

RESERVA PLAYA TORTUGA



LOCAL VOLUNTEER GUIDE

INFO FOR SEA TURTLE VOLUNTEERS



Welcome!

With a sea turtle nesting period extending from July to December (peak Sept-Oct) and two beaches under patrol, local volunteers are critical to the efforts of the Reserva Playa Tortuga (RPT) to monitor and save sea turtle nests in our region. Due to the combined threats of poaching and beach erosion, many nests would be left vulnerable without volunteer patrols. Instead, walks scheduled every day of the week are helping to rescue hundreds of nests and discouraging poaching due to the RPT presence.

By volunteering your time, you are helping to support these efforts, joining a community of committed individuals, and gaining an opportunity to learn about and protect the local environment...and essentially all you have to do is walk down one of the most beautiful beaches in Costa Rica!

What to expect on your first walk

Hermosa Beach

Volunteers joining a walk at Hermosa will coordinate with the volunteer leader for that day (usually through WhatsApp group) to find out the meeting time and point. When possible, volunteers are encouraged to carpool. Meeting times vary based on the tides and are determined by the walk leader for that day but will often be early morning hours. The standard meeting location is the lifeguard tower at the Hermosa beach main parking lot. Walks at Hermosa begin at the main parking lot and are broken into two parts: the north side - the small section of the beach if you turn to the right facing the ocean, and the south side - the long stretch of beach if you turn to the left.

When your group is ready, you will start walking together. It is ideal to spread out as you walk so you can cover more of the sand and have a better opportunity to spot signs of turtle tracks. It is important that one person walks near the grass/trees since the turtles are looking for drier areas above the tide line to lay their nests and this area is least likely to have had signs of nests washed away by receding tides. Volunteers walking closer to the water will be looking and listening for either active turtles entering/exiting the beach or for tracks, which will often appear as a dark trail/line in the sand. Although chit-chat is not a problem in the daylight, it is ideal to avoid making noise when it is dark to avoid scaring any turtles that may be on or preparing to enter the beach. When the group reaches the end of the beach, there is usually a quick stop to allow a rest/water break and to allow any turtles that might have been waiting in the water to access the beach undisturbed. After the break, the group will return along the same beach to the parking lot.

Tortuga Beach

Though most local volunteers will join morning walks on Hermosa, the opportunity also exists to join staff on morning or evening walks at Playa Tortuga in Ojochal. These walks are pre-scheduled on a weekly basis so the easiest way to be a part of these is to either ask for

the schedule in the volunteer whatsapp group or to stop by the reserve. The process is very similar to Hermosa but the group will meet and depart from the Reserve.

If a Turtle is Found

The group leader will be the only one to approach a turtle initially. If a turtle that has not yet started nesting senses humans nearby they will often abort their journey, so it is critical to be quiet, keep distance, and not use white light around a turtle. The rest of the group should stand at a significant distance while the group leader goes directly behind the turtle at some distance to determine the site of the nest. Once the turtle has started laying eggs, it is more acceptable for the rest of the group to approach but only with red lights, whispers, and only behind her head - never in front or in her line of sight. After she is done laying is the best time to tag and measure her for the data logs.



If a Nest is Found

Nests are found by following tracks up the beach from the water. Depending on the species of turtle it might be intentionally obscured, but there will usually be a recognizable area of disturbance at the end of the tracks. The first thing to do when approaching a potential nest is to take measurements of the track before footprints obscure the area. Then, it is helpful to evaluate the track direction to understand how the turtle moved through the area. Noticing sand spray around the body pit can also help indicate roughly where the nest was laid. Using a sturdy stick around the size of a thumb, the team lead will press firmly straight down into the sand in this area to 'feel' for the cavity. It will be an obvious area where the stick sinks relatively easily into the sand.

Once this area is located, the volunteers who will be digging can put on gloves and scoop out sand at that spot to reveal the eggs. Some of the removed sand where the eggs were laid should be used to line the bottom of the bucket (it has antibacterial properties



from birth liquids released by the mother). The eggs should be carefully taken out, counted, and put in a bucket. Additional sand should be used to cover and protect them from drying out. The hole can then be refilled with sand and marked with a vertical stick as a sign to subsequent teams that the nest has already been excavated.

False Crawls

Sometimes there will be a false crawl where the mother crawled up the beach but did not actually lay any eggs. This might be because she sensed a threat, did not find the correct conditions, or just didn't feel like it was the right moment. In these cases, if there is no sand spray and searching for a pit does not yield any chamber, the location and track information should still be recorded for the data records.



Data Collection

Beyond the immediate value of saving nests, volunteers have an important role in contributing to the ongoing research projects at the reserve by collecting data on the walks. A variety of data is collected including track sizes, turtle measurements, tagging info, nest conditions, nest locations via GPS coordinates, egg count, and more. Even the unsuccessful or poached nests provide valuable data so threat patterns can be tracked. Currently this data is collected via a google form and submitted for each nest or track site. At the end of the year, reports are compiled to show trends over time. This scientific record is providing valuable information for reports that support protecting these nesting beaches on a governmental policy level.

Measuring Tracks

When evaluating a track, measurements in centimeters are taken with a tape measure from the outside of the widest point of the nail marks. It can be useful to take a measurement at a few different points to get an average if the tracks are not



clear or consistent. It can also be useful to take a picture of the tracks for use later if the nest is difficult to find or to help identify what type of turtle was nesting (each turtle species has a unique track pattern). Gathering this data gives us information on the species, its size and possibly the specific individual that returns after a false crawl.

GPS

GPS coordinates of a nest/track can be taken with your phone through google maps, sending a pin on WhatsApp, or using any of a number of free applications.

Zones

Data is collected on the zone where a nest is laid

- Zone 1 - up to the normal high tide line
- Zone 2 - from the normal high tide line to the vegetation (most common)
- Zone 3 - under trees or in the grasses and vegetation

Form

The reporting form can be found here or in the volunteer group chat media files:

<https://forms.gle/rbNtgTsgDQpseEaY6>

Poached Nests

Poaching is one of the two biggest threats facing the nests. Signs that a nest has been poached will include a trail with an empty hole at the end, broken shells around a hole, footprints around a nest prior to your arrival, tracks that have been erased, and in the case of some more tricky poachers, they have been putting sticks in the nest holes to mimic our marking of already excavated nests. In this case, the location and information should still be recorded for the data records.

Poachers

Poachers are often people from the local community who are collecting eggs either due to a cultural tradition of consumption or from a financial need. The RPT strongly discourages confrontation with suspected poachers. For volunteers out on the beach, this can be dangerous and often fruitless. Other ways to deal with someone you suspect of poaching are to discreetly call the police to find them when they return to the parking lot or just try

to beat them to the next nest. Poachers know what they are doing is illegal so will often try to hide their purpose or even go through great lengths to hide eggs they have already found. Our best long-term defense against this is to continue to regularly patrol and educate/involve the local communities.

Walking

Volunteers can expect to walk a few miles/kilometers on a trip and the group is required to stay together with no early departures, so plan accordingly. On Hermosa: The beach is long and mostly sandy with a small rocky area toward both ends. There are often more people encountered and can be difficult to pass during high tides. On Tortuga: The beach is divided by two rivers and so is constantly changing. During low tides you may wade through rivers. During high tides, volunteers will sometimes need to walk through the forest trails to get to the beach.

Hatchery

If a nest with eggs is found during a walk, the next step is usually to transport it to the hatchery at the Reserva Playa Tortuga in Ojochal. Nests are reburied there in a supervised section to protect the eggs until hatched.



Releases

Nests take approximately 60 days to hatch depending on the climatic influences of rain and heat from the sun. When the nests in the hatchery are ready, a short-notice announcement is usually sent out to the community on social media so the moment can serve as an educational opportunity. The hatchlings are taken to their original beach to be released into the ocean.

These releases can become a bit difficult to manage when many people attend since the disoriented babies can head in different directions as they take a few moments to reorient toward the water. If you attend a release, please try to assist by helping to encourage everyone to stay behind the line. It is important to watch where you step if the high tides push babies into the crowd and to avoid swimming in the area immediately after a release.

Respect

The nature of this close work with the nesting and hatching sea turtles means that volunteers will have unique access to the turtles, eggs, and hatchlings. While this is a very special thing and can be a highlight of the experience, it is each person's responsibility to remember that ultimately they are interacting with wild creatures. The sea turtles are not accustomed to human interaction and will likely be extremely frightened by being handled or sensing humans nearby - there is no reason to think we are different from any other predator. As tempting as it might be to get that close selfie or to touch the creatures out of curiosity, please remember to respect their space and give them the room they need to complete this stage of their life cycle in peace. If it is night time, make sure not to take photos with a flash. When they are crawling to their nesting spot, maintain a large distance. The less stress they experience on land, the more strength they will have to thrive when they return to the ocean.

Preparing for a Walk

Clothes

On dark hour walks, it is requested that you wear black/dark clothes to help obscure yourself from the turtles. At any time, it is further recommended that you wear long pants/shirts to protect yourself from the sandflies, which some nights are not a problem but other nights are vicious.

Note: If you are using insect repellent, make sure you wash your hands thoroughly after application since we want to avoid accidentally getting it on turtles/eggs during interactions.

Shoes

Some volunteers go barefoot, some wear water shoes, some hiking sandals (with socks to avoid bug bites), and others wear old shoes or rubber boots. Your shoes will likely get wet and you will be walking a lot so make sure they are comfortable, without areas that will rub and cause blisters.

Gloves

Volunteers should *always* use latex (or similar) gloves when handling eggs or interacting with turtles. The reason for this is to prevent contamination of both the turtles/eggs and you from unaccustomed bacterial/viral transfers. Additionally, as many volunteers use bug spray or lotions, the gloves are meant to protect the eggs from these chemicals. The walk leaders can provide gloves or you can purchase a box of your own at the local pharmacies.

Light

A good investment for frequent volunteers will be a red light headlight. Depending on who is leading the walk and the hour of day, volunteers may need to use some combination of

no light, sporadic bursts of white lights aimed at the land, or only red lights. When around a turtle you should only ever use a red light. Turtles have decent eyesight and are sensitive to light so it is ideal to minimize your light usage to avoid scaring them out of deciding to lay. If it is possible for you to do and still walk safely, not using a light and allowing your eyes to become accustomed to the dark can also help you see tracks.

TIP: If your light requires cycling through different outputs before/after you get to the red light, try holding it against your hand to block the light and avoid unnecessarily shining/flashing white light.

Misc.

Bring water and a snack, if desired. It might be useful to carry a light backpack to hold belongings including water, keys, and a rain jacket/poncho since you will want your hands free.

The group leader will carry a bag containing a few tools (first-aid kit, measuring tape, bags/bucket, gloves, etc).

Another good investment for frequent volunteers will be a small bucket or structured cooler backpack to help carry eggs.

Other Ways to Help

Everybody has a different way they can best contribute. The above information was primarily compiled to describe how the experience of volunteering to walk the beaches might look. However, there are many other ways to help, so talk to the reserve if you are interested in finding another approach to be involved. Some possible examples:

- Transporting nests (sometimes nests or volunteers need rides from the beaches to the hatchery)
- Clean-up or excavations at the hatchery
- Providing materials (buckets, lights, gloves and a variety of other materials are needed to support the efforts)
- Release management (when there are large releases, it is helpful to have volunteers there to manage the crowds so no babies are stepped on)
- Develop an improved data-tracking app
- And lots more depending on the circumstances and your skills.

