

Turtles battle odds to survive

Two tiny loggerhead hatchlings look set to become an educational centrepiece at uShaka Marine World after their rescue off Durban beaches recently. **Sabelo Nsele** and **Nomfundo Xolo** report

AT FIRST, Durban life-guard Owen Hlongwa had no idea that a "limp lump of something" that washed up recently on uShaka Beach was a tiny loggerhead turtle. Then he saw faint signs of life.

"I put it in a bucket of seawater and it started reviving," said Hlongwa.

Soon afterwards a second hatchling, slightly injured, also washed ashore.

Both were taken to uShaka Sea World where they were revived in a specially designed hospital tank by senior aquarist, Karin Fivaz.

At just more than 40mm, the hatchlings were estimated to be two weeks old. Because it was the week of Valentine's Day, the slightly injured hatchling was named Valentine. The other was called Ula, which is Irish for jewel of the sea.

Roving Reporters recently visited uShaka to start monitoring the rehabilitation process.

The first video shoot shows the two hatchlings floating aimlessly about their hospital tank mostly fin-by-fin, occasionally experiencing head-to-head collisions.

"It takes loggerheads up to six months to a year to learn to dive," explained Fivaz. "This makes the young turtles very vulnerable to predators."

Fivaz said it was likely the hatchlings had drifted down the warm Agulhas current from protected nesting grounds around Bhanga Nek, Black Rock, Sodwana or St Lucia in the iSimangaliso World Heritage site, more than 350km north of Durban.

Fivaz gave insight into the epic journey the hatchlings would have faced.

After emerging from eggs on a nesting beach far north, the hatchlings would have run the gauntlet of a multi-predator feeding frenzy as they dashed to the shore – a spectacle worth witnessing.

Besides thousands of ghost crabs and hundreds of seagulls and terns, many other predators feed on hatchlings including jackals, dogs and mongooses.

The odds of hatchlings reaching the shore are stacked against them. Those that do make it face greater danger as

they enter the ocean. In shallow waters, they are preyed on by all kinds of fish, including sharks.

Once out in the ocean deep, a whole new set of challenges and dangers lurk – above and below the surface.

This includes larger turtle-eating fish, bigger sharks and birds, pollution and fishing trawlers.

Pollution is particularly a problem as turtles grow older. "They often mistake plastic bags for jellyfish," said Fivaz. This can block their digestive system, effectively starving them.

Given all these dangers, a loggerhead's chances of survival into adulthood are slim. George Hughes, author of *Between the Tides, in Search of Sea Turtles*, puts the survival rate at 2 in a 1,000.

Toll

In his chapter, *How Hatchlings Live and Die and Other Dangers*, Hughes also tells how upwellings of cold water from the ocean deep exact a toll on loggerhead turtle hatchlings.

While turtles thrive in warm water of between 20-26°C, cold water renders hatchlings weak, unable to swim or feed.

This often causes hatchlings to be blown ashore, as is likely to have happened to Ula and Valentine, who were finally tossed and twirled through Durban's surf and spat out on the beach.

For the first week, Valentine appeared to be recovering well, but has since died. Citing either infection or its original injuries, uShaka staff said given Valentine's tiny size it was hard to know the exact cause of death.

Ula, however, is gaining weight and is expected to fully recover, alongside another hatchling, Sam, that washed ashore on the Bluff on February 21.

Both hatchlings have since been moved from quarantine to tanks open to public viewing.

Fivaz said that over the next 11 months, Ula and Sam will be pampered with prawns, sardines and uShaka's "gel food" (fish mulch, gelatine and vitamins), while its surviving brethren in the oceans grow up on a diet of algae, sea grass,



uShaka's Malini Pather developed a strong bond with this young loggerhead, and four others that were raised from hatchlings to juvenile turtles last year. The five young turtles were released into the ocean soon after this picture was taken. No one knows whether they survived.

PICTURE: FRED KOCKOTT

bluebottles and jellyfish.

Ula and Sam will be released back into the sea when they are a year old and about the size of a dinner plate.

Exactly what chance they will have of surviving in the ocean unaccustomed to many dangers at sea, is uncertain.

But given that Ula and Sam will, by then, be able to dive and swim, Fivaz reckons they should have as much chance of evading predators as any other young turtle, irrespective of whether it has been raised in captivity or not.

"At least they will have been assured a year's survival which is a good head start over hatchlings in the ocean," said Fivaz.

Last year, uShaka rehabilitated five turtle hatchlings, all of which were successfully released.

"Unfortunately, they were still too small to be tagged, so we can only wonder where they are now," said uShaka spokeswoman, Ann Kunz. – Roving Reporters

Xolo and Nsele are Durban University of Technology students undergoing environmental journalism training with Roving Reporters.

This story forms part of a Roving Reporters' series: People at Work Saving Sea Turtles

For more on the Makotikoti Art Project see Facebook <http://iol.io/b72e4> or call Fred Kockott on 082 277 8907



Convicted turtle poacher, Makotikoti Zikhali, feeds an adult loggerhead at uShaka Marine World. Zikhali, who is on parole from a five-year jail sentence for killing an endangered loggerhead in the iSimangaliso World Heritage Site, is now earning a living making turtle sculptures with 25 percent of proceeds of sales awarded to turtle conservation.

PICTURE: FRED KOCKOTT



These two loggerhead hatchlings in the hands of uShaka Marine World senior aquarist, Karin Fivaz, recently washed ashore on Durban's beachfront. One has since died, but the other, now named Ula (jewel of the sea), is recovering well alongside a third turtle hatchling that had washed up on the Bluff.

PICTURE: NOMFUNDO XOLO

Loggerhead facts

Loggerhead females nest up to three to four times a season, laying up to 120 eggs in each nest between October and February. In the process they lose up to 25 percent of their body weight.

Loggerhead turtle eggs take 45-55 days to hatch.

Out of every 1 000 loggerhead hatchlings that enter the sea, only about two reach maturity.

Loggerhead hatchlings in southern Africa are dependent on the southward flowing Agulhas Current for distribution. After their epic journeys as hatchlings and juveniles around the southern Indian Ocean, young loggerheads are brought back by the currents to the mainland coasts of Africa and Madagascar.

Young loggerheads explore the oceans as they are chased by adult turtles that have a habit of defending feeding territories.

African loggerhead feeding grounds are distributed far north along the east coast of Africa, Madagascar, Seychelles and the Mascarene islands (Mauritius, Reunion and Rodriguez).

After mating and nesting in northern KwaZulu-Natal and Mozambique, loggerheads travel up to 40km every day for about two months in returning to their feeding grounds.

It takes up to 15 years for a female loggerhead to mature, after which she usually returns to nest on the same beach on which she hatched.

Loggerheads are named for their relatively large heads, which support powerful jaws that enable them to feed on hard-shelled prey.

The greatest cause of decline and the continuing threat to loggerhead turtle populations worldwide is incidental capture in commercial fishing operations, including longlines, gillnets and trawlers. A report by Conservation International states that in the past 18 years, it is likely that millions of marine turtles have been killed as by-catch by the world's fisheries.

In 2011, a Manguzi resident, Makotikoti Zikhali, was given a five-year jail sentence for killing a loggerhead turtle in the iSimangaliso Wetland Park.

These turtle facts were taken from George Hughes' recent book, *Between the Tides, in Search of Sea Turtles*. The book tells how turtles have existed for more than 100 million years, travelling throughout the world's oceans. Suddenly, however, they are struggling to survive because of what people are doing to our oceans and beaches.

Loggerheads navigate using GPS

FOR a long time it has been a mystery how loggerhead turtles navigate thousands of kilometres, returning from feeding grounds to nest on the very beaches where they hatched 15 years previously.

But past chief executive officer of KZN Ezemvelo Wildlife, George Hughes, has provided some insight into this phenomenon, reckoning that sea turtles use lines of magnetic force, rather like GPS, to navigate where they are going.

This, says Hughes, appears to be the only sensible explanation for the sea turtles' ability to traverse thousands of kilometres, from any direction, even across

oceanic boundaries, and still find its way to its natal beach as an adult.

Hughes, who dedicated most of his adult life to monitoring and researching sea turtles, has written a book *Between the Tides, In Search of Sea Turtles*, in which he expands upon this concept.

Theory

"My own theory," writes Hughes, "is based on the fact that the turtle hatchling takes approximately two months to develop in the egg before hatching.

"During this period the mechanism for setting the co-ordinates of the nesting

beach, wherever it may be, fixes the global position in the body of the turtle."

Hughes states that if properly hard-wired, the turtle will automatically find its way back to where it was born, just as it automatically knows how to dig a nest and lay eggs.

"What is even more surprising is that turtles, certainly loggerheads, appear to be able to fix the co-ordinates of their feeding grounds later in life.

"This is especially impressive as these feeding grounds may be thousands of kilometres from the beaches from which they first emerged," writes Hughes.

JOHANNES WESSELS

WHY DO politicians from ruling parties in KwaZulu-Natal develop major problems with their eyesight?

Is it the humidity, the effect of a never-ending undulating landscape of thousands of hills and mountains on the eyes, an undiscovered effect of too much bunny chow or perhaps a combination of these and some other factors?

What is true is that eyesight problems are a common shortcoming among prominent provincial politicians in positions of power.

Consider the case of the youthful octogenarian leader for life Mangosutho Buthelezi. In the days when he ruled supreme in KwaZulu he developed a habit of speeches of a length that even had Fidel Castro gasping in admiration.

But the longer his speeches, the more he would press his glasses back on his nose, not to read better, since his eyes remained closed most of the time. Some loyal supporters from the IFP Youth League suggest

Peculiar eye problems in KZN are nothing new

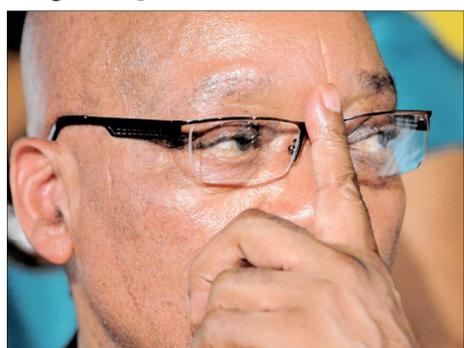
the habit of closing his eyes developed when he could no longer face all the yawns from the Youth League members (now all in their 70s) listening in bored admiration.

Then there is the case of the erstwhile administrator of Natal, Theo Gerdener, who as a National Party member became a forceful voice for reform.

Due to his inability to persuade any other significant figure within the Vorster cabinet to pursue less stringent racial policies, he formed the Democratic Party (no links at all with the Democratic Party that was born out of the Progressive Party and the Independent Party).

Apart from his enlightened vision, his trademark was a pair of dark tinted glasses, almost as if envisaging a dark future for the country.

He was taunted in the Afrikaans newspapers that he needed the dark-tinted glasses



President Jacob Zuma adjusts his glasses with a trademark gesture. The writer wonders why so many KZN politicians have eye-related problems.

PICTURE: CHRIS COLLINGRIDGE

to balance his "verligte uitkyk" (enlightened outlook).

In the mid-1970s to early 1980s when the National Party developed a stronghold in the province, it was not always

clear who the real leader of that pious political flock was.

The chairman of the NP in Natal was Henning Klopper who was blind. The deputy leader was the

sonorous voice embodied by erstwhile *predikant* Pierre Cronje. Hold on: he had one glass eye and there were people of colour who claimed that that was the only eye in which they detected some sympathy when they pleaded against forced removals.

And then there was the provincial leader who, coming from academia without a doctoral degree, presented himself as professor despite no longer having any links with an academic institution: senator Owen Horwood who was for many many years Minister of Finance.

He had the most peculiar problem with his eyesight. When it became known that he had signed cheques for the slush funds that Connie Mulder and Eschel Rhoodie administered in what became known as the Information Scandal, Horwood explained that when signing cheques for secret funds he used to close his eyes.

No one really knew who the real leader was, but I think it must have been Cronje, since in the land of the blind the one-eyed man is king.

And that something in this province is still around. Consider Public Protector Thuli Madonsela's report on Nkandla.

Glasses

The honourable Number One – despite showing citizens the finger every time he pushes his glasses back on his nose – did not even notice.

The questions posed by the public prosecutor (in her letter to him) at the beginning of 2012 since I cannot believe that he would disavow his pledge to uphold the constitution and therefore ignore her questions deliberately.

I think he did not answer them since he could not see them.

Or, she had used words that he finds difficult to read, as is

crumbs and fish miraculously yielded enough to feed several thousand.

In this case I think the public prosecutor should pursue matters further: if the president was convinced that his private sector loan rendered such formidable returns and that no state funds were involved, why is he not concerned about the poor returns on state investment in education and municipal services? If he really believes his bond rendered all that he can see, he should immediately become a champion for cutting the government investment back and opening opportunities for private sector performance on a scale that would have been unthinkable even to Anton Rupert.

Or is it a case that his eyesight is so bad that he could not see what has changed over the past six years at his Nkandla homestead, since the press started reporting on that way, way back?

Wessels is a businessman and political analyst from Durban North.