# BIRDSCARIBBEAN SEABIRD WORKING GROUP NEWSLETTER

March 2021



- Revamp of the Seabird Working Group Co-chairs and communications
- Updates from the islands recent and future seabird projects
- Seabirder spotlight Hannah Madden, studying tropicbirds in St Eustatius
- Regional seabird census and banding programmes



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Prepared by: Seabird Working Group, BirdsCaribbean, 841 Worcester St. #130, Natick, MA 01760-2076, USA. Website: <a href="mailto:www.birdscaribbean.org">www.birdscaribbean.org</a> Email: <a href="mailto:info@birdscaribbean.org">info@birdscaribbean.org</a>. (cover page photo: R. Austin). Translations of this newsletter are also available in <a href="mailto:Spanish">Spanish</a> and <a href="mailto:French">French</a>.

## Foreword from BirdsCaribbean

"Research has shown that up to 300 species of seabirds have declining populations, making this the most threatened taxa globally. Thus, all the efforts by members of the Seabird Working Group of BirdsCaribbean to monitor and conserve these species are of utmost importance. Thanks to the information collected by this working group, BirdsCaribbean can advocate for our region's seabirds and promote their protection. I am delighted that new Co-Chairs are breathing new life into the Seabird Working Group, one of our longest-running volunteer groups. It is fantastic to learn about the research, conservation, and restoration activities presented in the current newsletter, covering a wide range of species through a vast area. I look forward to seeing what Caribbean seabird conservationists working together will achieve."



## Dr Adrianne Tossas, President of BirdsCaribbean

Following three terms on the Board of Directors of BirdsCaribbean, Adrianne was elected President last year. She is the co-founder and first coordinator of the Caribbean Endemic Bird Festival, and a current co-chair of the Mentorship Program. For her Ph.D. at the University of Puerto Rico, Adrianne studied the endemic Puerto Rican Vireo (*Vireo latimeri*). She has since worked tirelessly to conserve Puerto Rican's avian diversity. She is an adjunct

professor at the University of Puerto Rico, where she mentors undergraduate students conducting their first research projects. Contact: adrianne.tossas<at>birdscaribbean.org

# About the Seabird Working Group 1

The Seabird Working Group (SWG) was formed in 1998 after recognizing that conservationists and scientists across the Caribbean should join forces to understand the big picture driving seabird communities in the region. Since then, the group has been composed of managers, conservationists, researchers, and educators working together to help study and protect populations of breeding and migratory seabirds in the Caribbean.

## The aims of the group are to:

- Connect People Bring together people working on, and interested in, Caribbean seabirds
- Share Knowledge Share information about research, monitoring, management, and conservation of seabirds in the Caribbean
- Promote Conservation Seek new opportunities to expand conservation and research activities on Caribbean seabirds, and support those working towards this goal
- Advocate for Seabirds Respond to crises and threats that may impact Caribbean seabirds and their habitats



Photo: 2012 Seabird Monitoring and Conservation Training Workshop, in San Salvador, Bahamas (J. Wheeler)

#### Meet the SWG committee co-chairs

The SWG is currently managed by a committee of BirdsCaribbean members, helped by Will Mackin, Jennifer Wheeler, and Lisa Sorenson. We are always looking for additional committee members to help lead SWG initiatives: if you have any questions or are interested in joining us, do not hesitate to contact us!



#### **Dr Ann Sutton**

Ann has 35 years of experience working in wildlife conservation, protected areas and wetland management, conservation planning, seabird monitoring, and education and outreach, with government, local and international NGOs, and in academia. Her first Society meeting was in St. Croix in 1988 as a member of the original Executive Committee. She has been Secretary to the Board of Directors since 2001. Ann is co-chair of both the Seabird and Monitoring Working Groups. She is inspired by her deep commitment to implementing practical approaches to conserving Caribbean biodiversity and heritage. Contact: asutton<a>a</a> commitment</a> commitment



#### Dr Rhiannon Austin

Rhiannon is a researcher at the University of Liverpool, UK, and currently manages seabird projects involving the Caribbean UK Overseas Territories and Mexico. She is a behavioural ecologist with interests in tropical seabirds and conservation science. Rhiannon's research focuses on understanding the foraging and migration of seabirds, and the application of this knowledge to conservation management. She works predominantly with frigatebirds, boobies and shearwaters.

Contact: R.E.Austin<at>liverpool.ac.uk; twitter: @RhiAustin; website: www.caribbeanseabirds.weebly.com



# Yvan Satgé

Yvan is an independent researcher associated with the South Carolina Cooperative Fish and Wildlife Research Unit at Clemson University, USA. His research focuses on Black-capped Petrel, and he participates in the study of Brown Pelican, Red-billed Tropicbird, and Audubon's Shearwater. Originally from France, Yvan is also working with the *Groupement d'intérêt scientifique oiseaux marins* to develop seabird capacity in French Caribbean islands. Contact: ysatge<at>clemson.edu; twitter: @YvanSatge; website: www.atlanticseabirds.org

## Communications **\( \bar{\}**

The SWG co-chairs are working hard to upscale the activities of the working group, and the support provided to the seabird community in Caribbean nations. As part of this, we have been updating our SWG pages on the BirdsCaribbean website. Please check them out here (<a href="https://www.birdscaribbean.org/caribbean-birds/seabirds/">https://www.birdscaribbean.org/caribbean-birds/seabirds/</a>) where you will find links to background information on the working group, active seabird projects, seabird resources and our seabird blog posts. We would also love to hear from you if you are keen to get further involved in any of our work!

#### Social media

#### Groups.io community



In December 2020, Yahoo discontinued its "Yahoo Groups" email listserve. For more than 20 years, BirdsCaribbean heavily relied on these groups to communicate with all its members, provide a forum for all to share discussions, and as platforms for its working groups. An alternative was found in the Groups.io platform. The overall organization remains the same as with the (now retired) Yahoo groups: anyone interested can become a member and start interacting via (1) email or (2) through the Groups.io webpages. These groups will continue as great places to connect with others who are passionate about the science and conservation of Caribbean birds and their habitats, as well as the Caribbean communities and livelihoods that are intertwined. As with the Yahoo group, this platform will be the main communication tool for SWG co-chairs to share information with the whole Caribbean seabird community. We should all use this group to share knowledge, post questions, and list information on recent publications, jobs, events, conferences, grant opportunities, and courses that may be of interest to all.

Please note that we have a no-tolerance policy for group members that undertake any actions that compromise this platform from being the safe, equitable, and productive place that it was designed to be.

Photo: Red-footed boobies Sula sula, Cayman Islands (R.Austin)

(1) Interacting with the listserv via your personal email:

If you're not yet a member, you may subscribe to the group by sending an email to <a href="SeabirdsWG+subscribe@BirdsCaribbean.groups.io">SeabirdsWG+subscribe@BirdsCaribbean.groups.io</a>. Once registered, you can message to the whole Seabird Working Group by sending an email to: <a href="SeabirdsWG@BirdsCaribbean.groups.io">SeabirdsWG@BirdsCaribbean.groups.io</a>. When someone else sends a message to the group, you should receive it as an email: you can respond to the group using "Reply All." If you no longer wish to receive messages from the main group or the Seabird Working Group, send an email to: SeabirdWG+unsubscribe@BirdsCaribbean.groups.io</a>.

(2) More information may be found on the <u>Groups.io webpage</u>. Once logged in, you will find the following tabs on the left-hand side. New Topic: This tab can be used to send a new message to the group. Messages: This tab lists all of the messages ("topics") that have been sent to the group; click the link for a topic to see the full thread of messages or to respond to the thread. Subscription: In this tab, you can change how you want to receive messages in your personal mail box: as individual emails, collections of messages in a digest, a daily summary, or only special notices.

#### Facebook group

A facebook group (<u>Caribbean Seabird Group</u>) has also been created by members of our community to provide an informal network for those who regularly use facebook, and are interested in Caribbean seabirds and related topics. It complements the BirdsCaribbean facebook page where regular updates on all Caribbean birds can be found.

The Groups.io listserv will remain our main communication tool but we will do our best to relay information to and from the facebook group as well.

Photo: Adult and juvenile brown boobies *Sula leucogaster*, Cayman Islands (R.Austin)



#### **Twitter**

Twitter has a very active and welcoming seabird community. If you have a twitter account, we encourage you to join the conversation! Show your interest in Caribbean seabirds sharing pictures, updates on your seabird work, or posing questions to regional and global seabirders. Don't forget to tag your tweets with #CaribSeabirds, #Seabirds, #Seabirders and/or #seabirdersaturday.

From 4-6 May 2021, you may also want to tune it to <u>#WSTC7</u> (accessible without a twitter account) to follow the <u>7th World Seabird Twitter Conference</u>. This is an opportunity to learn about seabird management, conservation, research, and art and science communication, from around the world, from the comfort of your home, office, or field station.

#### Webinars

To respond to your comments from the Seabird Working Group survey (see below for details on the survey results), the co-chairs are discussing organizing webinars to help share experiences, chat with experts, develop peer-to-peer training, and develop new projects. We have not yet decided on the best online tool, or the frequency of these meetings, but we are hoping to organize a few each year.

The first webinar will be to discuss the potential of organizing a Caribbean-wide seabird census in the coming years: we would like to gauge interest and potential resources (human, financial and logistical) for a census in 2023 (see **Region-wide Seabird Census**, below). We hope to share a date for this webinar in the coming weeks.

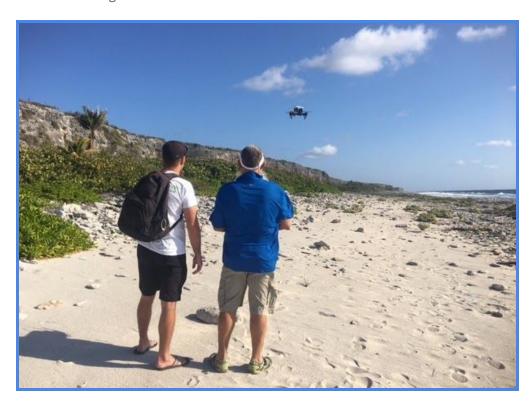


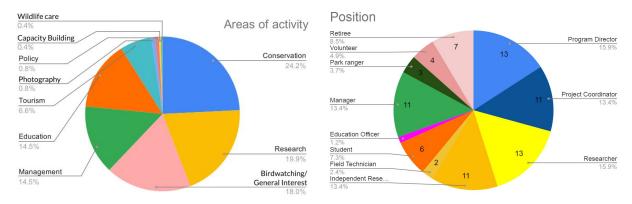
Photo: Field team flying a drone over seabird nesting habitat during a population survey, Cayman Islands (R.Austin)

## BirdsCaribbean Seabird Working Group survey

Thanks to all of you who replied to our <u>survey of people interested in seabird</u> conservation, education and research in the Caribbean<sup>1</sup>. With 78 respondents, our group is widely distributed across the region, from Mexico to Antigua, and from Venezuela to the USA. Our work also takes place across the Caribbean, with most islands having two or more respondents working there.



Most of us are active in conservation (62 respondents), research (51), wildlife management (37), education (37), and/or tourism (17; note that people could list several areas of activity). Other fields of activity included professional photography (2), environmental policy (2), capacity building (1) and wildlife care/rescue (1). Not surprisingly, 46 of us also showed interest in (seabird) birdwatching!

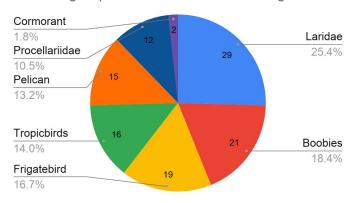


NGOs are represented through their program directors or project coordinators, and government agencies through reserve managers and park rangers; of course, there is overlap between these categories, with coordinators of government programmes being listed as "project coordinators" and

<sup>&</sup>lt;sup>1</sup> If you haven't already responded to our survey, please do so here <a href="https://forms.gle/ykNMAfUYQVDmJKTw9">https://forms.gle/ykNMAfUYQVDmJKTw9</a>: we welcome any new- or late-comers!

wildlife "managers" working for NGOs. Research is equally shared by universities (category "researchers" and students) and independent researchers and field technicians. Several volunteers and retirees are not to be forgotten for the wealth of help and knowledge they provide.

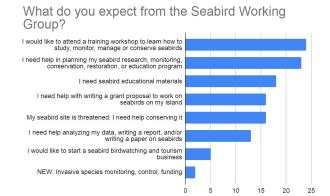


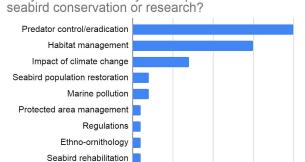


Given the diversity of seabirds encountered on our islands, it is not surprising that most species are studied, monitored, and/or managed at some level. Most of these species are present at multi-species nesting sites managed by a few individuals. In contrast, the only frigatebird species that breeds in the Caribbean is being studied by several groups, thanks in part to a regional Darwin Plus Project, focused predominantly on the UK Overseas Territories, but also now involving other

adjacent countries (see **Updates from the islands**).

Most respondents shared their need for support in developing research and monitoring programs, from grant-writing to data analysis, and protection of threatened sites. Some also needed educational material. For now, some resources are already available on the <u>Seabird Working Group's website</u> (such as the Seabird Monitoring Manual and educational posters), but we are also thinking of other ways to better develop communication and collaboration. As in-person meetings are being postponed due to the covid-19 pandemic, we are considering online alternatives in order to share and exchange knowledge on seabirds and seabird monitoring (e.g. webinars, a new Facebook group; see <u>Communications</u>). Some training (e.g. grant writing, business/tourism) may also be shared with other BirdsCaribbean working groups: for example, the <u>Invasive Species Working Group webpage</u> shares reports and links to databases; the Education Working Group also has an <u>active forum</u>.





Are you involved in any other specific areas of

# Updates from the Islands **1**

A wide range of activities involving seabirds are taking place throughout the Caribbean, including those focused on monitoring, research, conservation and education. Below we showcase some of the inspiring and important ongoing projects on the islands.

# **Projects**

## St. Vincent and Grenadines - Capacity Building and Management Plans



Made up of nearly 100 islands, islets, and cays, the transboundary Grenadines are part of the nations of Grenada and St. Vincent & the Grenadines. The area's concentration of Important Bird Areas (IBAs) for nesting seabirds makes it a vital conservation zone, crucial to rebuilding declining Caribbean seabird populations. Furthermore, the Grenadines support the most extensive coral reef complex in the southeastern Caribbean, and seabirds play an essential role in their health. In addition, fisherfolk rely on seabirds to find fish, navigate, and understand weather, making them a crucial part of maritime livelihoods.

To conserve populations, <u>Environmental Protection in the Caribbean (EPIC)</u> is working with partners on a multi-faceted program that integrates citizen-science, development and implementation of a conservation plan, community outreach, advocacy, and research on habitat requirements and threats to seabirds on these islands. Juliana Coffey, one of the seabird biologists based in the Grenadines that works alongside EPIC, is also conducting independent research, volunteer work and environmental services for NGOs, academia, consulting firms, and the governments to feed into conservation efforts for seabirds. You can read more about her in a recent blog article ('<u>Speaking up for seabirds</u>') on our SWG webpages.

**Contact: Juliana Coffey**, Environmental Protection in the Caribbean (jcoffey<at>epicislands.org) Photo: Aerial view of the Grenadines archipelago (J.James).

## Black-capped Petrel conservation - Updating the Conservation Plan



Despite the covid pandemic, 2020 was a busy year for the International Black-capped Petrel Conservation Group (IBPCG). In February, Environmental Protection in the Caribbean (EPIC) used marine radar to confirm the presence of Black-capped Petrels in Dominica. While this is good news, they observed fewer flying petrels than during the last survey, in 2015, possibly because of the devastating effects that Hurricane Maria had on the island's forests in 2017. Up in the mountains of Haiti and the Dominican Republic, partners from EPIC, Jeunes en Action pour la Sauvegarde de l'Ecologie en Haïti and Grupo Jaragua managed to locate more nests of the

Diablotin, bringing the total of known nests to over 100! Although they had to limit their time in the field and took great care not to be infected by the virus, they were still able to monitor most of the nests. They also deployed camera traps to study the presence of introduced predators such as rats, cats and mongoose.

Meanwhile, a core IBPCG team met online every week from February to September to develop a new Conservation Plan for the species. The team evaluated threats at all known or possible nesting sites and at sea, and proposed several long-term strategies to combat those threats. After being discussed and rated, 8 strategies were selected to be implemented in the coming years, including building more research and conservation capacity in the Caribbean, further <u>developing sustainable agriculture and environmental education in villages near breeding sites</u>, tackling collisions against telecommunication antennas, and taking strong action against invasive predators. While petrels re-establish occupancy of <u>their burrows for a new breeding season</u>, the planning team is finalizing the Conservation Plan and hopes to share it with the seabird community in the coming months.

**Contact: Jennifer Wheeler**, International Black-capped Petrel Conservation Group (jennifer.wheeler<at>birdscaribbean.org)
Photo: Black-capped Petrel off Cape Hatteras, North Carolina (K. Sutherland).

## The UKOTs - Regional Tracking and Upcoming Workshops

Seabirds in the UK Overseas Territories (the Cayman Islands, Anguilla, British Virgin Islands (BVI), Turks and Caicos Islands, Montserrat), and Bermuda (a sixth nearby UKOT), have been the focus of a number of recent projects and monitoring efforts. Collectively, the UKOTs are home to 18 seabird species, with some of the largest regional populations breeding here. Recent efforts on these islands have included routine monitoring and banding by local organisations, and varied research and conservation activities, including targeted programmes funded by the UK Government's Darwin Plus scheme. These have involved seabird tracking and predator eradication programmes on Anguilla, and seabird recovery planning schemes on the BVIs. On the Cayman Islands, recent work has helped to develop population survey methods using drones, gather data on predation, and improve understanding of movements of seabirds at sea. These outputs are now helping governments in their species conservation planning activities (see projects webpage).

NGOs and government departments on these islands are currently participating in a regional project led by the University of Liverpool, which aims to use seabirds as a tools to investigate connectivity between these island ecosystems, as well as bring together stakeholders during a series of workshops to discuss common goals and management challenges. This collaborative group working towards seabird conservation in the UKOTs include the Anguilla National Trust, Department of Environment – Cayman Islands Government, Jost van Dykes Preservation
Society - BVI, Department of Environment and



Coastal Resources – Government of the Turks and Caicos Islands, Department of Environment – Government of Montserrat, Department of Environment and Natural Resources – Government of Bermuda, and BirdsCaribbean! The project team members plan to undertake ongoing tracking and monitoring activities in 2021, such as new population surveys on Turks and Caicos, Montserrat and the Cayman Islands, and spatial tracking on Bermuda. A seabird-focused in-person workshop took place in Anguilla in March 2020, with a second wider workshop scheduled on-line for August 2021, themed on 'Biological and stakeholder connectivity' (see this blog article).

**Contact: Rhiannon Austin**, University of Liverpool (r.e.austin<at>liverpool.ac.uk) Photo: Soaring Magnificent Frigatebirds (juveniles) from a population on the Cayman Islands (R. Austin).

## Mexican Caribbean - Developing Banding and Tracking Schemes off Quintana Roo



Local organizations Asociación Mexicana para la Conservación de las Aves y sus Hábitats and Amigos de Isla Contoy, are working hard together to improve seabird monitoring and conservation activities around Quintana Roo in the Yucatan Peninsula. Isla Contoy, a small island off the north eastern tip of the Peninsula, is one of the sites where bird banding schemes, population and habitat monitoring, spatial tracking work and other monitoring and research efforts are being undertaken, in order to improve knowledge and protection of resident seabirds.

A recent banding scheme and station was started on Isla Contoy by local groups, to generate data and improve knowledge of the movements of migratory birds that use the site, and help to better understand avian connectivity between the Mexican Caribbean and other areas in the Atlantic Ocean. It is hoped that this work will be developed and carried forward in the coming years, and extended to seabirds, such as nesting tern populations on the island. A new tracking project, run in collaboration with Dr Austin at the University of Liverpool, UK, will also be launched in 2021, to gain new information on the at-sea movements of frigatebirds that breed on Isla Contoy, and in nearby coastal areas. Isla Contoy hosts a breeding population of over 2,000 pairs of Magnificent Frigatebirds, and there is some suggestion that these birds travel large distances during breeding and non-breeding periods, mixing at key feeding grounds with other populations in the Caribbean. This highlights a need to understand the behaviour of this wide-ranging seabird, as well as other key species in this region of Mexico!

**Contact: Jonathan Ruben Nochebuena Jaramillo**, AMCAH A.C (administracion<at>amcah.org) and **Catalina Galindi de Prince** (islacontoy<at>live.com.mx)

Photo: Sooty Tern colony in Quintana Roo (R. Austin).

### Elsewhere in the region

In Puerto Rico, After years of effort, the island of Desecheo is now predator-free. In parallel to their monitoring work on accidental reintroduction of rats to the island, Effective Environmental Restoration has also been leading seabird restoration efforts on the island attraction of the Brown Noddy (Anous stolidus). They also monitor seabirds on Culebra's cays, in partnership with the U.S. Fish and Wildlife Service. A rat eradication program on Cayo Lobo ended successfully in 2020.
 Contact: Eduardo Ventosa-Febles (eerestoration<a href="https://doi.org/10.1001/journal.com/">https://doi.org/10.1001/journal.com/</a>

Since 2018, the Avian Ecology and Conservation Project of the University of Puerto Rico, Aguadilla, has been monitoring the only subpopulation of White-tailed Tropicbirds (*Phaeton lepturus*) in the

main island of Puerto Rico. Biweekly counts have been conducted over four breeding seasons, with ~47 breeding pairs found between 2018 and 2020. This year, surveys have been extended to two new sites. **Contact: Adrianne Tossas** (adrianne.tossas<at>birdscaribbean.org). Finally, **Luis Ramos** started a Master's degree on the reproduction of Roseate Terns (*Sterna dougallii*).

- In Venezuela, colleagues are now including seabirds as part of the Venezuelan Bird Banding Program. They are interested in collaborations, in particular on the study of Audubon's Shearwaters and those common seabirds whose distribution in the region is poorly understood, such as Brown Pelicans and Laughing Gulls. For more information see <u>Programa de Anillamiento</u> <u>de Aves en Venezuela</u> (in Spanish), or contact Juan Carlos Fernández-Ordóñez (paave.venezuela<at>gmail.com).
- Antonio Garcia Quintas started a PhD on gulls and terns (larids) nesting on remote cays in northern Cuba. He is studying the breeding habitat, phenology (including asynchrony), and foraging biology in larid colonies. His work takes place in some of the most important colonies (due to population size or number of species) in the country. Antonio also plans to assess country-wide anthropogenic threats and conservation priorities for larids. See the list of Recent seabird publications for Antonio's note on two uncommon seabird species found nesting in northern Cuba. Contact: Antonio Garcia Quintas (agquintas 86<at>gmail.com).
- In **Guadeloupe**, the <u>Association pour la Sauvegarde de la Faune des Antilles</u> shared with us that the main breeding colony of Brown Pelicans (*Pelecanus occidentalis*) on the island did not nest this year. The abandonment follows sustained harassment from neighboring home-owners: across the years, nests were destroyed and trees that supported nests were damaged. With 117 nests in 2016-2017, this colony was one of the historic colonies of pelicans that renested following extirpation in the 20th century. **Contact: Régis Gomès** (lasf<at>wanadoo.fr).
- Following the removal of invasive rats and goats from Redonda (Antigua and Barbuda's little, western sister), the island now hosts <u>nesting boobies and frigatebirds</u>. Shanna Challenger, project coordinator at <u>Environmental Awareness Group</u> was recently awarded an <u>environmental leadership award</u> for her work on this and other issues in Antigua. Contact: Shanna Challenger (eagantigua<at>gmail.com).

We want to hear about your seabird projects, if we missed you in these pages! Please send updates about your work to our co-chairs, and we will feature them in one of our next newsletters, as well as in the list of <u>Active Seabird Projects</u> on our webpage.

## **Seabirder Spotlight**

## **Hannah Madden**: Conserving Tropicbirds on St. Eustatius, Caribbean Netherlands



About a decade ago, I attended a <u>Seabird Monitoring and Conservation</u> <u>Training Workshop in San Salvador, Bahamas</u>, hosted by BirdsCaribbean. Upon my return to St. Eustatius, I began monitoring Red-billed Tropicbird reproductive success, and have continued working with the species ever since. It was a pivotal moment in my career, to the point where I am now a PhD candidate with Wageningen University & Research, focusing on the factors that influence tropicbird population success on small islands.

St. Eustatius is a tiny island in the Dutch Caribbean, measuring just 11 square miles, with a population of approximately 3,200 inhabitants. Its limited landmass means that species richness is also constrained. In fact, tropicbirds are the only seabird species that nest on the island. Nevertheless, the rocky cliffs support 300-500 pairs (a globally significant population) and, thanks to the small size of the island, the main nest site is accessible by foot. Being the only seabird researcher on an island can be lonely and isolating at times, but over the years I have been fortunate to collaborate with inspiring

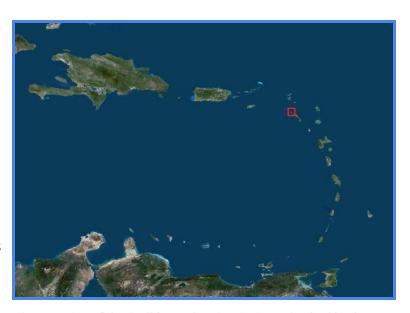


Figure 1: Map of the Caribbean showing St. Eustatius (red box).

scientists, such as Dr. Patrick Jodice of Clemson University, who was one of the leaders of the 2012 seabird workshop. Afterwards, he became one of my MS advisors, and we now collaborate on <u>Atlantic Seabirds projects</u>.

Tropicbirds, as their name suggests, are tropical seabird species. Because they exhibit high nest site and mate fidelity (Madden 2019), tropicbird populations on small islands face higher risks of predation by invasive species, habitat degradation, or competition for nest sites than species that can move nest sites from one year to the other. Tropicbirds lay a single egg per clutch, which they incubate for ~43 days. Upon hatching, the chick remains in the nest for 12 weeks and relies entirely on its parents for

food. Adult tropicbirds forage for prey (such as flying fish) in marine environments with patchy resources, often traveling far from their nest site and crossing multiple exclusive economic zones.

Thanks to my ongoing collaboration with Pat and his colleagues Yvan Satgé and Bradley Wilkinson, we are learning more about the foraging areas and preferences of Red-billed Tropicbirds nesting on St. Eustatius. Additional research is required on populations from other Caribbean islands to determine whether their foraging areas overlap. A preliminary study from Anguilla (Soanes et al. 2016) revealed that tropicbirds foraged to the north of the island, suggesting that despite their geographic proximity, the populations of St. Eustatius and Anguilla forage in different locations,

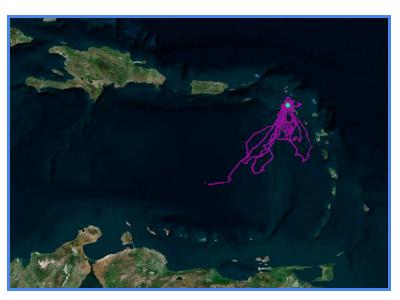


Figure 2: Map of foraging tracks from 27 of Red-billed tropicbirds nesting on St. Eustatius, 2016-2020 (Madden et al., in prep.).

and in very different environments of the Caribbean Sea and the Atlantic Ocean.

Once tropicbirds finish nesting they leave the island and spend the rest of the year at sea, sometimes migrating far into the Atlantic Ocean. Together with Pat and another PhD student, we have deployed around 35 small biologging devices ('geolocators') to track the migration patterns of tropicbirds. We hope to retrieve the devices next season and are excited to see if, like other tropicbirds we tracked in 2012, these birds will spend the <u>winter in the mid-Atlantic</u>.

My PhD will also focus on population genomics; that is, whether tropicbird populations on small islands suffer from genetic isolation and thus inbreeding depression. This involves collecting feather samples from 20-30 birds on different islands to assess their genetic diversity. Due to the pandemic, traveling to various islands was impossible. However, I am indebted to collaborators on Saba, Anguilla, Trinidad & Tobago, St. Helena and Mexico for assisting with fieldwork. Such generosity within the tropicbird research community speaks volumes in these challenging times.

There is still much to learn about this enigmatic seabird but, thanks to our small but dedicated network of researchers, more will be revealed in the near future.

**Contact: Hannah Madden**, Caribbean Netherlands Science Institute, Sint Eustatius (hannah.madden<at>cnsi.nl; <a href="ResearchGate">ResearchGate</a>)

## Region-wide Seabird Census 1



Our capacity to study, manage and conserve seabirds depends on up-to-date information on nesting locations and population sizes. In the Caribbean, we are greatly challenged by the fact that seabirds nest in hundreds of locations, most of them remote or inaccessible. Even at nesting sites that are easy to survey, censuses may be carried out only a few times per decade, thus limiting our understanding of population trends and regional threats to seabirds. Although some nations and organizations organize their own surveys, there has never been a coordinated census Caribbean-wide.

For these reasons, **we propose to coordinate a region-wide census**, with the goal of assessing the distribution and population status of species. We are aiming to undertake a census during the 2023 breeding season, to synchronize with the 2023 Colonial Waterbird Survey (CWS). Organized by the Atlantic Marine Bird Cooperative, the CWS will take place in the North American Atlantic flyway, from Canada to the southern tip of Florida, and with the inclusion of the Gulf of Mexico. All seabird species will be surveyed, but the CWS will extend additional effort towards monitoring five focal species: Double-crested Cormorants, Laughing Gulls, Black Skimmers, and Common and Least Terns. Except for BlackSskimmers, these species all breed in the Caribbean. Together with Brown Pelicans and Gull-billed, Royal, Sandwich, and Roseate Terns, they all share breeding grounds across the Caribbean and North Atlantic regions. By synchronizing our Caribbean-wide survey with the CWS, we could assess the status and distribution of these species across their entire breeding range for the first time.

Of course, coordinating surveys of several species that breed at different times, dozens of nations, and across hundreds of islands is no easy task! Some of you are already planning surveys for the coming years, and we want to build upon that effort as much as possible. Therefore, the Seabird Working Group committee is inviting all those interested to join a "task force" to discuss the possibility of undertaking such a survey. Later, the task force will help organize survey schedules, standardize methods, develop training, and find financial and logistical support. We hope to run a webinar in the coming months for those interested in getting involved and, in the coming weeks, we will be seeking points of contact in each island/nation, so please stay tuned!

Photo: BirdsCaribbean seabird group surveying a nesting colony on Catto Cay, the Bahamas (L. Sorenson).

# Regional Bird Monitoring Programme **1**



In other exciting news,
BirdsCaribbean's Bird Monitoring
Group Working Group is in the process
of developing an exciting new regional
programme for bird monitoring in the
Caribbean. At the heart of this project
are plans to start a CENTRALISED
CARIBBEAN BIRD BANDING NETWORK
that will provide free bird bands to
Caribbean researchers, and banding
training and certification. This will help
us answer questions about
movements, habitat use, survival, and
population trends of many species.

Very few populations of seabirds have

been the focus of long-term systematic monitoring efforts in the Caribbean, and routine banding of seabirds is rare. As such, we hope that seabirds, and those charged with monitoring them, will benefit hugely from this project. Other proposed activities include standardized surveys and expansion of the Motus Wildlife Tracking System network in the Caribbean. Please check the next issue of our newsletter for another update on this initiative as it develops!

Photo: Colour rings being prepared for seabird banding (R.Austin)

## Recent Seabird Publications and Resources 1

Colony characteristics influence nest survival of Caribbean Roseate Terns Paige Byerly, Susan Zaluski, Daniel Nellis, and Paul Leberg. Ornithological Applications 123:1-15. The authors evaluated the reproductive success of a declining population of Roseate Terns (Sterna dougallii) in the United States and British Virgin Islands to identify primary causes of nest failure and investigate the influence of colony and nest site covariates on nest survival. Their results suggest that directing management efforts toward enhancing colony size, rather than focusing on nest site characteristics, can be beneficial for tropical seabird conservation.

Lesser Black-backed Gulls (*Larus fuscus*) in Saint Vincent and the Grenadines and Grenada
Juliana Coffey, Natalia Collier, Vaughn Thomas, and Romould Compton. *Journal of Caribbean Ornithology* 33:82–85. Though historically considered very rare in the West Indies, Lesser Black-backed
Gulls have become fairly common non-breeding visitors to many Carribean islands, including most of
the larger Lesser Antilles. Continuing this trend, here, Coffey *et al.* document the first records of Lesser
Black-backed Gulls on both Saint Vincent and the Grenadines and Grenada.

Novedades sobre la reproducción de dos especies de aves marinas poco comunes en Cuba Antonio García-Quintas, Laritza González Leiva, and Ariandy González González. Journal of Caribbean Ornithology 33:54–57. The second breeding record of Audubon's Shearwater (Puffinus Iherminieri) and the fourth breeding record of Roseate Tern (Sterna dougallii), were detected in the Felipe de Sotavento and Barlovento cays of northern Ciego de Ávila, Cuba. These seabirds are uncommon in the country; so, new records of nests with eggs and chicks indicate the need for increased sampling in northern cays. The studied cays are among the most important nesting sites for seabird colonies in Cuba in terms of number of species and breeding pairs.

Expanding the marine range of the endangered Black-capped petrel Pterodroma hasitata:

Occurrence in the northern Gulf of Mexico and conservation implications Patrick Jodice, Pamela

E. Michael, Jeffrey S. Gleason, Christopher Haney, and Yvan Satgé. bioRxiv 2021.01.19.427288. The authors report on observations of Black-capped petrels during vessel-based surveys throughout the northern Gulf of Mexico in 2010-2011 and 2017-2019. They suggest that the range for Black-capped Petrels be modified to include the entire northern Gulf of Mexico; it remains unclear which nesting areas are linked to the Gulf of Mexico.

Reproductive Performance, Mate Fidelity and Nest Cavity Fidelity in Red-Billed Tropicbirds *Phaethon aethereus mesonauta* on St. Eustatius, Caribbean Netherlands Hannah Madden. *Ardea* 107(3):227-237. In this study, the author examined the relationship between reproductive performance of Red-billed Tropicbird with mate and nest cavity fidelity on St. Eustatius from 2012 to 2016. This study suggests that switching nest mate or nest cavity does not necessarily improve subsequent breeding success among Red-billed Tropicbirds on St. Eustatius.

First evidence of plastic ingestion by Red-billed Tropicbirds Phaethon aethereus from St. Eustatius, Caribbean Netherlands Hannah Madden and Eline Eggermont. Marine Ornithology 48:157-160. The authors present the first confirmed evidence of plastic ingestion by a Red-billed Tropicbird (Phaethon aethereus) on the Caribbean Netherlands island of St. Eustatius, which supports a regionally important nesting population. With their observations, all species of tropicbird have now been documented ingesting marine plastic pollution.

**Nesting of Roseate Terns (***Sterna dougallii***) in Bermuda after Extirpation for Nearly 150 Years Miguel Mejías, David Wingate, Erich Hetzel, Ian Nisbet.** *Waterbirds* <u>43(1):101-106.</u> This paper reports two consecutive years of nesting data on the Roseate Tern (*Sterna dougallii*), a historic resident in Bermuda last recorded breeding in 1849. Future studies should determine the genetic origin of birds, identify whether pairs are return breeders using leg bands, record population size, and compare the nesting biology of this species to that of Common Terns (*S. hirundo*) on the island.

**Seabird Monitoring in an Important Bird Area of Puerto Rico Gloria I. Morales Quintana, Ricardo A. Berríos Pérez, Adrianne G. Tossas Cavalliery.** *Revista In Genios* <u>7(1):1-7</u>. This paper reports, for the first time, the size of the only subpopulation of White-tailed Tropicbirds (*Phaeton lepturus*) known to breed in the Guajataca cliffs in the north of Puerto Rico. During surveys conducted between 2018 and 2020, the authors located ~47 breeding pairs.

**C.T. Nisbet.** Journal of Caribbean Ornithology 33:117–118. The author sets out to bring attention to an ongoing misidentification problem between Roseate Terns (Sterna dougallii) and Common Terns (S. hirundo) on their breeding grounds in the West Indies and Bahamas. Observers should pay special attention to: adult bill color and breeding plumage, clutch size, and characteristics of nestling down feathers as well as leg color.

Status of seabirds, habitat, and invasive species in the Cordillera Reef Nature Reserve, Puerto Rico Luis A. Ramos-Vázquez, Nahíra Arocho-Hernández, Cielo Figuerola-Hernández, José L. Herrera-Giraldo, and Jan P. Zegarra-Vila. *Journal of Caribbean Ornithology* 34:1–11. A seabird survey was conducted in April 2018 on several cays within the Cordillera Reef Nature Reserve, Puerto Rico. Five seabird species were documented: breeding Red-billed Tropicbirds and Brown Boobies, and non-breeding Magnificent Frigatebirds, Brown Pelicans, and Audubon's Shearwaters. Invasive vertebrates such as Black Rats and Green Iguana were also detected.

Spatial ecology of closely related taxa: the case of the little shearwater complex in the North Atlantic Ocean Raül Ramos, Vitor H. Paiva, Zuzana Zajková, Carine Precheur, Ana Isabel Fagundes, Patrick G. R. Jodice, William Mackin, Francis Zino, Vincent Bretagnolle, and Jacob González-Solís. Zoological Journal of the Linnean Society (2020) 191: 482–502. This paper compares the at-sea movements and behavior of Audubon's Shearwaters from the Caribbean, with their close relatives in the Atlantic Ocean. Birds in the Bahamas and Martinique were tracked with Geolocators, along with Little Shearwaters in the Azores, Madeira, Canary Islands, and Cape Verde Islands.

Habitat modelling locates nesting areas of the Endangered Black-capped Petrel Pterodroma hasitata on Hispaniola and identifies habitat loss Yvan Satgé, Ernst Rupp, Adam Brown, and Patrick Jodice. Bird Conservation International 2020:1-18. The Black-capped Petrel or Diablotin Pterodroma hasitata has a fragmented and declining population estimated at c.1,000 breeding pairs. The authors modelled suitable nesting habitat for Black-capped Petrel on Hispaniola and found that forest loss due to hurricanes, forest fires, and encroachment from agriculture had severely decreased availability of predicted suitable habitat between 2000 and 2018.

Brown Boobies (*Sula leucogaster*) roosting at Washington-Slagbaai National Park, Bonaire, Caribbean Netherlands Fernando Simal, Adriana Vallarino, Elsmarie Beukenboom, Rutsel Paula, Henry Beaumont, George Zaragoza, Esther Wolfs, Patrick Holian, and Elisabeth Albers. *Journal of Caribbean Ornithology* 33:78–81. After anecdotal reports suggested that the seabirds roosting on the northwestern coast of Bonaire had been reduced to less than 60 individuals, Simal *et al.* began to investigate. From 2008–2010, they conducted roost counts at seven sites in Washington-Slagbaai National Park. Here, they document substantially higher seabird counts than previously suggested, with a maximum of 240 Brown Boobies in July 2009.

A survey of Grenadians on seabird harvest in the Grenada Grenadines Wayne A. Smart, Natalia Collier, and Virginie Rolland. *Journal of Caribbean Ornithology* 33:67–77. Historically, overexploitation has contributed significantly to seabird population declines. Though protective laws have since been enacted, the extent of continued, illegal seabird harvest is unclear. Through their survey of the fishers and recreationists at the Fisheries Division office in Sauters, Grenada, Smart *et al.* shine a light on the persistence of seabird harvest in Grenada, highlight the sociodemographic factors that are associated with seabird harvest, and propose a possible community-based monitoring program.

Abundance and distribution of Roseate Terns (Sterna dougallii) in the Virgin Islands Louise M. Soanes, Judy Pierce, Daniel Nellis, Susan Zaluski, and Lewis G. Halsey. Journal of Caribbean Ornithology 33:43–48. Due to a severe decline in the North Atlantic Roseate Tern populations in the 1900s, countries worldwide initiated conservation plans. However, few studies have focused on the Caribbean population of Roseate Terns. Using three decades of survey data, Soanes et al. detail the abundance and distribution of Roseate Terns in the Virgin Islands, identifying key breeding sites, reporting a gradual population decline, and calling for further conservation and research efforts.

**High spatial fidelity among foraging trips of Masked Boobies from Pedro Cays, Jamaica Bradley Wilkinson, Ann Haynes-Sutton, Llewelyn Meggs, and Patrick Jodice.** *PLoS ONE* <u>15(4): e0231654</u>. The authors investigated how the presence of bathymetric features influenced foraging site fidelity of Masked Boobies (*Sula dactylatra*) breeding on Middle Cay, Jamaica. They found that Masked Boobies show a density-dependent response in foraging effort regardless of their colony of origin.

Historical review of information on terns nesting in Bermuda, with prospects for re-establishing some of the lost species David B. Wingate and Ian C.T. Nisbet. *Journal of Caribbean Ornithology* 33:33–42. Early accounts from the Bermuda Islands suggest the presence of myriad nesting tern species on the islands; however, only the Common Tern survived into the 20th century. Here, Wingate and Nisbet review both the historic and recent records of terns on Bermuda, shedding light on the prospect of restoration and species recolonization using modern conservation techniques.