



Repairing the KZN Coast

Consequent to the Premier's designation of the DAEA as the lead agency for coastal management in KwaZulu-Natal, the MEC has recently delegated powers and duties vested in him to issue repair or removal notices, in terms of section 60(1) of the ICMA Act (2008).

A repair or removal notice can be issued to any person responsible for a structure in the coastal zone if that structure-

- Is having or is likely to have an adverse effect on the coastal environment by virtue of its existence, because of its condition or because it has been abandoned; or
- Has been erected, constructed or upgraded in contravention of the ICMA Act or any other law.

The department has already begun to issue such notices and in the near future these powers may likely be sub-delegated to municipalities in the province. One of the main aims is to ensure that any infrastructure located on coastal public property or that which is having adverse effects on the coastal environment is removed from the coastal zone.

Some examples as to what the Department deems inappropriate includes:



Inappropriate removal of coastal vegetation



Inappropriate coastal development



Inappropriate coastal access

Nginakekela amaxhaphozi!

I Save Wetlands

"What do you know about wetlands?", facilitator Nkanyiso Ndlela asked the Wetland Rehabilitation Project team from the Rock Farm, near Nottingham Road on World Wetlands Day. After establishing that they were indeed very wet places, everyone shared stories about the interesting creatures, the plants and the cultural beliefs associated with wetlands. It did surprise the group as to how important wetlands are to humanity: the storing and purifying of water and the providing of numerous other ecosystem services.

This day of celebrating wetlands was organised by the Eastern Wetland Rehabilitation Programme and the Endangered Wildlife Trust (EWT) to support those engaged in the restoration programme about why their work is important. For example, highlighting the essential role of wetland ecosystems for the survival of endangered cranes - particularly as a nesting pair was to be found on Rock Farm.

Community participant Vusi Lamula commented "I learnt a lot, especially about the crane birds. I have never seen one, but everywhere I go now, I will look out for them." In conclusion, the team collectively declared:

"Nginakekela
amaxhaphozi!"
We save wetlands!



Samson Phakathi (EWT) discusses soil samples from the wetland with colleagues.

~ Nikki Brighton (Midlands Conservancies)

Change of the Departmental Name & Logo

The public are hereby informed that the Department's name/logo has changed due to the relocation of the Rural Development Branch in the Department to the Office of the Premier in the province. The new name of the Department is the KwaZulu-Natal Department of Agriculture and Environmental Affairs (DAEA).



agriculture
& environmental affairs

Department:
Agriculture
& Environmental Affairs
PROVINCE OF KWAZULU-NATAL

Mysterious Fish

KwaZulu-Natal is home to a mysterious fish which baffled the scientific community and enthralled the public for nearly 75 years. Although the coelacanth has been known from the fossil record since the 1830's, with some 120 extinct species recognised, imagine the excitement when the first living specimen was caught by a fishing trawler off East London in 1938! The popular press at the time variously described the lobe-finned fish from an ancient lineage, thought to have given rise to four-legged animals, as the "living fossil" and the "missing link".

The mysterious fish was noted to be unique by Dr Marjorie Courtney Latimer who passed it on to Prof JLB Smith of Rhodes University, who described the coelacanth to the scientific community and gave it the formal name *Latimeria chalumnae*. He was convinced that the fish had strayed southwards from the east African coast or from the islands of the south western Indian Ocean. The discovery of a second living coelacanth in the Comoros Islands in 1952 seemed to confirm his theory. By the time Smith died in 1968, some 60 coelacanths had been caught in Comorian waters. However, there were occasional claims of coelacanth sightings outside of the Comoros Islands, which were confirmed when a fishing trawler caught a large, pregnant female coelacanth off the coast of Mozambique. Since then, confirmed catches of coelacanths have been made in Kenyan (1), Madagascan (13) and Tanzanian (63) waters. And in 2000, almost 62 years after the first coelacanth was caught, a second fish was observed in South African waters, in KZN's iSimangaliso Wetland Park.

Despite the strong interest from the scientific community, the second South African coelacanth was found by "accident", by three recreational divers. They had descended about 104m into the Jesser Canyon, about four kilometres off Sodwana Bay, when Pieter Venter noticed a large fish concealed in the shadows of an overhang of the canyon wall, which looked like a coelacanth. Realising that he needed photographic proof of his discovery, he returned to Sodwana Bay a month later with a fully equipped dive team, and filmed three coelacanths in a small cave at a depth of 108m. In total, Venter and his dive teams observed eight coelacanths in the Jesser canyon, on three separate expeditions.

Realising the importance of this discovery, the Department of Environmental Affairs promulgated legislation and drafted regulations to protect the South African coelacanths, and with the support of Ezemvelo KZN Wildlife, drew up a management and conservation strategy, which led to a multidisciplinary research programme called the African Coelacanth Ecosystem Programme (ACEP). A total of 26 individual coelacanths have been documented as resident in the iSimangaliso Wetland Park to date, mostly within the Jesser, Wright and Chaka Canyons.

~ Larry Oellermann (ORI)



Record raggedtooth shark recaptures

The tagging of animals is a common and useful tool to obtain information on the growth, longevity and migration rates of exploited species. Since 1976, the KwaZulu-Natal Sharks Board (KZNSB) has tagged more than 6000 sharks and rays. It has been an active member of the South African National Tagging Project since its inception in 1984, administered by Durban's Oceanographic Research Institute (ORI), and one of the longest operating tagging projects in the world.

Until September 2010, the longest recorded time at liberty for two raggedtooth sharks (*Carcharias taurus*) in southern African waters was 12.8 and 12.9 years respectively. Both animals were originally tagged by KZNSB snorkel divers at Leven Point in the iSimangaliso Wetland Park. Then, in September 2010 the KZNSB reported on the recapture of a tagged female ragged-tooth shark that had been tagged as a mature adult at Leven Point in 1990: an interval of 20.7 years.

In 2011, two more exceptional recaptures were reported. A raggedtooth shark tagged near Southbroom after being released from the shark nets in 1990, was recaptured by an angler at the mouth of the Great Fish River in January 2011, some 20.5 years later. Then, in March 2011, a raggedtooth shark tagged in July 1988 at Southbroom was recaptured near Mossel Bay after an exceptional 22.6 years at liberty. This is not only the longest recorded time at liberty for this shark species in southern Africa, but possibly in the world. Recaptures like these serve



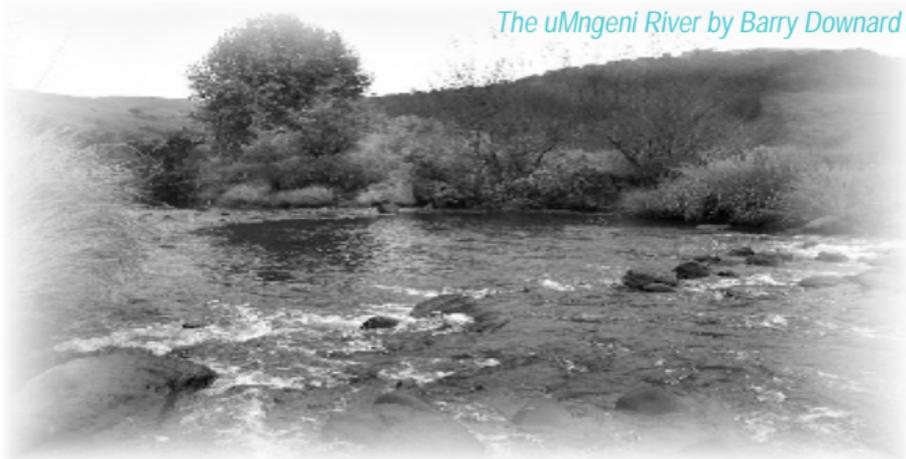
KZNSB staff tagging a raggedtooth shark at Leven Point

to highlight the remarkable life history of our fishes, and are only possible through sustaining long-term monitoring projects such as the South African National Tagging Project.

~Sabine Wintner
(KZN Sharks Board)

A Magic Water Factory?

The uMngeni River by Barry Downard



There is no magic water factory in nature - the water on the earth now is the same as it has been since the beginning of time. Whether in the Karoo or the forests of the Congo, the basics of the water cycle are the same: evaporation, condensation, precipitation, infiltration into soils and groundwater discharge.

Better known as the Water Cycle - it comes to earth as rain, snow, sleet, hail and mist, runs into our rivers, fills our lakes, dams and underground aquifers, and eventually flows out to the ocean. The sun evaporates this water, clouds form and it falls again to earth. This is the source of the water that we all use. Only 3% of the water on our planet is fresh water and only 1% is available for our use. Over the past century our population has grown and as a consequence our water use has increased six fold. Add to this the alarming rate at which we are polluting water and destroying wetlands and you get the idea that we may be in trouble.

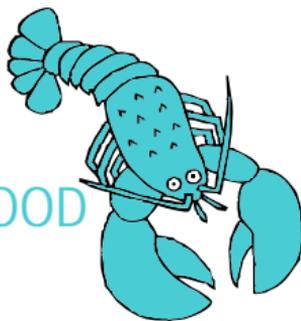
Before water reaches a tap it has to be processed and distributed. The Midmar purification works alone distributes 220 million litres of uMngeni river water per day. This river supplies 1000 million litres per day of potable water to a vast area including Wartburg, Vulindlela, most of Durban and Pietermaritzburg. To say the uMngeni is our life blood is no exaggeration.

The Duzi Umgeni Conservation Trust (DUCT), whose mission is to champion the health of the uMngeni and uMsunduzi Rivers, is planning an epic walk down the length of the Umgeni River in May 2012, from source to sea. They intend to walk along the banks of the river from the source in uMngeni Vlei above Dargle, to the Blue Lagoon on the coast in Durban, to highlight the importance of protecting this resource. Besides raising awareness of the plight of our rivers, these explorers will document what they find along the way: recording alien vegetation, conducting water quality tests and looking out for pollution sources to produce a complete picture of the health of the river.

Follow their adventure on www.umngeniriverwalk.wordpress.com

~ Nikki Brighton (Midlands Conservancies)

Did U know?



LOBSTERS HAVE BLUE BLOOD

Unlike royalty and Blue Bulls rugby fans who claim their blood to be blue, lobsters do in fact have "blue" blood. This is due to the presence of the oxygen carrying blood pigment haemocyanin, which contains copper rather than iron (which is found in the red haemoglobin of human blood).

Always thought lobsters were bright red creatures - like those served at dinners?

In fact the lobster's normal coloration is reddish-brown to olive-green, comprising a diverse mixture of pigments. One of these is the bright red carotenoid pigment called astaxanthin which is more heat stable than the other pigments. This means that when a lobster is cooked, the other pigments break down, leaving only the bright red astaxanthin.



*Fishermen holding lobster
Photo: J.Groeneveld*

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