

Necsa Launches Visitor Centre

On the 3rd February 2011 Necsa officially launched their Visitor Centre. A very fine visitor centre it is too! I was privileged to be invited to the launch, so experienced it all first hand. We were welcomed into a cool tent and served even colder drinks - a welcome relief because for a change the Gauteng weather had decided to play ball and the sun was shining brightly for the event.

Gillian Arendse (iThemba LABS) was programme director and soon had the visitors eating out of his hand. The opening remarks were made by Dr Rob Adam, Necsa CEO. He mentioned that he had started National Science Week in 2004 when he was Director General at the DST, and that he was very pleased to be opening the Visitor Centre at Necsa. This was followed by a rousing address by Minister of Energy, Ms Dipuo Peters, who congratulated Necsa for starting the year and the decade on such a high note. She also said that "when opening a visitors centre, you are also opening a world of opportunity for young people".

The audience was then treated to a bit of hilarious reminiscing from David Muller aka Albert Einstein. Mr Phumzile Tshelane, Chair of the Necsa SHEQ and Technical Committee made the closing remarks.

Eddie Jansen kept the younger visitors entertained with an awesome science show after the formalities.

The speechifying was followed by the fun part - a tour of the Visitor Centre. This is "a fun and funky place to learn!" - to quote the Necsa brochure and covers the following topics: Energy; Nuclear Science; Radiation; Reactors and Waste. If you would like to book a visit - call (012) 305 5266 or email princess.mthombeni@necsa.co.za. You can also go online - www.necsa.co.za to find out more.

Minister of Energy, Ms Dipuo Peters



Gillian mentioned that if you swap the "n" and "u" around nuclear became "unclear". Minister Dipuo said as far as she was concerned - it was "new" and "clear" to her!

Rudi Horak from Sci-Enza admires the wire man exhibit.



Shadrack and Hubert from SAASTA check out one of the exhibits.



RADIATION



CELEBRATING

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CHEMISTRY

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International Year of
CHEMISTRY

AWESOME TRAINING OPPORTUNITY!

Dear Colleagues

I am excited to announce that a team of 5 staff from the **London Science Museum's Launchpad Outreach Team** will be spending 2 weeks at Unizul Science Centre from **11 – 20 April** this year. They have offered us the following

- science communication training for your staff - using fun demonstrations to explore science concepts with children or families and ideas for doing demonstrations on gallery or out in the community
- training for your staff in presentation skills or to perform to large audiences
- sessions for teachers to give them resources, ideas and confidence (see also our resources http://www.sciencemuseum.org.uk/educators/classroom_and_homework_resources.aspx)
- sessions to run with children or schools- like the big machines/contraptions we built as part of our Launchpad project

I am happy to share this opportunity with as many Centres as possible so that we can all benefit. They will be doing training with us from Mon 11 – Fri 15 April and then working with us on outreach the following week.

If you would like to make use of this fantastic opportunity (the training from Mon 11 – Fri 15th), please note the following:

- This is open to up to 2 people from each centre (If more space allows I will let you know) – the idea is to take the training home and share it with your centre!
- There is no cost for the training or the resources.
- Training will be from 8:00 – 16:00 daily Monday to Thursday, but ending at lunch on Friday.
- Transport to Richards Bay and around RB are for you to sort out. (There are flights from JHB into RB, otherwise Durban airport is an hour and a half away)
- Local accommodation is for you to sort out – suggest you stay in Richards Bay. Google for accommodation options. The SC is in Alton, most accom is in Meerensee, but it is less than 10 km away.

Lunch and teas will be provided daily for free.

It's a bit cooler here by April . . .

Just let me know asap please – numbers are limited and when we are full, we are full!

Cheers - Derek (Fish)

Tel: 035-7973204 / Mobile: 0824528566 / email: thefish@iafrica.com

If you want to check out the London Science Museum have a look at their website
[Http://www.sciencemuseum.org.uk/](http://www.sciencemuseum.org.uk/)



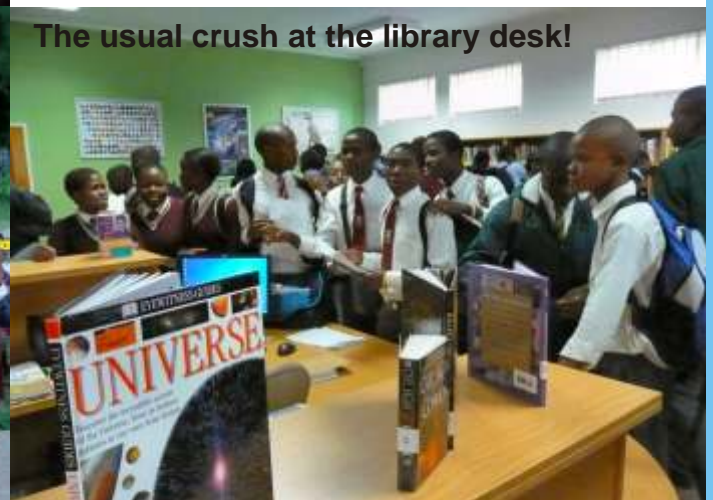
Displays Room

Mae Jemison US Science Reading Room (Mamelodi)

Amy T. Canby is the new Outreach Coordinator at the Information Resource Center, Public Affairs Section U.S. Diplomatic Mission to South Africa
Tel: 012-431-4189 / Email: CanbyAT@state.gov



Students watch Solar Eclipse.



The usual crush at the library desk!

Sci-Enza uses Bats to reach out to the Nkomazi community.

By Vusani Mathada (Intern at Sci-Enza)

On Friday 3 December six students (Sci-Enza interns) got into the University of Pretoria's Quantum with Mrs Rudi Horak, excited to be on the road to Mpumalanga with the mission to teach learners from the Thada Primary School in Hectorspruit all about bats! Our minds were not prepared for the reality we experienced with the learners from the Hectorspruit village near Malelane...

Sci-Enza, the science centre of the University has been involved with the "Amalulwane Project" - a bat conservation programme in the Malelane region since 2004. The Malelane region, also known as Nkomazi, is well known for its sugar and citrus industry but is also an area where many bats can be found. Some people believe that the name Malelane is derived from the Swazi word "amalulwane" which means "many bats".

The importance of bats is often overlooked as most people do not realise that the majority of bats are insectivorous. There are approximately 78 species of bats in southern Africa. In the Lowveld, 49 species of bats have been recorded. They are highly developed little mammals, can live up to 20 years and can consume thousands of insects per night.

Bats normally roost in caves, under the bark of trees and in big leaves. In the Malelane area agricultural crops such as sugarcane and citrus have replaced their natural roosting places. Buildings resemble caves in many ways and bats readily exploit suitable buildings. Most buildings in Malelane have bats in the roofs and as a result bats are perceived as a nuisance. Furthermore, in most cultures bats are seen as evil, fearful creatures and are often connected with superstition and delusive concepts. Since bats are protected animals in South Africa, Sci-Enza identified the need to educate the Nkomazi community about the important role bats play in nature and identified six schools to be part of the Amalulwane project. As all these school have buildings that are invaded by bats, three different bat houses were donated to each school to provide alternative roosting places for these bats. As the bats moved into the bat houses, the roofs of the buildings have been fixed and sealed off where the bats entered into the ceilings.

Annually, Sci-Enza staff visits these schools to check up on the bat houses, to assist the educators with this bat project at their schools and give advice to integrate the bat theme in all learning areas.

An annual "Bat Camp" is also part of the engagement to teach the children the important role that bats play in the environment. This year, forty grade 6 learners from the Thanda Primary school were invited to the Amalulwane camp.

At about 13h00 the Quantum entered the school grounds and we were welcomed by forty very excited learners. After greeting the parents and teachers, the learners were transported to the Onderberg resort near Hectorspruit this was their first camp ever! A busy programme with lots of fun and exciting activities had been planned.

After settling into their sleeping quarters and having lunch, Mohlamatsane Mokhatla, an entomologist, kicked off the day with a presentation on the different types of insects (bat food). The excitement in the learner's faces was very evident as they could not believe that there was a scientist who not only specialises in insects but was also available to help them to catch as many insects as possible.



The discovery of the biggest dung beetle everyone had ever seen before and the more than hundred different insects collected in just an hour, created the right atmosphere to learn more about the environment. However, after dinner when it was already dark outside, terror from the learners was heard through their screams when Boitumelo and Dineo started to perform their bat puppet show. This informal and fun show gave them a glimpse into the importance of having bats around their area. The ultimate link in the importance of bats was cemented via a bat presentation and slide show by Rudi Horak, the Amalulwane Bat project leader.

The activities planned for them for the rest of the weekend were very hands-on. This included making their own insect collection box, crossword puzzles, a math activity which linked the numbers of insects consumed in an hour to the number of insects that bats consume in a day, a week to years. The learners also had a chance to be creative by doing bat art and craft activities such as bat origami, a bat-mask, paint their own Bat T-shirt, compose a bat rap song and be part of a bat science show. During meal times, the learners wanted to know more about other aspects of the environment. Having a geologist, plant pathologists, an entomologist, an educator and a musician as interns facilitating the camp was very intriguing to them. Performing their "Bat Rap Songs" at the end of the camp was evident that these learners have taken bats into their hearts!

The myth about bats has been removed in order to help protect the bat populations for the future!

The message to protect our environment was definitely taken seriously by the learners from Thanda Primary School. The interns that facilitated the camp also took valuable life lessons home. Thina, a MSc Geology student had the following comment:

"I must say as a student coming from the city, more of such projects are needed to give exposure to learners in disadvantaged communities to facilitate a bigger dream, a better life, an understanding to protect their environment and to let them know that they can be anything they want to be."



The myth about bats has been removed in order to help protect the bat populations for the future!



Rebirth of the dodo?



During a recent trip to Mauritius I visited the habitat where the dodo once lived, and learned some interesting facts about its amazing but doomed life. Dodos were first reported on Mauritius by Dutch sailors in 1598, although they were probably seen before then by Arab, Chinese or Portuguese mariners. A live dodo was last seen, also by a Dutch sailor, in 1661. It took us less than a century to wipe them out.

Dodos were large, slow, heavy birds (90 cm tall and 15 kg). They were flightless (and swimless), sociable, friendly, fearless and inquisitive, and lived in easily accessible coastal lowlands. They ate fruit, made a crude nest on the ground, laid only one egg at a time, and looked after the young for about 9 months. Their only defence was their large beak and strong claws, but they stood little chance against attackers with clubs and spears, let alone muskets and pistols.

It almost seems as if the dodo was designed to go extinct, and they were amongst the first animals to be exterminated by humans, although the giant saddleback and domebacked tortoises of Mauritius and Reunion may have disappeared before them.

The dodo was ideal lunch for a starving sailor, although their flesh was reportedly very tough: "It is reputed more for wonder than for food", said one 17th century observer, "Greasy stomachs may seek after them, but to the delicate they are offensive and of no nourishment." Dodos were also found to be hardy sailors themselves, so they were captured alive and kept on board ships until their meat was needed. At least nine live dodos reached foreign shores, and live specimens were displayed in India and England, and probably elsewhere, in the 17th century. But it was not only humans that killed them the rats, cats, pigs, monkeys and dogs that humans introduced to the islands took their toll on the eggs and young, and eventually wiped them out.

Why did dodos become so vulnerable to extinction? Having landed on Mauritius, where there were no large, natural predators, and there was no need to travel long distances to feed, roost or nest, they lost their ability to fly, which is a very costly exercise from the energy point of view. Instead, they invested their energy in growing big so that they could better defend their territories against other dodos, and their young against small predators. When the sailors arrived, they were sitting ducks!

During the 19th century people wondered whether the dodo had actually existed perhaps it was just an imaginary creature? But the discovery of dodo bones, and the examination of the remains of stuffed specimens, saved the day. Today, the dodo is of intense interest to scientists. Recent DNA research carried out at Oxford University has revealed that the dodo was a giant pigeon which, together with its cousin, the solitaire of Rodriguez Island, evolved from an island-hopping, Indian Ocean species, the Nicobar pigeon, about 46 million years ago.

As far as public perception is concerned, the inclusion of the dodo in Lewis Carroll's 'Alice's Adventures in Wonderland', first published in 1865, meant that the dodo would remain centre stage for decades to come. It is still a favorite subject in children's books, and is one of the most recognizable and iconic animals. Today, the dodo is alive and well in Mauritius in the form of millions of artifacts, works of art and craft that celebrate its 'so lelik hy's moo' visage. Perhaps an animatronic dodo should now be created using modern technology to re-inhabit the Mare aux Songes swamp where they used to live in Mauritius?

~ Mike Bruton

Know your marine mammals

COASTAL WHALES AND DOLPHINS OF THE EASTERN CAPE: A GUIDE FOR EVERYONE WITH AN INTEREST IN WHALES AND DOLPHINS

How often do you walk on the beach hoping to see dolphins or whales leap out of the water and into your gaze? It is a fascinating sight and worth capturing on camera. Aquatic Biologist, Dr Stephanie Plön, has put together a 10 page, easy-to-read, waterproof guide for turning your walk on the beach into a whale- or dolphin-watching experience. The guide enables you to identify the different whale and dolphin species commonly encountered along our coastline.

Dr Plön, who is in a joint appointment with the South African Institute for Aquatic Biodiversity (SAIAB), the South African Environmental Observatory Network (SAEON), and Bayworld, is the author of *Coastal whales and dolphins of the Eastern Cape*, a guide for everyone with an interest in whales and dolphins. *Coastal whales and dolphins of the Eastern Cape* provides a guide to identifying seven of the most common species of whale and dolphin found in the Eastern Cape waters. The guide includes pictures with comprehensive descriptions of each species, including information on the animals' distribution, group sizes, and weight and length. For a quick reference to identifying whales and dolphins, the guide also includes whale and dolphin comparison charts.

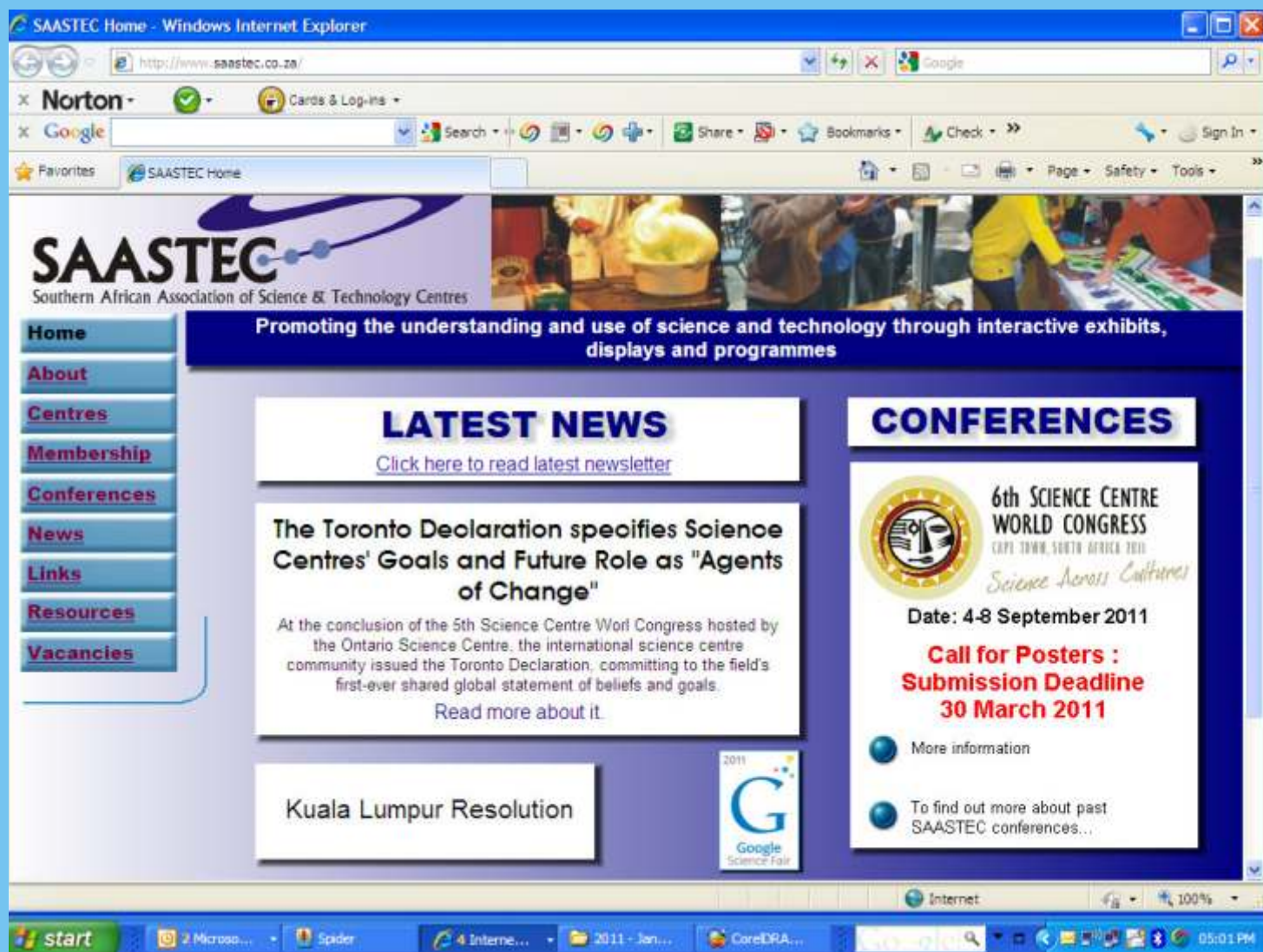
Dr Plön is currently running a three-year project to determine the seasonal and geographical distribution of cetaceans in Algoa Bay. The Cetacea are one of the most distinctive and specialised orders of [mammals](#) and include the largest animal that has ever lived, the blue whale, the highly intelligent and communicative dolphins, and the singing humpback whales - nearly eighty living species in all. This project is funded by Oceans and Coast (formerly Marine and Coastal Management) and SANParks and the guide is a direct product of this project. "SANParks is involved in the project and want to contribute data, but these animals are often difficult to identify at sea if you don't know what you are looking for," said Plön on the idea about putting together the guide. The proposed Greater Addo Elephant National Park marine protected area includes the coastal area of Addo Elephant National Park, that stretches *between Sundays River Mouth and Bushman's River Mouth*. According to Plön, SANParks have specialised rangers in the marine section.

People very easily identify between the different species of big cats and, Plön adds, "I didn't realise that people don't know how to identify whales, so this guide is for everyone with an interest in whales and dolphins, interested divers, sailors and people who walk on the beach hoping to spot a whale." Dolphin and whale lovers in Algoa Bay can expect to see whales anytime between June and December. However, the Brydes whale on pages 5 and 6 of the guide, which is resident, and dolphins can be seen all year round with a higher seasonality in Summer and Autumn. *Coastal whales and dolphins of the Eastern Cape* is available at R50 from SAIAB and Bayworld.

Please contact Stephanie Plön at stephanie@bayworld.co.za or call 041 584 0650

~ Reyhana Mahomed





<http://www.saastec.co.za> ~ check it out!

The SAASTEC Website has been totally revamped - have a look at: <http://www.saastec.co.za>

If you have vacancies at your centres - send them in - you'll note there is now a page for vacancies. Free advertising that directly hits the target market! If you have any resources - or interesting links to resources that you do not mind sharing with other science centres, please do send them in. We also now offer a HELP desk! Check that your link works and if you have any changes or updates - contact Ginny: squigglez@telkomsa.net.

If you don't have a website and would like SAASTEC to host a presence for you - let us know.

Conference Reminders



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