

SCIENCE FOR WETLAND CONSERVATION

2017 Field Season

MARITIMES MARSH MONITORING PROGRAM

2017 Field Season

2017 marked the seventh year of surveys for the Maritimes Marsh Monitoring Program (MMMP). Technicians and volunteers spent their early mornings from mid-May to mid-July surveying 40 routes in freshwater and coastal wetlands in all three Maritime provinces, and 36 patches of forested wetland habitat. In total, 574 point counts were completed at 316 unique points in freshwater, coastal, and forested wetlands, and habitat surveys were completed at most points.

A big **THANK-YOU** to our volunteers who helped out this year!



Female Ruddy Duck detected at Salisbury West Wetland B. Windsor 2017

2017 Survey Highlights:

- Third best year for Virginia Rail, with 63 detected.
- No detections of Least Bittern this year. Last year we detected six (a record high).
- A Ruddy Duck was detected (for the third time only, following detections in 2013 and 2014)!
- Automated recording devices helped increase survey coverage at 28 locations.



Song Meter deployed at Babbit's Meadow in St. John River Valley A. Patrick 2016

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Up to half of all North American bird species rely on wetlands for nesting or feeding.

This includes ducks and geese, but also more secretive waterbirds, such as rails, coots, grebes, bitterns; and songbirds, like warblers and flycatchers.

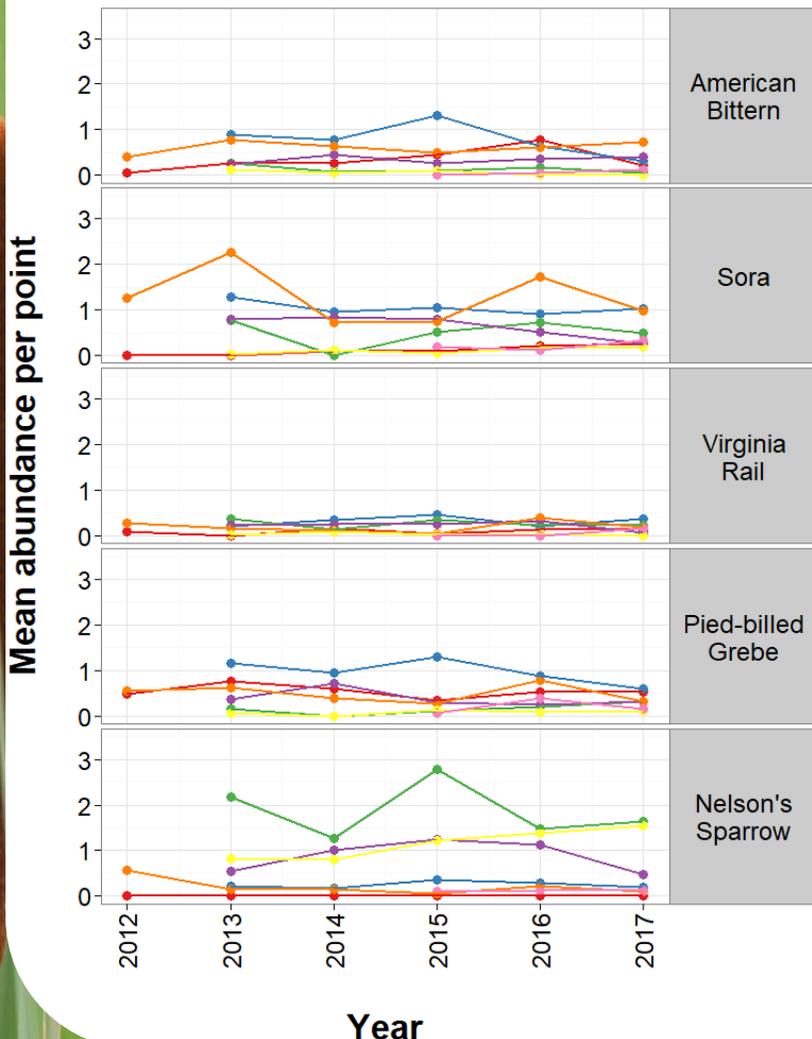
Program Summary

The MMMP began surveying freshwater and coastal wetlands in 2012. The MMMP's data series, spanning six years and counting, can now be used to examine trends in marsh bird populations and their habitat connections. MMMP surveys cover all birds, but pay special attention to five secretive target species (see below). The program has also expanded to monitor the often-overlooked forested wetland habitats of the region.

Below: Numbers of five target species observed each year on wetland surveys.

Year	# Observed on Route				
	American Bittern <small>Photo: M.A. Romito</small>	Sora <small>Photo: A. Manthorne</small>	Virginia Rail <small>Photo: A. Manthorne</small>	Pied-billed Grebe <small>Photo: F. Horvath</small>	Nelson's Sparrow <small>Photo: A. Guericco</small>
2012	57	205	41	92	83
2013	175	419	60	230	242
2014	130	185	44	157	103
2015	220	249	77	192	351
2016	155	305	68	186	245
2017	94	213	61	112	205

Since 2012, the **Sora** has been the most commonly-reported species on MMMP surveys, followed by **Nelson's Sparrow**, **Pied-billed Grebe**, **American Bittern**, and **Virginia Rail**. Few Common Gallinules, American Coots, or Least Bitterns have been recorded; and Yellow Rails have not been detected at all – unsurprising, given the low number recorded in the Maritimes Breeding Bird Atlas.



Early analyses of MMMP data suggest that populations of five target species (see above) have been stable since 2012, with some variability among regions. Nelson's Sparrows are more abundant in coastal saltmarsh regions (green, purple, yellow lines; at left), whereas the other species are more abundant in regions dominated by freshwater marshes. Abundances are highest for American Bittern and Pied-billed Grebe in the Chignecto/Tintamarre region (blue line) and for Sora in the Grand Lakes region (orange line). Virginia Rails are present at a lower but consistent abundance in all regions, with 14-20% of survey points occupied. Notably, this is a higher occupancy rate than detected on Breeding Bird Surveys.

continued →

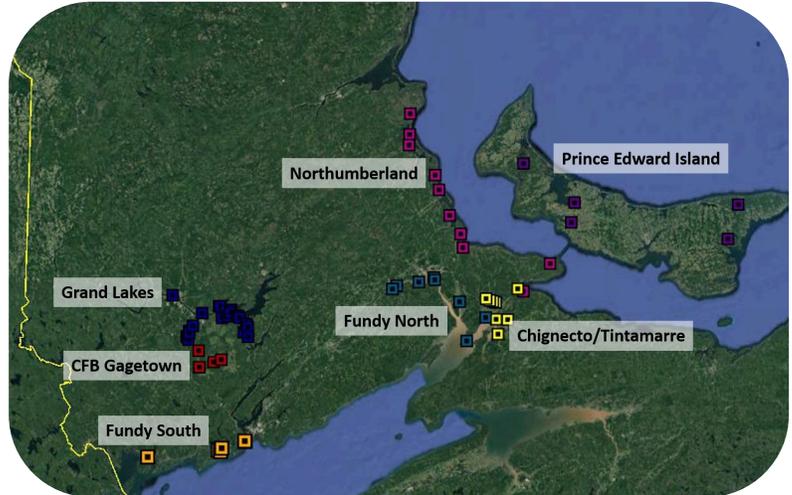
Left: Figure showing mean observed abundance per point each year for five target species.

Program Summary

continued

What's next? Statistical analyses for improved understanding of population trends, more coverage of forested wetlands, and continued survey efforts in 2018 and beyond

Stay tuned!



Above: Map of MMMP survey locations.



Even if they're heart-shaped, we don't encourage visiting survey routes in February. Most marsh birds are still on their vacations south!

Volunteer Spotlight

The NB35 route was established in 2013 and has been surveyed for the past three years by the MMMP's first volunteers. Kathy and her husband Harold have had some interesting mornings at the marsh, detecting four out of five target species (see table below). Black Terns are a special treat at this site, with detections in 2013, 2016, and 2017. Perhaps the most exciting observation, however, didn't include birds at all. In 2015, Kathy and Harold witnessed a mink trotting along the road with a GIANT bullfrog in its mouth. The frog was so large, the mink had to hold its head up high to keep its meal from dragging on the ground. Who knows what they will see next year?

Kathy and Harold's data fill in key gaps in our MMMP dataset, playing an integral role in helping us track trends over time.

Numbers of five most target species observed each year at NB35.

Year	# Observed on Route				
	American Bittern <small>Photo: M.A. Ronito</small>	Sora <small>Photo: A. Manthorne</small>	Virginia Rail <small>Photo: A. Manthorne</small>	Pied-billed Grebe <small>Photo: F. Horvath</small>	Nelson's Sparrow <small>Photo: A. Guericco</small>
2013	5	11	0	9	0
2015	6	11	3	13	0
2016	1	12	5	7	0
2017	0	18	5	9	0

Notes from one of our Partners

The Lakeside Marsh in Fredericton lay dormant under 12 feet of infill for nearly 10 years until Kassandra Paillard, a conservation specialist from Ducks Unlimited Canada, found out about it. She wanted to see whether this “wetland” would spring back to life. The fill was removed, and not long afterward, Paillard was surprised to find a mallard and sandpiper using the habitat after a heavy evening rain. However, Paillard cautions that “this project will show how quickly you can destroy a wetland, but how long it takes to come back”. Encouragingly, the developers have signed a 30 year conservation agreement with Ducks Unlimited Canada. (adapted from original article in Habitat Matters—2016 Canadian NAWWMP Report)

Did you know?

Close to 940,000 hectares of wetland in NS, NB, and PEI have been secured, enhanced, and stewarded by local conservation partners.



Photo: Cody Pytlak

Become a Marsh Monitor

Do you enjoy identifying birds? Would you like to contribute to the conservation of marshes? You can become a Marsh Monitor!

Between May and July, volunteers survey routes two or three times, record all birds they see or hear, and collect information on habitat.

To volunteer, contact
hlightfoot@birdscanada.org



Photo: Cody Pytlak

About the Maritimes Marsh Monitoring Program

Many wetland ecosystems are in jeopardy, with increasing pressure from development and resource extraction. Bird Studies Canada leads the Maritimes Marsh Monitoring Program, as well as similar programs in Québec, Ontario, and the Prairies. These programs are designed to assess and monitor wetland-associated species and their habitats. The results document long-term population trends of secretive marsh birds, which are not easily detected by other survey methods. In turn, results help to identify conservation and management priorities for wetlands in the Maritimes and beyond. Bird Studies Canada is a partner in the Eastern Habitat Joint Venture (www.ehjb.ca), which aims to conserve wetland habitat for the survival of waterfowl and all migratory birds.

For more information or to volunteer, contact:

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Bird Studies Canada is Canada's leading national charitable organization dedicated to bird science and conservation. Our mission is to conserve wild birds of Canada through sound science, on-the-ground actions, innovative partnerships, public engagement, and strategic informed advocacy.

www.birdscanada.org

Project Partners and Funders

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