



Black-capped Chronicle



Issue 10

Newsletter of the Maine Bird Atlas

Spring 2022

Atlasing is for the Birds

by Evan Adams, Ecological Modeler

I didn't grow up in Maine. I was born and raised in the desert of eastern Washington, with Gambel's Quail nesting in my backyard and Bewick's Wrens socializing in the sagebrush. The birds were nice to listen to, but when I was playing outside I was mostly trying to detect and avoid rattlesnakes.

Fortunately for me, my grandparents loved birds. They loved wildlife of all kinds but paid particular attention to birds at their feeders and on their walks. They gave me an old Golden Guide, my first bird guide, to help me identify my local flocks. After that, I started paying more attention but was then distracted by being a kid and getting into other (lesser) sciences. But sometimes, you grow up next to a national lab, and they give you chance to run a particle accelerator as a teenager. It's hard to turn down a chance to see what three million volts will do to a proton.

I really found biology, and ornithology in particular, in college. My biology department hired a behavioral ecologist as visiting professor, and he taught me to be rigorously curious about why animals act the way they do. After that, a semester abroad in Costa Rica convinced me that there was much more we needed to know about birds. Getting to see Resplendent Quetzals daily definitely qualifies as a transformational experience. This trip inspired me to write my



Brown Creeper delivering food to nestlings (behind the bark).

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undergraduate thesis on cloud forest songbirds, particularly the *Myioborus* redstarts of central America, thus starting my career as an avian ecologist.

Now that I'm out of school, my work focuses on bird distributions and movements and how birds respond to environmental change. I also work hard in the conservation world to help groups make informed decisions about important issues. Learning about animals is great, but learning to solve problems that make the world better for people and birds is the absolute best. The Maine Bird Atlas is one of these opportunities to guide conservation issues, I'm fortunate to be a part of this great team.

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Atlasing is for the Birds continued

At this point, birds are both my passion and career, and atlasing is at the middle of it all. So, I guess I atlas for a lot of reasons.

I atlas for my grandparents, who always wanted their families to live in a world where nature plays an important role.

I atlas for my curiosity, because I want to know how things work and why birds do what they do.

I atlas to see more of Maine and learn more about this great state.

But most importantly, I atlas for the birds. The world is changing so fast, and while birds have an amazing capacity to change with it, they can't do it all. We have to help them out. And to do that we need to know more about them. We need to know where they live, their ecology and behaviors,

and what areas are important for breeding now and in the future. In turn, we'll also need to know how to make the world a better place for them. Determine the kinds of actions we can take to stabilize or increase their populations in Maine. All of this starts with building on this incredible knowledge we've developed in the atlas.

We are entering the final year of the second Maine Bird Atlas. I've lived in Maine for fifteen years now. When I think of home, I visualize Brown Creepers and Baltimore Orioles instead of desert birds. I've worked on birds all over the world, but this project is different. This is home. I want to make sure the species we steward stay in Maine for generations to come. I hope you'll join me in finishing the atlas strong this year so we can make Maine as great a place for birds as possible.

Maine's Final Year!

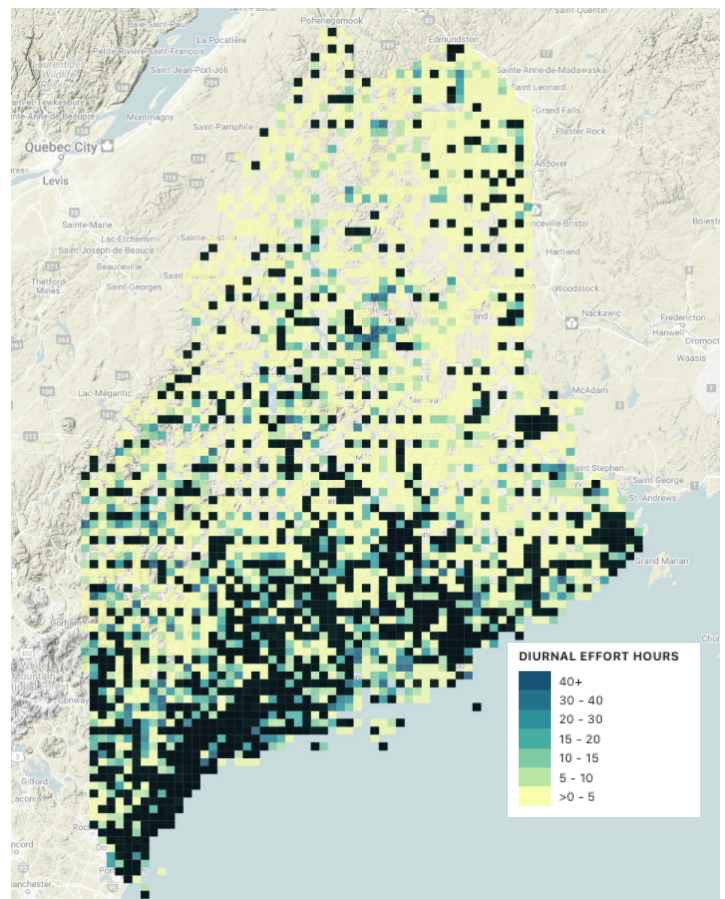
by Glen Mittelhauser, Project Coordinator

OK folks, we're almost there – it's the last year of the Atlas and we are down to the final 312 priority blocks (out of 974) in the project. First off, I'd just like to acknowledge how far we've come. The scale of this project is unprecedented. Since 2018, nearly 5,000 fantastic volunteers like you have wandered through all of the nooks and crannies of Maine and have contributed over 5 million records and documented evidence for over 200 species breeding in the state. You are doing a great job and even though 312 may be a daunting number, I believe we can make it.

It's been 4 years since this atlasing effort started and we now have checklists spanning 80% of the state. Check out the [atlas effort map](#) for a good visual overview of what has been accomplished to date. The strength of atlases is in the uniformity of their coverage across the state (as designated by priority blocks). This is the final year to fill in the gaps in our uniform coverage design. I believe we owe it to the next generation of biologists to do everything we can to get 100% of our priority areas completed over the next 4 months and build up a map of distribution for each species that gives a complete picture of bird populations in this ecologically connected area. It will be a team effort to finish everything this season. Every single atlaser and bird record makes a huge difference.

There are NUMEROUS ways you can help out, but below are the ones that will have the biggest impact:

- 1. Sign up to help complete priority blocks** (our highest priority): Check out the [Atlas Block Busters website](#) for the latest information on which blocks need help (this map is updated daily). You can either sign up to cover a priority block, or sign up to be the backup on a priority block that is being covered by someone else. (Note: you can still help out



Map showing the amount of effort (by hours) in each block. Black blocks have been completed. An amazing effort so far!

on a block even if you haven't signed up for it.) Communication is key here! If you are falling behind on a block that you are working on, let us know ASAP. If you have extra time to help out with blocks that are falling behind, reach out and let us know if you want some direction. The best line of communication with us this summer is to join our

Final Year continued

[weekly question and answer sessions](#), or email us directly (mainebirdatlas@gmail.com).

2. Sign up for targeted atlasing special assignments:

If there aren't any more incomplete priority blocks within your travel distance and you want to do some additional atlasing to help look for potentially missed species, contact us (mainebirdatlas@gmail.com). We have a bunch of special assignments to improve the data quality in certain blocks across the state by targeting specific species and habitats.

3. **Sign up to conduct a marsh bird survey.** We have [61 marshes left to survey this summer](#), and we are looking for volunteers to run some of these surveys.

Some reminders for the 2022 atlasing season...

• Tips for efficient atlasing:

1. Get up early.
2. Look for productive locations and habitats.
3. Station yourself in a location with good visibility.
4. Watch and follow individual birds to see what they are up to.
5. Assign a breeding code to all birds on your checklist that you think may be breeding in the area.
6. Keep an eye out for behaviors that give greater evidence that the species is breeding nearby.

Join the [weekly atlas question and answer session](#) if you have any questions.

• **Make your atlasing plans now!** Sign up to complete or be the backup observer for an incomplete priority block. Check out this [blockbusters website](#) for the latest information on blocks needing help. Our goal is to get at least 1 atlaser signed up for all incomplete priority blocks by 1 June.

Get signed up for Weekly Updates and Notifications

To be sure that you don't miss any updates, and get all notifications about weekly events, including Zoom Q&As or other training opportunities, sign up for email notifications from the Maine Bird Atlas staff.

Get on our list here: [Sign Me Up!](#)



• **Become familiar with what it takes to complete an atlas block.** Review the effort and breeding code criteria needed to complete an atlas block and how to atlas efficiently. See Jeff Cherry's great article about strategies for completing priority blocks in the [Spring 2021 Atlas Newsletter](#). If you need help, join our [weekly question and answer sessions](#), [email your regional coordinator](#), or email us directly (mainebirdatlas@gmail.com).

• **Go atlasing with others.** It can be very efficient to atlas with a team of birders. Make some plans with your fellow birding buddies to work on an incomplete priority block. Or, consider joining a blockbusting trip.

• **Get your checklists entered into eBird ASAP.** Our entire system of monitoring block completion relies on up-to-date information. The way for us to avoid duplicating effort is to get all checklists uploaded to eBird quickly this season.

• **Communication is key!** If you are falling behind on a block that you are working on, let us know ASAP. If you have extra time to help out with blocks that are falling behind, reach out. The best lines of communication this summer is to join our [weekly question and answer sessions](#), or email us directly (mainebirdatlas@gmail.com).

Volunteers like you are central to the success of the Maine Bird Atlas. This enormous project is achievable only through the mass participation of all birders in Maine. The amazing results achieved so far show what the Maine birding community can accomplish when we work together with a single purpose. You are all doing an amazing job. Thank you!



Stay Up to Date with the Maine Bird Atlas

Email *

Sign up to receive periodic project updates, announcements of atlas events and challenges with chances to win cool prizes, and helpful tips.

By checking this box, you consent to our [data privacy policy](#).

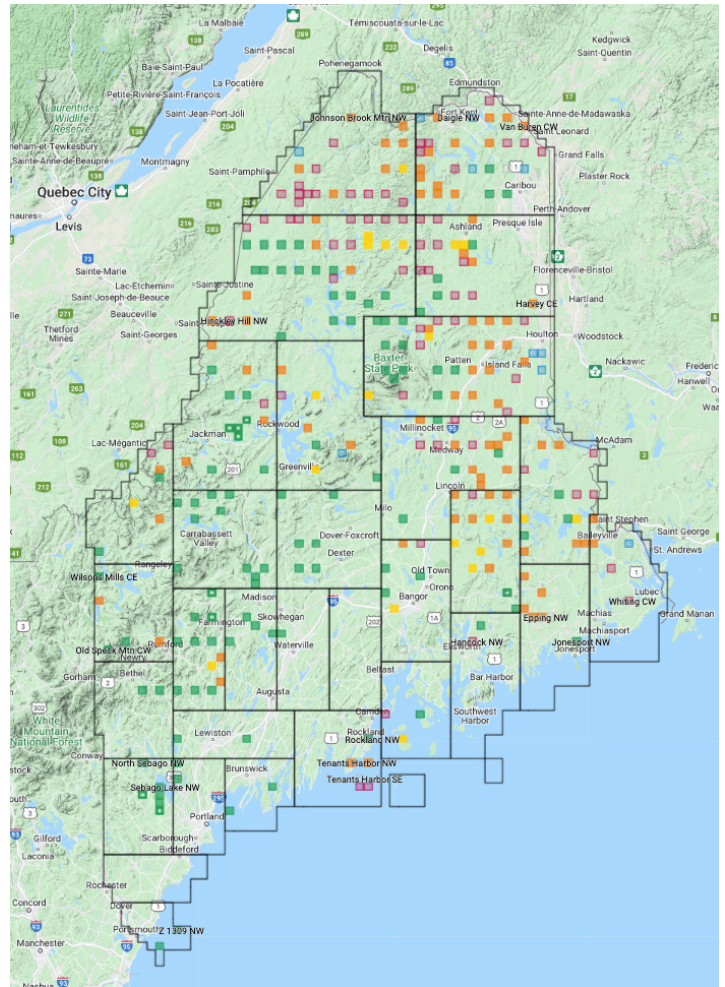
Block Busting Webpage

Sign up to finish an incomplete priority block

We have 312 incomplete priority blocks at the time I am writing this, and our goal is to finish all of these blocks by the end of this summer (i.e., over the next 4 months). We'll need to work together to make sure nothing slips through the cracks, but this is definitely a doable goal. We have over 4,000 atlasers contributing to the Maine Bird Atlas and a little over 300 blocks to finish up. If everyone reading this article signs up for and completes 1 priority block, we can easily reach our goal.

Check out the [Atlas Block Busters website](#) for a map showing all the priority blocks that need help (right). Blocks that have at least 1 person signed up to finish this atlas block this summer are shaded in green. Our goal is to get someone signed up for each of the blocks on the map by June 1st and have at least one person signed up as a backup incase the block falls behind, so make some plans now. The red-shaded blocks still need the starting species list built out for the block. The orange shaded blocks have a good starting checklist of species, but needs both breeding code upgrades and effort to complete the block. The yellow shaded blocks have a good species lists and need only some breeding code upgrades to complete the block. The blue shaded blocks are the easiest to complete as they have a good species list and distribution of breeding codes, and only need some additional search effort in the block to finish it up.

By [signing up to be a primary atlaser](#), you will make efforts to see that the block gets completed this coming summer. Being a backup atlaser is a huge help. Despite the best of intentions, some atlas blocks may fall behind and not be on track for completion this summer. A backup atlaser can sweep in and take a more active role to put the block back on track for completion.



Sample map from the Atlas Block Busters website. Follow the link to see this online and pick priority blocks that you can complete. You can claim a block, which will turn it green, and put us on track for finishing the atlas this year! Can you help turn this map green?

Tips for Atlasing the North Maine Woods

The North Maine Woods (NMW) contains over 3.5 million acres for forestland, but fortunately for us, we have less than 10% of that left to survey for the atlas. As you can see from the Block Busting Map above, it will take a lot of effort in the NMW, so here are some tips for anyone willing to make the trip:

Plan Ahead - Before you go, print out any maps you'll need. I recommend both topo and aerial maps of the blocks you intend to survey, from our [Interactive Block Map tool](#). If you've never been in the NMW before, visit the organization's website and familiarize yourself with rules and regulations: northmainewoods.org

Maximize Survey Time - It can take a lot of effort to access some of these blocks, even if you're starting in the north. Consider spending multiple days by taking advantage of [camp sites](#) or [cabins](#) in the area. And bring other atlasers with you: Two people can complete a block in half the time of one person - divide and conquer!

Use Remote Travel Grants - If you are going to put in the effort, we can help with the cost. The Maine Bird Atlas has a travel grant program to help reimburse costs incurred when surveying atlas blocks in remote regions. Submit a grant application here: mainenaturalhistory.org/travelgrant

Have Backups (of everything) - Be prepared to fix a flat tire, or know how to navigate if your phone dies. Cellular reception is practically non-existent through most of the NMW so bring maps and be prepared for using eBird offline if creating checklists on your phone.

Remember - the NMW is an industrial forest. We are granted public access on private lands. Beware of fast moving logging trucks and remember that they have the right of way.

Need Motivation? Watch Bob Duchesne's excellent video: "[Maine Bird Atlas in the North Maine Woods](#)".

Photo Highlights from the Field

Many of our volunteers add photos to their eBird checklists and they often capture some great breeding behaviors. Here are a selection from the last few years that show interesting behaviors or plumages:



Northern Mockingbirds are fairly ubiquitous and successfully breed around the more developed areas in Maine, as evidenced by this juvenile photographed by Bill Bunn in Portland. Despite increased suburban sprawl since the first atlas (1978-82), mockingbirds appear to have retracted from the edges of their former breeding range.



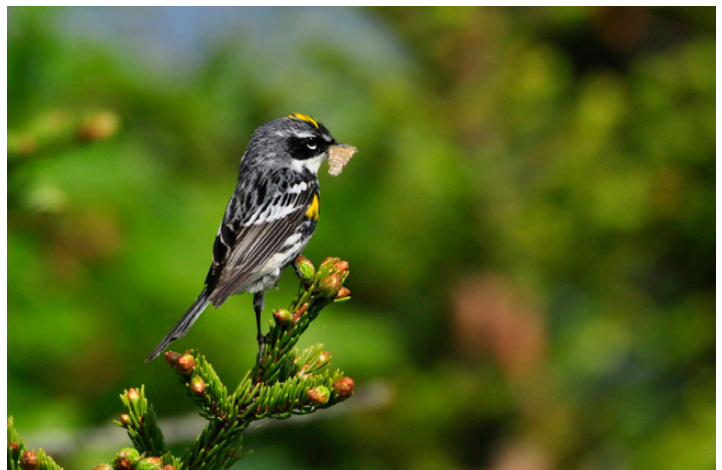
Life is tough when you live in a saltmarsh! Saltmarsh Sparrows have a very narrow window to breed, basically between the highest tides of each month, which can cause their nests to flood. This recently fledged Saltmarsh Sparrow was fortunate to beat the tide, but ultimately still ended up getting wet while learning to fly. Photo by Weston Barker.



Percy Ulsamer was working on Ship Island when he snapped this photo of a fluffy Spotted Sandpiper chick. These are one of eight shorebird species that nest in Maine. Can you think of the other seven?



This chick looks more like a toy than an actual baby bird, but don't be fooled, this is a "fresh out of the wrapper" Leach's Storm-Petrel. Eddy Edwards, the Deputy Refuge Manager for Friends of Maine Coastal Islands, snapped this photo while working on Metinic Island. Maine's seabird nesting islands are closed to the public during the nesting season, but we are fortunate to have cooperation from the many researchers on those islands who share their breeding observations with the atlas.



Baby birds shouldn't get all the spotlight! This stunning male Yellow-rumped Warbler photo was shot by Oliver Patrick while atlas-ing on Mt. Chase. During the hike, Oliver recorded 28 species and got breeding codes for all of them - a quality checklist!

Highlights continued



It is hard to resist the baby bird photos... Some recently fledged birds can be really hard to identify because their plumage is so different from the adults. Watching for an adult to bring food (keep your distance!) can help with juveniles you don't recognize, like this recently fledged Chipping Sparrow. Photo by Fyn Kynd.



There is nothing more iconic than a Common Loon nesting on Maine's lakes, and Reed Robinson beautifully captured this family while atlasing-by-kayak in the North Waterford NW block.



Common Nighthawks are a very difficult species to get confirmed breeding records of because their nests (and their plumage) is cryptic and hard to see. Charlie Nims, while atlasing in Oxford County, observed this female doing a distraction display, which indicated there was a nest (or nestlings) nearby.



One more island nesting seabird for this issue: a family of Common Terns photographed by Jonathan Irons while on Eastern Egg Rock. If you look closely, you can see the white "egg tooth" at the tip of the beak on the top chick, used to help break through the tough eggshell when the chick is hatching.



Speaking of cryptic and hard to see birds, how often do you get to see baby rails?! Anna Hodgkin caught this great photo of a juvenile Virginia Rail, a bird much more often heard than seen. Read Danielle D'Auria's article on [page 7](#) to learn about helping us survey for marsh birds.

Calling All Volunteers Willing to Get Their Feet Wet!

By Danielle D'Auria, Waterbird Specialist for Maine Dept of Inland Fisheries and Wildlife

The final spring season of the Maine Bird Atlas is here and with it is your chance to get your feet wet - both literally (if you step a little too deep or your waders have a hole in them like mine do) and figuratively (as in experiencing something new – isn't that what the atlas is all about?). Some of the most mysterious and secretive birds are hidden in our wetlands both near and far, and the best way to find them is to immerse yourself in (but not UNDER the water) their saturated surroundings at the crack of dawn when they are most active and talk to them. That's right: talk to them. And hope they talk back.

The birds I'm alluding to are rails, bitterns, gallinules, and grebes (oh my!) and they are considered "secretive marshbirds" for a good reason – they tend to stay hidden amongst the cattails and sedges, rarely showing themselves to you and me. They seldom fly during the breeding season, making your chance of seeing them slim. How slim? As slim as a Virginia Rail whose compressed body enables it to easily walk amongst the thick vegetation with one foot in front of the other. While birding is usually about viewing birds with binoculars or even your naked eye, your best strategy for detecting these stealthy characters is to broadcast their calls and listen for their response. They are indeed characters with calls that sound like someone laughing at you (grunt of a Virginia Rail), gulps (Pied-billed Grebe), whinnies (Sora), clucks (Common Gallinule), and coos (Least Bittern).

Marshbird surveys are one of the Special Species Surveys we are conducting for the Maine Bird Atlas targeting species that can otherwise be difficult to detect during typical birding activities. There are nine focal species targeted by broadcasting their calls using an MP3 player and speaker: Pied-billed Grebe, American Bittern, Least Bittern, Green Heron, Sora, Virginia Rail, Common Gallinule, American Coot, and Sedge Wren. Many marshbirds have undergone population declines regionally and nationally, elevating the importance of these surveys for better understanding their abundance and distribution in Maine.



*American Bittern, usually secretive, this one was showing off!
Photo by Reed Robinson*

We are looking for volunteers to conduct these broadcast surveys (following a simple field protocol) at randomly selected marshes across the state. Some sites are accessible by foot, while others may require a kayak or canoe. The survey entails three visits to specific survey points within each wetland over a six-week period (15 May – 30 June) to detect the nine focal species. This limited number of species means there are only a few birds you need to be able to identify. The calls I described above get you halfway there!

There are dozens of marshes to choose from depending on how far you're willing to travel (and thus how early you want to get up!), the type of access you desire (walk or paddle), and how much time you can contribute (larger wetlands have more survey points and each survey point takes about 12 minutes to complete).

Besides the opportunity to see or hear one of these relatively rare and secretive birds, these surveys will take you to some beautiful places at a special time of day. Whether it's the honk-a-reee of a Red-winged Blackbird, the winnowing display of a Wilson's Snipe, or the oonck-a-choonk of an American Bittern, you will undoubtedly be impressed by the beauty and sounds of an early morning marsh! So, dig out those mud boots, dust off your life jacket, and go get your feet wet!

For more information about the surveys and protocol, and how to sign up for a marsh, and links to hear each species' unique calls, visit: <https://mainenaturalhistory.org/mebir-datlas-marshbirds-surveys>.



Some marshes are easy to access, while others may require a short paddle. We can match you with one based on your level of adventure!

This Is Why I Bird

(Editors Note: We read Kathie's story on Facebook and loved it so much we asked to reproduce it here. Tag us with any stories or experiences you have, @mainebirdatlas.)

by Kathie Brown

Last night I went out looking to document woodcocks doing their courtship display for the Maine Breeding Atlas. The Union CE Block still did not have any records, so I left my house around 6:45 and headed Northeast into the block. I drove North on Route 235 to Ayer Park near 7 Tree Pond, but, though I drove through plenty of farmland, there were no thickets that the woodcocks favor. I thought I could park at the boat launch and walk up and down the street, but the wind blowing over the water was loud and cold. I quickly realized this WAS NOT the ideal location after all, so I turned myself around and headed back south.

All along Route 235 I drove with my window down listening for the peenting of woodcocks. I pulled over at one location that looked promising, but nothing, so I hurried on. I turned right onto Clary Hill Road and slowed my car to a crawl. In less than 1/10 of a mile I heard my first nasally "peent"! I was going uphill on a curve with ditches on both sides of the road. There was no place to park! Suddenly, all the woods dropped away with farm fields on either side where I saw a driveway into the fields. I quickly pulled in, parked my car, started my checklist, and jumped out.

Overhead the wind blew low tattered clouds scudding across the sky. Still, there was enough faint light for me to see. Cut corn stalks poked from the damp earth. Down the hill a creek tumbled. Spring peepers were just starting their nighttime chorus, and robins whinnied in the woods, and hedgerows. Overhead, a flock of gulls rode the tossing winds, their cries a faint call high in the sky. Behind it all: "Peent. Peent. Peent". First one bird, then another, then another. Three birds in all.

As I stood at the edge of the field, the wind whipping my coat around me, I clenched my hands into fists and silently prayed, "Come on, take off! Please fly!" Then suddenly I heard it! The twitter of wings as a bird launched into the air. It was coming right at me! I gazed above as the miniature football-shaped bird flew right over my head! Its short wings flapped furiously as they lifted the chunky body heavenward until it was lost from sight. Then, suddenly I heard the chirping as the bird descended to the earth, and the peenting began again.

I stood there for 15 minutes in the tossing wind and fading light. My heart was racing as the birds took to the sky over and over again, often flying right above my head. I did not want to leave, I was so entranced, but as the dim light faded, the displays trailed off. Reluctantly I got back in my car and drove home. It was one of the best birding experiences of my life.



American Woodcock. Photo by Fyn Kynd

Spotlight on the Elusive Long-eared Owl

(Editors Note: Long-eared Owls are one of Maine's most elusive breeders, with only one record so far in the atlas. We wanted to share this article with our volunteers because it has some helpful tips on finding (and confirming) these rare owls. This article was originally published in French, in Quebec Oiseaux, then translated by Cassandra Cameron. Reproduced here with permission from the publishers.)

By Michel Savard, Bruno Dumont, and Christiane Girard

The long-eared owl is a mainly nocturnal bird, considered extremely discreet. It is also believed to be a generally rare migrant nesting bird throughout the Quebec province. According to various annotated regional lists, the long-eared owl is also the nesting owl species with the least number of sightings in Quebec; far less than the great-horned owl, the barred owl, the short-eared owl, or the northern saw-whet owl. During the six years of inventories conducted for the Atlas of the breeding birds of southern Quebec (1984-1986), only 11 nesting evidences have been detected among the 2,464 – 100 km² territories: three nests and eight juvenile sightings. Inventories for the Atlas of the breeding birds also hasn't allowed birders from Ontario, the Maritimes provinces, and northeastern United States to reach a conclusion regarding the long-eared owl's real abundance on the territories. In their recent book "How to spot an owl", the Suttons (1994) describe the long-eared owl as one of the hardest owl to spot, and one of the most furtive, silent, secretive, and shy.



A Long-eared Owl comfortably installed on its nest.

Photo by François Morneau

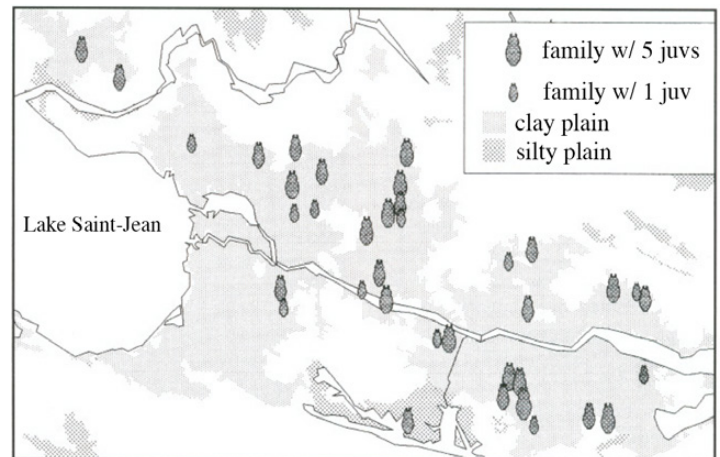
How then, have three observers from Saguenay/Lac-Saint-Jean (authors of this article) been able to inventory 37 long-eared owl families in a single summer, which represented 3 times the number of sites previously recorded in the region over the last thirty years? Have they just been lucky enough to witness an exceptionally rare event?

An unforgettable summer

Most discoveries happen by accident. The case of Saguenay/Lac-St-Jean's long-eared owls is no exception.

Bruno has an uncommon passion for nighttime bird watching. Since 1985, he has been scanning all the logging and countryside roads in Saguenay/Lac-St-Jean in search of nocturnal owls. Every year, he marks on topographic maps the location of between 10 and 50 observation sites, usually for great-horned owls, barred owls, northern saw-whet owls, and short-eared owls. As for the long-eared owl, only one site had been recorded prior to 1994, in Chambord, in 1989.

That was to change in the night of July 19, 1994. During a short outing around the city of Jonquière, Bruno heard repeated, high-pitched young-bird calls coming from the direction of a small grove, the usual observation site for long-eared owls in the region of Haut-Saguenay. The calls were eerily similar to those of the killdeer, only more haunting: "kîîî" or "ki-hîîî". Bruno got closer to the edge of the woods and discovered, through the glow of his flashlight, two young long-eared owls begging for food. Immediately, Bruno started inspecting the surrounding area in a similar fashion and discovered two more observation sites... He had just discovered an effective way to spot long-eared owls at that time of the year.



Long-eared owl survey in Saguenay/Lac-Saint-Jean, summer 1994. Sources: Unité d'information écologique, EQ Inc. (1994). Data from Bruno Dumont, Michel Savard, and Christiane Girard (1994).

The very next day, we were gathering a team to experiment this new investigative method. First, we put together the limited previous data we had on long-eared owls in order to attempt a habitat characterization based on our knowledge of the region. The two subsequent outings in the plain of

Chicoutimi-Laterrière-La Baie had therefore been planned according to the segmentation of an ecological map in order to spot potential habitats. And it worked: we found five more long-eared owl observation sites, each counting a family of one to five young owls, all of them hungry, screeching and able to fly.



Intimidation display: this young Long-eared Owl puffs up its feathers.

Photo by François Morneau

During those 13 night outings, from July 19 to August 6, 1994, we counted 37 long-eared owl families in 15 municipalities, for a grand total of 78 juveniles, all spotted from their calls. The long-eared owl was by far the most frequently encountered owl species in the area in July and August of that year (Table 1). However, we only saw two flying adults, thus confirming their reputation of discretion. After our survey of juvenile long-eared owls, the species appeared to us more familiar than any other species of nocturnal owl in the region! One only had to get off the beaten path, pay attention to juvenile calls, target the rearing period, and most of all, characterize adequately the species' habitat in the region.

Species	Number of sites
Long-eared Owl	37 (a)
Great Horned Owl	3 (b)
Short-eared Owl	3 (c)

Table 1: Number of observation sites for three owl species surveyed in July and August 1994 in Saguenay/Lac-Saint-Jean

- a) Families, all located by juvenile calls.
- b) 2 families located by juvenile calls.
- c) All located in flight, during a feeding event.

A simple method

Methods used by researchers to survey long-eared owl populations aren't detailed in summary publications. Therefore, we have relied on our own experience to develop an effective survey method, based on listening to the calls of juveniles. Data on the species indicate that the rearing period when juveniles are outside the nest spans from early July to mid-August in Saguenay/Lac-Saint-Jean. Piercing the silent night, the calls of the juveniles can be heard up to one kilometer away, sometimes even more on flat and open terrain. Our stops, made by car on the country road, were therefore planned every 300, 500, or 1000 meters, depending on the topography. The juveniles send calls at a rate of about 10 per minute, and intonation seems to change slightly with age. It is therefore relatively easy to count and localize them quickly, without the need of recordings. Hungry juveniles react instantly to an imitation of adult calls, by doubling the frequency of their own calls and moving towards the imitator. In rare occasions, an adult would fly silently overhead.



Example of habitat used by the long-eared owl in the Jonquière region: tamarack and spruce grove bordering a field.

Photo by Michel Savard

Specific habitat

In the Saguenay/Lac-Saint-Jean region, long-eared owls can be found mostly on flat, poorly drained terrain with clay, peat, or silt deposits. These clay plains and former glacier lakes are sometimes interspersed with rocky outcrops and depressions filled with peat deposits. These geomorphologic characteristics contribute to the development of dense and humid woodland ecosystems. These woodlands are dominated by conifers (black spruce, tamarack, and sometimes, thuya), and sometimes broad-leaf trees (black ash, quaking aspen). Woodland edges, disturbed by cutting and culverts, are generally made up of broadleaf trees (speckled alder thickets, quaking aspen, white birch, black ash). The soil of these ecosystems, situated somewhere in between clay soils (now completely clear cut) and peat soil (forming peat bogs), is often drained and used to increase agricultural



Young long-eared owl outside the nest.

Photo by François Morneau

yield. These habitats can often be described as a simple crop field, a pasture bordered by dense and humid woodland, or an agricultural plain peppered with large humid groves.

We only found one long-eared owl family among the woodland and woodland edge habitats characterized by dry soil (sandy, glacier or rocky) and fir-white birch or jack pine forests.

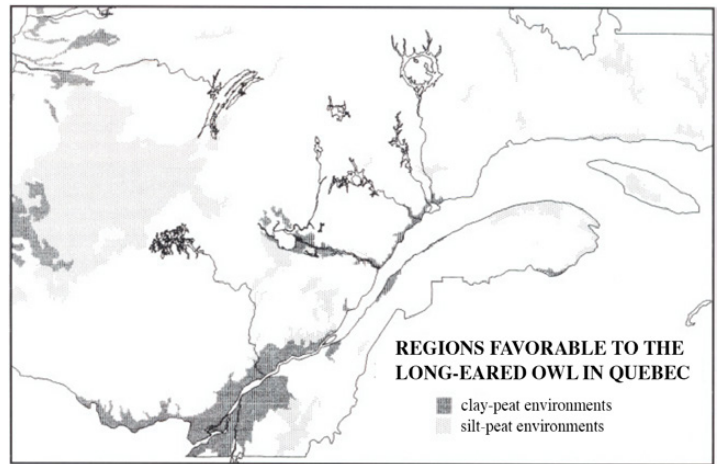
Long-eared owls are known for preying on small rodents over open ground, thus benefiting from farm land. The agricultural ecosystems described above are particularly favorable to the proliferation of the eastern meadow vole. This type of rodent (*Microtus*) is a favorite prey of the long-eared owl, in Eurasia as well as in North America.

According to our observations, black spruce and tamarack humid woodland bordering cultivated fields seems to be optimal for the long-eared owl in the region's agricultural plain. Indeed, the owl can find there a successful hunting field as well as a forested shelter for nesting and young rearing.

In Saguenay/Lac-Saint-Jean, we know that hay harvest in late June and early July destroys short-eared owl nests every year. On the opposite, we have only observed juvenile long-eared owls in the middle of fields twice. Families seem therefore to avoid being killed by harvest by hiding along the edge of the woods to sleep and for nocturnal calls.

First approximation

We have been able to map the potential nesting sites for the long-eared owl in Saguenay/Lac-Saint-Jean and for the rest of the province of Quebec. According to this first estimation, we notice that the long-eared owl seems to avoid the middle of forests; this is supported by our observations on the field. These ecological maps can serve as starting point in evaluating the status of this owl about which little is known in Quebec.



Areas of quality for the long-eared owl in Quebec. First estimate.

Even more abundant

Surprisingly, we observed that the distance between long-eared owl families was somewhat regular in their preferred habitat. At the closest, families were on average 2.6 ± 0.7 kilometers apart, whereas at the furthest, families were 4.3 ± 0.8 kilometers apart, which gives one pair per 7-18 km². These values are much lower than those found in reference volumes (2 to 20 pairs per 10km²), probably due to the low productivity of habitats in the region and the location of our study area in the northern range of the species distribution. However, the difficulties we encountered as well as potential nesting failures could mean that the actual number of nesting pairs is higher than our estimations. We also expect the owl to be found in higher numbers in southern Quebec.

Low productivity?

The long-eared owl families we surveyed in July and August had up to five juveniles, but most often only two. The calculated productivity for that period of the year in the lowlands of Haut-Saguenay seems higher than in the lowlands of eastern Lac-Saint-Jean (2.3 ± 1.0 juveniles vs. 1.7 ± 0.6 juveniles). It is also in the Haut-Saguenay region, along rocky outcroppings, that owls were the most numerous. While comparing our results with those of Finnish birders, we observed that this year was likely one of low meadow vole abundance! However, these conclusions still have to be confirmed.

A bird to discover

Now that we have a new way to observe the long-eared owl, many projects can be started to increase our knowledge of the population status of this bird and the state of our environment. This easy way to count juveniles by their calls now brings the possibility to perform yearly productivity surveys which could serve as indicators of the fluctuations in vole populations in farm land. The study of this owl could also help us understand the impact of new farming practices. Some birders think that the destruction of the woodland component of the long-eared owl's habitat could have been the cause of its decline in eastern North America, but the extent of this decline is unknown due to a lack of data on its ecological preferences and historical population levels.

The summer 1994 brought us the unforgettable joy of finding a new way to detect an elusive species. Brought into the spotlight, these tricks on finding the long-eared owl will better allow us to know it and protect it.



Photo by André Cyr

The correct citation for this paper is:
Savard M., B. Dumont and C. Girard. 1995. L'insaisissable Hibou moyen-duc au grand jour. *Quebec Oiseaux* 6(4):12-15.

Help Complete the Atlas with a Gift

Help complete the atlas with a species sponsorship (and maybe a Tshirt too). With a species sponsorship, **your name will be in print (along with anyone you choose to sponsor in honor of) in the final Maine Bird Atlas publication.** Each of Maine's breeding and wintering bird species have been divided into sponsorship levels ranging from \$30-\$2,000 and are available to sponsor for each year of the project. You can sponsor a species for one, several, or all five years.

All proceeds from product sales and species sponsorships will help fund travel grants to support birders going to remote, isolated regions of the state.



Sample species account for Snowy Owl with Sponsor a Species example circled in yellow.

See what species are still available at:
www.maineaturalhistory.org/sponsor-a-species

Or purchase Maine Bird Atlas logo merchandise at:
www.teepublic.com/user/mainebirdatlas

Join our Weekly Zoom Q&As

Every Thursday evening you can join Atlas staff on Zoom to get the latest updates and directions on where to focus your effort. This is a great opportunity to answer questions and talk about anything birds and atlas related.



Join us every Thursday night at 6:30PM beginning on May 12, 2022!

Q&As: <https://us02web.zoom.us/j/89300676811>

Check the [Maine Bird Atlas Facebook page](#) or our Event Calendar on maine.gov/birdatlas for updates to this schedule.

Help Defend Our Title in the 2022 Big Atlas Weekend

Last summer we teamed up with New York, Maryland & DC, and North Carolina to create the inaugural Big Atlas Weekend. This friendly competition between these regions, each currently doing an atlas, was intended to engage volunteers (new and veterans) and give targeted goals to advance our projects over that 'big' weekend.

Despite Maine's larger size and smaller population, we came in first place thanks to our well trained and very efficient volunteers.

The Big Atlas Weekend is back this year and we will need your help to defend our title, and most importantly, keep the trophy in Maine for one more year!

Save the date:
Big Atlas Weekend
24-26 June 2022

Kickoff Event
22 June 2022

Check our [Events Calendar](#) for more details soon.



Have you signed up as an official volunteer yet?

Just a reminder, even if you have already contributed observations to the project through eBird, make sure you sign up as an official project volunteer. After doing so, you can also choose to benefit from state health insurance coverage while participating in any atlas activities. Go to <https://ifw.citizenscience.maine.gov/programs/maineBirdAtlas> and click 'Register'. Then enter your volunteer time (inc. travel, data entry, etc.) for us to count towards the required match funding.

VOLUNTEERS NEEDED!

CONTRIBUTE OBSERVATIONS TO THE



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2018-2022



For More Information: maine.gov/birdatlas
All Experience Levels Welcome!

Maine Bird Atlas Team

Atlas Director

Adrienne Leppold
Maine Dept of Inland Fish & Wildlife
Adrienne.J.Leppold@maine.gov

Atlas Coordinator

Glen Mittelhauser
Maine Natural History Observatory
mainebirdatlas@gmail.com

Outreach Coordinators

Doug Hitchcox
Maine Audubon
dhitchcox@maineaudubon.org

Spatial Analysis and Mapping

Amy Meehan
Maine Dept of Inland Fish & Wildlife
Amy.Meehan@maine.gov

Ecological Modeler

Evan Adams
Biodiversity Research Institute
Evan.Adams@briloon.org