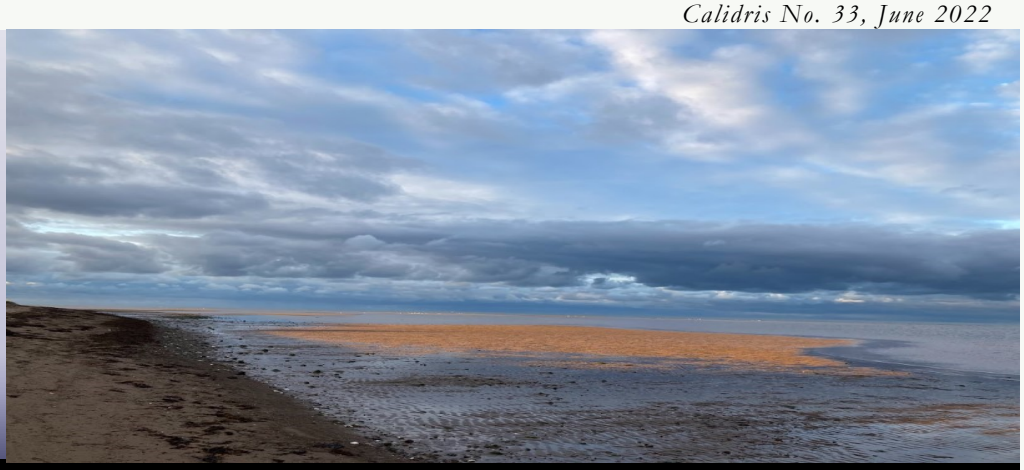


The Atlantic Canada Shorebird Survey Newsletter No. 33 June 2022

Dear shorebird friends!

In spite of another challenging season, many of you conducted fall shorebird migration surveys throughout Atlantic Canada in 2021 and for that, I am amazed and grateful. I was also able to continue shorebird migration research with the fantastic Mount Allison University Mud Lab students (led by Dr. Diana Hamilton) at Petit Cap beach in New Brunswick, with a new focus on late migrant species such as White-rumped Sandpiper, Sanderling and Dunlin. In this issue of Calidris, I will tell you all about what the MTA students studied last summer as well as summarize your ACSS observation data from 2021. I will also tell you about new opportunities for ACSS mobile data entry as well as present the impressive new ShorebirdViz data vizualisation tool developed by the Cornell Lab for Ornithology (it uses YOUR data!).

In 2022, we encourage you to get outside and conduct your ACSS surveys again, but would remind you to remain cautious. Please make sure that you are fully informed and up-to-date on the rules and restrictions in your area before setting off. Please also wear a mask when required, wash your hands frequently or use hand sanitizer, and maintain physical distancing. For more information, review the health measures in place in your province (Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland and Labrador) and the Government of Canada advice for reducing the spread of COVID-19.

We also advise you to exercise caution when conducting your surveys and to not touch any dead or injured birds. On page 3, I provide important information on Highly Pathogenic Avian Influenza (HPIA) and what to do about any suspected cases you might encounter during your surveys.

I hope you have a safe and enjoyable summer in our beautiful Atlantic Provinces watching and documenting migratory shorebirds in your area!

Julie

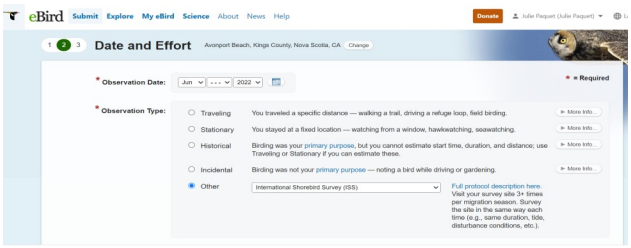
What's new?

You can now enter your ACSS data in Nature Counts in the field!

Simply download the Nature Counts App to your mobile phone (IOS or Android) and use your existing Nature Counts credentials to set up your account. You will be asked to select a protocol: please select the Program for Regional and International Shorebird Monitoring. Following this, select your province to complete the set-up. Make sure you then select the Atlantic and Ontario protocol (you can also select Prairies). Following this, use the map to select your survey site and you're ready to start your checklist! The App is new, so there are sure to be some issues—let us know your experience if you choose to use it so we can work with Birds Canada to make improvements and corrections. Happy birding!

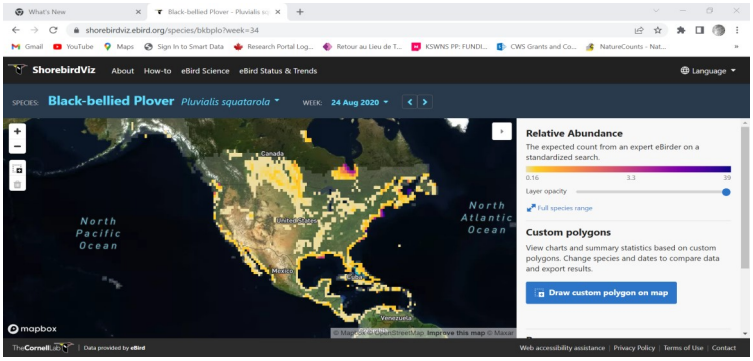
Tagging shorebird survey data as ISS in eBird

You can also submit ACSS data via eBird. Simply start an eBird checklist, choose your location and select International Shorebird Survey (ISS) as your observation type. This will ensure the data gets tagged as a survey that uses the ACSS protocol (which is the same as the ISS protocol) and makes it available to scientists analysing trends because they can download all data tagged as ISS surveys. Data not tagged as ISS gets lumped in with all other eBird surveys which do not follow a protocol and as such cannot be used to track populations. If in the past you have shared your eBird checklists with me, I have ensured they are compiled with other ACSS surveys, but now, all you need to do is select ISS as observation type and this will be done automatically!



Check out the new Shorebird Viz tool!

The Cornell Lab of Ornithology has teamed up with multiple non-profit organizations, international shorebird collaboratives, biologists, and agencies to create ShorebirdViz—an interactive tool that combines observations of shorebirds with state-of-the art statistical models and machine learning to produce relative abundance estimates and estimates of population size across the Western Hemisphere. ShorebirdViz is the result of a co-creative process that is designed to provide decision makers, land managers, conservationists, and biologists with a better understanding of when and where shorebirds occur throughout the Western Hemisphere—information that was previously lacking at the fine spatial and temporal scales needed for effective shorebird conservation.



Take a minute to explore this amazing tool to look at species distribution and abundance in your area by week! Or use the area tool to estimate proportion of populations know that ACSS is a major contributor to the model in Atlantic Canada, so congratulations, and thank you for your contributions!

Avian Influenza in wild birds

Avian influenza virus (AIV) is a contagious viral infection that can affect domestic and wild birds throughout the world. Many strains occur naturally in wild birds and circulate in migratory populations. AIV is designated highly pathogenic avian influenza (HPAI) when it has characteristics that cause mass disease and mortality in infected poultry.

There have been no human cases of avian influenza resulting from exposure to wild birds in North America.

However, as you conduct shorebird surveys this summer, please watch for signs of sickness and dead birds and report to the appropriate provincial line as soon as possible.

Signs of avian flu include:

- lack of energy or movement
- nervousness, tremors or lack of coordination
- swelling around the head, neck and eyes
- lack of energy or movement
- coughing, gasping for air or sneezing
- diarrhea or
  sudden death

Report observations to:

The Canadian Wildlife Health Cooperative (CWHC) at 1-800-567-2033 or through their online reporting tool : https://www.cwhc-rcsf.ca/report_and_submit.php
In Newfoundland and Labrador, to the Wildlife Emergency Number at (709) 685-7273.
In Prince Edward Island, to the Forests, Fish and Wildlife Division at (902) 368-4683.
In Nova Scotia, to the Nova Scotia Department of Natural Resources and Renewables at 1-800-565-2224.
In New Brunswick, to the Department of Natural Resources and Energy Development at 1-833-301-0334.

Please do not touch dead or sick birds!

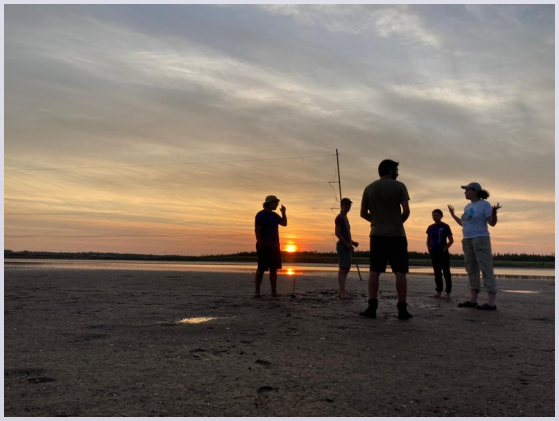
Maintain vigilance while conducting activities in the field and when visiting sites where migratory birds congregate for breeding or migration stopovers.
Stay informed about HPAI in wild birds using the Canadian Food Inspection Agency CFIA-CWHC national dashboard: https://cfia-ncr.maps.arcgis.com/apps/dashboards/89c779e98cdf492c899df23e1c38fdbc
Visit ECCC "Avian Influenza in Wild Birds" for information, guidance and links: www.canada.ca/avian-flu; www.canada.ca/grippe-aviaire

Canadian Wildlife Service and Mount Allison University research project:

RELATIONSHIPS BETWEEN PLASMA METABOLITES AND MASS GAIN IN SEMIPALMATED SANDPIPERS DURING MIGRATORY STAGING IN THE NORTHUMBERLAND STRAIT

Erin MacMillan, 2021 Biology Honours student, Mount Allison University.

Semipalmated Sandpipers are long distance migrants that depend on staging sites to build fat reserves during their fall migration to non-breeding sites. Eastern breeding Sandpipers use sites in Atlantic Canada, such as Petit-Cap, NB, to prepare for migration to South America. A bird's rate of weight gain is an important metric used to predict migratory success and assess site quality, but it is difficult to measure because it requires the recapture of individual birds, which is not possible at most staging sites. That is why many studies use plasma metabolites (plasma triglycerides, glycerol, and beta hydroxybutyrate) as indicators of change in mass over time.



Making a game plan to capture Semipalmated Sandpipers. Photo Hilary Mann.

A metabolite is an intermediate or end product of metabolism. Metabolites have various functions, including fuel, structure, signaling, stimulatory and inhibitory effects, and interactions with other organisms. The metabolites measured in this study are created as fat is deposited (plasma triglycerides) or lost (beta hydroxybutyrate). So one would expect to see the first metabolite to be associated with weight gain as fuel is deposited to power flight during migration, while beta-hydroxybutyrate would be associated with weight loss (during flight or periods of fasting). Because recapturing birds to measure changes in weight is possible at Petit Cap, we had unique opportunity to test if plasma metabolites are good indicators of weight change in Semipalmated Sandpipers.

What we found was that there was no clear relationship between plasma triglycerides and beta-hydroxybutyrate and mass changes in recaptured Semipalmated Sandpipers, suggesting that these plasma metabolites should not be used as indicators of long term weight change. This means that studies using plasma metabolites as indicators of weight gain in wild birds should be cautious when interpreting results. Not what we expected, but an important result nonetheless!

Also, while collecting data for this study, the research team encountered a storm midway through the staging season. This provided an unprecedented opportunity to examine the effects of short-term weather events on body condition and refueling in staging Semipalmated Sandpipers. Interestingly, we found significant impacts on migratory refueling in both recaptured and non-recaptured Semipalmated Sandpipers following a storm. Recaptured birds, on average, lost weight during the week following the storm. Similarly, non-recaptured birds had significantly lower weights during versus before or after the week of the storm. These findings support previous research on the sensitivity of staging shorebirds to environmental fluctuations and highlight the importance of considering storms and other weather events as a threat to shorebirds during this critical refueling period.

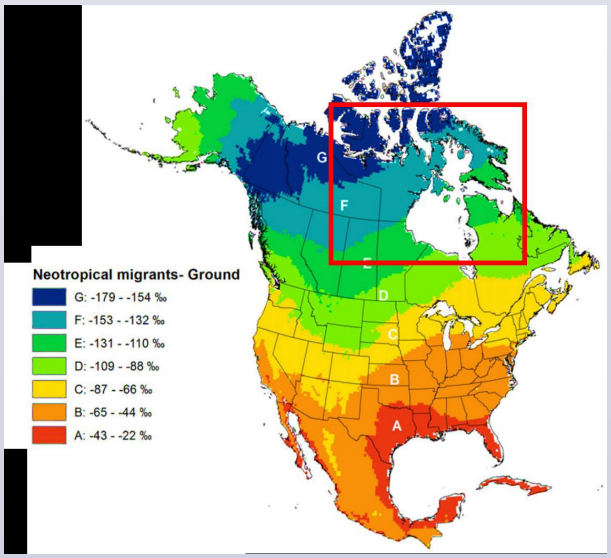
Semipalmated Sandpiper flock. Photo Mark Peck,

Canadian Wildlife Service and Mount Allison University research project:

DETERMINING BREEDING ORIGINS OF SEMIPALMATED SANDPIPERS STAGING IN NEW BRUNSWICK, CANADA

Lindsay Partington, 2021 Biology Honours student, Mount Allison University.

The Northumberland Strait and the Bay of Fundy are crucial refuelling sites for shorebird species migrating through Atlantic Canada. Many of these species are declining, including the Semipalmated Sandpiper (*Calidris pusilla*). The origin of these population declines is not fully understood as they have not been identified as widespread or isolated to a specific Arctic breeding region. Currently, bill lengths are used as a proxy for breeding origin as Semipalmated Sandpiper bill length increases from west to east across the Arctic. However, bill length relationships confound with sex as females have longer bills than males. Therefore, deuterium (δ2H) signatures were used to track the breeding origin of juvenile Semipalmated Sandpipers.



A feather deuterium isoscape or Neotropical ground foraging migrants. The box signifies geographic origins used for eastern and central breeding Semipalmated Sandpipers staging in Atlantic Canada and includes known breeding locations based on Arctic PRISM data and bird breeding atlases from British Colombia, Manitoba, Ontario, Quebec, Maritimes, and Newfoundland.

Deuterium (δ2H) is a stable isotope of hydrogen which can be used to create a continental isotopic landscape, termed an isoscape, as it varies predictably with precipitation and weather. Deuterium isoscapes have been widely used in migration studies following the assumption that the isotopic composition of animal tissues is attributed to sources of water in the diet. Therefore, the amount of isotopes that are assimilated and fixed in an animal's tissue is reliant on the water, food, and atmosphere the organism is immersed in while growing new tissue. Tissues such as hair, claws, and feathers may be analyzed using stable isotope analysis to determine the levels of an isotope in the sample. Since the levels of isotopes in the tissues reflect the local food webs, these isotopes are a tool to determine the geographic origin and migration routes of various species. Juvenile feathers are the most suitable tissue for elucidating the geographic origin of migratory shorebirds. Deuterium is not measured in adult Semipalmated Sandpipers because adults undergo feather molt and new feather formation on the non-breeding grounds, resulting in an isotopic signature consistent with southern latitudes. In contrast, juvenile Semipalmated Sandpipers develop their first feathers on the breeding grounds, and these feathers retain their relevant Arctic geographic signature. Thus, stable isotope analysis performed on juvenile feathers, even if collected elsewhere in the range, will reflect the Arctic breeding grounds

To determine the breeding origin of Semipalmated Sandpipers refueling in the Northumberland Strait and the Bay of Fundy we captured juvenile shorebirds at Maritime staging locations. We obtained blood samples for molecular sexing as well as feather samples for stable isotope analysis. We found that most birds staging in the Bay of Fundy and Petit Cap are arriving from the eastern and central regions of the Arctic, in the region stretching from northern Quebec and Baffin Island in the northeast through to Northern Manitoba and the northern mainland of Nunavut in the northwest (boxed sections of isoscape bands E and F on the map). In upcoming years, we will continue to collect juvenile feathers of multiple shorebird species to assess geographic origins.

Have you seen a banded shorebird?

Understanding Coloured Flags

Colour Flags are used on the legs of shorebirds to help identify shorebird migration routes, habitat choices, nesting and wintering areas, survival rates and more. Each colour represents a different country in which the bird was banded.

Flag Colours

A	Canada (white)
A	USA (green)
A	Mexico (purple/red)
A	Central America (grey)
A	Northern South America (black)
A	Peru, Ecuador and Bolivia (yellow)
A	Brazil and Paraguay (blue)
A	Argentina and Uruguay (orange)
A	Chile (red)

5 Steps to Identify & Report Banded Shorebirds

1. **Band Type -** identify the type of band (i.e. metal, colour band, flag)
2. **Colour -** (see Pan American Shorebird Program guidelines at *www.whsrn.org/news/article/pasp-finalizes-revised-shorebird-marking-protocol* for more colour descriptions).
3. **Location -** Note the location of the band on the bird (i.e. upper or lower leg, left/right).
4. **Species/Location** - Note the name of the species and the location of sighting.
5. **Photograph -** If possible, please include a photo of the banded bird.
6. **Report** - White or Green colour band sightings to:

Canadian Bird Banding Office
National Wildlife Research Centre
Canadian Wildlife Service
1125 Colonel By Drive (Raven Road)
Ottawa, Ontario, K1A 0H3
Tel: (613) 998-0524
Email: ec.bbo.ec@canada.ca

Every year, biologists throughout the western hemisphere band many species of shorebirds including Semipalmated Sandpipers, Red Knot, White-rumped Sandpiper, Semipalmated Plover, Short-billed Dowitcher, Sanderling etc. Each bird is fitted with coloured leg flags bearing a unique three character code that, if seen by observers, can provide valuable information!

Please let us know if you see any of these birds!

You can also report your resightings on www.bandedbirds.org

OR…

Contact the ACSS coordinator WHO CAN submit the information for you!

julie.paquet@ec.gc.ca

Maximum counts by species 2021

Species	Count	Survey Site	Observer(s)
American Golden-Plover	36	PEINP - Brackley Point Mudflats, PE	David Seeler
American Oystercatcher	2	Whitehead Island: Brooks Marsh & Flats, NB	Roger Burrows
Baird's Sandpiper	2	Mud Island, NS	Alix d'Entremont & Kathleen MacAuley
Black-bellied Plover	364	Lower East Chezzetcook/Chezzetcook Inlet, NS	Susann Myers
Buff-breasted Sandpiper	1	Cherry Hill Beach-Conrad Beach/Murder Island & Round Island	James Hirtle/Alix d'Entremont & Kathleen MacAuley
Common-ringed Plover	1	Cape Freels--Random Passage Trail & Cape Island, NL	Kayleen Stagg
Dunlin	1009	PEINP - Covehead to Brackley, PE	David Seeler
Greater Yellowlegs	228	Morien Bar, NS	Elizabeth Walsh, Matthew Peck
Hudsonian Godwit	12	Cape Freels--Random Passage Trail & Cape Island, NL	Kayleen Stagg
Killdeer	17	Sackville Water retention pond, NB	Megan Boucher
Long-billed Dowitcher	2	PEINP - Covehead to Brackley, PE	David Seeler
Least Sandpiper	500	Mary's Point, NB	Shepody NWA Mary's Point
Lesser Yellowlegs	297	Sackville Water retention pond, NB	Megan Boucher
Pectoral Sandpiper	16	Sackville Water retention pond, NB	Megan Boucher
Piping Plover	27	Chemin Cedriere Beach, NB	Lewnanny Richardson
Purple Sandpiper	29	Deadman's Bay--Back Road, NL	Barry Day
Red Knot	51	PEINP - Covehead to Brackley, PE	David Seeler
Ruddy Turnstone	32	Cape LaHave, NL	Nazo Gabrielian
Sanderling	243	Martinique Beach, NS	Nazo Gabrielian
Semipalmated Plover	5000	Mary's Point, NB	Shepody NWA Mary's Point
Semipalmated Sandpiper	20000	Mary's Point, NB	Shepody NWA Mary's Point
Short-billed Dowitcher	540	West Chezzetcook Marsh, NS	Susann Myers
Solitary Sandpiper	4	Sackville Water retention pond, NB	Megan Boucher
Spotted Sandpiper	5	Pointe à Barreau, NB	Lewnanny Richardson
Stilt Sandpiper	2	Sackville Water retention pond, NB	Megan Boucher
Western Sandpiper	1	Peases Island, NS	Alix d'Entremont & Kathleen MacAuley
Whimbrel	51	Murder Island, NS	Alix d'Entremont & Kathleen MacAuley
White-rumped Sandpiper	500	Mary's Point, NB	Shepody NWA Mary's Point
Willet	106	Three Fathom Harbour, NS	Susann Myers
Wilson's Phalarope	2	St. John's--Virginia Lake, NL	Lancy Cheng
Wilson's Snipe	21	Sackville Water retention pond, NB	Megan Boucher

Table 1. ACSS sites surveyed in 2021

SurveySite	Province	Primary surveyor
Annes Acres	NB	Louise Nichols
Back Oler Farm Marsh	NS	James Hirtle
Baie de Petit Pokemouche	NB	Lewnanny Richardson
Beach Meadows Beach	NS	James Hirtle
Big Fish Island	NS	Alix d'Entrement, Kathleen MacAuley
Blue Rocks	NS	James Hirtle
Bouctouche Dune	NB	Denise Maillet, Danny Landry, Brigitte Despres, Chloe Losier
Cap Bimet	NB	Ted Glas
Cape Freels - Cape Island area	NL	Kaylene Stagg
Cape Freels South	NL	Kaylene Stagg
Cape Freels--Headland	NL	Kayleen Stagg
Cape Freels--High Point Gut	NL	Kayleen Stagg
Cape Freels--Random Passage Trail & Cape Island	NL	Kayleen Stagg
Cape Freels--Road to Main Parking area	NL	Kayleen Stagg
Cape LaHave	NS	Nazo Gabrielian
Castalia Marsh	NB	Roger Burrows
Chemin Cedriere Beach	NB	Lewnanny Richardson
Cherry Hill Beach/Conrad Beach	NS	James Hirtle
Chiasson Office	NB	Lewnanny Richardson
Conrads Island Beach	NS	James Hirtle
Cormierville	NB	Ted Glass, Denise Maillet, Danny Landry,
Crescent Beach	NS	James Hirtle
Deadman's Bay--Back Road	NL	Barry Day
Eagle Head Beach	NS	James Hirtle
Embouchure du ruisseau des Goguens	NB	Ted Glas
Flat Island	NS	Alix d'Entrement, Kathleen MacAuley
Fort Creek Park	NS	James Hirtle
Four Road / Pointe Verte	NB	Lewnanny Richardson
Fullers Bridge	NS	Elizabeth Walsh, Matthew Peck
Gander Bay--Causeway	NL	Barry Day
Gander--Thomas Howe Demo Forest	NL	Barry Day
Grand Manan: Longpond Bay Beach	NB	Roger Burrows
Grand Passage / Pokemouche Beach	NB	Lewnanny Richardson
Grande Anse / Johnson's Mills	NB	Megan Boucher
Green Bay	NS	James Hirtle
Green Island	NS	Alix d'Entrement, Kathleen MacAuley
Ile aux Cheval salt marsh	NB	Lewnanny Richardson
Ingalls Head	NB	Roger Burrows
Inkerman Marsh/Plover Ground North	NB	Lewnanny Richardson
Jones Island	NS	Alix d'Entrement, Kathleen MacAuley
Kingsburg Beach	NS	James Hirtle
Lower East Chezzetcook/Chezzetcook Inlet	NS	Susann Myers
Mal Bay South (Windsor's Malbaie)	NB	Lewnanny Richardson
Malpeque Bay #1	PE	Heather Pringle
Malpeque Bay #2	PE	Heather Pringle
Martinique Beach	NS	Nazo Gabrielian
Mary's Point	NB	Shepody NWA Mary's Point
Miscou Beach	NB	Lewnanny Richardson
Morien Bar	NS	Elizabeth Walsh, Matthew Peck
Mud Island	NS	Alix d'Entrement, Kathleen MacAuley
Murder Island	NS	Alix d'Entrement, Kathleen MacAuley, Jeremie Dulong, Liam Thorne
Musgrave Harbour--beach	NL	Barry Day

Table 1. ACSS sites surveyed in 2021 (cont')

SurveySite	Province	Primary surveyor
Arnold's Cove	NL	Barry Day
Bellevue	NL	Barry Day
Come By Chance	NL	Barry Day
Gambo	NL	Barry Day
Greenspond	NL	Barry Day
Long Beach	NL	Barry Day
Lumsden North Rd. area	NL	Barry Day
Musgrave Harbour Peninsula	NL	Barry Day
Northern Arm	NL	Barry Day
Renews--beach & bay	NL	Barry Day
Windmill Bight Park	NL	Barry Day
Northeast Coast--Anchor Brook area	NL	Barry Day
Northeast Coast--Aspen Cove	NL	Barry Day
Northeast Coast--Banting Memorial Park	NL	Barry Day
Northeast Coast--Ladle Cove	NL	Barry Day
Northeast Coast--Newtown	NL	Barry Day
Northeast Coast--Shalloway	NL	Barry Day
Northern Arm--Pendragon Trail	NL	Barry Day
Oxners Beach	NS	James Hirtle
Peases Island	NS	Alix d'Entremont, Kathleen MacAuley
PEINP - Brackley Point Mudflats	PE	David Seeler
PEINP - Covehead to Brackley	PE	David Seeler
Pigeon Hill	NB	Lewnanny Richardson
Plover Ground North (beach only)	NB	Lewnanny Richardson
Pointe à Barreau	NB	Lewnanny Richardson
Pointe a Bouleau Barrier Island shoreline	NB	Lewnanny Richardson
Pumpkin Island	NS	Alix d'Entremont, Kathleen MacAuley
Ragged Harbour	NS	James Hirtle
Ram Island	NS	Alix d'Entremont, Kathleen MacAuley
Rotary Park Marsh	NB	Ted Glas
Round Island	NS	Alix d'Entremont
Rte 330 to Carmanville	NL	Barry Day
Sackville Water retention pond	NB	Megan Boucher
Sackville Waterfowl Park	NB	Megan Boucher
Second Peninsula	NS	James Hirtle
Sheila	NB	Lewnanny Richardson
St. John's--Mundy Pond	NL	Lancy Cheng
St. John's--Virginia Lake	NL	Lancy Cheng
Ste Marie St-Raphael	NB	Lewnanny Richardson
Tabusintac Dune	NB	Lewnanny Richardson
Tantramar Wetlands Centre	NB	Megan Boucher
Taylor Bay	NL	Norman and Gail Wilson
The Ledges Johnson's Mills	NB	Megan Boucher
The Thrum	NS	Alix d'Entrement, Kathleen MacAuley
Thoroughfare Road	NB	Roger Burrows
Three Fathom Harbour	NS	Susann Myers
Tracadie Barrier Island - mudflats at NW tip	NB	Lewnanny Richardson
West Chezzetcook Marsh	NS	Susann Myers
Whitehead Island: Brooks Marsh & Flats	NB	Roger Burrows
Whitehead Island: Longpoint Beach and South Shore	NB	Roger Burrows
Whitehead Island: Northside	NB	Roger Burrows
Wilson's Point South	NB	Lewnanny Richardson

Table 2. Maximum number of shorebirds recorded at Atlantic Canada Shorebird Survey sites and species maximums—2021

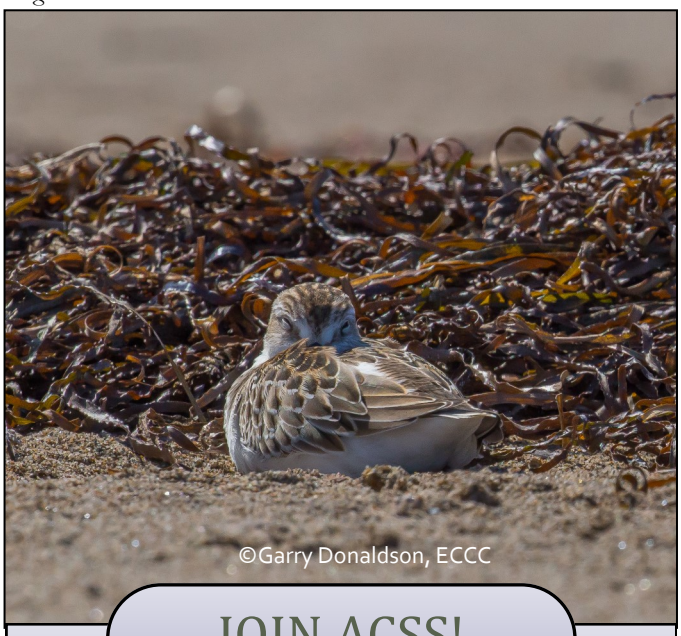
Site name	AMGP	AMOY	BASA	BBPL	BBSA	CRPL	DUNL	GRYE	HUGO	KILL	LBDO	LESA	LEYE	PESA	PIPL	PUSA	REKN	RUTU	SAND	SBDO	SEPL	SESA	SOSA	SPSA	STSA	WESA	WHIM	WILL	WIPH	WISN	WRSA	Total sp.
Anchor Brook area, NL																		14	40		3	6										4
Annes Acres, NB				10				22		1		32	17							3	30	14					1					9
Arnold's Cove - NL				2				1					2								11	1									1	6
Aspen Cove, NL							8	1	3									15	15		1	4									25	8
Back Oler Farm Marsh, NS								13				1	13							10		4						1				6
Baie de Petit Pokemouche, NB												1			6						3											3
Banting Memorial Park, NL							1											2	13		5										1	5
Beach Meadows Beach, NS				3				8				6	6						22	15	8	22										8
Bellevue, NL				12			6	1									9	1	1												1	7
Big Fish Island, NS																								3								1
Blue Rocks, NS																					43	7										2
Bouctouche Dune, NB	2		1	12			46	8	4			5	2	1	1		5	4	139	8	126	325						1			94	18
Cap Bimet, NB				29			2	11				20	13	1				2	14		173	177		1							2	12
Cape Freels - Cape Island area, NL																3																1
Cape Freels South, NL				2			15	34	5			20		1				3	100	6	38	30		2			7				44	14
Cape Freels--Headland, NL				4				1										17	17								7				11	6
Cape Freels--High Point Gut, NL								15				4	5	2					6	5	5	50					1				30	10
Cape Freels--Random Passage Trail & Cape Island, NL				3		1		15	12			8	15	3		3	2	5	13	1	15	20		1							25	16
Cape Freels--Road to Main Parking area, NL	3						20	25					12					15	40		10	25		1					1		45	11
Cape LaHave, NL															3			32	31		310	29					2	2				7
Castalia Marsh, NB				5			1	10		1		260	14						3	4	29	150						3			1	12
Chemin Cedriere Beach, NB				2								1			27				9		4	20		2								7
Cherry Hill Beach/Conrad Beach, NS			1	1	1										0				30		58	6										7
Chiasson Office, NB				58								1	1		1			22	17		15	3										8
Come By Chance, NL				2				5					1																		2	4
Conrads Island Beach, NS																												8				1
Cormierville, NB				5			1	8		14		30	4	8			1	3	1		31	128		1				5		1	16	16
Crescent Beach, NS			2	53			1	13				10	6				1	1	11	76	163	14						39			1	14
Deadman's Bay--Back Road, NL				2			1	9								29		7	7		4						6				6	9
Deadman's Bay--Prov. Park, NL								36																								1
Eagle Head Beach, NS												1							10		15	1										4
Embouchure du ruisseau des Goguens, NB				3				5				2	10							2	24	10						1				8
Flat Island, NS				1				1				6				7	8	3	2	10	28	12		1							2	12
Fort Creek Park, NS													2								286	348									4	4
Four Road / Pointe Verte, NB				2											4			2														3
Fullers Bridge, NS				13				20				8							6	33	188	137					1				11	9

Table 2. Maximum number of shorebirds recorded at Atlantic Canada Shorebird Survey sites and species maximums - 2021 (cont')

Site name	AMGP	AMOY	BASA	BBPL	BBSA	CRPL	DUNL	GRYE	HUGO	KILL	LBDO	LESA	LEYE	PESA	PIPL	PUSA	REKN	RUTU	SAND	SBDO	SEPL	SESA	SOSA	SPSA	STSA	WESA	WHIM	WILL	WIPH	WISN	WRSA	Total sp.
Gambo, NL								20					2					1		1	1											5
Gander Bay--Causeway, NL				1			1	33	1				3				2	7		2	5	11		2							8	12
Gander Bay--Main Point, NL								6										8														2
Gander--Thomas Howe Demo Forest, NL																							2									1
Grand Manan: Longpond Bay Beach, NB			2	7				5				23	1	1					38		179	64		3			8				2	12
Grand Passage / Pokemouche Beach, NB													3		11				2		1			3								5
Grande Anse / Johnson's Mills, NB				59			1	2				400					1		2		300 0	1000 0									18	9
Green Bay, NS								3																								1
Green Island, NS												3						15	1		2	20		1								6
Greenspond, NL	1																															1
Ile aux Cheval salt marsh, NB										1																						1
Ingalls Head, NB												15									290	50		3			1				2	6
Inkerman Marsh/Plover Ground North, NB				5						1		10	5		2			25	28		10	24		1								10
Jones Island, NS												1									23	70										3
Kingsburg Beach, NS																			5		30	7										3
Ladle Cove, NL	2			8			10	5						3				14	40	6	18	25		1			7			3	15	14
Long Beach, NL			1											2								1									27	4
Lower East Chezzet-cook/Chezzetcook Inlet, NS	1			364				5									8	3		87	600	1080										8
Lumsden North Rd. area, NL								2											10		1										10	4
Mal Bay South (Windsor's Malbaie), NB				10			1		7				4		5		1							1								7
Malpeque Bay #1, PE				12				4					8								7	13										5
Malpeque Bay #2, PE				8				5					8							6	6	13										6
Martinique Beach, NS			1				13					47	1		1		1	1	243	1	980	224						1			6	13
Mary's Point, NB				166			2	2				500	5		1		4	1	20	4	500 0	2000 0					1	1			500	15
Miscou Beach, NB															4						10											2
Morien Bar, NS				193				228				1	5								851	379						1				7
Mud Island, NS			4	3				3				10	2				1	5	18		173	43	4	3						2	9	14
Murder Island, NS	2			42	1			2		3		10					3	4	2	2	169 1	3560		1			51	1			3	16
Musgrave Harbour Peninsula, NL				3			6										1	4	18		2	1									19	8
Musgrave Harbour--beach, NL							1											5	150		7	3									1	6
Newtown, NL				20			12	8						1			2	2	5	2	11	10					9				5	12
Northern Arm, NL				4				9	1			4	3								30	2									4	8
Oxners Beach, NS																												5				1

Table 4. Maximum number of shorebirds recorded at Atlantic Canada Shorebird Survey sites and species maximums—2021 (cont')

Site name	AMGP	AMOY	BASA	BBPL	BBSA	CRPL	DUNL	GRYE	HUGO	KILL	LBDO	LESA	LEYE	PESA	PIPL	PUSA	REKN	RUTU	SAND	SBDO	SEPL	SESA	SOSA	SPSA	STSA	WESA	WHIM	WILL	WIPH	WISN	WRSA	Total sp.
Peases Island, NS	2			3			1	2		1		8	5	2			1	8	2	31	450	475		1	1	1	3	1			3	20
Brackley Point Mudflats, PE	1		2	5			2	9				15	9				1		1		61	41					1	1			2	14
Covehead to Brackley, PE	36		1	136			1009	97	7		2	444	172	4	13		51	10	86	350	200	557			1		6	13		3	5	22
Pendragon Trail, NL				4				23					4							1	2			2								6
Pigeon Hill, PE															5			3	8		10	40		2			1					7
Plover Ground North NB													2		2									2								3
Pointe à Barreau, NB												7	1		2				10		10	4		5								7
Pointe a Bouleau Barr I, NB				2									25		15			5	4			1		3			4					8
Pumpkin Island, NB																											4	1				2
Ragged Harbour, NS								7				20																				2
Ram Island, NS								1					1							8	7	6						1				6
Renews--beach & bay, NL				5				3	1												2										2	5
Rotary Park Marsh, NB				5				7					12							6	4			1	1			4			2	9
Round Island, NS				1	1							7	1					2	2	3	25	57		2							4	11
Rte 330 to Carmanville, NL																					1		1									2
Sackville Water retention pond, NB								176	11	17	1	11	297	16						45	3	2	4	1	2		2		21	1	16
Sackville Waterfowl Park, NB								3					5										3						5			4
Second Peninsula, NS												2									40											2
Shalloway, NL							1	1											40												1	4
Sheila, NB																											12					1
St. John's--Mundy Pond, NL								12					6																1			3
St. John's--Virginia Lake, NL								15			1		9	1										3	1				2	1		8
Ste Marie St-Raphael, NB																		18			4											2
Tabusintac Dune, NB				12						1		13	32		25		20	26	4	12	26	31		1							38	13
Tantramar Wetlands C, NB								1				1										1										3
Taylor Bay, NL				5				24				2					2	8	150		25	10		3			6				2	11
The Ledges Johnson's Mills, NB																9																1
The Thrum, NS												2						1										1				3
Thoroughfare Road, NB												54									6	18									1	4
Three Fathom Harbour, NS								12				10	132	1				1		234	27	12		1			1	106				11
Tracadie Barrier Island - mud-flats at NW tip, NB																								3								1
West Chezzetcook Marsh, NS			1	70			226	63	1			19	136	1			2	1		540	210	2050						16			135	15
Whitehead Island: Brooks Marsh & Flats, NB	1	2		48			18	5		1		102		1			1	6	3	1	79	96			1						2	16
Whitehead Island: Longpoint Beach & South, NB			2					2		1		49	1		1				80		48	102		2			7					11
Whitehead Island: North, NB			1	5			2					79							14		106	63		1			3				1	10
Wilson's Point South, NB																			4													1
Windmill Bight Park, NL																			13		8									2		3
Maximum	36	2	4	364	1	1	1009	228	12	17	2	500	297	16	27	29	51	32	243	540	500	2000	4	5	2	1	51	106	2	21	500	31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JOIN ACSS!

Discover your passion for birding! Join us in shorebird monitoring and conservation!

Are you a birding enthusiast or simply a lover of the outdoors and are looking for an opportunity to share your passion? The Atlantic Canada Shorebird Survey provides an exciting opportunity to enjoy nature in a unique way while contributing to shorebird conservation.

The ACSS and other regional surveys such as the Ontario Shorebird Survey and the International Shorebird Survey all share a common goal: monitoring and conserving shorebird populations. Working together through the ACSS, you can help us identify areas of importance to shorebirds that move through Eastern Canada and to monitor trends in populations of species over time.

As an active participant in the ACSS, you will learn how to select a survey site, identify shorebirds, conduct counts and understand the importance of bird monitoring in Atlantic Canada. If you are interested or know of someone who would be, please contact us!

Program for Regional and International Shorebird Monitoring

As part of PRISM (Program for Regional and International Shorebird Monitoring), the Atlantic Canada Shorebird Survey can be accessed via an online portal! This quick and easy approach to entering shorebird data allows ACSS volunteers to access and enter their data at any time from the comfort of their home. You can even transfer data from the ACSS PRISM site to your e-bird account, so you don't have to duplicate your data entry. If online data entry isn't for you, data can also still be sent directly to CWS.

The ACSS portal is located on the AKN Nature Counts website at:
http://www.bsc-eoc.org/birdmon/prism/main.jsp

Questions regarding the ACSS or the online portal? Please contact Julie Paquet at: julie.paquet@ec.gc.ca

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2021 Photo Gallery

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