



Nuwejaars River 15 February 2020



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Water and Climate change

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Water is the soul of the earth – W H Auden

World Water Day, 22 March

World Water Day is observed by the UN and highlights the importance of freshwater. The day is used to advocate for the sustainable management of freshwater resources. It takes place each year on March 22. The lack of clean water around the world, alongside the damaging effects of global warming, water pollution and damaged water tables, is more important to understand than ever.

The initiative is spearheaded by the UN, along with UNESCO, the World Water Council and the WWF. Using the day as a basis for longer-term action, the UN aims to ensure that everyone in the world has access to safe water by 2030, **while not impacting the environment**. (SOURCE: <https://www.gov.za/WorldWaterDay2020>; Wikipedia)



WORLD
WATER
DAY
March 22

Water and climate change

World Water Day 2020 is about **water and climate change** – and how the two are inextricably linked. Adapting to the water effects of climate change will protect health and save lives. Using water more efficiently will reduce greenhouse gases. We cannot afford to wait. **Everyone has a role to play**. Read more at <https://www.worldwaterday.org>.

The Water Show Africa 2020

The Water Show Africa conference and exhibition is being held in the Sandton Convention Centre, Johannesburg from March 31 to April 1, 2020. This is Africa's leading conference and exhibition for water professionals and large end users. In today's new world, long-established and proven water and wastewater utility management practices are being challenged. Calls for increased adoption of more advanced solutions like digital water, reclaimed water use, decentralised treatment, to name a few, are forcing water service providers to take note. The Water Show Africa welcomes utilities, municipalities and large water users annually. They want to improve delivery of water infrastructure, drive service efficiency and reliability, as well as keep up to date with the trends shaping today's water future. Built on 14 years of experience, The Water Show Africa is about strategy and innovation for end-users, utilities and partners. Read more at <https://www.terrapinn.com/exhibition/water-africa>.



The southafrican



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Time LIVE

One Earth, one hydrological cycle, one water source – Marlese Nel

Nature has always fascinated mankind: from the vastness of the universe and the stars to the mystery of water “disappearing” underground. Water is the one thing no living creature – man, plant, animal or organism – can live without. Kahlil Gibran once said that in one drop of water is found all the secrets of all the oceans. These words capture the essence of the water cycle; taking one year, maybe ten years or even one million years. And in this journey lies the secret of all water on Earth; from river to rain and from aquifer to ocean.



Connecting to Society

The Nuwejaars River: the artery of our waterscapes – Heather D’Alton

The Nuwejaars River connects the intricate Nuwejaars wetland ecosystem. There are five main tributaries to the Nuwejaars, starting on the slopes of the Bredasdorp Mountains, the Koueberge, the hills above the town of Elim and Soetanytsberg. It is a 55km stretch from the start of the river to Soetendalsvlei. Along the way the Nuwejaars River connects Waskraalvlei to the birding hotspot, Voëlvlei, and from here it connects up to Soetendalsvlei, the second largest lacustrine wetland in the country. From Soetendalsvlei, the Heuningnes River flows into the De Mond Estuary – a Ramsar Wetland of International Importance. The wetlands, thus, feed the Nuwejaars River for most of the year, and during times of flood, the river feeds the wetlands which can absorb the excess water. These waters support immense biodiversity – that is why the region is such a birder’s paradise. 273 bird species have been identified in the Agulhas Plain. The surrounds are covered by endemic natural fynbos – including fynbos species like the *Protea pudens* (Skaamgesiggie) and *Erica regia* (Elimsheide). The river is also home to the Nuwejaars Redfin Minnow – a tiny indigenous fish that stands on the brink of extinction. As an Agulhas Plain waterscape few play a more important role than the Nuwejaars River.



Agulhas Working for Water project planning for 2020

During the 2018/19 Annual Plan of Operations (APO) all the remaining initial hectares in the Park were cleared. The 2020/21 APO plans to clear 7087ha within 21,840 person days. New growth in areas are along southern slopes of hills/mountains and watercourses/wetlands where above average rainfall was received. $\pm 10\,782.92\text{ha}$ will be in a rotational cycle of two to three years according to location, rate of new growth and densities, for example Waterford, Hangnes, Soutbosch and Bergplaas. The strategic plan for the next five years is to put more areas into a two year cycle as the densities of infestation approach a maintenance stage. The NEM:BA management plan as listed in the APO will require follow-up contracts on all the areas as identified. The Ratel River catchment area and specifically the upper and middle course of the river, need to be focused on to ensure infestation from outside the park is minimised. Willing private landowners will need to get into a landowners agreement or landowners incentive program in order to address the problem along the course of this river system. A biological control monitoring program will be put in place and will be supported by the proposed study in the buffer zone by a junior scientist from the Cape Research Centre.



Where have all the sardines gone? – Trudi Malan, Conservation Manager, African Penguin and Seabird sanctuary

The sardine biomass in South Africa has taken a turn for the worse and the time is here to alert you to the fact that Sardines are now on the **SASSI orange list**, and you should think twice before you eat sardines. As is well-known by now, the African Penguins are battling to get food. There is a multitude of reasons and the answer cannot be limited to a single sentence or a simple explanation. One often hears the cry of “over fishing” and although, for the African Penguins, the sharing of fishing grounds with the fishing community is a problem, there are other environmental conditions that are contributing to the low biomass. Off the coast of South Africa, small pelagic forage fish consist predominantly of anchovy *Engraulis encrasicolus*, sardine *Sardinops sagax* and redeye round herring *Etrumeus whiteheadi*. Forage fish are usually found in the continental shelf waters between Hondeklip Bay on the West Coast and Durban on the East Coast. Any changes in the environment affects the pelagic population. The availability of pelagic fish in the ecosystem is vitally important because many animals depend on forage fish, and the low abundance has severe risks for dependent species such as the African Penguin and other seabirds. (To be continued)



The Atlantic

AP PHOTO/VENTURA COUNTY STAR/CHUCK KIRWAN

March in Khoe, *!hoa#gais*, means turned ears or hyraxes are giving birth



flickr



Joyofanimals.com



yukozimo.com

Birding in February – Wim De Klerk

On February 15 a group of birders gathered rather excitedly for some excellent birding on wetlands day. There has been some good summer rains and the veld looked the best in many years. But...alas... the birds were rather scarce! This indeed fits a pattern observed in the last two years. Species numbers have dropped in the last two years, no doubt due to the drought. This is an indication that there is a lag period after the good years. Birds after one, two or three years of drought might come back to the same area, but then learn from experience and start to look for greener pastures. Once we have a good wet winter, it will probably take another year or two before species numbers will be back to normal! Altogether 46 species were recorded on the day with the highlight being the female **Southern Black Korhaan** (Swartvlerkkorhaan) that sat calmly in the early morning sun watching the intruder. Some **Pied Avocet** (Bontelsie), **South African Shelduck** (Kopereend) and a lonely Greater Flamingo (Grootflamink) awaited us at the Springfield Saltpans that provided stunning views of the **Chestnut-banded Plover** (Rooibandstrandkiewiet). About five of them were feeding nearby when one decided to approach to about 20m of the group; a very special moment. (Pictures: W. De Klerk)



The Agulhas Plain Birding Project – Wim De Klerk

The Agulhas Plain Birding Project started in January 2010. The initial idea was to accurately record the birds of the Agulhas National Park. The project evolved over the next 10 years to include the Cape Nature reserves and the Nuwejaars Wetland Special Management Area, increasing the area monitored, improving methodology and tools used. At the end of 2014, the project was extended because it was realised that there were too many gaps in the knowledge available. The tools became much more sophisticated and experiences of the species and habitat improved so much that another five years was required to improve data. Although bird lists were the end result of the project, it remains a work in progress as new species have been added every year since 2010. Even in the last year another four new species were added to the Agulhas Plain bird list. One of the shortcomings of the protocol used in this project is that one has to stay on the move and record as many species as possible in two hours. This means that one tends to miss out on secretive species such as Baillon's Crake, the Knysna Warbler, the Cape Siskin and the Victorin's Warbler. All of these reported before but not seen during the project. Many questions remain with regard to these species and also others that prefer difficult habitats. This will have to be investigated in the next few years, using a much slower protocol, spending hours at one site, perhaps in a makeshift hide. 273 bird species were recorded and identified since the project started in January 2010.

The four new bird species recorded and added to the Agulhas Plain list in 2019



African Quailfinch
Gewone kwartelvinkie
Ortygospiza atricollis –
Eugene Hahndick, Nuwejaars River



Lesser Sand Plover
Mongoolse strandkiewiet
Charadrius mongolus –
Wim de Klerk, De Mond

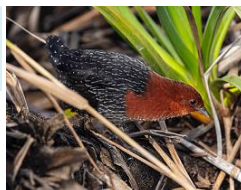


Red-backed Shrike
Rooruglaksman,
Lanius collurio –
Wim de Klerk, Koksrivier farm



African Wood-Owl
Bosuil
Strix woodfordii –
Erica Brink, Blomkloof farm

**Spotted for the first time
in the Agulhas Plain by Tinus Le Roux**



Red-chested Flufftail
Rooiborsvleikuiken
Sarothrura rufa

**Habitat: reed-fringed pools,
swamps, vleis**



Pans and vleis

To the west of Rietfontein farmstead on the plain are a series of natural pans and vleis. What is *Vispan* today, was called the saltpans in the old days. *Wasvlei* is situated further inland and *Drievleittjies* south of *Vispan*. A big furrow was dug from Dirk Uyskraal River which passed *Wasvlei* and which was diverted when *Wasvlei* was dry. Salt was harvested on the saltpans and oom Piet Lourens harvested 20 bags of salt at times. Only the Rietfontein inhabitants harvested salt on this pan. Nachtwacht farm's flocks of sheep grazed Rietfontein's veld. During shearing time the sheep were washed in *Wasvlei* and then transported by donkey wagons or horse carts to Nachtwacht to be sheared. Shearing time was in September and washing the sheep was done until early in the 20th century. The flocks consisted of 200 to 300 sheep. A special enclosure at the saltpans was called the rams' paddock (*ramkamp*). The water that fed these pans came from Geelrug during the rainy season and filled the plain. It was channeled into a furrow at a later stage to control and to lead the water to the saltpans. The entrance road to Rietfontein crosses the furrow at the lowest point on the plain, passes *Melkbospan* and then down to the pans and vleis. The vleis and pans were also filled from the sea at the spot called *Waaiplek*, at high tide and brought the *springers*. This happened in the winter months from June. The plain was flooded regularly in the 1950s, but from the 1960s there was less rain. (SOURCE: Piet Lourens remembers, 2011)



Vispan and Drievleittjies, 2013 flood (Picture: Sea & Sky)

The *bakkiespomp* (water wheel) – revolutionary water-lift patent in the 1800s – Marlese Nel

A very important piece of water machinery saw the light in the second half of the nineteenth century. Before this invention, people had to lift water manually from hand-dug wells. According to the census of 1960, there were more than 20 000 of these wells spread across the country. The *bakkiespomp* caused a revolution in South Africa as it was the first piece of machinery that a farmer could use without manual labour. The pump simply had a horizontal wheel with a shaft. This was connected to an animal like a donkey or an ox that then turned the shaft. The wheel had gears that propelled a vertical wheel which was attached to a shaft that went down the hole and turned a wheel inside the water. This wheel inside the water was equipped with some dippers that transported the water to the surface and delivered a constant stream of water. As the patent improved, it was able to deliver a phenomenal volume of water of between one and 82 m³ per hour from a depth of nine meters.



Mikhail Gorbachev on water

Water, like religion and ideology, has the power to move millions of people. Since the very birth of human civilisation, people have moved to settle close to it. People move when there is too little of it. People move when there is too much of it. People journey down it. People fight over it. And all people, everywhere and every day, need it. (FROM: NEL, Marlese. 2019. (FROM: NEL, Marlese. *Groundwater: the myths, the truths and the basics*. Water Research Co.)

1849



C.C. Michell

Cape Agulhas Lighthouse: the light was officially lit on March 1, 1849; 171 years later still lighting up the Southernmost Tip of Africa.