



AgulhasNPark eBulletin



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Our solutions are in nature

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NATIONAL PARKS

The Southernmost Tip of Africa in May

Bartolomeu Dias passed the Southernmost Tip of Africa on May 16 in 1488 – 532 years ago - on his way back to Europe. The Southernmost Tip of Africa is characterised by its needle-like coastline (from where it gets its name, Cape Agulhas) which has claimed countless shipwrecks over the years. The Southernmost Tip is a World Heritage site being part of the Cape Floral Kingdom, one of the world's six floral kingdoms: South Africa has one-tenth (23 000) of the world's flowering plants, of which nearly 19 000 are endemic, making it the richest region in the world in terms of species to area – 1,7 times richer than Brazil. It is the only country in the world to contain an entire floral kingdom and has the third highest level of biodiversity in the world. In May both World Africa Heritage Day and the International Day of Biological Diversity are celebrated. As the Southern Tip community, just coming out of a Level five lockdown of five weeks with no positive cases at all, we celebrate these annual events throughout the month, amid the knowledge that we are living in one of the safest places in Africa and that we live in the science laboratory of the future. We as a community can play a vital role in biodiversity conservation and sustainable use of resources showing that we respect nature.

International Day for Biological Diversity - 22 May

The United Nations has proclaimed May 22 the International Day for Biological Diversity (IDB) to increase understanding and awareness of biodiversity issues. The slogan for 2020 is **Our solutions are in nature**, so aptly illustrated during the world-wide lockdown caused by an unnatural virus when it did not take nature very long to be back on the streets of villages and cities, reclaiming its space. As the global community is called to re-examine its relationship to the natural world, one thing is certain: despite all our technological advances we are completely dependent on healthy and vibrant ecosystems for our health, water, food, medicines, clothes, fuel, shelter and energy, just to name a few. The slogan **Our solutions are in nature** emphasises hope, solidarity and the importance of working together at all levels to build a future of life in harmony with nature. 2020 is a year of reflection, opportunity and solutions. It is the year in which, more than ever, the world can signal a strong will for a global framework that will “bend the curve” on biodiversity loss for the benefit of humans and all life on Earth. Read more at <https://www.cbd.int/idb/2020>.



The logo of the International Day for Biological Diversity (IDB) 2020

The IDB 2020 focuses on nature-based solutions for the betterment and protection of all life on Earth. The logo is a graphic representation of “solutions” in a puzzle. Each day leading up to IDB is represented by one puzzle piece. Each piece of the puzzle connects to others, symbolising interconnectedness. On May 22, the International Day for Biological Diversity, all the pieces come together. (SOURCE: <https://www.cbd.int/idb/2020/logo>)



18 May: Science and Knowledge



The first step to solving any problem is to understand the issue. Science and traditional knowledge not only help understand the state of biodiversity, but also enable us to comprehend the drivers of biodiversity loss and pathways towards a sustainable future. Biodiversity is presented as a solution to climate change. The polar bear was chosen because it is an iconic mammal species commonly associated with climate change and habitat loss, both aquatic and terrestrial. Locally the **African Penguin** is a good example of a species who has lost most of its habitat. International Museum Day is celebrated every year on May 18. The theme for 2020 is **Museums for Equality: Diversity and Inclusion**. Let us use this day to both understand the diversity of perspectives that make up communities and to understand the issue at hand.



Climate Change turns the Southernmost Tip into a Nature Science Laboratory – Wendy Foden, Cape Research Centre

As climate change progresses, it rapidly escalates the Agulhas National Park's vital role as one of Africa's most important biodiversity refuges. As species are on the move it also opens unique opportunities to understand which species are able to migrate unaided and which cannot, and how new arrivals impact on existing communities. A key strategy is to coordinate species movement corridors across to southerly and higher elevation areas. Trying novel, innovative approaches and technologies to reduce vulnerability is essential but their outcomes need to be closely monitored so we can learn as we go along. Climate change arrives with a bag of troubles, but spotting the positive helps a little. The park's unique position and biodiversity, along with its status as a national park, turn it into a natural science laboratory under climate change. By encouraging researchers from South Africa and abroad to work in the park, we hope to bring in new visitors, gain a better understanding of how to protect our biodiversity, and make a valuable contribution to tackling climate change issues.

The Agulhas National Park's Climate Change Programme

The purpose of this programme is to document extreme weather events and changes in average climatic conditions and to understand and recognise climate change impacts in the park and their cascading consequences on biodiversity and park operations. No major changes are predicted in the extent of the Fynbos biome in the Agulhas region as a result of climate change by 2050. However, since the ranges of species are typically determined by climatic conditions, shifts in the range of individual species and community composition are occurring. Rates of such shifts will increase exponentially over the coming years and decades. While this will bring the arrival of species from the north for which the park was previously too cold and/or wet, these species may have mixed impacts: positive (charismatic birds), negative (invasive species) or negligible impacts. For the vast number of species already occurring in the park, however, changing climatic conditions may make the park increasingly unsuitable. For example, *Erica* spp. have been found to be susceptible to drought, while plant diseases might also become more prevalent. Since the park's species are already at the southernmost tip of Africa, the ocean blocks further southwards range expansion. In time, this is likely to create a 'living graveyard' of species that may soon have nowhere suitable left to live. As such, the park has an essential role to play in conserving species and showcasing the impacts of climate change.

(SOURCE: *Agulhas National Park Management Plan, Draft 2020 – 2029*)

19 May: Conservation of Biodiversity

Raising awareness of protected areas and other effective area-based protection measures, which deal with the different objectives of the Convention on Biological Diversity (the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising from genetic resources). The goose was chosen because it is a migratory bird species, both terrestrial and aquatic, spanning many geographical areas and habitats that extend beyond national boundaries. Locally, the Blue Crane is a good choice as it uses the agricultural lands to feed and breed and then roosts and moults in the wetlands across the Agulhas Plain (comment Mick D'Alton).



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 gives 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? The species that disappeared could be due to mistaken identification, in those days the tools of the birding trade were rather primitive; Habitat destruction, large areas of the then Strandveld and Renosterveld have been destroyed for farming purposes; Climate change, is the dry period of the past few years cyclical or a sign of climatic change? Further analysis of the data is now due, but for now we know that the Kori Bustard and the Karoo Korhaan is absent and that the **Southern Black Korhaan** which in 1959 was described as "common", is rarely seen in the plain today. The **Yellow-billed Egret** and the Great Egret were common to fairly common, but today very scarce. The Common Sandpiper was seen up to 11 at a time, today only single individuals. The **Common Redshank** was recorded, none in the last 10 years. The **Wood Sandpiper** was described as common, today this species is everything but common. And so the list goes on. All is not doom and gloom, though, as species such as the **Denham's Bustard** and the **Blue Crane** have certainly adapted well to agricultural activity and are doing well. Further analysis is certainly indicated.



Business as usual for the Conservation department of Agulhas National Park

The Conservation department of the Agulhas National Park continues to monitor park land according to its normal operational plans. There are concerns that conservation areas will be negatively affected during the lockdown period. Patrols are conducted over the more than 21 000 hectares of park land. Everything seems to be happening at a slower pace during the lockdown and interesting observations have been made which might not have been seen under normal circumstances, such as a pink King Protea on Soetany'sberg, where it is normally white.



#nu//khab = "black moon (grass and veld food begin to grow)"



The quagga is back – Mick D’Alton, Nuwejaars Wetland Special Management Area (NWSMA)

The first zebra that the early settlers to the Cape in the 1650s would have seen was the Cape Mountain Zebra or *Kaapse Bergkwagga* which may have been found on the slopes of Table Mountain. The true quagga lived beyond the Cape Flats, either up the west coast or in the Overberg. This original true quagga is extinct. When this occurred in the wild is unknown due to the confusion caused by the use of the name quagga or *kwagga* for a specific animal, as well as being the common Afrikaans name for all zebras. We do however know that the last known true quagga died in the Amsterdam Zoo in 1883. There are three living zebra species: Grevy’s zebra *Equus grevyi*, only found in North-Eastern Africa, the Mountain zebra *Equus zebra*, found in the mountainous areas of Namibia and southern South Africa and the Plains zebra *Equus quagga*, which has by far the greatest distribution area. Now a small free roaming herd of animals from the Quagga Project, an organisation started in the 1980’s between the SA Museum, SANParks, Stellenbosch University scientists and private enthusiasts, and bred from existing plains zebra found that still exhibit the original quagga characteristics, are back in the Strandveld, enhancing the biodiversity of the Strandveld area and rekindling the aura and atmosphere of the ancient Cape. The NWSMA is an active member of this Quagga Project and is hosting a “core herd” of superior project animals that now roam in the protected wetlands amongst the eland, buffalo and hippo that have been reintroduced to the area.



Critical Biodiversity Areas and Ecological Support Areas

Critical Biodiversity Areas are areas required to meet biodiversity targets for ecosystems, species and ecological processes, as identified in a systematic biodiversity plan. Ecological Support Areas are not essential for meeting biodiversity target,s but play an important role in supporting the ecological functioning of Critical Biodiversity Areas and/or in delivering ecosystem services. Critical Biodiversity Areas and Ecological Support Areas may be terrestrial or aquatic. The primary purpose of a map of Critical Biodiversity Areas and Ecological Support Areas is to guide decision-making about where best to locate development. It should inform land-use planning, environmental assessment and authorisations, and natural resource management, by a range of sectors whose policies and decisions impact on biodiversity. It is the biodiversity sector’s input into multi-sectoral planning and decision-making processes. Most provinces have developed, or are in the process of developing, maps of Critical Biodiversity Areas and Ecological Support Areas in the form of provincial spatial biodiversity plans, usually led by the provincial conservation authority.

<http://biodiversityadvisor.sanbi.org/industry-and-conservation/biodiversity-in-the-urban-economy/understand/definitions-related-to-urban-land-use-planning/critical-biodiversity-areas-and-ecological-support-areas/>



Critically Biodiversity Area on Agulhas mountain north of L’Agulhas village; even Spookdraai is a Critically Biodiversity Area.



Limestone Fynbos



Agulhas Mountain

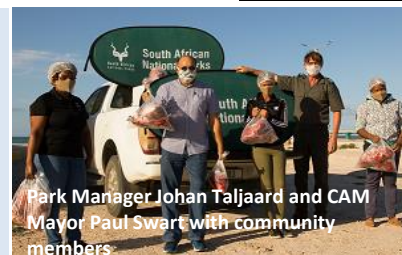
20 May: Health, Food and Biodiversity

Taking advantage of World Bee Day, 20 May is devoted to health, agriculture, food security, food and feed. The bee (or bumblebee) was chosen because it is an important pollinator of immense economic significance. The tree, in addition to the multitude of ecosystem services that it provides, can be interpreted as a fruit tree, or used for other purposes, including the health benefits from spending time in nature.



Agulhas National Park Covid 19 support initiative

National parks in the SANParks Cape Cluster have supported food distribution initiatives to identified communities neighbouring the parks during the Covid 19 lockdown period. The removal of earmarked excess animals in the West Coast National Park created an opportunity for the region to rather donate the extra animals to emergency feeding schemes. The Agulhas National Park received about 360 kilogram of eland cooking meat cuts to distribute within the Elim and Struisbaai communities, about 3 300 people, through the Church Council and local community members in Elim, and through municipal ward representatives in Struisbaai.



Biodiversity – “Our solutions are in nature” - Gavin W. Maneveldt, Department of Biodiversity and Conservation Biology, University of the Western Cape

Biodiversity or “biological diversity”, may be defined as the total variety of all living organisms on the planet and is usually explored at three levels – genetic diversity (diversity within species), species diversity (diversity between species) and ecological diversity (diversity between ecosystems). Biodiversity provides various goods (provision of food, fuel, medicine and building materials; etc.) and services (purification of air and water; moderation of the Earth’s climate, moderation of floods, droughts, temperature extremes; generation and renewal of soil fertility; prevention of soil erosion; maintenance of genetic diversity; cultural, recreational and aesthetic benefits; etc.), without which humans could not possibly survive. Despite all of our technological advances, as a species, we have yet to fully compete with and/or replicate these goods and services. We are thus highly dependent on biodiversity and the theme of “**our solutions are in nature**” has never been truer now, as we increasingly face the consequences and impacts of overpopulation, global climate change, increased transformation and fragmentation of natural habitats, the unprecedented loss of biodiversity, and the corresponding consequences of the diminishing food security for a sustainable future. Simply put, at our current rate of resource (biodiversity) utilisation and the consequent strain we are putting on the environment to replenish these resources, the ability of the planet’s ecosystems to sustain future generations can no longer be taken for granted. So, unless we accept that “**our solutions are in nature**”, and we strive to find them, we will continue to live in an increasingly resource-deficient world that ultimately is going to run out of the much needed goods and services that make it possible for humans to exist on this planet.

21 May: People, Culture and Biodiversity

Taking advantage of the World Day for Cultural Diversity for Dialogue and Development, 21 May is devoted to people and culture. The day highlights how indigenous peoples and local communities play a vital role in biodiversity conservation and sustainable use. The girl was chosen to represent humans and our role and responsibility in the big picture, as our social roles have a profound effect on our surrounding environment. The flower represents our (sustainable) use of biodiversity and all the benefits we derive from nature.



Is the *Star of the East* (1861) an Overberg shipwreck? – Jimmy Herbert

For many years the *Star of the East* was thought not to have sunk along the Overberg coastline. She was a large solidly built wooden ship of 1219 ton register, built in 1853. Some even spoke of her as being a well-designed architectural marvel. Her Captain at the time was Alfred Greystone. What made him extra special for commanding a ship on route around the southern tip of Africa was that not only had he 22 years of experience at sea, but that five of these years were spent on the coastal trade between Cape Town and Port Natal. Therefore, he was well aware of the prevailing winds and currents at Africa’s most southern points. On passing Cape Infanta on April 10 1861, this well-designed British ship, on route from Bombay to the United Kingdom, struck on the ironbound (a dangerous rocky) coast below the Potberg and was totally wrecked. The coast was said to be covered with cargo and ship structures. At the Court Inquiry, held in Cape Town, all the testimonies were heard, and the Captain was cleared of any blame. From the historical record, we read that at one stage, the entire court burst out laughing during the examination of a sailor. The witness was asked if he thought it prudent of the captain to approach so close to land. Humourlessly he explained: there were only two persons allowed to think on board the ship, the captain and the cook. When looking at the facts one wonders “Why was the *Star of the East* not known to have sunk at Potberg?” This author believes the reason to be carelessness in not doing primary research (newspapers, reports and official inquiries of the time). It is much easier to use secondary data of others. Proof of this practice is in abundance – invariably identified when another replicates a mistake of one author.



STAR OF THE EAST (1861)
Wooden ship of 1219 tons
Lost at Potberg mountain