



MWF NEWSLETTER

Wetlands and Cranes in Mpumalanga

Vision

“To ensure a co-operative approach to and the promotion of environmentally sustainable management of wetlands in Mpumalanga Province”

Mission

“Promoting the wise use, effective management and rehabilitation of wetlands in Mpumalanga Province through cooperative governance by engaging all public and private sectors to achieve its objectives”



*Bradley Gibbons,
Highland Grassland
Field Officer: African
Crane Conservation
Programme,
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Trust / International
Crane Foundation
Partnership*

Wetlands are vitally important for Grey Crowned Cranes and Wattled Cranes by providing a habitat in which to breed. Therefore, if wetlands are destroyed, these cranes will no longer have areas to build a nest and provide a safe area for chicks to hide.

Blue Cranes are not dependent on wetlands compared to the other two crane species, however there are of course several Blue Cranes that also make use of wetlands for breeding. Two examples of Blue Crane nests are found below and the first example shows an impressive nest built by the parents.



*A nest built by
a Blue Crane
pair in a
wetland*



*A Blue Crane
nest located in a
wet patch*

Considering all three crane species are found in Mpumalanga any and all wetland conservation efforts are

beneficial to the survival of these cranes. Very few wetlands are protected and the majority of cranes occur on privately-owned farms.

The Biodiversity Stewardship process in Mpumalanga has been successfully implemented in areas that are beneficial for wetland conservation, some of which have been facilitated by the Endangered Wildlife Trust. The Greater Lakenvlei (near Dullstroom) and the Chrissiesmeer Protected Environments both offer a refuge for cranes in Mpumalanga. Likewise, the Verloren Valei Nature Reserve (near Dullstroom) is also a safe haven for cranes and in addition is one of 23 Ramsar sites in South Africa, making it a wetland of international importance.

The Wakkerstroom wetland offers an

Wetlands and Cranes in Mpumalanga cont.

example of a wetland that benefits both cranes and people in surrounding areas by providing tourism opportunities for members of the community.

Minimising threats to wetlands in Mpumalanga will always be a challenge, but the value of wetlands is echoed through the conservation projects in the province.

If you would like to report any sightings of cranes in your area, please share them with me by emailing me (bradleyg@ewt.org.za) or via phone (0825665803).

RARE PEATLANDS CONFIRMED IN THE UPPER KLASERIE AND SAND CATCHMENTS



Hoedspruit, February 1, 2019

Each year, 2 February is celebrated as World Wetlands Day to mark the adoption of the Ramsar Convention on Wetlands of International Importance on 2 February 1971. This year the theme for World Wetlands Day is *Wetlands and Climate Change*, to reflect on and raise awareness around the value of wetlands and how the natural power of these ecosystems can be harnessed to turn the tide on climate change.

While most people in the Lowveld understand that the escarpment is the source of their water, few realise that the escarpment also hosts a critical network of wetland systems. Very little research or mapping of these systems has been conducted and as a result they are poorly understood. In January 2019, two wetland specialists, Dr. Lulu Pretorius (University of KwaZulu-Natal and the Centre of Wetland Research and Training), and Anton Linström (Wet Earth Eco-Specs) joined teams from the Association for Water and Rural Development (AWARD) and Kruger to Canyons Biosphere Region (K2C BR) to conduct a preliminary investigation into some of the known wetlands in the upper Klaserie and Sand River catchments. Soil samples confirmed that many of the wetlands assessed were in fact peatlands, both in the swamp-forests along the foot of the escarpment and in the high-altitude wetlands in the Klaserie headwaters. These results were surprising and the prevalence of peatlands, especially along the swamp forests, is significant. "Peatlands comprise only a small percentage of wetlands in South Africa and are regarded as unique and special. Even more so are peat swamp forests, because of the specific conditions required to form these ecosystems", noted Dr. Pretorius. Wetlands, in general, are important water stores but peat can hold up to ten times more water than other wetland soils, making it an important resource in a water-scarce country such as South Africa.

Why are these escarpment peatlands important?

Besides being a place for tourists to visit and experience some of South Africa's most impressive landscapes the escarpment areas are water catchments where the intact grasslands and forests "catch" rainfall and mist in wetlands that is slowly discharged into the many rivers that the Lowveld economies downstream rely on. Water from the catchment feeds into the Blyde Dam which supports a multi-million-rand agricultural sector around Hoedspruit, and the Kruger National Park and associated private game reserves rely on the water from the mountain to recharge their rivers. The household water supplied to towns such as Hoedspruit, Phalaborwa and

Rare Peatlands Confirmed in the Upper Klaserie and Sand Catchments cont.

Bushbuckridge all originate in the escarpment. Simply put without the water from the escarpment, the lives of all people in the Lowveld would be very different and peatlands, as it turns out, play a crucial part of these water provisioning services.

What is worrying is that some of the peat wetlands assessed during the investigation showed signs of drying out, despite it being the midst of the wet season. While too little is known about these systems to know the exact cause, it is likely that a combination of years of drought coupled with the effects of forestry in the upper catchments are the likely culprits. The Lowveld is a region facing significant water quality and quantity issues that impact on biodiversity and human livelihoods and these issues are further exacerbated by climate change. It is therefore critical that further research into these little-known wetland systems in the upper catchments is conducted to better understand their functioning, distribution, service provision and management needs, and that the current ecosystem restoration efforts to remove alien invasive tree species continues.

During this coming world wetlands month take a moment to look up at the mountain and reflect on the crucial function that the grasslands, forests and wetlands play in providing water and supporting the resilient Lowveld economies, livelihoods and ecosystems we all depend on.

More about Peatlands

Peatlands are wetlands in which the soil is rich in organic matter. Peat is made up of partially decomposed, compressed organic material such as reeds and sedges, which forms in waterlogged environments as there is not enough oxygen for decomposition to occur at the usual rate. Peatlands are fairly common in the wetter northern hemisphere, but are rare in South Africa and cover only approximately 1% of the total wetland area across the country. The high porosity and 'sponge-like' nature of peat allows these special ecosystems to capture and store high quantities of water from the surrounding catchment and release it slowly to downstream aquatic systems during periods of drought. Due to peat's high carbon (organic) content it also acts as a natural purifier of water. Peatlands are known to play an important role in mitigating climate change, as they

act as carbon sinks. In addition to plants removing carbon dioxide from the atmosphere through photosynthesis, peat wetlands trap and store large amounts of organic matter, hence carbon, in their soils. Peatlands cover just three per cent of our world, yet they store nearly a **third of all land-based carbon**. This is **twice as much as all the world's forests**. Once degraded by drying out, peat loses its structure and function, and the carbon captured over thousands of years can be released back into the atmosphere in a very short time. In South Africa peat accumulates at a rate of approximately 1-2 mm per year, and is therefore an archive of knowledge about environmental conditions of hundreds or even thousands of years ago.

This work was undertaken as part of a larger collaborative project with a diversity of partners that includes the Department of Agriculture Forestry and Fisheries (DAFF), Mpumalanga Tourism and Parks Agency (MTPA), South African Environmental, Department of Environmental Affairs (DEA), South African National Parks (SANParks), Observation Network (SAEON) and the Blyde Communal Property Associations (CPAs).

About AWARD

The Association for Water and Rural Development a non-profit organisation specialising in multi-disciplinary, participatory, research based project implementation aimed at addressing issues of sustainability, inequity and poverty. While working collaboratively with other organisations and developing strong and rich professional networks, AWARD strives to build natural resource management competence in civil society, government agencies and private enterprise. This will help provide a foundation for robust and sustainable development policy and practice in South Africa that can stand up to an increasingly complex world. <http://award.org.za/>.

About Kruger 2 Canyons Biosphere Region

K2C is recognised under the UNESCO (United Nations Educational, Scientific and Cultural Organisation) Man and the Biosphere Programme. It became the 411th Biosphere Reserve site to be registered, acknowledging the global significance of

Rare Peatlands Confirmed in the Upper Klaserie and Sand Catchments cont.

Greater Kruger bioregion, the eastern savannahs and escarpment of South Africa. <http://www.kruger2canyons.org>. K2C forms part of national Biodiversity and Land Use (BLU) project implemented by the South African National Biodiversity Institute (SANBI) together with its partners, with funding from the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP).

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Photo: High-altitude wetland in the Klaserie River headwaters.



Photo: Peat soils being sampled in wetlands in the escarpment.



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DANGEROUS NEW REGULATION PUTS INDONESIA'S CARBON-RICH PEATLANDS AT RISK

• https://news.mongabay.com/2019/07/dangerous-new-regulation-puts-indonesias-carbon-rich-peatlands-at-risk/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+Mongabay+%28Mongabay+Environmental+News%29

- The Indonesian government has effectively rescinded protection for much of its carbon-rich peatlands by issuing a new regulation that limits protection to the area of a peatland ecosystem where the peat is the thickest.
- Concession holders will now be allowed to exploit areas outside these "peat domes," as long as they maintain the water table, in a mechanism seemingly borrowed straight out of the pulpwood industry playbook.
- Under previous regulations, areas with a layer of peat 3 meters (10 feet) or deeper were off-limits for exploitation, and any companies with such areas in their concessions were obliged to restore and protect them. These areas are now open to exploitation, as long as they're not considered part of the peat dome.
- Activists warn the new regulation will encourage greater exploitation of Indonesia's fast-diminishing peatlands, increasing the risks of fire, carbon emissions, and failure to meet the government's own emissions reduction and peat restoration goals.



Peatland in Indonesia drained to prepare the land for agriculture.

Image by Rhett A. Butler/Mongabay.



Carbon-rich and biodiversity-rich peat forest in Sumatra, cleared for a pulp and paper plantation.

Image by Rhett A. Butler/Mongabay.



ARBOR 2019

The National theme for 2019 is: **Forests and Sustainable Cities.**

Mpumalanga has decided on a Provincial theme for 2019: **Arbor for mitigating Climate Change and Air pollution.**

We believe that this theme will enable the department to raise awareness and capacity on two of our most pressing issues; Climate Change and Air pollution. The theme also links very well with the World Environment Day 2019 theme and several of our programmes including; the three Climate Change Schools Programmes, the Community Climate Change Programme and the Zonda Insila Programme.

The theme fits in very well with recent comments made by the Honourable minister of the Department of Environment, Forestry and Fisheries. In addressing the media (before tabling her department's Budget Vote) and the National Assembly (during the tabling), the new minister, Barbara Creecy commented as follows:

- Climate change, environmental degradation and the loss of biodiversity threaten SA's natural resources, yet more than two million people depend on them for their income.
- She made reference to the recent strikes by schoolchildren across the world, including South Africa, against adult inaction to address the climate crisis, and asking that it be declared a crisis. She said she has great respect for the young people mobilising support for their concerns about climate change. "And I think it is entirely appropriate because it's their future that is on the line.
- On air pollution, particularly in the priority areas of Highveld, the Vaal Triangle and the Waterberg, there would be an immediate review of planning and management. She said

she had contacted mineral resources and energy minister Gwede Mantashe and public enterprises minister Pravin Gordhan about this problem. "We need to discuss how we keep the lights on, but reduce the ... [harmful] gases going into the air."

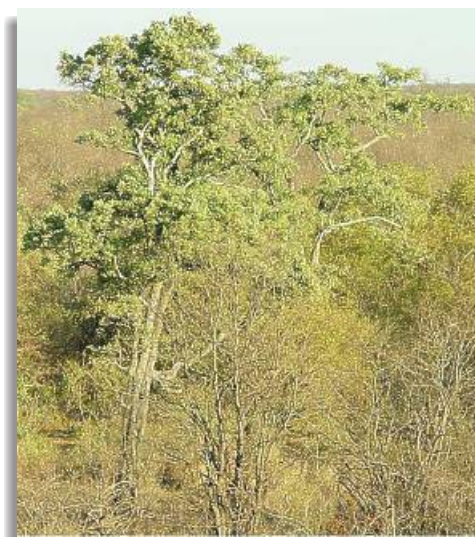
TREES OF THE YEAR

To help increase public awareness on just a few of the 2,000 indigenous tree species in South Africa, every Arbor Week celebrates two specific trees; one common and one rare species.

The 2019 trees of the year are:



Common species - Marula: *Sclerocarya birrea*



Rare species - Apple-leaf: *Philenoptera violacea*



agriculture, rural development,
land & environmental affairs

MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

