



# INTERNATIONAL SHOREBIRD SURVEY

Newsletter | May 2024

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## The International Shorebird Survey, the Ontario Shorebird Survey, and the Atlantic Canada Survey Celebrate Our 50th Year!

LISA SCHIBLEY (MANOMET) AND CHRISTIAN FRIIS (ECCC)

It all started with a small announcement in *American Birds*, a journal devoted to bird records in North America calling for “any observer who may be able to participate in regular survey counts of shorebirds during spring and autumn migrations.” Interested candidates in Canada were to contact Guy Morrison of the Canadian Wildlife Service. Those elsewhere could reach out to Brian Harrington at Manomet Bird Observatory. In 1974, Brian and Guy received data from 67 important shorebird sites across the hemisphere. By 1980, that had grown to 256, and in 2023, 750+ shorebird enthusiasts covered more than 1,300 sites, sending in over 11,000 checklists to the International Shorebird Survey through eBird to help shorebird scientists build their knowledge of population trends and migration paths.

Shorebirds are amongst the most spectacular migrants on the planet, and many species routinely travel between breeding grounds in Arctic North America and non-breeding grounds as far away as the southern tip of South America – a round trip over 32,000 km! During these annual migrations, shorebirds stop at a network of sites to rest and refuel, and

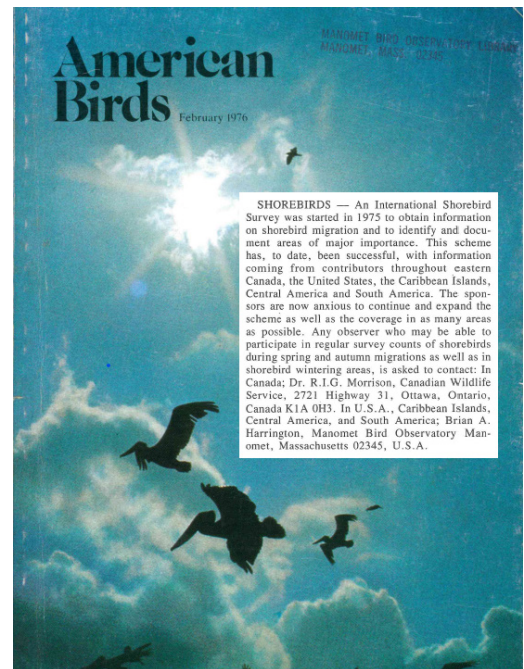


Image of the cover of *American Birds* from 1976 plus the ISS announcement in the inset

## Contact Us

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## VOLUNTEER HIGHLIGHTS THROUGH THE YEARS

Alfred Gepp submitted on average 40 surveys per year from 1978 to 1991 for several important shorebird sites in Uruguay.

Species	Apr 1	Apr 4	Apr 5	Apr 6	Apr 13	Apr 14	Apr 15	Apr 16	Apr 17	Apr 18	Apr 19	Apr 20	Apr 21	Apr 22	Apr 23	Apr 24	Apr 25	Apr 26	Apr 27	Apr 28	Apr 29	Apr 30	
Charadrius melodus																							
Charadrius semipalmatus																							
Charadrius vociferus																							
Ploveria dominica																							
Ploveria aquatilis																							
Anarhynchus interpres																							
Anarhynchus phaeopus																							
Anarhynchus melanotos																							
Anarhynchus flavipes																							

(WHSRN), which aims to protect key areas used by shorebirds throughout their range

Over the decades, ISS data have increasingly been used to assess and monitor shorebird populations. This is important because the dependence of shorebirds on coastal and wetland habitats makes them an excellent indicator of the health of our shared environment. The need to continue monitoring migrant shorebirds is still strong. Recent analyses show shorebird populations are among the fastest declining bird groups in North America, and data collected by folks like you contribute to our understanding of the effects of recovery efforts implemented by partners throughout the Western Hemisphere. Thank you for your counts!

the International Shorebird Survey began with the intention of identifying areas important to shorebirds during their northbound and southbound migrations. The data gathered by these volunteer survey networks have contributed directly to helping establish the Western Hemisphere Shorebird Reserve Network

# 50 Years of ISS Counting in the Southern Hemisphere

ARNE LESTERHUIS (MANOMET)

When the International Shorebird Survey (ISS) was founded by Manomet's Brian Harrington back in the seventies, its main goals were to increase our understanding of shorebird migration, including a focus on where birds go after leaving North America. In those days, the exchange of information was much slower and much more limited than nowadays, so there were a lot of unknowns in terms of migration timing, migratory routes, and key stopover sites after birds entered the southern hemisphere. As many species were showing declines, it was important to

gather information about the status of important sites and identify threats.

Due to the lack of internet that today makes reaching out to potential volunteers much easier, ISS had a relatively slow start in Latin America. For example, during the first five years, only volunteers at a few sites in South America started contributing data. Laguna Mar Chiquita (Cordoba, Argentina) was one of the first. By the end of the 1970's, contributors in six countries were counting shorebirds for ISS, including

Students of the Anton de Kom University in training for shorebird surveys on a sandy beach at Braamspunt, Suriname.



Argentina, Bolivia, Chile, Falkland Islands (Malvinas), Peru, and Uruguay. All combined, about 20 volunteers contributed to the ISS at 22 sites, and had counted approximately half a million shorebirds by then.

During the eighties and nineties, more countries joined the survey, including countries in Central America and the Caribbean. In fact, during the first 20 years of ISS, nearly 100 volunteers participated in 19 countries, counting about 4 million shorebirds of 55 species. The gathered data started to provide information on key stopover and wintering sites. Several sites that joined early – for example, Laguna Mar Chiquita and Paracas (Peru) – were identified as key winter and stopover sites for shorebirds and became part of the Western Hemisphere Shorebird Reserve Network (WHSRN) in 1989 and 1991, respectively. The compiled data during fall and spring migration also started to show migration patterns and routes in the southern hemisphere with early peaks in Central America, the Caribbean, and northern South America, followed by high numbers further south later in the season. However, despite this success, participation was not at the same level as that of North America and it was hard to even maintain that level. During the early



## VOLUNTEER HIGHLIGHTS THROUGH THE YEARS

Mariano Martinez submitted more than 60 ISS counts between 1981 and 1985 within Albufera Mar Chiquita, now a WHSRN site in Argentina.

2000's, participation had dropped and was nearly non-existent. In 2016, after several years of little to no ISS data being gathered in the southern Hemisphere, Manomet actively started recruiting potential volunteers again.

Shorebirds are among the birds that show the steepest declines, so gathering data is vital for setting conservation measures. Today, with ISS being implemented in most countries (70%) in Latin America and the Caribbean by over 250 volunteers, continuity at surveyed sites becomes the critical focus, perhaps even more important than increasing coverage.

Recently a paper published in the journal *Ornithological Applications* showed that since 1980, nearly all shorebird species along the Atlantic Coast of the U.S. and Canada experienced steep declines, with many losing more than 50 percent of their population over the last three decades. The publication highlighted that data for a similar analysis south of the U.S. and Canada is scarce. Therefore, in the future, ISS in the southern hemisphere should try and focus more on stability at identified key sites (for example, at WHSRN sites) to be able to analyze population trends on the non-breeding grounds. This will help identify bottlenecks along flyways, understand where threats impact populations, and help steer conservation action towards those sites and habitats that are in greatest danger.

Please continue to support ISS with data in order to better understand population dynamics in the southern hemisphere!



Staff of Ambiente Sur surveying shorebirds in Patagonia, Argentina at Rio Gallegos

# ISS, Shorebird Populations, and Science – An Historical Look

BRIAN HARRINGTON (MANOMET)



Brian Harrington and shorebird surveyors in 1989, counting shorebirds at Cabo Rojo in Puerto Rico

One aspect of science is that experimental design and statistical considerations demand that scientific research conclusions be rigorous – almost irrefutable. Achieving that level of rigor is underpinned by dogged – and typically very repetitive work – often with costly strictures on how data can be collected.

When the ISS was born in the early 1970's, its design wasn't intended to show how many shorebirds there were, nor how their populations might be increasing or decreasing. To do that would have required a design that very few volunteers would accept or be able to achieve in their otherwise busy lives. For example, a "population design" would have required randomly selecting locations for counts to be made, thus requiring a counter to travel to a randomly selected (versus convenient) place, perhaps tens or even hundreds of miles

away, and to do this within the same period as all the other volunteers. Trained, professional counters would be needed. Indeed, in the 1970's, a scientific design to pinpoint population size and trends of intercontinental populations of birds would have required a huge cadre of dedicated workers costing many millions of dollars, far beyond the capabilities of the small organization then known as the Manomet Bird Observatory. Instead, the ISS was born to comparatively sort out how different species of shorebirds migrated, and specifically how they differed in the routes that they traversed. That kind of survey also needed to include very broad geographic coverage and a large group of counters, but unlike trying to track population numbers, the goal could be achieved as long as counters could both identify shorebirds and could choose a convenient place to adopt for their routine counts.

Sometimes scientific advances happen almost fortuitously. Let's fast forward a few decades.

The ISS is still ongoing, and the power of computers has seemingly advanced by light years. And with that increased power, statisticians have developed analyses that now can take information our ISS team has collected and apply highly complicated statistics to document shorebird population change. These analyses

## VOLUNTEER HIGHLIGHTS THROUGH THE YEARS

Roseanna Denton from Kentucky has submitted over 300 ISS checklists since 1996, and she is also a talented photographer. We love this Spotted Sandpiper from her ISS site at Fishing Creek in Kentucky.



simply would not have been possible two decades earlier.

As a founder of the ISS, I would like to explain these new analyses. But that would require pages of statistical symbols and logic. (Besides, I don't have a clue!) But I'm comfortable knowing that the scientific process ensures that these new statistical tools have passed rigorous and honest muster. And I'm proud that our ISS team has built tools for understanding how shorebird populations are changing. Together we have built a basis for advancing shorebird conservation in our fast-changing world. Wow!

## Calling All Rhode Island and Massachusetts ISS Volunteers!

There is an opportunity for Rhode Island and Massachusetts ISS volunteers to contribute to a study on Red Knot and Ruddy Turnstone migration ecology in southern New England. The study will be completed in partnership with multiple organizations, including the University of Rhode Island, Mass Audubon, Manomet, Rhode Island Department of Environmental Management, U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS), the Canadian Wildlife Service, the Maine Research Array, and Mount Allison University. We will study turnstones and knots during northbound migration to better understand the number of birds staging in southern New England, the resources they use, and how their flight pathways may interact with offshore wind developments. The results of this study will inform shorebird conservation priorities in the region.



### VOLUNTEER HIGHLIGHTS THROUGH THE YEARS

Marcelo Barbosa and Iza Alencar have contributed 286 surveys at Praia da Graciosa in Palmas, Tocantins, Brazil since 2016.

“Understanding how such small birds can fly such great distances in search of food and a more pleasant climate, and then return to their breeding grounds is what motivates us to keep monitoring.”

MARCELO BARBOSA

### HERE'S HOW ISS VOLUNTEERS CAN HELP.

We are seeking volunteers to conduct ISS surveys in RI and MA during peak northbound Red Knot and Ruddy Turnstone migration. Participants will conduct surveys at their usual ISS sites using the standard ISS protocol during the survey window of **May 25th to June 8th**. Although we are particularly interested in getting good counts of turnstones and knots, volunteers should report all species encountered. We need help covering some priority sites, too, so if you are interested in conducting ISS surveys

at additional sites during the survey period, please reach out to your state's coordinator (listed below). The data from these ISS surveys will contribute to abundance estimates for turnstones and knots in RI and MA during northbound migration.

**If you are interested in participating in this survey, please contact:**

**MA:** Liana DiNunzio, Shorebird Biologist, Manomet, [ldinunzio@manomet.org](mailto:ldinunzio@manomet.org)

**RI:** Sam Miller, Non-Game Bird Biologist, Rhode Island Department of Environmental Management, [samuel.miller.ctr@dem.ri.gov](mailto:samuel.miller.ctr@dem.ri.gov)



Red Knot and Ruddy Turnstone in breeding plumage on Delaware Bay

*Note: This survey will occur during the nesting season of several coastal waterbird species, so please familiarize yourself with any site restrictions set to protect nesting birds before selecting a survey site.*

# Blue Flags: Coming Soon to a Beach Near You!

We are pleased to share information about a shorebird banding and tracking project in Northeast Brazil, and to let you know that some of these birds may soon appear on beaches near you! The work is a collaboration between Brazilian conservation NGO [Aquasis](#), Environment and Climate Change Canada (ECCC), U.S. Fish and Wildlife Service (USFWS), Mount Allison University, and the University of Rhode Island. We are working to better understand local habitat use and northbound migration pathways for shorebirds using the Banco dos Cajuais, a regionally important WHSRN site located in Ceará, Brazil. In February 2024, we banded and flagged more than 100 shorebirds, primarily Semipalmated Sandpipers, Ruddy Turnstones, Red Knots, and Short-Billed Dowitchers. Many of these birds also received tracking devices to help us understand their movements. We anticipate that these birds will arrive on the U.S. Atlantic Coast and possibly along the midcontinental flyway between April and May of this year. **We hope shorebird enthusiasts and ISS contributors will keep their eyes peeled for blue flags** (indicating birds came from Brazil) this spring. We would like to know when and where these marked shorebirds arrive, and if they have retained their tracking devices. **In addition to submitting your ISS checklists, we would be grateful if you could contact the following individuals if you resight any of these birds and send photos if possible, or mention if you noted tracking devices (pictured above) on their backs.**

**Dr. Jason Mobley** ([jason@aquasis.org](mailto:jason@aquasis.org))  
Manager of Aquasis Migratory Birds Program, Brazil

**Rebeca Linhart** ([rebecalinhart@uri.edu](mailto:rebecalinhart@uri.edu))  
Ph.D. student, University of Rhode Island, United States

**Gianco Angelozzi** ([geangelozzi@mta.ca](mailto:geangelozzi@mta.ca)).  
MSc student, Mount Allison University, Canada

Thank you and happy resighting!



Ruddy Turnstone with blue flag and a satellite tag attached.



## VOLUNTEER HIGHLIGHTS THROUGH THE YEARS

John Danzenbaker is known for his many accomplishments in the bird world. He submitted thousands of counts for ISS in New Jersey from 1974 to 2005. A plaque dedicated to his life was placed at the East Pool in Forsythe National Wildlife Refuge.



## VOLUNTEER HIGHLIGHTS THROUGH THE YEARS

Rey Larsen has contributed 2496 ISS checklists over 36 years, averaging approximately 70 per year. In 2020, Rhode Island Natural History Survey awarded Rey Larsen with its Distinguished Naturalist Award and we couldn't be in more agreement.

[www.bonfire.com/store/manomet/](http://www.bonfire.com/store/manomet/)

Purchase a tshirt celebrating the ISS 50<sup>th</sup> anniversary and support ISS!



## There is always more to explore

More about ISS at  
[manomet.org/project/international-shorebird-survey/](http://manomet.org/project/international-shorebird-survey/)

Explore all ISS data at  
[manomet.org/iss-map](http://manomet.org/iss-map)

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