# AgulhasNPark eBulletin

VOL 6 • NR 11 • October 2016 | Marine month | www.sanparks.org

South African NATIONAL PARKS


**National Marine Week, October 10 - 14**

National Marine Week is a campaign that aims to educate all South Africans about the role oceans play in our daily lives, including recreation and employment. Since 1988 it has been celebrated during the second week of October. It creates awareness on the marine and coastal environment, marine conservation issues, and the promotion of sustainable use and conservation of these resources. The 3 000km of the South African coastline, which stretches from the Orange River in the west to Kosi Bay in the east, are rich in marine life and support many different marine ecosystems. Great demands are placed on these ecosystems by various bodies. The increase of marine pollution has caused the decline of many species and it is our duty, as humans, to ensure that our marine resources are not overexploited, resulting in total destruction and possible extinction. To acknowledge this special week, we can learn more about our fragile oceans and their inhabitants in order to help conserve and utilise this natural resource in a more sustainable manner. Read more about National Marine Week at www.wwfsassi.co.za and www.msc.org. (SOURCE: *A Year of Special Days* 2016, Sharenet)

**This microscope image, taken by David Littschwager, is magnified 25 times to reveal all that could be hiding inside seawater.**

**The microscopic world in seawater - Gavin W. Maneveldt, Dept. of Biodiversity and Conservation Biology, Univ. of the Western Cape**

The oceans cover roughly 71% of the Earth's surface and contain 97% of the Earth's water. Not surprisingly, the oceans are the largest source of biotic diversity on the planet. It is estimated that as much as 80% of all life on Earth is found under the ocean's surface and more than half of that life is microscopic. For example, an estimated 90% of all photosynthetic life on Earth occurs in the oceans and more than half of that consists of microscopic algae called phytoplankton, which collectively, through photosynthesis, produce about half of the oxygen that humans and other organisms breathe. Within the microscopic world of seawater exists a world teaming with plants and other plant-like organisms (phytoplankton), and animals (zooplankton), all hidden from us due to their incredibly small (microscopic) size.

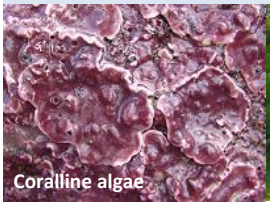
**The Great White in danger?**

The Great White Shark represents one of the oldest blood-lines of shark descendants with an evolutionary origin which dates back millions of years. Research at the University of Stellenbosch showed that the South African Great White Shark population is being endangered from two sides. There is only about 353 to 522 individuals alive today and the South African population also has the lowest genetic diversity of all white shark populations worldwide. (SOURCE: BRITS, Elsabé. Die einde van die grootwithaai? Burger-By, 17 September 2016). Our great white sharks are protected by law and an entire centre (Save Our Seas Foundation - http://saveourseas.com/) has been devoted to the local protection of the Great White Shark.

**SOURCE: animal-wildlife.blogspot.ca**

**Microalgae and Seaweed Facts - Gavin W. Maneveldt, Dept. of Biodiversity and Conservation Biology, Univ. of the Western Cape**

Most of the world's oxygen (about 70%) comes from seaweeds (marine macroscopic algae or marine 'sea vegetables') and other microalgae (microscopic also known as phytoplankton). Seaweeds support primary production levels that are up to 10 times greater that the most intensive land-based agricultural systems. There are roughly nine times more microalgae and seaweeds in the oceans than there are plants on land. Together microalgae and seaweeds are responsible for all primary production in the oceans and form the base of the food chain in the oceans. Seaweeds are among the fastest growing organisms on the planet. For example, under optimal conditions, the giant kelp *Macrocystis pyrifera*, can grow nearly a meter (three feet) a day, attaining lengths in excess of 50 m. While most seaweeds are soft and fleshy, a large number of particularly red seaweeds are hard as rock. These hard red seaweeds, commonly known as coralline algae, deposit lime into their cell walls. Strictly speaking, not all seaweeds are plants. Only the green (ancestors to the land plants) and red seaweeds are currently considered plants. The brown seaweeds are not plants. However, like plants, most microalgae and seaweeds depend on sunlight to produce food through photosynthesis. Seaweeds assimilate minerals directly from the sea and are thought to be the single most nutritious foods that you can eat. Rich in trace elements and vitamins, many of them frequently contain more protein than meat and more calcium than milk. Although we often cannot smell or taste them, many ingredients in our foods and household products come from the sea and from seaweeds. The microscopic world of seawater is teaming with incredibly small plants and animals yet to be discovered and named.


Coralline algae


Green seaweed


Red seaweed


Kelp


Macrocystis pyrifera

**Bird of the Month: Damara Tern, Damarasterretjie, *Sterna balaenarum* – Wim De Klerk**


Picture: Paul Donald

This small tern with its black forehead is classified as near-threatened by Birdlife International because of its small numbers (14000) and is considered Endangered for South Africa. Only 125 pairs of these Intra-African migrators visit South Africa every year to breed, the majority (98%) breeding in Namibia. Damara Terns leave their nests in the De Mond region in April, then fly to Namibia, where they meet up with the Namibian colonies to fly to their non-breeding grounds on the West African coast. This includes countries such as the DRC, Benin, Nigeria, Cameroon and Ghana. The attraction here is spawning fish brought inshore by strong upwelling off the coast. In September the Damara Tern returns to the Agulhas Plain to breed. The last count of breeding pairs were in 2002 when 11 pairs were counted. Off-road vehicles were then banned and immediately had a positive effect on breeding patterns.

**Where two oceans meet: the influence on ecosystems**

South Africa has a unique geographical location. Its landmass is flanked by two oceans of contrast – the warm Indian Ocean and the cold Atlantic Ocean. According to the International Hydrographical Organisation, these mighty oceans meet around Cape Agulhas at the Southernmost tip of Africa. Research has shown that both coastal and inland ecosystems in South Africa are influenced by these two oceans. Professor George Philander, Professor of Geosciences at Princeton University and world renowned ocean-atmosphere specialist, described it in 2009 as follows: "The Cape is unique because of its unusual plants, mainly the fynbos, one of the planet's six plant kingdoms which the Cape has to itself. This is understandable, as the Cape is positioned between the cold Atlantic Ocean and the warm Indian Ocean." (SOURCE: MTONTSI, Thomas. National Marine Month – From Oceans to Climate to Flora and Fauna. www.saeon.ac.za/enewsletter/archives/2009 /december-2009/13.)

**Sea-loving plants – Madine Swart**

Plants growing immediately above the high water mark are subjected to strong and salt-laden onshore winds and substantial sand movement. Some of the hardy species which can tolerate the harsh conditions of this zone include:

**Sea lavender or "Strandroos" (*Limonium peregrinum*)** is also called *Papierblom* due to the paper-like pink blooms that remain present for a long time in summer. The specific name *peregrinum* means foreign, strange or exotic.

**Sea-pumpkin or "Seepampoen" (*Arctotheca populifolia*)** is a common pioneer of the South African coast. This species plays a contributing role in the type of dune (hummock of nabkha) that is formed when wind deposits sand around the stems. The Afrikaans vernacular name *tonteldoek* is derived from the use of felt which resembles a miniature cloth used as tinder ("tontel") in former days.

**Sea-rose or "Teringbos" (*Orphium frutescens*)** is found along the coast of the South-Western Cape where it grows in clumps on the sandy flats and marshes. This plant is an example of the fascinating buzz-pollinated group of flowers (6-8% of flowering plants): pollen is only released when the wings of the carpenter bee vibrate at a particular frequency.


**Sea-strawflower or "Strandblommetjie" (*Helichrysum retortum*)** spreads on coastal sand and rocks, but may also reach 50 cm in height. The Afrikaans vernacular name *sewejaartjie* is derived from the belief that the flower-heads last for seven years when kept inside; this name was recorded as far back as 1790.

(SOURCES: http://www.plantzafrica.com/veldflora/1992/buzzpoll1.htm; Manning, John. (2009*). Field Guide to Wild Flowers of South Africa.* Cape Town: Struik; Mustart, Penny, Cowling, Richard & Albertyn, Janice (1997). *Southern Overberg: South African Wild Flowers Guide 8*. Botanical Society and the Institute for Plant Conservation in association with the National Botanical Institute; Smith, Christo Albertyn (1966). *Common Names of South African Plants*, *Botanical Survey Memoir No. 35*. Pretoria: Department of Agricultural Technical Services, Botanical Research Institute.)

**Important environmental days for October**

**World Animal Day, October 4**

World Animal Day takes place every year on October 4 and was started in 1931 at a convention of ecologists in Florence as a way of highlighting the plight of endangered species. Since then it has grown to encompass all kinds of animal life and is widely celebrated in countries throughout the world. October 4 was chosen as World Animal Day as it is the Feast Day of St Francis of Assisi, the patron saint of animals. Read more at www.worldanimalday.org.uk and www.animalsmatter.org.

**The Southern Tip community said NO to poaching on September 22, World Rhino Day, with a 10km walk from the Struisbaai Library to the Southernmost Tip of Africa. 249 individuals took part in this first walk**

**African Penguin Awareness Day, October 13**

African Penguin Awareness Day is an international initiative to raise awareness around the plight of this delightful bird. When you find a stranded penguin, or any seabird, contact the penguin rescue line at 072 598 7117 and the Rescue co-ordinator will provide further instructions. Visit the African Penguin & Seabird Sanctuary in Gansbaai which is open from 9:00 to 16:00. Report injured penguins and/or oiled birds to SANCCOB by calling (021) 557 6155 (Western Cape) and (042) 298 0160 (Eastern Cape). Read more at www.africanpenguin.co.za/ and www.sanccob.co.za/.

**October 15 2016: Join Prof Gavin Maneveldt at Stinkbaai, L'Agulhas; for more information contact Emmerentia at 028-4356078 during office hours.**

**Marine pollution: "Which do you prefer?"**

A request to all using the ocean and the coastline to tidy up and responsibly dispose of all discarded items including bait-elastic reels and tangled line, food wrappers and bottles. Plastic bags can be rinsed in sea water and trashed or recycled. The **Shell, Sea Life and Art Museum** at Seashell House, 8 Golf Street, L'Agulhas, has many art pieces constructed from, and making use of, flotsam and jetsam – locally collected by the artist Yvonne (Mosie) Hope. The idea behind the constructions is to turn something no one knows what to do with into something wonderful and to make people aware of marine pollution and the impact on wildlife. Make a time to view - contact Mosie Hope on 082 296 0144

**Kids in Parks 2016**

The 2016 Kids in Parks programme starts on October 12 and extends to November 16. A total of 500 learners are expected to attend an environmental education programme at the Agulhas Training Centre. The programme concentrates on natural and cultural aspects of the Agulhas National Park.

**New Tourism staff appointment**

**Veronique Newman** was appointed as Receptionist at the Agulhas National Park on September 1, 2016. We welcome her at Agulhas NP and wish her all the best with her career in SANParks.

**Elim Church garden and labyrinth – Ruth Bruintjies**

The idea to develop a church garden at the historical Elim Church in Elim village was initiated during the 2014 Elim 190th celebrations. Rev Godfrey Cunningham and the Church Council supported this initiative and managed the development of the sacred garden with herbal plants and trees, as well as plants with a biblical connotations. Eunice Marais approached me to help build a labyrinth in the garden as I am one of the labyrinth walk facilitators at the St Georges Cathedral in Cape Town. A meeting was held with Rev Cunningham to discuss his idea of a path in the garden. Labyrinth means 'path'. It is a circular walk to the centre and follows the same way out again. We carefully explored how the path could meander along the existing trees and decided to keep the ancient stone circle as the centre of the labyrinth. The labyrinth was walked by the Elim community and guests during the 190th festival. Everyone could write a word of thanks or message on a stone and place it at the centre of the labyrinth. Many walkers shared the belief that this labyrinth walk held great meaning for them. It helped some in their grieving process and was enjoyed by some couples who could walk arm in arm in the wide path. Children had fun running along this new path. We would like to offer labyrinth facilitator training with local groups. The labyrinth and sacred garden are seen as a place for quiet walking, rest, relaxation, prayer, meditation or activities with the youth. The garden and labyrinth are open to visitors to Elim.


**To explore the Nuwejaars SMA, contact Eugene Hahndiek at 0795179032**