December 2025
Volume 25
Number 3

Grassroots

Newsletter of the Grassland Society of Southern Africa

GSSA Congress 60 Edition

Innovative use of *Aristida junciformis* by the Wild Coast locals

Tackling catchment functioning from the bottom up

Upcoming Young Researcher

Advancing Rangeland Ecology and Pasture Management in Southern Africa

ISSN: 10166122

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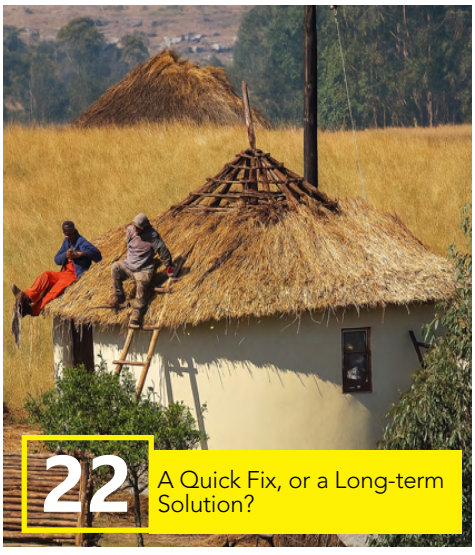

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From our NEW editor

Hello!

My name is Roy Caister, and I am the new GSSA Publications Editor, working alongside Naledi Zama. While we were both excited to take on this role, I must admit I feel a little nervous as this issue goes out. There has been a lot to learn, and still more to learn, but our motto remains "onwards and upwards"!

Where to begin? I'd like to start with the thank yous (or does this go at the end?). Firstly, to Naledi, your support and enthusiasm have been invaluable. To Minette van Lingen, our efficient GSSA administrator, thank you for answering my many questions and providing your input. To J.C. Aucamp, for the layout and design, and finally, to Lisa Matthews, the previous Grassroots editor, whose resources and advice have been essential in guiding us through this process.

This issue follows the GSSA Congress, which is always one of the highlights of the year. Congress 60 was a memorable one, with some of our esteemed "Madala" members receiving prestigious awards, and young researchers also earning recognition. We've captured all these moments in this edition.

Grassroots continues to be an excellent platform to share your work and experiences. We are also excited to introduce two new article types: Farmer's Perspective, where farmers can share their experiences and insights from the field, and Exposure Profiles, which give non-profit organisations a space to showcase their work and impact.

This edition features fascinating articles on rangeland catchment management, the importance of Aristida junciformis, and how prickly pear is helping supplement animal feed for a farmer. To all our contributors - thank you! Your work is insightful and inspiring.

Happy reading, and we look forward to your contributions in future issues!

Best,

Roy

Figure 1. Roy Caister.

Figure 2. Naledi Zama.

Contact us

Have feedback, comments, or suggestions? Email us at grassroots@grassland.org.za - we'd love to hear from you.

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GSSA Council Members 2025/2026

Following the GSSA Annual General Meeting, held during the successful 60th Congress, several significant changes have been made to the Council. Most notably, Michelle Tedder and Sindiso Nkuna have taken up the roles of President and Vice President, respectively. Ntuthuko Mkhize is now the immediate past president.

Linda Kleyn has stepped down as Honorary Treasurer, with Heidi Hawkins assuming the position. Linda was warmly thanked and commended for her dedication and outstanding service to the Society during her tenure on Council.

We also bid farewell to our Publications Editor, Lisa Matthews, who has produced excellent Grassroots issues over the years. Stepping into the Publications team are Roy Caister and Naledi Zama, who will continue to take the publication forward.

Executive Council

- **President:** Michelle Tedder
- **Vice President:** Sindi Nkuna
- **Immediate Past President:** Ntuthuko Mkhize
- **Honorary Treasurer:** Heidi Hawkins
- **Honorary Secretary:** Robyn Nicolay

General Council

- **Scientific Editor:** Urs Kreuter
- **Publications Editor:** Roy Caister
- **Publications Sub-Editor:** Naledi Zama
- **Website Editor:** Janke van der Colf
- **Public Relations Officer:** Marnus Smit
- **Additional Member:** Nicky Findlay
- **Additional Member:** Ngoako Lucas Letsoalo
- **Additional Member:** Andiswa Finca
- **Additional Member:** Thulisile Jaca

Chairperson of the Trust
Nicky Allsopp

GSSA Administrator and Journal Administrator (AJRFS)
Minette van Lingen

For any GSSA queries, email info@grassland.org.za

Figure 1. The incoming 2025/2026 Grassland Society of Southern Africa Council Members at the GSSA Congress 60 gala.

Landmark Grassland Congress Held in Hilton

Christine Cuénod

Affiliation: University of KwaZulu-Natal
Correspondence: cuenod@ukzn.ac.za

Reprinted from: https://bit.ly/3XmO3aT

"The Grassland Society of Southern Africa (GSSA) held its 60th Congress in Hilton, KwaZulu-Natal and online. This milestone celebrated the Society, which was founded in 1966 by staff of the then University of Natal, and marked a return to the city where its first Congress was held.

The GSSA aims to advance rangeland ecology and pasture management in Africa, achieving this by publishing high-quality research in its African Journal of Range and Forage Science, hosting the annual Congress, translating science into policy and practice, and developing human capacity.

Several UKZN staff and students were part of the Local Organising Committee, which was chaired by Professor Kevin Kirkman.

The Congress opened with a publishing workshop facilitated by Ms Rowena Gordon, Senior Managing Editor at the British Ecological Society, and Mr Errol Douwes from eThekwini Municipality. Some delegates also visited the world-famous grassland fire and nutrient addition experiments at UKZN's Ukulinga Research Farm, now in their 75th year.

Mayor of the uMngeni Municipality, Councillor Chris Pappas, officially opened the proceedings and thanked the GSSA for choosing to host the event in this region, highlighting its rich and complex biodiversity and governance.

"We are deeply reliant on the ecosystems you are going to discuss today and over the next few days, and we are living in times when science and local governments must work hand in hand, because the problems that we face, whether it is climate shocks, invasive species, water scarcity, or land degradation can't be solved by government alone. And they also can't be solved by science alone," said Pappas.

In his presidential address, UKZN's Dr Ntuthuko Mkhize said, "We gather not only to share science but also to reflect, to renew, and to recommit ourselves to the vision and values that have held us together for six decades."

He emphasised the Society's sense of purpose, its growing vision of sustainable rangeland management for food security, how it had adapted to a changing South Africa, and its strengths that would ensure its sustainability.

Professor Tim O'Connor presented the opening keynote address that covered the sustainability of the GSSA and how to take an ecosystem-level systems approach to rangeland systems for production and biodiversity. He outlined

Figure 1. Delegates at the 60th Congress of the Grassland Society of Southern Africa at the ANEW Hotel in Hilton.

the purpose of the GSSA's journal in particular as being to showcase good, hard, honest work on local issues.

A keynote address from Professor Ian Scoones of the Institute of Development Studies (IDS) at the University of Sussex described competing narratives for livestock development and policy, drawing attention to the International Year of Rangelands and Pastoralists in 2026.

Mrs Lynne Trollope delivered a keynote presentation covering 58 years of research on fire in African grasslands and savannas. UKZN's disciplines of grassland science, geography and environmental science, and hydrology featured in various oral and poster presentations.

The Congress sessions were themed around rangeland ecology and management, communal rangelands, biodiversity and conservation, planted pastures and feeding ecology, climate change and carbon, restoration and rehabilitation, invasive species, water catchments, and fire ecology.

At the Society's Annual General Meeting during the Congress, UKZN's Dr Michelle Tedder was confirmed as the incoming President of the Society, taking over from Mkhize, while Dr Sindiso Chamane-Nkuna was announced as the incoming Vice-President.

The gala dinner that closed the Congress featured an awards ceremony where several UKZN staff, students and alumni were recognised for their contributions to the field.

Professor Kevin Kirkman received the Prestige Award, which is only conferred when there is a deserving candidate and was last presented five years ago.

This honour recognises a scientist whose work has made a notable impact on range and forage science and/or practice.

Alumni Dr Naledi Zama and Dr Lindokuhle Dlamini received the awards for best platform presentation and young grassland scientist, respectively, PhD candidate Mr Roy Caister was awarded for best research proposal poster.

The award for the best paper published in the African Journal of Range and Forage Science in 2024 was presented to Dr Robyn Nicolay, along with co-authors Professor Kevin Kirkman, Dr Michelle Tedder and Dr Ntuthuko Mkhize.

Following the-Congress, a workshop on nature-based solutions (NbS) in rangeland management was hosted by staff from UKZN and the IDS staff.

The session explored the NbS experiences and ideas related to their collaboration on the Resilient and Equitable Nature-based Pathways in Southern African Rangelands project."

THANK YOU TO OUR SPONSORS

Congress Presidential Address

Ntuthuko Mkhize

"Thank you, program director, Executive Mayor of uMngeni Local Municipality, Mr Christopher Pappas, Members of the Grassland Society of Southern Africa, Ladies and Gentlemen,

Good evening, and welcome to the 60th Annual Congress of the Grassland Society of Southern Africa. I am deeply honoured to stand before you as the President of this great Society in what is a strategically significant congress, our DIAMOND JUBILEE. Today, we gather not only to share science but also to REFLECT, to RENEW, and to RECOMMIT ourselves to the vision and values that have held us together for six decades.

Having the 60th Congress here in Pietermaritzburg is particularly significant because this is where it all began. This city hosted our founding members, guided by sharp vision and urgency, when they RECOGNISED the need for a professional Society to advance Rangeland and Pasture Science. So, returning here is not just symbolic. But IT IS A HOMECOMING.

In deciding what to share tonight, I was tempted to report on the Council's activities and achievements over the past year. But then, I felt this CONGRESS was too big for me to tell what will be repeated by the different Office Bearers tomorrow at our Annual General Meeting at 16:30. So, GSSA members and guests. PLEASE CONSIDER YOURSELVES INVITED.

I then thought of surveying the state of our knowledge in the various aspects of Rangeland Ecology and Pasture Management in all their multiple and amorphous facets, because, after all, that is the gist of why we exist as a Society. But again, I quickly remembered that we have recently released the GSSA's 60th Anniversary Special Issue through our ever-growing *African Journal of Range and Forage Science*. This special issue brings together a collection of papers reflecting the evolution of Rangeland Science in Southern Africa and beyond. All the key challenges and emerging trends are competently captured, and

Figure 1. Ntuthuko Mkhize delivering the Presidential Address, 60th Congress of the Grassland Society of Southern Africa.

future research directions are thoughtfully shaped in that *Special Issue*.

Let me pause here to thank Urs Kreuter, Editor-in-Chief of our Journal, Kevin Kirkman, Craig Morris, and Helga van der Merwe for a sterling job as Guest Editors of this special issue. In the same breath, I would like to thank all the authors who engaged with thousands of papers published from 1965 to date to map our past and illuminate the path forward for Grassland Science.

So, I decided to talk about FOUR (4) key themes that emerged as I browsed through many past presidential addresses and reflections that offer a window into how the Society has evolved. In sharing this history, I hope to take our long-standing GSSA members on a trip down memory lane, while at the same time, I am equipping the younger generation with a sense of where we come from as a Society. I do this because I firmly believe in the African proverb that says, "*A river that forgets its source will soon dry up.*"

1. **GSSA as a Society with a strong sense of purpose**

In his address titled "**Conservation or Conversation**" in 1967, JD Scott (*the GSSA's very first president*) provoked Grassland Scientists that, until farmers put our science into action, all our **conservation talks and papers** are just a **conversation**. He then reminded the delegates of the urgency they had inherited from the Drought Investigation Commission Report of 1923. He gave the GSSA delegates the original MARCHING ORDERS: EIGHT enduring and timeless research themes that remain relevant even today.

1. Restoration of degraded rangelands,
2. Grazing management,
3. Veld burning,
4. Veld fertilisation,
5. Control of undesirable plants,
6. Fodder conservation,
7. Identification of suitable grasses for pasture, and
8. Cultivation and management of pastures

These remain our COMPASS as we navigate the future. *If you do not believe me, look at the list of topics to be treated this week and be amazed at the struck similarities 60 years later!*

Back in the 1960s, grass was already recognised as a "friend in need" (Altona, 1968) — valued for mine rehabilitation, sports fields, landscaping, and more. GSSA members were central to this research even before the GSSA was formed. You will remember that while the GSSA turns 60 this year, Grassland Science as a discipline in Africa is just over 80 years old (Zacharias, 2001). *However, what worries me is that very few of the GSSA members remain active in these applied fields today, which begs the question of whether we have lost part of our applied relevance.*

In the 1970s, the GSSA warned about water scarcity and veld degradation. One of the presidents in 1971 said, "South Africa could never store more than 50% of its total water run-off", a humbling reminder that water is a resource we cannot afford to waste. There was also a clear understanding of how overgrazing, poor rangeland management, alien plant invasion and bush encroachment locked us into a destructive cycle. This systems-level thinking was ahead of its time. *Today, climate change intensifies these challenges, changing rainfall patterns, increasing drought frequency, and putting even more pressure on already stressed rangeland water systems, so we must increase our capacity to manage water wisely across the landscapes.*

I recently read a 1966 paper (Brigalke,1966) titled "**Some thoughts on Game Farming**", where the author makes a powerful and compelling case for the feasibility of game farming in South Africa. The fact that legislation aimed at supporting the commercial use of wildlife and biodiversity is only being finalised today, six decades later, should speak volumes about the foresight of the scientists that came before us, and the patience of their ideas.

In 1987, Tainton anticipated a principle that is ONLY NOW being widely explored in research. He argued that true conservation must be culturally and ethically embedded in the value systems of land users. He warned that TOP-DOWN EFFORTS would fail without this integration. He called for incentives that align conservation with survival. His insights still guide us today as we rethink the role of ethics in sustainable land stewardship.

These examples make it clear that we did not inherit just a Society, but a scientific community with a direction and purpose. Our founding purpose was to unite all Rangeland and Pasture Scientists under one professional banner. That unity is our inheritance that we need to protect and grow.

2. **One Rangeland, One Future**

I need to state that when the GSSA started, we were under a different political dispensation, and our population had two groups of different standards of living. The smaller society had a higher standard of living than the larger society. Back then, discussions about farmers and rangelands primarily meant white, commercial, male farmers and their land, which was privately owned.

So, as the living standards of the majority began to increase, so did the pressure on the food systems and commercial grazing lands. By the 1970s, population growth was already threatening food security, while veld conditions continued to decline. *I do not need to remind you that we, today, are faced with a similar problem of a human population that is predicted to double by 2050 and surpass our ability to produce food.*

It was only in 1985 that Winston Trollope explicitly called for greater attention to the developing areas of the country. He argued that these areas, despite their poor veld condition and low livestock productivity, had an untapped potential and needed to play a growing role in feeding the region's rising population.

So, the GSSA recognised the historical imbalances and the emerging pressures on both commercial and developing landscapes. And, a vision of sustainable rangeland management for food security was born.

3. **GSSA in a Changing South Africa** *(impacts of and responses to socio-political and economic changes)*

The 1990s saw South Africa transformed. The GSSA had to adapt to many socio-political and economic changes that THREATENED to collapse its existence and the whole of Grassland Science as a discipline. Let me take you through FOUR ways in which these changes, as necessary as they were, almost destroyed our noble vision of "Advancing rangeland ecology and pasture management in Africa."

1. **A shift in funding priorities.** Support for science and especially long-term ecological research DECLINED, as the attention shifted toward short-term, community-based development projects, aimed at supporting the previously disadvantaged and emerging farmers. This shift led to a reduction in dedicated resources for rangeland and forage science. With shrinking institutional support, even the GSSA began to feel the impact. Membership numbers dropped. While numbers have improved in some years (surpassing 400), we have never reached the 700 mark again. Today, we stand at just 215 members, partly due to the setbacks of COVID-19. *As for the financial implications*, although GSSA finances were already a topic in the 1980s. Our poor financial situ-

ation got worse when we lost so many members.

2. **Institutional breakdown.** Traditional research bodies such as the Department of Agriculture, ARC, and even universities saw reductions in staffing, funding, and infrastructure. Research stations were closed or redirected to administrative or development tasks. **Decentralisation** of research efforts across provincial (rather than ecological) lines further disturbed the national scientific cohesion.
3. There was a **collapse of scientific capacity**, with a dramatic drop of up to 70% (a rough estimation) in the number of skilled scientists active in the field. The number of Grassland Scientists dropped from 96 active researchers in the field in the early 1990s to around 24 by 2001. This dramatic drop was driven, among other factors, by mass resignations, voluntary early-retirement packages, and a record-low morale among the workers. Many scientists left the discipline entirely, leading to a critical loss of experience and long-term research continuity. Grassland scientists were fast becoming endangered. *Given that experience cannot be replaced overnight, today's GSSA must critically reflect on whether our efforts to deal with the continuing brain-drain have been sufficient to get us to the "promised land".*
4. The new millennium, the **Information Age**, and Globalisation did not help the situation. The explosion of digital information required scientists to develop new skills in managing and communicating knowledge. At the same time, the number of unqualified voices online presented a risk to scientific credibility, especially in practical land-use sectors. *Let us face it: with the availability of information and AI tools, all you need these days is a gift of speech, eloquence, and charisma, and then you can easily pose as an expert in anything. Let us safeguard our discipline against this reality.*

GSSA Responses: It would be silly of me I did not to reflect on how the GSSA responded during those difficult years marked by political sensitivity and widespread self-censorship (Smit, 1998). Strategic planning sessions were initiated, and for the first time, the GSSA began to question its relevance in a changing landscape. Frank debates and difficult decisions were made across multiple platforms. It became clear that our ATTITUDE would determine whether this Society survived or collapsed (Smit, 1998). Leaders called on all the GSSA members to take full responsibility for the future of Grassland Science. They reminded us that credibility must be earned, not assumed. The central idea was to adapt to new realities while building on past strengths.

As a result of strategic and visionary leadership, the GSSA joined forces with other Societies and leveraged each other's resources. In 2002, the Society hosted its first joint congress with the South African Society of Animal Science (SASAS). This helped a lot with re-establishing our local credibility. But the successful hosting of the 2003 International Rangeland Congress (IRC) in Durban, for me, marked a true turning point. This IRC elevated our international standing and uplifted the morale of our members. Since then, GSSA members such as Tony Palmer, Igshaan Samuels and others have served on the IRC's Continuing Committees, representing Africa. In 2007, staying true to the spirit of collaboration, GSSA organised its congress jointly with the Thicket Forum. I remember this very well, because it was the year my mentor, Peter Scogings, took me to my first congress in Grahamstown.

Over the last two decades, the GSSA has hosted many Research Skills Workshops and SHORT COURSES to equip members and students. Strategically, we introduced awards, such as the Norman Rethman Planted Pastures Award, Young Grassland Scientist Award, Peter Edwards Award, etc. These awards have served specific goals, from encouraging scientific excellence to maintaining close ties with the land users.

We have become a community that values student achievement, interdisciplinary collaboration, and FARMER OUTREACH. Our journal contributions have been reflecting this evolution for years now. For example, by 2010, ecological research made up 70% of publications, and communal rangeland studies had grown to 22%, with increasing input from across Africa and beyond. Today, smallholder and communal farmers are firmly part of our research agenda, as reflected in this year's dedicated session on Communal Rangelands.

Someone once said, "*What doesn't kill you makes you stronger.*" The GSSA is a living proof of that truth. Decades of challenges and renewal have shaped us into a more resilient, inclusive, and strategically focused Society. We are now better equipped to face future UNCERTAINTIES while holding firmly and tightly to the legacy of our past. If anyone here doubts that, remember how quickly and smartly we responded to the COVID-19 pandemic, just a few years ago. Within months, we hosted our first-ever online congress seamlessly. And we emerged stronger, with the lasting gift of delivering world-class hybrid congresses, like the one we are having this week.

4. Consolidating the GSSA's GAINS

Financially, we are relatively stable. While we do not have large reserves, we are able to meet our obligations. This is thanks to the tireless and often unseen work of those who have served as Treasurers of the GSSA over the years. Tonight, I wish to publicly acknowledge and thank our current Treasurer, Linda Kleyn, who has recently resigned after NINE years of honourable and dedicated service to the GSSA. When Linda stepped into the role, we were several financial years behind in our TAX RETURNS. But, with grace, professionalism, and extraordinary diligence, Linda brought us back into compliance and helped restore financial order. Because of her hard work, I can stand here tonight as President and truthfully say that we are financially stable. Of course, Linda's resignation leaves a big gap. And so, this is my gentle call to you: If you have the right skills and perhaps the calm personality that goes well with spreadsheets and SARS, please consider stepping up to help your Society. We need you.

One of our greatest strengths is our diversity across race, gender, geography, training, skills, generations, and lived experiences. Our diversity is a treasure we must actively nurture and not take for granted. We each must commit to mutual respect, free of prejudice and negativity, and to helping one another grow, not just for our benefit but for the discipline, the GSSA and humanity.

All of our founding members have retired, and most of them have passed on—the latest being Prof Winston Trollope (12 December 2024). There is a saying that "*Behind every great man is a strong woman.*" Tonight, we feel blessed to be joined by the STRONG woman who has been the wind beneath Prof Trollope's wings for many years, Lynne Trollope. Thank you, Lynne, for gracing this congress with your presence.

Prof Trollope's passing followed the passing of Prof Neil Tainton in 2023. On behalf of the GSSA, I extend our deepest condolences to their families. While we mourn their passing, we are happy they lived, and as a result of that, the world became a better place for many of us.

What worries me is that their students and mentees, who have kept this Society alive over the past 3 decades, have themselves started retiring. I want each one of them to ask themselves if they have mentored their successors prop-

erly. If they did not mentor the next generation, then they would be at risk of leaving behind a rich legacy with no one to carry it forward. To those retiring or already retired, please ensure that decades of your knowledge and innovation do not quietly disappear when your career ends. On the same breath, I want to remind our young scientists that MENTORSHIP IS A TWO-WAY STREET.

I firmly believe in the principle that "*Intervention is unnecessary where function is sound.*" I am worried that we have abandoned some initiatives that once served us well in the past. We must revive **farmer-facing platforms** like the Farmers' Days, and we need to consider reinstating the Peter Edwards Award—not just for the sake of tradition, but because **our relevance is measured by how well land users adopt our innovations**.

We need to reclaim the Society's visibility—not only in academic institutions, but also on farms, in homes, and within communities. In the same breath, let us reclaim the Grassland Science in our academic institution- we cannot afford to train Animal Scientists who know nothing about Grassland Science, and we cannot afford to train Grassland Scientists who know nothing about the animals.

Last year, the GSSA hosted the Mountain Policy Workshop, which spotlighted the rapid spread of woody species in mountain catchments and their impact on water, biodiversity, and livelihoods. In February 2025, our dedicated members, led by Ralph Clark, submitted a Policy Brief to the Ministers of Environment and Agriculture, calling for a coordinated, transboundary response. This is a clear indication that the GSSA is proactively shaping the future.

As you already know, the UN declared 2026 as the International Year of Rangelands and Pastoralists (IYRP). This gives GSSA an unprecedented global platform, especially since its own Igshaan Samuels serves as Global Co-Chair, alongside over 300 organisations, including the GSSA.

This shows that the world values our scientific leadership. **Colleagues, IYRP 2026 is our moment**. This platform allows us to shape global policy, amplify African voices, and influence decisions affecting rangeland livelihoods and ecosystems.

Despite all these positive developments, we cannot afford to be complacent. There is still a lot of work to do. We still need to increase Congress attendance. We need to increase GSSA membership, particularly among students and early-career professionals.

Let us strive for excellence in everything we do as individuals first, because after all, "Society is its members". So, as the GSSA strives for excellence, it will start with each and every one of us individually. COVID-19 has taught us that even in isolation, meaningful connections are possible.

The virtual space gives us tools to expand our reach, grow membership, and deepen our impact. Let us use these tools.

Closing Remarks

Let me close with a call, not just to action, but to BELIEF. A belief that we, the GSSA, hold in our hands the tools, the talent, skills, years, the networks, confidence, and the vision to shape a bright future for rangelands and the people who depend on them.

We have a legacy that is worth protecting here, and we have a future worth investing in. Talking about investing, I want to thank all those of have sponsored this congress in one way or another, including the organising committee.

If you are wondering how you, too, can contribute, we have several Council positions that are now open for nominations. These include Vice President, Grassroots Editor, Grassroots Sub-Editor, Additional Member, AND Treasurer. Although her term has lapsed, our current Secretary, Robyn Nicolay, has graciously agreed to avail herself for re-election. We are grateful for her continued commitment. Nominations will close by lunchtime tomorrow.

As I prepare to sit down, let me remind you that JD Scott warned that without REAL ACTION, conservation efforts become a mere conversation. So, may our conversations at this 60th Congress inspire tangible changes.

Enjoy the congress! Thank you."

THANK YOU TO OUR SPONSORS

GSSA 60 Congress 60: Young Scientist Award

Naledi Zama

At the 60th annual Grassland Society of Southern Africa Congress, the spotlight shone on Rhodes University's Dr Lindokuhle Xolani Dlamini, who walked away with the prestigious "Young Scientist Award". The award recognises emerging researchers whose work is shaping the way we understand and manage southern Africa's rangelands. For Dr Dlamini, the honour felt both humbling and energising. "To see my grassland research recognised is both humbling and exhilarating," he said in an earlier reflection. "Grasslands are often overlooked in global conversations about climate change, but they are as important as forests when it comes to carbon storage, biodiversity, and water security."

Dlamini, who recently joined the Department of Environmental Science at Rhodes as a lecturer, has built his career around understanding the soil beneath our feet and the ecosystems it supports. His work spans soil carbon dynamics, the role of fire in grassland maintenance, and the trade-offs of restoration and afforestation. As a postdoctoral researcher with SAEON and a PhD graduate in soil biogeochemistry from both the Université Bourgogne Europe and the University of the Free State, he has published widely on how management practices like fire exclusion or tree planting influence soil carbon storage and biodiversity in Afromontane grasslands.

One of his central messages is that fire, so often seen only as destructive, can in fact be an ally for grassland health. In his research, he has shown that when fire is excluded from grasslands, plant communities and soil carbon stocks shift in ways that threaten both biodiversity and long-term resilience. This has major implications globally, and in South Africa, where calls for large-scale tree planting are sometimes seen as the quickest climate solution. His research, therefore, cautions against large-scale afforestation in grassland biomes under the Bonn Challenge, AFR100, and Trillion Tree Campaign, and instead advocates for protecting and managing natural grasslands as a more secure climate adaptation and mitigation strategy. "Planting trees in the wrong places can destroy valuable grasslands," he explains. "We need to recognise the hidden carbon power of grasslands and manage them with fire and grazing in ways that sustain both biodiversity and climate goals, as well as the valuable water resource they provide."

Beyond fire and carbon, Dlamini has also explored restoration approaches. His studies on using vetiver grass for rehabilitation highlight both the promise and pitfalls of non-native species, while his broader work contributes to policies that aim to balance livelihoods, production, and conservation. What makes his perspective refreshing is that it is deeply grounded in African realities while still contributing to international debates.

He argued that, "if applied at scale, the insights from his research could redirect billions of dollars in restoration investment away from tree planting in inappropriate ecosystems and toward the protection and restoration of natural grasslands, safeguarding gigatons of SOC globally, protecting biodiversity, and important water resources, particularly in Africa. By providing evidence that grassland ecosystems are more resilient carbon sinks than plantations in fire-prone landscapes, his work contributes to a paradigm shift with direct implications for international climate policy, biodiversity conservation, and long-term planetary sustainability."

Colleagues describe him as a thoughtful and generous scientist who combines rigour with humility. His own words reveal a researcher motivated not by accolades but by responsibility: "Our grasslands are valuable for grazing lands, water supply, biodiversity, and carbon stores.

Protecting them is about protecting ourselves. If we get it wrong, the costs will be felt for generations." Winning the Young Scientist Award at GSSA 60 is recognition of the promise of his work, but it also marks the beginning of a career likely to shape the way South Africa thinks about its grasslands for decades to come.

Figure 1. Dr Lindokuhle Dlamini receiving the prestigious "Young Scientist Award".

GSSA Congress 60 Award Winners

Best Paper Published in AJRFS in 2024

Robyn Nicolay, Kevin Kirkman, Ntuthuko Mkhize, Michelle Tedder (Figure 1.)
Fire suppression interacts with soil acidity to maintain stable recalcitrant pyrogenic carbon factions in South African mesic grasslands soil

Best Platform Presentation

Naledi Zama (Figure 2.)
Savanna woody density reduces soil phosphorus in the Munywana Conservancy, South Africa.

Best Poster Presentation

Siyavuya Mcolwa (Figure 3. Mthunzi Mndela receiving the award on his behalf)
Perceptions of communal farmers on the effect of *Lantana camara* on forage production and human livelihoods in communal rangelands of Kwelera, East London in Eastern Cape

Best Research Proposal Poster

Roy Caister (Figure 4.)
Utilisation of competitive grasses to rehabilitate rangelands invaded by parthenium weed (*Parthenium hysterophorus*) in 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 Heidi Hawkins (Figure 5.)

Most prolific online adjudicator

Michelle North (Figure 6.) with 73 adjudications

Best Presentation by a Young Scientist

Lisa Matthews (Figure 7.)
What counts as sequestering carbon in grasslands? A look into the IPCC's methodology for reporting carbon removal under the UNFCCC

Special recognition awards:

The Young Grassland Scientist Award

Lindokuhle Dlamini (Figure 8.)
"…We can think of no better candidate who, with humanity at his centre, is committed to advancing science and the

Figure 1. Robyn Nicolay, Kevin Kirkman, Ntuthuko Mkhize, Michelle Tedder.

Figure 2. Naledi Zama.

Figure 3. Awarded to Siyavuya Mcolwa (Mthunzi Mndela receiving the award on his behalf).

next generations of scientists, and who is determined to make a mark for South African science in the international science community on topics vital for grassland management and climate adaptation. Despite only recently graduating with his PhD related to grassland science, he is already making important contributions to societal, knowledge and policy relevant impact". (Award Motivation submitted to GSSA - Susan Janse van Rensburg, Kathleen Grace Smart and Gregor Feig)

Figure 4. Roy Caister

Figure 5. Heidi Hawkins

Figure 6. Michelle North

Figure 7. Lisa Matthews

The Prestige Award (Outstanding contribution to the science of the discipline)

Kevin Kirkman (Figure 9.)

"Professor Kevin P. Kirkman is a distinguished academic affiliated with the University of KwaZulu-Natal … he has contributed significantly to the field of ecology and environmental science … [and] serves as Professor of Grassland Sciences … previously held several senior leadership positions including … Dean of Research.

His research focuses on all aspects of grassland ecology and management, with particular emphasis on grazing systems, fire ecology, and ecological restoration…[he] has published extensively in leading international journals… [and assisted with] addressing pressing global issues including biodiversity loss, nutrient enrichment in subtropical grasslands, and herbaceous vegetation dynamics in response to fire …

He remains a key figure in rangeland science, with a career defined by impactful mentorship, interdisciplinary collaboration, and a deep commitment to the conservation and resilience of grassland ecosystems" (Award motivation submitted to GSSA - Multiple Authors)

The Honorary Membership Award (exceptional contribution to achieving the aims of the Society)

Dave Goodenough (Figure 10.)

"With great honour, I nominate Mr Dave Goodenough … A member of the Society since 1971, Dave has dedicated over five decades to advancing forage science and promoting the Society's objectives. Dave began his career in 1966 at 19 as a Technician at Cedara, providing critical support to forage breeding programmes. Over the years, he became the Project Leader responsible for all forage crop breeding at Cedara from 1983 until his retirement in 2018. His remarkable career is marked by the successful development and release of over 45 forage cultivars across a wide range of species … many of which remain foundational to South African livestock production systems today. Dave has made significant scientific and institutional contributions to the GSSA: serving as Honorary Treasurer for a decade (1983–1993), Vice President (2000), President (2001), and Past President (2002). He was awarded the Best Presentation Medal at the 1986 Glen Congress, received a Meritorious Award in 1995, and was accredited as a Professional Member in 1993. His longstanding commitment to scientific excellence and mentorship has benefited numerous young scientists and pasture practitioners nationwide. In 2019, his lifetime achievements were further recognised when he received the prestigious SANSORBAYER Award and Trophy for his contribution to the seed industry, underscoring his work's national and agricultural significance. During his active time, Dave consistently published in GSSA-affiliated journals, remaining actively involved in Society activities, and exemplifying the spirit of service and scientific eminence" (Award motivation submitted to GSSA - Ntuthuko Mkhize, Robyn Nicolay, Janet Taylor)

Figure 8. Lindokuhle Dlamini

Figure 9. Kevin Kirkman

Figure 10. Dave Goodenough

Congress 60 Sponsored Students

Name: Kagiso Mowa
Current degree level: PhD (University of Limpopo)
GSSA presentation: Evaluation of summer and winter forage cover crops on ruminal dry matter digestibility, fermentation characteristics, and microbial population dynamics: an in-vitro study (Research proposal poster)
What I enjoyed about the conference: The opportunity to help out at the congress and present my research idea to experts, who provided valuable feedback on my study. Along with a significant networking opportunity that would provide long-term benefits.
Conference attendance sponsored by: Grassland Society of Southern Africa

Name: Rebecca Ellerbeck
Current degree level: MSc (Stellenbosch University)
GSSA presentation: Effects of utilising a cover crop under different grazing pressures within a conservation agriculture setting (Poster presentation)
What I enjoyed about the conference: I loved meeting different people and enjoyed the fascinating conversations we shared.
Conference attendance sponsored by: Grassland Society of Southern Africa

Name: Siphenamhla Moss
Current degree level: MSc (University of Fort Hare)
GSSA presentation: Functional traits responses of C4 bunchgrasses to different fire return intervals in semi-arid savanna of South Africa (Short presentation)
What I enjoyed about the conference: The conference was a confidence booster as I got a platform to voice my study.
Conference attendance sponsored by: GSSA Trust

Name: Noluvo Joyi
Current degree level: MSc (University of Fort Hare)
GSSA presentation: Influence of nutrient-rich pig slurry and legume inclusion on growth performance, productivity, and chlorophyll content of Brachiaria brizantha varieties (Short presentation)
The performance, productivity, nutritive value and nitrogen fixation of cool-season forages under varying rates of phosphorous: towards improved ruminant nutrition and animal performance in communal areas of the Eastern Cape, South Africa (Research proposal poster)
What I enjoyed about the conference: It was my first time attending a conference. The conference allowed me to network, engage with leading researchers in the field and discuss innovative ideas.
Conference attendance sponsored by: GSSA Trust

Name: Siyavuya Mcolwa
Current degree level: MSc (University of Fort Hare)
GSSA presentation: Perceptions of communal farmers on the effect of *Lantana camara* on forage production and human livelihoods in communal rangelands of Kwelera, East London, in Eastern Cape
(Standard poster)
What I enjoyed about the conference: The most enjoyable aspect of conference were the peer meetings and the ice breaker sessions that we had, where you meet all the conference participants and talk to each other. Exchange of ideas about the challenges and possible solutions concerning the field of Science and Agriculture. It was my first time attending a conference, and my poster presentation gained the Award for the Best Poster Presentation at the 60th Annual Congress.
Conference attendance sponsored by: GSSA Trust

Name: Sibulele Mboniswa
Current degree level: MSc (University of Fort Hare)
GSSA presentation: Impacts of *Lantana camara* invasion on herbaceous vegetation in the Kwelera communal rangelands, Eastern Cape (Short presentation)
What I enjoyed about the conference: The Grassland Society of South Africa conference was a great experience, with approachable and open experts in the field present, offering valuable learning opportunities and meaningful networking with researchers.
Conference attendance sponsored by: GSSA Trust

Name: Cwayita Kapiyana
Current degree level: MSc (University of Fort Hare)
GSSA presentation: Shrub invasion drives herbaceous vegetation degradation in semi-arid rangelands of the Eastern Cape Province of South Africa (Short presentation)
What I enjoyed about the conference: I really enjoyed the opportunity to engage with diverse ecological studies at the GSSA conference, which broadened my understanding of how to maximize the efficiency of rangelands and livestock production
Conference attendance sponsored by: GSSA Trust

Name: Thabiso Nkenkem
Current degree Level: MSc (University of Fort Hare)
GSSA presentation: Influence of woody plant encroachment on understory vegetation depends on the functional traits of an encroacher: insights from global meta-analysis (Short presentation)
What I enjoyed about the conference: Networking and learning from others
Conference attendance sponsored by: GSSA Trust

Name: Monelisi Makanya
Current degree Level: PhD (University of Fort Hare)
GSSA presentation: Effectiveness of integrated shrub management and restoration techniques on rehabilitating shrub-encroached rangelands of South Africa (Short presentation)
What I enjoyed about the conference: I'm grateful to the Grassland Society of South Africa (GSSA) for granting me an opportunity to showcase my skills and research experience at the GSSA 60th annual congress. I've enjoyed the conference! The presentations, networking opportunities, and discussions were fantastic. It's great to connect with fellow professionals and learn about the latest developments in grassland management and conservation.
Conference attendance sponsored by: GSSA Trust

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Spotlight on Upcoming Young Researcher

Rebecca Ellerbeck

Introduce yourself: Briefly tell us about your background, postgraduate qualifications, and current university affiliation.

I'm completing my MSc in Agronomy at Stellenbosch University, researching how livestock can be integrated into cropping systems. I have a background in Plant and Soil Science, Animal Science, and Agricultural Economics, and I love how all of these interact within a system.

GSSA Congress presentation: What presentations did you give at the 60th GSSA Congress, and what were their titles?

My poster and oral presentation were titled Effects of utilizing a cover crop under different grazing pressures within a conservation agriculture setting.

Your research focus: Tell us more about your presentation and the work you are currently doing.

The research focuses on integrating livestock grazing into cover crops within grain production systems. Cover crops are planted to improve the diversity and health of the cropping system but often do not generate an income and can be costly for producers. Integrating livestock can generate income while contributing additional benefits such as nutrient cycling and weed control. We are studying different grazing management strategies to determine how varying grazing pressures affect cover crop productivity and composition, livestock performance, and the overall economic feasibility of the system.

Your field of research: What is unique or special about being a researcher in your field of study?

The amazing thing about agronomy is how it encompasses and connects to so many diverse topics and fields of study. One can study anything from soil to slugs, from fire to finance, from cultivars to climate change. Everything is interlinked and studying agronomy exposes one to such a vast plethora of fields (pun intended), it is impossible to get bored.

Figure 1. Upcoming young researcher, Rebecca Ellerbeck.

Challenges: What challenges are you facing as a young researcher?

Current technology, especially AI, offers incredibly powerful tools for research, but they can be overwhelming and they sometimes create "information bubbles," where your search results are shaped by your history or even your language. It can also be difficult to discern what information is dependable. Learning to take advantage of current technology while staying critical of its limitations is a fine balance.

Inspiration: Who inspires you in your academic or professional journey?

My original love for science comes from my mom. When we were kids, her face would light up when she explained about bugs or built chemistry models for us. Currently, Prof Johann Strauss and Prof Pieter Swanepoel continue to support and inspire me in my academic journey, and I find it exciting to follow the research of everyone in our department.

Tackling Catchment Functioning from the Bottom up:

An opportunity for land managers to embrace a paradigm shift.

Andrew Fowler

Correspondence: andrew@fowlerconsult.com

When one begins to engage a farmer, or a farmer's association on matters pertaining to water, the most common reaction is to be referred (somewhat blindly) to the local Water User Association (WUA, formerly "Irrigation Board"). But WUA's have typically been born out of Irrigation Boards which historically only focused on water extraction, and which are voluntary and therefore represent small parcels of only some land within a river catchment. Many farmers I speak to are reticent to form a water user association, because they believe that it will make them discoverable by the authorities. And they want to keep their heads below the parapet, so to speak. They are also not required by law to join or form a WUA, even if they are irrigators.

But the topic I seek to address with farmers, through a project funded by the Nedbank Green Trust, is not water use, but water *production*. Our project, which started in 2022, brought together stock farmers managing over 40,000 hectares of grasslands in the upper greater uMngeni catchment in KZN, and has had everything to do with exploring the ecosystem services delivered by the veld that they manage. When the project was conceived, it was built on the notion that since grasslands occupy the vast majority of the land area within this particular critical river catchment, a 1% or say 3% improvement here could be considerably more impactful than many more expensive interventions. While academia has considered a wide range of practices which seek to enhance the functioning of this giant sponge (upon which more than 5 million people rely for water), the challenge is how to fund and achieve the adoption of these. Too many published papers which prove the merit of various ideas, lie gathering dust for lack of a motive that will ensure implementation. The project has challenged us to think about the business of enhancing water flow and water quality

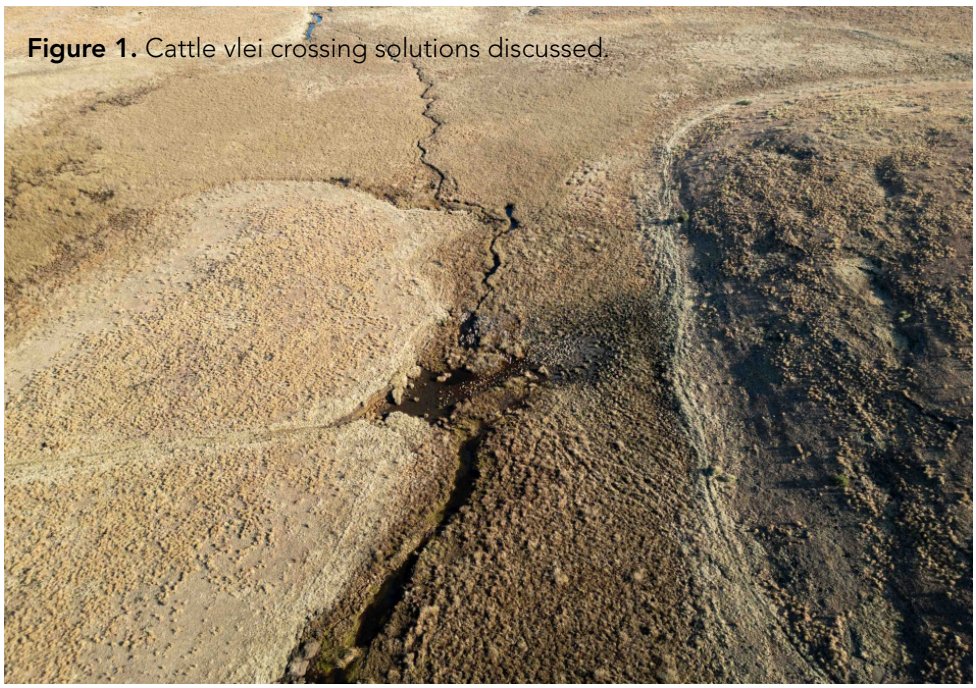

Figure 1. Cattle vlei crossing solutions discussed.

Figure 2. Degraded Stream Inzinga.

Figure 3. Degraded Stream Inzinga Kevin Kirkman and Isabel Rowles.

Figure 4. Road drain silt trap excavation.

through active management, and selling these improvements to those who, in the long run, can't live without such stewardship. We are embracing the notion that stewardship, "because it is the right thing to do" or because of the threat of prosecution, does not stand up in the face of the harsh economic realities of beef farming.

Our work has raised some eyebrows, and been met with a healthy amount of scepticism: "Farming water" is not a concept that agriculture has thought to embrace until now. The idea of water flow and quality improvement as an agricultural enterprise is almost unheard of. The closest example globally is the Watershed Agricultural Council, formed by farmers in the Catskills region of the USA, where New York City pays farmers to adopt certain practices, but things here in southern Africa are distinctively different.

The dialogue from authorities, as seen in various environmental forums, has been two-fold, and polarized. Until now, solutions seek to safeguard our water resources (rather than enhance them) and fall into one of two categories: One centered around investigating legal transgressions of legislation like CARA and the Water Act, and then responding with measures which point to the threat of prosecution as the endpoint. This, of course, is directed at commercial agriculture. The second is one which embraces philanthropic upliftment, apparent immunity from prosecution and a tolerance for tiny or very slow improvements, and is reserved for the previously disadvantaged, who typically farm on community-owned land. This polarization is very aptly addressed in Wandile Sithole's book "A Country of Two Agricultures"

Our project has been disruptive of this paradigm. Although tiny in scale, this nucleus thinking has been befittingly centered around the small village of Kwa Novuka (isiZulu for "place of awakening"), and radiates out across the neighbouring catchments of the uMngeni and the uMkhomazi. It encompasses communal livestock owners and commercial farmers, and spans the watershed of one catchment, already dammed to supply Durban/Pietermaritzburg with water, and the other about to be dammed.

The project saw us doing in-depth investigations on twelve sites within the area, where we explored soil carbon, veld condition and water infiltration amongst other parameters. These results were discussed with participants against the background of historical and current management practices. We also prompted a session on water and catchments at the GSSA conference in Hilton in July 2025. We are busy building a roadside silt trap, and we have been able to fund some small Best Management Practices (BMP's). We participated in two workshops which aimed to align different rangeland assessment techniques, and we have sought to bring capable academics and farmers together in dialogue. Our findings have been messy, and we have to say, largely inconclusive, as such things tend to be when the variables are so vast in number. But what is undoubtedly more important is the process and the dialogue which has sought to free us from the confines of the current drivers of catchment behaviors in these rangelands.

It is therefore perhaps befitting that the final chapter of this three year project has involved the instigation of a farmer's organization which can serve to own the space in which land managers take charge of their water impacts. This

is, admittedly, an experiment, and an as-yet-unconcluded one at that. After much engagement and consultation, it was agreed to start with a collaborative which encompasses four landowner/ farmer associations which together represent a fair percentage of farmers in the catchment of Midmar Dam in the KZN Midlands.

The area is larger than the initial study area (187 000 ha), includes more farmers, and more concepts which reach beyond just the rangeland piece, and excludes (for now) the neighbouring catchment, all for reasons of cohesiveness and alignment with potential economic drivers. The process of delivering this catalytic opportunity and idea to farmers has been monitored by a small 'Monitoring, Evaluation, Reflection and Learning" (MERL) team, who have observed and guided the process.

This team seeks to witness the propensity of the landowners to understand, adopt and embrace their role as catchment custodians. The ideas, the catchment vulnerabilities, and the potential economic models that could drive the pursuit of fair and just opportunities, have been fed into the dialogue. Ideally, the inhabitants of these farming landscapes might organise themselves, think strategically about what behaviours and practices they might adopt, promote and defend, and where they might draw the line on transgressions by their own neighbours. Perhaps they will grasp the opportunity to express their values as good folk who do care about the water flowing off their hillsides, and seek to stand proud as a collective.

They could certainly represent an attractive funding portal or conduit for corporate and parastatal investors who have the vision to invest in the securing of long term water supply. For now, they can own the study group findings on the rangeland aspects of catchment management, and update or expand upon them as the need arises. They have the opportunity to stand together and avoid being picked off individually by sometimes misinformed officials, and they might elect to offer their platform as one for pro-active dialogue with those same authorities. At the end of the day, it will be up to the farmers to decide the role and goals of their collaborative. Our role has been to get them to the starting line.

Whether the model succeeds or not, and in any of the possible iterations, it is planned that the MERL team's findings will be used to replicate the model, adjusted or otherwise, to achieve impact at scale, with multiple small clusters like this in catchment parcels across South Africa's Critical Water Source Areas.

For now, there are a few engaged participants, a focus on some river monitoring work on some of the basic agricultural pollutants, and a developing dialogue.

Figure 5. Selecting a mid slope stock watering site.

A Quick Fix or a Long-term Solution?

Innovative use of *Aristida junciformis* by the Wild Coast locals

Nobuhle Mweli, Bongeka Ntola and Lumko Mboyi

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In the rolling hills of the Wild Coast, a quiet yet powerful shift is taking place in the way communities manage their rangelands. This change is being made possible by a multispectral partnership between communities, NGOs and academic institutions. At the centre of this story is *Aristida junciformis*, locally known as Ngongoni grass, a species notorious among livestock farmers for its tough, inedible foliage and its role in suppressing the growth of more palatable grasses. Ngongoni grass reflects broader rangeland degradation patterns, whose dominance stems from resilience to fire, defoliation and adaptability to nutrient-poor soils. Once regarded solely as a sign of rangeland degradation, *A. junciformis* is now being harvested and repurposed by local communities, reducing fuel loads and supporting livelihoods, while opening conversations about how best to manage this species in our rangelands.

From "weed" to wealth

Historically, the grasslands of the Wild Coast supported a rich diversity of palatable grasses ideal for grazing livestock. Over the last four decades (*according to local elders*), mismanaged grazing systems, frequent burning, and soil erosion have created conditions that favour aggressive, less palatable species like *A. junciformis*. Rather than viewing *A. junciformis* as a lost cause, the residents of some Wild Coast villages have embraced it as a resource. Harvesting the tall, hardy grass for thatching has become a valuable income-generating activity. Paired with other species like *Combopogon and Hyparrhenia* (also favoured for its durability), Ngongoni thatch is now widely used in homestead construction, and each bundle is sold at R35 - R40.

Figure 1. A woman harvesting a mature *Aristida junciformis* using a sickle.

The timing of the harvest is crucial; the communities wait for the species to grow until its mature stage and has completely turned brown. This happens in the winter season, from April to August and aligns with the making of mud bricks for building (Sinegugu Zukulu, pers. com.). Zukulu highlighted that women have historically been the ones to harvest thatch grasses, and that they do this with care. The process involves using a sickle, and while there is no selective cutting, women remove the grasses that are not conducive to thatching (Zukulu, pers. com.), which speaks to the careful understanding these women have towards the practice.

Beyond economic benefits, this practice has had positive ecological impacts. Systematic harvesting has the potential to reduce the standing biomass of *A. junciformis*, lowering the fuel load during the dry season and mitigating the intensity of veld fires, which have historically contributed to grassland degradation. In this way, traditional practices are being adapted to modern challenges, demonstrating how cultural knowledge and environmental stewardship can intersect. Although still observed at a small scale, the potential to scale up and replicate this practice may provide another tool in the restoration of areas infested by *A. junciformis*.

Quick fix or a long-term solution?

While harvesting *A. junciformis* offers immediate relief, experts caution that it is not a standalone solution. Research on *Aristida*-dominated grasslands highlights that reversing rangeland degradation requires a long-term commitment to sustainable grazing systems. Interventions such as rotational grazing, managing livestock densities, reseeding palatable grass species, and erosion control are essential for restoring ecological balance. Research conducted by Morris and Tainton (1993), demonstrated that *A. junciformis* is particularly vulnerable to intense defoliation under competitive pressure, offering the potential for management by grazing or cutting regimes to enable recovery of palatable species like *Themeda triandra*. Considering that harvesting is primarily done in winter, perhaps locals can align it more closely with the end of the season, just before spring rains.

This could ensure that defoliation occurs in time for the growing season, creating a conducive environment and competitive advantage for other species. When combined with grazing management plans and ongoing ecological monitoring, these efforts could help shift the Wild Coast's rangelands from a cycle of degradation to a pathway of restoration.

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Figure 2. Bundles of harvested *Aristida junciformis*, each bundle sold at R35 - R40.

Figure 3. Bundles of *Cymbopogon caesius* harvested and used as a base for thatching with *Arisitida junciformis*.

Figure 4. Men at work: Roofing a rondavel with thatch grass.

The Unprickled Pear Pairs Perfectly with Pasture as a Sustainable Food Source for Cattle During the Dry Times

Rethinking farming in drylands: Growing against the odds

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Livestock farming in arid regions faces persistent challenges due to the poor productivity of planted pastures and the increasing variability of rainfall. In South Africa's Free State province, where extended dry spells are common, one farmer has turned to an unconventional crop to sustain production, the *Opuntia* species, commonly known as prickly pear. At Witkraal Farm, rows of spineless *Opuntia* now grow where traditional grasses once struggled. These plants, which require minimal water and survive on marginal soils, have become the foundation for a new approach to dryland farming. Recognising the significance of this innovation, a team from the Centre for Global Change at Sol Plaatje University visited the farm to learn how this system contributes to climate adaptation and agricultural resilience.

The farmer began cultivating the *Opuntia* species as an alternative to planted pastures, which often perform poorly under dryland conditions where water availability is limited. Opuntia species thrive under conditions of heat and water scarcity, storing moisture in their fleshy cladodes. The spineless varieties are particularly suited to livestock production because they can be safely consumed by animals without causing injury. On Witkraal Farm, cattle feed on these cactus pads, obtaining hydration and carbohydrates during dry periods. The farmer reports that while cactus alone cannot meet the animals' full dietary requirements, it provides a reliable base feed that can be supplemented with natural grasslands, oats or other forage to ensure balanced nutrition. This combination allows the herd to maintain condition year-round.

In addition to livestock feed, the *Opuntia* crop offers economic diversification through the production of prickly pear fruits, which the farmer supplies to commercial offtakers such as Freshmark. This dual-purpose use enhances farm resilience and creates value from a resource often overlooked in formal agricultural systems. However, the system is not without challenges. The farmer notes the risk of cochineal infestation, a sap-sucking insect that can damage cactus plantations if not monitored. Regular inspection and timely management have been effective in keeping outbreaks under control. According to the National Environmental Management: Biodiversity Act (Alien and Invasive Species List), *Opuntia ficus-indica* (L.) Mill. is classified as a Category 1b invasive species. However, Witkraal Farms cultivates exclusively the spineless varieties of *O. ficus-indica*, which are recognised as non-invasive. Moreover, when the fruit is used for human consumption, it does not pose an invasive risk. This distinction dispels the common misconception that all prickly pear varieties are invasive and should therefore be avoided. New plants are produced vegetatively by planting cut cladodes, a low-cost and accessible method that could be replicated by smallholder farmers in other dryland regions.

The experience at Witkraal Farm demonstrates that adapting to dryland conditions requires not only technological solutions but also a shift in agricultural thinking. Instead of trying to impose high-input systems on arid environments, farmers can adopt species that align with the local climate's constraints. The use of drought-tolerant crops like *Opuntia* offers multiple benefits, including serving as a food source, conserving water, maintaining livestock productivity, stabilising soils, and generating alternative income streams.

The collaboration between farmers and research institutions, such as the partnership emerging between Witkraal Farm and Centre for Global Change, Sol Plaatje University, underscores how local innovation and scientific engagement can inform broader strategies for sustainable dryland agriculture. Rethinking farming in these regions may not mean reinventing agriculture entirely: it may simply mean learning from plants that have already mastered survival in scarcity.

Figure 1. Rows of a spineless *Opuntia* species cultivated at Witkraal Farm, Free State, South Africa.

A Great Experience at the XII International Rangelands Congress in Adelaide, Australia

Khululiwe Ntombela

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Attending the XII International Rangelands Congress, held on 02 – 06 June 2025 in Adelaide, Australia, was an incredibly enriching experience that not only expanded my knowledge on global rangelands, but also inspired new ideas for my work in rangeland ecology and management, and livestock production.

The congress started with thought-provoking workshops aimed to facilitate discussions around "Global rangelands standard, certification and supporting rangelands monitoring system"; and "Considering multi-functionality of pastoralism to foster fruitful contributions of pastoralism to growing societal challenges".

Attending the "Global rangelands standard, certification and supporting rangelands monitoring system" workshop provided a fresh perspective to see how farmers in Mongolia are using technology to sell their livestock directly to buyers,who are able to see metadata on how the livestock was managed.

Through this workshop, researchers and practitioners discussed the pros and cons of establishing global rangeland standards; enablers and inhibitors for its establishment; and the type of stakeholders required for its establishment

Congress sessions such as "Data collection and data platforms" and "Rangeland monitoring models and techniques "offered insights on the importance of long-term data collection to see trends in rangeland condition and how that can be correlated with livestock productivity.

Other sessions, such as "Pastoralists training and peer-learning" and "Valuing traditional and Indigenous knowledge: evolution, threats and opportu-

Figure 1. Global rangelands standard, certification and supporting rangelands monitoring system Workshop Discussions.

Figure 2. Global rangelands standard, certification and supporting rangelands monitoring system Workshop Discussions.

nities", provided with practical insights on how local livestock farmers could be involved with data collection, which researchers can use. This offered fresh perspectives on knowledge co-production with local communities, with an inclusion of their indigenous knowledge; which I plan to apply in my current role.

I also valued the opportunity to connect with professionals from diverse backgrounds, which made the conference both intellectually stimulating and personally rewarding.

It reminded me of the importance of the voices of livestock farmers, as they are living on the ground and therefore their knowledge should be valued and included in research projects.

I would like to thank the Grassland Society of Southern Africa Trust and the International Rangelands Congress Committee for partially sponsoring my attendance to the congress. I look forward to staying engaged with the network I've built and applying the insights I've gained.

Figure 3. Ms Khululiwe Ntombela (middle) with delegates from Japan, Ouerle Chao (left), and Dr. Kristina Toderich (right).

TREE OF THE MONTH

Balanites maughamii subs. *maughamii*

Torch Wood, Fakkelhout

RSA Tree No. 251

Figure 2. Illustration of the leaves.
Image: katuchka, Inaturalist

Author: Marnus Smit | zmsmit.denc@gmail.com
Northern Cape Department of Agriculture, Environmental affairs,Land reform and Rural development.

Figure 1. A large individual Torch Wood. Image: Wikipedia

Balanites maughamii subs. *maughamii*, commonly known as Torchwood or Fakkelhout, is a medium to large deciduous or semi-deciduous tree. It typically reaches heights of 10 to 20 m, though exceptional specimens may grow up to 25 m. The tree has a fluted trunk that can measure up to 1.3 m in diameter and can be distinguished by its rounded, spreading crown and deeply buttressed trunk in older individuals. The species is native to southern and eastern Africa where its distribution spans a wide range, including Kenya, Tanzania, Malawi, Mozambique, Zambia, Zimbabwe, Namibia (Caprivi Strip), Eswatini, and the northeastern parts of South Africa. Despite the species' broad range, it often only occurs in small colonies within bushveld, sand forests, sandstone outcrops, and near water sources such as riverbanks and pans.

Balanites is derived from the Greek for "acorn-shaped" (referring to the fruit), while *maughamii* honors Reginald Charles Fulke Maugham, who first collected the species in Mozambique in 1911. Four *Balanites* species occur in southern Africa.

Diagnostic features

- The grey or olive-green leaves are alternate compound and hairy when young (Figure 2)
- Each leaf consists of two ovate leaflets up to 2–7 cm long
- The fruit is an oval, yellowish drupe with a hard shell and thin flesh that falls when ripe (Figure 3)
- The bisexual flowers are small, greenish-yellow, fragrant, with five hairy petals, ten stamens, and a five-chambered ovary
- Flowers bloom from July to October.
- Fruit bearing branches have small spines, if present, while barren branches are fruitless with strong, sharp, forked spines up to 5 cm long.

Ecology and uses

The fallen fruits are consumed by a variety of animals, including monkeys, antelope, baboons, small mammals and birds, while its leaves are browsed by herbivores. Elephants are particularly fond of the tips of young branches. The dense, thorny branches also offer shelter and nesting sites for various bird and small animal species.

This plant has medicinal, magical, and practical uses. The green fruit contains a poison that is lethal to fish, tadpoles, parasites and other aquatic invertebrates but is harmless to humans. The fruit also produces clear, bright-burning oil. The kernels are burned as torches, giving the tree its common name: Torch Wood. The roots can serve as an enema, while the bark is also soaked for a soothing bath due to its lubricating properties. Zulu healers use the roots and bark in rituals to repel evil spirits. The durable wood is crafted into bowls, tool handles, and gunstocks.

Figure 3. The large fleshy fruit are eaten by many animals.
Image: PlantZafrica- Sanbi

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Conservation Exposure Education And Training

Nurture for Nature

CEET is a non-profit organisation based in South Africa's Wild Coast, founded in 2020 to connect people, nature, and the green economy. The team is led by young professionals in ecology and education with a long-standing passion for environmental conservation. The organisation empowers rural communities through training in rangeland restoration, agroecology, and biodiversity conservation. By blending traditional knowledge, ecological science and the biodiversity economy, CEET builds skills that sustain both ecosystems and livelihoods. Looking ahead, CEET is expanding its Accredited Training Unit to reach more youth and farmers, supporting a future of locally driven conservation and regenerative land management.

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CEET
Conservation Exposure Education & Training

Upcoming events

Want to advertise your event? Contact us and we will include it in our next edition.

21 January 2026

Workshop on Assessing Forb and Grass Diversity – Cedara, KwaZulu- Natal

The Grassland Society of Southern Africa invites you to join a workshop on the applied methods used in mesic grassland biodiversity monitoring and assessments. South African mesic grasslands are biodiversity hotspots with diverse grasses and forbs, but current land management and monitoring frameworks often prioritises grazing value over overall plant diversity. Inappropriate management can reduce species richness and abundance. This workshop will highlight the role of forbs and grasses in sustaining biodiversity and provide practical skills for including them in grassland monitoring and management. To find out more about the infield workshop, visit: https://grassland.glueup.com/event/workshop-on-assessing-forb-and-grass-diversity-158141/?pk_campaign=Workshop+on+Assessing+Forb+and+Grass+Diversity&pk_cid=432893&pk_kwd=432893&pk_medium=event-campaign

20 – 24 July 2026

61st Annual Congress of the Grassland Society of Southern Africa – Grabouw, Western Cape

We look forward to hosting an exciting programme and workshops celebrating the International Year of Rangelands and Pastoralists. Requests for special sessions are now open until 26 January 2026. For more information, visit: https://grassland.glueup.com/event/61st-annual-congress-of-the-grassland-society-of-southern-africa-151840/documents.html
Visit: https://irc2025.rangelandcongress.org/

Grassland Society of Southern Africa

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Grassland Society of Southern Africa

GrasslandSociety

Our vision

Advancing rangeland ecology and pasture management in Africa.

Our mission

Advancing ecology and management of African rangelands and pastures in a changing world by:

- Publishing relevant high-quality research
- Providing a dynamic and professional annual congress at which scientifically rigorous papers are presented
- Facilitating the translation of science into policy and practice
- Developing human capacity to study and manage rangelands and pastures
- Providing a forum for trans-disciplinary debate, particularly between fields of production systems, biodiversity and ecosystem goods and services
- Assisting decision makers to understand the links between ecosystem services, global change, sustainability and human wellbeing

Grassland Society of Southern Africa

Our objectives

Like any business, the GSSA needs to be guided by a clear vision and measurable goals. In order for the GSSA to remain relevant to its members and true to its core values, the Society regularly embarks on strategic planning processes to measure the achievement and relevance of the strategic objectives. The current strategic objectives include the following:

- To run successful Congresses and other satellite functions
- To publish good quality research
- To revitalize planted pasture science within the Society
- To support the Professional Affairs Committee
- To increase capacity building
- Growing the Society
- To continuously improve the Grassroots/Bulletin
- To maintain administrative excellence

Our history

In 1965 a small committee, comprised of Prof John D Scott, Dr Pieter de V Booysen and Dr Trevor D Steinke, with Mr John Lintner as a co-opted member, was asked to investigate the matter and, if possible, convene a meeting of those interested in the formation of a Grassland Society.

The first meeting was held at the University of Natal, Pietermaritzburg, in February 1966 and was attended by 96 delegates. At this meeting a number of papers were read by invitation and a draft constitution for the Society was discussed. The Congress has been held each year since 1966 in either January or July, sometimes in collaboration with other societies and organisations.

Until 1983, a full proceeding of each Congress was published. Thereafter saw the birth of the Journal of the Grassland Society of Southern Africa which was published quarterly until 1993 when it was reduced to three issues per year. The Journal is currently published under the name of the *African Journal of Range and Forage Science*.

Deadlines for submissions

Newsletter of the Grassland Society of Southern Africa

Grassroots

~~Issue 25.3: 30 October 2025~~

Issue 26.1: 28 February 2026

Issue 26.2: 30 June 2026

Issue 26.3: 31 October 2026

For submissions or more information, please visit grassland.org.za/grassroots or email us at grassroots@grassland.org.za.

Advertise your business

Grassroots regularly carry both display and text advertisements to promote products, services, and job opportunities. For more information and price options, please contact our administrator at info@grassland.org.za.

Advancing Rangeland Ecology and Pasture Management in Southern Africa

ISSN: 10166122