



The Pennsylvania Farmland Raptor Project



Barn Owl



American Kestrel



Short-eared Owl



Northern Harrier

How do raptors benefit farmlands?

Raptors are important indicators of environmental health and when found in agricultural areas they benefit farmers by preying on mice, voles and insects. In Pennsylvania, the Northern Harrier, Short-eared Owl and Barn Owl show widespread, long-term declines, while the American Kestrel has declined particularly in southern counties. All four species require large areas of grassland or agricultural fields to nest successfully.



© B.K. Wheeler/VIREO

Male Northern Harrier



Raptors Benefit Farms

Building a nestbox is fun and easy!

Kestrels and Barn Owls reduce common pests.

The American Kestrel and Barn Owl are a farmer's friend. These raptors dine on many farm pests, including mice, insects and voles. In fact, they can effectively and cheaply contribute to pest management, especially in fields. For example, some grape growers encourage nesting kestrels because they help control or disperse flocks of grape-eating birds that move into vineyards. Barn Owls can control rodent populations without the cost of expensive pesticides. A family of Barn Owls can consume up to 3,000 rodents during a breeding season!

Why are Pennsylvania's farmland raptors declining?

Declines have occurred partly due to habitat loss, increased development, changes in farming practices and increased use of pesticides reducing their prey items, such as rodents and insects.

What is the Pennsylvania Farmland Raptor Project?

Hawk Mountain Sanctuary with support from the Pennsylvania Wild Resource Conservation Program has launched The Pennsylvania Farmland Raptor Project. The goal is to engage private landowners to help conserve farmland raptors and to learn more about these birds and their distribution. We are also encouraging landowners to improve or enhance suitable habitat to help boost numbers of these important grassland species. Landowners who identify these species on their property can complete a simple form and submit their observations. Sightings and nesting locations will be compiled to provide us with more information on significant breeding and wintering sites across Pennsylvania.

What does this mean for Pennsylvania landowners?

With an increasing number of Pennsylvania wildlife on privately owned property, landowners are important conservation partners. Property owners can enhance their land to provide nesting opportunities for these raptors and other declining grassland species. Landowners can also participate in voluntary financial aid programs such as the Conservation Reserve Enhancement Program (CREP) that assist farmers who conserve vital wildlife habitat.

Installing a Barn Owl or American Kestrel nestbox

Barn Owl and American Kestrel nestboxes provide suitable nesting sites when natural cavities are not readily available. These boxes are fairly simple to build and easy to install. Instructions to build these boxes can be found online or you can purchase pre-made kestrel nestboxes directly from Hawk Mountain Sanctuary. Nestbox building instructions can be found at www.hawkmountain.org/farmlandraptors.

Barn Owl (*Tyto alba*)

CAVITY NESTER

Description: The Barn Owl is one of the most secretive and nocturnal, yet widely distributed owls in the world. They are a medium-sized owl and white or mostly white on the underside. The back is tawny and marked with black and white spots. Barn Owls have a distinguishing heart-shaped face with dark eyes and no ear tufts. Females are often more heavily spotted on the breast than males.

Diet: Mainly nocturnal, they forage in pastures, marshes, hay fields, and other agricultural areas, primarily in search of voles and small rodents.

Habitat and Nesting: Barn Owls are cavity nesters, using hollow trees, cliff cavities, buildings, grain silos or artificial nestboxes to raise young. Barn Owls typically require about 150 acres of fields for suitable nesting habitat.

Conservation Status: In Pennsylvania, there are 60-70 confirmed active nests each year, with an estimate of an additional 30 or more unknown active nests. They are classified as near threatened and a Species of Greatest Conservation Need in Pennsylvania. The widespread use of rodenticides in agricultural areas and loss of large blocks of farmland habitat has reduced nesting pairs within the state. Loss of nesting sites due to barn conversion, and removal of standing dead trees are a problem. Additionally, changes in farming practices are causing a decline in the meadow vole population, which may have an impact on the owls reproductive potential. A recent Barn Owl Conservation Initiative launched by PA Game Commission biologists is helping to compile breeding information and provide safe nesting sites for populations in southern and central counties.



© D. Tipling/VIREO

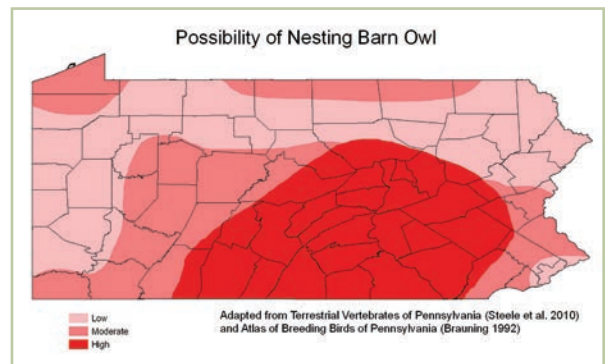
The Barn Owl is a species of greatest conservation need.



© D. Tipling/VIREO



© Shawn P. Carey



Barn Owls benefit farms: An average family of Barn Owls can consume up to 3,000 rodents during one breeding season.

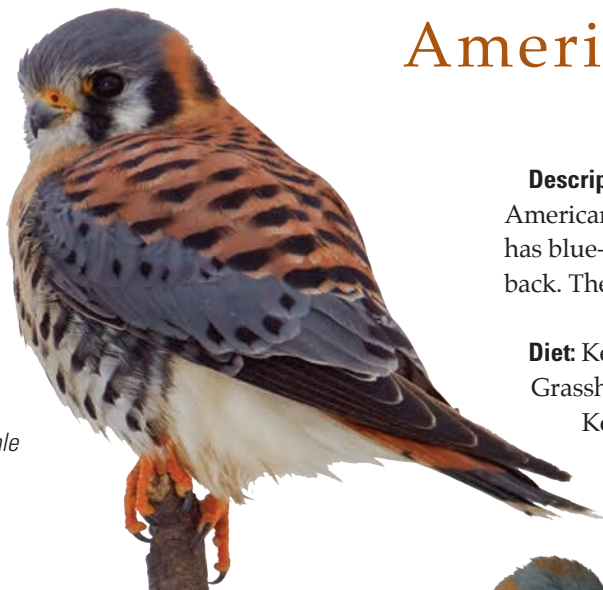
Tips for Installing a Barn Owl Nestbox

- Boxes can be mounted on the inside or outside of a barn or grain silo, or placed on a tall tree, post or other sturdy structure.
- Abandoned buildings work best as they offer minimal disturbance during the breeding season.
- Boxes should be a minimum of 20 feet above the ground.
- The box opening should face an adjacent field for foraging and hunting.
- Barn Owls prefer habitat that is a mixture of tall vegetation (warm and cool season grasses) that have not been recently mowed.

American Kestrel (*Falco sparverius*)

CAVITY NESTER

Male



© Shawn P. Carey



Female

Description: Sometimes called the Sparrow Hawk or killy hawk, the American kestrel is a small falcon about the size of a Blue Jay. The male has blue-gray wings and cap and a rufous back, the female has a rufous back. The female has wings with black bars.

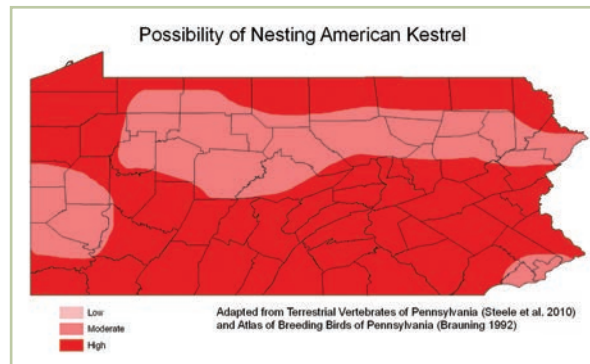
Diet: Kestrels feed primarily on insects, small rodents and small birds. Grasshoppers are the preferred prey in summer months. American Kestrels commonly hunt from roadside utility lines or hover in mid-air above fields.

Habitat and Nesting: Kestrels do not build nests, instead preferring cavities in large trees, barns or buildings. Kestrels are common in agricultural areas where scattered trees and woodlots provide woodpecker holes adjacent to foraging areas. Kestrels will readily accept artificial nestboxes when natural cavities are scarce.

Conservation Status: American Kestrels are considered common across Pennsylvania, however they have been in decline over the last 10 years, particularly in southern regions. Sanctuary biologists have been monitoring nesting kestrels since the mid 1950's and to a greater extent since the 1980's when the Kestrel Nestbox Program was expanded. By providing nestboxes in appropriate habitat, Pennsylvania landowners in agricultural communities can play an important role in the future of this small falcon.



© Steven Berkowitz



Tips for a Successful Kestrel Nestbox

- Place the nestbox 8-20 feet from the ground.
- The front of the box should be clearly visible from a distance.
- Ensure the box is surrounded by a minimum 1 acre of open space.
- Orient the box so it faces away from the roadside.
- Kestrels prefer boxes mounted on barns or isolated trees.
- Place boxes at least a half mile apart.
- Place nestboxes at least 50 yards from wooded areas to discourage squirrels from using them.



American Kestrel nestbox mounted on the side of a barn.

Short-eared Owl (*Asio flammeus*)

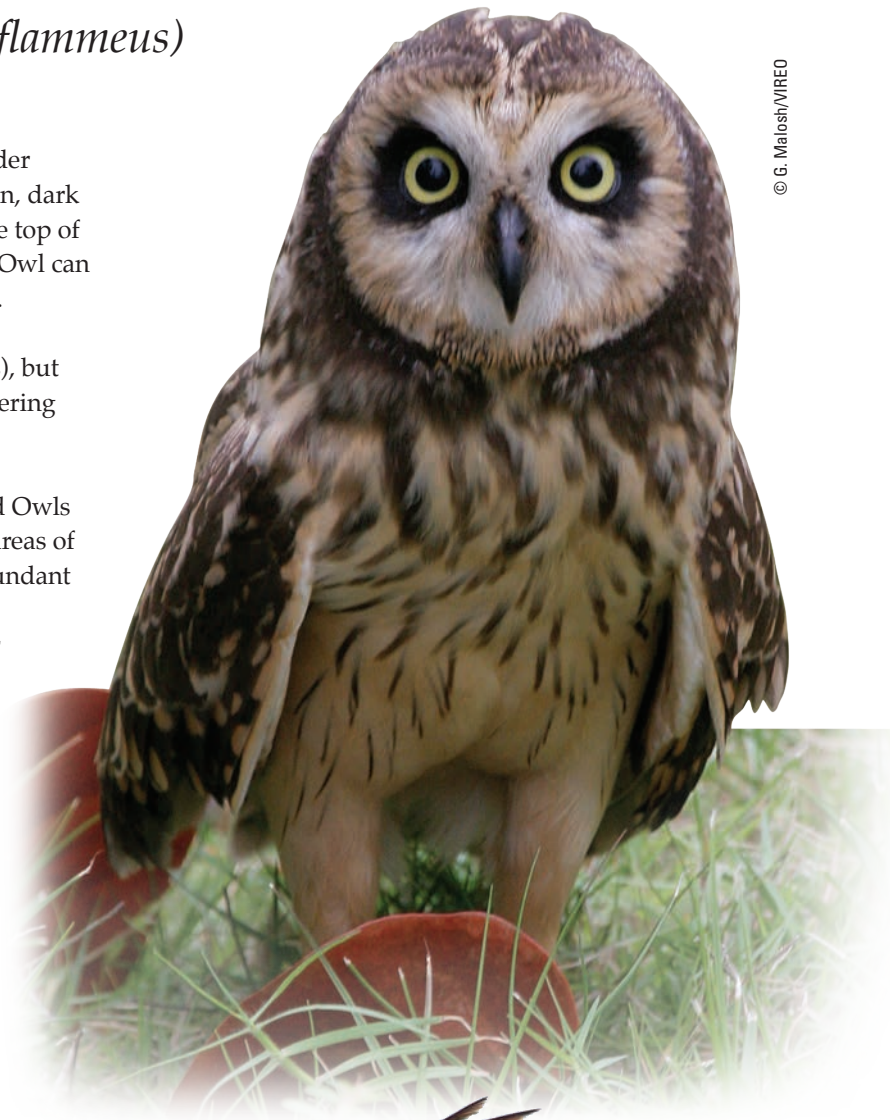
GROUND NESTER

Description: The Short-eared Owl is a medium-sized, slender owl. Its back is mottled brown and the chest is pale with thin, dark streaks. It gets its name from the small, short ear tufts on the top of their head. Less nocturnal than other owls, the Short-eared Owl can sometimes be seen at dawn and dusk flying low over fields.

Diet: Primarily small mammals (voles, shrews and rabbits), but birds and insects are also taken. They can often be seen hovering and hunting low above the ground at dawn and dusk.

Habitat and Nesting: Like the Northern Harrier, Short-eared Owls roost and nest on the ground. They depend on large, open areas of undisturbed grassland or wetland habitat where prey is abundant to nest successfully. Their nest is located on the ground in a shallow scrape surrounded by tall grasses, weeds and other vegetation. Open fields larger than 100 acres are typically considered potential breeding or wintering habitat.

Conservation Status: The Short-eared Owl is listed as endangered in Pennsylvania and uncommon across the United States. Recent Breeding Bird Atlas records found only a few nests in Pennsylvania. Habitat loss due to development, changes in farming practices, reforestation and natural succession and loss of wetland habitat have led to recent declines. The Short-eared Owl will occasionally use reclaimed strip mines for nesting, which provide additional habitat and may help increase their populations in Pennsylvania.

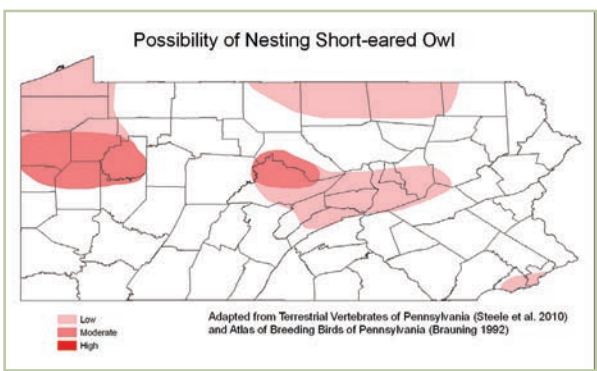


© G. Malosh/VIREO



© Shawn P. Carey

The Short-eared Owl is endangered in Pennsylvania.



© Laura C. Williams/VIREO

Northern Harrier (*Circus cyaneus*)

GROUND NESTER

Description: Formally known as the Marsh Hawk, the Northern Harrier is a long-winged, long-tailed raptor of open grasslands and marshes. The male has a pale or white belly with a light gray back and head. The female is brown with a lighter, brown-streaked breast. Other distinguishing characteristics include an owl-shaped face and white rump patch at the base of the tail. The rump patch can often be easily seen when the bird is in flight.

Diet: Northern Harriers forage during the day by flying slowly just above the ground looking for small to medium sized mammals, primarily mice. They also feed on small birds, reptiles and frogs.

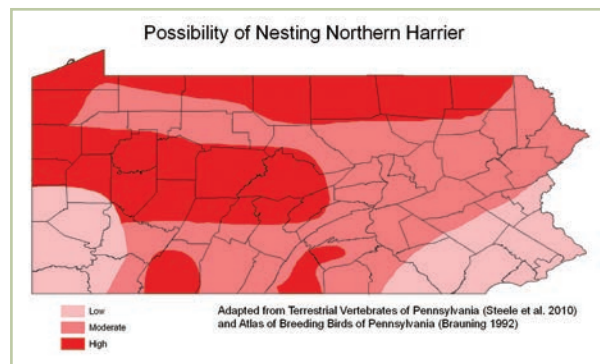
Habitat and Nesting: Harriers prefer extensive open wetlands and upland habitats. Their nest is a platform of grasses on the ground in thick, dense vegetation in an open field or meadow.

Conservation Status: The Northern Harrier is listed as a Special of Special Concern in Pennsylvania. Today, breeding Northern Harriers are most common in extensive grasslands, reclaimed strip mines in the west and open wetlands or pastures in the north and southeastern parts of Pennsylvania. Loss of large wetlands and open fields due to development, reforestation, and changes in farming practices have led to recent declines. Pesticide and herbicide use in wetlands and grasslands could also affect breeding success of the harrier.

Male



© R. & N. Bowers/VIREO

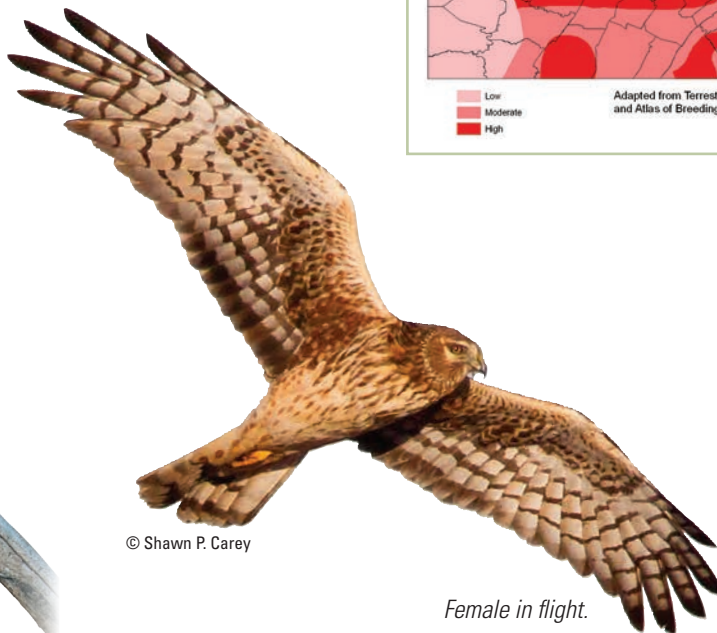


Female

© J. Schumacher/VIREO



© Shawn P. Carey



Female in flight.

© B. Steele/VIREO



Male in flight.

How can you help?

Thank you for your interest in Pennsylvania's wild birds.

One of the most important things you can do is report your sightings of these species.

Reporting your sightings is easy.

You can either enter information online or complete the following form and return to: Hawk Mountain Sanctuary, Attn: Farmland Raptor Project, 1700 Hawk Mountain Road, Kempton, PA 19529. If you would like more information about these raptors, the habitat they need, or providing nest boxes for Barn Owls and American Kestrels you can visit our website to learn more.

To receive additional blank forms, or for questions or comments on the project, please contact Dr. Laurie Goodrich, Senior Monitoring Biologist, at goodrich@hawkmtn.org or 570-943-3411 ext. 106.

Species seen _____

Location/Habitat _____

Bird's behavior _____

Date(s) seen _____ How often _____

GPS Coordinates (Lat./Long.) _____

Road seen _____

Nearest crossroads or additional information to help us locate bird(s) _____

Landowner Information (if known)

Name _____

Address _____

City _____ Zip _____

Township _____ County _____

Observer Information (if different from above)

Name _____

Address _____

City _____ Zip _____

Township _____ County _____

Phone _____ Email _____

Yes, please send me more information on Pennsylvania's Farmland Raptor Project



www.hawkmountain.org/farmlandraptors

info@hawkmountain.org

phone: 610-756-6961 fax: 610-756-4468

Hawk Mountain Sanctuary Association®
1700 Hawk Mountain Road, Kempton, PA 19529



nigrate?



Red dots: more than 1,000 raptors reported annually
 Green dots: fewer than 1,000 raptors reported annually
 Blue dots: reporting more than 10,000 raptors annually

Individuals remain on the breeding grounds. Other species are completely migratory. Overall, about 66 percent of all species migrate. Migration distance varies among species. Some, for example, migrate only as far as Florida. Other species like the broad-wing, osprey, and peregrine falcon, travel thousands of miles into Central and South America.



Hawkwatching terms

Accipiter A genus or group of 50 largely forest-dwelling species of raptors with short, rounded wings and long tails. Accipiters in eastern North America include the sharp-shinned, Cooper's hawk, and the northern goshawk. The group is known for its rapid, maneuverable flight, and for its flap-flap-flap-glide flight pattern.



Buteo A genus or group of 28 largely open-habitat raptors with broad wings and short, rounded tails. Buteos in eastern North America include the red-shouldered, broad-winged, red-tailed, and rough-legged hawk. Buteos rarely flap and are known for their soaring.



Buzzard A European common name for a buteo. Misused in North America as a common name for vultures.

Carpel The "wrist" of the bird. "Carpel patches" are on the underwing approximately midway between the body and the wingtip.

Cold front A weather event in which cold, high-pressure air passes through an area, typically from northwest to southeast. In eastern North America, cold fronts are typically accompanied by northwest winds and followed by cold, fair weather, and produce some of the best hawk flights.

Counter The official observer and recorder at Hawk Mountain, stationed at the North Lookout.

Dihedral In birds, the term refers to the angle some species hold their wings, above the horizontal in a shallow "V" such as the turkey vulture.

Falcon A member of the genus *Falco*, a group of 37 falcons and falcon-like birds with long, pointed wings, and long tails. Falcons in eastern North America include the American kestrel, merlin, peregrine falcon, and gyrfalcon. Falcons are known for their rapid flapping flight and ability to dive or stoop at impressive speeds.



Glide To fly without flapping, usually on somewhat tucked wings, while losing altitude. Gliding birds gain lift by deflecting air over their wings.

Glass One binocular field. "A glass over number one" means a bird is one binocular field over the part of the ridge known as Number One.

Harrier A member of the genus *Circus*, a group of 13 grassland raptors with long wings and long tails. The northern harrier is the only harrier in North America. Harriers fly low over fields in search of prey.

Hawk Taxonomically speaking, an accipiter, but often used to include all small- to medium-sized raptors, including harriers, buteos, and ospreys.

Kettle A flock that soars upwardly in a thermal, a behavior typical of migrating broad-winged hawks. Also the name of the small valley southeast of the North Lookout between the Kittatinny Ridge and Owl's Head.

Leading line Mountain ranges and shorelines that help to funnel and concentrate migrating raptors. The Atlantic coastline of New Jersey is a leading line for many raptors, especially falcons. The central Appalachians of Pennsylvania are a leading line for many raptors, especially buteos.

Patagium The forewing between the body and the "wrist."

Soar To gain lift and fly horizontally or upwardly in rising air without flapping. "Slope soaring" occurs when birds soar in updrafts created by winds deflected up and over a hill or mountain. "Thermal soaring" occurs when birds soar in pockets of warm, rising air.

Thermal A rising column or pocket of warm air. (see graphic)

Updraft The upward movement of air created when horizontal winds are deflected up and over a mountain or hill. (see graphic)

Why count and study hawks?

Scientists at Hawk Mountain study the patterns and processes of raptor migration and use the Sanctuary's long-term migration database to monitor changes in raptor populations. This is important because raptors are sensitive bioindicators at the tops of food chains, and changes in their numbers reflect changes in the health of the environment. Rachel Carson, for example, used declining counts of immature bald eagles at Hawk Mountain in her

Hawk Mountain Flight Facts

- Sixteen species of raptors regularly migrate at Hawk Mountain. (See reverse.)
- Ninety percent of Hawk Mountain's flight consists of three species: the broad-winged hawk, the sharp-shinned hawk, and the red-tailed hawk.
- The least common migrant is the rough-legged hawk, with a recent average of 4 per year. Other rarities include the Swainson's hawk, gyrfalcon, Mississippi kite and swallow-tailed kite.
- The annual fall count averages 18,500 raptors, with a record 40,698 in 1978.
- More than 1 million raptors have been counted since 1934.
- Monarch butterflies, ruby-throated hummingbirds, blue jays, and many species of songbirds and waterbirds regularly migrate as well.
- Waterbirds such as cormorants and Canada geese migrate crossridge and do not concentrate along Hawk Mountain.
- Over the years, more than 150 species of non-raptor migrants have been recorded.

Best Times to See

PERCENTAGE PROBABILITY OF SIGHTING AT LEAST ONE INDIVIDUAL OF THE SPECIES IN A DAY*

SPECIES	AUG 15-30	SEPT 1-14	SEPT 15-30	OCT 1-14	OCT 15-31	NOV 1-14	NOV 15-30	DEC 1-14
Osprey	57	87	89	73	29	4	1	<1
Bald eagle	40	52	30	14	10	15	18	17
Northern harrier	49	76	79	83	86	77	42	21
Sharp-shinned hawk	41	84	98	98	96	79	41	11
Cooper's hawk	12	32	66	85	72	45	17	13
Goshawk	2	2	7	20	36	46	50	33
Red-shouldered hawk	3	6	18	63	83	73	45	15
Broad-winged hawk	87	94	94	42	4	<1	<<1	0
Red-tailed hawk	39	51	66	88	96	96	88	79
Rough-legged hawk	0	0	0	3	12	21	18	21
Golden eagle	0	3	10	27	45	50	42	26
American kestrel	68	77	77	74	40	8	1	0
Merlin	3	8	20	42	28	5	1	<1
Peregrine falcon	4	10	22	44	19	6	3	<1
# of poss. species	12	13	13	14	14	14	14	12

* Based on sixty years of data.

Hawk Mountain Geography

Aspen Cut A quarry of Martinsburg Shale 1.5 miles southeast of the North Lookout. Shale from Aspen Cut was used during the construction of Hawk Mountain Road in the 1950s. A campground is now maintained here for higher-level members.

Donat A promontory at the western end of Shochary Ridge, eight miles southeast of the North Lookout in the Kempton Valley, midway between the Kittatinny Ridge and the Pinnacle.

Hemlock Heights A ridgetop landmark dominated by Eastern hemlocks, 1.3 miles south of the North Lookout and west of Owl's Head. Elevation 1,519 ft.

Hunter's Fields. Two large, conspicuous fields in the valley floor, northeast of the North Lookout.

Kittatinny Ridge Named "endless mountain" by the Lenape Indians. The ridge is a major leading line for southbound migrating raptors each autumn.

Little Schuylkill River A small river almost 1,000 feet down-slope, north of North Lookout.

New Ringgold A small town in Schuylkill County, 3.2 miles northeast of North Lookout.

North Lookout The official count site, one mile from the Visitor Center. Elevation 1,521 ft.

Numbers 1 through 5. High points or knobs on the ridge numbered from right to left while looking east, 1.3 to 4.2 miles east of North Lookout.

Owl's Head. A Sanctuary promontory, 1.8 miles southeast of North Lookout, and east of Hemlock Heights. Elevation 1,460 ft.

Pinnacle. A thrust-fault promontory of the Kittatinny Ridge, 4.5 miles southeast of North Lookout. The Pinnacle offers one of the best views on the Appalachian Trail. Elevation 1,615 ft.

River of Rocks. A boulder field southeast of North Lookout. More than 30-feet deep in some places, it was formed 10,000 to 15,000 years ago when boulders slid from the ridgetops to the valley floor during the most recent Ice Age. Lowest elevation is 625 feet.

South Lookout. A wheelchair accessible overlook, one quarter mile from the Visitor Center. Elevation 1,383 ft.



Why do migrating raptors concentrate at Hawk Mountain?

Hawk Mountain straddles the Kittatinny Ridge or Blue Mountain, a 300-mile-long, prominent ridge that extends from 60 miles north of New York City to 20 miles west of Chambersburg, Pennsylvania. The Kittatinny is the southeasternmost ridge in the Appalachian Ridge-and-Valley Province of eastern Pennsylvania. Birds drifting south

from Canada, New England and New York, slope soar the length of the ridge, saving energy on their journey south.

In the spring, prevailing easterly winds south of Hawk Mountain push raptors west of the Sanctuary, reducing spring migration to a small fraction of what it is in the fall.

Migration Strategies

Relatively "broad-winged" species, including eagles, vultures and buteos, migrate using updrafts and thermals to soar and move long-distances. Soaring migrants can cover 250 to 300 miles a day, and tend to avoid crossing large bodies of water. They follow longer, more indirect routes over land where updrafts and thermals occur.

Falcons, ospreys and harriers frequently use more active, flapping flight. Powered flight lets these birds take a straighter, more direct route across land and water. Many raptors, including accipiters that use soaring and flapping flight, often hunt daily in early morning or late afternoon while migrating.

Flocking

Raptors are solitary most of the year, but some species flock while migrating. Ornithologists believe flocking enables hawks to locate and use thermals more efficiently. Broad-winged hawks begin to flock in early September, and most pass Hawk Mountain within a six-day period in mid-September.

Timing

Hawks, eagles, falcons and other diurnal raptors migrate during the day and usually do not start their migration until strong thermals begin to form after 8 a.m.

In the northeastern United States, birds of prey migrate south from July through January. Decreasing day length in late summer induces zugunruhe, or migratory restlessness in raptors.

Weather determines the timing of flights. In autumn, the passage of a cold front is often followed by large movements of raptors.

Seasonal timing also varies by species. At Hawk Mountain, the peak passage of broad-winged hawks occurs in mid-September. Osprey, bald eagles and kestrels are other early migrants. Large numbers of sharp-shinned hawks pass in late September and early October. The peak of red-tailed hawk and golden eagle migration occurs in early November.

Soaring

Traveling long distances can require a lot of energy. Before migrating, some hawks gain as much as 10 to 20 percent of their body weight in fat to fuel their migration. Raptors conserve precious energy on migration by soaring—using rising currents of air to gain lift and fly without flapping.

Raptors "slope soar" by riding winds deflected up and over hills and mountains. Birds "thermal soar" by circling in pockets of rising, warm air called thermals.

Thermals are created when the sun heats the Earth's surface. Hawks ascend quickly to thousands of feet within thermals, and then glide in the direction of their destination. Radar studies suggest that many raptors migrate at altitudes of 700 to 3,000 feet while soaring in thermals.



Where and why do raptors migrate?



Listed are species seen in greatest numbers along migration routes.

Raptors usually migrate across a broad front over level terrain. High mountain ranges, oceans, and lakes present obstacles for migrants, create leading lines and concentrate birds along narrow pathways.

In North America, where the major mountain chains run north-south, cross winds hit the ridge and create updrafts favorable for slope soaring. Hawk Mountain is on the Appalachian Flyway.

For South American destinations, the major route for soaring species is through Mexico and Central America. More than 4 million raptors are counted annually at Veracruz, Mexico, where two barriers—the Sierra Madre mountains on the west, and the Atlantic Ocean on the east— funnel migrants through a narrow corridor.

Scarcity of food is the primary reason that most North American hawks leave their breeding territories in winter. Why raptors return in the spring is not so obvious. Ecologists believe lower predator and parasite populations, longer days for hunting, and most of all, more abundant food supplies increase breeding success in the temperate zone.

In some species of raptors, every individual migrates. In other species, only part of the population migrates

- Major routes** (more than 1,000 raptors reported annually)
- Minor routes** (fewer than 1,000 raptors reported annually)
- Watch-sites** reporting more than 10,000 raptors annually

and some individuals remain on the breeding grounds. Other species are completely sedentary. Overall, about 66 percent of all raptor species migrate.

Distance traveled varies among species. Bald eagles, for example, migrate only as far as Florida. Other species like the broad-winged hawk, osprey, and peregrine falcon, may travel thousands of miles into Central and South America.



Raptors at RISK

THE STORY: Farmland raptors are declining and Hawk Mountain needs your help to stop their decline. Worldwide, anticoagulant rodenticide poison is the most commonly used chemical method to handle pests. When rodents consume poison, they do not die immediately; they have time to travel outside of houses and into raptor territory. Rodent behavior becomes so altered that they are an easy catch for a raptor, dog, cat, or fox. Hawks, owls, eagles and other wildlife are dying due to this poisoned prey.

KESTREL



Anticoagulant rodenticides (AR) chemically block an animal's vitamin K cycle and thus prevent an animal's blood from clotting. After consumption, raptors will slowly **die due to internal bleeding**. If they do not die from painful hemorrhaging, their extreme thirst can lead to accidental self-drowning.

first generation AR

warfarin
diphacinone
chlorophacinone

second generation AR

brodifacoum
bromodiolone
difethialone
difenacoum



HARRIER

POISONS KILL!

First generation ARs, second generation ARs, and even non-anticoagulant rodenticides, are all risks to wildlife. **Second Generation ARs are more dangerous** because they do not kill quickly. A rodent may consume far more than a lethal dose, and that lethal dose will be present in its tissues when a raptor plucks it off the ground.

DO NOT USE:

d-CON, Bell Labs, Woodstream these brands use bromethalin, a neurotoxic rodenticide that has no antidote for pets or wildlife
Hot Shot, Generation, Talon, Havoc use second generation ARs that kill wildlife that eat poisoned rodents

ALTERNATIVES

- install kestrel or barn owl nest boxes
- install electronic repellers in barns
- remove trash near barns
- tighten/protect trash bags
- rat-proof flooring for coops & barns
- cayenne pepper (natural repellent)
- disperse mint oil & plant spearmint around barn

Use snap traps **INDOORS ONLY**

Install a Kestrel or Barn Owl Box

Raptors are the natural solution to a pest control problem. One red-tailed hawk can kill and eat 300 rodents a year. Barn owls are better as they are highly efficient and prey almost exclusively on rodents.

For more information on boxes contact
Hawk Mountain at (610)-756-6961



Put an end to the Trail of Poison!



A DANGER TO ALL: The sale and placement of second generation anticoagulant rodenticide pellets is illegal. Unfortunately, "bait boxes" are not illegal. These boxes contain blocks of poison so that animals and children cannot directly consume it. However, mice and rats consume the poison and leave the box, exposing other animals to **secondary exposure poisoning**.

FAST FACTS

- In 2014, over 11,300 people were poisoned by rodenticides.
- 75% were children under the age of 6.
- More than 100 pets die each year due to rodenticides.



Hawk Mountain Sanctuary
1700 Hawk Mountain Rd
Kempton PA 19529

610-756-6961
info@hawkmountain.org
hawkmountain.org/farmlandraptors

Learn more and how to help at:
hawkmountain.org/farmlandraptors and raptorsarethesolutions.org