

TURTLE PATROL!

NG KiDS heads to Florida to help monitor and protect sea turtles and their nesting sites!

 Sea turtles arriving to nest on the beaches of southwest Florida in the USA face an obstacle course of difficulties – pollution, rubbish, predators and people. But luckily, a team of scientists and volunteers from Mote Marine Laboratory are here to help them. And today, so are we!

We've been assigned a 1.6-km-long stretch of coastline, and our job is to pick up any rubbish and look out for turtle crawl marks in the sand!

Numerous nests



It's 6:30am, and the sun is rising over Sarasota Bay. Although the nesting season has only just begun, the chances of finding a nest here are high. "These beaches are where the largest populations of threatened loggerhead sea turtles in the Gulf of Mexico come to nest," explains Kristen Mazzarella, senior biologist at Mote. "Last year, 200 nests were recorded just on this stretch of beach!" Threatened green sea

turtles (see main pic) and other species such as hawksbills come here, too. So we've got a lot of work to do!

Fake it till you make it

Walking along the soft, white sand, we soon stumble across turtle tracks. But there's no nest to be seen. "This is what we call a false crawl," Kristen tells us. "It means the turtle came up the beach but then turned around and went back!" So why didn't she nest? "We can't tell exactly," says Kristen. "It could be that she didn't like the temperature, how



A turtle ranger records a loggerhead's false crawl.



Hard-packed the sand was, or how much artificial light there was. But there are things we can tell." By observing the zig-zagging tracks and evidence of belly drag, Kristen confirms that the track was made by a loggerhead.

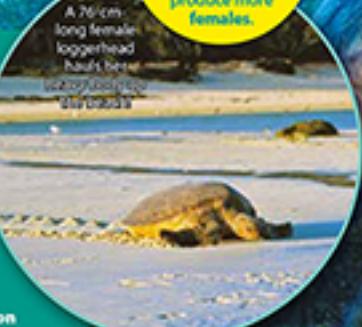
Marking measurements

Keeping track of false crawls can help Mote's Sea Turtle Conservation and Research Program figure out how 'healthy' the beach is for turtles. The shelled creatures may make several false crawls in one night if they can't find the perfect nesting spot. Eventually they could become exhausted and make a nest so close to the water that the eggs won't survive.

Heavy hauling

Females spend the first 25–35 years of their life swimming and feeding in the open ocean before returning to lay their eggs on the same beach that they hatched on! But during that time they will have put on a lot of weight – at least 100kg! – so it takes a lot of effort for a loggerhead turtle mum to drag herself out of the water and up the beach to lay her eggs past the high-tide mark.

The turtles nest 4–8 times during the breeding season, then return to the beach every 2–3 years.



DID YOU KNOW...?

A cooler sea turtle nest will produce more male hatchlings, whereas a warmer one will produce more females.

Since Mote's Sea Turtle Conservation & Research Program was set up 35 years ago, they've protected over 2.4 million local hatchlings!

Sea turtles are protected by raccoons and predators.



Green sea turtles like this one are among the five species that nest on Sarasota Bay's beaches each year.



This turtle's nest is marked off as 'hatch date: 06/21/13.'

This nearby area includes nesting holes – though both nest and digging are prohibited on the beach.



Do not disturb!

The sun is higher in the sky now – we need to finish our patrol before crowds of people start to fill up the beach and trample over the crawls, or the tide washes them away. The race is on! As we rush along, we spot a darkened mound of sand ahead. "Careful where you step," warns Kristen. "It's a nest!" The tracks show it also belongs to a loggerhead. We mark the edges of the 3.5m-wide nest with small pink flags and phone in its location so that staff can come and cordon it off. When wind and the tide erase the tracks, it will be impossible to tell where the nest is, so marking it off is vital to stop beach goers disturbing the eggs.

Egg-cellent location

"The turtle made this nest using her rear flippers," explains Kristen. "Loggerheads dig egg chambers the shape of upside-down lightbulbs. When they're happy with the size, they drop their eggs into the hole – up to 120 of them! Then they shovel sand back on top using their front flippers in long sweeping motions."

This turtle has picked a great spot above the high-tide mark for her nest. It's close enough to the water to cool the eggs down, but not so close that the tide will wash them away! If it was further up the beach, plant roots could grow into it, sucking out the moisture and destroying the egg. But this position is perfect. Phew!

Turn over to find out what happens when the babies hatch!