

# Watching Nighthawks in the Blackstone National Corridor

Mark Lynch

Perhaps no other regular and spectacular avian migration is as poorly understood as the fall movements of Common Nighthawks (*Chordeiles minor minor*) in Massachusetts. Every year, thousands of these typically nocturnal birds pass through selected areas of our state in daylight, but only a few persistent birders ever make systematic counts. To date, “nighthawk watching” does not have the cachet or the crowds of hawk watching, but that may change in the future. In this short article, I will describe some of what has been learned of nighthawk movements in the Blackstone National Corridor.



## About the Blackstone National Corridor

The Blackstone River flows southeast from its headwaters in Worcester to Pawtucket, Rhode Island. Here, it broadens and becomes the Seekonk River between Providence and East Providence, and eventually empties into the Providence River at India Point. The Blackstone River has a long and typically sad history of environmental abuse by European settlers in New England. Most surprising, a forty-five-mile long canal was constructed and finished in 1828 connecting Worcester and Providence. This canal was meant to speed up the shipment of goods between the two cities via horse-drawn barges, but with minimally forty-five locks (some say the number was closer to sixty-two), it was a long and arduous process. The canal lasted only a short time, when it was made obsolete by the Worcester-Providence railroad. Today, you can still hike along miles of sections of the towpath that separate the canal from the river.

Numerous dams were built to harness the river's energy for the many mills that rapidly sprang up along its length. The American Industrial Revolution began along the banks of the Blackstone at Slater's Mill in Pawtucket in 1793, when Samuel Slater opened a mill using mechanical spinning machines. It will come as no surprise that the end result of all this industrialization along the river's banks was that the Blackstone became notoriously polluted and was considered a health hazard at the turn of the twentieth century.

The good news is that, with the passage of the Clean Water Act in the 1970s, combined with many local efforts to create parkland and clean up the river, the Blackstone is recovering slowly but surely. These efforts culminated in 1986, when the John H. Chafee Blackstone River Valley National Heritage Corridor was established by Congress "to preserve and interpret the significant historic and cultural lands, waterways and structures and pursue park development along the River and to coordinate a valleywide land use strategy." It is 250,000 acres in area and contains

some sections that are not actually part of the watershed. Then again, some areas of the watershed are not part of the "Corridor." Massachusetts towns in the Corridor are Worcester, Leicester, Grafton, Millbury, Uxbridge, Millville, Northbridge, Blackstone, Upton, Mendon, Hopedale, and Douglas. Rhode Island towns in the Corridor are Burrillville, Glocester, Cumberland, Woonsocket, North Smithfield, Smithfield, Lincoln, and small sections of Providence and East Providence. The Federal Government does not own or manage the land; instead, people, businesses, nonprofit historic organizations, twenty-four local and two state governments, the National Park Service, and a unifying commission work together to protect the Corridor. The Corridor offers numerous opportunities for environmental education and makes an interesting ornithological study area. The Massachusetts Audubon Society at Broad Meadow Brook in Worcester is one of the key organizations spearheading these efforts.

### **Nighthawk Movements in Massachusetts**

The subspecies of the Common Nighthawk that breeds in and migrates through Massachusetts is *C. m. minor*. This subspecies breeds from British Columbia and northwestern Washington east across Canada to sections of the Midwest, the mid-Atlantic states, and New England. In fall, the nighthawks migrate to South America east of the Andes, as far south as Buenos Aires, Argentina. Interior birds may migrate through Central America, but some eastern populations use "transoceanic routes" (Cleere, p. 167). For example, nighthawks are common autumn migrants in Bermuda.

Spring migration of nighthawks is never as concentrated or as well observed as fall migration. Most birds in spring pass through undetected in May and early June (Veit and Petersen, p. 273). By far, most spring sightings are in single-digit numbers, although uncommonly larger flocks have been noted, as on May 17, 1974, when 356 were seen in Squantum by Brown (Veit and Petersen, p. 273).

In Massachusetts, fall nighthawk migration typically occurs between mid-August and mid-September, with peak numbers migrating during the last week of August and the first week of September, when an early evening count may range from a hundred to over one thousand birds if you are in a prime spot. Veit and Petersen note "the largest numbers are always seen in the Connecticut River Valley, with counts decreasing steadily eastward" (p. 274). Observers like Seth Kellogg in Southwick and Tom Gagnon in Northampton have historically reported some of the highest counts in the state from the valley. The Berkshires occasionally also records good numbers of southbound birds. One of the highest recent counts from the Berkshires occurred on August 31, 2000, when Tom Collins reported 355 over Pittsfield. Fall tallies east of Worcester County are spottily reported, but can be rather high. Bob Stymeist has noted a number of decent flights of nighthawks in the Greater Boston area. One example is Bob's report of 2006 nighthawks migrating over Brookline between August 20 and September 7 in 1983. Other observers in the Greater Boston/Metro West area have also on occasion noted double-digit or higher flight totals. Typically, those areas around the Concord River watershed have been the most consistently productive. In the last decade Linda Nachtrab has several times reported nighthawks in the triple digits in Maynard (*Bird Observer*).

It is interesting to note that dramatic fall nighthawk movements are very rare and almost absent from most areas of Southeastern Massachusetts, especially the coastal plain, Cape Cod, and the islands. Here, the very infrequent fall nighthawk reports are of lone birds or small flocks in the single digits. On September 1, 1996, Erik Nielsen reported more than 4500 nighthawks from Norwood, certainly the largest count in recent years from anywhere even close to the area known as the South Shore. Reports of sizable flocks of nighthawks from the coast of the North Shore are uncommon. Three of the most significant recent reports from Essex County as reported to *Bird Observer* are September 2, 1990, when more than 60 were seen over Plum Island (Jim Berry); August 25, 1992, when 124 were seen in Haverhill (Joe Hogan); and August 21, 1998, when 40 were seen over West Newbury (Rick Heil).

In Worcester County, decent movements of nighthawks, sometimes rivaling counts from the Connecticut River Valley, have been noted from Quabbin east to West Boylston and from several towns in the northern part of the county (“North County”) such as Leominster, Gardner, and Westminster. For decades now, triple-digit or higher counts of fall migrating nighthawks have been regularly reported from Notre Dame Cemetery in the southwest corner of Worcester by veteran county birders like Fran McMenemy and Bart Kamp. The city of Worcester remains the focal point for watching nighthawks in the county. Like other birders before me, I began my passion for nighthawk watching at Notre Dame in the learned company of Fran and Bart.

**HIGHEST SINGLE NIGHT COUNTS OF NIGHTHAWKS  
IN WORCESTER COUNTY SINCE 1990**

**SOURCE: *The Chickadee***

<b>DATE</b>	<b>LOCATION</b>	<b>NUMBER</b>	<b>OBSERVER</b>
8/26/1990	WORC	550	ML/SC
8/23/1991	WORC	1650	BK
9/9/1992	WORC	1200	FM
9/3/1993	WORC	300	ML/SC
8/26/1994	WORC	1000	FM/BK
8/29/1995	WORC	700	ML/SC
8/26/1996	WORC	700	BK
8/26/1997	WORC	1500	FM/JZ
8/22/1998	WORC	800	FM/JZ
8/22/1999	WORC	2000	FM/JZ/ML
8/23/1999	WORC	2000	FM/JZ/ML
8/24/2000	WORC	1500	FM/JZ/ML
8/28/2001	WORC	934	BK
8/25/2003	BLKST	1181	ML/SC

Observers: Sheila Carroll (SC), Barton Kamp (BK), Mark Lynch (ML), Fran McMenemy (FM), Joan Zumpfe (JZ). Although most of the high counts were from Notre Dame Cemetery in Worcester (WORC), the 2002 high count was from Daniel’s Farm in Blackstone (BLKST).

## **Nighthawk Movements in the Blackstone Corridor**

As soon as I started seeing those flocks of hundreds of nighthawks wafting over Notre Dame in the early evening, I began to wonder where they went. Most birds seemed to be flying south or southwest. Were there other locations in South County as good for watching this spectacle as Notre Dame? Did folks in Rhode Island and Connecticut also get to see these impressive numbers of birds? Was Notre Dame the best place in the city to be watching nighthawks? Part of the problem has been that rarely in the local journal literature (*The Chickadee* and *Bird Observer*) have details of direction of movement, behavior, and weather been noted.

With the creation of the Blackstone National Corridor and the leading role that Mass Audubon's Broad Meadow Brook has played in education and research in this unique National Park, I thought it was a perfect opportunity to look more critically at nighthawk movements throughout the Corridor as one of several monitoring projects that Broad Meadow was conducting. This has culminated in a single coordinated nighthawk count from several locations across the Massachusetts section of the Corridor in late summer, beginning in 2002. A single night is chosen in advance for monitoring, and teams of volunteers fan out across the Corridor to assigned spots and count whatever nighthawks pass that spot between 5 p.m. and 7 p.m., noting direction, weather, and behavior. This has allowed us to get a picture of how birds were moving across a broad area. Monitors were also encouraged to submit sightings from the Corridor with all the particulars on days other than the official watch day. In 2002 we got lucky, and the night chosen for monitoring proved to be very productive. However, in 2003 the night chosen was plagued by windy conditions after the passage of a cold front, and only a few nighthawks were seen. Still, even those few sightings were interesting and contributed to a better understanding of nighthawk movements in the Corridor.

### **Tips on Watching Nighthawks in the Blackstone Corridor**

*Timing.* Although flocks of nighthawks can be seen in the fall moving throughout the day, typically in the Corridor the big movements occur from about 5 p.m. until dusk. Birds are still moving after then, but visibility becomes an issue.

*Weather.* Weather certainly plays a role in nighthawk migrations, but we are still very much on the beginning of the learning curve in understanding all the intricacies of this relationship. Not surprisingly, heavy rain is bad for migration. Some flocks of nighthawks have been seen migrating right after a massive thunderstorm has passed, but these observations are not typical. Windy conditions are also not conducive to big movements. That said, an interesting observation occurred on August 28, 2003, the night of last year's coordinated count. Conditions were poor: a front had passed the day before, and it was clear and dry but rather windy. From 5 p.m. to 7 p.m. most monitoring sites recorded no nighthawks. Then, right after 7 p.m., a small number of birds were seen moving low and rapidly to the southwest from three of the sites in the southern section of the Massachusetts part of the Corridor. For instance, I saw ninety-four birds pass the Daniel's Farm spot in the town of Blackstone. The wind had died down just a bit by this time, and birds may have just waited for that change. So far,

and this is subject to further findings, it seems the biggest passage of nighthawks occurs on warm, still, somewhat humid evenings, typically the evening before a cold front passes. Yet another parameter may be the phase of the moon, but that is a subject for further investigation.

### **Behavior of Migrating Flocks**

The behavior of large groups of nighthawks is complex. Sometimes birds are seen to move directly and rapidly along their route. At these times, birds can be seen in several widely separated flocks passing over the course of an hour or more, and within these flocks individual birds can be widely spaced. Groups of birds seem to come in pulses. Depending on the evening weather conditions, flocks seem to favor two or three main routes, almost like flight lines in crows, although the flight lines can be quite broad. These flight paths may change from night to night, as observations from single locations have shown. Changes in flight paths and even in directions may be caused by changes in weather or availability of food. At other times, the nighthawks can be seen whirling about in all directions at once as they chase insect swarms. Flocks become very difficult to count at this time. The flock may drift out of view, and part or all of the flock may then later drift back again over the count site. This can occur over and over in a single evening, causing frustration and confusion to nighthawk watchers trying to keep an exact count. When in this feeding mode, flocks are less strung out and more concentrated, and may appear to ball up, sometimes with a large number of birds in what appears to be a feeding frenzy. In years past, large flocks of nighthawks have been seen actively feeding over the city of Worcester and then, as evening approaches, beginning to peel off and migrate over the count site on their way south or southwest. For the most part, migrating nighthawks are silent.

### **The Flying Ant Connection**

From the beginning of my nighthawk watching days, I learned from the veterans to watch for flying ants. There are certain days in late summer when the air is filled with flying ants, and they can be seen flying up from lawns and found on your car windshield. It has been the traditional wisdom around here that the largest movements of nighthawks would occur on these days. Some folks even watch for the ants to be enlarging their holes in preparation for the flights later that day or the next. The flight of these ants, species uncertain, seems dependent on a variety of environmental factors, including amount of rain, humidity, and temperature. Also, the ants may be flying in one part of the Corridor but not in others, and in some years there doesn't seem to be a major flight of ants at all. It must be said that sizable movements of nighthawks have been seen when the ants are not flying, but it is still a very useful rule of thumb.

### **Direction of Flight**

Typically within the Corridor, most birds are seen flying south to the southwest. Of course, when birds are feeding, they can be found flying in any direction. Broad Meadow Brook Sanctuary monitor Dan Berard has begun to map all reports from the Corridor that include information on direction of flight. So far, his efforts are showing

a general movement toward extreme northeastern Connecticut in both Massachusetts and Rhode Island sections of the Corridor. Very generally: birds in the Massachusetts part of the Corridor move predominantly southwest, and birds seen in northern Rhode Island move west. From the Route 56 overlook of the Worcester Airport in Leicester, several times I have also had large flocks flying west, indicating that they may be heading toward the Brookfields and the Quaboag River Valley and perhaps eventually the Connecticut River.

When nighthawks are moving, they can be fairly high early on, although never as high as migrating buteos. At other times, birds are quite low, closely following the contours of the land and working along valleys. This may present a challenge for nighthawk watchers. Once, while counting birds from Goddard Memorial Park on Airport Hill, the conditions seemed perfect, but we were seeing only a few birds. Later, as we were driving along a road at the base of the hill, we saw hundreds of nighthawks, all too low to be seen from Goddard Park. But nighthawks do not stick only to valleys, and there are many times when they can be seen flying over rather high hills. It should be obvious that we still have a lot to learn about the routes taken by migrant nighthawks.

### **What about the Rhode Island Section of the Corridor?**

Dick Ferren, in his legendary and as yet unpublished masterwork *The Birds of Rhode Island*, calls Common Nighthawks a “common fall transient” but also notes “nighthawks are far more numerous in fall but never reach numbers suggestive of counts regularly obtained in the inland river valleys of Central and Western New England.” He refers to the more modest Rhode Island counts as “echoes” of the big counts that occur in Worcester County and the Connecticut River Valley. Triple digit daily counts of nighthawks are rare anywhere in Rhode Island, and the largest counts seem to occur over inland sections of the state. This comes as no surprise now that we are learning about the direction that most birds in the Massachusetts section of the Corridor take. This would indicate that most birds would miss Rhode Island entirely and head directly into Connecticut. As you can imagine, fall nighthawk flocks of any size are rare in the southeastern section of the state, but still occur here more commonly than on Cape Cod and the Islands.

The Corridor in Rhode Island covers just the northern quarter of the state, the area very close to where four-digit counts of migrating nighthawks have been tallied in Massachusetts, as in the town of Blackstone. It is logical to assume that large numbers of migrating nighthawks may sometimes pass through these areas of northernmost Rhode Island undetected (so far). Over the last few years, Sheila Carroll and I have been actively searching for potential watch spots in the area of Cumberland, North Smithfield, and Burrillville with some genuine success, and now we have recorded several triple-digit counts of nighthawks in northern Rhode Island. Still, nighthawk watching in this section of the Corridor is in its formative stages as we put together this list of potential sites. Part of the challenge has been that areas with public access *and* a good view of the sky are uncommon in this part of Rhode Island. Two cemeteries, in Lincoln and Cumberland, which offer the best potential

nighthawk viewing in the entire Rhode Island section of the Corridor, both close their gates at 5 p.m.!

### **Locations for Nighthawk Watching in the Corridor**

Please refer to the map on page 220 for general locations.

#### **Massachusetts**

*Route 56 overlook of Worcester Airport, Leicester.* This is now, by far, my favorite site in Worcester County to watch for nighthawks. There is a long scenic dirt pulloff on the east side of the road just north of the legendary Hot Dog Annie's. This site offers a commanding view overlooking the fields and runways of Worcester Airport to the east. Lighting in the evening is excellent. Birds are sometimes seen rather far out, heading south over the airport or even Worcester (scope needed). Birds can also appear from the north, flying south or even west-southwest toward the Brookfields. While looking for nighthawks, watch for raptors, Pileated Woodpeckers, Wild Turkeys (often on the runways), and migrant flocks of Bobolinks. The only disadvantage to this site is the traffic along Route 56. My biggest single evening total in 2003 was 983 birds on August 27. Like Notre Dame (see below) this is a site that needs nightly coverage.

*Goddard Memorial Park, Airport Hill, Worcester.* This site for a proposed park is off Goddard Memorial Drive, south of the Airport Drive intersection. The park is on the east side of the road and has a small dirt pulloff and a dirt path up to a rise. I have looked for nighthawks from this site several times and have been able to count numbers of birds over the city of Worcester.

*Notre Dame Cemetery, Worcester.* Access is from the west side of Webster Street (Route 12). Park in the small lot just past the chapel, and walk back to the chapel along the road. Birds can pass either west or east of this location or even right overhead. Most birds are seen heading south. This has long been *the* traditional nighthawk watch spot in Worcester County, but as the surrounding trees have gotten taller, the views are not as good as even a decade ago. Lighting is also a problem when looking toward the west. While here, watch for large migrant flocks of swallows and swifts as they feed over the nearby ponds.

*Millbury/Worcester line on Route 146.* There have been several sightings now of good movements of birds from a variety of locations near this area, including the foot/bike bridge over Route 146. A new mega mall off Route 146 in Millbury south of the Mass Pike is just opening. This mall is built on a high hill and offers great views to the north, and scouting so far seems to promise that it will become another great nighthawk watch site.

*Flint Pond, Worcester-Shrewsbury line.* Flocks of nighthawks have been sighted here in years past. But in 2003 an attempt to monitor the pond from a canoe proved fruitless because of windy conditions. Best access is from Oak Island south of Route 20, where there is a parking lot, a boat launch, and a trail to the north. Orchard Orioles have bred here.



*Tufts Veterinary Medicine School, Grafton.* This spot consists of two possible viewing locations. One is right on the Westborough-Grafton line in an extended area of fields along Route 30. The other location is the fields of the school east of Institute Road. This area was monitored for the first time in 2003, but because of adverse weather, no nighthawks were recorded on that one day.

*Ramshorn Pond, Millbury.* Dan and Deb Berard, two ecological monitors from Broad Meadow Brook, live on the shores of this small pond in southwestern Millbury on the Sutton line. They consistently report modest to large flocks of nighthawks both feeding and migrating over this pond. Birds are typically heading south or southwest.

*Fisherville Pond overlook, Grafton.* Access is behind the Riverview Apartments on Route 122, or from parking under the power lines and walking down a rough trail. This is a new monitoring site that turned up no birds in adverse conditions in 2003 but still should prove productive in years to come. If water levels are low, shorebirds are often present on mudflats here.

*Waters Farm, Sutton.* This conservation and historical area is found by taking Douglas Road south off the Central Turnpike. Turn left onto Waters Road, and follow it to the end. This has been one of the locations staffed for Corridor nighthawk monitoring and has produced counts of nighthawks into the triple digits. Birds are typically heading southwest. Another nearby spot is the high point of Town Farm Road, north off the Central Turnpike. This is a broad area of fields with a commanding view.

*Lookout Rock, Northbridge.* Access is from Quaker Street on the east side of the Blackstone River. There is a well-signed small parking lot and a short trail that swings to the right and leads to a nice high overlook of this scenic section of the Blackstone Valley and Goat Hill. This is a regular monitoring site and has produced flocks of nighthawks in the triple digits. Birds are sometimes seen feeding over the main stem of the river. The only drawback to this beautiful site is that lighting can be very difficult in the early evening, since your view is to the west.

*Daniels Farm, Blackstone.* This conservation/historical site has been managed by the Metacomet Land Trust and is on the east side of Mendon Street in extreme northwest Blackstone. It is one of the sites regularly monitored on the coordinated watch. You will know you are in the right place if a tall microwave tower is across the street. This is a wonderful spot, perched on the east and north-facing slope of a high hill. Boston can be seen in the distance on clear days. In two years of monitoring, this has proved to be an exciting place not only for nighthawks, but also for passerine migrants. On August 25, 2002, nighthawks tallied totaled 1181. Nighthawks are seen coming in from the east, sometimes rather low, and usually go either northwest or southwest around the hill. Flocks have also been seen heading southwest regularly right overhead. Getting a good view of the horizon is critical and difficult as the surrounding trees get taller. Both fields on either side of the house need to be watched. Typically, you are looking in small depressions of the tree line. I find the small rise next to the well to be one of the better locations. Watching so many birds come in from the east, just south of Boston, had made me wonder if nighthawks (like

monarchs in the southern states), take a version of the “Big Right Turn.” This appears to be happening just south of Boston and may explain why big numbers in southeastern Massachusetts are so rare. Time will tell if this theory has any merit. In early morning, migrants can be found in the surrounding forest edge. For the last two years, Common Ravens have bred in the microwave tower and are often present throughout the summer, and also while you are nighthawk-watching.

### **Rhode Island**

*Buck Hill Wildlife Management Area, Burrillville.* Take Route 100 south from Douglas, then go right on Buck Hill Road 2.1 miles to the entrance. There is a sign just before the entrance dirt road. Drive to the gate and parking area. Small flocks of nighthawks have been seen passing over the parking lot or the pond and heading west. This is an area that needs more coverage.

*West Ironstone Road power line cut-through, Burrillville.* This area is just north of the Black Hut Wildlife Management Area. Park under the power lines on the north side of the road. This is a new location. On August 31, 2003, we saw 239 birds in less than half an hour. Most were heading west or southwest, though a small flock flew over our heads heading northwest into Worcester County. Lighting from this location is good.

*Great Road, North Smithfield.* Park under the power lines, and look south. On August 31, 2003, in less than half an hour, 141 birds were counted heading west and low. Another lookout farther north on the road that has a view into Massachusetts had no birds moving.

*Diamond Hill and Arnold's Mill Reservoirs, Cumberland.* Access is from Reservoir Road. Small flocks of nighthawks have been recorded from this location, and it looks like a place where triple-digit flocks could be seen with increased monitoring.

*Lincoln Center Mall and vicinity on Route 116, Lincoln.* On August 26, 2001, at 7 p.m., we tallied forty-one birds passing southwest in less than fifteen minutes. We got the sense we had missed most of the movement that night. This is a site for future monitoring.

*Bike path overlook of Bold Point, Providence/East Providence.* Access is from the northernmost lot off Veteran's Memorial Parkway in East Providence. You have a dramatic overlook of Providence and the terminus of the Blackstone National Corridor. We have tried this spot for nighthawks only once, but actually monitor India and Bold Points regularly for waterbird surveys of the Corridor. Lighting is poor because you are looking west from a high elevation, and we recorded only small numbers of migrating nighthawks. Still, it is a location that should be checked more often.

### **Conclusion**

The Blackstone National Corridor appears to be on one of the important migration routes for Common Nighthawks. Hundreds and even thousands of birds

feed and fly through this area every year, making the Corridor an important area regionally for this species. The direction of nighthawk flights in the Corridor seems to indicate that most birds pass from the Massachusetts or extreme northern Rhode Island sections of the Corridor into Connecticut. Although systematic counts in the Rhode Island section of the Corridor are just getting underway, it appears that regular high counts of fall migrant nighthawks in Rhode Island may occur in the Corridor as birds move west or southwest into Connecticut.

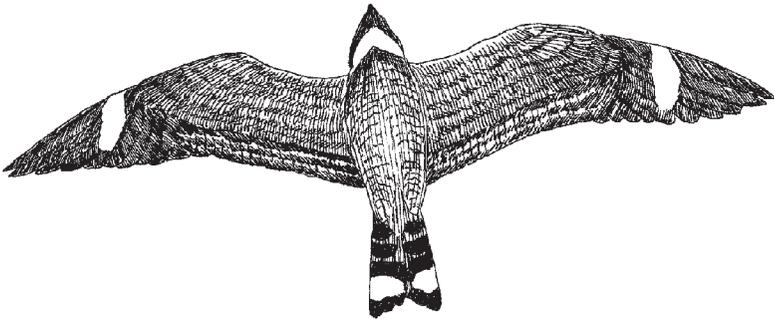
There is something very special about standing out on a warm summer evening and watching these mysterious and rarely well-seen birds flutter by in large numbers, the sinking sunlight emphasizing the browns and buffs of their plumage. It is one of the great yearly pleasures of birding the interior of Massachusetts. If you do see flocks of Common Nighthawks moving anywhere in the Corridor in the fall, please send the totals to me (moa.lynych@verizon.net), noting exact location, direction of flight, behavior, and weather. 🦉

*Nota bene:* all records quoted in the article are from *Bird Observer* unless otherwise indicated.

## References

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COMMON NIGHTHAWK BY GEORGE C. WEST