only as frequently as necessary. Indicators of disturbance include persistent calling, birds closely watching the observer, and flying or circling overhead. Any sources of disturbance should be documented within the survey form and reported via email so this can be addressed as needed.

Breeding Season Results

Disclaimer: Between 2019 and 2021 (Call 2019 b, 2020, 2021 b), surveys were conducted at all sites with a recent history of peregrine residency. Since then, only a subset of sites has been surveyed, primarily when potential management benefits exist in confirming the breeding status or when surveyors are available. Consequently, the breeding season results presented here do not represent a comprehensive statewide total. Furthermore, increased survey effort enhances confidence in the site breeding status.

In 2024, 47 sites were visited, 33 pairs of peregrines were observed, and a single peregrine was documented in three sites. Of those total pairs, 26 pairs attempted to nest. One nest failed, while 25 successfully produced a total of 59 chicks. At least 46 young reached 28 days of age (considered fledglings), and 24 of those were observed in flight. Among the successful nests, 13 were on cliffs, and 12



were in urban or human-made structures: five on buildings (one using a nest box), three in quarries, two on bridges (both using nest trays), and two in old osprey nests on towers. Overall productivity was 1.39 (46 fledglings / 33 pairs), similar to recent years (1.23, 1.47, 1.22, 1.32, 1.29, 2023 to 2019, respectively). Two sites with recent consistent breeding activity and pair presence were unoccupied, and no other adjacent alternate site is known (59A Granite Hill Quarry and 69 Dragon Fields Quarry).

Photo by Murray Carpenter

Table 1. Site-specific results of peregrine falcon monitoring in Maine, 2024.

Young **Breeding** > 28 **Total** Young **First** Last **Status** # days in Survey Survey **Effort** # Site (P=pair) Young old flight **Date** Date (min) Surveys 1 Bigelow Mtn: Old Mans Head None 5/16 5/16 185 1 5 Ripogenus Dam¹ P - nest 2 2 2 7/27 7/27 103 1 6 Mt Kineo P - no nest 3/14 7/10 600 3 2 2 12 Pine Mtn P - nest 2 3/8 7/4 508 5 3 P - nest 4/10 6/7 540 3 13 Bucks Ledge 2 4/2 5/29 90 15 Rumford Mill None 16 Bald Mtn P - nest 3 3 3/25 6/7 620 3 2 2 2 7/1 17 Mt Megunticook P - nest 4/19 510 5 18 Eagle Bluff Mountainy Pond 5/29 5/29 90 1 None 19 Fletcher Bluff P - nest 2 2 5/22 7/3 302 5 1 20 Half Mile Pond 6 2 See site 19 3/27 6/3 5 22 The Precipice P - nest 2 2 2 3/25 8/7 460 24 Beech Cliff None 4/3 4/3 240 1 5 P - nest fail 3/14 8/14 630 25 Valley Cove 2 5/14 27 Jordans Delight P - nest 5/14 60 1 30 Grafton Notch Single 4/16 5/17 665 3 31 Tumbledown Mtn P - no nest 5/16 6/16 255 2 35 East Royce: Evans Notch P - nest 2 2 2 5/24 7/4 265 4 P - no nest 6/27 7/9 328 2 43 Barren Mtn 44 Jordan Pond P - nest 1 1 1 4/3 7/12 500 4 1 1 1 6/28 277 45 Squaredock Mtn P - nest 3/8 3 49 Ironbound Island Single 3/19 6/4 2 381 51 Bath Iron Works 2 5/3 6/10 5 P - nest 185 52 Casco Bay Bridge² P - nest 3 3 3/20 7/23 10 10 53 Piscatagua River Bridge I-95 2 2 2 221 2 P - nest 6/29 7/1 55 Bear Mtn Waterford 4/14 2 P - no nest 4/17 96 P - nest 4 2 3/22 6/10 504 9 56 Pejepscot Quarry 1 57A Franco Center See site 57B 3/22 7/11 299 9 57B Continental Mill P - nest 4 5/10 7/11 516 8 4 1 57F Basilica See site 57B 4/25 4/25 125 2 58B Westbrook Quarry P - nest 4 4 4 4/27 7/24 336 7 59A Granite Hill Quarry None 5/7 5/7 120 1 60 395 Bridge² P - no nest 3/16 7/12 9 9 61 Old Town Mill P - nest 1 1 5/1 6/11 207 5 62 Winslow Mill³ Single 4/2 7/24 332 4

Table 1 continued.	Site-specific	results of peregrine	falcon monitoring	in Maine, 2024.

			#					
	Breeding		Young > 28	Young	First	Last	Total	
	Status	#	days	in	Survey	Survey	Effort	#
Site	(P=pair)	Young	old	flight	Date	Date	(min)	Surveys
63B Belfast Quarry	P - nest	4			5/23	6/17	30	2
65 Ram Isl Ledge Lighthouse	See site 065B				6/13	6/13	30	1
65B Cushing Isl ⁴	P - nest	1	1		6/24	7/13	45	3
66B Saint Andres	P - nest	3	3	1	4/1	6/18	669	8
67B Bucksport Mill	See site 067D				5/7	5/7	120	1
67D Trans Tower Bucksport	P - nest	2	2		4/2	6/15	170	3
69 Dragon Fields Quarry	None				4/25	4/25	30	1
82 Fourth Debsconeag Lake	P - nest	2	2	2	5/17	8/4	415	7
86 Sappi Mill Skowhegan⁵	P - nest	1	1		5/9	6/24	185	5
130 Dragon Cement	P - nest	4	4	·	5/23	5/23	15	1
136 Madison Mill	P - no nest				4/2	5/30	90	2
148 Wiscasset RR Bridge	P - no nest				6/3	6/3	10	1

¹2024 is the first time since monitoring began in 1989 that peregrines were observed and nested successfully at this site.

Survey Effort

Between March 8 and August 14, 2024, 171 peregrine falcon surveys were documented across 46 sites in Maine, accumulating 206.5 hours of field effort. Eligible surveyors, those not compensated with federal funds, utilized the Survey123 mobile application to log their travel and survey times. This application automatically records each survey's start and end times, providing precise data on the duration of field activities. The documented hours from these surveys can be used as in-kind contributions, serving as non-federal match required for Pittman-Robertson Wildlife Restoration Act grants. This process enhances our program's ability to leverage federal funds for raptor conservation efforts. The 2024 survey effort accumulated over \$7K in matching funds.

Several historical peregrine sites were not surveyed in 2024 (see Table 2). If possible, these locations will be visited in future years. Breeding pairs may also establish nests in nearby areas we have not yet identified. This provides an opportunity to explore and locate new and undocumented breeding territories. Please contact us if you spot a peregrine in a suitable breeding habitat at a site not included in the existing breeding territory site lists (Tables 1 and 2).

² Trail camera monitoring at nest tray. " Surveys " are one minute in duration and documented at key events within the breeding season (e.g., after 3/15, first adult, first pair, incubation, egg count, hatch, count of and age of young, clear view of banded individuals, disturbance, etc.).

³ Adjacent 62B Hathaway is under active construction and renovation; no surveys were conducted this year.

⁴ New nest site, likely pair from 65B Ram Island Ledge Lighthouse.

⁵ This was the first time peregrines nested in the box installed by Sappi Mill, and the attempt was successful.

Table 2. Most recent monitoring results of sites that were not visited in 2024.

			Year Last Monitored Breeding	
Site	MDIFW Region	Year Last Monitored	Status (P = pair)	Comments*
2 C Bluff Mtn	D	2019	P - nest	First pair documented in 1988.
7 Wassataquoik Mtn	F	2021	P - no nest	Only 1 young (in flight) documented in 2020 since monitoring began in 1988.
9 Horse Mtn	F	2021	P- no nest	First pair documented in 1990.
11B Gardner Mtn	G	2020	Single	No other observations at this site.
29 The Brothers	С	2022	None	First monitored in 2020, 2021 single peregrine.
38 Tumbledown Dick Mtn Peru	D	2021	Single	Adult female present.
41 Rattlesnake Mtn	А	2021	None	Single observed in 2020. Pair and young last documented in 2007.
42 Ragged Jack Mtn	D	2021	None	Pair in 2020. Young observed last in 2008.
50 Big Libby Isl	С	2021	None	Young documented last in 2006.
64 Indian Stream Mtn	D	2021	P - nest	First pair documented in 2020 since monitoring began in 1988.
124 Slidedown Mtn: West Branch of Sandy Stream	E	2021	P - nest	First pair with young documented in 2021 since monitoring began in 1986.
132 Lincoln Mill	F	2020	None	Single peregrine observed in 2019 only.

^{*}Review and entry of historic peregrine monitoring data in progress.

Banding

When possible, adult or young peregrines are fitted with a United States Geological Survey (USGS) silver leg band etched with a unique nine-digit number on one leg and a bi-colored band with a unique series of colors, letters, and numbers on the other leg. Occasionally, only a silver band is placed on the bird when color bands are unavailable. In the Northeast, peregrines are banded with the colors black over green (see photo on the right). The unique numbers on the USGS bands are only legible when the bird is in hand, whereas the color bands can be read using a trail camera mounted at the nest site or with cameras and spotting scopes while observing the bird. Information from banded peregrines provides invaluable insights into their survival, movements, and how long individuals may stay at a nest site as part of a breeding pair. Seven hatchyear birds were banded in 2024 (Table 3).



Photo by Acadia National Park

Table 3. 2024 band summary for Maine hatch year peregrine falcons.

Date Banded	Site	Status	Sex	Color Band	MDIFW Collaborators
5/15	52 Casco Bay Bridge	Banded at nest	F	BP/79	Maine Dept. of Transportation (MDOT), Biodiversity Research Institute (BRI)
5/15	52 Casco Bay Bridge	Banded at nest	F	BP/80	MDOT, BRI
5/15	52 Casco Bay Bridge	Banded at nest	F	BP/81	MDOT, BRI
7/11	66B St. Andres	Treated, released	F	BP/82	Center for Wildlife, BRI
7/11	66B St. Andres	Treated, released	М	BP/25	Center for Wildlife, BRI
7/11	66B St. Andres	Treated, released	М	BP/24	Center for Wildlife, BRI
8/1	57B Continental Mill	Treated, released	F	BP/83	Center for Wildlife, BRI







Top left, from left to right Kelby Leary, Justin Sweitzer (MDOT), Erynn Call (MDIFW), and Chris DeSorbo (BRI). Photo by Laura Kintz.

Maine has not annually banded many peregrines since the species' reintroduction. Only a handful were recently banded (2019: 0, 2020: 2, 2021: 5, and 2022: 10, 2023: 5). This is limited compared to neighboring states. Between 35 and 55 chicks are consistently banded annually in the following states: MA, NJ, NY, PA, and VA. Considering this, how many observations of banded peregrine we document is remarkable. It may indicate that banded peregrines are conspicuous or that the overall population, like the breeding population, is relatively small. Observations of live banded peregrines include those from within the state and elsewhere (Table 4).

Table 4. Resightings of peregrine falcons reported since 2023 Maine Peregrine Falcon Program Report.

Color or USGS							
Band	Date			State/		Band	
Only	Resighted	Sex	Location	Province	Band Origin	Date	Comments
49/U	5/31/24	F	57B Continental Mill	ME	025 Valley Cove, ME	5/31/18	Present in the territory since 2019.
					Verizon		Present in the
64/BU	3/4/24	M	60 395 Bridge	ME	Tower, Brockton,	5/30/19	territory since 2022.
					MA		
BA/44	5/15/24	F	52 Casco Bay Bridge	ME	New Paltz, NY	7/30/21	Present in the territory since 2024.
BP/64	12/1/23	F	St. Luce	QB	130 Dragon Cement, ME	7/5/22	Recovered 6/10/22, treated & released.
8165- 2954	10/1/23	М	Worcester	MA	Wells, ME	11/16/23	Recovered 6/10/22, treated & released.

Note: A female at the 60 395 Bridge in Bangor was observed via a trail camera with only a silver leg band. Therefore, the unique digits could not be identified. Last year, a subadult female with a silver leg band was also observed at this site.



Mortality

Since the 2023 report, peregrine mortalities have been tracked through collaboration with MDIFW staff and various partners (Table 5). Risks to peregrines include collisions with vehicles, planes, buildings, and wires, exposure to environmental contaminants, and diseases such as Highly Pathogenic Avian Influenza.

Table 5. Mortalities documented since the 2023 Maine Peregrine Falcon Report.

Date					
Found	Location Found	Age	Sex	Origin	Comments
6/6/24	Hawes Bridge, Harpswell, ME	1	F	Gillis Memorial Bridge, Salisbury, MA	91/CD banded on 6/13/23 in MA. Found on the ground under the bridge.
10/1/24	052 Casco Bay Bridge, ME	9	F	Fox Hall, Lowell, MA	89/BD banded on 6/2/15 in MA. Found on a metal walkway under the bridge.
8/28/24	Portland Jetport, ME	Unk	Unk	Unknown	Unbanded peregrine. Collision with aircraft.
10/5/24	Scarborough, ME	Unk	Unk	Unknown	Unbanded peregrine. Vehicle collision and recently shot multiple times (X-ray and fresh wounds).

Additional Conservation Actions

The Maine Peregrine Falcon Program aims to support a self-sustaining population and foster public appreciation of this charismatic species, both within the state and beyond. We have made significant progress and continue to pursue initiatives made possible through numerous successful collaborations and partnerships with dedicated federal and state agencies, private organizations, and individuals. In addition to conducting breeding season surveys, banding, and tracking mortality, conservation efforts also include the following:

Maine Peregrine Falcon Conservation Planning

After reaching out to various peregrine biologists across the Atlantic Flyway and learning more about their approaches, it became clear that a long-range strategic conservation plan for the species would benefit Maine. Such a plan could synthesize current knowledge and outline goals, objectives, and actions to guide future statewide conservation efforts. Subsequently, a draft plan was submitted for internal review in 2021.

Since then, MDIFW has established a consistent format for nongame species conservation planning documents and is also working on an update to the Maine Wildlife Action Plan (SWAP). The Wildlife Action Plan is a statewide blueprint for conserving fish and wildlife species and their habitats, especially those at greatest conservation risk. The peregrine species plan and the updated SWAP will align in their content regarding peregrine conservation, incorporating information on threats and suggested conservation actions to guide future efforts.

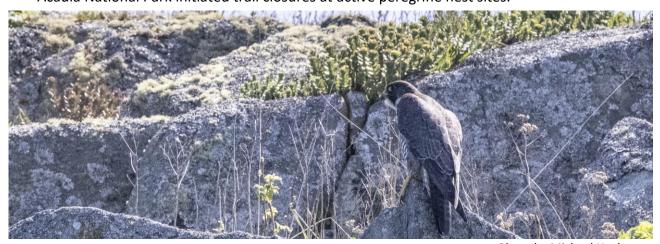
Nest Site Conservation

Nest conservation efforts include posting on-site or online signage, implementing trail closures, adjusting trail maintenance, forestry practices, or climbing activities at cliff sites. In urban locations, this may involve modifying the timing or locations of non-emergency repairs, maintenance, construction, inspections, or the strategic placement of nest structures in areas with recurring failures.

Cliff Sites

Achieving optimal breeding outcomes at cliff locations relies on maintaining and building partnerships and collaborations with various state and federal agencies, nonprofits, landowners, private industry, and individuals. This work involves coordinating, monitoring, mitigating, and addressing disturbances, including considering closing or rerouting trails. Additionally, efforts include participation in conservation planning, environmental review, development, and effective placement of trail signs and other outreach materials to engage with outdoor enthusiasts, such as the hiking and climbing communities. Some accomplishments this year included:

- Guided the Maine Department of Transportation regarding a re-paving project adjacent to a peregrine nest site on Mount Desert Island.
- Submitted relevant information to the Maine Department of Agriculture, Conservation, and Forestry (DACF) as part of a pre-acquisition review that contained peregrine nesting sites.
- Provided information to the ME DACF Bureau of Parks and Lands about peregrine breeding activities and signage to inform the Amherst Community Forest management plan.
- Worked with MDIFW Department of Public Information and Education to update breeding peregrine falcon trail signs.
- Shared information about various breeding sites with the Mountain Project climbing website.
- Presented at Camden Hills State Park's Outdoor Adventure Day, shared information about Maine climbers' crucial role in peregrine conservation (Evan Jackson, ME Raptor Program Biologist).
- Partnered with Appalachian Trail volunteers to close a spur trail at 43 Barren Mtn.
- Coordinated with IFW Regional Biologists and BPL staff to monitor and place signage at 16 Bald Mountain (a.k.a. Shagg Crag) and post information online to limit disturbance at the nest site.
- Worked with Buck's Ledge Community Forest to coordinate surveys and minimize disturbance at 13 Bucks Ledge.
- Acadia National Park initiated trail closures at active peregrine nest sites.



Urban Sites

Like cliff sites, urban locations also require diverse partnerships to address management needs. This involves coordinating breeding monitoring and developing creative solutions to mitigate disturbances at various urban nesting locations with partners, coordinating with avian rehabilitators (often Avian Haven, Center for Wildlife) to help determine what nest sites rescued birds are associated with and identify suitable release locations, and adjusting the timing of maintenance and construction activities.

Nest structures, such as trays or boxes filled with pea gravel, are installed at sites where the local breeding pair may benefit from safer and improved nesting conditions. These conditions may include enhanced temperature and moisture control, better shelter from extreme weather events (Sumasgutner et al., 2020), and reduced disturbances from humans or mammals like raccoons. Additionally, boxes facilitate easy access to the young for banding and contaminant sampling.

In 2024, urban sites were monitored to inform discussions about ongoing or upcoming activities (e.g., maintenance, construction) to limit disturbance to the pair and their young (see Table 6).

Table 6. Nest structure status during the 2024 breeding season in Maine.

		Nest		
Site	Town	Structure	Installed	2024 Status at Nest Structure
52 Casco Bay Bridge	Portland/S. Po.	tray	2021	Pair, 3 young, banded, trail camera
53 Piscat. Riv Bridge I-95	Kittery/Portsmouth	box	2019	Unconfirmed (pair, 2 young on bridge)
53 Piscat. Riv Bridge I-95	Kittery/Portsmouth	tray	2021	Unconfirmed (pair, 2 young on bridge)
57D Hill Mill	Lewiston	box	2021	None (pair, 4 young at 57B)
60 395 Bridge	Bangor/Brewer	tray	2016	Pair, scrape, no eggs, trail camera
61 Old Town Mill	Old Town	box	2021	None (pair, 1 young, nearby windowsill)
62 Winslow Mill	Winslow	box	2021	Single male
63B Belfast Quarry	Belfast	box	2019	None (pair, 4 young, adjacent ledge)
63A Passag. Bridge	Belfast	tray	2019	None (pair, nest, 4 young at 63B ledge)
86 Sappi Mill Skowhegan	Skowhegan	box	2021	Pair, 1 young, first year using box
136 Madison Mill	Madison	box	2021	None (pair at site, no use of box)
136 Madison Mill	Madison	fan vent*	2021	None (pair at site, no use of fan vent)

^{*}After the pair nested in the fan vent and one of the young fell back into the building, several improvements were made: the fabric was replaced with plywood to prevent chicks from falling inside, access to the area was enhanced to support future banding and trail camera monitoring and pea gravel was added as a suitable nesting substrate.



Outreach and Maine Peregrine Falcon News

Sharing progress on peregrine falcon conservation efforts, participating in professional meetings, and connecting with various groups are crucial for achieving the goals of the Maine Peregrine Falcon Program. This year, some of the program's outreach activities include:

- An exciting sighting of a peregrine falcon banded initially in Maine and observed in Quebec was shared on social media, reaching over 30,000 people.
 - o https://www.instagram.com/p/C1sjhnXpjXQ/?img index=1
 - o <u>https://www.facebook.com/share/1Egs8xCKTL/</u>
- In collaboration with MDOT and the Biodiversity Research Institute, three nestlings were banded at the 52 Casco Bay Bridge nest site and shared through social media posts that reached over 21,000 viewers.
 - o https://www.instagram.com/reel/C8FPHDdAHkl/
 - o https://www.facebook.com/share/16DcLYQDwu/
- In collaboration with the Center for Wildlife and BRI, three peregrine fledglings were treated, released, and shared via social media:
 - o https://www.instagram.com/centerforwildlife/p/C9idzxpp2o-/?img index=1
 - https://www.facebook.com/CenterForWildlife/posts/pfbid06PSvJSdCAi3QwKicH5oa9gzHJ SY1y9ikh4UNudDDgxfxG9asfCQvwssfbwdZ2LX7l
- Presented at Camden Hills State Park's Outdoor Adventure Day, shared information about Maine climbers' crucial role in peregrine conservation (Evan Jackson).
- Presented at the Stanton Bird Club annual meeting to raise awareness about the Maine Peregrine Falcon Program.
- Participated in and presented at the <u>Atlantic Flyway Council</u> Raptor Committee meetings.
- Shared information on numerous sites where peregrines may be present during the breeding season with the <u>Mountain Project</u> website to create awareness for hikers and climbers.
- The Maine Peregrine Falcon program monitoring efforts were highlighted in the March Maine Bureau of Parks and Lands Newsletter (Sarah Spencer).
 - https://content.govdelivery.com/accounts/MEDACF/bulletins/38dc544
- <u>Three hikers violated a trail closure</u> at the 22 Precipice nest site in Acadia National Park. In an interview, Amanda Pollock, ANP's public affairs officer, highlighted the <u>importance of these</u> protection measures.

Data Management

We continue to make progress on data management to strengthen our species conservation efforts further.

- Implementing the Maine Peregrine Falcon Program <u>Survey123</u> survey form has greatly improved the efficiency of data entry and management.
- The MDIFW Environmental Review database is updated with new information each year. Explore the Environmental Review Tool.
- We continue to enter and review all historical breeding survey data from the 1980s onward.

 These data will help us determine the best ways to manage and implement conservation efforts.

How can you help Maine peregrines?

- If you have observations at known or potential breeding locations, are not involved in our efforts, or would like to join our team of surveyors, email erynn.call@maine.gov.
- Submit observations exclusively to Maine eBird if they occur:
 - during the breeding season (March 15 to August 31), away from known nest sites (Tables 1 and 2) and in areas without suitable breeding habitats.
 - Any locations outside of the breeding season.
- Always feel free to contact MDIFW at (207) 287-8000 or at maine.gov/ifw.

Literature Cited

Call, E.M. 2019a. 2019 Peregrine falcon field survey protocol for Maine. Maine Department of Inland Fisheries and Wildlife, 25pp.

Call, E. M. 2019b. 2019 Maine peregrine falcon program report. Maine Department of Inland Fisheries and Wildlife, 38 pp.

Call, E. M. 2020. 2020 Peregrine falcon program report. Maine Department of Inland Fisheries and Wildlife, 28 pp.

Call, E.M., 2021a. 2021 Maine peregrine falcon monitoring protocol. Maine Department of Inland Fisheries and Wildlife, 27pp.

Call, E.M., 2021b. 2021 Maine peregrine falcon program report. Maine Department of Inland Fisheries and Wildlife, 24 pp.

Enderson, J. H., W. Heinrich, L. Kiff, AND C. M. White. 1995. Population changes in North American Peregrines. Trans. North Am. Fish and Wildl. Conf. 60:142-161.

Gallagher, T. (2024, September 17). Why are peregrine falcon numbers falling in the United States again? Audubon Magazine. https://www.audubon.org/magazine/why-are-peregrine-falcon-numbers-falling-united-states-again

Lindquist, E. (2025, February 26). Coastal peregrine falcons' mysterious decline. bioGraphic. https://www.biographic.com/coastal-peregrine-falcons-mysterious-decline/

Roach, M. and Clark, K. 2024. Peregrine falcon research and management program in New Jersey 2024. New Jersey Department of Environmental Protection, 9 pp.

Sumasgutner, P., Jenkins, A., Amar, A. and Altwegg, R., 2020. Nest boxes buffer the effects of climate on breeding performance in an African urban raptor. Plos one, 15(6), p.e0234503.

U.S. Fish and Wildlife Service, 1999. Endangered and threatened wildlife and plants; final rule to remove the American Peregrine Falcon from the Federal list of endangered and threatened wildlife, and to remove the similarity of appearance provision for free-flying peregrines in the conterminous United States. U.S. DOI., U.S. Fish and Wildlife Service. Federal Register 64: 46542-46558.

Watts, B. (2024, July 18). Adult turnover spikes in Virginia peregrines raising alarms about the potential impact of avian flu. The Center for Conservation Biology. https://ccbbirds.org/2024/07/18/adult-turnover-spikes-in-virginia-peregrines-raising-alarms-about-the-potential-impact-of-avian-flu/