New Hampshire Bird Records

FALL 2022 Vol. 41, No. 3

Late Fall Migrants

Canada Warbler by Steve Mirick, 11-27-22, Seabrook marshes, Beckmans Landing, Seabrook, NH.

Nashville Warbler by Steve Mirick, 11-8-22, Bicentennial Park, Hampton, NH.

Yellow-bellied Flycatcher by Brett Hillman, 9-27-22, Woodstock, NH.

Tennessee Warbler by Christopher McPherson, 10-16-22, Woodmont Orchard, Hollis, NH.

In This Issue

Read about the effort to put satellite transmitters on Broad-winged Hawks in New Hampshire to learn more about their full life cycle. This map shows the migration routes of the three New Hampshire Broad-winged Hawks tagged in 2021. The tracks for Thelma and Harris show both the southbound and northbound return routes. See the article on page 35.

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IN HONOR OF
Steve and Jane Mirick

The 2022 issues of *New Hampshire Bird Records* are sponsored in appreciation of Steve and Jane Mirick for all that they do for the birding community. They have been responsible for finding (and re-finding) many rarities, spreading the word, and staying on the bird. Many of us owe life birds to them and we are grateful for all that they do.

Steve and Jane Mirick by Leo McKillop, 9-5-20.

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Cover Photo: Tropical Kingbird, 11-17-22, Greenland, NH by Ken Faucher (top photos) and Benjamin Griffith (bottom photo).

From the Editor

SUMMER 2022

by Rebecca Suomala

New Hampshire Bird Records Endowment Fund

This fund was established 10 years ago with contributions of $12,280. It is now over $55,000 and we need your help to keep it growing. Help us reach $60,000 this year! We make only one annual request for contributions in the Fall issue (enclosed).

The Fund provides annual support to *New Hampshire Bird Records* and builds a long term base of support for providing information about birds and birding in New Hampshire. It was approved by the NH Audubon Board of Trustees to provide long-term support for the collection, organization, quality control, distribution, dissemination, publication, promotion, preservation, and storage of New Hampshire bird sighting information. Although *New Hampshire Bird Records* is the current vehicle and umbrella for these functions, this language provides the flexibility to respond to changes. The Fund can also support other projects that fall under the larger goal of "contributing to the knowledge and conservation of birds in New Hampshire through bird data collection, birding, and sharing of bird information." To leave a legacy for the birds with a bequest to the Fund, see the last page of the issue.

Thank you for donating to the New Hampshire Bird Records Endowment Fund.

Becky Suomala on her 2023 Superbowl of Birding adventure in Antarctica on 1-28-23, raising money for New Hampshire Bird Records *(read about it in the Winter 2022-23 issue). Photo by Zeke Cornell.*

Interview with a Birder: Steve Mirick

by Kathryn Frieden

One of the interesting aspects of birding in New Hampshire (besides the birds) is the people one meets. Since we are a relatively small state, one individual can have an enormous impact on our fund of knowledge about our birds and how to find them. Steve Mirick is definitely one of those people, so we thought it would be interesting to know a little more about him as a birder. Here is what I found out.

How old were you when you became a "birder" and what got you started?

I spent a lot of time outdoors at an early age and I remember my dad identifying Baltimore Orioles and Pileated Woodpeckers, but I didn't really become a birder until I was in college. A good friend was taking Ornithology at the University of New Hampshire and got me paying attention to birds again. He didn't have a car and I did, so when he wanted to go to Plum Island for birding, I drove him there. I still have my first checklist ever from that trip! Then in the spring of senior year, when I needed relief from the stress of my engineering classes, I took a break and went out poking around with my binoculars. I heard the song of a Chestnut-sided Warbler and started looking for it. After pushing through some thick shrubs and bushes, I looked up and saw a Magnolia Warbler and then realized I had a close-up view of both beautiful warblers. That's what got me hooked.

This photo of Steve Mirick hawkwatching on Mt. Agamenticus (Maine) was posted on the count board there many years ago.

Do you have a favorite sighting that comes to mind?

Yes, and I'm lucky I survived it! It was August, 2001 and a few days earlier, someone had reported a Boreal Owl in the White Mountains on Mt. Pierce in the area of the Mizpah Hut. Everyone thought it must be a Northern Saw-whet Owl, so I decided to chase it down and find out. It was a tough climb up there and because the hut was full, I had to set up my tent and camp out above the hut. I waited until after dark, then went out to play a tape of the owl near the spot of the previous sighting. All of a sudden there was a lot of lightning and I knew I had to get into shelter soon. Then, I looked up and saw a shadow flying over. I got my spotlight on it and at first I couldn't tell what it was, but then it dawned on me that it was a juvenile Boreal Owl, which looks much different from a juvenile saw-whet. I made it back to my tent before the rain started and then for the next thirty minutes, experienced the most intense thunderstorm of my life! I thought I was going to die up there above the tree-line. The story doesn't end there. On my way down to the hut the next morning, I pulled a hamstring getting water from the spring. I thought I was going to need to be evacuated because I was in so much pain, but ended up managing to limp down the mountain bit by bit. Then, partway down, I heard a Bicknell's Thrush "screaming" and right in front of me, there was a Pine Marten being mobbed by the thrush! It was a very memorable experience, added to by being the only confirmed nesting record of a Boreal Owl for the eastern United States.

Juvenile Boreal Owl by Steve Mirick, 8-4-01, on Mt. Pierce, Beans Grant, NH.

How many birds are on your state list and what do you hope for next?

My state species list is at 398, down one because of the removal of Ring-necked Pheasant, which I think is appropriate. My next one will have to be a rarity because there are no low-hanging fruit left for me. I'm hoping for a Red-necked Stint, which would be a first for New Hampshire.

Do you have a New Hampshire "nemesis" bird?

Not any longer. It was the Long-eared Owl, but Jane and I finally found a group of four of them in March 2021 in Seabrook. I wrote an article for *New Hampshire Bird Records* about it!

If there was only one place in New Hampshire where you could go birding, where would it be?

I love birding the seacoast and Jane and I like to watch migration, so Little Boars Head has always been a favorite spot, but in terms of overall birding experience, it would have to be Odiorne Point State Park which has such an overall diverse habitat.

What changes have you seen in birding over the years?

The number of birders has grown tremendously. When Jane and I started birding the coast twenty years ago, we ran into very few birders, but now there are birders everywhere. eBird and digital photography have changed everything, along with social media. Another change is the decreased access to birding spots on the seacoast due to development.

Any ideas for future birding for you? Do you have a United States target bird?

Now that I've retired, I hope to be traveling more and just see what's out there. I certainly wouldn't mind going back to Alaska; I've only been there once. And I still need Florida Scrub Jay for my life list! I may also try to lead a few more volunteer field trips for Audubon.

Do you have any advice for young or new birders?

Hmmm…Don't depend on Merlin bird ID! Use it as a tool, not to identify, but maybe to confirm. Take good notes and do use eBird.

A young Steve Mirick on a trip to Guyana in 1997 with Davis Finch (to the right, facing the camera).

August 1 through November 30, 2022

by Ben Griffith

Overwhelmingly, the fall season was characterized by warm, dry weather, with the southern two-thirds of the state in unusually dry to moderate drought conditions for the entire season. The warm dry weather resulted in a slower, more even migration, and pockets of migrant warblers were scarce. Early November was particularly warm, with temperatures rising into the 70s (F) for much of the first half of the month in Manchester. More rain did reach the North Country and Connecticut River Valley, and that's reflected in an increase in the number of sightings of inland waterbirds in those regions.

I have divided the report into groupings with the most interesting sections and most interesting species first, rather than in taxonomic order.

Note: Odiorne Point is part of Odiorne Point State Park in Rye, NH.

Interesting Happenings

With the dry weather, relatively few scoters were observed at inland locations, with only one large flock of Black Scoter, the most expected species inland. Interestingly, two of the most unusual inland waterbirds (Common Eider and Red-throated Loon) were reported during this fall season, as highlighted below.

Surprising, in light of the dry weather, was the complete absence of Baird's Sandpiper in the state for the first time since 2006. This species is somewhat regular on inland mudflats created by drought. Also notable was the absence of Parasitic Jaegers, but that's part of a longer-term trend of low numbers of this species and few records since 2015.

Overall, it was a good fall for finches, with Evening Grosbeak the headliner, staging the species' second irruption in the past three fall seasons, after a long stretch of few reports. Evening Grosbeak irruptions appear to be tied to spruce budworm outbreaks, and the recent increase in the species corresponds with an outbreak in eastern Quebec. Notably, the last big outbreak in this area was in the early 1980s around the previous peak in this species' abundance in the state. Crossbills of both species were also present widely throughout the state, especially in the North Country. Common Redpolls showed up in small numbers in the fall, portending an irruption that never did materialize.

Top Rarities

Tropical Kingbird, 11-17-22, Greenland, NH by Ken Faucher.

The headliner rarity of the fall season was a **Tropical Kingbird** found by Jane Mirick in Greenland on November 13, which stayed through November 28. There are no previous records of Tropical Kingbird accepted by the NH Rare Birds Committee, although there is an accepted sight record of Tropical/Couch's Kingbird from November 2003 and another Tropical/Couch's Kingbird photographed just last summer (2022) in Rye (see Steve Mirick's article in this issue). These two species are essentially identical by plumage, but luckily, distinctive vocalizations were heard by many and recorded, making this fall's bird easier to identify.

Also on November 13, but slightly more expected for the state, was a **Cave Swallow** photographed by Chris McPherson in Hollis. Although this species has occurred somewhat regularly and predictably along the coast after strong southwesterly winds, this is the first inland record for the state.

Ken Klapper photographed New Hampshire's second **Mountain Bluebird** in his yard in Sandwich on November 4. Unfortunately, the bird was only seen for a single day. This western species irrupts eastward in some years into the Great Plains and did so in the fall of 2022. It's likely that most eastern records are overshoots from these irruptions.

There was a massive influx of **White Ibis** into the northeast in mid-August (with over 30 birds reported from one site in Maine, and over a thousand reported from New Jersey among others!). The sole New Hampshire bird was reported by Stuart Varney in Hampton Harbor on August 16. If accepted, this would be the fifth record for the state, the most recent being a long-staying bird in Awcomin March, Rye. It was found on July 11, 2014, and attracted viewers for an entire month.

For the second year in a row, a **Swainson's Hawk** was

reported by an experienced hawkwatcher. This year's bird was reported by Ken Klapper on September 19 in his yard (yes, the same yard with the Mountain Bluebird!) in Sandwich (see Ken's story about his fall yard list in this issue). Like four of the other five records for the state, this bird was only seen migrating over, a circumstance that makes photographic documentation challenging.

Seaside Sparrow by Charlie Nims, 9-25-22, Star Island, Isles of Shoals, NH.

Once a rare breeder in the state, a juvenile **Seaside Sparrow** was found on Star Island by Eric Masterson on September 25. This was the first record in New Hampshire in four years. This species has suffered in the northeast as saltmarshes have degraded due to sea level rise, and the species is unlikely to return to the state as a breeder. Since 2011, the few occurrences of this species have all been in the fall (although one bird did linger into December).

The southern-breeding **Yellow-throated Warbler** is less than annual in the state, but they occur in August more than the other southern-breeding warblers. The one reported on August 16 in Enfield by Larry Morin was right about at peak fall migration occurrence.

Once an uncommon breeder in the state, **Golden-winged Warblers** have become exceptionally rare. One reported by David Schamp on September 10 at the Grey Rocks Conservation Area in Hebron is only the second fall record since 2008. Notably, hybrids with Blue-winged Warbler have remained relatively common (more common than pure Golden-winged Warblers), and care should be taken to confirm that birds don't have any Blue-winged Warbler traits.

Kentucky Warbler is the least frequently reported of the southern warblers in the state (except for Swainson's, which has yet to be documented) and most of the few documented records have been in spring; the last accepted record was in May 2018 at the Great Bay Discovery Center in Greenland. The one reported from Star Island on September 10 by Steve Mirick is the first fall record in over 25 years!

Unlike the Kentucky Warbler, a **Cackling Goose** is certainly not a spectacular rarity in the state, but their identification can be problematic. As many as six birds were reported for the fall season, but only two were documented adequately for publication. One was on October 24 in Hinsdale by Hector Galbraith, and the other on November 28 in Conway by Logan Anderson.

LeConte's Sparrow by James Nealon, 11-1-22, Goss Farm, Rye, NH.

The first **LeConte's Sparrow** in New Hampshire wasn't documented until 2000, and through 2017 there had only been three records for the state. Since that time, there's been a relative deluge. The one spotted and photographed by James Nealon on October 31 at Goss Farm in Rye was the fourth record in five years.

Townsend's Solitaire is a visitor from the west, and less than annual in the state. One photographed on November 2 by Kyle Jones on Mount Cardigan in Orange fits nicely with the last three records – all between October 28 and November 9.

Although the second most likely hummingbird, **Rufous Hummingbird** is still exceptionally rare in the state. Its identification is difficult as the females and immatures are nearly indistinguishable in the field from similar species. An adult female found by Marisol Delgado at her feeders in Newmarket on November 2 (first eBird report is 11-5-22) was banded by Scott Weidensaul on November 15 when he confirmed its identification. This is the first fall Rufous Hummingbird since 2015, with an additional sighting in 2016 that could not be confirmed to species. See Marisol's story about the hummingbird in the Winter 2022-23 issue.

An **"Audubon's" Yellow-rumped Warbler** photographed in North Hampton on November 22 by Steve Mirick was the second record of the year, the second record since 2009, and the first fall record since 2005! This western form is distinctive enough that it's sometimes considered a separate species. Although most records are of birds coming to

feeders, they could be easily overlooked in the flocks of late fall Yellow-rumped Warblers that show up every year.

Unusual Species

A **King Eider** that had been present off the coast in Rye since May was reliable through October 16 and lingered through the season but with only one other fall report on November 4 (Brett Hillman). Although the species occurs annually in the state, it's the first time one has over-summered, and this is doubtless the most-viewed King Eider ever for the state.

Ross's Goose by Ed North, 12-1-22, Rochester WTP, NH.

A **Ross's Goose** was found on November 30, the last day of the fall season, by Tom Graham in Rochester. It stayed into December, and you'll hear more about it in the winter issue. Little Gulls are reported most but not all fall seasons, and this year one was reported on August 2 by Stuart Varney at Odiorne Point.

Little Blue Herons occur annually in small numbers, and there were reports of at least three birds at typical coastal locations in Hampton, Portsmouth, and Rye. An unusual inland Little Blue was seen and photographed by Nick Landers in Hollis on September 23.

Yellow-crowned Night-Herons have been regular in small numbers on the coast with as many as five individuals reported this fall from Portsmouth (three), Rye, and Hampton. More notable was one in Gilford that was first reported on June 29, and remarkably went undetected again until August 28 when it was re-found by Susan Jarosik. This bird represents the first record for all of Belknap County.

Only one **Blue Grosbeak** was found this fall, in Hollis, NH (Chris McPherson, 9-18-22). In the past few years, New Hampshire has been averaging one or two individuals each fall.

It was an above-average year for godwits, which typically average about three individuals per year between the two species. This fall there were five **Hudsonian Godwits** and

Blue Grosbeak by Christopher McPherson, 9-18-22, Woodmont Orchard, Hollis, NH.

one **Marbled Godwit**, all from Hampton.

Western Sandpipers are reported in small numbers annually, and four reported during the season was about average, again, all from Hampton.

Dickcissel by Tony Baldasaro, 8-24-22, Odiorne Point SP, Rye, NH.

Dickcissels occur in small numbers every fall, but this fall's total of at least 25 different birds was one of the highest season totals. Sightings were scattered across the southern part of the state, and as far north as Conway (Logan Anderson, 9-9-22) in the east and Haverhill (Kyle Jones, 10-8-22) in the west.

Black Terns are uncommon and occur primarily coastally, so two photographed in Peterborough on August 21 by Tom Momeyer were noteworthy. Coos County had two additional inland sightings. On August 22, there was a second-hand report of four Black Terns on Cherry Pond in Jefferson by two visiting (and working) botanists. The other was a single bird in Errol on September 15 by Kathryn Dube and Claudette Morneau.

Red-headed Woodpeckers occur in small numbers every year and, this year, birds were seen in Merrimack, Enfield, Pittsburg, Peterborough, and Dover. While they're not spectacularly rare, they do not often make repeat visits, so the

fact that the Merrimack bird was the second one for Cathy Wennerth's yard was especially exciting (her first was May 2016). The report in Pittsburg (Janice Libby, 10-31-22) is the northernmost sighting in eBird but there was one other report in Pittsburg in 1963 according to *The Birds of New Hampshire.*

Six **Lark Sparrows** were reported, two at interior locations and four coastally, consistent with the species' tendency to appear most commonly at the coast.

In addition to three **Yellow-breasted Chats** at expected coastal locations, one was seen in Bartlett a bit to the north (Charlie Nims, Sheila McCarthy 10-22-22). The species occurs surprisingly often in the Saco River Valley for a bird that is scarce inland.

Three of the five Clay-colored Sparrows present on Star Island, NH from September 26-28, 2022. Photo by Eric Masterson, 9-26-22.

Clay-colored Sparrows are expected during fall in small numbers, and approximately 18 were observed during the season. Most remarkable were five birds together on Star Island (Eric Masterson, et al., 9-26-22), the highest count ever recorded in the state.

Although **Black-backed Woodpeckers** are uncommon even in the northern half of the state where they breed, one photographed in Portsmouth on September 27 by Stuart Varney was a rare southern sighting. Interestingly, there was another unverified report from Dublin on September 9, suggesting perhaps some southward movement of the species this fall.

White-eyed Vireos occur in small numbers each fall, with the three reports this season about average for the species. The three that were observed followed a typical pattern of skewing towards coastal locations, with the Merrimack River Valley providing most of the remaining records. This year, birds were seen in Rye (Cameron Johnson, 9-23-22), Hooksett (Julie Williams, 9-25-22), and on Star Island (Eric Masterson, et al., 9-26-22).

Redheads are more-or-less expected on Great Bay in late fall, and two were present at the end of November (Steve Mirick, 11-22-22). They occur less frequently elsewhere so

Black-backed Woodpecker by Stuart Varney, 9-27-22, South Street Cemetery, Portsmouth, NH.

the one found this year in Errol on October 6 by Greg and Dick Dionne was surprising. This was only the second fall record in eBird for Coos County, and the third overall.

Other rare geese were mostly restricted to the Connecticut River Valley including both of the season's **Greater White-fronted Geese** (one in Westmoreland, Wendy Ward, 9-19-22, and one in Piermont, Wayne Scott, 10-7-22), and four of the season's seven **Snow Geese**. A flock of 35 Snow Geese seen by Russell Titus in Littleton on October 10 was the highest count since 2017.

A **Short-eared Owl** photographed on October 12 in Seabrook by Steve Mirick was the only one of the season. As is typical of this species in fall, the bird was seen only briefly and was never relocated.

The Great Bay area was the place to be if you were a **Cattle Egret** last fall; all of the season's six reports came from the region. Most bizarre were two birds that were found by Steve Mirick on the side of Route 108 in Stratham adjacent to an auto dealership and were occasionally seen dodging cars. Read more about this in the Field Notes.

The only **Common Gallinule** of the season was found on Eel Pond in Rye on October 25 by Steve Mirick. Although relatively rare at any time of year, October at Eel Pond has produced a disproportionate number of sightings of the species over the years.

Harlequin Ducks aren't seen every fall, so a female seen in Hampton for about a week starting on October 27 (Rich Frechette and Scott Spangenberg) was a bonus for birders. It was joined briefly by a male on October 29 (Susan Wrisley), but the male was not seen again.

Two **Gray-cheeked Thrushes** were photographed on the coast, one on September 20 (New Castle, Steve Mirick) and one on October 1 (Odiorne Pt. SP, Rebecca Suomala, Zeke Cornell, Stuart Varney, et al). Although this species is heard regularly flying over, ground-sightings are relatively rare. Furthermore, the species is extremely similar to Bicknell's Thrush and many individuals cannot be identified by sight.

There were only three sightings of **Sandhill Cranes** away from the sites where they nest. Of those, two reports were flocks of 18 birds, one in Chatham by Bob Crowley on October 29 and the other in Lyndeborough by Dave Kolesar on November 27. Although the sightings were spaced nearly a month apart, one can't help but wonder if the two reports were of the same birds that had spent the month feeding in a field somewhere in between the two towns.

Buff-breasted Sandpiper by Steve Mirick, 9-7-22, Odiorne Point SP, Rye, NH.

Buff-breasted Sandpipers are a bit unique among shorebirds in that they're almost equally likely to occur inland as they are at the coast. This year, there was one coastal bird in Rye (Bret Hillman) and one inland bird in Dublin (Eric Masterson), both on September 7 which is right at peak migration for this central-flyway species.

It shouldn't be surprising that **American Golden-Plovers** follow a similar pattern, given that they are often found in the same habitats as Buff-breasted Sandpipers. Four were seen at inland sites: three in Hollis on October 3 (Kevin Murphy), and one in Millsfield on September 21 (Greg Dionne). Coastal sightings included two on Star Island (Eric Masterson, et al. 9-5-22), one at Odiorne Point in Rye (Brett Hillman, 11-4-22), and five at the somewhat coastal Pease Tradeport (Stuart Varney, 10-3-22).

Inland Rarities

Two male **Common Eiders** photographed in Warren on October 18 by Elaine Faletra headlined the inland rarities of the season. Although this species is common coastally, it is incredibly rare away from the immediate coast. Even as close as Great Bay, the species is quite rare. This was only the fourth record for Grafton County.

Red-throated Loons are common coastal migrants, but rare inland. Most records are in late fall, following rain, and there was a small fallout November 16-18 with five different birds reported in the Connecticut River Valley, including three in Lebanon (Larry Morin, 11-16-22). One reported earlier on October 29 was more unusual in that it was observed migrating south with four Common Loons at the Pack Monadnock Raptor Observatory by Levi Burford and Katrina Fenton.

Glossy Ibis found and photographed by Tom Momeyer, 8-12-22, Surry Mountain Lake, Surry, NH. Juvenile Glossy Ibis can have white on their upper neck, but this bird may also have a touch of leucism given the amount of white feathers on its neck.

Glossy Ibis have been relatively common on the coast in recent years, and one or two seem to wander inland nearly every fall. This year, there was one in Surry on August 12 (Tom Momeyer) and one in Monroe on August 26 (Rebecca Lovejoy, Wayne Scott).

In contrast, **Snowy Egrets** don't seem to wander inland very often, except to Rochester and Exeter where they have appeared with some frequency. This fall, Alan Murray photographed one August 13 at Pickering Ponds, and Bret Hillman saw one August 14 at the Exeter WTP (through the gate since it is now closed to birders).

Like most shorebirds, **Short-billed Dowitchers** occur primarily coastally, and this is especially true in fall, when the species migrates at the driest time of year. This results in a smaller chance of overland migrants being grounded by a strong storm. One found in Surry by Nora Hanke on September 3 certainly didn't follow any significant weather event. In contrast, **White-rumped Sandpipers** are one of the more likely of our uncommon species to occur inland, and this year four were seen, one in Laconia (Rob Woodward) and three in Dublin (Eric Masterson), all on September 5.

Red-necked Phalaropes are almost entirely restricted

to offshore waters, so two seen in Surry on August 23 by Eric Masterson were quite notable. They were found in the mudflats at the north end of Surry Lake that had been created by the ongoing drought. Read about how a Merlin was involved in this sighting in the Field Notes in this issue.

Bank Swallow by Rebecca Suomala, 10-1-22, Exeter, NH.

Unseasonable Species and High Counts

A **Bank Swallow** photographed at the Exeter WTP on October 1 (Rebecca Suomala, Zeke Cornell) was the latest sighting this fall for a species that typically departs by late August. The only other October record for Bank Swallow was 17 years ago on October 16, 2005, at the same location.

Canada Warbler is normally an early migrant, with peak migration occurring the last week of August. One found on November 27 by Steve Mirick at Beckman's Landing in Seabrook was the latest date ever recorded for this species anywhere in New England. The bird lingered into December.

The Pack Monadnock Raptor Observatory discovered a very late sighting of a **Broad-winged Hawk** on November 2. Their eBird report explains:

> *In reviewing documentation photos, a shot of a juvenile Broad-winged Hawk was found time stamped November 2, 2022, at 12:52. Prior to this 2022 season, the latest Broad-winged Hawk that we have observed at Pack Monadnock came on October 25, 2020 (when we had two separate individuals fly by). Pretty cool record! Photo taken by Mark Timmerman. (https://ebird.org/checklist/S121779793)*

Most Broad-winged Hawks depart the state in September with a few lingering into early October. November records are very rare with only two previous ones, the most recent being November 28, 2014.

A **Yellow-bellied Flycatcher** photographed on September 27 in Woodstock by Brett Hillman was quite late for a species that typically migrates much earlier in the season. One that lingered from November 1 until November 9 in Stuart Varney's yard in Portsmouth was therefore exceptional and established a new late date for the species by nearly a month. It was also a great new yard bird for Stuart! Remarkably, despite being the earliest fall migrant *Empidonax* flycatcher in New England, it's one of the species most likely to occur in November regionally, based on records from the other New England states.

Any *Empidonax* flycatcher is rare in late fall (October and November), but **Least Flycatcher** is the most likely in New Hampshire. Nevertheless, one on November 21 in Greenland found by Lori Charron that lingered until November 26 was the latest date recorded for this species as well.

In keeping with the late flycatchers, an **Eastern Wood-Pewee** that Ken Klapper found in his yard in Sandwich on October 25 and 26 was quite late for another species that is usually gone by the beginning of the month.

Chimney Swifts largely disappear at the end of August, but in some years a few hold out through September as did four on September 25 in Hampton (Steve Mirick). One reported from Wolfeboro on October 21 (Glenn Knoblock) was much more notable, but not unprecedented.

Black-legged Kittiwake by Holly Bauer, 8-17-22, Rye Harbor, NH.

A juvenile **Black-legged Kittiwake** found by Holly Bauer and Jean Mullen in Rye Harbor on August 17 was not only notable for being early, but for being seen from shore. This species is most commonly seen offshore in winter.

Two **Swainson's Thrushes** in early November were on the late side for the species. One was photographed in Barnstead on November 2 (Ethan Ring), and the other was found in Concord on November 5 (Andrea Robbins).

As many as 76 **White-rumped Sandpipers**, all juveniles, were observed roosting in Hampton on October 12 (Steve Mirick), the highest count of the species since 2011.

A massive flock of **Green-winged Teal** gathered in Meadow Pond, Hampton in early November. On November

A few of the 76 White-rumped Sandpipers tallied and photographed by Steve Mirick, 10-12-22, Plaice Cove, Hampton, NH.

4, Holly Bauer was able to get an accurate count of 383 because, as she noted in her eBird report, "a Peregrine [Falcon] consolidated the birds into two large groups, making them much easier to count." This is likely the highest count ever for the state.

Other later-than-usual sightings for the season included:

- Louisiana Waterthrush in Wilmot on August 24 (Dylan Jackson)
- Common Nighthawk on September 30 in Rye (Brett Hillman, Katie Towler, Jim Sparrell)
- Chestnut-sided Warbler in Stratham on October 6 (Roger Stephenson)
- Ruby-throated Hummingbird in Hampton on October 6 (Holly Bauer)
- Tennessee Warbler in Hollis on October 16 (Christopher McPherson)
- Rose-breasted Grosbeak in Chatham on October 24 (Bob Crowley)
- Grasshopper Sparrow in Hancock on November 2 (Phil Brown)
- Yellow-billed Cuckoo at Odiorne Point SP on November 4 (Brett Hillman)
- Common Yellowthroat on November 9 in Lyme (Larry Morin)
- Marsh Wren on November 24 in Orford (Anne Cooley, Catherine Holland, Wayne Scott)
- "Western" Palm Warbler in Rye on November 27 (Steve Mirick)
- Blue-headed Vireo in North Hampton on November 22 (Steve Mirick)
- Baltimore Oriole in Concord on November 26 (Rebecca Suomala)

Regional Report, Fall 2022

Regional reports are dependent on the availability of authors and the occurrence of notable sightings. If you are interested in writing a regional summary, please contact the Editor.

Coos County

by Robert A. Quinn

Evening Grosbeaks by Claudette Morneau, 11-9-22, Milan, NH.

Note: The sightings in this report (other than my personal sightings) are from eBird, www.ebrd.org.

Birders might think that Coos County is thoroughly covered by observers during every month. This is true for a few key sites such as Pondicherry National Wildlife Refuge, Berlin, and Errol, thanks to David Govatski, Kathy Dube, Lori and Paul Charron, and Dick Dionne, respectively. eBird submissions indicate that more and more birders are taking to the field in Coos, but the reality is that large areas of this vast county still do not get even adequate coverage, except in June and July. It is truly a world apart from the rest of the state. The weather, terrain, scenic wonders, ecological processes, and populations (low for people and high for birds) are different from the other nine counties. I bird Coos County as often as I can but, since I live in Merrimack County, I do not do it often enough! Recently, I have focused on spring and fall migrations, especially for inland waterbirds.

Fall migration is a more leisurely event than spring, at least to my eyes. August still has many bird families along with an abundance of flowers for the bumblebees, butterflies, and other pollinators, just as the swarms of migrating passerines are gathering. September transitions into gorgeous fall foliage and the peak of migrant diversity (see sightings below). October is a glorious month in the North Country with

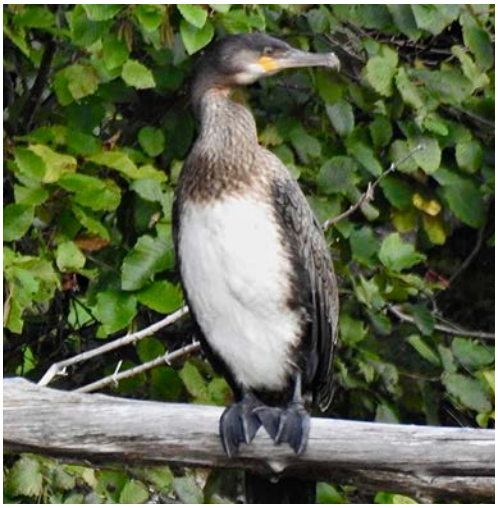
many lingering landbirds and a rush of waterbirds, but with more than a hint of the cold to come. November might start out balmy, but the short days and ice portend the coming winter. Storms and cold snaps interrupt every month, even August, urging birds south. It is these cold fronts and their inclement weather that frequently bring a zest to fall birding in our northernmost county.

August

During the first two weeks of August, I volunteered to help Chris Martin, Katrina Fenton, and Levi Burford monitor Northern Harrier nesting success from Colebrook to Errol. It was great fun and the highest number of Northern Harrier "kids" in years was the result, mostly due to Katrina's and Levi's summer-long efforts to locate nest sites. Bonus sightings included 24 American Kestrels on August 11 (still holding their own in Coos County), Bobolinks in almost every field, several families of Ring-necked Ducks, migrant Least Sandpipers and Greater Yellowlegs, plus the first flocks of migrant warblers. While relaxing at the end of one field day, an early migrant Common Nighthawk was spotted by Chris Martin over the Connecticut River in Colebrook on August 11.

Other August sightings in Coos included:

- ten Chimney Swifts at the Mount Washington Hotel in Bretton Woods (town of Carroll) on August 11 (Sara Griesemer)
- four Bank Swallows along the Wild River Trail in Jackson on August 15 (Ronen Wdowinski)
- one Great Egret photographed at Aker's Pond in Errol on August 21 (Dick Dionne)
- one Marsh Wren at Pontook Reservoir in Dummer on August 25 (Will O'Brien)
- one Semipalmated Sandpiper in Gorham on August 26 (Claudette Morneau)
- a **Common Tern** at Lake Umbagog August 30 (Michelle Holmes)



Great Cormorant by Lori Charron, 9-9-22, 13 Mile Woods, Errol, NH.

September

I did not make it up to Coos in September, but there were plenty of active birders who recorded the following sights:

- Virginia Rail, Sora, and Yellow-bellied Flycatcher at Fort Hill Wildlife Management Area in Stratford on September 2 (Lori Charron, et al.)
- a Lesser Yellowlegs in Whitefield September 5 (Davis Forsyth)
- two Semipalmated Plovers at Pondicherry in Jefferson on September 7 (Daniel Lounsbury)
- a Greater Yellowlegs in Milan also on September 7 (Claudette Morneau)
- a **Black Tern** September 15 at Mile Long Pond in Errol (Claudette Morneau)
- a Great Cormorant also on September 15 in Errol (Lori Charron)
- eight Whip-poor-wills seen (!) during a pre-dawn drive in Success on September 21 (George Robbins)
- an American Golden Plover photographed in Millsfield September 22 (Joanne Dionne)
- two Northern Pintail on Aker's Pond in Errol on September 24 (Dick Dionne, et al.)
- a Black-bellied Plover photographed in Milan on September 26 (Dick Dionne)

October

October was an outstanding month, as it often is, with numerous birders out and reporting to eBird. Noteworthy dates and events included October 8 for the traditional autumn "Big Sit" at Cherry Pond in Jefferson with an apparent spill-over of many people reporting sightings from other parts of Coos County on that date also. A storm on the night of October 17 downed a number of migrating waterbirds, especially on the Connecticut Lakes in Pittsburg. Here follow the details.

October 8, 2022

This was an excellent day in the southern part of the county. The annual "Big Sit" at the Pondicherry National Wildlife Refuge, organized by David Govatski, was well attended by both birders and birds. Highlights in the Pondicherry area included Gadwall, Black Scoter, Horned Grebe, Northern Harrier (Charlie Nims), four White-winged Scoters, one Surf Scoter, Pied-billed Grebe, Bonaparte's Gulls (Nancy Mitiguy plus three others), a female Black-throated Blue Warbler (Ashley Norton), and three Field Sparrows (Erich Waible). Also, an Ovenbird, Palm Warbler, and Pine Warbler (latish for Coos County) were reported in the area the same day (E. Waible).

Elsewhere on October 8, a Northern Saw-whet Owl was in Shelburne (Lynn Graham), and an American Bittern was in Gorham (Ginny Umiker). Finally on that day, Aubrie

Lapland Longspur by Claudette Morneau, 11-3-22, Dummer, NH.

Giroux in Colebrook noted three Eastern Bluebirds, one Hermit Thrush, and a vanguard of the southbound White-crowned Sparrows (six).

October 18, 2022

I was at the right place at the right time to witness a fallout of scoters and even Common Eiders on First Connecticut Lake in Pittsburg. I was there with several groups on "Familiarization" tours. After heavy rain during the night of October 17, hundreds of scoters and a few Common Eider were brought down to the lake. The birds were distant and milling around making counting a challenge, but conservatively we saw:

- White-winged Scoter – 80+
- Surf Scoter – 60+ later in the afternoon
- Black Scoter – 30+ plus 50 *scoter species* (presumed to be mostly Black Scoters) on Second Connecticut Lake later in the day.
- Common Eider – three or four males on First Lake that morning. In 50 years of birding New Hampshire, I had never seen this species away from the coast before!
- Bonaparte's Gull – one late in the day on First Connecticut Lake found by Tom and Carol Gumbart.

The fallout itself was not a surprise and probably happens almost every autumn on these big lakes, but the number of Surf and White-winged Scoters was a surprise because Black Scoter is typically the most numerous inland scoter in the fall. There were no other records in eBird of this event anywhere else in Coos County; however, Ann Griffin photographed 30 Black Scoters on Martin Meadow Pond in Lancaster on November 9. Typical for the date, they were almost all female-type individuals.

Other October Highlights

- a "Blue" morph Snow Goose, first seen in Milan by Levi Burford on October 14 and presumably the same bird was in Berlin, October 20.
- a Pectoral Sandpiper in Groveton October 22 (Pam Hunt)

A late lingering Killdeer by Claudette Morneau, 11-4-22, Milan, NH.

- an American Wigeon at Pondicherry also on October 22 (Logan Anderson, et al.)
- one Horned Grebe in Dummer on October 24 (Claudette Morneau)
- two Red-necked Grebes on Lake Umbagog October 26 (Levi Burford)
- a Surf Scoter near Lake Umbagog on October 27 (Lori Charron)

November

The month of November 2022 received modest coverage with these highlights:

- a Wilson's Snipe was in Whitefield November 1 (Anne Griffin)
- three Long-tailed Ducks on Aker's Pond in Errol November 2 (Dick Dionne, et al.)
- a Lapland Longspur photographed in Dummer on November 3 (Claudette Morneau)
- a late Double-crested Cormorant at Pondicherry in Jefferson on November 17 (David Govatski)
- a Pied-billed Grebe in Whitefield November 17 (Anne Griffin)
- five Buffleheads at Lake Umbagog November 19 (Lori Charron)
- a male Barrow's Goldeneye that arrived in Errol on November 30 (R.A. Quinn, et al.)

Lingerers

These species were on the late side of normal departure dates for Coos County: Philadelphia Vireo September 27; House Wren October 3; Black-billed Cuckoo October 6; Swainson's Thrush October 12; Black-throated Green Warbler October 18; Eastern Phoebe October 21; Palm Warbler October 25; Wilson's Snipe November 1; Yellow-rumped Warbler November 9; and an Eastern Towhee that was found in Errol on November 20 and might have lingered into early December.

Rarities

A Redhead was seen in Errol (Greg Dionne, et al.) and a Red-headed Woodpecker came to a feeder on Day Road in Pittsburg (Janice Libby).

This is just a snapshot of some of the fun birding moments experienced in Coos County this autumn. Where did you bird and what did you learn? What new sites will you go to this month/season? As I write this, the winter season is ending and I am already plotting new efforts for spring migration which will be full of birds and weather events. You too can make the effort, have fun birding, discover new sites, and share it all with *New Hampshire Bird Records*. I hope to see you in the field!

We are grateful to Jan Landry for permission to use her mother, Claudette Morneau's photos in this article. New Hampshire lost an avid North Country birder when Claudette passed in March of 2023. Jan said this about her mother:

> *I think the best way to describe my mom was kind, compassionate, humble and having a great appreciation for the natural world. Birding had become her passion over the last few years, and I am so grateful she passed that passion on to me. We were able to share so many birding adventures together. I especially miss her right now [May]….she would have been visiting her favorite birding spots within a few miles of her home on a daily basis, making sure she didn't miss any new bird that arrived. She'd share her finds with Lori Charron as well as Kathy Dube to be sure they didn't miss any new birds either.*

Claudette will be missed. – Editor

Claudette Morneau who never went anywhere without her binoculars. Photo courtesy of Jan Landry.

Tropical Kingbird in Greenland

by Stephen Mirick

Tropical Kingbird by Steve Mirick, 11-17-22, Greenland, NH.

Flycatchers are normally one of the earliest southbound migrants in the fall so seeing any in New Hampshire in October or beyond is unusual. The flip side of this is that rare western and southern vagrant flycatchers show a pattern of vagrancy at this time of year. Rare species such as Fork-tailed and Scissor-tailed Flycatchers and Say's Phoebe have shown up in New Hampshire and other New England states have reported a wide variety of other rare flycatchers. The most likely western stray in the late fall is the Western Kingbird which is rare, but seems to occur every couple of years. Last fall a bizarre flycatcher was seen and photographed by many and has been identified as a probable hybrid between a Scissor-tailed Flycatcher and either a Tropical or Couch's Kingbird!

So, as Jane and I patrolled the back roads of Great Bay and the Portsmouth International Tradeport at Pease late in the day on November 13, we were on the lookout for flycatcher-like birds perched on wires and we found one! Jane spotted it first (after I drove by it!) and we turned around in time to see a bright yellow kingbird perched on the wires near the Great Bay Farm in Greenland. It quickly flew off after I snapped a couple of photos. It was molting some inner tail feathers which imparted a deep fork-tailed appearance which had me wondering briefly if it was last fall's oddity returning! After some turmoil in relocating it in the fading light and in poor weather, we finally found it again and got better photos. I came to the conclusion that this was a pure Tropical Kingbird after it was heard by a few birders.

True to their name, Tropical Kingbirds are a bird of the south and are commonly encountered in much of Mexico and throughout Central and South America. Their breeding range barely reaches the United States in portions of southeastern Arizona and southern Texas along the Rio Grande River, but the species has shown a pattern of late fall vagrancy with wandering individuals documented as far north as Quebec and Alaska!

The true status of Tropical Kingbird in the northeastern United States is clouded by their similarity in plumage to that of the Couch's Kingbird. The Tropical Kingbird and Couch's Kingbird were formerly considered conspecific (the same species), but research in the late 1970s resulted in the two forms being split into two species based on subtle differences in plumage as well as not so subtle differences in vocalization, selective breeding, and habitat preferences. According to two of the most popular bird field guides, however, the plumage differences between Tropical Kingbird and Couch's Kingbird are described as "virtually identical" (*The Sibley Guide to Birds*) and "almost identical" (*National Geographic Field Guide to the Birds of North America, 7th edition*)! The most reliable method for identification is to hear the distinct call notes which are diagnostic for the two species.

There are 11 total records for Tropical Kingbird in eBird from New England. Seven of these records are from Massachusetts, one is from Connecticut, two are from Maine, and now one from New Hampshire. All of these birds (except for a specimen from Maine) were heard vocalizing. There is one record for all of New England for Couch's Kingbird and this came from a vocalizing bird on Plum Island in Massachusetts in 2001. So, it appears that the majority of stray kingbirds within this species pair in New England are likely Tropical Kingbirds; however, there is a possibility of the Couch's Kingbird.

In New Hampshire, the following records for this species pair are as follows:

1. November 2, 2003, Claremont. A Tropical or Couch's Kingbird was present and seen by several birders over the course of the afternoon until it was eaten by a Sharp-shinned Hawk (read the story by Will McCumber in the *New Hampshire Bird Records* archives, Fall 2003, Vol. 22, #3). The bird didn't vocalize and thus the identification was reported and accepted by the NH Rare Birds Committee as a Tropical/Couch's Kingbird.
2. June 2, 2022, Rye. Holly Bauer was in the right place at the right time as a Tropical or Couch's Kingbird landed in a nearby shrub along Rt. 1A and she snapped a few photos before it disappeared. It didn't vocalize and she submitted the record to eBird as a Tropical/Couch's Kingbird. There were some very subtle field marks that suggest this may have been a Tropical Kingbird; however, it may never be known for sure.
3. November 13-28, 2022, Greenland. This fall's Tropical Kingbird was first discovered on 11-13 and was last reported on 11-28 and was seen by dozens of birders. It was heard vocalizing several times and at least one recording was made and submitted. These calls were consistent with Tropical Kingbird and quite different from a Couch's Kingbird. During its stay, it was seen feeding on fruit, generally kept to the edge of the open fields, and was often seen low in shrubs or perched on wires.

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November County Challenge 2022

compiled by Rebecca Suomala

For the third year, Pam Hunt led the November County Challenge in which the ten counties of New Hampshire compete for the greatest number of species during the month, with adjustments to create a fair scoring system (otherwise Rockingham County with its southeastern location and coastline would win every year). Pam adjusts the numbers so that counties actually compete for the highest proportional number of species they tally in relation to the maximum ever recorded for the county in November in eBird.

Here's Pam's explanation from a post to NHBirds (10-27-23):

> *Historically the "par" for this game has been the number of species historically reported for each county in November in eBird, by which the month's tally is divided to determine county ranks. It turns*

out that this system gives huge advantages to those counties with smaller lists, leading to Sullivan having won handily in 2020 and 2021.

Despite attempting several alternative scoring systems, she has not been able to find one that's better than this. So, the 2022 Challenge began. Pam provided regular updates on the NHBirds email list, encouraging everyone to get out there and bird. On December 3, it looked like Belknap was the winner and there was much celebration, but a last minute addition to Carroll County (a Cackling Goose that was still under review was finally accepted) gave them the victory in a photo finish.

Here are a few highlights from posts to the NHBirds email list 12-3-22.

The Results, from Pam Hunt

It was a close contest for much of the month with Hillsborough making an early surge into second place that it held until the final week, but in the end, the excitement was most definitely in the Lakes Region between Belknap and Carroll. I announced Belknap as the winner with a caveat. If a Cackling Goose in Cheshire was ultimately verified it would mean the positions of Belknap and Carroll would flip – and that's exactly what happened, giving Carroll the win in the end. In the middle of the pack, Grafton made a stunning move mid-month to pull ahead of Rockingham for the third leg, but the coast simply had more birds in reserve to end decisively in fourth (Hillsborough held on to third). A similar north-south battle ended up playing out between Coos and Cheshire. Cheshire led initially but slowly lost steam throughout the month and ended up missing sixth place by only 0.001%. A similar dynamic played out between Sullivan and Merrimack, but despite a nice surge over the final weekend, Sullivan squeaked ahead into eighth place at the end. Poor Strafford seems never to have had much of a chance. Despite the Ross's Goose that showed up on the very last day of the month it was still in last place.

Ross's Goose by Jim Sparrell, 11-30-22, Rochester WTP, NH

Standings aside, some good birds were found all over the state, from the returning Barrow's Goldeneye in Errol to the Tropical Kingbird in Greenland. Other notable rarities (most unfortunately seen by one or a few birders) included Mountain Bluebird in Carroll, Townsend's Solitaire in Grafton, and Cave Swallow in Hillsborough. Rockingham of course had multiple species besides the kingbird, including Eurasian Wigeon, Rufous Hummingbird, Cattle Egret, Least Flycatcher, LeConte's Sparrow, and Canada Warbler.

November can be marked by the extremes of both fall and winter, with the latter producing the beginnings of the winter finch flight, a couple of late-migrating Rough-legged Hawks, and the season's first Snowy Owl. At the other end, lingerers included 14 species of warblers, a couple of Baltimore Orioles and Barn Swallows, and the usual smattering of shorebirds and sparrows.

From Belknap's Corner, by Rob Woodward

(after the initial declaration that Belknap had won, but before the photo finish gave Carroll the victory)

Little Belknap County rises from ninth two years ago to third last year to the top of the heap this year! Our winning system was a play straight out of pro wrestling. I will confess here that, back in high school, I was a big fan. My nerd neighbor's father took my neighbor, me and my brother to the Shriner's Auditorium in downtown Los Angeles to see the great Freddie Blassie. To win the county challenge, Iain and I emulated the great one with a classic tag team method. I went in on the opening bell, rounded up a good list, got us to second place, then sagged a little at mid-month. Too many body slams! Then, Iain made the tag and jumped in the ring and continued to add more when there was nothing left, finding a saw-whet owl an hour before the clock struck twelve on November 30. Others found Swainson's Thrush, Greater Yellowlegs, and shrike. I am glad we made Jeremy Belknap proud, and Freddie Blassie too.

Carroll County with the Win, by Ken Klapper

(after the Cackling Goose scoring review)

I was getting very worried in the final stretch of this contest as Iain, recently returned from New Mexico, made steady additions to Belknap's list while most of my forays into the field yielded no new species for Carroll (I think I managed only one new species for the Challenge after November 10, a Rough-legged Hawk). His (and Rob's) excellent string of finds was truly impressive and I had a difficult time comprehending or accepting that our early lead was steadily eroding. Yet in the end, after much review by the refs, Carroll prevailed. I suspect that the 2022 November County Challenge will be remembered as one of those

Least Flycatcher by Steve Mirick, 11-22-22, Great Bay WMA, Greenland, NH.

classic buzzer-beaters, akin to Duke vs. Kentucky in the 1992 NCAA men's basketball semi-final. For me, it's been an emotional roller coaster ride... especially the last few days!

A Quick Analysis, from Steve Mirick

As for the State overall, my quick analysis shows that we tied 2018 with a total of 207 species, more than likely a record high:

2022 – 207 species (with jaeger sp.)
2021 – 195 species
2020 – 200 species
2019 – 179 species
2018 – 207 species
2017 – 182 species
2016 – 173 species
2015 – 174 species

Assuming the following records are accepted by the NH Rare Bird Committee, there were an ***amazing*** nine First All-Time New Hampshire November Records!

Ross's Goose (T. Graham)
LeConte's Sparrow (J. Nealon)
Least Flycatcher (L. Charron)
Yellow-bellied Flycatcher (S. Varney)
Tropical Kingbird (S. & J. Mirick)
Canada Warbler (S. & J. Mirick)
Mountain Bluebird (K. Klapper)
Solitary Sandpiper (C. Liazos)
Northern Waterthrush (V. Rosalia)

With these new additions, a total of 302 species have been reported in New Hampshire in November! With Canada Warbler and Northern Waterthrush, the State now has recorded a total of 26 species of warblers in November!!! Also, we added three new species of flycatchers to bring the State total to nine species of flycatchers in November!

Thank you Pam for organizing this fun event.

Fall 2022 New Hampshire Raptor Migration Report

by Iain MacLeod

Northern Goshawk by Katrina Fenton, 11-18-22, Pack Monadnock, NH.

Every fall, thousands of migrating raptors pass through New Hampshire on southbound journeys to their winter territories. Many dedicated hawkwatchers scour the skies and enter daily observations into the Hawk Migration Association of North America's HawkCount database, allowing real-time analysis of trends. In 2022, four counts were conducted in New Hampshire logging over 690 hours of observations and tallying 13,763 migrant raptors (see Table 1).

Pack Monadnock Raptor Migration Observatory

Fall 2022 marked the 18th consecutive fall season of daily coordinated counts conducted at the Pack Monadnock Raptor Observatory (Pack) at Miller State Park in Peterborough, NH. The count was conducted this year under the leadership of the Harris Center for Conservation Education in a formal agreement with the NH Division of Natural and Cultural Resources. The Seasonal Counter/ Raptor Biologist for 2022 was Levi Burford once again. Julie Brown, Phil Brown, Tom Delaney, Glen Chretien, Mark Timmerman, Will Stollsteimer, Katrina Fenton, and I served as official counters on days when Levi wasn't there. Phil Brown served as the Raptor Observatory Coordinator and a wonderful group of dedicated volunteers rounded out the coverage and helped scan the skies.

Daily coverage officially started on September 1 but counts were conducted on three days in August (13, 27

Table 1. Total Raptors Counted in 2022 at all New Hampshire watch sites. Source: HMANA's HawkCount.org Database.

	Obs. Hrs.	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT	RL	GE	AK	ML	PG	UR	TOTAL
Pack Monadnock	553.42	1	493	137	210	84	886	149	22	301	9369	300	0	11	175	130	44	58	**12370**
Alton Bay	101	2	71	4	25	5	149	5	0	3	375	39	0	0	19	12	3	14	**726**
Concord School	23.75	0	21	2	2	0	1	0	0	0	252	10	0	0	3	2	0	40	**333**
Interlakes School	12	0	18	2	10	1	33	3	0	0	256	1	0	0	8	2	0	1	**335**
	690.17	**3**	**603**	**145**	**247**	**90**	**1069**	**157**	**22**	**304**	**10252**	**350**	**0**	**11**	**205**	**146**	**47**	**113**	**13764**

and 29) and ran to November 24. In that time, 553.42 observation hours were logged (12.75 hours in August, 223.58 in September, 201.25 in October, and 115.83 in November). The total observation hours were a little above the previous 10-year average.

A total of 12,370 individual migratory raptors were recorded (Table 3). That equals 22.35 raptors per hour. The prior 10-year average is 12,302 raptors (10-year averages in this report refer to data from just the prior 10 years, 2012-2021). The 10-year average for raptors per hour is 23.5.

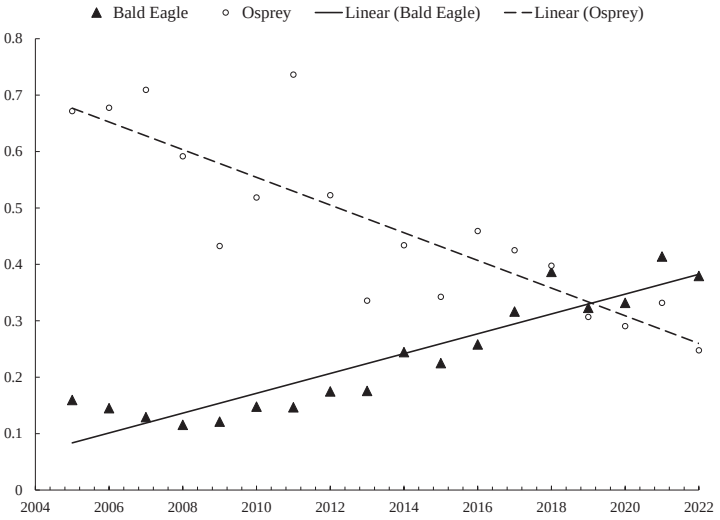
Data were plotted for all species using "total birds per hours of effort" for all years. Six species (Turkey Vulture, Bald Eagle, Red-shouldered Hawk, Golden Eagle, Merlin, and Peregrine Falcon) show positive 18-year linear trend lines and eight species (Osprey, Northern Harrier, Sharp-shinned Hawk, Cooper's Hawk, Northern Goshawk, Broad-winged Hawk, Red-tailed Hawk, and American Kestrel) show negative trends. The 18-year trend line for all raptors combined is slightly negative. For some species, I took a look at trend lines for just the last 10 years to see if those trends are changing over time. For three species, their 10-year trend was the opposite of their 18-year trend! Cooper's Hawk have an overall negative 18-year trend, but they have a positive trend if we look at just the last ten years. The same is true for American Kestrel – overall their numbers are lower, but they have turned a corner and numbers are going up again. The opposite is true for Peregrine Falcon. Their 18-year trend is positive but over the last ten years our counts show a slight negative trend.

A single **Black Vulture** was seen on September 3. Will this now become an annual occurrence? Two seen in 2021 were the first counted here since our official count started in 2005.

Our first migrating **Turkey Vultures** were noted on September 16. We had another high-count year (493), but not quite at the record level we saw last year (641). The prior 10-year average is 237. The biggest single day count was 123 on October 3. The trend for the 18 years of counting is very solidly up and the 10-year trend shows a more rapid increase.

The **Osprey** count at Pack hit another all-time low (137, Figure 1). The 18-year trend is solidly down. In fact, we are now seeing less than half the number of Ospreys that we would have expected to see 10 years ago. The prior 10-year average is 217. As discussed in past reports, the increase in breeding Bald Eagles is almost certainly the major factor in the Osprey decline. The peak day was September 17 when 20 were counted.

Figure 1. Osprey and Bald Eagle total birds per hours of effort with trendlines, 2005-2022 at Pack Monadnock Raptor Migration Observatory, NH.



The **Bald Eagle** total (210, Figure 1) eclipsed the 200 mark for the second year in a row, but was just shy of last year's record high of 227. Two were counted in August, 122 in September with 66 in October and 20 in November. The peak one-day count was 20 on September 9.

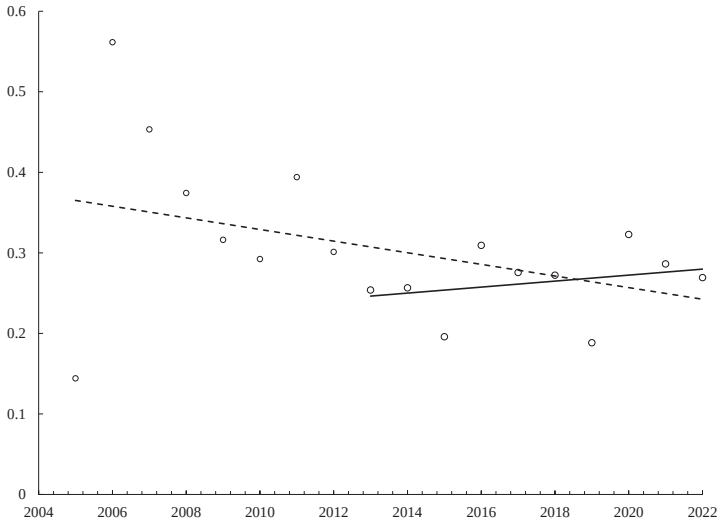
Our count of 84 **Northern Harriers** was almost identical to last year, but slightly below the 10-year average. There were 36 counted in September, 36 in October and 12 in November. The peak flight day was October 30 when 10 were counted, all juveniles.

The **Sharp-shinned Hawk** count (886) was our third lowest ever. The 10-year average is 1,180. The bulk were seen in September (618) and the peak day was September 12 when 71 were counted.

The count of 149 **Cooper's Hawks** was just slightly ahead of the 10-year average (144). Overall, their 18-year trend line is down (Figure 2), but just looking at the last 10 years of Cooper's/hour shows a slight positive trend.

Our count of 22 **Northern Goshawks** shows an uptick after five years with less than twenty/year. It was still below the 10-year average of 27. Half of them were counted in October with the majority of those in the last days of the month. I always associated goshawks with cold, brisk days on Pack.

Figure 2. Cooper's Hawk total birds per hours of effort with 2005-21 trendline (dashed) and 2013-22 trendline (solid) at Pack Monadnock Raptor Migration Observatory, NH.



The **Broad-winged Hawk** count of 9,369 was our highest count since 2016 but just slightly higher than the 10-year average. September 17 brought a spectacular flight of 4,987 which is the second highest one-day count in our 18-year history (Figure 2). September 21 added another 1,701 to the tally. As you can see from Table 2, the bulk of Broad-winged migration is concentrated in a few days in mid-September. Only 37 were seen in October and all on or before October 3. One very late Broad-wing was seen and photographed on November 2, which is the latest Broad-winged ever counted at this site.

The **Red-shouldered Hawk** count of 301 smashed the record highs set in 2021 and 2020 and was well above the 10-year average (164). The 84 seen on October 29 raised the bar for the highest daily total at this site. The 18-year trend (Figure 3) is strongly positive indicating that this lovely hawk is doing very well right now.

The **Red-tailed Hawk** tally of 300 was a little less than last year and below the 10-year average of 352. Although we see "resident" Red-taileds almost daily in the early part of the season, the migration switch really doesn't turn on until October for this buteo. This year, only 15 migrants were tallied in September, 80 were tallied in October, and 205 in November. The peak flight day was November 7 when 56 were counted streaming south. Overall the 18-year trend is down, although there is a lot of fluctuation. We were in a pattern that saw a "peak" every three years (which I thought was linked to Red-backed Vole population cycles in the north woods), but since 2015, the

Red-shouldered Hawk by Steve Mirick.

Table 2. Broad-winged Hawk fall migration totals and peak counts at Pack Monadnock, NH, 2005-2022. Source: HMANA's HawkCount.org Database.

Year	Total	Highest one-day count	Date
2005	3,978	1,687	18-Sep
2006	7,595	3,044	11-Sep
2007	7,776	2,676	16-Sep
2008	6,835	2,424	18-Sep
2009	4,322	2,042	16-Sep
2010	7,557	3,328	18-Sep
2011	11,831	5,208	18-Sep
2012	8,848	2,556	17-Sep
2013	8,221	2,759	17-Sep
2014	11,043	4,101	15-Sep
2015	16,693	3,959	17-Sep
2016	10,530	3,245	15-Sep
2017	8,744	1,836	21-Sep
2018	6,756	2,239	24-Sep
2019	7,840	2,436	18-Sep
2020	8,815	2,886	18-Sep
2021	6,055	1,636	14-Sep
2022	9,369	4,987	17-Sep

Figure 3. Red-shouldered Hawk total birds per hours of effort with trendlines, 2005-2022 at Pack Monadnock Raptor Migration Observatory, NH.

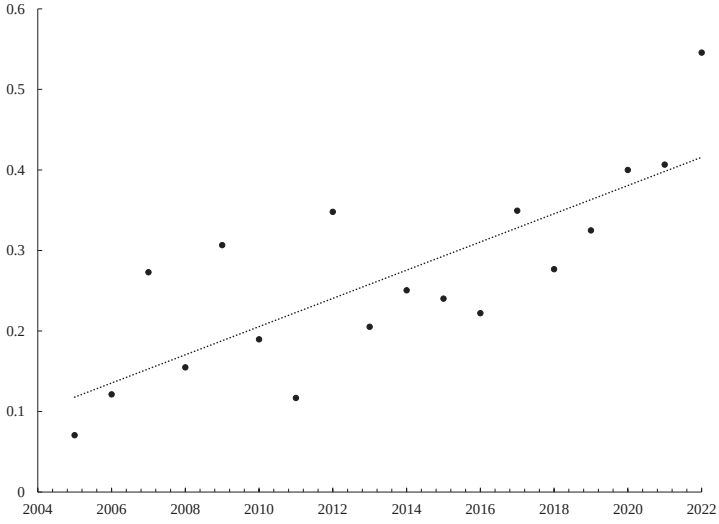


Table 3. Total Raptors Counted for all years (2005-2022) at Pack Monadnock, NH. The Average is for the previous ten years (2012-2021). Source: HMANA's HawkCount.org Database.

	Obs. Hrs.	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	SW	RT	RL	GE	AK	ML	PG	UR	SE	TOTAL
2005	330.25	0	29	219	52	24	520	47	11	23	3978	0	122	0	5	78	40	11	62	0	**5221**
2006	408.25	0	99	257	55	77	1253	213	68	46	7595	0	407	0	11	201	48	29	76	0	**10435**
2007	430	0	121	291	53	121	1288	186	49	112	7776	0	263	0	5	143	90	44	82	0	**10624**
2008	435.75	0	47	256	50	87	1189	162	28	67	6835	0	254	0	3	183	59	17	37	0	**9274**
2009	420.75	0	80	182	51	88	1196	133	25	129	4322	0	421	0	6	135	56	30	109	0	**6963**
2010	627.75	0	145	298	85	115	1248	168	66	109	7606	0	410	0	10	221	147	53	105	0	**10786**
2011	368	0	127	271	54	58	1124	145	21	43	11831	0	202	0	9	170	68	40	93	0	**14256**
2012	600.75	0	164	314	105	91	1388	181	63	209	8848	1	522	1	7	194	108	54	74	0	**12324**
2013	575	0	142	193	101	100	1254	146	25	118	8221	0	378	1	11	166	89	48	36	1	**11030**
2014	497	0	99	213	120	85	1094	126	22	123	11043	0	348	1	7	112	80	39	53	0	**13565**
2015	586.92	0	137	201	132	125	1443	115	48	141	16593	1	546	1	13	118	120	54	57	0	**19845**
2016	527	0	322	242	136	92	1126	163	48	117	10530	0	294	1	5	167	96	49	78	0	**13466**
2017	515.25	0	324	219	163	82	1179	142	16	181	8744	0	341	2	7	166	106	64	68	0	**11804**
2018	463.25	0	98	189	176	64	668	124	11	126	6756	0	246	2	22	172	58	31	108	0	**8851**
2019	557.17	0	268	171	180	54	1027	105	9	181	7840	0	223	0	4	185	64	64	128	0	**10503**
2020	557.67	0	172	162	185	108	1325	180	12	223	8815	0	293	0	5	257	143	30	122	0	**12032**
2021	548.42	2	641	182	227	85	1291	157	13	223	6055	0	329	1	11	165	100	57	66	0	**9605**
2022	**553.42**	**1**	**493**	**137**	**210**	**84**	**886**	**149**	**22**	**301**	**9369**	**0**	**300**	**0**	**11**	**175**	**130**	**44**	**58**	**0**	**12370**
Average*	523	0	237	208	153	89	1180	144	27	164	9345	0	352	1	9	170	96	49	79	0	**12302**

peaks have been weak and less distinct. It seems fewer birds are moving south past Pack and are staying farther north in our milder winters.

No **Rough-legged Hawks** were seen this season. Eleven **Golden Eagles** were tallied which is the same total as last year. The 10-year average is nine. All but two were counted in November. Overall the Golden Eagle trend is slightly up.

The **American Kestrel** count (175) was slightly up from last year (165). The 10-year average is 170. After several years of declines, the species bottomed out in 2014 and is now seeing a slight increase. The 18-year trend is still slightly negative, but the last ten years show a positive trend.

Merlin had a good showing with 130 counted this year. The 10-year average is 96. Two were counted in August, 71 in September, and 57 in October. None were seen in November. In fact, no falcons were tallied in November.

The **Peregrine Falcon** count was below average this year. Only 44 were tallied (10-year average is 49). The 18-year trend is positive but the trend for just the last ten years is slightly down.

Alton Bay Hawk Watch

Fall 2022 is the third year that Rob Woodward has conducted a count on Pine Mountain in the Morse Preserve in Alton. He counted for 101 hours this year and tallied a total of 726 migrating raptors between September 10 and November 2. In 2021, Rob counted for 61 hours and tallied 3,410 raptors and in 2020 he counted for 23.25 hours and tallied 1,472. See Rob's article in this issue.

Two **Black Vultures** were seen on September 28 (a first for this site) and 71 migrating **Turkey Vultures** were counted (32 were counted in 2021 and none in 2020).

Only four **Ospreys** were tallied this year (11 were counted in each of the previous years) and 25 **Bald Eagles** were counted (22 were tallied in 2021 and 2 in 2020). Five **Northern Harriers** passed the mountain in 2022 (one was seen in both 2021 and 2020).

Rob had 149 **Sharp-shinned Hawks** in 2022 (with 50 seen in 2021 and 14 in 2020) and five **Cooper's Hawks** (9 in 2021 and 10 in 2020). No **Northern Goshawks** have been tallied at this count yet.

Three **Red-shouldered Hawks** were tallied in 2022 – a result of Rob's later-season counts, while none were seen in previous years. Only 375 **Broad-winged Hawks** were counted this year (3,245 were tallied in 2021 and 1,408 in 2020). Again, Rob's later-season counts allowed him to record 39 migrant **Red-tailed Hawks** (19 were counted in 2021 and three in 2020).

Nineteen **American Kestrels** were tallied this year (11 were counted in each of the previous years). The count of 12 **Merlins** was a nice jump over last year's four (10 were

counted in 2020). Three **Peregrines** were a first for this site.

Interlakes Elementary School

Fall 2022 marked the 42nd year that staff from the Squam Lakes Natural Science Center have conducted a hawkwatching program with all fourth-grade students at Interlakes School in Meredith. As part of the class, the students participate in hawkwatches from the grounds of the school. This year, the two count dates chosen were September 14 and 15. After last year's incredible count (over 7,000 hawks counted over the two days), this year was back to a more normal (for this site) number. A total of 335 raptors were counted over the two days: 18 **Turkey Vultures**, 2 **Ospreys**, 10 **Bald Eagles**, 1 **Northern Harrier**, 33 **Sharp-shinned hawks**, 3 **Cooper's Hawks**, 256 **Broad-winged Hawks**, 1 **Red-tailed Hawk**, 8 **American Kestrels**, 2 **Merlins** and 1 unidentified hawk.

Concord School District

Fall 2022 marked the 12th year of data in HawkCount from this site (which I have inadvertently overlooked in my past reports). This year they counted on five days in September (12, 16, 21, 23 and 27). They tallied 333 migrating raptors over the five days (which is a record high for this site): 21 **Turkey Vultures**, 2 **Ospreys**, 2 **Bald Eagles**, 1 **Sharp-shinned Hawk**, 252 **Broad-winged Hawks**, 10 **Red-tailed Hawks**, 3 **American Kestrels**, 2 **Merlins** and 40 unidentified hawks.

Carter Hill Raptor Migration Observatory

No counts were tallied (in HawkCount) in 2022

Little Round Top

No counts were tallied (in HawkCount) in 2022

Data Sources

HawkCount.org. Online raptor migration database of the Hawk Migration Association of North America.

CBC Data are provided by National Audubon Society and through the generous efforts of Bird Studies Canada and countless volunteers across the Western Hemisphere.

Iain MacLeod is Executive Director of the Squam Lakes Natural Science Center in Holderness, NH and is President of the Board of NorthEast Hawk Watch and former board chair of the Hawk Migration Association of North America (HMANA). Iain founded the Pack Monadnock Raptor Migration Observatory in 2004 and has studied raptors (particularly Ospreys) for 40+ years. Iain is a member of the New Hampshire Bird Records *Editorial Team and a former member of the New Hampshire Rare Birds Committee. In 2019, he was the very proud recipient of NH Audubon's Goodhue-Elkins Award.*

New Hampshire's Newest Hawkwatch at Alton Bay

by Rob Woodward

The view from the Alton Bay Hawk Watch by Rob Woodward.

Observing the spectacle of fall hawk migration is one of the most popular activities in a birder's year. But where to go? Prior to 2021, New Hampshire was down to one active hawkwatch site on Pack Monadnock at Miller State Park in Peterborough. For those of us on the other side of the state, that is a long way to go, especially when multiple trips are needed to assure being there when a big flight passes. What if I set up my own site here in the Lakes Region? But where?

On June 27, 2018, I made my first visit to the Morse Preserve in Alton. The Society for the Protection of New Hampshire Forests took ownership of this 431 acre property in 2008, part of what was once a farm, including a commercial blueberry operation at the summit of Pine Mountain. This hilltop remains "bald," offering wide views of Alton Bay, more of Lake Winnipesaukee, and the Ossipee Mountains. As the notes to my eBird posting for that day attest: "A good location for … lake/mountain views." Maybe, I thought, this would make a good place for hawkwatching. In setting up a new hawkwatch site, my goal was primarily to observe the spectacle of Broad-winged Hawk migration and also to keep sharp with raptor identification.

Not until two years later, on September 11, 2020, did I finally get around to running my first scouting trip to test this site's suitability as a hawkwatch. In 4.5 hours, I found eight species of raptors and 68 Broad-winged Hawks. Not bad! On September 14, I counted 115 Broad-winged Hawks, 445 more the next day, and 719 on September 18. I was now convinced this site had good potential for hawkwatching.

Before beginning the 2021 season, I wanted to make this hawkwatch site "official" by registering it with the Hawk Migration Association of North America, who maintain

a data base of hawkwatch sites that span the Americas from Alaska to Venezuela. Thanks to assistance from Iain MacLeod, founder of the Pack Monadnock Raptor Observatory, I registered my site and was ready to enter my data and become a part of a vast raptor research network. If you go to hawkcount.org, you can look up all the data I have entered from the Alton Bay Hawk Watch.

I began the 2021 hawkwatching season on September 10. Through September 13, I counted 255 raptors, including 248 Broad-winged Hawks. On September 14, the skies opened. With clear skies and favorable light northwest winds, I counted 2,103 Broad-wingeds. Now I knew for sure this would make a good hawkwatch site. I continued to watch through September 18. In October, I added three more days and in November, two more. I ended the season with 3,410 raptors and 61 hours of observation.

I added a spring component in 2022, with watches on four days between April 24 and May 2. The goal was to try to catch the spring Broad-winged Hawk migration, a flight that seems to me to be inexplicably scant compared to the fall migration. In 21 hours, I counted 285 raptors, including 169 Broad-wingeds. On May 1, I was pleased to add two Black Vultures to the list.

The fall 2022 season did not go nearly as well as previous years. Somehow, I missed the Broad-winged Hawk flight, ending September with only 375 Broad-wingeds. The big flight day at Pack Monadnock was September 17 when they counted over 5,000 Broad-wingeds. I was unable to watch that day so that may account for some of, but not all, the reason for my low total for the season, but the project was growing as I put in 50 hours compared to 40 in September of 2021 and ended the season with over one hundred hours. Maybe the most important improvement to the project was connecting with the NH Birds email list to post my daily reports so birders across the state could see my results in the same format that they saw from Pack Monadnock, showing a summary grid for the day, month, and year-to-date totals.

Nonetheless, there were a few highlights to the 2022 season. Two overdue first records for the site were Peregrine Falcon on September 16 and Red-shouldered Hawk on September 28. I counted 33 Sharp-shinned Hawks on September 29, a new single-day high count and, on September 28, I counted two more Black Vultures. During the months of October and November, I tried to add what are the last two expected raptors for this site, namely, Northern Goshawk and Golden Eagle, but I will have to try again next year for these two rarities.

As time goes on, I expect other birders in the Lakes Region and beyond, who wish to participate in raptor migration studies and are unwilling to travel to Peterborough, will take an interest in this site and provide extra sets of eyes to count more hawks. Even one additional observer would make a big difference.

The Alton Bay Hawk Watch is conducted from the top of Pine Mountain in the Forest Society's Morse Preserve. From Alton Bay, drive up Alton Mountain Road about two miles and turn left on Avery Hill Road. A half mile up the road on the right is the Town of Alton's Mike Burke Preserve parking lot. Entrance to the preserve is across the street 200 feet up the road. An easy 25 minute hike brings you to the top of Pine Mountain.

Fall 2022 Nighthawk Migration

Common Nighthawks are endangered in New Hampshire, but there are still numbers breeding in Canada and their fall migration can create dramatic flights of hundreds of birds in late August.

Nighthawk Migration Musings

by Rob Woodward

Rob Woodward (left) makes a visit to the Concord Nighthawk Migration Watch which he founded and is currently run by Zeke Cornell (right). Photo by Rebecca Suomala, 8-27-22.

Mystery and mystique surrounds the Common Nighthawk's migration behavior. Although I have spent many hours studying its migration, I remain baffled by much of what we see from viewing sites. Where are they coming from? Where are they going? What route do they travel? Why do they fly north sometimes? Some of these questions can only be answered by tagging birds and following them electronically. Other answers can be derived from facts, educated guesses, and pure speculation.

In 2021, I established a nighthawk migration study site on the parking garage in downtown Laconia, modeled after the successful study site in Concord. Over the course of eight days between August 17 and August 31, I counted 738 nighthawks in 12.5 hours of effort. Of those eight days,

five recorded zero or single digit counts. The highest count was 503 on August 25. All in all, and certainly compared to Concord, not a very impressive score.

I returned in 2022, and in seven days of counting from August 19 to August 31, I recorded 295 nighthawks with 9.75 hours of effort. Five of those seven days resulted in a total of zero or single digit counts. Again, a poor showing that made me wonder if it was worth the effort. Although I only had two seasons worth of data, I had no reason to believe that both years were aberrations. I was satisfied that this is not a migration hot spot, but they say negative data has its value so I searched for that value. Then it hit me.

I looked at three other nighthawk study sites in the region for comparison, namely, Don Clark's site in Westminster Station, Vermont; Zeke Cornell's Concord site; and Phil Brown's site at Powder Mill Pond, Hancock. The Vermont and Concord sites have been around for many years and while Phil Brown's site is new, Donald and Lillian Stokes have been counting nighthawks at a nearby location at Powder Mill Pond for many years. The common denominator for all three sites is that they are located in river valleys. All three sites do very well, sometimes tallying four-digit totals for the day. Laconia, by contrast, is not in a valley and is obviously not situated along a nighthawk migration flyway.

Then, I looked at these three other sites again and found another pattern. The Vermont site counts the most nighthawks in any given season, quite a few more than runner-up Concord, with Hancock trailing the other two. Westminster Station is on the Connecticut River, Concord is on the Merrimack River, and Hancock is on the Contoocook River, a major tributary of the Merrimack. The largest of the three rivers is the Connecticut, then the Merrimack, and the Contoocook is the smallest. The largest river counts the most nighthawks, the smallest river, the Contoocook, even fewer (supposedly, but time will tell!), and a no-river site counts the fewest of all.

We have long suspected that river valleys are important to nighthawk migration, but I always had some doubts. If they migrate around the Gulf of Mexico as do most raptors, then they would need to travel in a southwesterly direction, not due south as our major rivers go. But large numbers of nighthawks have been counted at Curry Hammock State Park in the Florida Keys, including 4,275 on 10 September 2014. This means at least some nighthawks, likely those in eastern North America, migrate straight down the East Coast on their way to South America. A north-south river in New England would make a good migratory landmark.

A river valley may also supply flying insects as we commonly see nighthawks feeding in the Merrimack River valley during migration. Who knows what other benefits there may be. For now at least, I am convinced that a river valley – and the bigger the better – is a prerequisite for high counts of migrating nighthawks. I have long advocated for the establishment of a network of nighthawk watch sites throughout the state in order to sample different areas and compare migration patterns. Concord, for example has an abundance pattern showing peak days on August 24, 27, and 30. I believe the development of a network is beginning to happen as the popularity of nighthawk watching grows. With the collection of more data over long periods of time, we will begin to solve some of the mysteries of Common Nighthawk migration.

Nighthawk Migration in Concord, NH

by Rebecca Suomala

Nighthawk watchers led by Zeke Cornell (left) on the Capital Commons Garage in Concord, NH. Photo by Rebecca Suomala, 8-20-22.

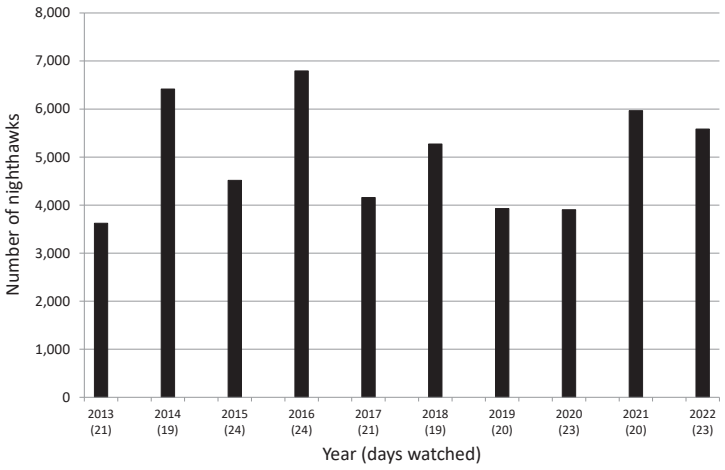
The fall nighthawk watch in Concord is the longest-running watch in New Hampshire and is conducted entirely by volunteers (first started by Rob Woodward). It was led by Zeke Cornell at the usual site on the roof of the Capital Commons Garage on Storrs St. The fall 2022 watch began on August 16, but the first nighthawks weren't detected until two days later. The last date was September 12. The high count was 1,473 on August 24, the average date of the peak count at this site. The second highest night was 1,068 on August 27, the average date for the second highest count. The total of 5,585 was the fourth highest since the watch began in 2008 (Figure 1, next page).

Nighthawk Watches Piloted in Hancock and Swanzey

by Phil Brown

In August of 2022, the Harris Center for Conservation Education launched a pilot migration monitoring

Figure 1. Total number of migrating Common Nighthawks by year over the past ten years in Concord, NH (2011-2022). Data collected by Zeke Cornell and Rob Woodward.



season to document the local migration of the Common Nighthawk, a state-endangered breeding bird species in New Hampshire. Although the breeding population is limited to a handful of known nesting locations across the state, the fall migration has long garnered the attention of ornithologists and nature enthusiasts along river valleys statewide and is still quite impressive. The nighthawk's dazzling aerial migration each fall is a true spectacle of the avian world that may only be matched locally by that of the Broad-winged Hawk. It is not uncommon to hear of reports of several hundred individual nighthawks flying over a fixed location on a single evening in late August. Where they're all coming from and where they're heading has long been a mystery and we fully realize the limitations of this monitoring project would not answer that question.

Each evening for three weeks between August 19 and September 9, a team of about a dozen experienced Harris Center staff and volunteers watched from the shoreline of Powder Mill Pond in Hancock, a dammed portion of the Contoocook River, tallying an impressive 5,491 migrating nighthawks. This tally confirmed our suspicion that this portion of the Contoocook River is, indeed, a strong migratory corridor, as suggested by previous watches over the past two decades by birding authors and former Hancock residents Don and Lillian Stokes from their backyard in the same area. Over the years, I joined the Stokes on peak migration nights to better quantify the often-swirling masses of these fast flyers. On some nights, we witnessed several hundred birds, maybe even a thousand or more, migrating along the river in the late evening hours. The Stokes' watch truly planted the seed for the current monitoring effort, and their annual Nighthawk Party in late August, complete with pizza and beverages on their back deck, served the dual purpose of collecting data and raising awareness about this local spectacle.

Nighthawk watchers at Don and Lillian Stokes backyard in the early days of watching on Powder Mill Pond in Hancock. Photo by Phil Brown.

Others have conducted regular counts along major river valleys in the Northeast, including two other volunteer-run watches, in Westminster, VT and in Concord, NH, each about 30 miles to the west and east, respectively, of this location. Both sites' coordinators, Don Clark and Zeke Cornell, generously shared information about their protocol and methodology with me and addressed important considerations that needed to be considered before conducting a watch.

In searching for a choice location along a major waterway in southwestern New Hampshire, it was obvious to me where I hoped to watch from – somewhere near the Stokes' former property. The Harris Center backed the idea, we found a landowner in the same vicinity who gladly offered us access, and we got to work!

Our team rotated evenings, ensuring that at least two counters were present at any one time to provide adequate coverage of tallying these fast-flying birds, which sometimes travel in broad fronts that are difficult to count. We set up lawn chairs in a field with the river and adjacent ridgelines in view, wielding binoculars and scopes. Even though this was a pilot season for this project, we aimed for consistency night-to-night and adhered closely to similar start and end times and data collection protocols. Detectability of nighthawks proved challenging at times due to low light and hazy conditions, and scopes were essential on some evenings. On other evenings, large flocks passed together in tighter bundles directly overhead. As with any watch, there were slow times and thrilling ones.

Aside from affirming our suspicion of Powder Mill Pond as a strong migratory corridor, the data collected informed us further about local nighthawk migration phenology (or timing). We also added to the collective knowledge

about the conditions this species migrates through and forages in and the direction of movement (some nights the term "migration" was debatable) which was not always as straightforward as north to south. Similar to what others have reported, on some nights our birds were going north! We still don't understand why. Our team of Harris Center

Scopes and lawn chairs set up for the 2022 nighthawk watchers on Powder Mill Pond. Photo by Phil Brown.

staff and volunteers noted numerous qualitative observations, kept complete eBird species lists (our count was 81 overall bird species from this one location) and learned a great deal while truly enjoying this community science project!

The most productive seven-day stretch spanned from August 22-28, when 3,426 were seen, 62% of the season's tally. While we didn't tally over 1,000 individuals on any given night (the closest was 991 on 8-26), our team counted over 500 individuals on four separate nights during the peak week and over 100 nighthawks were counted on 14 nights, spanning the entire count period. This suggests the migration window is likely even wider and is a reason to expand the monitoring season to a few more days on either end.

Away from Powder Mill Pond, the Harris Center piloted another nighthawk watch site at the Dillant-Hopkins Airport in Swanzey (thanks to Bird Conservation Intern Will Stollsteimer). Will tallied an impressive 2,974 migrating nighthawks in a smaller subset of nights (including 75% of the total within the same date range of August 22-28), raising the prospects for another future watching site along another major New Hampshire river valley, the Ashuelot River. Additionally, the Harris Center hosted three public nighthawk migration field trips in Peterborough and Keene, in which dozens of people had a chance to learn about and enjoy hundreds of nighthawks in all.

Despite all of these successes, so many questions remain about this enigmatic species, and more research and observation are needed to understand better and, ultimately, conserve the Common Nighthawk. We hope to be counting again in 2023 and to inspire other groups of enthusiasts to start their own counts so we can learn more about the local and regional movements of this species.

Phil Brown is Bird Conservation Director/Land Specialist at the Harris Center for Conservation Education in Hancock, NH. He coordinates the Pack Monadnock Raptor Observatory in Peterborough, as well as other avian research projects and community programs across the Monadnock Region. He lives in Hancock, NH, with his family.

Fall 2022 Field Notes

Anita Fernandez, Editor

Look Who's Looking at You

Even though it's fall, some family members, like these three Great Horned Owls, are still sticking together a little while longer. This photo was taken along the Connecticut River in Walpole, NH on 8-10-22 by Annie Kellam and Dan Labarre.

Swooping Cedar Waxwings in Peterborough

Posted to the NHBirds email list 8-22-22 by John Ranta

I was walking at the McDowell Reservoir in Peterborough yesterday and noticed a flock of birds chasing insects over the water. At first, before I looked through binoculars, I thought they might be swallows, as the swooping and circling patterns were very similar. Turns out it was a flock of 10 to 20 Cedar Waxwings. I've only ever observed groups of waxwings in and around fruit and berry trees.

Ed. Note: Cedar Waxwings are about the most frugivorous, or fruit feeding, North American birds; however, during times when crop abundance drops, so does the consumption of fruits. Cedar Waxwings also fly out (sally) from adjacent vegetation

over ponds or streams in order to capture emergent insect prey. Also, during breeding the male will deliver insects to the nestlings instead of fruit, presumably to provide a good source of protein to growing babies.

A Hole in Your Apple? Don't Blame the Worm.

by Anita Fernandez

A Cape May Warbler found making a stop on Star Island 9-29-22 for a fresh drink of apple juice. Photo taken by Eric Masterson.

Unique among warblers, the Cape May Warbler has a tubular tongue which allows it to feed on nectar and fruit juices. Although this bird eats mostly insects, when the weather gets cooler and the insects are no longer around, it switches its diet. The Cape May Warbler has been known to pierce grapes and drink their juice during migration; it appears that apples will fit the bill as well.

Leucistic Chickadee in Warren since 2017

by Anita Fernandez

Photos taken by Elaine Faletra in Warren, NH

A leucistic Black-capped Chickadee has been visiting Elaine Faletra's neighborhood in Warren, NH since 2017, when her neighbor began to notice its presence. The next year, Elaine was able to take some photos of the bird and has been documenting its visits ever since. That makes this uniquely marked bird over five years old, which is double their typical lifespan of 2.5 years. The longevity record for a Black-capped Chickadee is 12 yr. 5 mos., so we will continue to root for this chickadee to keep visiting the feeders in Warren.

Chickadees are most often seen at feeders in the cold winter months but Elaine has photographed this bird during the spring and fall months as well. The tone of the bird's voice is slightly lower than other chickadees and raspy, making it easier for Elaine to detect its presence by voice.

A leucistic Black-capped Chickadee first seen in the area the previous year was photographed by Elaine in October 2018 at her backyard feeder in Warren, NH.

The mottled coloration on the bird's head is apparent as the chickadee perches in the rain. Photo taken in December 2019.

This photo from 2021 shows a great view of the absence of melanin (the dark pigment in feathers) around the eye.

This recent photo of the leucistic chickadee was taken in April 2022, showing a very pink bill and feet.

A Ray of Sunshine in an Evening Grosbeak Flock: Schizochromism

by Anita Fernandez

On Wednesday, November 30, 2022 around lunchtime, Carol Marsh and her husband photographed an Evening Grosbeak visiting their feeder among a dozen other grosbeaks, but this particular bird was a little bit different. It did not exhibit any of the dark shading of the other birds, but was primarily a brilliant yellow with white wings and dark eyes.

Carol and her husband were able to witness a rare coloration in birds: non-melanic schizochromism (I can't

even say that one time fast). This condition occurs in cases where a bird fails to deposit a type of pigment (in this case melanin) in their feathers but retains other pigment types, such as the yellow carotenoid pigment already produced by Evening Grosbeaks. In a paper (Hudon 1997) written in 1997 regarding Evening Grosbeaks in Alberta, CA, it was suspected that there were up to three individual birds displaying this type of coloration at winter feeders.

Hudon, J. 1997. Non-melanic Schizochromism in Alberta Evening Grosbeaks, *Coccothraustes vespertinus. Canadian Field-Naturalist*. 111(4): 652-654.

This group of Evening Grosbeaks was photographed feeding in Pittsburg, NH by Carol Marsh and her husband on 11-30-22. This bird is certainly a little drop of sunshine on an otherwise cold-looking day.

American Goldfinch Eat to the Beet (Greens)

by Anita Fernandez

On August 12, 2022, Paul Doscher of Weare, NH wrote to NH Audubon with a mystery to solve. There had been American Goldfinch in his beet greens and the aftermath appeared as though the birds were tearing apart the leaves. He hypothesized maybe they were coming in to take the greens as nesting material or maybe there's a nutrient in the greens that the birds are seeking. A few days later, his wildlife cams were able to capture the goldfinch hanging out in the greens.

I did some digging and found some videos and photos online showing American Goldfinch eating beet greens. This behavior is well known enough that one source mentioned the goldfinch's Pennsylvania Dutch folk name: the salad bird! These birds also eat some other leafy green plants such as Swiss Chard and Romaine lettuce, so Paul is probably correct that these greens possess a nutrient the goldfinch are looking for.

Interestingly, I also found that these eating habits help protect American Goldfinch from being parasitized by species like the Brown-headed Cowbird; the cowbird chicks typically cannot survive longer than three days on the goldfinches' vegetarian diet!

Paul Doscher sent in this photo of his beet greens after being "mauled" by some American Goldfinch in Weare, NH on 8-12-22. You can see several stems missing leaves.

Paul's wildlife camera captured some of the American Goldfinch among his beet greens on 8-14-22.

A Ruffed Grouse Making a "Friend" in Warner

by Anita Fernandez

Beginning Sunday, November 20, 2022 and for the majority of the following several weeks, David Minton became the object of the attentions of a male Ruffed Grouse. David hunts near his property in Warner and, while out there, he began to notice a Ruffed Grouse hanging around his tree stand and walking around on the path leading up to it. Over several days, the bird would hop up on branches

near the tree stand, would "coo" around David, follow him to nearby tree stumps, walk around him, and even jump up on his knee. The bird would explore around the base of whatever tree or stump David was in, pecking only infrequently at David's outstretched gloved hand or boot if waved in front of the grouse. The bird also followed David back up to his house along a 600-foot path on multiple occasions, but became skittish and defensive (displaying its namesake black "ruff") when two additional people showed up either at the house or around David's tree stand.

There have been other stories in the New England area of people being approached by Ruffed Grouse for lengthy periods of time and some speculation as to what it all means. We have found two possible explanations: territoriality and "throwback" behavior.

The first is that a male bird is defending his territory. Ruffed Grouse are not generally physically aggressive due to the likely potential for injury, but they do defend a nest site of between five and six acres (2.1-2.3 ha). Some grouse have been observed displaying behaviors year-round that, like the behavior encountered above, seems to be only "worth" expending the energy on in defense of a territory. These birds will follow people around, engage in drumming or pecking activities, and have even been known to take rides on tractors, trucks, or snowmobiles.

The second hypothesis is that this behavior is a "throwback" to Ruffed Grouse behavior from a time prior to when they were hunted. (The yearly hunting season for these birds is usually from October to December.) Their behavior typically results in a very quick view as they move out of sight. Compare that to the behavior of the Spruce Grouse, which does not have the same open hunting season. Spruce Grouse are more commonly known for their tame behavior, remaining in trees or on the ground, even when humans are in close proximity. This has been used to support the idea that Ruffed Grouse once acted this way when they did not experience the pressure of hunting and maybe some individuals retained this behavior.

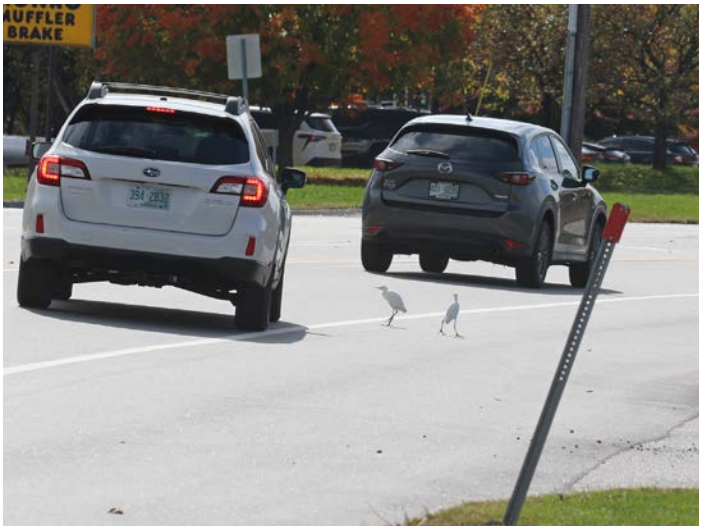
One of these behaviors could be the explanation or it may be something that we haven't yet found. Either way, it is best to give birds plenty of space, especially around the breeding season.

Why did the Cattle Egrets cross Rt. 108?

Posted to the NHBirds email list 10-19-22 by Steve Mirick.

He references the sighting of a Cattle Egret by Dan Hubbard in Rochester on 10-18-22 and one in Greenland on 10-16-22 by Sheila Graydon.

The Cattle Egrets yesterday in Stratham were definitely "odd ducks" as they hung out in a curb cut for a car dealership and then walked out into the middle of Rt. 108 during lunch hour almost causing a traffic jam! Cattle Egrets



According to Cornell's Birds of the World, *Cattle Egret are known to "loaf" during midday. These two birds decided traffic was as good a place as any to loaf on this fall day. Photo taken in Stratham, NH on 10-18-22 by Steve Mirick.*

seem to occur just about anywhere. Although they are most likely found at farm fields with livestock, I've also seen them in front yards or near parking lots in migration.

These two birds, combined with Dan's bird and another found by Sheila Graydon follow a recent "fall-out" of Cattle Egrets. Another flock of 16 were seen in Ipswich (MA) on 10-16-22. It's interesting to see these influxes of Cattle Egrets that seem to happen with some regularity late in the fall. Some of you may remember I found a flock of 19 last year on November 1 (2021). I'm not certain where these birds come from since I'm not aware of any significant breeding populations north of us. Presumably, these are mostly young birds that have wandered north and east and found their way to New Hampshire!

More wandering and loafing by the Cattle Egrets in Stratham (10-18-22). Photos by Jim Sparrell (top) and Debra Powers (bottom).

There's No Place Like Home: A Dream Season in Sandwich

by Ken Klapper

Moving to Sandwich in October 2013, I speculated about what kind of birds might be found in my yard. Just a quarter mile from Squam Lake, with a stunning view of the White Mountains to the north, I dreamed big. The birding, however, was slow at first. I had arrived too late in the season to witness the bulk of migration and it was not an irruption year so prospects were poor for late season birds. Over time, the yard proved to be very good for birding, especially during spring and fall migration. Some notable species found here include Cerulean Warbler, Blue Grosbeak, and Sandhill Crane; however, fall 2022 would exceed my wildest expectations.

A Blue-winged Warbler graced my yard on August 15, a delightful species for yard bird #170 (and yard warbler #28). Six days later, a Great Egret flew by, only my third record of this elegant wader. That evening, I was happy to see seven Common Nighthawks foraging to my north. We get relatively few of them in migration, so I was little prepared for the show I would witness at the end of the month. On August 28, I tallied 984 nighthawks from my back porch, shattering the old record of 304 I set in 2018. The next day, "only" 199 passed by (still a fantastic count here), but on August 30, I was astounded when I counted 1,016, many flying very low overhead.

September brought a diversity of neotropical migrants; 22 warbler species visited that month alone, including a Mourning Warbler on September 21. Raptor watching was productive at times during the midday hours. For example, 318 Broad-winged Hawks kettled up and streamed south on September 12. Scanning to the north on September 21, I spotted a large raptor that had me puzzled at first. Its wings were long, tapered, and slightly bowed, yet after watching it a minute, I was sure it was not a Bald Eagle or Osprey. The size, shape, and plumage characteristics didn't add up to any raptor regularly seen in the East. After prolonged views with my scope, comparisons with nearby raptors, and discussion with my friends (raptor experts Phil Brown and Katrina Fenton), I was sure it was a Swainson's Hawk, a species I have seen in Colorado and Arizona, but only once in the East, at Cape May. Details of the sighting can be found at http://ebird.org/nh/checklist/S119153238.

October favored my yard with an Orange-crowned Warbler. While not a new yard bird (I've been very fortunate to have seen them twice before here), this humble gray-green-yellow warbler is always an exciting find in a month better known for migrant sparrows. I spotted it on October 16 picking insects from the dried seedheads of goldenrods; graciously, it allowed me to take a few photos. I began to detect irruptive finches too; Evening Grosbeaks, Pine Siskins, and Purple Finches flew over several days that month, giving their diagnostic flight calls.

Orange-crowned Warbler photographed by Ken Klapper on 10-16-22 in his yard in Sandwich, NH.

In November, migration tapers off, but rarities sometimes turn up, keeping birders on their toes. On November 4, after hearing an unusual "smacking" call note, I saw a small flock of bluebirds land in my yard. One was particularly cooperative, perching for several minutes in perfect lighting. Something about this bird seemed unusual and I began to suspect it was actually a Mountain Bluebird, a rarity from the West that had only once been confirmed in New Hampshire. This bird was a female with an unusual amount of rufous plumage. At first glance, it looked very much like a female Eastern Bluebird; however, the slimmer, "sharper" features (a longer, pointier bill, longer tail, and slim build) made me suspect Mountain. I was able to snap a few photos with my phone through my scope and send them to Steve Mirick and several other experts who confirmed the identification.

On November 5, while scanning the mountains to the north, I spotted two huge, dark-plumaged raptors slowly gliding to the southwest. I immediately suspected Golden Eagle. Separating Golden from Bald Eagles can be tricky; however, when one of the birds finally circled, I was able to see the white tail base and distinct wing patches of a classic juvenile Golden. Based on their identical structure (smaller head projection than a Bald Eagle, wings held in a dihedral in flight), I am sure its twin was a Golden as well. The remainder of the month brought fewer and fewer migrants, but irruptive finches kept things interesting. Some Pine Grosbeaks, Red Crossbills, and even one White-winged Crossbill flew by chattering, bidding adieu to me and this extraordinary season.

The Mountain Bluebird that Ken Klapper found and photographed on 11-14-22 in his yard in Sandwich, NH.

All in all, from my yard, I spotted 131 species of birds from August through November of 2022. The number is hardly important. What I'll cherish is the excitement of watching hundreds of nighthawks flying by, the quiet joy of a moment with an Orange-crowned Warbler, and the dream come true of watching a Swainson's Hawk and a Mountain Bluebird from my back porch in Sandwich, NH.

Fall Pelagic Trip

by Steve Mirick

Edited from a post to the NHBirds email list on 10-11-22.

The Seacoast Chapter of New Hampshire Audubon sponsored an all-day pelagic trip on October 10, 2022 aboard the MV Granite State out of Rye Harbor. We started with a tour of the Isles of Shoals where we were able to get nice views of American Oystercatchers on Lunging Island and both Peregrine Falcons and Bald Eagles on Appledore and Smuttynose Islands (Maine). We also saw a huge flock of Common Eiders just past the islands. After this, we cruised offshore toward "Old Scantum" and southern parts of Jeffreys Ledge in Massachusetts waters before turning north and traversing the mid to outer edge of Jeffreys Ledge through New Hampshire and into Maine waters. We went almost to the northern edge of Jeffreys Ledge before turning back for home.

Unfortunately, as in 2021, the paucity of pelagic birds offshore continued from this summer into fall. No alcids and no shearwaters were noted. Compare this with the pelagic trip on 10-11-15 when 440 shearwaters (Great and Cory's) were counted. Large areas of Jeffreys Ledge had not much but a small number of gulls and gannets; however, we were treated with excellent views of Pomarine Jaegers and brief, but nice, views of fulmars and kittiwakes, and of course, many whales and dolphins! There were several Humpback Whales, which gave lots of nice views of fluking individuals, and a nice cooperative and playful pod of Atlantic White-sided Dolphin. We also had a Blue Shark.

Thanks to Holly Bauer for organizing this trip through Seacoast Audubon (https://www.seacoastchapter.org/) which offers free field trips and programs. And thanks to Captain Pete Reynolds and his crew for helping to spot whales and birds! Also, thanks to Becky Suomala and Zeke Cornell for doing their best to estimate numbers for the day and maintain eBird checklists.

Highlights

Common Eider – 2,875, including a huge flock of an estimated 2,500 in the vicinity of Cedar Island Ledge straddling the NH/ME state line. This pales in comparison to neighboring states but is an extremely high count for NH and may represent a new high count for the state.

Surf Scoter – 156, most migrating.

White-winged Scoter– 163, most migrating.

Black Scoter – 31, most migrating.

scoter sp. – 105, migrating.

American Oystercatcher – 4 together on Lunging Island, probably a family group. At least one juvenile was banded.

Ruddy Turnstone – 1 on Square Rock.

Pomarine Jaeger – 3, widely separated with one each in MA, NH, and ME waters.

Black Guillemot – 6

Black-legged Kittiwake – 3

Lesser Black-backed Gull – 1 juvenile well offshore. Sitting in water with a Herring Gull for comparison.

Northern Fulmar – 5, one dark morph.

Northern Gannet – 82, present throughout the day in small numbers. One adult sitting on Square Rock.

Great Blue Heron – 2 migrating well offshore beyond the Isles of Shoals.

Northern Harrier – 1 over Appledore Island.

Bald Eagle – 2, adult and immature sitting on Smuttynose Island.

Peregrine Falcon – 3, flying and sitting on Appledore Island.

American Pipit – 4

Pelagic Trip Photo Gallery

All photos were taken on the NH Audubon pelagic trip October 10, 2022.

Steve Mirick and longtime pelagic birder Davis Finch by Rebecca Suomala.

Pomarine Jaeger by Steve Mirick, 10-10-22.

Northern Gannet sitting on Square Rock by Jim Sparrell (left), Two American Oystercatchers on Lunging Island by Jim Sparrell (middle), Adult Bald Eagle on Smuttynose Island by Jim Sparrell (right).

Just a fraction of the huge raft of Common Eiders at the Isles of by Rebecca Suomala.

Northern Saw-Whet Owl Banding in the Monadnock Region

by Hillary Siener

A Northern Saw-whet Owl captured and banded on Harris Center lands in fall of 2022. Photo by Brett Amy Thelen.

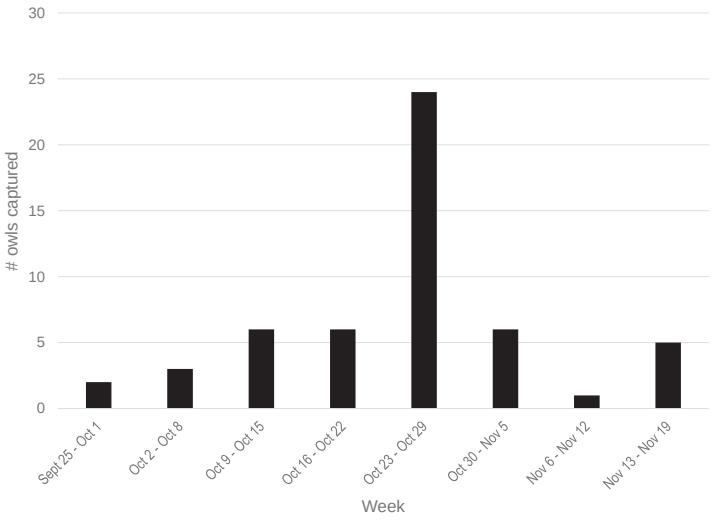
In 2022, I was thrilled to work with the Harris Center for Conservation Education and a group of dedicated volunteers to pilot a Northern Saw-whet Owl (*Aegolius acadicus*) fall migration study in the Monadnock Region. The purpose of the study was to band saw-whet owls to contribute to knowledge about their ecology and movements throughout North America. Banding methods followed standardized protocols outlined by Project Owlnet (https://www.projectowlnet.org/), which is a continent-wide network of researchers investigating owl migration. Our efforts this pilot season were focused on determining feasible capture locations on Harris Center lands, and training staff and volunteers.

With their secretive nature and nocturnal habits, saw-whet owls can be difficult to study. Banding offers a tool to advance our scientific understanding of the species. It can help to identify migratory routes, overwintering habitat, and peak migration timing, enables us to document any age- and sex-related differences in migration habits, and learn more about their annual movements. Although currently common, the National Audubon Society considers saw-whet owls to be a climate endangered species, predicting a 99% loss in wintering habitat by 2080, which makes it an important species to monitor into the future. The Harris Center is excited to monitor saw-whet owl migration trends in the Monadnock region, contribute to Project Owlnet and the conservation of the species, offer educational programs, and share findings with the scientific community, birders, naturalists, students, and many more. Here are the methods we used and some of the initial findings from the 2022 season:

Methods

We set up our capture efforts on three different Harris Center properties from September 30 to November 19, 2022 (one site operated per night). We used a temporary array of four 12 meter long mist nets and played an audio loop of the saw-whet call to lure owls towards the nets. Nets were only opened on evenings with no precipitation and low wind conditions. Nets were checked every 20-40 minutes, and captured owls were removed by trained individuals. Each owl was weighed, measured, examined to determine age and sex, outfitted with a federal band and released back into the wild. And of course, a few (thousand) photos were taken.

Figure 1. Number of Northern Saw-whet Owls captured each week in fall 2022 on Harris Center lands in the Monadnock Region, NH.



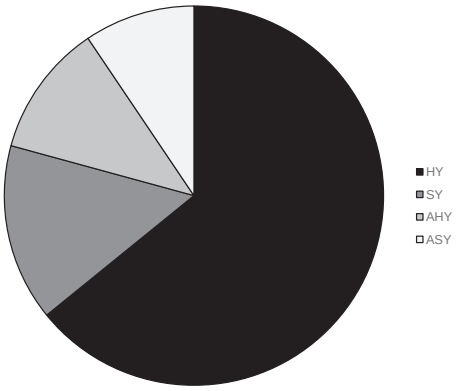
Results

Over the course of 25 nights, we captured 53 individual saw-whet owls. On average, two owls were captured per night with a range of 0 to 15 owls captured per night. Migration timing peaked from October 23 to October 29; forty-five percent of all captures (24 owls) occurred during this one week of the season (Figure 1). October 27 was the busiest evening with 15 owls captured.

Of the 53 captures, there were 46 females (86.8% of captures), four males, and three of indeterminate sex. Capturing a high percentage of females during fall migration is a widely observed phenomenon, consistent with data from

other saw-whet banding stations reported through Project Owlnet. The higher proportion of females captured may suggest a sex-differentiated partial migration strategy with females migrating farther than males.

Figure 2. Proportion of Northern Saw-whet Owls captures by age on Harris Center lands in the Monadnock Region, NH. HY = hatch year; SY = second year; AHY = after hatch year; ASY = after second year.



The majority of saw-whet owls captured were hatch-year (HY) or first year birds (Figure 2), followed by second-year (SY) owls, then after hatch-year (AHY; any non hatch-year bird that cannot otherwise be aged) and after second-year (ASY). A high capture rate of hatch-year owls suggests a successful breeding season for the species likely due to abundant small mammal populations.

Compared to banding of many other bird species, saw-whet banding is known for its relatively high rate of encountering previously banded owls (owls banded at other stations and subsequently recaptured). This season we did not capture any previously-banded owls; however, one saw-whet we banded on the peak migration night of October 27 in Nelson was recaptured at another banding station in Pennington, NJ on November 19. This direct (same-season) encounter covers a distance of approximately 230 miles in a southwesterly direction. On average, this owl migrated 9.6 miles/night between the two sites.

Future Plans

The Harris Center's 2022 pilot season of saw-whet owl banding was successful in capturing owls during their migration through the Monadnock region, documenting peak migration timing, recording age and sex ratios, and documenting one owls' migration from Nelson to New Jersey. Data was submitted to the Bird Banding Lab and findings were shared with Project Owlnet. Although educational opportunities were not at the forefront of our efforts this pilot season, the Harris Center did offer a public banding demonstration for 25 individuals on one evening during the peak migration week and for the Dublin School on another evening. Public programs will likely become more available in future years. The outcome from this season hints at a promising future for this long-term monitoring project. We look forward to continuing to grow this project and its education/outreach, and keeping tabs on the saw-whet owl population that migrates through the Monadnock region.

Acknowledgements

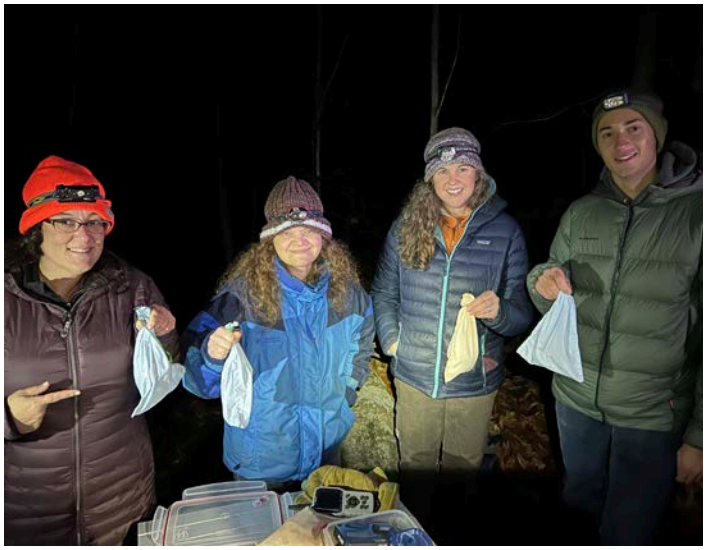
Special thanks to the Harris Center's 50th Anniversary Fund, Project Owlnet and New Hampshire Fish & Game. Additional thanks to the following individuals for their collaboration and/or hard-work behind the scenes or at the banding sites: Jon Atwood, Julie Brown, Phil Brown, Russ Cobb, Steven Lamonde, Cynthia Nichols, Annamarie Saenger, Karen Seaver, Cliff Seifer, Kim Snyder, Susie Spikol, Will Stollsteimer, Brett Amy Thelen, and Christine Volonte.

The Banding Process

All photos taken by Brett Amy Thelen during the Harris Center's fall 2022 pilot banding project on its lands in the Monadnock Region, NH.

Volunteer Annamarie Saenger extracting a saw-whet owl from a mist net under my guidance, while Julie Brown and Phil Brown observe.

Taking a wing chord measurement.



Staff and volunteers holding saw-whet owls in bags (a method to keep the bird calm) after a net check on the big owl night, October 27, 2022. From left to right: Brett Amy Thelen, Annamarie Saenger, Julie Brown, and Will Stollsteimer.

A saw-whet owl about to be extracted from a cloth bag at the banding station.

Birding Grey Rocks Conservation Area

by Suzanne Smith, Mirka Zapletal, and Tom McShane

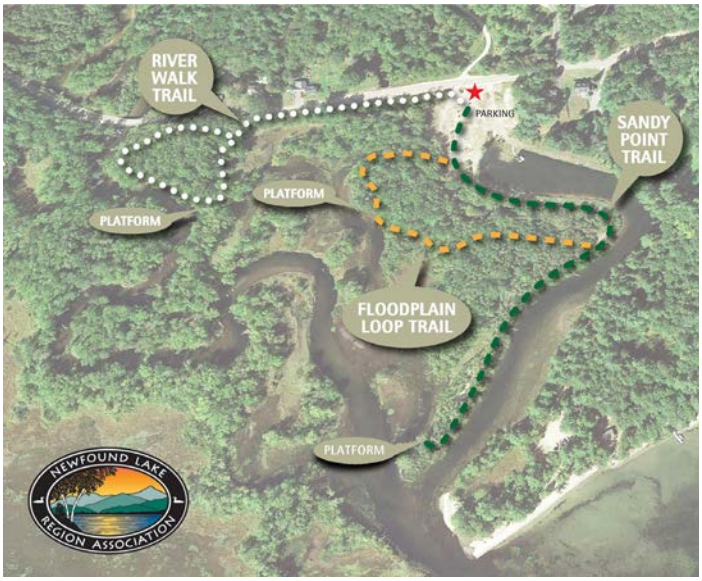
The channel at Grey Rocks Conservation Area adjacent to the Sandy Point Trail by Mirka Zapletal, 9-26-22, Hebron, NH.

eBird Hotspot: Grey Rocks Conservation Area
https://ebird.org/nh/hotspot/L3119331

Grey Rocks Conservation Area is a parcel of over 29 acres located on the north shore of Newfound Lake in Hebron, NH. Owned by the Newfound Lake Region Association (NLRA), the area sits at the mouth of the Cockermouth River between the Charles L. Bean Sanctuary and NH Audubon's Paradise Point Nature Center. Prior to being placed under conservation easement and donated to NLRA in 2011, the area had been used as a girl's camp in the 1930s followed by Newfound Lake Marina which included buildings and a dredged channel. Structures were removed before donation to NLRA and restoration work since then has focused on returning the site to a more natural state, including replacing a falling retaining wall with rocks and adding trees, shrubs, and other plants. Today visitors can explore the area by foot or non-motorized boat and enjoy a variety of habitats and wildlife along the lake and river.

Grey Rocks Conservation Area is located at 178 North Shore Road in Hebron. From Bristol, go north on Rt. 3A to the far end of the lake and turn left onto North Shore Road. Drive 1.6 miles and the parking lot will be on the left. From Plymouth, go south into Hebron on Rt. 3A and turn right onto North Shore Road. In the parking lot, you'll find a kiosk with trail and access information. As you enter the parking lot, there are picnic tables in the open area directly in front of the lot. A portable toilet facility is available from May to October. Access is maintained year-round and is free to the public. In the winter, trails are packed down by snowshoe volunteers.

Adjacent to the parking lot is an open area that is bordered by early successional forest with birch, aspen, maple, and oaks; at times Wild Turkeys and sparrows are found foraging here. Birding can be done on land using one of Grey Rock's three trails. The total mileage for the trails is 1.5 miles and all trails are accessed from the parking lot.



The trails of Grey Rocks Conservation Area, Hebron, NH.

1. Sandy Point Trail

The most popular trail is the Sandy Point Trail which begins to the left of the picnic tables and runs adjacent to the channel, passing pollinator gardens and terminating at a viewing platform that overlooks the wetland toward the Cockermouth River and Charles L. Bean Sanctuary. Along the way, there are viewpoints across the channel where White Pine trees are present. Aquatic vegetation within the channel expands throughout the summer, creating habitat for dabbling ducks, herons, and bitterns. A resident Bald Eagle family nests in the White Pines in that area and can be seen frequently flying and hunting out over the wetland and lake. Highbush Blueberries and alder grow in thickets along the far end of the trail, providing food and shelter for wildlife and you may encounter foraging mixed flocks with Tufted Titmice, Black-capped Chickadees, and Black-and-white Warblers. Other warblers frequently found at Grey Rocks include Yellow, Common Yellowthroat, and American Redstart. Vireos include Red-eyed, Blue-headed, and Warbling. The wetland is fed by the Cockermouth River which has created a delta with winding channels which are prime habitat for a variety of ducks including Wood Duck, Mallard, American Black Duck, and both Common and Hooded Merganser. During migration, Bufflehead and Common Goldeneye can also be found. Sandy Point Trail is wide, level packed ground to accommodate wheelchairs and strollers. Changing environmental conditions may affect the accessibility.

2. Floodplain Loop

The Floodplain Loop Trail is accessed from the southwest corner of the parking lot. It can be a seasonally wet trail, but foot bridges and a small, elevated walkway make the trail passable by foot; it is not accessible by wheelchair or stroller. Veery are found along the trail as it winds through a maple and White Ash floodplain. There are several seasonal and year-round pools to either side that support wildlife. A viewing platform provides a second viewpoint of the marsh and more duck habitat. Two small islands with silver maples and low brush provide cover for flycatchers, warblers, Gray Catbirds, and Song and Swamp Sparrows. Belted Kingfishers and Great Blue Herons are regularly observed. The far end of the trail intersects with the Sandy Point Trail and visitors can return to the parking lot or continue to the Sandy Point viewing platform.

American Bittern at Grey Rocks Conservation Area, 7-31-22, by Tom McShane.

3. River Walk Trail

The River Walk Trail is accessed from the west side of the parking lot adjacent to North Shore Road. Walkers proceed along the south side of the road and along wetlands until turning down into the maple and White Ash forest. The trail is a loop with a viewing platform which overlooks the Cockermouth River. The River Walk Trail is the narrowest and least accessible of the three with uneven ground and tree roots along the trail. In addition to species previously mentioned, Baltimore Oriole, Red-breasted and White-breasted Nuthatch, and Cedar Waxwing can be found in the conservation area.

Exploration by Boat

To explore Grey Rocks by water, a boat ramp for kayaks, canoes, and paddleboards is at the edge of the parking lot. The water provides access to the main part of Newfound

Lake, the wetland area between Grey Rocks and the Charles L. Bean Sanctuary, and the Cockermouth River. The Northern Newfound Water Trail includes locations within a variety of habitats encompassing the ecology and history of the area. Map brochures are available at the kiosk during the boating season and can also be found online at NewfoundLake.org.

In the summer of 2022, members of NLRA worked with the Loon Preservation Committee to place a nesting raft in marsh adjacent to the Charles L. Bean Sanctuary on Newfound Lake. As is the case in many of the water bodies in New Hampshire, the nesting pair of Common Loons has struggled to consistently produce young. As part of an ongoing effort to assist the loons, NLRA has established two lead tackle exchange sites on Newfound Lake during the boating season. One is located at the state boat ramp at Wellington State Park; the other is at Grey Rocks Conservation Area. Loons are often seen within the conservation area as well as nearby marsh.

The Grey Rocks Conservation Area habitat provides for a variety of species in all seasons. The well-maintained trails and three viewing platforms in a range of accessibilities provide birders an opportunity to experience a satisfying day along the Newfound Lake wetland and Cockermouth River Delta. The NLRA manages Grey Rocks Conservation Area as a place for people, plants, and wildlife as part of its broader work to protect the high-quality waters of Newfound Lake and its watershed, maintaining a healthy and diverse ecosystem. Along with community data collection on water quality and educational programming, NLRA conserves land, manages storm water pollution, and monitors for invasive species. For more than 50 years, NLRA has been protecting Newfound Lake and the results of that conservation are as clear as Newfound's water. You can learn more about NLRA's initiatives at NewfoundLake.org.

Tom McShane is an NLRA and NH Audubon volunteer from Plymouth, NH. Suzanne Smith is a long-time volunteer with NLRA and NH Audubon and co-chairs the Hebron Conservation Commission. Mirka Zapletal is the Education and Outreach Manager at NLRA and a New Hampshire native.

Wood Ducks at Grey Rocks Conservation Area, 4-2-22, by Toby Slackton.

The Grey Rocks marina several decades ago and the same area in 2015 several years after remediation began and the property was donated. Photos courtesy of Newfound Lake Region Association.

Broad-winged Hawk Nest Monitoring and Tracking

by Phil Brown

The Broad-winged Hawk is a medium-sized Buteo and a common breeding raptor of the Monadnock Region and in parts of the eastern forests of the US and southern Canada. As a complete migrant, Broad-wingeds winter entirely south of their breeding range, from southern Mexico to Bolivia. The core of the winter population is thought to be centered in northern portions of South America. Broad-wingeds make spectacular fall migrations along the ridgelines of the Appalachian Mountains and are widely celebrated by hawkwatchers at migration monitoring sites along the Eastern Flyway and into Central America. The Harris Center for Conservation Education's own Pack Monadnock Raptor Observatory in Peterborough, NH is one such location. During mid-September each year, crowds gather to view this spectacle as hundreds, or even thousands, form massive flocks and ride thermals as they migrate south. This spectacle compounds as populations converge in Texas, Mexico, and Central America, where almost two million birds –

nearly the total world population – pass through within a few short weeks.

Despite its familiarity, much of the Broad-winged Hawk's full life cycle is still poorly understood, or at least has been until now. In 2021, the Harris Center partnered with Hawk Mountain Sanctuary (HMS) to expand the Pennsylvania-based organization's Broad-winged Hawk research into New England. Since 2014, HMS biologists and community scientists have been conducting research on the species' breeding, migration, and wintering ecology to fill gaps in the existing knowledge of habitat selection and geographic preferences for breeding, stopover, and wintering areas. The goals of the partnership were to establish both nest monitoring and tracking components. Long-term research focused on the full life cycle of this distinct New England breeding population could point to specific threats and conservation strategies.

Although still a common species across much of its breeding range, there is reason for concern as Broad-wingeds have seen recent declines at eastern hawkwatches, as well as declines in its breeding range where forested habitats have been converted to development or agriculture. Thirteen eastern states list the species as Threatened. Deforestation in the tropics may be further limiting its wintering range. Other threats exist in migration, such as illegal shooting, collisions, and capture for the wildlife trade and food.

Enter New Hampshire, the second most forested state in the US, and the Harris Center's "SuperSanctuary" – a 25,000-acre conserved and largely forested part of the Monadnock Region that encompasses high elevation summits, many large ponds and lakes, and considerable wetland areas. The first challenge in this landscape lies in the many opportunities Broad-wingeds have to nest in heavily forested areas. Finding a nest is a bit like finding a needle in a haystack.

Regional observations of nesting Broad-wingeds, along with past HMS research, suggested that small stick nests are fashioned largely by females in early to mid-May. They are placed in the upper half of hardwood or conifer trees supported by a "basket" of branches or along the main trunk of the tree. Although it may sound easy, leaf-out and abundant non-raptor (often squirrel) nests make the searching difficult. Besides, hawks are secretive around their nests and keenly aware of human presence and other potential predators.

Despite a false start in 2020, as the COVID pandemic delayed the project's kickoff, several of our team had a chance to practice nest searching in our local patches during the first quarantine spring. I was one of the lucky few who reported an active nest that year, and I spent much of June watching my backyard Broad-wingeds deliver food and tend to growing nestlings. These observations, along with those from two other nests, would inform our study's assessment of breeding season timing – nest construction, incubation, and fledging dates.

A young Broad-winged Hawk in a nest found by Phil Brown in his yard in Hancock, 7-25-21.

My anecdotal observations of prey deliveries suggested similarities to what had been learned from HMS studies. Pennsylvania Broad-wingeds delivered a high proportion of small mammals, followed by birds and then herps (amphibians and reptiles), to their nestlings. I witnessed deliveries of chipmunks, nestling robins, snakes, and even a bat to the two growing chicks which eventually fledged by mid-July.

With pandemic precautions squarely in place the following spring, the Harris Center's official monitoring effort got underway in April 2021 as Broad-wingeds began to pour back into the region. I assembled a team of 15 community science volunteers, organized trainings, and set off by foot into thousands of acres of Harris Center conservation lands in Hancock and surrounding towns. By June, and after many hours of searching and monitoring, our team had turned up eight nests across the region, with several of these located on Harris Center lands. We continued in 2022 and, over the breeding seasons of 2021 and 2022, Harris Center staff and volunteers spent hundreds of hours finding and monitoring 15 nests.

Tree and nest measurements were taken following fledging to minimize disturbance around the nest tree. Our data reveal a preference for Eastern White Pine followed by Northern Red Oak, Red Maple, and Eastern Hemlock. The hemlock was an unusual choice according to the literature. It appeared that a North American Porcupine, most likely, had browsed the top leader of the hemlock, creating a platform and several supporting branches, which Broad-wingeds seem to prefer. Nest height, measured with a clinometer, showed a higher elevation nest placement for New Hampshire birds (n=8) than the previously studied Pennsylvania population.

Our data also better describe a breeding season timetable for this subset of the New England population. Generally, incubation is underway by mid to late May. Nestlings appear from mid-June to early July, and fledging is generally in mid to late July. A sample size of 14 nests, which were closely monitored, yielded a survival rate of 1.33 fledglings/nest. A maximum of four fledglings was achieved in just one nest in 2022, but one or two fledglings were much more expected.

Trapping occurred during the last week of June in both years when it was determined females would venture off nests to face an enemy – the Great Horned Owl. The trapping team, which consisted of Drs. Laurie Goodrich and Rebecca McCabe of HMS and a team of Harris Center staff and volunteers, set up mist nests and a robotic Great Horned Owl. A playback call accompanied the robotic bird, which Dr. McCabe operated with a remote control, adding wings flailing and head-turning. Then it was a waiting game in the hopes that the female Broad-winged would dive into a mist net. The team successfully lured in a female slightly less than half the time, so it was important to have several nests to trap at.

Five adult Broad-winged Hawks (four females and one male) were successfully trapped and outfitted with cellular or satellite transmitters (three in 2021 and two in 2022). As of November 2022, four of these individuals were still transmitting. Another three males were captured and banded with color leg bands for visual identification purposes, but the transmitters are generally too heavy for these smaller birds. The lead Hawk Mountain biologists banded the birds with assistance from the Harris Center team. Wing and bill measurements, weighing, feather sampling, and a parasite check were conducted, in addition to the banding and affixing of transmitters.

Phil Brown holds two different Broad-winged Hawks while a band and satellite transmitter are attached. Photos by Brett Amy Thelen of the Harris Center.

Two types of transmitters were used in this project. The Argos satellite units are the older model, and the geolocation data is less precise (up to 1,500 m. error) and transmit data less frequently. The newer GPS-GSM cellular units are more precise and responsive. Both rely on solar panels to charge and are under 9 grams (less than 3% of the body weight of female Broad-wingeds). Transmitters are carefully affixed to the back of the bird like a backpack with Teflon ribbons. One New Hampshire bird, "Harris," wears an Argos satellite transmitter and the other three birds wear CTT cellular units.

After the transmitters were affixed, we learned about breeding season movements. "Harris," the male from the Harris Center's Hiroshi property,

covered a large home range of several square miles in search of food. In contrast, "Monadnock," the Dublin female from 2021 who is no longer transmitting, stayed very close to her nest and young.

Perhaps the most intriguing find that New Hampshire's birds helped bring to light is that female Broad-wingeds often exhibit some degree of pre-migratory movement of between 200 and 500 km, generally to the north and west, following the breeding season. The Pennsylvania population showed more variation and, generally, a southwesterly direction in their pre-migratory movements. Big questions still loom about this movement, such as why these birds head out so far in the wrong direction from their wintering grounds and if there is site fidelity in this movement. Hypotheses include: that the more experienced adults are exiting a territory where their offspring must learn to hunt and find food; that they are simply following prevailing south winds during August; and, most interestingly, perhaps, that they are navigating to their natal areas before exhibiting true migration. With more years of transmitting, we're hopeful that a large enough sample size will help address these questions.

In September, we began to see the migration routes take shape. As expected, many northeast birds raced down the Appalachians, some directly past famous hawkwatches such as Hawk Mountain, and then along the Gulf Coast and into Mexico, and Central America, but their movements showed variation. Hawk Mountain biologists and other researchers are digging deeper now into the field of migration and stopover ecology. This area of work could help identify critically important locations along the migration routes, which may help conserve species that move through a narrow bottleneck.

The data from the transmitters informs our knowledge of the migration timing of the New England population. New Hampshire birds exhibit a fairly consistent migration start date between September 15 and 18, whereas the Pennsylvania population's departure dates have shown more variability. Migration timing and distance traveled to wintering areas may vary by sex and age of the individual birds and previous studies have shown that adult birds travel farther (between 3,000 and 6,700 miles), but juveniles seem to winter farther north, traveling between 2,700 and 3,500 miles. Migration was shown to take between 82 and 95 days from start to finish from the sample size studied by HMS.

A sample of transmittered Pennsylvania and Alberta Broad-wingeds showed birds wintering over a wide geographic area in 10 countries and strong site fidelity for wintering populations. See the Inside Cover for a map of three of the tagged birds. The five birds from the New Hampshire population, in contrast, have thus far only wintered in Colombia and Brazil. As of November 2022, "Harris" returned to his previous winter territory in northern Colombia, affirming the earlier findings about winter site fidelity. For other birds, we eagerly await data uploads in the spring when birds again fly above the canopy enough to charge their solar panels and reenter cellular range in Central America.

In some cases, such as in the case of "Harris" and "Monadnock," birds breeding in the same geographic area (~3 km apart) also wintered in close proximity to each other (~30 km apart) in Colombia; however, "Thelma" wintered over 1,200 miles away in central Brazil! "Thelma" had young in each of 2021 and 2022, but failed both years. Interestingly, she didn't exhibit site fidelity during the breeding season, something atypical of previously-tracked females. Based on field observations and her geolocation data, we could deduce that she ***did*** pass over her 2021 breeding site, but her banded mate already had company…a bird that ultimately was found nesting about 250 meters from the 2021 nest site. Thelma made a beeline 12 miles east, and I rediscovered her on a nest in late May, thanks to her cellular transmitter signals. She appeared to occupy a messy, old Gray Squirrel nest which was, perhaps, hastily transformed due to her late arrival on territory. She had two nestlings by early July but failed soon after for unknown reasons.

The Harris Center's future project goals include continuing to monitor the nesting success of known birds and territories, survivorship, and quantifying habitat use/land cover composition in the breeding season. Habitat variables such as development may also yield critical information related to thresholds of percent forest cover for Broad-winged productivity. Monitoring nesting success related to predation pressures will also be valuable. What we have learned by looking at previous studies from other populations is that it will be critical to conserve forested areas in breeding, stopover, and wintering areas to effectively conserve the Broad-winged Hawk.

You can follow along with the movements of the tagged hawks via the "live map" link on Hawk Mountain's "Meet the Birds" page. *Note: To protect the sensitive locations where tagged birds are nesting during the summer months, the maps are only live from fall through early spring.*

Special thanks to Dr. Rebecca McCabe and Dr. Laurie Goodrich of Hawk Mountain Sanctuary, as well as donors to this project and the 45 individuals who volunteered or provided staff support in some capacity.

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What to Watch for in Fall

August

- Post breeding dispersal can bring Great Egrets to inland sites anytime during the month.
- Shorebird migration is a highlight in August. Adults come through first. They are in molt with new feathers mixed in with the older, worn ones. Aging shorebirds helps with identification. Some of the first species to come through are Least Sandpipers and both yellowlegs.
- Male hummingbirds depart first, usually in early August; females and young linger into mid-September.
- Louisiana Waterthrush depart early and are gone by mid-August.
- Look for large flocks of Tree Swallows along the coast in Seabrook near Cross Beach Road and the Seabrook Back Dunes. Tree Swallows are most numerous and Barn Swallows will linger into October, but Bank Swallows are few in number and Northern Rough-wingeds are the first to leave, departing by early August.

September

- The first Blue-winged Teals appear in August but sightings peak in September. Good places to look for them include Horseshoe Pond in Concord, the Rochester WTP (open on weekdays only until 2:45 pm), and Exeter WTP (do not walk past the gate).
- Juvenile shorebirds begin to arrive as do later-migrating species such as American Golden-Plover and Dunlin.
- September is a great month for warbler migration as the "confusing fall warblers" can move through at any time. Odiorne Point State Park in Rye can be a great place for a fallout in poor weather.
- Broad-winged Hawk migration peaks in mid-September with the potential for days over 1,000. Pack Monadnock Raptor Observatory in Peterborough has a regularly staffed fall hawkwatch, but you can watch from any high spot with a good view to the north.
- In late September, check any hummingbird very carefully; vagrants such as Rufous Hummingbird become more likely than Ruby-throated.

Blue-winged Teal by Jim Sparrell, 8-23-21, Rochester WTP, NH.

October

- Sparrow migration peaks. Good places to check are weedy fields or community gardens such as the Birch Street Community Gardens in Concord.
- Chipping Sparrows depart and American Tree Sparrows arrive from the north, with their rusty cap giving them the nickname of "Winter Chippy."
- Waterfowl that winters on the ocean begin to arrive. Watch for inland fallouts of grebes, scoters, and other sea ducks anytime there is a rain storm.
- Most thrushes are gone by early October, but a few Hermit Thrush linger into November.
- Large blackbird flocks gather at the end of October and early November sometimes numbering in the thousands. Flocks may be single species or comprised of a mixture of Red-winged Blackbirds, Brown-headed Cowbirds, Common Grackles, and European Starlings. They are often seen in the evening coming in to roost (Great Bog in Portsmouth has had spectacular concentrations of grackles) or feeding in corn fields.

November

- Golden Eagles are rare in the state, but November is the month when they move through. The Pack Monadnock Raptor Observatory is one of the best places to watch.
- Common Mergansers and Horned Grebes gather in large numbers on Lake Winnipesaukee.
- An offshore boat trip can bring sightings of Northern Fulmars and alcids such as Razorbills and Common Murres.
- If Cave Swallows are going to be seen in the state, November is the month. Watch for this rarity at the immediate coast.
- Rough-legged Hawks are uncommon winter visitors in New Hampshire with first reports in November. Good places to check are the Portsmouth International Airport at Pease, the Dillant-Hopkins Airport in Swanzey, and the fields along the Connecticut River.
- The first Snowy Owls arrive from the north but numbers vary each year and they can be absent in some years. The coast is the most reliable place to see one.

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Abbreviations Used

AMC	Appalachian Mountain Club
BBC	Brookline Bird Club
BBS	Breeding Bird Survey
CA	Conservation Area
CC	Country Club
CFT	NH Audubon Chapter Field Trip
FT	Field Trip
IBA	Important Bird Area
L.	Lake
LPC	Loon Preservation Committee
NA	Natural Area
NHA	New Hampshire Audubon
NHBR	New Hampshire Bird Records
NHRBC	NH Rare Birds Committee
NWR	National Wildlife Refuge
PO	Post Office
R.	River
Rd.	Road
RO	Raptor Observatory
Rt.	Route
SF	State Forest
SP	State Park
SPNHF	Society for the Protection of NH Forests, Concord
T&M	Thompson & Meserves (Purchase)
TNC	The Nature Conservancy
WMA	Wildlife Management Area
WMNF	White Mountain National Forest
WS	NHA Wildlife Sanctuary
~	approximately
WTP	Wastewater Treatment Plant

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Colors of Fall

Red-headed Woodpecker by Cathy Wennerth, 8-29-22, Merrimack, NH.

Yellow-rumped Warbler in the Poison Ivy by Rebecca Suomala, 10-9-22, Rye, NH.

Bay-breasted Warbler by Steve Mirick, 9-3-22, Freedom Town Forest, NH

The red eyes of a Cooper's Hawk by Paul Kursewicz, 9-3-22, Epping, NH.

Pine Grosbeak by David Forsyth, 11-9-22, Ferry Rd., Dummer, NH.

Red-shouldered Hawk by Jim Sparrell, 11-9-22, Portsmouth High School, NH

Fall 2023 Rarities

Ross's Goose by Ed North, 12-1-22, Rochester WTP, NH.

The Audubon's subspecies of the Yellow-rumped Warbler (note the yellow throat) by Steve Mirick, 11-22-22, Willow Ave., N. Hampton, NH.

Rufous Hummingbird by Steve Mirick, 11-5-22, Newmarket, NH.

LeConte's Sparrow by Jim Sparrell, 10-31-22, Goss Farm, Rye, NH.

Black Tern found and photographed by Tom Momeyer, 8-21-22, Peterborough WTP, NH.

Rufous Hummingbird by Cameron Johnson, 11-5-22, Newmarket, NH.

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