

Grenadines Seabird Guardians Handbook

St. Vincent and the Grenadines

&

Grenada



Photo: Andrew Fidler

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Citation:

Collier, N. and J. Coffey 2021. Grenadines Seabird Guardians Handbook, St. Vincent and the Grenadines & Grenada. Publication No. 51, Environmental Protection in the Caribbean (EPIC).

Project Description

Goal: To reduce risks to seabirds and other wildlife in key nesting areas by strengthening community capacity to monitor and advocate for seabird breeding colonies.

Objectives of the Grenadines Seabird Guardians Program:

- Provide equipment and training in monitoring seabird breeding colonies to people living in St. Vincent and the Grenadines and Grenada.
- Establish advocates for seabirds in the region who are knowledgeable about seabird biology and conservation.
- Provide funding to access remote breeding colonies (offshore islands).
- Submit data to be stored in a centralized database.
- Report violations of wildlife and protected area legislation to appropriate enforcement authorities.

Value of protected areas and offshore islands

Offshore uninhabited islands often serve as the last refuge for wildlife from major human impacts and activities. In some cases, these areas have been recognized for their value in preserving wildlife and biodiversity through designations as protected areas, including Wildlife Reserves, Marine Protected Areas and Forest Reserves. See Appendix 1 for a list of protected areas.

On protected offshore islands we find pockets of what the mainland must have been like in the past. One of the most notable aspects is the large numbers of colonial nesting seabirds. Nearly two dozen Grenadine islands meet Important Bird Area (IBA) criteria, while four have been formally recognized by BirdLife International, meaning they are recognized internationally for harboring more than 1% of the global or regional population of a species. In addition, species found nowhere else in the world, known as endemics, are also found on remote islands.

Seabird populations have been declining in the region for decades but the causes are not fully understood. Your observations will help resource managers and conservationists to understand the threats facing wildlife and protected areas and to take appropriate action.

Laws protecting Wildlife Reserves and wildlife

Resources are often not sufficient for government to enforce wildlife protection laws, especially given the vast area covered by the Grenadines. Therefore, the Grenadines Seabird Guardian Program trains individuals to monitor wildlife populations and report violations which have a negative impact on wildlife and protected areas. However, because there is so little information on natural areas, all observations are welcome, regardless of their relevance to existing laws. For example, if you visit an island and find no litter, no dogs roaming, and no evidence of hunting, we want to know about these types of positive observations as well as the negative.

Please see Appendix 2 for a discussion of existing legislation in St. Vincent and the Grenadines and Grenada.

Your Role

As a **Grenadines Guardian**, you have three primary roles: 1) a citizen scientist, 2) an educator and 3) a guardian.

As a Citizen Scientist you are:

- 1) Collecting vital information on wildlife and biodiversity presence, abundance and timing.
- 2) Informing upon habitat use by wildlife found in remote areas.
- 3) Contributing to a multi-year database intended to reveal trends in populations over time.
- 4) Participating in and providing support to research projects.

Note: Please discuss with EPIC representative prior to conducting the advanced citizen science methods contained in this manual to determine appropriate timing and avoid unnecessary disturbance to wildlife at sensitive times.

As an Educator you are:

- 1) Providing the public with information on natural history and seabirds.
- 2) Encouraging others to view seabirds from a distance (i.e. binoculars) to avoid disturbing nests.
- 3) Informing about laws which protect wildlife reserves and why they exist.
- 4) Encouraging questions and learning on all levels.

As a Guardian you:

- 1) Document threats to wildlife and habitat through notes or photographs when safe to do so (e.g. dogs off leash, disturbance of nests, harvest of seabirds or eggs, fires or signs of hunting like shotgun shells, traps, etc.)
- 2) Report illegal activities to EPIC and to the appropriate enforcement officer.
- 3) Avoid contacting those conducting illegal activities unless it is safe to do so.
- 4) Pick up litter to reduce the risk of entanglement and/or ingestion by wildlife.
- 5) Refrain from participating in illegal activities that threaten wildlife at these islands.

Many people who visit protected areas, such as Wildlife Reserves, are not aware that these sites are protected. While we want to inform the public about the Reserve, it is our top priority to avoid negative interactions. **Do not ever put yourself in a confrontational situation.** This puts your safety at risk and could result in retaliation against the protected area. Do not act as a law enforcement official.

Though you may be disappointed by some interactions with the public, do your best to keep a friendly attitude and try to be understanding. The success of the program rests on your positive and courteous interactions with the public.

Some questions you may hear:

Why does this island have to be protected?

There are few areas left that have not been impacted by human development and predators like rats that people have introduced. These offshore islands are the last refuge for declining populations of seabirds and endemic plants and animals found nowhere else in the world.

It seems like there are plenty of birds, why do they need protection?

When you are at a seabird colony, it can appear that seabird populations are healthy because there are so many birds in one place. However, research has shown that seabird populations in the West Indies are declining. They have been pushed out of traditional nesting areas by human activities and refuges like these are the only safe places left for them to nest.

Why can't I look at the birds close up?

Some seabirds will leave their nest out of fear when people approach. This leaves their egg or chick exposed to the sun and the heat can kill them within about 10 minutes since they cannot regulate their body temperature like adults can. It also leaves them exposed to predators like rats, or opportunistic species such as gulls.

Note:

If you are asked a question which you cannot answer, it is best to answer "I don't know." Never give false or misleading information. Instead, suggest the individual contact EPIC or local authorities. Be sure to write down unanswered questions so you can get help later. Do not say: "I am just a volunteer", as this undermines your authority. You are a trained person with good intentions who deserves respect. It is fine to not know the answer to every question.

Every time we interact with the public, it is an opportunity to foster understanding and gain support for protecting wildlife and protected areas. We want people to enjoy and appreciate the Grenadines while learning to share it with other species.

Procedures

Monitoring nests is an important element of any conservation effort. Keeping tabs on nesting birds helps us understand how they are doing. However, it is essential that our monitoring does not have a negative impact on nesting. All volunteers must follow these guidelines for visiting seabird colonies:

A. Boat-based seabird surveys

- Islands are circumnavigated as close as safely possible to detect and visually identify the presence of seabirds. If it is not possible to circumnavigate the entire island (e.g. due to shoals, tidal surge, current, etc.) surveys can be conducted at sections of the island that are accessible and safe for navigation. If the entire island is not surveyed, indicate which parts were surveyed by making notes or drawing on the datasheet.
- Seabirds can be spotted visually with and without the use of binoculars. Note species diversity, abundance and behaviour. Avoid double counting of seabirds, and remember that it is better to underestimate when counting groups of birds. Where possible, additional information on nesting activity, such as incubating adults and nests contents (e.g. chicks), can be recorded if observed. Avoid disturbance to seabirds by keeping a safe distance. If no seabirds are observed this is also important to report.
- If there are 10s, 100s, or 1000s of birds, try to estimate as best you can (i.e. "10,20,30...", "50,100,150...")

- Note any observed threats to biodiversity, such as the presence of introduced mammals, marine litter, and human activity. Predatory species (such as Peregrine Falcons) can be noted as well.
- Boat-based surveys last from approximately 15 minutes to one hour, depending on island size.
- Recorded observations on the “Grenadines Boat-based Survey Wildlife Observation Form”.

B. Land-based seabird surveys

- Try to find a vantage point where the colony can be assessed from a distance without causing disturbance, or by walking along the perimeter. If you notice that your presence is creating unnecessary disturbance, keep moving. If the disturbance is extensive to the whole island, do not stay.
- Land-based surveys can range from as little as 20 minutes to several hours depending on the size of the island.
- Do not walk through colonies.
 - Eggs and chicks are camouflaged and could be unknowingly crushed underfoot.
 - When an adult bird is off its nest for more than 5 minutes, the egg or chick can die from exposure to extreme temperatures or predators.
 - When birds are disturbed at their breeding site, they may abandon their nest because they feel threatened.
- Do not handle or remove birds, chicks, or eggs.
- Record:
 - Species name
 - Which species are observed nesting (how many nests, eggs, chicks)
 - Any predators, mammals or their tracks/scat/evidence observed on the island, including humans and pets
 - Any evidence of possible predation (cracked eggs, carcasses that have been eaten)
 - Provide your best count or estimate for each category. If time or visibility is limited, get an adult population estimate at the minimum.
 - Provide as many notes as you can, there can never be too much detail.
- Record observations on the “Grenadines Land-based Survey Wildlife Observation Form”.

Submit your monitoring forms monthly (Appendix 3) to EPIC to be financially reimbursed.

Safety

Safety is the first priority. Check the weather before going on patrol. Be certain that when you go on patrol you have notified other people of your destination and expected return time. Ensure that you can communicate with others through cell phone, handheld radio, or marine VHF radio.

Patrolling can be challenging work, the trip can include rough seas and difficult landings on islands. Once on an island, heat and thorny vegetation can be a challenge.

Items you may need:

- | | |
|--|---|
| <input type="checkbox"/> Binoculars | <input type="checkbox"/> Closed-toe shoes |
| <input type="checkbox"/> Life Jacket/Personal Flotation Device (PFD) | <input type="checkbox"/> Sunscreen |

- Water
- Hat
- Sunglasses
- Notebook/data sheets & pen
- Jacket (in case of rain)
- Food
- Trash bag to pick up any litter

- Towel
- Camera / Batteries
- Emergency numbers and contacts
- Fully charged marine radio and cell phone
- Waterproof bag/container
- Seabird identification cards

Important Contact Information

To submit reports and sightings, call, text, or e-mail one of the following:

Lystra Culzac, Director, Science Initiative for Environmental Conservation and Education (SCIENCE)

Tel/WhatsApp: (784) 593-3763

E-mail: lculzac@epicislands.org

Juliana Coffey, Environmental Protection in the Caribbean (EPIC)

Tel/WhatsApp: +1 (709) 770-6877

E-mail: jcoffey@epicislands.org

Contact information for the relevant authorities:

St. Vincent and the Grenadines	Grenada
<p>Forestry Department SVG Ministry of Agriculture, Forestry and Fisheries Camden Park, St. Vincent and the Grenadines Tel: 784-457-8594 Fax: 784-457-8502 E-mail: forestrysvg@vincysurf.com</p>	<p>Forestry Department Grenada Ministry of Agriculture, Forestry and Fisheries St. Vincent & The Grenadines Tel: 1-473-440-2934 E-mail: fnpdgrenada@gmail.com</p>
<p>Fisheries Division SVG Ministry of Agriculture, Forestry and Fisheries Kingstown, St. Vincent and the Grenadines Tel: 784-456-2738 Fax: 784-457-2112 E-mail: fishdiv@gov.vc</p>	<p>Fisheries Division Grenada Ministry of Agriculture, Forestry and Fisheries St. George's, Grenada Tel: +1 473-440-3814</p>
<p>National Parks, Rivers, and Beaches Authority SVG Kingstown, St. Vincent and the Grenadines Tel: (1 784) 453-1623 Fax: (1 784) 453-1622 Email: nationalparkssvg1@gmail.com</p>	<p>Sandy Island Oyster Bed Marine Park Grenada Carriacou, Grenada Tel: +1 473-443-6026 E-mail: siobmpa.outreach@gmail.com</p>
<p>Tobago Cays Marine Park SVG Clifton, Union Island, St. Vincent & the Grenadines Tel: (784) 485-8191 Fax: (784) 485-8192 Email: tcmp191@hotmail.com</p>	

Literature Cited

Haynes-Sutton, A.M., Sorenson, L.G., Mackin, W.A., Jodice, P.G., Haney, C. & Wheeler, J. 2013. Caribbean Seabird Monitoring Manual: Promoting Conservation of Seabirds and their Habitats in the Wider Caribbean Through Monitoring. Caribbean Birdwatch Series, Volume 2. BirdsCaribbean, Arlington, VA. 108 pp.

Mattai, I.D. and R. Mahon. 2006. Review and Interpretation of Environmental and Sustainable Development Legislation for the Grenadines Islands. CERMES Technical Report No. 15. Centre for Resource Management and Environmental Studies. University of the West Indies, Cave Hill Campus, Barbados. 94pp.

Murray, Reynold. Environmental Education Resource Booklet for Primary and Secondary Schools. Environmental Education Committee, St. Vincent and the Grenadines.

Appendix 1 – Protected Areas

Wildlife Reserves
<ol style="list-style-type: none"> 1. Young Island 2. Milligan Cay 3. Northern end of Bequia beyond Industry Point 4. Big Cay and West Cay 5. Isle de Quatre 6. Pigeon / Rahmay Island 7. Battowia 8. All Awash 9. Savan Islands 10. Petit Canouan 11. Catholic Rocks / Catholic Island 12. Tobago Cays / Tobago Cays Forest Reserve 13. Sail Rock 14. Palm / Prune Island
Marine Conservation/Reserve Areas
<ol style="list-style-type: none"> 1. South Coast Marine Conservation Area 2. Bequia Marine Conservation Area 3. Isle de Quatre Marine Conservation Area 4. Mustique Marine Conservation Area 5. Canouan Marine Conservation Area 6. Union Island/Palm Island Marine Conservation Area 7. Petit St. Vincent Marine Conservation Area
Marine Protected Areas
<ol style="list-style-type: none"> 1. Tobago Cays Marine Park 2. Sandy Island Oyster Bed Marine Protected Area
Proposed Marine Protected Areas
<ol style="list-style-type: none"> 1. North Carriacou 2. Petite Mustique 3. South Carriacou Islands 4. Isle de Ronde Archipelago 5. Levera Islands
BirdLife International Bird Areas
<ol style="list-style-type: none"> 1. Battowia 2. All Awash 3. Mustique 4. Petit Canouan 5. Ashton Lagoon and Mangroves

What is a Protected Species?

The term “Protected Species” designates a species which cannot be legally trapped or hunted, usually because it is rare or of special conservation value.

According to Wildlife Protection Act Section 12 2nd Schedules, Protected Species are:

St. Vincent Parrot	Meadow Snake	Chicken Hawk
Whistling Frog	Prince Bird	Black Hawk
Whistling Warbler	Whistling Frog	Owl or Jumbie Bird
Black Snake	Larger Thrush	King Fisher
Congo Snake	Soufrière Bird	Black Snake
Yam Birds		

What is a Partially Protected Species?

Any species of wildlife that is partially protected has an open and closed season for hunting.

According to Wildlife Protection Act Section 14 4th Schedules, **Partially Protected Species** are:

Iguana	Agouti	Ground Dove or Ortolan (Zotola)
Opossums (Manicou)	Wild Pigeon or Ramier	
Armadillo (Tattoo)	Mountain Dove	

According to Wildlife Protection Act Section 23 Sub-Sec 1-3 6th Schedules, **Non-Protected & Invasive Species Vermin** are:

Mongoose	Bats
Rats	Mice

Hunting seasons for the Partially Protected Species

Closed season: 1st February – 30th September

Iguana	Armadillo (Tattoo)
Opossums (Manicou)	Agouti

Closed season: 1st March – 30th September (Breeding season for these Birds)

Wild Pigeon or Ramier	Ground Dove or Ortolan (Zotola)
Mountain Dove	

According to Wildlife Protection Act Sections 14 & 15

Any person who takes any of the following actions during the period of a closed season for that species is guilty of an offence and liable to a fine of \$2000.00 and to imprisonment for 6 months:

- Hunting any species of wildlife.
- Disturbing, damaging or destroying the nest or egg of any species of wildlife.
- Possession of any species of wildlife nest or egg.

Prohibited Hunting Methods

According to Wildlife Protection Act PART VI Section 30 Sub-section a-f, any person who adapts any of the following prohibited hunting methods is guilty of an offence and liable to fine of \$2000.00 and to imprisonment for 6 months.

- Setting in any position any electrical device to frighten any protected or partially protected wildlife calculated to cause injury.
- Setting noxious substance.
- Depositing or allowing the deposits of deleterious substance frequented by fish shrimps or crabs.
- Constructing, excavating or maintaining any pit for that purpose.
- Permitting any slash, stumps and debris from logging operation in water frequent by fish.

Wildlife Protection Act

Wildlife Protection Act “for the protection of wildlife and matters connected therewith and incidental thereto.” Wildlife is defined in s. 1 as any species of mammals, birds and their eggs, frogs and their eggs, reptiles, fishes and their fry and eggs, and crustaceans. Section 7 of the Act claims that all wildlife found in St. Vincent and the Grenadines are owned by the Crown and as a result may only be hunted or captured at a time solely determined by the provisions of the Act.

The individual also has the right to kindle, keep or carry a fire within the protected area of the wildlife reserve once the chief officer has approved that the fire will serve to prepare food for human consumption. Section 29 is especially important for the citizen, as it lists ways in which an individual may be liable for frightening, stupefying, injuring or killing any protected or partially protected wildlife listed in the First and Second Schedules of the Act. This provision includes pollution, as it prohibits the discharge of any adverse substances in water that may be the habitat for fish, shrimps or crabs, and further restricts discharge in areas where these substances may lead to or enter water.

Section 11 (1) Any person in any Wildlife Reserve who:

- a) Hunts or member of a hunting party
- b) Circumstances showing he/she was hunting wildlife
- c) Takes a dog or permits any dog into a reserve
- d) Carries into a wildlife reserve any gun or weapon
- e) Disturbs, damages or destroys the nest, eggs, fry or young of any wildlife within a wildlife reserve,

is guilty of an offence and liable to a fine of \$2000.00 in the case of a second or subsequent offence, to a fine of \$4000.00 and to imprisonment for one year.

Dumping at Sea Act, No. 53 of 2002. Aims to control dumping at sea via a detailed system of licensing procedures.

Grenada

The following section provide information on existing legislation in Grenada related to wildlife.

Birds and Other Wildlife Protection Act (1957)

“Any person who kills, wounds or takes any wild bird or the eggs or nest of any wild bird specified in the First Schedule, or who has in his possession any such bird killed, wounded, or taken, or any part thereof, or the eggs or nest of any such bird, shall be guilty of an offence.

Every offence against this Act shall be punishable on summary conviction and every person guilty of an offence shall be liable to a fine of one thousand dollars and to imprisonment for six months.”

Since the first schedule does not include any seabirds, all seabirds are protected under the law.

Formal protections (such as wildlife reserve status) do not currently exist for the offshore islands of Grenada. They have been proposed as protected areas for many years and currently draft management plans are under review.

Appendix 3 – Observation Forms

Grenadines Boat-based Seabird Survey Form

Name _____

Time _____

Phone or Email: _____

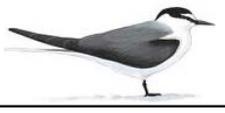
Island Name (one sheet per island/per day) _____

Avoid disturbing adults, survey in early morning, late evening to reduce heat impacts. Limit time off nest to under 10 min.

Whole island surveyed? Yes No

If no, draw island at
right and shade
survey areas

Image	Common Name	# Total Birds ¹	# Adults	# Fledged chicks/ Juveniles	Nesting? Yes, No, Unknown	# Active Nests	# Chicks	Notes
	Red-footed Booby <i>White Booby</i> (nest in trees)							
	Brown Booby <i>Sea Diver</i> (nest on ground)							
	Masked Booby							
	Magnificent Frigatebird <i>Man O'War</i>							
	Red-billed Tropicbird <i>Pallintrie, Chupit</i>							
	Laughing Gull <i>Mauve, Davie-Bird</i>							
	Sooty Tern (darker back than Bridled) <i>Egg-bird, Cap-bird</i>							

	Bridled Tern (white above eye) <i>Egg-bird, Cap-bird</i>							
Bridled/Sooty (use only if cannot distinguish)								
	Brown Noddy							
	Royal Tern							
	Roseate Tern							
	Brown Pelican							

¹Adult, immature and fledged birds often group together.

Other	Where on island?	Notes (fresh/old carcass, plastic entanglement or ingestion, hunting type)
Rodent		Mammals may be recorded based on visual observations, feces, or tracks. Evidence of hunting may include shotgun shells, birds hanging from traps, a pile of carcasses of birds, goats, turtle shells, etc. Be aware of kills by Peregrine Falcons
Dog / Cat		
People		
Goats / Sheep / etc.		
Litter		
Evidence of fire		
Evidence of hunting		
Dead wildlife		
Other birds		

Appendix 4 – Seabird Harvesting Event Identification