

Above the high-tide line, a female leatherback turtle is nesting to the spectacular backdrop of an Indian Ocean sunset. Only one or two hatchlings will mature but she's able to return and nest every year



#1

AGAINST ALL ODDS

ONCE A YEAR, IN HIGH SUMMER, LEATHERBACK TURTLES WEIGHING UP TO 700KG RETURN TO THEIR BIRTH PLACE TO LAY THEIR EGGS. FOR THE HATCHLINGS IT IS THE FIRST STAGE IN A STRUGGLE TO SURVIVE.

BY ROY WATTS

This is the story of an extraordinary place and an amazing journey. The place is the Rocktail Bay Lodge in the Maputaland Marine Reserve, 80km south of the Mozambican border. The journey starts on the beach fronting the resort. On a humid summer's night, a temperature drop below 29 degrees triggers a response from thousands of leatherback and loggerhead turtles to break from their eggs and struggle up through the sand.

The long crawl to freedom starts under the cover of darkness as thousands of hatchlings inch their way towards the sea – nature's way of improving their odds of survival. At best, these are slim. At least 12 percent will fall prey to the thousands of ghost crabs lying in wait and won't make it to the surf line. Of every thousand that do slip into the waters, only one or two will escape drowning in the surf. And a phalanx of predators will feast on them as they take their place in the ocean's food chain.

A lucky surviving female leatherback sets out on a journey that will cover thousands of kilometres as she heads south towards the frigid waters of the Antarctic and the jellyfish that will become her staple diet. When fully grown, she'll consume some 200kg a day.

Aiding her on this mission is a remarkable physiology. She is insulated by a thick layer of oily fat that she can metabolise to provide body heat, and she has a unique circulatory system that protects her from extremes of temperature as she moves from the warmth of the tropics to the freezing waters of the deep south. Her 'shell' is a tough, rubbery layer of flexible skin stretched over a frame that allows for a high degree of compression as she dives down to the inky blackness of depths of over a kilometre. It is here that she finds the food source she needs. In withstanding the immense pressure of a 45-minute dive, her body is severely compacted and she becomes more tubular in shape.

Surviving in these icy waters requires a great deal of energy, and after a while she

must return to the warmth of the tropics to recharge her circulatory system. This cycle of migration becomes her life. After 15 or 20 years spent traversing the oceans of the globe, the leatherback female may now weigh up to 700kg, having set out as a hatchling not much bigger than a matchbox. The males could bulk up to over a tonne and never return to land as their flippers and back legs are unable to cope with the rigours of movement on land.

In a chance encounter – organic ships in the night – the bigger, stronger male descends upon the roaming female and, without the romanticism of mate-for-life penguins or swans, deposits his sperm in her storage pouch where it can last for up to two years. He then paddles off into the blue. It is believed this process may be repeated with several males as she journeys back with the accuracy of a satellite-guided missile to the place where she hatched years ago. In one of nature’s miracles.

On arrival in her birthplace south of Mozambique, she waits in the wash zone until dark and then heaves her cumbersome body onto the beach, making landfall for the first time since setting out as a hatchling.

Muscles that propelled her with speed and grace through the water now struggle to drag her enormous body along the sand and up onto a ridge. Digging a perfect hole with her flippers, and in a trance-like state, she deposits a fully developed clutch of eggs. After around nine days the process is repeated and it continues for up to nine times until she has deposited about 1 000 eggs in separate nests. These are covered with sand, compacted by the weight of her body and laboriously camouflaged, before she starts the arduous return trip into the sea, leaving the eggs to incubate in the heat of the tropics for two months. The hatchlings, emerging from January to March, are left to fend for themselves.

The waters off Rocktail Bay also host other species such as hawksbills, olive ridleys and green turtles – all endangered – but only leatherbacks and loggerheads actually nest there. The lodge staff, working in close cooperation with Ezemvelo KZN Wildlife authority, play a vital role in the collection and collation of data so necessary in their survival.



Every night at low tide, resort guests set out in 4x4s with designated guides and researchers to witness this cycle of life. Apart from recording progress, they also tag and microchip the adult females in their hypnotic state as they lay their eggs. They sometimes attach transponders onto the backs of a few large animals, and with GPS and depth-measuring facilities in place, can monitor their feeding and migratory habits for up to nine months. After a year or so, the ropes rot and the instruments fall off.

Near midnight the last leatherback hatchling slips into the surf. The urge to help this little straggler is overwhelming but as the scientists warn, any human intervention plays havoc with their unique tracking system. By helping it, the turtle will not imprint this lonely stretch of beach into its system, and it will never find its way back home to breed. ◆

NEAR MIDNIGHT THE LAST LEATHERBACK HATCHLING SLIPS INTO THE SURF. THE URGE TO HELP THIS LITTLE STRAGGLER IS OVERWHELMING BUT AS THE SCIENTISTS WARN, ANY HUMAN INTERVENTION PLAYS HAVOC WITH THEIR TRACKING SYSTEM



Adult leatherback turtles typically grow to between 1m and 2m, with flippers reaching up to 2.7m in length

:: For more information on Rocktail Bay Lodge, visit www.wilderness-safaris.com