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*Licence to pollute*

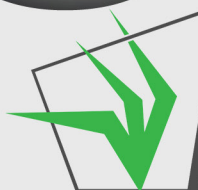
Newsletter of the Grassland Society of Southern Africa

# Grassroots

## *Tree of the month: Camphor bush*

**Invasive alien species:  
A serious threat to the planet**

**GSSA Congress 58 Edition**



Advancing Rangeland Ecology and Pasture Management in Southern Africa

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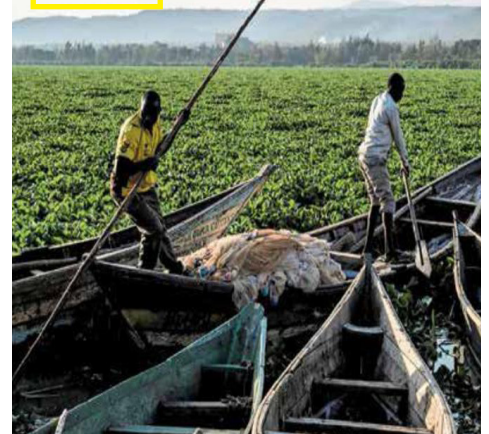
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# From our editor

Dear reader,

Happy spring, everything is warming up again as we head towards to last bit of the year. This issue is full of news from the past GSSA 58<sup>th</sup> Congress: we have the presential address, feedback from the organising committee, and the award winners too. These articles, along with Plaas TV's video series, are great for catching up on anything missed (or reliving the conference if you were there).

Recent headlines were made when Karpowership, a floating power vessel, reached a offered to donate a game farm to Ezemvelo KZN Wildlife as a biodiversity offset. This follows right after Government published a National Biodiversity Offset Guideline in June.

Following this we have articles on carbon offsets as licence to pollute, and 'helicopter scientists'. Carbon credits are both seen as an exciting new funding avenue for conservation and sustainable practices, but also a 'green-grabbing' mechanism where key decisions around land use and management are made by a far-off party to 'offset' their emissions. These decisions are very often based on what the global community decides is an 'offset' activity, which is sometimes in opposition to local science and knowledge. This is a topic I am quite interested in. If anyone has any articles or comments they would like to submit, on either the positive or negative side of carbon credits, I would be happy to publish them in the next issue.

Then we have some news on invasive species, penguins, grassland funding, and a report back from Guy Musto on the International Grassland Congress.

Lastly, we have a wonderful obituary commemorating the life of legendary grassland scientist and emeritus Professor, Neil Tainton.

As always, thank you to our readers!

I hope you enjoy this issue, our inbox is always open for any news, queries, contributions, and feedback ([info@grassland.org.za](mailto:info@grassland.org.za)).

Till next time,

*Lisa*



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# Feedback from Congress 58's Organization Committee

## Wilfred Seithlamo

Current Address: North West Parks and Tourism Board, Mafikeng, North West Province

The 58<sup>th</sup> annual Grassland Society of Southern Africa (GSSA) congress was held in the North West Province. The GSSA was established in 1966 in order to advance rangeland and pasture management. The annual congress normally attracts Conservation managers, researchers, ecologists, farmers, policy & decision makers and students both from national and international institutions. The Congress 58 was held at Omaramba Resort and Conference Centre in Buffelspoort outside Rustenburg in the North West Province from the 24<sup>th</sup> to 28<sup>th</sup> of July. This was a hybrid event. The organizing of the congress started in December 2022 and Organizing Committee (OC) meetings were held from January already. A series of virtual meetings were held to make sure that all is organised and in order well in advance before the congress starts. The congress venue was secured following several considerations of venues across the North West Province. The OC eventually decided on Omaramba Resort as it was fulfilling the requirements to host the GSSA Congress.

The normal congress activities were organised, which were: Pre-congress tours, Scientific programme, Research skills workshop as well as Policy and Practice workshop. The pre-congress tour was held at Kgaswane Mountain Reserve (KMR) in Rustenburg. The reserve is managed by the North West Parks and Tourism. The tour activities were facilitated by the Agricultural Research Council through Dr Althea Grundling. The main focus was on wetland dynamics projects which are done by various students under the supervision of Dr Grundling. The vegetation classification of KMR was presented by Mr. Pieter Nel. The status of the wetland rehabilitation work was presented by Eric Munzhedzi from the Department of Forestry, Fisheries and Environment (DFFE). The Research Skills Workshop was held at the same time with the pre-congress tour. The workshop, which was facilitated by Prof. Klaus Kellner was on the Methodology to control indigenous woody densification (Bush encroachment). The workshop covered topics such as guidelines for surveying and controlling bush encroachment for government officials,

rehabilitation & control methods, current technologies, and carbon credits.

The opening of the congress 58 was held on the 24<sup>th</sup> with the Opening and welcome by the OC Chairperson (Mr. Wilfred Seithlamo), with the Presidential address by the GSSA President Ms. Charne Viljoen. The opening address was done by Prof. Bismark Tyobeka, who is the Vice Chancellor and Principal the North West University.

The scientific programme was comprised of thought-provoking discussions on these themes: Climate Change; Bush Encroachment; Special Session; on biological invasions (facilitated by the South African National Biodiversity Institute); Fire Ecology; Planted Pastures; Feed and Nutrition; Conservation and Restoration; Rangeland and Ecology Management; Communal Rangelands, Land Tenure and Land Transformation; Livestock and Game Management and Research Proposal Posters. The viewing of posters was done in order to allow physical interactions with the presenters. The three keynote plenary sessions were held with lively discussions. The OC would like to thank all the three keynote speakers (Prof. Kevin Kirkman, Dr. Elias Symeonakis and Dr. Igshaan Samuels) for their sterling job. Thanks to the Chairperson of the Scientific Committee, Dr. Sindiso Nkuna for coordinating the Scientific Programme. The virtual audience was also actively involved during the proceedings, and Thanks to Linda Kleyn for making this possible throughout the congress for maintaining the virtual participating. The expertise of Clive Pringe, the audio-visual technician of Trilogy Audio is recognised throughout the congress.

The traditional Congress gala dinner was very enjoyable with awards received by the deserving presenters. The awards for the night were as follows: The best paper in the AJRFS in 2022- Sarah Lynn Raubenheimer, Kimberley Simpson, Richard Carkeek, Brad Ripley (Could CO<sub>2</sub>-induced changes to C<sub>4</sub> grass flammability aggravate savanna woody encroachment). Best Presentation-Heidi Hawkins (Fire is not the pariah: Evidence that fire maintains persistent forms of soil

organic carbon in wildlife-grazed, southern high-altitude grasslands under both present and future climate scenario). Best Presentation by a Young Scientist-Eulalia Jordaan (Long-term agricultural practices negatively impact floristic and functional diversity in the South African Highveld Grassland Biome). Best Research Proposal Poster-Imanathi Kekaya (Hydroponic fodder nutritive value for sustainable livestock production in the drylands of South Africa).

Best Poster- Derryn Nash (Comparison of yield performance of annual ryegrass (*Lolium multiflorum*) to perennial pastures tall fescue (*Festuca arundinaceae*) and cocksfoot (*Dactylis glomerata*) over two years on Cedara Research Station, KwaZulu Natal).

The Policy and Practice Workshop was held on the last day (28<sup>th</sup> July). The workshop focused on Policy and Practice on Alien Invasive species in South Africa suited for Conservation and Agricultural Management. The two invited speakers from DFFE (Dr. Nnzheru) and the Department of Agriculture, Land reform and Rural Development (Mr. Maurice Vukeya) presented interesting topics on CARA and AIS Regulations and the permitting process in South Africa respectively. This workshop was very engaging with lots of inputs from the delegates. However, most of the delegates raised concern on the timing of the workshop. They felt that holding the workshop at the last day when most of the delegates has left does not serve the intended purpose as most of the relevant people who can make inputs on science and policy matters have left. There was a strong suggestion to reconsider the timing of the workshop in future, and that it should form part of the main congress.

The OC would also like to acknowledge and thank all our sponsors for their support. Holding the GSSA 58 Congress would have not been possible without them. We really appreciate.

Finally, I am very grateful and pleased on the way the congress went. It was very successful, and we are looking forward to Congress 59 in 2024.



# GSSA Congress 58 Presidential Address

## Charné Viljoen

Current Address: Stellenbosch University, Department of Agronomy

Welcome to the 58<sup>th</sup> annual Grassland Society of Southern Africa Congress. Everyone joining us from nearby or far away, or by means of virtual audience and whether you are a member or not, welcome.

Thank you to Yvette Brits in her absence, and her organizing committee, Wilfred and the team for putting the event together. We appreciate the hard work and congratulate you on keeping with the tradition that each province hosts GSSA.

Thank you, and well done North West. May it be an encouragement to the other provinces as well to host GSSA.

How wonderful is it not to be part of the Grassland Society of Southern Africa. Last year, during our introductory strategic meeting, we identified a few vital attributes that make our society sustainable and a pleasure to be a part of, and I want to briefly remind you of them. These still require some fleshing out, but some of these themes will be heard throughout this address and congress.

1. Communication, Participation and Networking
2. Scientific Integrity
3. Relevancy
4. Inclusivity
5. Appreciation for contextual change
6. Income generating ideas
7. Membership benefits
8. Capable administration and support

We said to one another that it is hard to put GSSA in a box with solid sides, but that we are rather a circle with dashed borders that is porous. Thereby saying that we do not limit ourselves but rather include. This is true for the people and the content. This society, different to some others, has a welcoming feel, where students and scientists can learn from one another.

The society provides a space to share work, network and form valuable connections. The society also has a lot of opportunities to become involved in, such as council, organizing committees, publication or reviewing teams and presenters at congresses or courses.

I speak out of experience. Almost 10 years ago, I joined the council as the website editor, a position I filled for quite a while. Then I joined the grassroots team. In 2021 I was the chair of the second virtual congress. I really wanted it to be an in-person conference if I am being honest. And from there I was selected as vice president and today I stand here as president. What an honour!

I am telling the story out of a place of deep thankfulness for the role that GSSA has played in my life and career. I have learned so much about leadership, encouragement, presenting and much more. I therefore want to encourage young scientists and students here tonight to become involved. My hope for you is to also learn and grow and gain experience as I have found in the society.

I want to take a moment to thank the current council members as well. It was a somewhat challenging year. As many of you know, our previous administrator resigned. Erica was a cornerstone of the society, and we wish her well in her endeavours. Exco



Figure 1. Congress festivities.



stepped up and began the search for our new administrator, and we found our new cornerstone. Minette was appointed and stepped up to the challenge. She hit the road running, working with the organising committee and ensuring that everything ran smoothly. So Minette, well done so far and good luck ahead with your time here at GSSA.

Furthermore, I would like to thank the GSSA council in general. I was on maternity leave for a big part of the year, but council kept the society running. There are a few people that I would like to highlight specifically for going over and beyond.

- Susi Vetter for managing the interviewing process to appoint our new administrator.
- Linda Kleyn who did the admin in the interim period before Minette

joined the team, while still doing an amazing job with keeping the finances up to date.

- I already mentioned Yvette Brits as head of the organising committee.
- Jaimee Pause for getting the Dryfta site operational for this congress.
- Sindiso Nkuna for liaising with the authors and reviewers during the submission period to produce the program that we have for congress.
- Robyn Nicolay, our trusted secretary for keeping council matters up to date.
- Our publications editors, Lisa Matthews (Grassroots) and Urs Kreuter (African Journal of Range and Forage), are doing great work as new editors and we look forward to hearing more about the publications at the annual general meeting.

I would like to say a big thank you to the sponsors of this year's congress which you can see at the back of the programme.

Now, to the speakers at the congress this year: Good luck! I hope you all receive valuable feedback and input on your work.

May we learn from one another. Also, to the keynote speakers, we look forward to listening to you and learning from you.

My wish for you for this congress is to make connections. Use your connections to set up collaborations and interdisciplinary research.

This is the way we keep our society porous and relevant. Have fun and enjoy.



Figure 2. GSSA council members.



## Congress 58: Award Winners

### Best Paper in the AJRFS in 2022

Sarah Lynn Raubenheimer, Kimberley Simpson, Richard Carkeek, Brad Ripley  
 Could CO<sub>2</sub>-induced changes to C4 grass flammability aggravate savanna woody encroachment?

Long-term agricultural practices negatively impact floristic and functional diversity in the South African Highveld Grassland Biome.

*glomerata*) over two years on Cedara Research Station, KwaZulu Natal.

### Best Presentation

Heidi Hawkins (Figure 1a)

Fire is not the pariah: Evidence that fire maintains persistent forms of soil organic carbon in wildlife-grazed, southern high-altitude grasslands under both present and future climate scenarios.

### Best Research Proposal Poster

Imanathi Kekaya (Figure 1c)

Hydroponic fodder nutritive value for sustainable livestock production in the drylands of South Africa .

### Faux Pas

“Every village has its own idiot...every circus has its own clown...but this trophy is dedicated to our very own star...”  
 The winner is Msawenkosi Fano Msomi (Figure 1d) for sleeping through conference only to be woken by his ringing phone in the session.

### Best Presentation by a Young Scientist

Eulalia Jordaan (Figure 1b)

### Best Poster

Derryn Nash

Comparison of yield performance of annual ryegrass (*Lolium multiflorum*) to perennial pastures tall fescue (*Festuca arundinaceae*) and cocksfoot (*Dactylis*

### Most prolific online adjudicator

The winner is Robyn Nicolay (Figure 1e) followed by Susi Vetter, Heidi Hawkins and Matthew Danckwerts.



Figure 1a



Figure 1b



Figure 1c



Figure 1d



Figure 1e



Figure 1f

## GSSA Council Members 2023/2024

Portfolio	Name and surname	Current Address
President	Susi Vetter	Rhodes University
Vice President	Ntuthuko Mkhize	University of KwaZulu Natal
Immediate Past President	Charné Viljoen	Stellenbosch University
Honorary Treasurer	Linda Kleyn	Martial Computing
Honorary Secretary	Robyn Nicolay	University of KwaZulu-Natal
Scientific Editor	Urs Kreuter	Texas A&M University
Publications Editor	Lisa Matthews	Blue North Sustainability & Stellenbosch University
Website Editor	Janke van der Colf	Western Cape Department of Agriculture
Public Relations Officer	Jamie Paulse	University of the Free State
Additional member: Grass-roots	Marnus Smit	Northern Cape Dept of Environment and Nature Conservation
Additional member	Florence Nherera-Chokuda	National Emerging Red Meat Producers Organization
Additional member	Ngoako Lucas Letsoalo	Agricultural Research Council - Animal Production Institute
Additional member	Andiswa Finca	Agricultural Research Council
Additional member	Thulisile Jaca	South African National Biodiversity Institute
Chairperson of trust	Nicky Allsopp	SAEON Fynbos Node
Chairperson of the 58 <sup>th</sup> Congress Organising Committee	Yvette Brits	North West Department of Agriculture and Rural Development
	Wilfred Seitlhamo	North West Parks and Tourism Board
Chair: Scientific Committee	Sindiso Nkuna	University of KwaZulu-Natal
Administrator	Minette van Lingen	Grassland Society of Southern Africa






# TREE OF THE MONTH

## *Tarchonanthus camphoratus*

Camphor bush, Vaalbos, Tree no 733

Author: ZM Smit | zmsmit.denc@gmail.com

Northern Cape Department of Agriculture, Environmental affairs, Land reform and Rural development



The genus name *Tarchonanthus* consists of two parts: “*tarchos*”, which means 'funeral rites' and “*Anthos*” meaning 'flower'. The origins of the genus name are not known. The species name “*camphoratus*” refers to the strong camphor smell of leaves when they are crushed.

Figure 1. Typical form of *T. camphoratus*. Image: IJ Stern



The camphor bush is a large, multi-stemmed shrub to small tree with a relative rounded crown and characteristic grey-green appearance. Trees from the arid regions generally only grow 1 - 3 m high but can grow up to 9 m in moister regions of its distribution range. This semi-deciduous tree is widely distributed throughout the Northern Cape, the Free State and the North West but also occurs in parts of Gauteng, Mpumalanga and into Limpopo. Camphor bush can be found growing in a variety of habitats like woodland, grasslands, rocky hills and riverbanks. The species is often the dominant tree species in the western parts of its distribution range.

## Diagnostic Features

- The grey, simple leaves are leathery and aromatic (Figure 2.)
- All parts of the plant distinctly smell of camphor
- Dioecious – Male and female flowers are borne on different plants
- The flower heads are arranged in terminal compound panicles (Figure 3.)
- The small fruit are covered in wooly white hairs



Figure 2. Illustration of the leathery leaves of camphor bush. Image: David Becking



Figure 3. The flowers of *T. camphoratus*. Image: IJ Stern

## Ecology and uses

The tree is browsed by livestock and game but reports on the species' browsing value varies. Camphor bush can be used as a potential fodder resource during periods of droughts. It is also fire resistant, being able to re-sprout fast after burning.

The many indigenous groups use leaf infusions and roots of camphor bush to relieve respiratory complaints, such as asthma, whooping cough and bronchitis and also to ease toothache, inflammation and plaque. The leaves are sometimes used as a perfume and can also be used for massaging body stiffness. The hard wood can be used to make furniture or used as fence poles. The wood can also be used as firewood or to make charcoal. Shrubs can be planted to manage soil erosion due to their extensive root systems.

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# Karpowership game ranch 'donation' raises new stink over green offset schemes

Tony Carnie

Reprinte From: Daily Maverick

**K**waZulu-Natal's official custodian of nature conservation has stepped into a pungent quagmire after entering into a provisional agreement that involves the 'donation' of a 1,784 hectare hunting ranch – ostensibly to counterbalance the negative impacts of Karpowership operations on the marine environment of Richards Bay harbour.

Ehhh, come again... How could the acquisition of Madaka Game Ranch (a high-altitude land parcel some 130km from the closest shoreline of the Indian Ocean) possibly ameliorate negative ecological impacts on a crucial nursery area for sea fish or migratory water birds? Has Ezemvelo KZN Wildlife been "bought off" to look the other way?

Rightly or wrongly, these are some of the damaging perceptions that have caught hold and raised concern among several conservation interest groups and members of the public after Ezemvelo entered into biodiversity offset negotiations with the Istanbul-based floating power ships group.

Offset agreements are relatively new mechanisms used across the world to make up for the damage of development projects on the environment, usually by safeguarding or restoring another area with the same or similar ecological features to the area negatively affected by development.

Ezemvelo's own offset guidelines do make provision for "out-of-kind" agreements or for financial compensation, but only in "exceptional cases", where it is not feasible to find similar alternative habitat.

Daily Maverick invited Ezemvelo to comment on these issues on 6 September, but the conservation agency has yet to respond officially, other than to state that Madaka Game Ranch has not been transferred to it yet, and that any final

agreements are subject to approval by the national Department of Forestry, Fisheries and the Environment (DFFE).

Nevertheless, in a letter sent to the DFFE on 22 August, the conservation agency confirms (three times) that it will not object to Karpowership being granted environmental authorisation for the Richards Bay power ships if the proposed offset deal is approved by the national department.

If the deal was approved, Madaka would be purchased by Karpowership and donated to Ezemvelo to expand the neighbouring Ithala Game Reserve near Vryheid. This would expand the size of the 29,653ha Ithala reserve by 6%, thereby enabling Ezemvelo to better conserve rhinos and elephants, along with other plant or freshwater species such as the Barberton Mountain Sugarbush or the Southern Barred Minnow.

A closer reading of Ezemvelo's letter suggests that any agreements with Kar-

powership are also strictly conditional upon a separate and specific marine-related biodiversity offset agreement – and a clause providing for High Court arbitration if Karpowership were to renege on the agreements.

But the precise terms of the marine offset agreement remain unclear after proposals to rehabilitate nearby estuaries at Umvoti, iNhlabane or in the uThukela Marine Protected Area were deemed unfeasible in the short term.

Ezemvelo's letter incorporates some tortuous logic, including a statement that "Ezemvelo is of the opinion that the purchase of Farm Madaka for inclusion into Ithala Game Reserve will make a meaningful contribution to the biodiversity status of KwaZulu-Natal and would ultimately benefit, to some extent, the marine ecosystem through securing the ecological services the property provides."

Not surprisingly, Ezemvelo has come in



**Figure 1.** The Irem Sultan 'Power of Friendship' floating power ship. (Image: Karpowership)

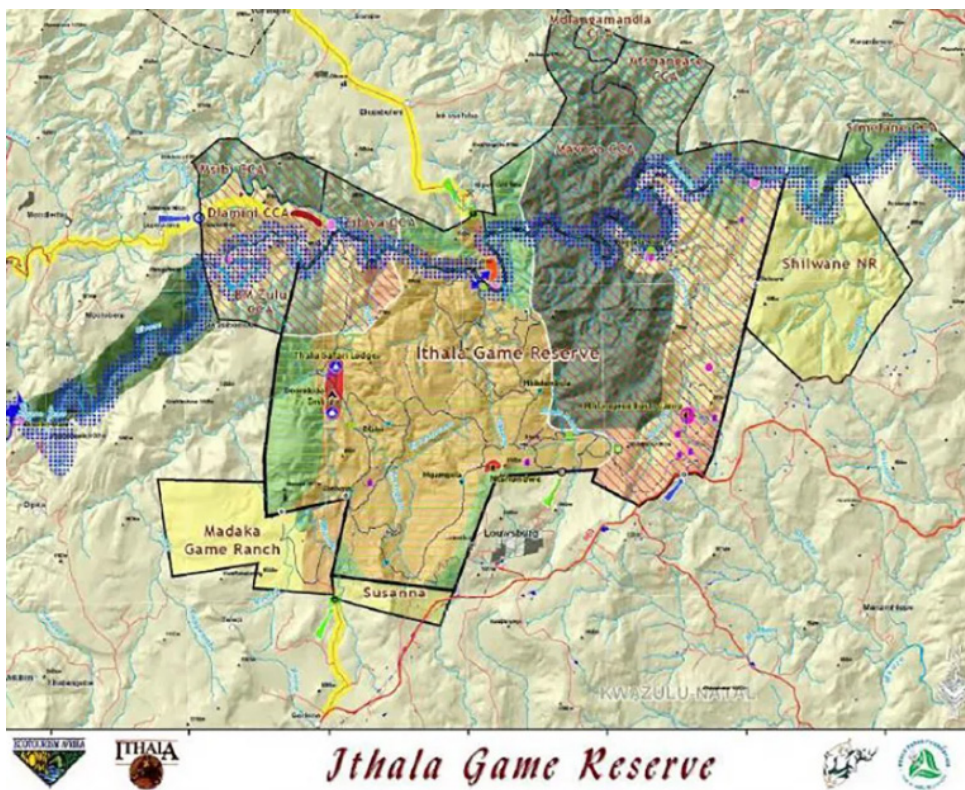


opinion that the establishment of the necessary marine offset is reasonably achievable. In view of this, Ezemvelo will not object to the Environmental Authorisation, should such be issued, being conditional to the marine offset set being set in place before the Powership becomes operational. Furthermore, Ezemvelo's non-objection is also on condition that the offset management plan agreed to by, at least, Ezemvelo and the Applicant entering into a binding agreement with this organisation that, independently of any non-compliance identified by the Department, enables it to approach the High Court for relief should the Applicant fail to implement the offset management or maintain the offset for a reasonable period after cessation of operation.

Finally, Ezemvelo KZN Wildlife is cognisant of and naturally concerned about the delay in the marine offset counterbalancing the residual impacts. While an out-of-kind offset to counterbalance this aspect of the offset is desirable, this type of offset is, in many respects, uncharted territory. Ezemvelo is of the opinion that the purchase of Farm Madaka for inclusion into Ithala Game Reserve will make a meaningful contribution to the biodiversity status of KwaZulu-Natal and would ultimately benefit, to some extent, the marine ecosystem through securing the ecological services the property provides.

In conclusion, with the proposed offset safeguards in place, Ezemvelo KZN Wildlife would not object to the Department issuing an Environmental Authorisation for the proposed Gas to Power Powership project (the Powership at Richards Bay, should it (the Department) decide to do so.

**Figure 2.** An extract from Ezemvelo letter to DFFE on the Madaka deal.



**Figure 3.** A map showing location of the Madaka Game Farm and Ithala Game Reserve. (Source: EIA report)

for strong criticism from several quarters and has also been urged to clarify its position by publishing the full terms of any agreements with Karpowership.

The country's oldest environmental conservation group, the Wildlife and Environment Society of South Africa (Wessa), said Ezemvelo appeared to have altered its original stance against aspects of the Karpowership proposal.

"The reported Ezemvelo volte-face and subsequent acquiescence is deeply concerning, and the apparent lack of consultation and transparency on the agreement itself creates the perception that Karpowership has 'bought' approval for its project," senior Wessa

officials Helena Atkinson and Dr Gary Koekemoer said.

"Given the already poor reputation engendered by previous Karpowership SA's environmental authorisation attempts, it is troubling that the company appears intent on manipulating the assessment processes to secure an outcome in its favour."

While offset agreements had significant potential to restore wildlife habitats or to sequester carbon emissions, "buying a game farm cannot mitigate against the environmental impact" of power ships.

"Unfortunately, as demonstrated by

some projects, it also has great potential for unscrupulous companies to 'greenwash' their unsustainable developments and practices, thereby undermining both the integrity of the mechanism and threatening its future viability."

### Several concerns raised

Atkinson and Koekemoer said the proposal raised several other concerns about the Madaka project, including whether Ezemvelo had the financial or staff capacity to manage a new conservation area.

"Not having sight of the agreement leaves these questions unanswered and means the public cannot evaluate its biodiversity worth," they said, adding that the public had also been excluded from the assessment process.

"In a post-Zondo Commission world, South Africans desperately need their faith restored in our systems of governance, and proof that corporates do not simply buy decisions to favour their interests. And in the midst of a global mass extinction of species due to human activity, abandoning an irreplaceable Critical Biodiversity Area simply because that's the way things are and likely to be, is a failure of both vision and duty by the provincial conservation authority," they said.

Yet, for its part, Karpowership has presented the Madaka plan as a "landmark" agreement to mitigate its "residual environmental impacts" at Richards Bay.

It was also a demonstration of the company's "unwavering commitment to the environmental sustainability of its projects" and it regarded offsets as an important tool for conserving biodiversity while allowing for economic activity and socioeconomic upliftment.

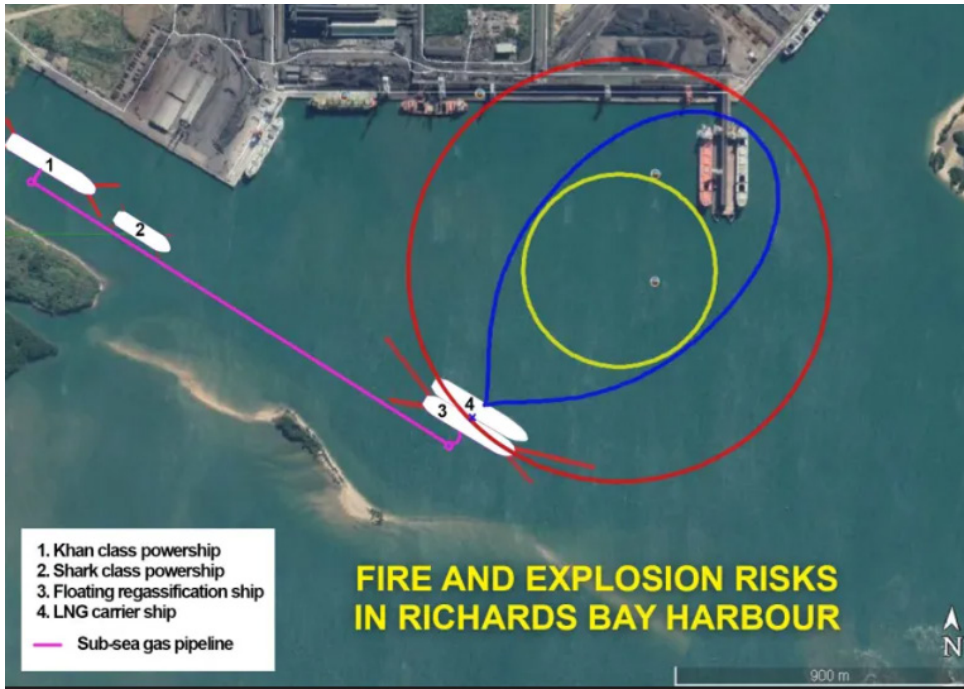
"As a demonstration of support for Karpowership SA's ambitious environmental conservation endeavour, Ezemvelo has indicated that it will not object to the environmental authorisation being issued," the company said on 6 September.

All the same, other environmental experts who have been watching the Karpowership EIA process closely are worried.

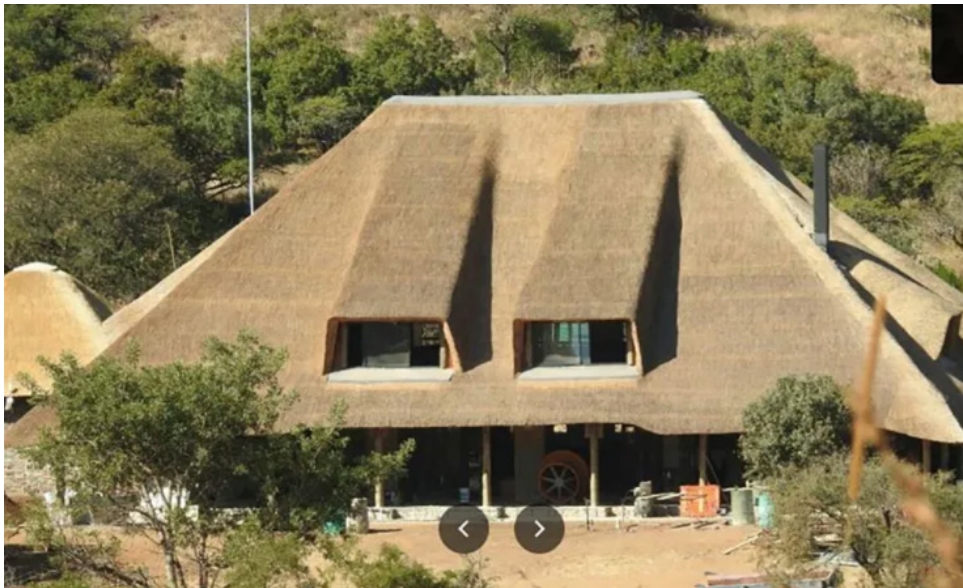
### 'Estuarine habitat is irreplaceable'

Prof Digby Cyrus, a senior estuarine ecologist specialising in fish and birds, said the affected sandspit and marine/estuarine habitat in the Richards Bay / uMhlatuze Estuary were classified as a Critical Biodiversity Area (Level 1) which was considered irreplaceable.





**Figure 4.** The location of Karpowership vessels in Richards Bay harbour. (Source: EIA report)



**Figure 5.** An aerial view of one of the lodges at Madaka Game Farm. (Photo: Google Maps)

The proposed offset was therefore “unacceptable” for an area that formed a critical nursery ground for juvenile fish and prawns along the KZN coast.

Because the proposal gave no details about specific offsets within the estuarine harbour, “one is then left asking: If the decision is taken not to use the uMhlathuze Estuary, and an equivalent estuarine offset is currently not known to exist, how will the offset option be implemented?”

“It would be unacceptable for DFFE to accept an estuarine offset for such an important component of the Richards

Bay Estuarine ecosystem without the actual offset, its methods of implementation, rehabilitation and functioning etc, being detailed in the Karpowership application.”

**‘It is bizarre, irregular, unlawful, immoral, bad’**

Durban environmental lawyer Prof Jeremy Ridl described the proposal as “bizarre”.

“If the ‘offset’ is to buy Ezemvelo’s support for the project (or at least, not to oppose it), it is not only bizarre, but irregular, unlawful, immoral, bad ... there are not enough adjectives to describe it.”

Commenting in general terms about the concept, Ridl said: “Offsets anyway, are dangerous. Using the ‘apples and oranges’ analogy, the trade is usually this – a perfect, one-of-a-kind apple for a bag of rotten oranges. It is an illusion to think that the loss of pristine, irreplaceable wetland, grassland or marine life can be compensated for (usually) with degraded land that is to be rehabilitated.”

“It is not a fair trade. Rewilding and rehabilitation of degraded land should happen anyway. It should not be rewarded by allowing the destruction of something precious and irreplaceable.”

In a journal article published in 2021, environmental researcher Dr Jenny Pope and fellow academics at North West University note that offsets are often seen as “conceptually murky” and are typically positioned as the “last resort” when other options have been exhausted.

“Biodiversity offsets are appealing to developers and often also to regulators, since they appear to offer a ‘best of all worlds’ solution to the trade-offs inherent in the vast majority of development approvals in which some level of adverse environmental impact is unavoidable.”

“There are numerous increasingly insistent voices, however, arguing that there are fundamental issues with both the concept and the practice of biodiversity offsets, with grounds for challenge ranging from the ecological, to the practical, to the economic, to the moral and philosophical, all of which are connected to some extent.”

**‘Approach trade-offs with extreme caution’**

The national biodiversity guidelines published by the DFFE also make the point that: “Biodiversity offsets should be distinguished from trade-offs.

A trade-off in the biodiversity context involves exchanging a negative outcome for biodiversity with another positive outcome, which does not necessarily benefit biodiversity, and where it benefits biodiversity, does not properly counterbalance the loss of biodiversity through a like-for-like approach.

“Trade-offs should be approached with extreme caution in the context of environmental authorisation applications given that South African law demands a rational link between impacts on the environment and conditions of environmental authorisations directed at addressing those impacts.”



## Ezemvelo's statement on the biodiversity offset principle

The article by Antony Squazzin titled "Karpowership donates game farm in exchange for no objections from KZN wildlife body," published in Bloomberg News and again in News24 on the 6th of September 2023 bears reference. Mr Squazzin's claim that Ezemvelo KZN Wildlife (Ezemvelo) has traded its integrity and independence for a game farm is baseless and is rejected by this organisation with contempt.

Ezemvelo is the conservation agency for KwaZulu-Natal. One of its functions is to assess environmental impact assessments (EIAs) for potential impacts on biodiversity, the effectiveness of the proposed mitigation and the appropriateness of biodiversity offsets should they be required.

In the case of the Karpowership's application to establish a gas-to-power facility within the Richards Bay Harbour, without going into detail, the marine specialist, Dr Barry Clarke of Anchor Environmental appointed by environmental assessment practitioner – Ms Hantie Plomp of Triplo4 KSA – was of the opinion that the facility's impacts on the marine and avifaunal environment could be reasonably mitigated and offset. Any residual impacts, i.e., those that remain after mitigation, could be offset by rehabilitating nearby marine environments and recreating marine habitats.

Dr Clarke's recommendation, in essence, is in keeping with the provisions of the National Environmental Management Act of 1998, which regulates the EIA process and the international, national and provincial guidelines on biodiversity offsets. The role played by Ezemvelo in this instance is no different from the many development and land (or sea) transformation applications this organisation receives annually a fact that Mr. Squazzin seems to have overlooked.

According to the Manager: Integrated Environmental Management & Protected Area Planning at Ezemvelo KZN Wildlife, Dr. Andy Blackmore, offsets are to compensate for adverse biodiversity impacts after mitigation has been applied. These are known as 'residual impacts'. The biodiversity offsetting principles, applied in South Africa and universally, characterise various types of offsets that can be applied to achieve the overriding principle of 'no net loss of biodiversity' but preferably a 'net gain'.

Examples of some offsets include;

- 'Like for like' or 'in kind offsets, where biodiversity losses are compensated with gains for exactly the



**Figure 6.** Wildlife trophies at Madaka Game Ranch. (Photo: Madaka Game Ranch / Facebook)

same biodiversity (species, habitats, biotopes etc.)

- 'Trading up' offsets where the offset conserves or protects significantly more threatened biodiversity than that lost (these may be considered, under certain circumstances, to contribute to the country's conservation objectives), and finally
- 'Out of kind' or flexible offsets are when the offset safeguards important biodiversity that is substantially different from that damaged by the development.

Following Dr. Clarke's findings, recommendations and outcome of his specialist study, Ezemvelo KZN Wildlife advocated to the Department of Forestry, Fisheries, and the Environment. In the Karpowership's application, that Karpowership SA will have to secure an extensive marine (like for like or in kind) offset if their application is to be authorised. 'Multipliers', an accepted method for calculating residual negative impacts and offsets, will be built into the offset that considers uncertainties, gaps in information and time lags. Multipliers effectively increase offset requirements to increase confidence in achieving the intended outcomes.

Recognising that the competent authority may deem this application to be in the National interest and that the Karpowership could be operational ahead of the required marine restoration, Ezemvelo suggested to Karpowership that they may wish to consider, as a show of good faith and commitment to biodiversity, and out of kind offset that could be secured immediately that would significantly contribute to KwaZulu-Natal's protected area network and the conservation of threatened or endangered species, thereby making good on potential lag time impacts. Karpowership agreed in principle to this suggestion. Farm Madaka, adjacent to

Ithala Game Reserve, is under consideration for this offset.

Dr Blackmore further stated that "Ezemvelo's recommendation, while noting potentially significant gaps in the EIA specialist studies, is that Karpowership will have to set two offsets in place. The first is to compensate for the potential residual impacts on the marine environment, and the second is for the potential delay or lag time in the marine offsets becoming functional. Should the environmental authorisation be granted with these conditions, it will be considered pioneering because it considers specifically offsetting lag times."

Mr Squazzin's article is incorrect in that:

- There has not been a purchase, let alone a donation of a game farm to Ezemvelo KZN Wildlife.
- Ezemvelo KZN Wildlife introduced an additional biodiversity offset not contemplated in the provincial and national offset guidelines or previously imposed on a developer in South Africa.
- Ezemvelo has traded its integrity and independence for a game farm.

The fact of the matter, Ezemvelo KZN Wildlife has insisted that Karpowership SA go beyond what traditionally is required of developers following the EIA process. Not only will Karpowership SA have to secure the extensive marine and estuarine offset, which Dr Clarke has indicated is reasonably achievable, but they will also have to compensate South Africa's biodiversity heritage for the lag (even if this does not arise) in the marine offsets becoming fully functional. By requesting this second and additional offset to be in place, Ezemvelo views it as a significant step towards holding developers accountable for their impacts on biodiversity or placing South Africa's biodiversity heritage at risk.

# Forestry, Fisheries and Environment publishes National Biodiversity Offset Guideline for implementation

## Department of Forestry, Fisheries and Environment

Reprinted From: Article

South Africa's first National Biodiversity Offset Guideline has been published for implementation.

The Guideline was published in Government Gazette 48841 (Notice No. 3569) by the Minister of Forestry, Fisheries and the Environment, Ms Barbara Creecy, on 23 June 2023 in terms of the National Environmental Management Act.

The National Biodiversity Assessment 2018 stated that South Africa's biodiversity is declining and ecosystems are being degraded, therefore there is a need for urgent action to slow down the loss and degradation of these natural assets. The Guideline will serve as a means to minimise and offset biodiversity loss as a result of the negative impacts of unsustainable development on the country's natural environment.

Biodiversity offsetting, which forms part of the mitigation hierarchy envisioned in the NEMA principles, is a relatively novel practice in South Africa, which has not always been implemented in an evidence-based and consistent manner, therefore the Guideline serves to provide a degree of consistency and standardisation in the implementation thereof.

The Guideline will also serve as an intervention aimed at improved protection for, and appropriate management of biodiversity. If done correctly,



## forestry, fisheries & the environment

Department:  
Forestry, Fisheries and the Environment  
**REPUBLIC OF SOUTH AFRICA**

the biodiversity outcome, as a result of the intervention, counterbalances the negative impact of an activity on biodiversity.

Biodiversity offsetting is only required if there is still a significant residual biodiversity impact after all other efforts have been made to avoid and minimise negative impacts on biodiversity.

Fundamental principles are spelled out in the Guideline for offsetting biodiversity in South Africa. This includes guidance on when offsets are required, how to determine the requirements for biodiversity offsets and how to ensure that the actions taken are binding on the person liable for implementation.

The Guideline applies to the terrestrial and freshwater realms, and not to offshore marine areas or estuarine ecosystems. That does not however mean that biodiversity offsetting is not required where development will

have negative impacts on marine or estuarine ecosystems.

The Guideline is not legally binding and does not replace the environmental authorisation (EA) process outlined in the NEMA or the Environmental Impact Assessment Regulations. It augments the legislation by guiding the implementation of NEMA and the EIA Regulations in the context of mitigation of impacts on biodiversity and the use of biodiversity offsets. Competent authorities listed in terms of NEMA will be required to consider the Guideline when taking decisions on EA applications.

To access the Guideline, click on: National Environmental Management Act, 1998 (Act No. 107 of 1998): The National Biodiversity Offset Guideline published for implementation [G48841 – GoN 3569]

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# Licence to pollute - carbon offsets are a disaster in the making for Africa

Neil Overy and Thabo Sibeko

Reprinted From: Daily Maverick

The whole concept of carbon offsetting is simply another frontier of capital accumulation and profit-seeking based on yet more exploitation and the externalising of environmental costs. We cannot sell nature to save it.

Those who believe that “the market” offers us our best route out of the climate crisis celebrated the launch of the African Carbon Markets Initiative (ACMI) during COP27 in Egypt late last year.

Speaking during the launch of the ACMI, the Vice President of Nigeria and ACMI steering committee member, Yemi Osinbajo, said, “Carbon markets can deliver tremendous benefits for Nigeria and Africa, creating jobs, driving green investment and reducing emissions.”

The idea behind the ACMI is simple — it is a carbon offsetting scheme whereby rich Northern countries will pay poorer African countries for the right to continue releasing carbon into the atmosphere.

Rich Northern countries can do so without worrying about these emissions because they will be “offset” by African countries, which will protect their natural carbon sinks — such as forests, wetlands and grasslands — from development while allocating new land for the development of new plantations to also act as carbon sinks.

For doing so, African countries will be paid for each “carbon credit” that is purchased by richer countries.

At its launch, the ACMI set out to sell 300 million carbon credits every year

by 2030. By 2050, they hope to sell over 1.5 billion carbon credits every year. The revenue from these credits will then be used by participating African countries to decarbonise their economies and preserve their natural carbon sinks.

What an astonishing outcome — a win for all concerned!

Except, of course, it is a disaster in the making for Africa, and one that is entirely premised on a colonial mentality of exploitation and externalisation.

## Underdevelopment exploitation

Let’s consider for a moment the thinking behind this project.

It goes something like this: Africa’s underdevelopment can be exploited by rich countries — which carry a historic burden for largely causing this underdevelopment — to enable them to continue to maintain their climate-change-inducing lifestyles.

So, in effect, the fact that Africa only produces 4% of the world’s emissions of carbon dioxide is a cause for celebration among the richer nations of the world because it gives them a continued licence to pollute.

This continued licence to pollute is an example of what Adrienne Buller recently described in her book, *The Value of a Whale: On the Illusions of Green Capitalism*, where she wrote of the “externalising machine” of capitalism which is always looking for ways to evade its true costs.

The ACMI is just another mechanism by which these true costs can be evaded because the ability to balance

emissions in one part of the world, or one sector of an economy, with the alleged ability to capture these emissions in other parts of the world, is a theoretical fantasy which does not relate to reality in all its complexity.

It is this complexity which makes the whole idea of carbon offsetting complete nonsense.

The first problem is that the process of estimating and counting carbon credits to be offset is entirely voluntary and is therefore open to abuse.

There are countless examples from all over the world where carbon credits being offered are simply fake.

For example, recent research has shown that 90% of rainforest carbon offsets issued by the world’s largest certifier of carbon credits were “phantom credits”. In addition, the amount of carbon any area offsets is guesswork, and yet carbon credits will be offset against these guesses.

Another problem relates to how time-bound carbon credits are — they may be issued against the 30-year growth of a plantation, but who will monitor this growth for 30 years? What happens if there is a fire which destroys the plantation, for instance?

Credits are also issued against carbon sinks like forests which are allegedly under threat from development, when there is often no evidence to suggest that these threats are real.

Also, given the prevalence of corruption in Africa caused by weak governance, is it possible to say the money that comes from the selling of carbon credits will contribute to greening the continent’s economies?

## ACMI a multi-pronged disaster for Africa

First, it is leading to land grabs on the continent, where people are being forced off their land so that plantations can be grown in the interest of producing carbon credits. This process of dispossession is having a dramatic impact on food security and rural livelihoods.

Last month it emerged that Liberia was to cede up to 10% of its territory — one million hectares of forest — to a private company from the United Arab Emirates to allow polluters to “offset” their emissions. The deal looks set to terminate the customary land rights of thousands of Liberians.

Second, by offering the rich countries a means by which to continue to emit carbon dioxide, with no hope that it will be properly mitigated by the carbon credit scheme, the climate crisis deepens.

This is a chilling reality for Africa where the rate of temperature increase has accelerated in recent years and where the negative impacts of the climate crisis are already being disproportionately felt.

In 2022 alone, 110 million Africans were directly affected by weather, climate and water-related hazards.

The stark reality is that we cannot trust the market to solve the climate crisis. You cannot expect the institution that is largely responsible for it to offer the solutions. To quote Audre Lorde, “The master’s tools will never dismantle the master’s house.”

The whole concept of carbon offsetting is simply another frontier of capital accumulation and profit-seeking based on yet more exploitation and the externalising of environmental costs. We cannot sell nature to save it.

News has recently emerged that the Turkish company, Karpowership, had purchased and donated a 1,784-hectare hunting ranch to Ezemvelo KZN Wildlife, the provincial wildlife authority in KwaZulu-Natal. According to a statement issued by Karpowership, in doing so it had gained an assurance from Ezemvelo that it would not formally object to the company’s plan to moor a floating 450MW gas-powered power station in Richard’s Bay harbour.

The statement continued by noting that the donation of the land was a

“biodiversity offsetting” designed to “mitigate” the impact of the power station.

It is precisely this kind of crass and nonsensical reasoning that is at the very heart of all such offsetting schemes, including carbon offsetting.

It’s a crass and nonsensical reasoning which should be opposed by all interested in finding genuine people and nature-centred solutions to the ongoing climate crisis.

*Dr Neil Overy is an environmental researcher, writer, and photographer. He has worked in the non-profit sector for more than 20 years and recently completed an MPhil in Environmental Humanities South at the University of Cape Town.*

*Thabo Sibeko is a Programmes Officer at Earthlife Africa Johannesburg. He has 20+ years’ experience working with communities towards the realisation of clean, affordable electricity in South Africa, and currently works with coal-affected communities in Limpopo to discourage new and existing coal projects from development.*



**Figure 1.** The authors argue that the African Carbon Markets Initiative is a multi-pronged disaster for Africa, exploiting the continent's underdevelopment to enable richer countries to continue polluting the planet. (Image: iStock)



# 'Helicopter science' and imposed conservation models disregard African environmental knowledge

Rio Button, Matthew Hattingh and Fred Kockott

Current Address: Roving Reporters  
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Who controls the narrative around conservation in Africa? And what about the foreign funders of many parks and other conservation efforts on the continent? Are the pipers from Europe, America and elsewhere calling the tune?

angoma and ethno-ecologist Nolwazi Mbongwa would love to give the chop to "helicopter science". She derides the phenomenon that sees cash-flush overseas researchers fly into developing countries, grab data and hurry home to analyse and publish without really involving locals.

She argues that context is king; that research must be grounded in a commitment to the communities at the heart of any study; that their proper consent is vital, and that researchers must be accountable for the long haul.

"Conservation is not a colonist concept. It always existed in Africa," says Mbongwa, a University of Cape Town PhD candidate who is studying wildlife use among muti traders and traditional healers.

Mbongwa was one of four panellists at a discussion titled, "Conservation — Who Owns the Conversation?" during the recent [11th Oppenheimer Research Conference](#).

The other panellists were Peter Fearnhead, the CEO and co-founder of African Parks, Radio 702 host and Carte Blanche presenter Bongani Bingwa, and fire ecologist and associate profes-

sor at Wits University, Sally Archibald.

## The pipers

So, who does own conservation, or at any rate, control the narrative around conservation in Africa? And what about the foreign funders of many parks and other conservation efforts on the continent? Are the pipers from Europe, America and elsewhere calling the tune?

Journalist Bongani Bingwa certainly thinks so and says the muted voices of African researchers and environmentalists must be urgently addressed.

He pointed out that fewer than 1% of top climate research authors are based in Africa and that fewer than 1% of African media coverage was about climate change.

This dearth of African science informing decision-making, and the way foreign funding nudges the direction of African research, makes him cynical about the continent's conservation narrative.

"If the money comes from the Global North, it is already informed by certain perspectives," he said.

## Hoodwinked media

Bingwa warned of governments and corporations hoodwinking the media, and implored African journalists "to follow the money" when unravelling the complexities beneath conservation and climate stories.

"Where is that money going? Who controls it? Who makes sure that it does what it is meant to? Who funds the NGOs? Who funds the politicians? Who funds the positions that the lobbyists are taking?" he asked.

He also stressed the value of "engaging with lived experiences of communities".

He said that as a television and radio broadcaster for many years, and as part of Carte Blanche's investigative journalism team, he had trudged in E. coli-infested rivers, chased rhino poachers and stood on threatened dunes.

Most importantly, he said, he had interacted with people who felt powerless and voiceless when confronted by "the machinations of big government, aligned with corporate interests" which often sought to actively divide people in local communities.

He said if people in these many poorer communities had a voice, "they would stand boldly and use that often-used social political slogan: 'Nothing about us, without us'."

## Social licence

African Parks CEO Fearnhead drove home the well-known fact that Africa contributes the least to global warming, yet will be hardest hit by it.

African Parks manages 22 national parks across 12 African countries. Most of the organisation's \$120-million in annual funding pours in from the Global



**Figure 1.** Radio 702 host and former Carte Blanche presenter Bongani Bingwa. (Photo: Supplied)

North, as is the case with many other conservation initiatives throughout Africa.

But he said African Parks' dealings with its foreign funders had been positive. The funders and the governments of the conservation projects they subsidised were equal partners in negotiations and held each other accountable, he said.

Though some funders felt they'd be able to influence policy, Fearnhead said it was the "sovereign government's sovereign right to be able to determine policy on behalf of their population".

At African Parks, he said, the differences between governments and local people were a far bigger issue than differences across the North-South divide.

"Even if you've got the government on your side, if you're not working with local people and getting their support for what you're doing, you haven't got a hope of succeeding in the long run anyway," Fearnhead said.

He stressed the organisation's "social licence" to operate came from local people, and that African Parks would

walk away from a partnership where the interests of the community were not being looked after.

### 'Consensus science' setbacks

And in the academic world? Is there a North-South divide?

"There's a bit of tension among European and African scientists," said Prof Archibald.

The fire ecologist related how she and 20 other scientists, conservation managers and people working in carbon-offset programmes across Africa had recently lost a battle to get their voices heard on savannah fire management.

This was after a [One Earth research paper](#) had implied that all conservation areas in Africa were degraded. It concluded that changing the fire regime to early-season burning would restore them.

This paper, she said, showed "a shocking lack of understanding of ecological processes" in Africa and "dismissed entirely" African research and ideas about fire.

Archibald said burning at different times of year was effective for various and widely different conservation ob-

jectives, including managing poaching, bush encroachment and promoting biodiversity.

For example, late-season burning was effective at controlling disease-carrying ticks and had allowed buffalo populations to be restored in the Ngorongoro Crater.

Archibald said that when she and her colleagues challenged One Earth's paper, their rebuttal was not published because "they (One Earth) like to publish consensus science, and we couldn't come to a point of consensus with the authors.

"So, the state at the moment is that their paper is the message out there that everyone is hearing," said Archibald. This was despite objections from more than 20 scientists and conservation officials and people who are working in carbon-offset programmes across the continent.

"This is an example where I feel there's a huge divergence, and it does have important conservation and funding implications," added Archibald.

### Custodians

Mbongwa said Africa was flooded with requests to set up carbon-offset pro-





**Figure 2.** CEO of African Parks Peter Fearnhead says the organisation walks away from a partnership where the interests of the community are not looked after, (Photo: African Parks)

jects (which reduce emissions to make up for emissions that occur elsewhere).



**Figure 3.** Fire ecologist Prof Sally Archibald reckons international researchers are often guilty of what's increasingly being referred to as 'helicopter science'. (Photo: Supplied)

This was largely because it's much cheaper to set them up in Africa than in other parts of the world.

But projects, set up by corporates and based largely on financial incentives, "solve a problem by creating a problem", sometimes coming at the expense of people being removed from their land for conservation.

Most of these projects failed, while those that involved people in the communities survived, said Mbongwa.

This was because "there is an identity associated with land... with how people use resources".

"So, if the only thing you come to show to the people is money, the moment that money runs out, they will not care about the project," she said.

She cited as an example South African conservation and social nursery projects that had hoped to save over-harvested medicinal plants, but had "completely failed".

This was because they were "pumping money into projects" without properly understanding the circumstances of the communities.

Mbongwa reminded the conference how, after the Kruger National Park hired rangers at great cost to guard heavily poached pepper-bark trees (*Warburgia salutaris*), social ecologist Dr Louise Swemmer had stepped in.

Swemmer figured out how people living near the park used pepper-bark and got the park's nurseries to grow the sought-after tree.

Propagated plants were given to traditional healers at workshops and this became a conservation success story, helping South Africa's most threatened tree go from endangered to vulnerable status.

Researchers, she concluded, need to appreciate that people living near parks often have an intimate understanding of conservation from a life immersed in nature and deep generational expertise.

"We need to make space to learn from Africa's oldest conservationists, rather than go into communities and educate them on things we learnt in books," she said. OBP/DM

*This article was commissioned by Jive Media Africa.*



**Figure 4.** Sangoma and UCT PhD candidate Nolwazi Mbongwa says that traditional healers — the main healthcare providers to most rural South Africans — appreciate the need to protect our biodiversity and conserve indigenous plants and animals. (Photo: Supplied)

# Invasive alien species are a serious threat to the planet: 4 key messages for Africa

**Julie Coetzee**

Current Address: Researcher, Rhodes University  
Reprinted From: The Conversation

Climate change has negatively – and irreversibly, in some cases – affected ecosystems around the globe. Sadly, though, it is not the only phenomenon that’s altering our natural world.

In 2019, the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment Report confirmed invasive alien species as one of the five most important direct drivers of biodiversity loss. The others were climate change, land and sea use, direct exploitation of species, and pollution.

IPBES, an independent intergovernmental body, was established in 2012. It now has 144 member countries; Somalia, the newest member, joined in mid-September. Its major objective is to strengthen the interface between science and policy to conserve and sustainably use biodiversity.

The 2019 assessment found that more than 37,000 alien species had been introduced by many human activities to regions and biomes around the world, most in the past 100 years. A new report by the organisation, focused on alien invasive species, suggests this number is rising fast, with new alien species being recorded at an unprecedented rate of approximately 200 annually.

It also reveals that the global economic cost of invasive alien species exceeded US\$423 billion annually. Costs have at least quadrupled every decade since 1970.

But the new report doesn’t just concentrate on problems. It also offers solutions. It outlines key responses

and policy options that governments may take for prevention, early detection and effective control of invasive alien species. Doing so will help to safeguard nature and its contributions to people. This will ensure a better quality of life for all.

I am an invasion biologist whose research focuses on the ecology and management of invasive aquatic plants. Here, I elaborate on the four key messages highlighted by the report that African countries should heed if the continent is to successfully tackle the threats posed by invasive species.

## Key messages

**1: Invasive alien species are a major threat to nature, its contributions to people, and good quality of life.**

In Africa, invasive species threaten food security by negatively affecting fish production, agricultural productivity, grazing and water supplies.

The introduction of the Nile perch, *Lates niloticus*, into East Africa’s Lake Victoria in 1954 is one of the most extreme examples. Predation by this species caused the extinction of approximately 200 species of cichlids from the lake. It is considered to represent the largest extinction event among vertebrates during the 20th century.

The invasion also resulted in the shallow lake becoming enriched with nutrients as people came to fish for Nile perch. This resulted in the widespread invasion of the lake by water hyacinth. The plant restricted access to the lake, which prevented transport and fishing.

**2: Globally, invasive alien species and their impacts are increasing rapidly and are predicted to continue rising in the future. Accurate data is crucial.**

A 2021 research study highlighted that the reported economic costs of invasive aquatic species were unevenly distributed across geographic regions. Africa, the Oceania-Pacific Islands and the Antarctic-Subantarctic, combined, accounted for only 0.6% of the US\$345 billion global estimate. That’s not because the costs are really that low. The data simply isn’t being recorded, so we’re not getting the full picture.

African countries need to partner with their neighbours in better quantifying the situation.

**3: Invasive alien species and their negative impact can only be prevented and mitigated through effective management.**

In 2011 the Convention on Biological Diversity released its Aichi Biodiversity Targets. The 20 targets were designed to address and mitigate biodiversity loss across the globe. Target 9 stated that, by 2020, invasive alien species and pathways should be identified and prioritised. Priority species should be controlled or eradicated, and measures taken to block new pathways.

But none of those targets were met. And there has been little or no progress recorded in some African countries. Today, invasive species are reported to be adversely affecting livelihoods in more than 70% of African countries.



Constrained financial resources and the lack of legal frameworks and related operational systems are largely to blame for the lack of progress. For example, there is a huge lack of capacity, mainly at ports of entry – which are the most crucial step in preventing invasions.

Many regions still have to enhance their management plans for effective control of invasive species, starting with identification of common invasive species.

#### 4: There are success stories on the continent – lessons should be shared across borders.

In South Africa, the management of alien plant invasions has been actively supported by the government's Working for Water programme since 1995.

A study in 2022 estimated that an average of R310 million (adjusted to 2020 values) had been spent every year on work that covered 2.7 million hectares across more than 76,000 sites. This doesn't mean plant invasions are totally under control. But it is clear that, without this kind of programme, the situation would be far worse.

The study recommended that the programme's future efforts must focus on clearly defined priority sites, improving planning and monitoring, and increasing operational efficiency. These are all valuable lessons for other African countries.

#### An African lens

Its new report did not focus on any one part of the world, but IPBES has previously been clear about the importance of biodiversity to African nations.

In a 2018 regional assessment on Biodiversity and Ecosystem Services For Africa, the organisation wrote that *biodiversity and nature's contributions in Africa are economically, socially and culturally important, essential in providing the continent's food, water, energy, health and secure livelihood, and represent a strategic asset for sustainable development and achievement of the Sustainable Development Goals.*

Most of the data in the newest report comes from the northern hemisphere, as this is where most of the research is conducted, and where the majority of funding comes from.

Different countries and regions will have different needs. That's where the value of regional coordination and knowledge-sharing becomes clear.



**Figure 1.** Fishermen turning a boat on Lake Victoria in Kenya. The lake is covered by the aquatic plant water hyacinth. Yasuyoshi Chiba/AFP via Getty Images

# Minister Barbara Creecy on science based measures being implemented to protect critically endangered African penguins

## Department of Forestry, Fisheries & Environment

Reprinted From: Department of Forestry, Fisheries and Environment

The African penguin is critically endangered. If this situation is not addressed, with current rates of population decline, science tells us these iconic creatures could be functionally extinct by 2035.

Competition for food is thought to be one among a set of pressures that are contributing to the decline of the African Penguin population. Other pressures include ship traffic together with their associated noise and vibrations, pollution and degradation of suitable nesting habitats.

The species, which is endemic to South Africa and Namibia, has decreased from more than a million breeding pairs to just about 10 000 pairs over the last century.

Today, following the report of the Export Review Panel, I have taken a decision to implement fishing limitations in the waters around penguin colonies for a minimum of 10 years, with a review after 6 years of implementation and data collection.

Fishing limitations are established for the following penguin colonies: Dassen Island, Robben Island, Stony Point, Dyer Island, St. Croix Island and Bird Island. The transition to implementing fishing limitations will continue with the current interim closures, while both the fishing industry and the conservation sector study the Panel's Report.

If there is agreement on fishing limitations over the next few weeks or months across these sectors, these will be implemented as they are agreed upon. If no alternate fishing limitation proposals are concluded by the start of the 2024 Small Pelagic Fishing Season (January 15th, 2024) the current interim fishing limitations will continue until the end of the 2033 Fishing Season, with a review in 2030 after six years of implementation from the start of the 2024 fishing season.

Today marks the end of the complex and lengthy process of stakeholder consultations in the quest to find science-based measures to protect the critically endangered African penguin from extinction.

In December 2022, I appointed an Expert Review Panel, under Section 3A of the National Environmental Management Act, to assess the science related to managing the interactions between the small pelagic (anchovy and sardines) fishery and the conservation of African penguins.

The Panel is Chaired by Professor Andre Punt (USA), with members Dr Ana Parma (Argentina), Dr Eva Plaganyi (Australia), Professor Philip Trathan (UK), Professor Robert Furness (UK) and Professor James Sanchirico (USA). The Panel members all have several decades experience in science to policy matters in the marine ecosystems, with a combined science publication list of several hundreds.

The establishment of the Panel aimed to assess the appropriateness and value of fishing limitations for penguin success. These are key discussions as the sardine stock in South African waters continue to be at relatively low levels.

This included science outcomes and insights achieved during of the Island Closure Experiment undertaken by the Department over the preceding decade. This experiment aimed at understanding what, if any, benefits are derived from limiting fishing adjacent to penguin colonies.

The Terms of Reference for the science review and the panel members were established in consultation with the representatives from the fishing industry and bird conservation sectors.

While the Expert Review Panel undertook their work, the Department, in September 2022 declared some areas around the major penguin colonies closed to commercial fishing for anchovy and sardine. Although not representative on a consen-

sus agreement, these fishing restrictions were established after much collaboration and negotiation with the seabird conservation groups and the small pelagic fishing industry representatives.

A stand-out feature of the process to achieve a decision on fishing limitations, over the last two years, has been the level of engagement from the conservation and fishing industry sectors.

I want to thank you for your cooperation and assistance in this process. I do know that some of you are already in discussions on reaching compromises and agreements and I ask that you continue to find each other on this. The Department and myself will be keen to implement any consensus you may reach – as first prize. The DDGs Fisheries and Oceans & Coasts will assist if you require some planned meeting time and space.

To continue the engagement, I have asked officials from the Fisheries and Oceans and Coasts Branches to report to you at least annually on the implementation of these closures, the expanded science plan and also progress on other non-fishery interventions in the Penguin Management Plan. Fishing limitations alone will not be sufficient to help the penguins recover.

In conclusion, I want to thank the Panel, Professors Punt, Furness, Trathan, Sanchirico and Drs Parma and Plaganyi. I appreciate that you reviewed more than 200 documents and that you undertook new analyses as well.

I believe that the Report and my policy decisions here start a new cycle of refinement and assessment for both fisheries and penguin management. It is a material step in implementing our ambition on an ecosystems approach to sustainable ocean management and dynamic marine spatial planning.



# Conservation International Peace Parks Foundation Commit USD \$150 Million to restore 20 Million hectares across African Grasslands, Savannahs and Bushlands

## Conservation International

Reprinted From: Conservation International

### *Landmark Investment Announced at Africa Climate Week to Drive Sustainable Grazing and Climate Resilience Across the Continent*

Conservation International and Peace Parks Foundation (Peace Parks), in collaboration with Indigenous pastoralists, Civil Society Organisations, and the private sector have announced an ambitious plan to restore 20 million hectares of degraded grasslands, savannah and shrublands at the Africa Climate Summit in Nairobi today. **In the announcement, the two organizations committed an investment of USD \$150 million to the effort**, which will scale up the Herding for Health (H4H) model – a climate smart grazing approach for managing and restoring grasslands, savannah and shrublands across Africa. Funding has been made possible through generous support from the governments of Angola, Botswana, Kenya, Madagascar, Mozambique, South Africa, Zambia and Zimbabwe, partners and donors.

#### **Addressing Ecosystem Degradation, Climate Change and Livelihoods**

Grasslands, savannah and shrublands comprise over half of the Earth's terrestrial surface, two-thirds (62%) of which are found across Africa. These ecosystems are integral to the livelihoods of an estimated 50 million pastoralists and indirectly support at least 200 million people. However, approximately 700 million hectares of these ecosystems are degraded, threatening water catchment, carbon sequestration, and community livelihoods. *"This kind of collaboration is the best way to achieve goals and maintain the ecosystems that for*

*200,000 years have sustained life across the African continent,"* said Suzanne Ngo-Eyok, Conservation International-Africa Senior Vice President and Chief Field Officer. *"The carbon sequestration potential of Africa's healthy grasslands, savannah and shrublands ecosystems is equivalent to the carbon sink value of the entire Amazon rainforest. Even though they store vast amounts of irrecoverable carbon, provide livelihood opportunities for hundreds of thousands of people and are culturally significant to pastoralist communities, current conservation efforts on these ecosystems are low. The investment by CI and Peace Parks aims to change that."*

#### **Proven Strategies for Restoration and Resilience**

The program will build on successful conservation strategies across transboundary landscapes in East and Southern Africa, most notably in the Kavango-Zambezi, the Great Limpopo, the Mara-Serengeti and Tsavo-Mkomazi, to advance the wellbeing of communal livestock farmers; rebuild ecosystem resilience and sequester carbon in some of the world's most climate vulnerable areas. *"Herding for Health is now operational across 2.5 million hectares in 16 locations and six countries throughout Southern Africa,"* said Werner Myburgh, CEO at Peace Parks Foundation. *"This programme contains all the elements to ensure conservation impact at scale which is at the heart of Peace Parks'*

*Strategy 2030 by enabling healthy landscapes, healthy livestock, healthy communities and coexistence between people and wildlife."*

#### **Five-Year Goals and Monitoring**

The initiative aims to achieve the following in the next five years:

- Expand the Herding for Health model to seven million Hectares in East and Southern Africa;
- Address ecosystem degradation and restore resilience through conservation stewardship and green job creation;
- Address social equity by unlocking finance opportunities for sustainable, wildlife-friendly grazing;
- Support pastoralists to secure their livelihoods against climate impacts as well as the health of their herds and their families through a One Health approach; and
- Establish mechanisms to ensure the long-term financial sustainability of Herding for Health sites and catalyse the uptake of the model across the continent.

A monitoring platform will be established to track ecosystem and socio-economic improvements, offering insights into degradation threats including fire, bush encroachment, invasive plant species and soil erosion. These data will inform future rangeland restoration initiatives across Africa.

# International Grassland Congress: A Global Gathering for Sustainable Agriculture

**Guy Musto**

Current Address: Stellenbosch University, Department of Agronomy

It was an immense privilege to attend the 25th International Grassland Congress (IGC), held from May 14-19 in Covington, Kentucky, USA. The congress brought together researchers and experts from around the world to share new findings and advancements in forage and grassland agriculture. With a rich history dating back to 1927, the congress convenes every four years and serves as a platform for discussing the stewardship of grasslands and the vital role they play in sustaining livestock, wildlife, and the environment.

This year's event saw the participation of over 1000 delegates from more than 80 countries, providing an extraordinary opportunity for me to collaborate and network with leading grassland scientists across the globe. Grasslands, aside from being a primary feed source for animals, offer essential ecosystem services such as clean air, water, and soil health. Furthermore, these ecosystems have the potential to sequester carbon and, under appropriate management, contribute to mitigating climate change.

The congress program comprised thematic oral presentations and informative keynote addresses. These sessions covered a wide range of topics, including the integration of crops and livestock, a subject that often elicited diverse perspectives and results among researchers. However, there was a pre-

vailing consensus that incorporating grazed pasture and cover crop phases between crop cycles can significantly enhance the sustainability, productivity, and resilience of agricultural systems. Particularly in South African cropping systems, where the benefits of maintaining permanent living roots in the soil are well-documented, further research on long-term cover crop and pasture phases is warranted.

In addition to the presentations, poster sessions provided an opportunity for researchers to showcase their work and engage in discussions with fellow attendees. Here, I had the opportunity to present a poster on a section of my MSc research titled "Adaptive multi-paddock grazing of cover crops in integrated crop-livestock systems in Mediterranean regions: a review", supervised by Prof. Pieter Swanepoel (Stellenbosch University) and Dr. Johann Strauss (Western Cape Department of Agriculture). The platform and poster sessions facilitated insightful conversations and the exchange of ideas with leading experts in the field, leaving me with many valuable insights and potential collaborations.

One of my highlights of the congress was a mid-congress tour, which involved visiting a local Angus beef farm. The farm showcased the benefits of high-density grazing in their particular context, dem-

onstrating a significant improvement in the composition and quality of the pastures as well as the livestock gain (kg/ha). Additionally, we had the opportunity to visit Purdue University research station, where the latest drone technology for seeding pastures and crops, as well as applying agrochemicals, was demonstrated. These advancements hold promise for enhancing the sustainable management of grasslands and croplands in the future.

The International Grassland Congress continues to play a crucial role in fostering global collaboration and knowledge sharing in the field of forage and grassland agriculture. As the world grapples with the need for sustainable food production and environmental conservation, events like the IGC provide a platform for researchers, practitioners, and policymakers to come together, exchange ideas, and shape the future of agriculture for the better. To have had the opportunity to attend such a significant event, I am truly grateful. It would not have been possible without the support of Stellenbosch University, the Grassland Society of Southern Africa, the Western Cape Agricultural Research Trust, and the South African Society of Crop Production. Their contributions made this invaluable learning experience and the connections forged at the congress possible.







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**Pilanesberg Nature Reserve**

**Madikwe Nature Reserve**

*Fly or Drive*



The crater of a long extinct volcano is the setting for the Pilanesberg National Park, and is one of the largest volcano complex of its kind in the world. Its rare rock types and structure make it a unique geological feature. Four concentric ridges or ring of hills fringe the area - the formation rises from the surrounding plains like bubbles.

Thanks to Operation Genesis (1979), the largest game translocation ever undertaken in the world at the time, the reserve now has in excess of 7000 animals. Well known for its rich biodiversity of habitat, colourful lakes, and panoramic views, Pilanesberg also offers visitors a close encounter with lion, leopard, buffalo, elephant and rhino Africa's BIG 5. A wide variety of rare and common species exist with endemic species like the nocturnal brown hyena as well as cheetah, tsessebe and crocodile, a paradise for wildlife enthusiasts.

Pilanesberg covers an area of 50 000 hectare and exists within a transition zone between the dry Kalahari and the wetter Lowveld vegetation commonly referred to as the Bushveld. Bird watching is excellent with over 300 species of bird recorded. The early presence of man can be seen in the numerous Stone and Iron Age sites that are scattered throughout the reserve.

Visitors are offered many opportunities to experience the wonders of the park through guided game drives or self-drives, a map guide is available on sale at the entrance gates. The zoomk of good tar and gravel roads transverse the park and are driveable by ordinary sedan. Hiking trails, dawn and sunset game drives in open safari vehicles and early morning balloon safaris are available and can be booked with specialist operators.

Numerous hides and scenic picnic sites enable the visitor to enjoy an 'out-of-car' experience. A shop and restaurant are centrally located in the park. Curios are also available at the craft market situated at the entrance gate. A wonderful array of accommodation is offered on the periphery of the park ranging from luxury exclusive hotels and game lodges, cosy guest houses and B&B, caravan and camping sites.

The must visit Mphethabo Museum offers the local history of Bakgatla-Ba-Kgafela and state of the art displays are yours to explore. The Moruleng Mall caters for your shopping needs with many of the modern chain stores and restaurants available just 2km outside the Bakgatla Gate.

There are five entrance gates for visitors to the reserve.

Visit their website for more information:  
[www.pilanesbergnationalpark.org](http://www.pilanesbergnationalpark.org) or [www.tourismnorthwest.co.za](http://www.tourismnorthwest.co.za)



A theatre of conservation, a wilderness paradise, Madikwe Nature Reserve.

The 63 000 ha reserve was established in 1991 in one of the largest translocation of the time Operation Phoenix - when a total of 10 000 mammals were introduced to the park.

The reserve has an excellent record of environmental management which has ensured that the carrying capacity of the reserve is never exceeded to the detriment of the eco-system as a whole. The Madikwe Game Reserve conservation efforts to protect the endangered African Wild Dog, are yielding positive results. The reserve has a thriving wild dog population. The painted dogs being somewhat accustomed to the safari vehicles offer visitors a spectacular photographic opportunity.

At Madikwe Game Reserve you will experience the African safari adventure where you will be taken to the heart of a pristine environment to witness the interaction of the many species, including the African Big 5, other plains species such as the cheetah, hippo and the spotted and brown hyenas and more than 300 bird species.

Madikwe is a low density tourism facility offering fully catered accommodation at several luxury lodges within the reserve, and is not open to day visitors. Game drives, in open safari vehicles are accompanied by professional guides.

The reserve is situated 60km north of the town of Zeerust against the Botswana Border. It is a three hours' drive from both Johannesburg and Pretoria. Visitors are also able to fly in using an air charter flight operating from Wonderboom Airport in Pretoria.

The climate is generally mild to hot, but winter nights can be extremely cold. Warm clothing is essential for early morning and night Gate times are arranged for pre booked residents only. Madikwe is not open to day visitors.

Airstrips: Available on request.  
Accommodation is run by private enterprises.

Visit their website for more information:  
[www.zooarc.com/ma](http://www.zooarc.com/ma)



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# In Memoriam: Prof Neil Tainton (1934 - 2023)

## Christine Cuenod

Reprinted From: Friends of UKZN Agriculture Newsletter

Tainton completed his studies at the former University of Natal, graduating with his BSc Agric and MScAgric cum laude before pursuing PhD studies at the University of Wales (Aberystwyth). He joined the staff of the University in 1959 as a lecturer, was promoted to senior lecturer ten years later, to Associate Professor in 1975, and Senior Professor in 1989.

In 1978, he was appointed Head of Pasture Science, known as Grassland Science from 1982, where he established the foundational research for the current understanding of South Africa's grassland ecology and sustainable management. He also served as the Dean of the former Faculty of Agriculture from 1982 – 1984, and during his time at the University supervised 37 master's and 18 doctoral candidates and published over 120 scientific papers as well as authored/co-authored 24 book chapters and edited/co-edited five books on topics such as grass growth and development, fire ecology, grazing and pasture management, and veld condition assessment.

His scientific contributions continue to

be cited regularly today and his original work, *Veld and Pasture Management* (1981) – the “green bible” – and subsequent revised editions for veld and pastures, became essential references for students, researchers, advisors and farmers.

Tainton served twice as President of the Grassland Society of Southern Africa as well as in various other capacities and was elected a Fellow of the University of Natal in 1990. He was voted ‘Agriculturist of the Year’ in 1992 by the Agricultural Writers’ Association of Natal in recognition of his contribution to pasture management.

In 1993 Tainton was appointed to the National Council for the Environment and served on the International Rangeland Society's Continuing Committee between 1992 and 1995, in which year he was presented with the ‘Director's Award’ by the Agricultural Research Council's Range and Forage Institute for his ‘outstanding contribution to the advancement of grassland research and the development of grassland science’.

Tainton retired from the University in

June 1994 and became an Emeritus Professor, and in his retirement served as a Cricket Pitch Consultant to the United Cricket Board of South Africa.

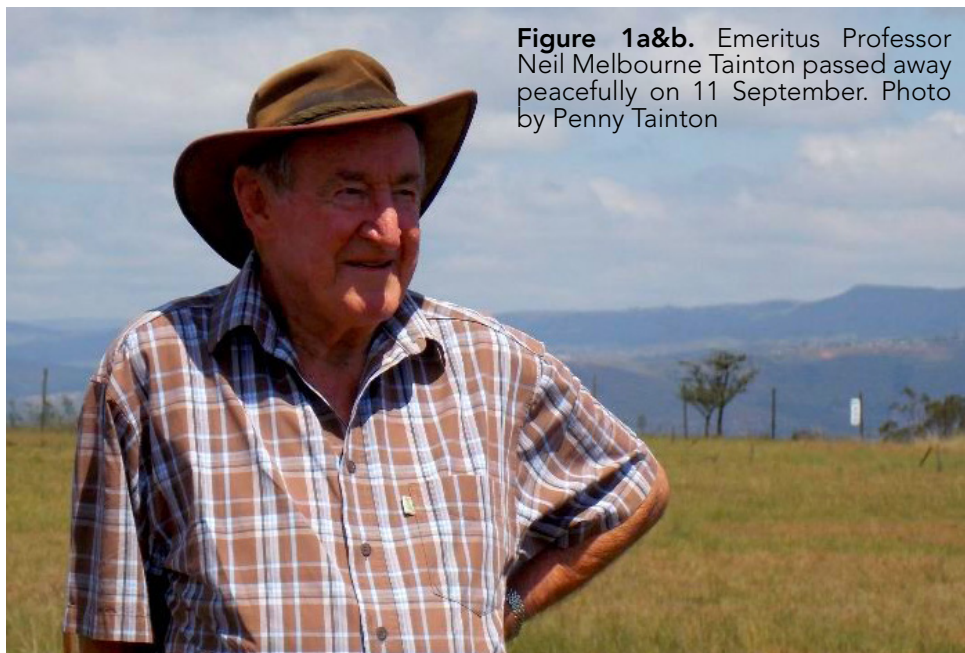
The NM Tainton Arboretum on the Pietermaritzburg campus is named in his memory.

His legacy lives on through the countless undergraduate and postgraduate students he taught and mentored. Tainton is survived by his wife, Rina Tainton, along with his three children, Gary, Penny, and Ken, his eight cherished grandchildren, and four great-grandchildren.

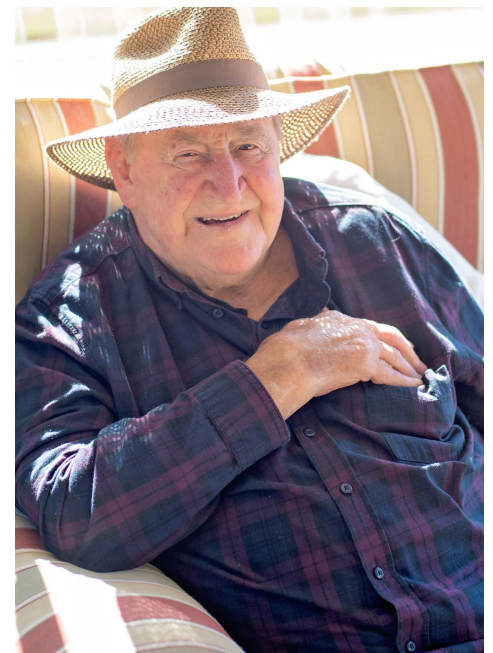
*Compiled by Christine Cuenod with information provided by the Grassland Society of Southern Africa and taken from Professor Bill Guest's book, A Fine Band of Farmers are We (2009).*

*Rich Hunt commented the following on the GSSA's facebook post on Prof. Neil Melbourne Tainton:*

*“It's like the centre of a huge tussock has died, but has hundreds of younger tussocks around it spreading from the core. RIP Prof. Condolences to Rina and family”*



**Figure 1a&b.** Emeritus Professor Neil Melbourne Tainton passed away peacefully on 11 September. Photo by Penny Tainton



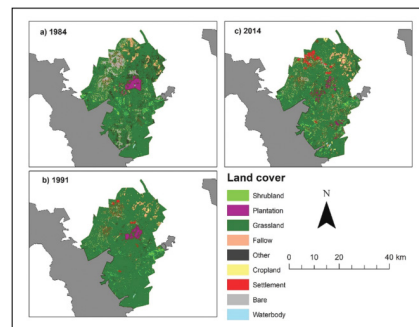


# Websites, Webinars & Podcasts

**JOURNAL ARTICLE | Land cover change in marginalised landscapes of South Africa (1984–2014): Insights into the influence of socio-economic and political factors**

By Mogonong, Fisher, Furniss, and Jewitt published in South African Journal of Science

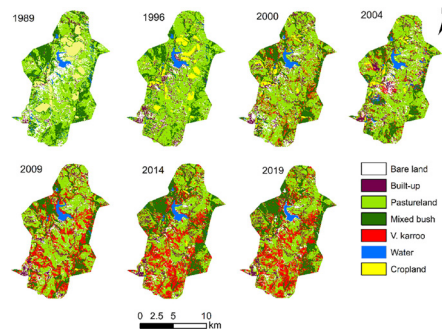
Read this article: <https://sajs.co.za/article/view/10709>



**JOURNAL ARTICLE | The extent, perceived causes and impacts of land use and land cover change in Tyhume Valley, South Africa**

By Masiza, Hamandawana, Chirima, Khoboko, and Parkies published in Frontiers in Conservation Science

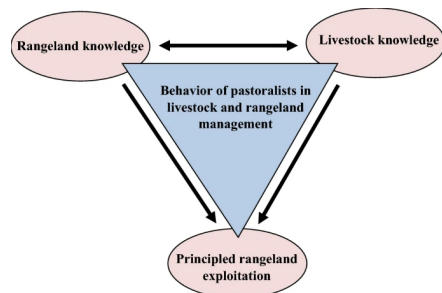
Read this article: <https://www.frontiersin.org/articles/10.3389/fcosc.2023.1205750/full>



**JOURNAL ARTICLE | The mechanism of knowledge-based behavior of pastoralists for rangeland management: exploitation, restoration and conservation**

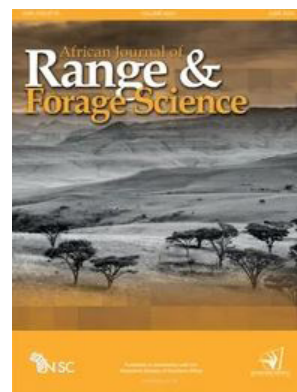
By Mahdavi, Shahraki, and Sharafatmandrad in Scientific Reports

Read this article: <https://www.nature.com/articles/s41598-023-43590-0>



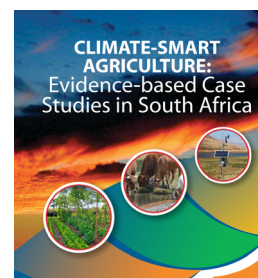
**AJRFS | Read our latest articles from the African Journal of Range & Forage Science:**

- [Selection and evaluation of promising indigenous fodder trees and shrubs as supplemental diets for ruminant animals across different agroecological environments](#)
- [Book Review: 'Global Application of Prescribed Fire'](#)
- [Herbage intake and performance of grazing lambs in tropical erect grass pastures maintained at different heights](#)
- [Participatory establishment of Cenchrus ciliaris forage grass among pastoralists in a semi-arid rangeland area of eastern Tanzania](#)



**NEW BOOK | CLIMATE-SMART AGRICULTURE: Evidence-based Case Studies in South Africa**

A new digital book compiled by Agricultural Research Council – Natural Resources and Engineering, and the Department of Agriculture, Land Reform and Rural Development. This book contains evidence-based research and South African case studies on the implementation of different Climate-Smart Agriculture practices, and aims to contribute knowledge towards effective and well-informed policies and intervention. Read here: <http://www.daff.gov.za/images/Docs/climate-smart-agriculture-book.pdf>



Go check out the following

# Websites, Webinars & Podcasts

## VIDEO | Plaas TV's Grassland Society of Southern Africa video series

Our society's very own video series. Plaas TV series interviewed some presenters from GSSA congress 58th Congress. Catch the first video of the series: 'The past, present and future of Southern Africa's grasslands'.  
<https://www.youtube.com/watch?v=spLY4To36OA&list=PLWJpN39Xw5Y5n6Km wqnUzwJT9nyYZqEFY>



## VIDEO | Tipping Points Ep 16 - Managing African grassy biomes: challenges and practice

Facilitated by our new president, Prof Susanne Vetter and consisting of panellists Prof. William Bond, Dr. Duncan Kimuyu, and Dr. Heidi Hawkins. While planting trees may be a carbon sequestration solution in some parts of the world, it can be disruptive to African grasslands and savanna ecosystems, and even reduce soil carbon. This webinar challenges a tree-centric narrative of nature-based solutions. This video is part of the webinar series 'Tipping Points' hosted by Oppenheimer Generations Research & Conservation. The series brings together top researchers every last Thursday of the month to address key issues affecting development and the environment in Africa.  
<https://www.youtube.com/watch?v=EOhqr7TwZ-k>



## VIDEO | The Ethical Challenges of Climate Advocacy and Science by Prof Sally Archibald, Wits Pro VC Seminar

An excellent seminar presented by Prof. Sally Archibald, a plant scientist at Wits working on savanna ecosystem dynamics in the context of global change. It explores the tricky space many scientists find themselves today. Through examples from work on the African carbon cycle, global fire regimes, and biodiversity networks, themes around bias in knowledge creation and decimation, and scientists as activists are explored. The Wits Pro VC Seminar is a seminar series hosted by the Vice-Chancellor for Climate, Sustainability and Inequality, Prof. Imraan Valodia. The entire series was recently published on Youtube:  
[https://www.youtube.com/watch?v=Dd\\_Xg-U0bL4](https://www.youtube.com/watch?v=Dd_Xg-U0bL4)



## Call for Abstracts: African Journal of Range and Forage Science Special Issue

To commemorate the 60th anniversary of the GSSA's three consecutive journals (hereafter, 'the Journal'), a Special Issue of the African Journal of Range and Forage Science will be published in 2025, comprising review, synthesis and meta-analysis papers that delve into the history, significant topics, and research areas covered by the Journal and thus highlighting the important contributions of the GSSA and the Journal to rangeland and forage science.

These papers will primarily focus on the Journal's published research while also referencing other studies when evaluating its significant contributions and omissions to addressing key knowledge gaps and concerns in rangelands and forage production systems within southern Africa, the African continent, and globally.

Email to [journal@grassland.org.za](mailto:journal@grassland.org.za) by 24 November 2023

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# Upcoming events

**5 – 10 November 2023 (Hybrid event)**

## The Conservation Symposium

A symposium centred around conservation with a range of topics: environmental law and international agreements, data management, social science, community-based research, social ecology, species monitoring and introductions, new technologies, poaching and wildlife trade. A hybrid event with a central venue for live streaming pre-recorded and live presentations to multi-hub meetings scattered across the country, the continent, and the globe so that it continues to be affordable and inclusive but also allows for face-to-face networking and a social aspect to be catered for. Visit: <https://conservationsym2022.dryfta.com/>

They have also published a range of previous years sessions on youtube, visit: <https://www.youtube.com/channel/UCvyZzpvvv9mc3MCKnOLs1fA>

**Occurs regularly throughout the year**

## Fynbos Identification Courses – Cape Town, WC

Wendy Hitchcock, a botanist and environmental educators regularly offers 4-day fynbos plant identification courses in Cape Town. For information visit: <https://wendyhitchcock.co.za/#courses>

**2 – 6 June 2025**

## XII International Rangeland Congress – Adelaide, Australia

The Australian Organising Committee of the XII International Rangeland Congress, on behalf of the Australian Rangeland Society and the International Rangeland Congress Continuing Committee, invites you to participate in the International Rangeland Congress to be held June 2-6, 2025 at the Adelaide Convention Centre, Adelaide, Australia.

Visit: <https://irc2025.rangelandcongress.org/>

**If you would like to advertise your upcoming event, please contact us and we will include it in our next edition.**



**Deadlines for**

Newsletter of the Grassland Society of Southern Africa

**grassroots**

**submissions**

**Issue 23.4: 30 November 2023**

**Issue 24.1: 1 February 2024**

**Issue 24.2: 1 June 2024**

**Issue 24.3: 1 September 2024**

**Please visit**

**[www.grassland.org.za/publications/grassroots/submit-to-grassroots-now](http://www.grassland.org.za/publications/grassroots/submit-to-grassroots-now)**  
**for submission guidelines.**

