

CONSERVING AT-RISK FOREST BIRDS IN MANAGED FORESTS



Webinar
Tuesday, February 6
3:00-4:30pm

Dr. Cindy Staicer
Dalhousie University

Links & resources:

- [Nashwaak Forest Stewardship Program](#)
- Study on forest degradation and avian decline: "[Forest degradation drives widespread avian habitat and population declines](#)"
- Nova Scotia species at risk fact sheets - <https://landbirdsar.merseytobeatic.ca/>
- Forestry and bird resources from Maine: <https://maineaudubon.org/projects/forestry-for-maine-birds/resources-for-landowners/>

Webinar Summary Notes

- Forest cover has increased, but habitat for particular species has declined – birds associated with mature forests experienced the most decline
- Focal species of the presentation – Canada warbler, Olive-sided flycatcher, eastern wood-pewee, rusty blackbird, common nighthawk, and chimney swift – all migratory birds (most go to neo-tropical regions)
- These species are all at risk - recovery depends on access to quality breeding habitat
- To find solutions that will benefit both birds and forestry, they developed and tested beneficial management practices geared toward some of these species
- Beneficial Management Practices (BMPs) – reduce risk and avoid harm while carrying out activities that can impact the target or its habitat
- **Avoid harvesting in nesting season** – one of the simplest things that can have a big impact – most species sing and nest between early May and late July
- Nesting calendars in nature counts – can query by species and/or area - <https://naturecounts.ca/apps/rnest/index.jsp>
- Canada's Migratory Bird Convention Act – legally protects nests, eggs, birds and nestlings from purposeful or accidental destruction. It is difficult and damaging to search for nests – easier just not to harvest (or do a singing bird survey to narrow down no-harvest areas)
- Clean Annapolis River Project – created [2 page fact sheets](#) on at-risk forest birds and practices to protect them
- Research testing these practices
 - o Incorporated the practices into harvest management plans in places where some of these birds have been observed
 - o Used ARUs (autonomous recording units) to detect the birds before and after the harvest (used kaleidoscope and birdnet to analyze data)
 - o BMPs included no harvest buffer around each bird occurrence, and a 25-100 m circle of BMPs
 - o Birds returned to most of the sites after the harvest – early conclusion is that harvest with BMPs can maintain birds at the site – will continue monitoring in subsequent years
- **Canada warbler** (*Wilsonia canadensis*) – habitat is mixed wood swamps – semi-open – needs emergent trees and tall shrub layer – cinnamon fern – complex and messy forest floor – high site fidelity, territory is 1 ha – nest on the ground
 - o BMP – retain 12 standing song perch trees per ha, 4.5 m apart, 3 m above subcanopy
 - o minimize disturbance to ground veg,
 - o leave tree tops and limbs on site,
 - o avoid pesticide & herbicide,
 - o locate trails a distance from the no-harvest buffer equal to the boom length of the harvester
- **Olive-sided flycatcher** (*Contopus cooperi*) – high site fidelity – big territory – noticeable birds – sing from perches, nest in large, mature conifers – prefer to eat bees
 - o BMPs: Leave snags & clumps of tall conifers,
 - o use uneven-aged forest management,
 - o avoid pesticides and herbicides
- **Common nighthawk** (*Chordeiles minor*) – active at dawn and dusk – found in open clearcuts, burns, rock barrens, gravel pits, roost on horizontal branches
 - o BMPs - focus on creating roosting habitats on the ground
- **Eastern wood-pewee** (*Contopus virens*) – forages under the canopy – likes little side branches in understory – open cup nests – mostly in mature Acadian upland forest – mixedwood – multi-layered canopy with small gaps – might like lakes and wetlands nearby
 - o BMPs – leaving large mature trees (>30 cm DBH in deciduous, >35 cm DBM in conifers/mixedwood) – these were for Ontario, in NS the trees didn't seem to need to be quite as big
- **Chimney swift** (*Chaetura pelagica*) – usually roost and nest in man-made chimneys these days, but these are becoming fewer. Dr. Staicer and students found a chimney swift nesting in the forest - birds going in and out of a woodpecker hole in a large white

pine – 6.6 m above ground – site was conifer dominated forests (white pine, red spruce, eastern hemlock) – swifts need really big trees with heartrot – dead cavity trees with decayed or broken tops – live trees – white pine is often used –

- o BMP - maintain tall, large-diameter trees
- **Rusty blackbird** (*Euphagus carolinus*) – like beaver ponds – high site fidelity and big ranges – pick aquatic invertebrates out of water – prefer to nest over or near shallow water
 - o BMPs – leave treed buffer around and streams
 - o retain mature live trees and snags for perching
 - o avoid harvesting nesting sites – birds will use sites again
 - o retain 50 % of overstory in mature, shade-intolerant softwood stands
 - o plant native softwood species 1800-2500 stems per ha
- BMPs common for forested wetland species at risk
 - o Avoid silvicultural practices during breeding season
 - o Avoid pesticides that impact non-pest insects
 - o Avoid activities that alter wetland hydrology – road building and harvesting
 - o Harvest on frozen ground
 - o Leave buffers around wetlands, open wet areas, and streams
- Incorporating BMPs into private woodlot management
 - o Learn to ID preferred habitat of these species
 - o Apply BMPs for species that are most likely to be present
 - o Use records and habitat models to figure out what might be there
 - o Leave a 25-50 m buffer around wetlands, wet forests, streams and vernal pools
 - o Use un-even age management to increase forest complexity
 - o Prioritize stands for work outside of nesting season if those sites have these species or their habitat, if they support mature forest birds that are declining – e.g., adjacent to wetlands – forested and open wetlands are more productive ecosystems with more species at risk, more birds etc.

The Nashwaak Forest Stewardship Program provides free resources for forest landholders in the Nashwaak Watershed. Reach out to coordinator Kate Turner (forest@nashwaakwatershed.ca) for inquiries about our services or for collaboration on related topics.

The New Brunswick Federation of Woodlot Owners is a member-based organization promoting the interests and rights of private forest owners and sustainably managed private forest resources, which contribute to the economic, social, environmental and cultural well-being of rural communities across New Brunswick. Find out more at: <https://www.nbwoodlotowners.ca>

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