

HOW TO BEHAVE AROUND SEA TURTLES



Prepared by:
© Dawn Pierre-Nathoniel
Department of Fisheries
Ministry of Agriculture, Forestry and Fisheries
Saint Lucia



**Ministry of Agriculture
Forestry and Fisheries**



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2006**

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1. Introduction

Sea turtles are just about the closest things we have to dinosaurs. These ancient creatures have lived in the world's oceans for more than 150 million years, and they have not really changed that much since they appeared on earth so very long ago. Sea turtles belong to a group of animals known as the Reptiles and are believed to be among the longest lived. No one knows for sure how long sea turtles live, but, depending on the species, they take 12-40 years to become breeding adults. Mating takes place at sea and a sea turtle will only leave the sea to lay eggs. Therefore, any adult sea turtle seen on the beach is a female.

Of the seven species of sea turtle found in the world, three have made the beaches of Saint Lucia their nesting grounds. These are the mighty **Leatherback**, the colourful **Hawksbill** and the grass-eating **Green** sea turtle. On rare occasions, the **Loggerhead**, typically found further north, is also sighted in our waters. Of these species, the World Conservation Union (IUCN) has classified the Loggerhead and Green sea turtles as **Endangered** and the Leatherback and Hawksbill sea turtles as **Critically Endangered**, throughout their global ranges. Endangered means that sea turtles are under threat and we need to do all we can to prevent them from disappearing from the earth forever!

In Saint Lucia, the peak **nesting season** is from **March to November**. Seeing an adult sea turtle come ashore to lay her eggs - or the tiny hatchlings (babies) emerging from their nests - is an unforgettable experience!

But remember, there are laws in Saint Lucia for the conservation and sustainable use of sea turtles, including laws that prohibit interference with nesting activity. Therefore, if you happen to come across sea turtle activity and you are unsure of what to do, please contact the Department of Fisheries, Pointe Seraphine, Castries (telephone: 468 4135/468 4143). Where this is not feasible or you are on a Department of Fisheries-Authorised Sea Turtle Watch, please be guided by the following:

2. General Guidelines

2.1 In the Water

- **DO** keep a good look out for sea turtles while boating, as boat strikes (collisions with sea turtles) can kill.
- **DO** keep your distance and avoid surprising sea turtles. Especially avoid disturbing resting, sleeping or actively feeding sea turtles.
- **DO** ensure that encounters are as unthreatening as possible. Approach sea turtles slowly and calmly and move away if a sea turtle shows signs of distress (e.g. fleeing in fright, swimming in a haphazard manner).
- **DO** take all litter home with you. Trash can kill, especially when it is mistaken for food. For example, Leatherback sea turtles sometimes swallow plastics, which they mistake for their favourite food item, jelly-fish.



- **NEVER** try to spear, harass or ride sea turtles. These activities distress and can be harmful to sea turtles.

2.2 On the Beach

During the nesting season in Saint Lucia, which can occur at any time of the year, but is generally from **March to November**, some special considerations apply to sea turtle nesting beaches:

- **DO** try to avoid using beaches for campfires or barbecues. Any authorised use of beaches for campfires or barbecues should be confined to designated fire-pit areas, or where these have not been specified, keep behind the vegetation line and out of sight of the beach (that is, out of sight of approaching or nesting sea turtles).
- **DO** keep pets, especially dogs, away, as they can trample on, confuse, startle or attack hatchlings, or even eat eggs or hatchlings.

- **DO** keep beach lighting to a minimum. Artificial light disorients (confuses) sea turtles.
- **DO** shield, re-direct or switch off any lighting that is visible from a potential nesting beach. Never shine a flashlight (torch) at a sea turtle's face from any distance.
- **DO** dim car headlights when nearing beaches, to minimise disturbance to nesting sea turtles and hatchlings.
- **DO** try to help. If **after egg-laying is finished** and any prominent disturbance (e.g., noise, lighting, crowds) has been removed, a sea turtle still appears to be completely confused and disoriented and **heads inland**, **gently** try to guide it back to the sea. If the sea turtle is heading to danger, such as crossing a road, please contact an authority (e.g. the Department of Fisheries (telephone: 468 4135/468 4143), or other wildlife/natural resources office, police, hotel manager or security staff).
- **DO** hide all evidence of nesting to avoid eggs being discovered and stolen! On beaches where sea turtles or their eggs are often poached (taken illegally), and where regular data collection is not known to take place, cover any sea turtle tracks seen, once the sea turtle has returned to the sea. Disguise the nest and tracks by brushing them over with a coconut branch or other shrub. If you are unsure about whether a beach is being monitored regularly, and you observe sea turtle tracks, contact the Department of Fisheries (telephone: 468 4135/468 4143) or take a picture of the tracks if possible and send it to the Department of Fisheries (Pointe Seraphine, Castries) along with the time, date and place where they were found.
- **DO** call for help! If a nest becomes exposed due to high wave action, **gently** collect the exposed eggs in a dive bag, bucket, beach towel, etc. and immediately call the Department of Fisheries (telephone: 468 4135/468 4143) for assistance in relocating the nest to a more suitable location. Take great care not to rotate the eggs as you collect them. Remember, unless there is an emergency, such as the sight of eggs tumbling into the sea, the handling of eggs is undesirable, as survival of developing hatchlings may be seriously jeopardised.



- **DO NOT** drive on sandy beaches. This compacts sand and crushes eggs, thus either killing hatchlings or making their emergence from the nest impossible. Driving may also create deep ruts that make it difficult for hatchlings to race to the water.
- **DO NOT** leave large items, such as tables, chairs, umbrellas, recreational vessels, equipment or vehicles on the beach at night. These can obstruct a sea turtle's path and prevent egg-laying.
- **DO NOT** approach closely (within 5 to 10 metres) or shine lights on a sea turtle that is leaving the water or moving up the beach. Stand completely still at the vegetation line and watch!
- **DO NOT** litter. Litter attracts scavengers (e.g. birds, crabs, mongooses) that can trample on, confuse, startle or attack hatchlings, eat them or eggs. Litter can also injure nesting sea turtles or act as an obstacle to scrambling hatchlings.

2.3 Photography

Flash photography of nesting sea turtles is a controversial topic. A flash will temporarily "blind" a sea turtle, complicating its nesting activity and return to the sea. For this reason, flash photography may constitute harassment, and in some countries, it is illegal. If using a camera flash, do so very sparingly and:

- **ONLY** take photographs from behind the sea turtle. This includes video camera lights and camera flashes.



- **NEVER** take photographs before a sea turtle has laid its eggs. It may disturb the sea turtle and cause it to return to sea without nesting.
- **NEVER** photograph hatchlings using a flash or light source of any sort (unless you have permission from a trained Guide), as sea turtles are very sensitive to light.

2.4 Hatchling Sea Turtles

- **DO** try to shield hatchlings if they appear confused by beachfront or flash lighting. Place yourself between the hatchlings and the light source, and ask that the light source be turned off long enough for the hatchlings to reach the sea.
- **DO** avoid handling hatchlings, as any sunscreen or insect repellent on your hands can be toxic to them.
- **DO** feel free to frighten birds, crabs, mongooses, pigs, cows and dogs away. They can trample on, confuse, startle, attack or eat hatchlings.



- **DO NOT** interfere with hatchlings' crawl to the sea. As hatchlings cross the beach, they are responding to environmental cues that are necessary for their survival. Only where hatchlings have **wandered inland**, can you bring them nearer to the water's edge, but allow them to scramble in themselves.
- **NEVER** photograph hatchlings using a flash or light source of any sort, unless you have permission from a trained Guide. Like adult sea turtles, they are very sensitive to light.
- **NEVER** keep a hatchling as a pet or bring it home for any reason. This is illegal.

2.5 Other

- If you witness a nesting sea turtle being slaughtered on a beach, or eggs being collected or sold at any time, **please alert the police** at the nearest police station and inform the Department of Fisheries (telephone: 468 4135 or 468 4143). Both of these activities are **illegal** in Saint Lucia, regardless of whether or not an open season (a period within the year when restricted fishing of sea turtles is permitted by law) has been declared by the Department of Fisheries.
- If you witness sea turtle meat being sold when no open season has been declared by the Department of Fisheries, **please alert the police** at the nearest police station and inform the Department of Fisheries (telephone: 468 4135 or 468 4143).

- If you encounter a dead hatchling on the beach (perhaps it was entangled by a vine, partially consumed by a crab, attacked by ants or died wandering at the base of a street lamp), please bring it to the Department of Fisheries, Pointe Seraphine, Castries, along with a record of the time and place where it was found. This is very helpful to our conservation efforts.
- If you find a sea turtle with a tag clamped to its flipper, write down the information detailed on the front and back sides of the tag and contact the Department of Fisheries (telephone: 468 4135 or 468 4143). The **tag should not be removed** unless the sea turtle is dead. Where a tag is found on a dead sea turtle, please return the tag to the Department of Fisheries, Pointe Seraphine, Castries.
- **Report any nesting activity** to the Department of Fisheries, Pointe Seraphine, Castries (telephone: 468 4135 or 468 4143) for record keeping.

3. Sea Turtle Watching

3.1 Preparing for a Watch

- **DO** wear footwear suitable for walking along a sandy beach at night. Closed, comfortable shoes that will not be ruined by the sand and salt are the best.
- **DO** carry rain coats and warm clothing as it may get wet and cold. In the absence of rain coats, carry a change of clothing in the event that it rains while walking the beach.
- **DO** carry drinking water and a snack. On Sea Turtle Watches where the authorised guiding organisation has made provision for food, this will be made available to clients upon timely request.
- **DO** plan to wait. While several sea turtles may arrive in one night, there are nights where only one or no sea turtles will be seen. In addition, the entire nesting ritual can take several hours. The larger the crowd, the more likely the sea turtle is going to be disturbed. This unique and memorable experience is best if everyone waits his/her turn.
- **DO** carry insect repellent.

- **DO** wear dark clothing for camouflage in the dark. This will be less distracting to sea turtles.
- **DO** try to avoid bringing children less than five (5) years of age, disabled (especially disability that restricts movement) or women over five (5) months pregnant on Sea Turtle Watches in **remote locations**, or **where the road condition is poor**. **Ask questions** before departing for your trip. Please remember that you are responsible for your children, and a Guide has the authority to tell *anyone* behaving inappropriately (including the guardians of unruly children) to leave the beach at once!



- **DO NOT** carry firearms (or other weapons) or bring or use illegal drugs on Sea Turtle Watches at any time. In addition, the use of alcohol is strongly discouraged. Remember, you are responsible for your actions and you must act responsibly at all times. A Guide has the authority to tell *anyone* behaving inappropriately to leave the beach at once!

3.2 A Few Facts to Bear in Mind...Adult Sea Turtles

- Adult sea turtles are timid. Please remember that these animals do not leave the sea for most of their lives, and that hauling themselves out onto the beach is difficult and stressful for them, as well as dangerous.
- During the nesting process, sea turtles are easily disturbed by light, noise and movement, particularly when leaving the water, crossing the beach and digging the nest. Please remain still at the vegetation line and watch.
- Nesting sea turtles are best seen after dark, from March to November. Leatherback nesting peaks in May/June; Green Sea Turtle nesting peaks in July/August; and Hawksbill nesting peaks in August/September.
- Leatherback sea turtle tracks are generally about two metres wide; Green sea turtle tracks are about one metre wide; and Hawksbill sea turtle tracks are slightly less than one metre wide (generally 0.7-0.8 metres wide). Look out for them and report your observations to the Guides on your watch.

- As a sea turtle approaches the shore, it is very easily disturbed and may turn back. Keep clear of it, wait quietly and do not shine your flashlight. Artificial lighting affects nesting activity of sea turtles. Studies have shown that brightly lit beaches are less frequently used by sea turtles as nesting sites. In addition, females attempting to return to the sea after nesting, as well as newborn hatchlings, can be led astray by nearby lighting. A sea turtle's crawl ashore and up the beach can take up to an hour. A distance of 15 metres is recommended until the nest is prepared and the laying process has begun.
- To dig a "body pit", a sea turtle will use all four flippers to form a large depression. Wait patiently, stand back (ideally, behind the sea turtle) and keep flashlights off. Sea Turtle Watch groups must have a minimum of two Guides and group size will depend on controls established by the authorised guiding organisation. As a rule, groups of 25 or less are more desirable. Smaller groups are less likely to disturb a sea turtle and tend to offer a better viewing experience for visitors.
- Once the "body pit" is finished, a sea turtle will use its hind (rear) flippers to dig out a vertical, pear-shaped egg chamber about 45 to 70 centimetres deep. While digging, a sea turtle is still easily disturbed, so watch quietly, without lights and do not touch it. Great care must be taken by observers to keep back from the egg chamber to ensure that the nest does not cave in.
- During egg-laying, soft lights (that is, low wattage flashlights) and occasional, gentle touching (from behind the sea turtle) do not easily disturb a sea turtle. Never shine the light directly in a sea turtle's face. Laying eggs takes about 10 to 20 minutes. Never touch or handle the eggs as any sunscreen or insect repellent on your hands can be toxic.
- A sea turtle will then cover its nest with its rear flippers and later "disguise" the site using powerful sweeps of the front flippers. Stand clear of flying sand and give the sea turtle space to complete nesting. You can now turn on your lights to watch the sea turtle (but still, from behind the sea turtle only, not in its face), take flash photography (also from behind) and gently touch it, all under the direction of a Guide.
- As a sea turtle crawls back to the ocean, keep your flashlights off as it is tired and is easily disoriented by light. You can follow it quietly to the water, as long as another

sea turtle is not coming in to lay. No attempt must be made to ride on sea turtles' backs or restrain them from returning to the sea.

- Sea turtles nest at regular intervals during their breeding season. If you return to the beach 9-14 days later, you may see the same sea turtle again!
- Upon reaching maturity, female sea turtles normally come back to the general area where they were born to nest, generally laying 2-6 clutches of eggs per nesting season and repeating the cycle every 2-5 years.
- About 80-200 eggs are laid per nest and some females will produce over 1000 eggs in a year.
- Eggs typically hatch 50-65 days after nesting.

3.3 A Few Facts to Bear in Mind...Hatchlings

- Emerging hatchlings can be seen in the early evening, until about midnight, although the eggs in a nest can hatch at any time and even during the day during cool, windy weather.
- In a nest, hatchlings break from the eggs within a few hours of one another. It takes them about 24 hours to straighten out and leave the eggshell.
- As a group, the hatchlings climb upwards in repeated bursts of activity. They breathe the air between the grains of sand as they climb. It can take them 2-3 days to reach the surface, resting often.
- Hatchlings usually emerge onto the surface in a rush, mostly at night, to protect them from the hot sun and many potential predators (animals that can eat them).
- If you are too close, you can push sand into the nest, or collapse it altogether by damaging the outer wall, crushing (or restricting the progress of) the hatchlings below. Keep clear of the nest when the hatchlings are emerging!
- Keep your lights *off* at this stage. Your eyes will adjust. Flashlights and lamps can easily disorient hatchlings, hindering their race to the ocean. On beaches where artificial lighting is visible, the hatchlings' important journey to the sea may be disrupted. Hatchling sea turtles emerging from nests at night are strongly attracted to light sources along the beach. Consequently, hatchlings move toward streetlights,

porch lights, security lights or even interior lighting visible through windows, and away from the ocean. Having been misled, hatchlings fail to find their way to the sea and may succumb to attacks by predators (including pets), exhaustion, drying in the morning sun, or strikes by automobiles on nearby parking lots and roads. A single light left on near a sea turtle nesting beach can misdirect and kill hundreds or thousands of hatchlings. Cases where hatchlings have been led to their death into the flames of unattended fires are indications to the strong attraction hatchlings have for light.

- Once out of the nest, hatchlings will race down to the ocean. Keep out of their way and do not shine lights on them. You are encouraged to scare away birds, crabs, mongooses, pigs, cows and dogs, all of which can trample on, confuse, startle, attack or eat hatchlings. Do not bring any pets on a Sea Turtle Watch for the same reason.
- Sunscreen or insect repellent on your hands can be harmful to hatchlings. Therefore, do not handle hatchlings. In addition, these baby turtles need to be left alone to cross the beach. They are responding to many environmental cues as they do so. This practice is necessary for their survival.
- It is against the law to bring a hatchling home as a pet or for any other reason. This can threaten its life.
- Hatchlings will reach the water in a few minutes, but, once there, they can still be attracted to land by light. Keep your flashlights off to make sure that they do not come back.
- Please do not dig into the nest after the hatchlings are gone. Additional hatchlings may well be waiting to emerge, and survival chances are greatly reduced if they are forced out before they are ready.

4. Test Yourself: Dos and Don'ts in a Nutshell (answers in text)

4.1 Dos

- During nesting activity, keep disturbance to a **(a) minimum (b) maximum**. Stay **q----** and move **s-----**.
- Sea turtles that have not yet laid their eggs must be **(a) left alone (b) coaxed to lay (c) harassed**.
- During nesting activity, make minimal use of flashlights and other light sources. _____ shine a light directly into a sea turtle's face: **(a) always (b) never (c) sometimes (d) every ten minutes**.
- The use of beaches for campfires or barbecues during the nesting or hatching seasons is highly _____.
(a) encouraged (b) discouraged
- Try not to "trap" or startle sea turtles. Approach from **(a) behind (b) the front**, and keep low to the ground.
- Move away **-----y** and **-----y** if the turtle shows any signs of distress.
- A distance of **(a) 1 metre (b) 100 metres (c) 15 metres**, should be kept on a Sea Turtle Watch until the nest is prepared and the laying process has begun, at which time the group can assemble quietly behind the sea turtle. A distance of _____ metre (s) is sufficient to protect the nest cavity from collapse.
(a) 2-3 metres (b) 1 metre
- Sea Turtle Watch groups must have a minimum of _____ Guides, and ideally, group size should not exceed _____ persons. **(a) 4 and 50 respectively (b) 2 and 25 respectively (c) 8 and 100 respectively**
- Take all litter home with you, or give to Guides on the beach for proper disposal. **True or False**
- Listen to Guides during a Sea Turtle Watch and follow _____ of their instructions. **(a) none (b) all (c) some (d) only those I like**.

REMEMBER:

- *Contact the Department of Fisheries, Pointe Seraphine, Castries (telephone: 468 4135 or 468 4143) if you are unsure of what to do regarding sea turtle activity.*
- *Report any suspicious activity regarding sea turtles to the police at the nearest police station and to the Department of Fisheries, Pointe Seraphine, Castries.*
- *Act responsibly at all times. Remember the sea turtle is an Endangered species and it is a privilege to you to experience the nesting process. Sea turtles have chosen the beaches of Saint Lucia as their nesting grounds. If we do not respect and accommodate their need to reproduce, they will disappear.*

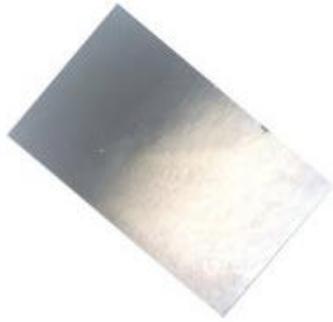
4.2 Don'ts

- Do not drive on sandy beaches during peak nesting and hatching seasons which are from ____ to ____.
- Always leave large items, such as chairs, tables, umbrellas or recreational vessels, equipment or vehicles on beaches at night during the nesting or hatching seasons. **True or False**
- Do not approach sea turtles as they arrive from the sea or block their safe return to the sea. **True or False**
- You must sometimes approach closely or shine lights on a sea turtle that is leaving the water or moving up the beach. **True or False**
- During the nesting season, it is wise to allow your vehicle or property lights to shine on a beach at night. **True or False**
- Touching or handling sea turtle eggs or hatchlings make them survive longer. **True or False**
- Why should you never bring a hatchling home as a pet or for any other reason? **(a) it is against the law (b) it will threaten its life (c) both of the above.**
- Sea turtles like to be speared, harassed or rode like a horse. **True or False**
- If I block a sea turtle's return to the sea once it has finished laying its eggs, it will be forced to lay some more eggs. **True or False.**
- Always bring any domestic animal to the beach during the turtle nesting or hatching seasons or on a Sea Turtle Watch. **True or False.**

REMEMBER:

DO NOT act irresponsibly. Sea turtles are Endangered species. They belong to a group of animals known as the Reptiles and are believed to be among the longest lived. "Endangered" means that it is not too late to protect them before they disappear!

5. A Visual Representation



**Leatherback
Turtle Tracks**



**Sea Turtle
Watching at Grande
Anse Beach**



Egg Laying and Counting



Tagging a Leatherback Turtle



**Leatherback
Turtle
Disguising its
Nest**



**Leatherback Turtle Returning to
the Ocean after Nesting**



**Leatherback
Turtle Heading
out to the Ocean
after Nesting**

FOR FURTHER INFORMATION, PLEASE CONTACT:



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Some of the text for this publication was taken from: "Turtle Watching", a flyer produced by the Coral Reef Alliance (CORAL), in collaboration with the Wider Caribbean Sea Turtle Conservation Network (WIDECAST); from recommendations made in the "Sea Turtle Recovery Action Plan for Saint Lucia" (d'Auvergne and Eckert, 1993); a website of the Naturally Queensland Information Centre, Environmental Protection Agency and the Mon Repos Conservation Park, Queensland Parks and Wildlife Service, Australia; and a website of the Broward County Extension Education Division, Florida, USA. The author is grateful to Dr. Karen Eckert (WIDECAST) and Dr. Marie-Louise Felix (World Wildlife Fund) for their technical review of the text. Funding for this publication was provided by the United Nations Environment Programme/Global Environment Facility (UNEP/GEF).