

# A Change in the Air

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*Nighthawks fly high above the sky.* photo © David Hoitt

**L**ate August is arguably the most glorious part of summer: golden light, silky pond swims, wildflowers of every hue. But, for some species, autumn has already arrived. The fall bird migration is a lengthy affair, and it can begin as early as July.

Last November, with the installation of a new Motus Wildlife Tracking System station on our Granite Lake Headwaters property in Stoddard, the Harris Center joined a cutting-edge research network focused on this winged migration. Motus (Latin for “motion”) is comprised of small, lightweight radio transmitters (nanotags) that are affixed to shorebirds, songbirds, small owls, bats, and even butterflies, along with a network of antennas that detect the radio signals whenever a tagged animal flies within range.

Though there are no tagging projects in the Monadnock Region just yet, any animal that has been tagged elsewhere and then flies within 15 miles or so of our station in Stoddard should get recorded. Think of it as an E-Z Pass system for birds.

With enough tagged animals, and enough receiving stations, patterns begin to emerge. Though it's been in existence for less than a decade, the Motus network has already revealed intimate, never-before-seen details about migration routes, timing, flight speed, stopover behavior, the locations of critical migratory and overwintering habitat, and more.

Initial efforts focused largely on Atlantic, Gulf, and Great Lakes coastlines, but the newly-launched New England Motus project aims to establish a series of 50 receiving stations in east-west "fencelines" that will detect tagged wildlife as they migrate north-south through interior Connecticut, Maine, Massachusetts, Rhode Island, Vermont, and New Hampshire.

Data are transmitted from each station via cell signal, and can typically be viewed within days of detection via a map at [motus.org](https://motus.org). Needless to say, I've been checking the map nearly every week since our local station went online, eager to see who might be flying by.

### "The more we know, the less we know."

Because many tagging projects were put on hold last year due to the pandemic, our site remained silent through the spring migration and into early summer. Then, on July 30, a Semipalmated Plover tagged in June on its breeding grounds in Churchill, Manitoba flew past our station during the first leg of its fall migration. The very next day, that same bird was detected by a Motus receiver at the northern end of the Bay of Fundy, more than 400 miles distant, where it stayed until at least August 3.

Why did that plover head south through the Monadnock Region – 1,000 miles from Churchill – before flying 400 miles northeast to its stopover area in the Bay of Fundy? Good question. As my friend, colleague, and accomplished birder Eric Masterson said upon hearing news of the small shorebird's surprising flight, "The more we know, the less we know."

Digging a little deeper, "our" plover is one of 346 individual birds nanotagged since 2015 as part of the "Churchill Shorebirds" project led by Dr. Erica Nol of Trent University. According to Dr. Nol, data from prior years has revealed that most of the Semipalmated Plovers that nest in Churchill fly either to the Bay of Fundy or over the Great Lakes to the mid-Atlantic coast in late summer. Then, they make their way along the coast to Suriname and French Guiana for the cold months. Birds of the same species breeding in Alaska, on the other hand, appear to overwinter in the southeastern United States, Caribbean, and Central America.

Mysteries, as ever, remain. This summer, Dr. Nol also began nanotagging Stilt Sandpipers, one of which flew in July from Churchill to Quebec to Buffalo, N.Y., to Winnipeg, back to Buffalo, and then

on to Jacksonville, Fla., – a distance of more than 4,500 miles back and forth across the continent in just over a month. The Motus network includes more than 1,200 receiving stations across 31 countries, along with 29,000 tags on 252 species. (Most of these tags are not currently active, as batteries wane after a season or so.) As of this summer, however, only five individual Stilts had been tagged. Will the wanderer prove to be the exception, or the rule?

## Old-fashioned Birding

Of course, there's plenty of migration to be experienced the old-fashioned way, and shorebirds aren't the only ones who rise into the wind before summer's end.

Last week, I stepped out of a building in Keene and was stopped in my tracks by the sight of hundreds of Common Nighthawks filling the sky above Main Street. Nighthawks feed exclusively on flying insects, and so must complete their migration – one of the longest of any North American bird species – before frost threatens their food supply.

Like many aerial insectivores, nighthawk populations have experienced precipitous declines in the last few decades. Once common summertime residents of New England, they're now officially listed as "endangered" in New Hampshire. Here in the Monadnock Region, volunteers with Project Nighthawk – a community science program coordinated by NH Audubon and the Harris Center – have identified just one nesting pair in Keene each of the past few summers, and none in surrounding towns.

But August comes, and other nighthawks arrive from northern Canada, sweeping down the Contoocook and Ashuelot and Connecticut river valleys in search of flying ants to fuel their flights to Argentina, Paraguay, Uruguay, Peru, and southern Brazil. If you step outside between 5 and 7:30 p.m., you might get to share a few remarkable moments of the journey. Watch for them swirling through the air, silent and ethereal, and wish them well.

Warblers, vireos, flycatchers, and other songbirds are also now on the move, though they migrate under cover of darkness to evade potential predators. While you're less likely to spy them overhead, you might see them in the early morning along sunny woodland edges as they forage for insects and fruit to power the next leg of their voyage. Phil Brown, a skilled birder known locally as "Golden Ear" for his ability to discern faint bird calls amid a cacophony of other background noises, suggests rather poetically that we seek out these small international travelers in "places that light up with morning sun."

Curiously, some wading birds also move south to north in August, in a phenomenon known as "post-breeding dispersal." Great Egrets both breed and overwinter well south and west of New Hampshire,

but up to eleven of them have been seen stalking prey in the wetlands at the Keene Airport this month. If you find yourself near a marsh in the next week or two, keep your eye out for big white birds with long necks, and wonder for a moment at the complexity of their travels.

The more we know, the less we know. This much, though, is clear: our connections to the world beyond our borders are not limited to social media or other human constructs – and if we take the time, we can glimpse the mystery and magic of it all, right in our own backyards. 🐾



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