



AgulhasNPark eBulletin

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Climate Action

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South African
NATIONAL PARKS

Earth Day 2020 theme: Climate Action

Earth Day is an annual event celebrated around the world on April 22 to demonstrate support for environmental protection. First celebrated in 1970, it now includes events coordinated globally by the Earth Day Network in more than 193 countries. The enormous challenges — but also the vast opportunities — of acting on climate change have distinguished the issue as the most pressing topic for the 50th anniversary year. Climate change represents the biggest challenge to the future of humanity and the life-support systems that make our world habitable. At the end of 2020, nations will be expected to increase their national commitments to the 2015 Paris Agreement on climate change. The time is now for citizens to call for greater global ambition to tackle our climate crisis. Unless every country in the world steps up — and steps up with urgency and ambition — we are consigning current and future generations to a dangerous future. Earth Day 2020 will be far more than a day. It must be a historic moment when citizens of the world rise up in a united call for the creativity, innovation, ambition, and bravery that we need to meet our climate crisis and seize the enormous opportunities of a zero-carbon future. (<https://www.earthday.org/earth-day-2020>)



Extinction rate of species in neotropical areas can be halved through conservation, says scientists

The theme for the 2020 Earth Day programme is **Climate Action** and one such action is to expand the size of natural areas under protection. In 2016, scientists from Sub-Saharan Africa, South America and Southeast Asia combined their expertise in an ambitious UN-funded project to work out which areas should be protected in order to minimise species extinctions due to climate change. By modelling the climate change-driven movement of the ranges of more than 110,000 tropical species, they discovered that **increasing protection of tropical land areas to 30% halves the extinction risk of tropical plants, birds and mammals**. South African National Park's Cape Research Centre manager, Prof Wendy Foden, co-led the African component. The project, called SPARC (**Spatial Planning for Protected Areas in Response to Climate Change**), published these results last week in the journal *Ecography*. **"Our findings show that without considering climate change in planning, about 65% of plant and vertebrate species in the neotropics will be put at risk of extinction"** warns Prof Pablo Marquet, leader of the South American project component. Key recommendations include that future conserved lands need to account for climate change-driven shifts in species location and that many important areas have already been transformed due to agriculture. Prof Wendy Foden writes: **"There's never been a more important time for land-owners, land-managers and conservation organisations to work together to spare land for nature**. Expanding and strengthening special management areas, conservancies and formal protected areas are all invaluable tools to help prevent species extinctions due to climate change." Avoiding extinctions results in healthy ecosystems that provide many services critical to people, including maintaining key carbon stores that prevent runaway climate change. Anyone looking for more info including to see where a particular species' range may shift to under climate change can search for it on the SPARC website. (Information provided by the SANParks Cape Research Centre)



Connecting to Society

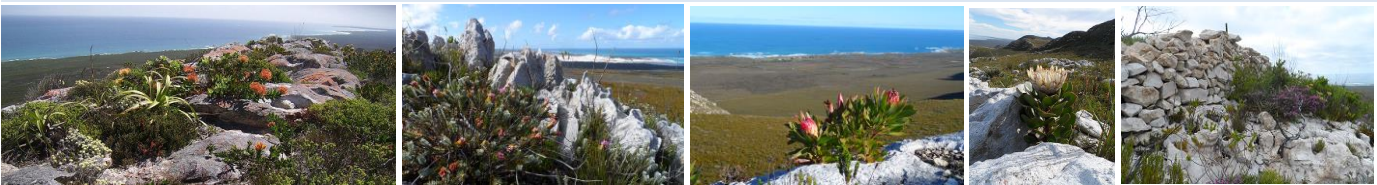
The Agulhas National Park Management Plan and Climate change

The new Park Management Plan for the 2020 to 2029 period includes a Climate Change programme, an **action** undertaken by South African National Parks according to the SANParks Climate Change Preparedness Strategy which will be implemented through monitoring, research and application of best practice to identify, adapt to and mitigate against impacts of climate change. The unique location of the Agulhas National Park on the southernmost tip of Africa offers an opportunity for research on climate change responses of natural systems. Research and monitoring should include continued collection and analysis of weather data to identify trends and determine the magnitude of change; monitoring the distribution of key species, arrival times of migrant birds and flowering times in response to measured climate changes, as well as research into mitigation options. The latter will start with an assessment of the park’s carbon footprint and recommendations to reduce the carbon footprint over time based on the assessment outcomes. Soetanyisberg is of specific research significance as it is the most southerly mountain on the continent. This also provides unique communication opportunities which will enable the park to encourage appropriate and responsible lifestyle choices by staff and visitors. This programme will be unpacked in future eBulletins. (SOURCE: *Agulhas National Park Management Plan, Draft 2020 – 2029*)



Soetanyisberg

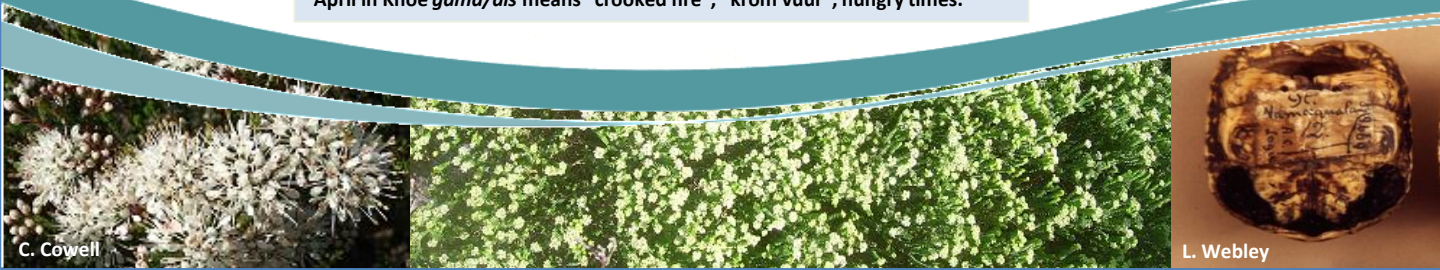
Soetanyisberg is one of the Agulhas National Park’s most iconic spots of interest and an important botanical site which makes it an important node for Fynbos conservation. It derives its name from the Anysboegoe, *Agathosma cerefolium* which grows abundantly on the mountain and its foothills. Described as a steep coastal mountain, it reaches an elevation of 248.6m above sea level and is the highest point in the eastern section of the Park. This is also the guiding height for the limitation for use by aircraft of 2,500 feet (762m) above highest point over the current Agulhas National Park. The flight height is thus 1010.6m or 3315.5 feet. It is about 16km NW of the Southernmost tip. The mountain consists of sandstone and quartzite of the Table Mountain Group. Soils derived from these rocks are acidic and highly infertile. Soetanyisberg is part of the Hagelkraal land system with shallow, well drained, grey calcareous sands. The Soetanyisberg area as a botanical site is about 100km² and supports seven different fynbos types. Four of these - Limestone proteoid (restricted to limestone substrata), Elim asteraceous fynbos (unique to the Agulhas Plain), (Wet) Restioid fynbos (closely associated with vleis and drainage systems) and Neutral sand proteoid fynbos (confined to colluvial sand derived from limestone) are endangered in the Cape Floristic Region. Patches of the threatened Elim asteraceous fynbos grows in the Soetanyisberg area. Soetanyisberg provides the most extraordinary views over the ocean to the south and the Agulhas Plain to the north. It also features one of the Strandveld’s most unique and secret cultural historical structures, namely the stonewalls.



Anysboegoe, *Agathosma cerefolium*

Also called *Strandboegoe*, this buchu has strong aniseed-scented leaves and white, pink or mauve flowers from August to January. It grows mostly on coastal, calcareous sands and limestone hills in the Southern Cape. Buchu forms part of the cultural heritage of the San and Khoekhoen people. They used the dried and powdered leaves in various healing practices. The healing power projected onto the buchu plant is illustrated by its presence in initiation and rainmaking rituals. With strong feminine associations, buchu is used to both pacify and stimulate. Dried buchu held in a woman’s powder box – made of tortoise shell and decorated with beads – is seen as the symbol of her feminine potency, of fertility and “giving life”. The word *buchu* was used for any fragrant plant that could be dried and powdered. Buchu species are being tested for use in cosmetics, soaps, perfumes and food colouring and flavouring.

April in Khoe *gama/ais* means “crooked fire”, “krom vuur”, hungry times.



C. Cowell

L. Webley

Species in trouble

Referring to the article by Prof Wendy Foden in the June 2019 eBulletin on **Climate Change turning the Southernmost Tip into a Nature Science Laboratory**, the following:

The **Cape Rock-jumper** (Kaapse berglyster, *Chaetops frenatus*) is experiencing unusually high temperatures which causes it stress. The birds seek cover under rocks, but this means they lose many hours of foraging each day and their condition and survival are compromised. They are being forced to higher elevations, but they are already near the maximum altitude available. They are already found on the south-facing slopes of the Cape mountains from about 1000 metres up. In 2004 birder and photographer, the late Nico Myburgh, spotted the Rock-jumper on the rocks of the intertidal zone between Rooiels and Pringle Bay. But that might have been the last and only time. The “Cape Rock-jumper site” at Rooiels is probably the best place on earth to find this hugely sought-after endemic species. The Rock-jumper is also BirdLife Overberg’s logo bird.

Visit <http://www.westerncapebirding.co.za/overberg/routes.php?id=16&open=293#route293> for more information on Rock-jumper sightings.



Species that disappeared from the Agulhas Plain: why did this happen - Wim de Klerk

Robinson and others published a list of birds of the Agulhas Plain in 1959. These species were seen between 1935 and 1957 and give us an idea of what occurred here in those days. When you compare this list to that of the Agulhas Plain Birding Project (2019), it is clear that a number of species has disappeared from the Plain. The question is: Why? It could be due to mistaken identification – in those days the tools of the birding trade were rather primitive. It could be habitat destruction – large areas of the Strandveld and Renosterveld have been destroyed for farming purposes. It could be climate change – is the dry period of the past few years cyclical or a sign of climate change? Further analysis of the data is now due, but for now it is known that the Kori Bustard (*Ardeotis kori*) and the Karoo Korhaan (*Eupodotis vigorsii*) are absent and the Southern Black Korhaan (*Afrotis afra*) which in 1959 was described as “common”, is rarely seen in the Plain. Yellow-billed Egret (*Egretta intermedia*) and the Great Egret (*E alba*), described as common to fairly common – today very scarce. Common Sandpiper (*Actitis hypoleucos*) was seen up to 11 at a time, today only single individuals. Common Redshank (*Tringa tetanus*) was recorded – none in the last 10 years. Wood Sandpiper (*T glareola*) described as common – today this species is everything but common. The list goes on. All is not doom and gloom though, as species such as Denham’s Bustard and Blue Crane have certainly adapted well to agricultural activity and are doing well. Further analysis, however, is certainly needed.

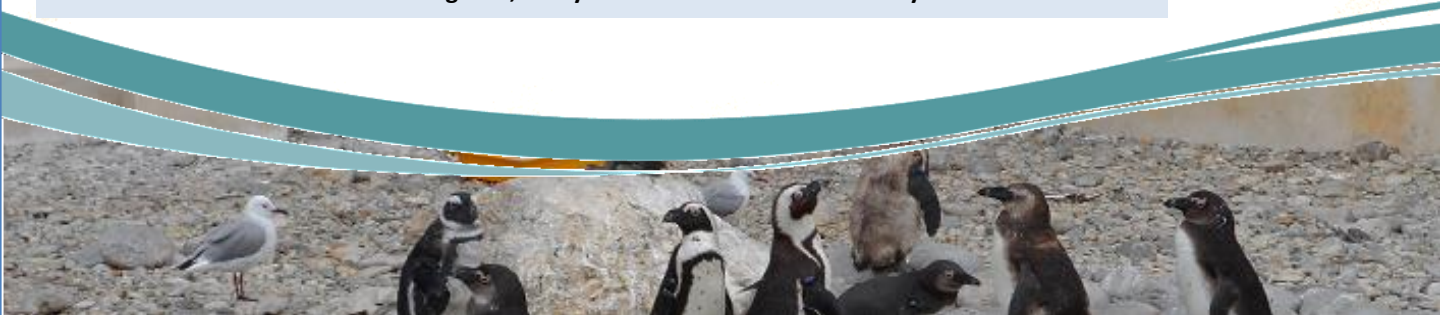
Where have all the sardines gone: the effect of climate change – Trudi Malan, Conservation Manager, African Penguin and Seabird sanctuary continues

Unfortunately, sardines have remained at a low biomass since 2006. The extensive harmful algal blooms (HABs) along our coasts in recent years had a big effect on the body condition of the sardines. The HABs off the south coast in recent years are unprecedented because these have previously occurred predominantly off South Africa’s west coast; only 3% of dinoflagellate-dominated HABs observed over the period 1989-1997 occurred off the south coast. This poor body condition had a negative impact on the spawning success rate and subsequent recruitment of sardine. The unfortunate prediction is that due to continuing climate change, an increase in HABs might be seen which would have serious implications for the ecosystem in our region, given the important role of sardine in the food web. Urgent policy and spatial management plans that can cater for both the environment and fisheries are required. It is not a contest between fishery scientists and penguin biologists, it is one system of which everyone is part.



Pelagic fishing operations

The first pelagic fishing operations began in South Africa in 1935, but commercial operations only started in 1943 in the St Helena Bay area. Annual sardine catches increased rapidly from less than 200 000 t in the 1950s to more than 400 000 t in the early 1960s. Catches of sardine gradually increased throughout the 1990s under a conservative management strategy, and sardine catches reached 374 000 t during the early-2000s following rapid population growth, particularly on the Cape South Coast. Several successive years of low sardine recruitment since then have resulted in annual sardine catches in the order of 90 000 t over the past eight years. The penguins are battling to get food. There is very little that can be done about that, except to alert everyone to the fact that **sardines are now on the SASSI orange list, and you should think twice before you eat sardines.**



Stonewalls

Soetanytsberg in the Agulhas National Park features one of the Strandveld's most unique and secret cultural historical structures, namely the stonewalls. Stonewalls were packed to demarcate borders between farms before wire was introduced into the country. Stonewalls can be seen all over South Africa. The Soetanytsberg walls are about one metre high and very visible on the mountain. It was the borders between the different farms, but also was meant to keep the different Van Breda merino sheep flocks from each other. Most of the land belonged to the Zoetendals Vallei Van Breda family in the 19th century. These stonewalls were most probably packed between 1780 and 1820. It was packed according to the dry wall method, up steep cliffs and in a very straight line. It is not known who packed these walls.



Lime-washing old historical houses – Alliston Appel

Elim people practised for years the ritual of lime-washing their houses and the graves in cemeteries every year just before Easter. Two weeks before Easter unslaked lime was prepared for the actual lime-washing. The process to prepare the lime is described in Afrikaans as *die insuur van die kalk*. The lime (like pieces of stone) was placed in a metal container, filled half with water. Handfuls of coarse salt and uncooked (sheep or pig) fat were added while stirring with a *dropper* or broomstick. Raw linseed oil can also be used. The mixture will start to boil. A piece of plank was put over the opening and covered with a wet *streepsak* – hessian bag to prevent the contents to spill over. The mixture needs to be stirred regularly to maintain the boiling process. The container is filled with water when the slaking is completed. The walls to be lime-washed need to be prepared by wetting the walls for three days before lime-washing. Three coats of lime-wash are applied leaving at least one day between coats. The lime-wash must be kept damp for at least three days after application with a light spray. The Agulhas National Park is planning to lime-wash the walls of the Southbosch farmstead and plans to invite the public to participate in this activity. The preparation of the lime will be demonstrated by Alliston Appel and two weeks later the actual lime-washing will take place – depending on the present national lock-down.



2010 Agulhas Honorary Rangers and Friends hard at work lime-washing Southbosch exterior

Celebrate the nature, culture, history and sense of place of the Southernmost Tip of Africa during the month of May

The Southern Tip Day, May 16, commemorates the historic journey of Bartolomeu Dias who sailed around the Southernmost Tip of Africa in 1488. Being part of the Agulhas National Park, the Southernmost Tip is a **World Heritage site** as approved by Unesco on July 3, 2015. Join the Agulhas National Park in May to celebrate the uniqueness of this specific geographic site.

Southern Tip Day 2020 programme

15 May: Southern Tip Day Meal & Talk, Suidpunt Dienssentrum, Struisbaai
16 May: Southern Tip Day Walk with Wally, Lighthouse to Southernmost Tip
16 May: Southern Tip Day Encounters of a Marine Kind, Stinkbaai
16 May: Southern Tip Day Coastal Birding, Spookdraai to Suiderstrand
16 May: Southern Tip Day Art walk, L'Agulhas, self-guided
May: Southern Tip Day Art, Info and Biodiversity display, Cape Agulhas Lighthouse
More detailed information will be send out in May – depending on the national lock-down.

