

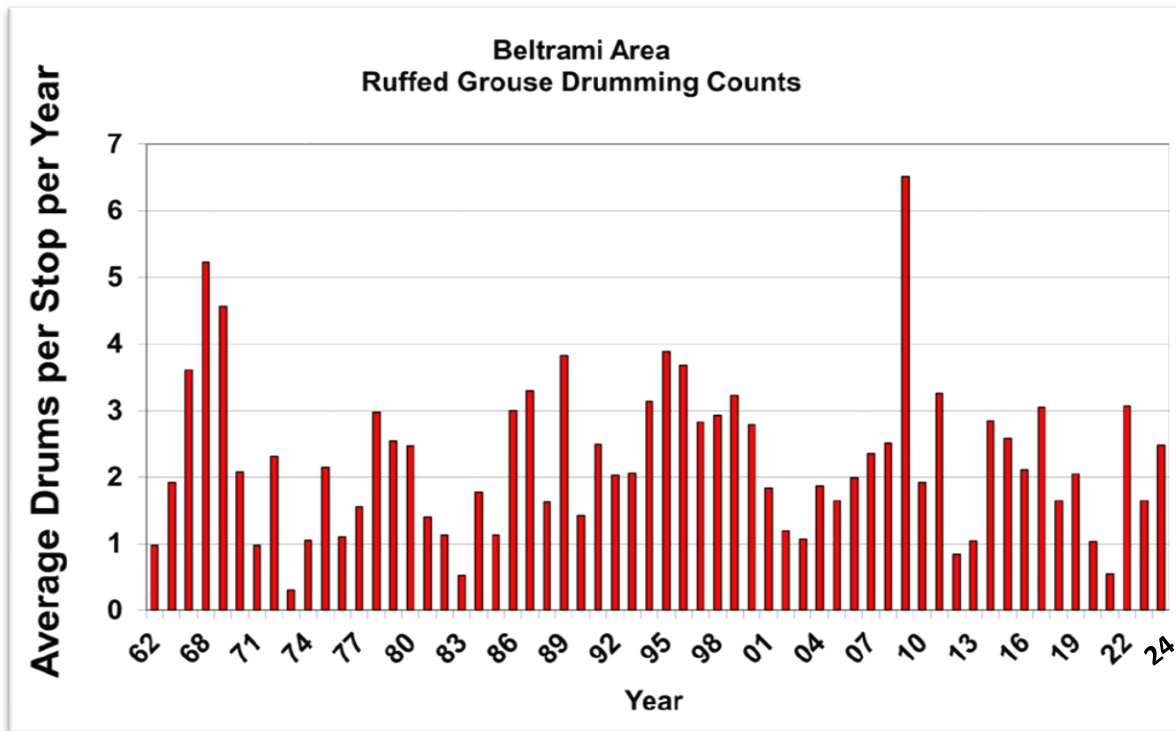
## GROUSE HUNTING OUTLOOK

During the spring, Red Lake WMA Staff conducted drumming count surveys at six locations in the Beltrami Island State Forest and Red Lake WMA areas. Local staff counted an average of 2.5 drums per stop. This count was higher than local counts in 2023 (1.7 drums per stop). Statewide, 2023 and 2024 counts were similar and averaged 2.3 drums per stop.

On average, the ruffed grouse population in Minnesota cycles every 10 years, although peaks in this cycle can vary from 8 to 11 years. The low counts in 2021 combined with three consecutive years of higher counts suggests the statewide population cycle is on the rise. The number of birds that hunters see in the fall is a combination of two things: the number of birds entering the spring breeding season, and the breeding success of those birds. Northwest Minnesota had a wet spring and summer that coincided with the spring hatching period. That likely influenced chick survival, as most broods that staff are seeing have few chicks.

The ruffed grouse and spruce grouse season runs from **September 14, 2024 – January 1, 2025**.

The 2024 Ruffed Grouse Survey Report is available on the DNR webpage (<https://www.dnr.state.mn.us/hunting/grouse/reports.html>).



Above: Average drumming counts per stop for Beltrami Island State Forest and Red Lake WMA areas from 1962-2024.

## DEER OUTLOOK

Last winter was mild statewide and as a result, deer survival was likely high. However, multiple consecutive mild winters may be needed for populations to rebound in northern parts of the state. Harvest designations remain generally conservative in the north so populations can recover from consecutive severe winters (2021-22, 2022-23).

For more information on winter severity's impact on deer, visit [mndnr.gov/mammals/deer/management/wsi.html](https://mndnr.gov/mammals/deer/management/wsi.html) or watch our recorded webinar: <https://www.youtube.com/watch?v=loLi-juOE3o&feature=youtu.be>.

Archery season begins September 14 and runs through December 31, 2024. The firearms season begins November 9<sup>th</sup> and runs through November 24, 2024 in 100 series permit areas. Deer Permit Areas (DPAs) in the Red Lake WMA area include DPA 101, 105, 111, and 114.

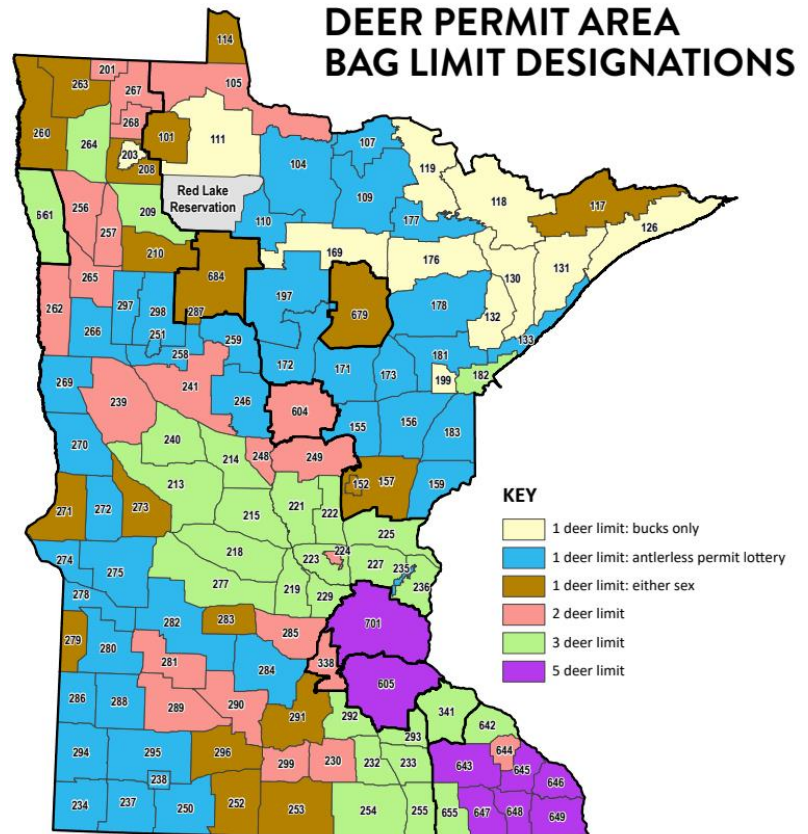
- DPA 101: 1 deer limit, either sex
- DPA 105: 2 deer limit, only 1 legal buck may be taken
- DPA 111: 1 deer limit, bucks only
- DPA 114: 1 deer limit, either sex

## BLACK SPRUCE ALTERNATIVE MANAGEMENT PROJECT UNDERWAY

Trekking through Minnesota's lowland conifer forests in the warmer months can be a wet, humid, and buggy experience. This often requires waterproof footwear, bug spray, and a certain fortitude for being comfortable with the uncomfortable. While these bog and peatland habitats may be less desirable for most people, they are extremely important for a wide variety of wildlife species.

Lowland conifer forests are dominated by black spruce, tamarack, and white cedar. Tree height and spacing can vary depending on nutrients in the soil, but the understory is typically characterized by a mossy ground layer, forbs, sedges, and evergreen shrubs. Wet conditions can make these habitats less desirable for people, yet they cover extensive portions of northern Minnesota and are important for a variety of species. Despite their abundance, the inaccessibility of these habitats means that we have less information about the species that use these areas. The University of Minnesota's Natural Resources Research Institute (NRRI) and the DNR are interested in better understanding these habitats and the critters that use them. Together, researchers have been experimenting with different forest management practices to maintain or improve habitat for forest birds. There are two study areas on the Red Lake Wildlife Management Area (WMA) that aim to assess alternative management impacts on boreal birds.

Many bird species are associated with and rely upon Minnesota's lowland conifer peatland forests, but we do not have the resources to monitor all of them. Over a decade's worth of research has identified 10 focal species that have a high affinity for lowland conifer forests and that could be good proxies for assessing the health of these habitats. Of those, two have been selected as surrogates for habitat management: the Connecticut Warbler (*Oporornis agilis*) and the Boreal Chickadee (*Poecile hudsonicus*). Both are Species of Greatest Conservation Need, have low and declining populations, and depend on lowland conifer habitats. These species are ideal study candidates because they both require lowland conifers, but they use them in different ways. So, if we are meeting the needs of these two species, we are likely meeting the habitat needs of other species, as well.





**Connecticut Warbler**



**Boreal Chickadee**  
© Brilyn Brecka

The Connecticut Warbler is an extremely hard-to-find, ground foraging and ground nesting bird. Due to the remote habitats it uses and elusive behaviors, this species is one of the least studied American songbirds. These neotropical migrants call northern Minnesota's lowland conifer forests home during the spring breeding season. They nest in tamarack and spruce bogs with varying amounts of shrubby understory. Dense undergrowth is important for hiding nests, providing cover for fledglings, and foraging for insects. According to the North American Breeding Bird Survey, Connecticut Warbler populations have declined about 2% per year from 1966-2015 with a cumulative decline of 62% during that time. They are vulnerable to harvest practices that reduce available habitats but could potentially benefit from other harvest practices. Identifying these differences is one goal of this research.

While the Connecticut Warbler prefers open, warm forest stands, Boreal Chickadees inhabit dark, dense, cool, mostly mature coniferous forests. As a permanent resident of Minnesota, they eat seeds and insects and create cavity nests inside larger, dead or dying trees called snags. Overall, the population has declined 38% from 1970-2017. While relatively numerous compared to Connecticut warblers, these chickadees can be sensitive to logging of high-quality habitats, especially since they nest in cavities, which are typically found in larger, older trees.



**Typical breeding habitat of the Connecticut Warbler in Minnesota**



**Typical breeding habitat of the Boreal Chickadee in Minnesota**

Given that both species rely on lowland conifer forests of northern Minnesota, we want to know if there is a way to meet the needs of both species in a single forest stand. To answer this question, NRRI and the MNDNR have implemented the Black Spruce Alternative Management Project at two sites on the Red Lake WMA. The experimental design consists of four harvest treatments: skinny, 25ft-wide strips; large, 100ft-wide strips; circular, gap harvests; and a clearcut. The harvested areas create openings needed by the Connecticut Warbler and the unharvested areas retain older cavity trees for the Boreal Chickadee. The harvest along the Hogsback-O'Brien Forest Road was completed during the winter of 2024. Similar treatments at another site along the Moose River Road East are planned to be harvested soon.



**2024 Google aerial imagery of Hogsback site. There are gap cuts, thin strips, wide strips, and a clear cut. A control area is located between the strips and the clear cut.**

We currently have data going back several years prior to harvest, but only one season's worth of data after harvest. The plan is to survey these sites long-term to monitor bird use of the different treatments. Point count surveys for birds were conducted at the Hogsback site in May 2024, just weeks after the harvest was completed. We were encouraged that Connecticut Warblers were found within the thin strips and gap cuts. Because the harvest included the removal of potential cavity trees, Boreal Chickadee use of this stand declined as expected. Hopefully enough chickadee habitat has been retained and suitable disturbance created for decades of continued warbler use. Future research on alternative forest management in these lowland conifer habitats can prove to be beneficial to Minnesota's vulnerable boreal birds.

## CREATURE FEATURE: YELLOW-RUMPED WARBLER

Come April, streaky birds with patches of yellow on their rump, sides and crown add flashes of color to the pine-dominated forests of northern Minnesota. Accompanied by a sweet, slow, buttery warble, these are sure signs that the most abundant and widespread warbler species has arrived. Affectionately known as “butterbutts,” the Yellow-rumped Warbler (*Setophaga coronata*) is a common sight in Minnesota.

Northern Minnesota provides habitat for Yellow-rumped Warblers to breed and raise their young. Nests, which are built by the female, are shaped like a cup and woven with grass, twigs, pine needles, moss, small roots and sometimes animal hair. Nests are placed on horizontal branches of conifer trees and can be anywhere from four feet to 50 feet high. After the nest is completed, the female will lay one to six eggs and incubate for 12-13 days. The young leave the nest after another 10-14 days and can fly short distances just a few days later. The monogamous pair will usually have two broods per breeding season.



**In addition to a yellow rump patch, these warblers also have yellow underwing patches, and males have yellow crowns. Photo courtesy of Beth Siverhus**

Yellow-rumps are extremely versatile foragers. You are most likely to see them flitting between trees to catch insects. Their summer diet includes caterpillars, larvae, bark beetles, spiders, ants, and grasshoppers. They also eat spruce budworm, which is a serious forest pest that can defoliate and kill vast acreages of balsam fir and spruce in Minnesota’s forests. In the fall and winter, they switch to a diet of berries. Thanks to gastrointestinal adaptations – elevated levels of bile salts – they are the only warbler able to digest the waxy coating of berries like bayberry, wax myrtle, poison ivy, dogwood, Virginia creeper, and juniper. This feeding ability is especially important because while many warblers migrate to the warm tropics for the winter, many Yellow-rumped Warblers remain in the United States and can overwinter as far north as New England and Seattle.

Yellow-rumps are one of the most common warblers in the Red Lake WMA area. If you look closely at small forest birds this fall, you may be able to spot the identifying yellow-rump of this species before they migrate.

**FUN FACT:** The oldest recorded yellow-rumped warbler was a female that was at least 10 years old when it was recaptured in Wyoming in 2006.



**An adult Yellow-rumped Warbler in northern Minnesota.  
© Brilyn Brecka**

## STAFF UPDATE

We've had some staff turnover in the last 18 months. Our current staffing is:

Charlie Tucker-Manager

Brilyn Brecka-Assistant Manager

Jacob Boyd-Wildlife Technician

Deb Beckel-Office Administrator

### **Friends of Norris Camp**

Treasurer's Report

By June Foss

Account Balance = \$9,025.47

Thanks so much to the following people for the donations they have made since November 2023

**Dan Moss, Jeff Moss, Tim Bettcher & Gavin Bettcher**

#### **CONTACT US:**

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