

# CARIBBEAN WATERBIRDS



by Faraaz Abdool, Scott Johnson,  
Hannah Madden, Beth MacDonald,  
Michelle Pors-da Costa Gomez  
and Mark Yokoyama

# Eight Years of Counting

by Mark Yokoyama

In mid-January, scientists and citizens around the Caribbean will begin the 8th annual Caribbean Waterbird Census. It is an important regional event that has contributed greatly to our understanding of wetland birds.

Over 180 species of waterbirds live in the Caribbean. They include seabirds, herons, ducks, shorebirds and many other species. Some are found only in the Caribbean, while others travel thousands of miles to visit our islands each year. Some are common, others face the threat of extinction. They all depend on Caribbean wetland habitats for their survival.

One important initiative for learning more about Caribbean wetland birds is the Caribbean Waterbird Census. It brings scientists and citizens together across the region to count these birds between January 14th and February 3rd each year. Data from these counts gives us a better picture of our birds. It also shows us which areas they depend on most and how their populations change year-to-year.

*Stilt Sandpiper (Mark Yokoyama)*



One of the keys to the Caribbean Waterbird Census is consistency. Specific methods are used for counting birds. The dates of the count are the same each year, and most participants monitor the same locations each year. The result is a detailed snapshot of bird populations that can be compared over time. This information is used to determine the importance of specific wetlands and prioritize conservation efforts.

That may sound complicated, but it really isn't. Some counting methods are easy enough for anyone to do. In fact, participation by non-scientists is key to the success of programs like the Caribbean Waterbird Census. Having more participants means more surveys at more individual sites. Having more data gives us a clearer picture of the state of our waterbirds.

If you're interested in participating in the Caribbean Waterbird Census, contact a local environmental group, or visit [BirdsCaribbean.org](http://BirdsCaribbean.org) to learn more about the program.



*Least Sandpiper (Mark Yokoyama)*

# The Herons Formerly Known as “Green-Backed”

By Faraaz Abdool

Small, green herons live on nearly every waterway in both the Old and New World tropics. In times gone by, birdwatchers and ornithologists believed they were all from the same species. It was long thought that variations in plumage were superficial, and differences in coloration represented local varieties or subspecies of the same bird, and hybrids between them.

As we learned more about these little herons, however, we realized that they did not hybridize as much as we thought. Bird populations that don't interbreed are typically classified as separate species, even if the physical differences between them are small. Consequently, the Green-backed Heron has now been split into two distinct species: Striated Heron and Green Heron.

*Green Heron (Faraaz Abdool)*



Both species are resident in the Caribbean. Although Striated Herons (*Butorides striata*) are largely creatures of the Old World: Asia, Africa and Australia, they are also common residents of waterways in South America and Trinidad. Green Herons (*Butorides virescens*) are a familiar sight in North and Central America. They are also one of the most common waterbirds in the West Indies.

How do we know which one we're looking at? Your geographic location is a start. If you're in Cuba, you're probably looking at a Green Heron. If you're in Trinidad, expect to see Striated Herons on the banks of rivers and ponds. A good view gives the next clue—the neck area is mostly gray on the Striated and mostly chestnut on the Green.



*Green Heron (Faraaz Abdool)*

Although they are different species, what makes them similar far outweighs what makes them different. Carefully approaching a pond, one might sneak up on unsuspecting wildlife. That is, until a sharp “kek” call rings out, shattering the silence and sending every heron, egret, duck and caiman scattering to safety. This role of chief whistleblower is assumed by whichever species of heron occupies the area.

Another striking similarity is tool use by both Green and Striated Herons. Both species have been observed fishing with lures. These intelligent birds take a leaf, feather or piece of bread and place it gently on the water’s surface. They patiently wait—with the stillness only a Heron can exhibit—for a curious fish to investigate the bait. Once the distracted fish swims close enough, the trigger is pulled: the curved neck of the Heron rockets forward to grab its meal.

*Striated Heron (Faraaz Abdool)*





Tool use was long considered an exclusive characteristic of human beings. However, as we observe it in more animals, we're learning we aren't that different from the other creatures on this blue planet. Furthermore, if a Trinidad Motmot can lay claim to its own ramming stone in the forest where it cracks open snails, and if these West Indian herons use fishing lures to improve their success rate, perhaps we should retire the phrase "bird-brained" after all!

*Striated Heron (Faraaz Abdool)*

# Wetland Birds... Where You Least Expect Them

By Hannah Madden

One amazing thing about birds is how they adapt to their immediate environment, whether by choice or necessity. Take, for example, St. Eustatius—more commonly known as Statia. It is a small, dry island that has volcanoes at its northern and southern ends and a flat area in-between. There are no lakes, rivers or springs, yet a surprising percentage of the island's birds are wetland species.



*Cattle Egret (Hannah Madden)*



One might wonder why they hear the call of a Green Heron during a hike up the dormant Quill volcano—and more importantly, what does it eat? Similarly, a lone Great Egret appears to have made the island its home and wanders around various yards (including mine) and open areas in search of lizards and insects.

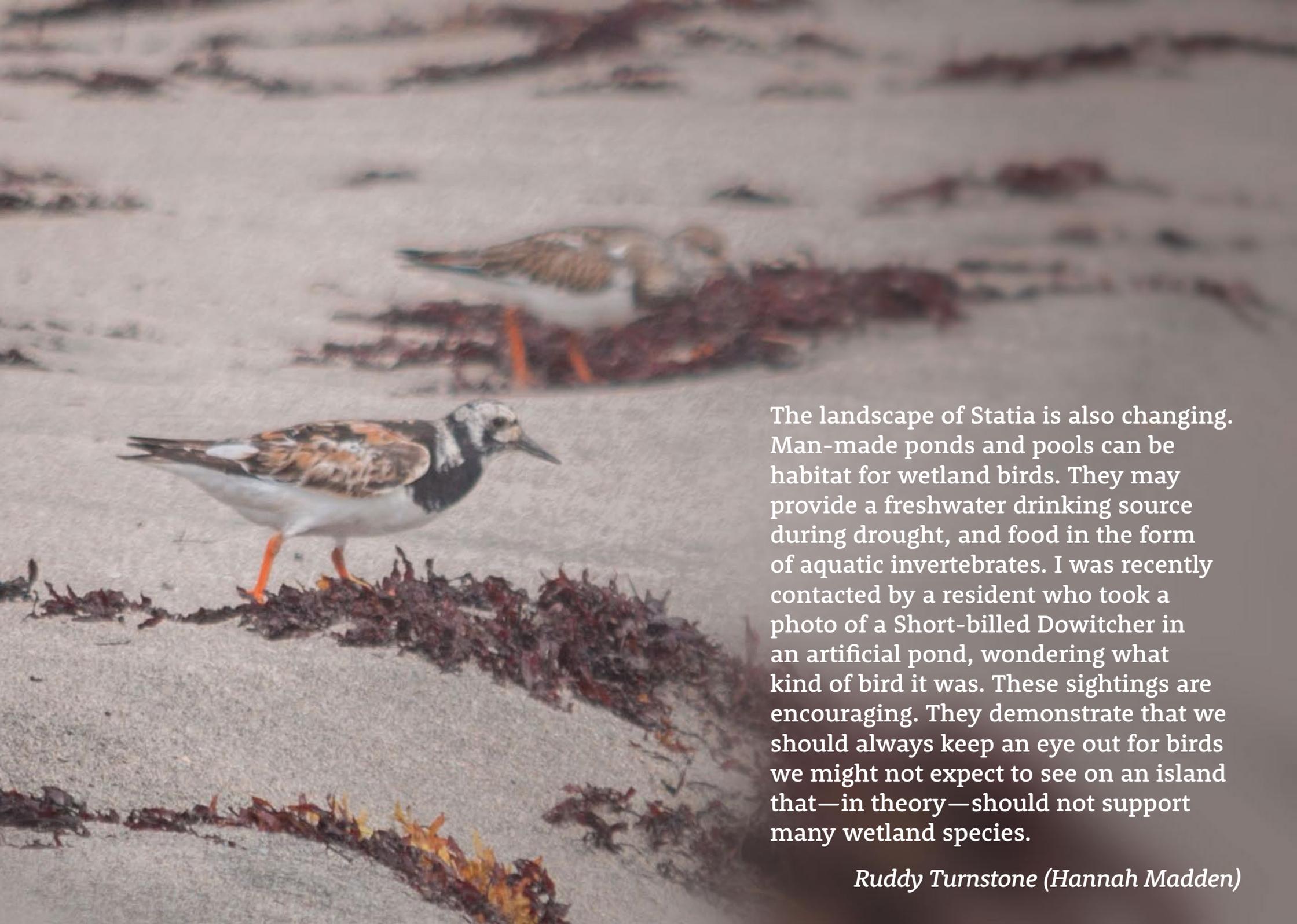
*Great Egret (Hannah Madden)*

During the rainy season there have been sightings of the odd Snowy Egret on Zeelandia Beach, as well as sandpipers and other shorebirds. This coastal habitat occasionally becomes flooded, creating temporary rainwater ponds, which in turn support wetland birds. Other species observed include the American Coot, Common Gallinule, Blue-winged Teal and Black-necked Stilt, all of which require natural freshwater. During migration season it is not uncommon to spot a Belted Kingfisher in coastal areas hunting for small fish. In other parts of the world, they typically live along the edges of streams, lakes and estuaries.

Despite a surprising diversity of wetland birds, this group is still under-represented on Statia compared to nearby islands. The shortage of preferred habitat compared to other islands that have ponds and rivers is a big factor. The limited amount of bird observation data is another. From the data we do have, it is clear that these birds can live on a dry island. An increase in systematic birding efforts may give rise to even more sightings.

*Killdeer (Mark Yokoyama)*





The landscape of Statia is also changing. Man-made ponds and pools can be habitat for wetland birds. They may provide a freshwater drinking source during drought, and food in the form of aquatic invertebrates. I was recently contacted by a resident who took a photo of a Short-billed Dowitcher in an artificial pond, wondering what kind of bird it was. These sightings are encouraging. They demonstrate that we should always keep an eye out for birds we might not expect to see on an island that—in theory—should not support many wetland species.

*Ruddy Turnstone (Hannah Madden)*

# An Unpolished Jewel in an Urban Landscape

By Michelle Pors-da  
Costa Gomez

The word nature is not easily associated with urban areas, but in the case of Muizenberg Dam on Curaçao it is exactly that. The dam was built in 1915 by the oil company Shell to provide fresh water for its oil refinery. Located in the middle of one of the largest gully systems on the island, it holds about 650,000 cubic meters of water when full.

The water is still collected, but isn't used anymore by the refinery. Today, the area is a large seasonal wetland: wet during the rainy season and dry the rest of the year. Curaçao's Island Development Plan considers it a Park Area, it is also a Ramsar site—an internationally-recognized wetland of exceptional value. It is important to migrating birds as well as breeding



*Muizenberg Dam (Michelle Pors-da Costa Gomez)*

*American Coots have been observed displaying courtship behavior in November. (Michelle Pors-da Costa Gomez)*



waterbirds such as the American Gallinule, the American Coot and several duck species such as the Blue-winged Teal, White-cheeked Pintail and Black-bellied Whistling-Duck.

During the rainy season water gradually collects in the dam. Short rain showers bring small pools and long and heavy showers transform the area into a lake. When the rain stops, the lake disappears: the water evaporates and soaks into the ground. However, the dam remains quite green for several months while plants continue to use the water. During a long dry season or drought most plants will die or lose their leaves.

Many flowering herbaceous plants and grasses grow in and alongside the dam attracting a wide variety of species of insects including butterflies, grasshoppers, flies, beetles and others. With puddles come Four-eyed Frogs, reproducing quickly. A nutritious meal for herons such as the Great Blue

*Yellow-billed Cuckoo. More than 10 individuals were spotted regularly at the same time. (Michelle Pors-da Costa Gomez)*



Heron, juvenile Little Blue Herons and Snowy Egrets. The insects and other invertebrates on the shore and in the water are food to waders such as Least Sandpipers, Spotted Sandpipers, Black-necked Stilts and Cattle Egrets. Long grass on the shore provides shelter for the Sora, the Purple Gallinule and the Wilson's Snipe and food to the Bobolink. And with all this diversity, migrating raptors such as the Peregrine Falcon and Merlins are not far behind.

This year, the fall migration season fell smoothly together with the rainy season resulting in many migrating birds staying longer than usual. The Yellow-billed Cuckoo, which usually only stops here to 'refuel' in the early fall, has been seen into the winter, staying around for the time being as food resources are plenty.

The position of Muizenberg Dam in a heavily populated urban area brings issues which need to be addressed, but are not. Pollution is a serious problem.

*Many juvenile Green Herons are seen, and ones in breeding plumage in December. (Michelle Pors-da Costa Gomez)*



Domestic and industrial garbage as well as motor oil and chemical dumps pollute the water in the dam as well as the groundwater in the entire area. Stray dogs form packs and actively hunt and destroy bird nests. Even illegal netting to catch ducks has been reported.

The area desperately needs a management plan, policies regarding conservation and public health threats, and communication to the community about its value and importance. Currently, these are all missing, and no organization is responsible for actively managing it. This is a missed opportunity, because this dam is a jewel in the landscape and can also play a much greater role for local residents.

# Weathering a Storm in the Joulter Cays

By Scott Johnson



*Piping Plover (Walker Golder)*

The island of Andros is one of the most unique places on earth. This island is the largest jewel in the Bahamian crown of islands and is home to the country's largest population of land crabs, largest species of rock iguana, and the highest concentration of blue holes in the world. The island is blessed with large expanses of wetlands and sand flats, which are the perfect environment for waterbirds and other bird species, with over 180 species recorded on the island.

Waterbirds, both migratory and resident, thrive on Andros. Their presence helped drive the creation of national parks on the island. Westside National Park, the largest national park in The Bahamas, was established in 2002. A new National Park just north of North Andros—the Joulter Cays National Park—was designated in 2015.

*Beach damage from Hurricane Matthew in North Joulter Cays. (Scott Johnson)*



Joulter Cays National Park is an important wintering habitat for waterbirds with more than 15 species recorded there, including species of high concern such as the American Oystercatcher, Wilson's Plover, Red Knot, and Reddish Egret—the rarest heron in North America.

The park is also home to the largest population of Piping Plovers in The Bahamas. Piping Plovers are an endangered shorebird that travels from North American breeding grounds to the Caribbean each winter. Surveys done in the Joulter Cays revealed that as much as 10% of the Atlantic population of Piping Plovers spends the winter in the Joulter Cays.

Piping Plovers are currently the subject of much study. Scientists and conservationists are racing to learn about their habits and which habitats are most important to them so that they can be protected. Despite the effort to protect these species from human

*Invasive casuarina mortality caused by Hurricane Matthew on North Joulter Cays. (Scott Johnson)*



threats, nothing could stop the ever-present threat of Mother Nature.

On October 6th, 2016, Hurricane Matthew crossed over North Andros and Grand Bahama, causing millions of dollars in damages and destroying hundreds of homes. Researchers from the Bahamas National Trust, the National Audubon Society and Environment and Climate Change Canada went to the Joulter Cays in November to assess the damage. Armed with spotting scopes, binoculars and boundless enthusiasm—and with boat transportation by Androsian bonefish guide Phillip Rolle—they set out to see how the storm affected the endangered Piping Plover and other shorebirds.

The area where most of the plovers were typically found was hard hit by the storm. The sand dunes where the plovers usually roost at high tide on Northern Cay were heavily eroded and trees along the coastline were killed by the salt spray and powerful waves.

*Wilson's Plover (left) and Piping Plovers (right) in wrack community. (Scott Johnson)*



Many of the roosting sites so essential for the shorebirds had disappeared or were dramatically changed and new roosting sites created in different locations.

Amazingly, Piping Plovers were still found in various locations in the Joulter Cays. These resilient birds managed to survive the storm and the changes it brought. Other birds seen in the area included Royal Terns, Common Terns, Great Black-backed Gulls, Wilson's Plovers, Red Knots, Ospreys, and American Oystercatchers.

Sadly, even though over 100 Piping Plovers were found during the four-day survey, counts were down from the February 2016 International Piping Plover Census and other surveys. Dozens of these endangered birds seemed to be missing, possible casualties of the storm.

# Are There Rare Birds on Your Local Beach?

By Beth MacDonald

Long walks on the beach are all in a day's work for a Piping Plover biologist. From their northern breeding grounds in Eastern Canada to their southern wintering sites in the Caribbean, Piping Plovers are usually found on open, sandy beaches. Their light plumage gives them perfect camouflage against the sand. They may even spend time on a beach near you.

We have much to learn about these small shorebirds, including information that could save the species. Piping Plovers are endangered or threatened everywhere they live, and their numbers remain low, despite years of conservation efforts. Scientists throughout Canada, the U.S. and the Caribbean are working together on studies that may help protect them. They aim to learn about the Piping Plover annual cycle, their survival, and the threats they face at different times of the year.

One such project—with a crucial Caribbean part—is currently underway in Eastern Canada. A team of researchers from Environment and Climate Change



*Piping Plover (Lisa Sorenson)*

Canada is working with partners throughout Canada, U.S. and the Caribbean to try to figure out why these birds are in decline. Beginning in 2014, they initiated a multi-year banding and resighting project. Piping Plovers are marked on Eastern Canadian breeding grounds with uniquely coded black, white or grey flags. Once marked, we can follow their travels when they are spotted and reported—resighted, in bird-banding lingo.

Thanks to tremendous resighting efforts by partners and volunteers, we have already learned so much! We have helped identify many new wintering locations in the Caribbean, including sites in the Bahamas, Cuba, and Turks and Caicos. In particular, we have noted important connections between Eastern Canadian breeding grounds and Caribbean wintering sites. In fact, about half of the Eastern Canada birds with known wintering locations spend those months in the Caribbean.

The Caribbean is important to many other banding studies. Recent international efforts to mark Piping Plover in the Bahamas with pink flags have further highlighted international connectivity of these birds. Numerous studies are ongoing throughout the United States. Together, this work paints a clearer picture of the status of the Piping Plover and which areas it depends on most for its survival.

*Piping Plover (Walker Golder)*

Given all these new and significant connections, it's so important that we continue with resighting efforts throughout the Caribbean. Luckily, anyone can help! If you are walking on a beach and spot a marked Piping Plover, you can report it. The information you contribute just might help save a species!

Learn how to report sightings here: <https://goo.gl/O2o7NZ>



*Piping Plovers (Walker Golder)*

**Faraaz Abdool** is a wildlife photographer based in Trinidad and Tobago. His work has been featured in Discover T&T, Caribbean Beat, Yahoo! Travel, and BBC Earth, but his most passionate subject is the preservation of wildlife via his photographs. See more of his work at <http://faraazabdool.com/>

**Scott Johnson** is a Biologist and Education Officer at the Bahamas National Trust. He has been published in two journals: International Reptile Conservation Foundation (IRCF) Journal for Reptiles and Amphibians, and the Wilson's Journal of Ornithology. Scott is a member of the Media Working Group of BirdsCaribbean.

**Hannah Madden** is a terrestrial ecologist who has lived and worked on St. Eustatius since 2006. She has studied a variety of taxonomic groups since living on the island but tends to gravitate towards birds. Hannah has been studying the reproductive success of Red-billed Tropicbirds since 2012, and conducted a population assessment of the Bridled Quail-dove. She has published numerous papers on various taxa of the island and is the founder of Ecological Professionals Foundation:  
[www.ecoprofessionals.org](http://www.ecoprofessionals.org)

*Laughing Gull (Mark Yokoyama)*



**Beth MacDonald** is a Wildlife Technician, Canadian Wildlife Service, Environment and Climate Change Canada. Her article was written in collaboration with Jen Rock (Canadian Wildlife Service-ECCC), Cheri Gratto-Trevor (Science and Technology Branch-ECCC), and Matt Jeffery (National Audubon Society).

**Michelle Pors-da Costa Gomez** was born in Curaçao on 14 August 1979 and raised on the island. She specialized in wildlife management, communication and education in the animal sciences study in Holland in 2001. She came back as educational officer (2001-2006) and manager of Christoffel National Park on Curaçao (2006-2011) at Carmabi and started her own communication and education company in 2012. She is currently president of Curaçao Footprint Foundation (CFF) and co-founder of Bird Watching Curaçao, born under CFF.

**Mark Yokoyama** is a naturalist, author and wildlife educator on Saint Martin. He wrote *The Incomplete Guide to the Wildlife of Saint Martin*. He co-founded the non-profit association Les Fruits de Mer that educates about nature via public wildlife events, books, short documentary films, and Amuseum Naturalis, a pop-up natural history museum.

*Snowy Egret (Mark Yokoyama)*





BirdsCaribbean is a vibrant international network of members and partners committed to conserving Caribbean birds and their habitats. We raise awareness, promote sound science, and empower local partners to build a region where people appreciate, conserve and benefit from thriving bird populations and ecosystems. We are a non-profit (501 (c) 3) membership organization. More than 100,000 people participate in our programmes each year, making BirdsCaribbean the most broad-based conservation organization in the region. You can learn more about us, our work and how to join at <http://www.birdscaribbean.org>.

*This book was edited and designed by Mark Yokoyama. Cover photo: Ruddy Turnstone. This page: Black-necked Stilt.*

