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Southern African Institute of Forestry

Delivering a professional service to forestry

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Contents:

Photo taken at the bridge over the Groot River outside Nature's Valley at the foot of a giant *Afrocarpus falcatus* (Kalander/ Outeniqua Yellow wood tree)

Editorial

A New Year brings New Challenges

Best wishes to all our SAIF members for 2026. While the northern part of South Africa experienced severe flooding and major damage to livelihoods and infrastructure, the southern parts of South Africa is in the middle of a drought and saw some major fires in January 2026. What a start to the new year ! This year will bring more challenges and the forest and forest products industry will most likely also face its fair share of challenges and problems . The industry has proved over the years that it is resilient and the people working in die sector will not stand back for the challenges.

We do live in interesting yet scary times for many of us. Artificial Intelligence (AI) offers opportunities but should be managed with caution. Internationally the world seems to be more volatile and uncertain with global politics, conflicts and economical outlooks so unpredictable.

Apart from all the wonderful New year's resolutions , of which sadly many have probably already been abandoned by now, it is also a good time to be reminded of what has been achieved by foresters and our members over the years. Bruce, our president submitted a wonderful article written by one of our loyal and stalwart members Prof. Klaus von Gadow which appears on page 2 of this month's newsletter. It reminds us of the humble beginnings yet great achievements by our South African foresters which we can celebrate today. This should also serve as inspiration for our younger members that there is still much to aspire to and so much more to achieve !

We would also like to congratulate Dave Everard and his team with the latest edition of Southern Forests, focussing on the Forest Science Symposium jointly presented by the SAIF, FSA and the ICFR in November 2024. Please read the articles on pages 10-12.

The Diepwalle Plan

By Prof. Klaus von Gadow as submitted by Bruce Talbot (President of the SAIF)

"Working Copy No. 4" of the *Diepwalle Indigenous Forest Management Plan*, a leatherbound book of 698 pages, was recently made available by Sanparks staff in Knysna for digital reproduction (and possible safekeeping in the Africana section of the Stellenbosch University library). It was an emotional moment when I held the heavy book in my hands again after more than half a century. As a junior forest officer, it had been my job to locate and annotate the geographical detail for the Diepwalle forest map with place names based on historical records ("Suurkloof", "Kaspad", "Spykervlei", "Barnardseiland" ...) and particular geographical or ecological features ("Tweelingkoppad", "Muispad", "Ottervlei", ..).

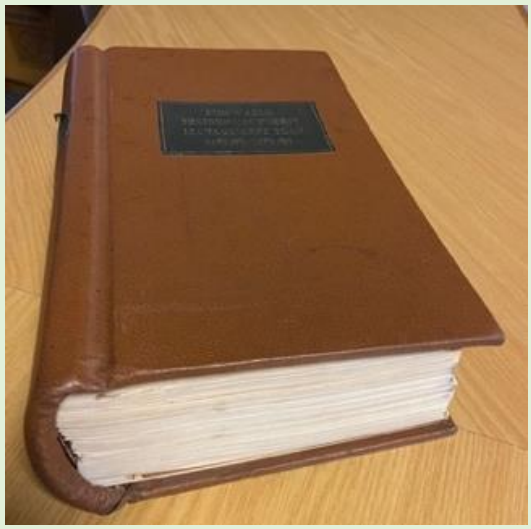
I also had to assign the sample plot locations for the tree measuring teams, led by Peter Kaye and Gary Heuer. The final forest maps were made by MC ("Snoeks") Coetzee. I remember leaving the Diepwalle inspection quarters early in the morning, with a bottle of water, a compass and one of those excellent South African topograpical sheets, and spending the day in some remote part of the forest, only to return just before dark. Those walks on uncharted terrain were a bit scary at times, but always a magic experience.

The Diepwalle plan includes, not only detailed prescriptions, but also records of the work that had been carried out, including handwritten accounts of tree planting, tending, and felling operations conducted during the 1970s. The prescriptions were based on specific silvicultural principles developed during the 1960s by Dr. F. von Breitenbach, a distinguished botanist who had succeeded Dr. John Philipps and F.S. Laughton, both pioneers in forest ecological research within the Southern Cape Region.

The Diepwalle plan includes, not only detailed prescriptions, but also records of the work that had been carried out, including handwritten accounts of tree planting, tending, and felling operations conducted during the 1970s. The prescriptions were based on specific silvicultural principles developed during the 1960s by Dr. F. von Breitenbach, a distinguished botanist who had succeeded Dr. John Philipps and F.S. Laughton, both pioneers in forest ecological research within the Southern Cape Region.

The plan is not only an interesting historical document, but more importantly, it is an example of how forest **resilience** (depending on diversity) and **productivity** (depending on the residual density) can be sustained by active management. Implementing ecological theory by way of a hands-on operational management system remains a significant challenge. Both the residual density and diversity are central to all Diepwalle compartment prescriptions. That is one reason why the Diepwalle plan to this day represents a rare example of science-based forest conservation, an example that could serve as an example in other regions of the world.

Scanning the Pages



"Working Copy No. 4"

According to Kleinschmit et al. (2016) more than half of the logging in the world is not only illegal, but also occurs primarily in protected and vulnerable areas. Natural forests are spatially complex and highly irregular in size and species composition.

Implementation of scientific management systems (for better protection) is challenging. That may be the reason why natural forests represent a resource that is often not used at all, and thus an especially attractive target for unsustainable timber mining and illegal logging.

The large scale illegal logging in the Semenic National Park in Romania is an example. The most highly valued timber is usually found in natural forests. However, there is often a lack of a scientific framework for sustainable use of these forests. To this day the Diepwalle plan thus represents a unique example of effective, science-based forest use and conservation.

"Working Copy No. 4" of the *Diepwalle Indigenous Forest Management Plan*, a heavy, leatherbound book of 698 pages was kindly made available for digital reproduction by Sanparks staff in Knysna.

The book was compiled in 1970 by K. v. Gadow (place and path names, forest subdivision, allocation of sample plots, schedule of operations); P.A. Kaye and G.L. Heuer (stock-taking); M.C. Coetzee (maps and graphs), C.E. Stevens and M.T. Benn (typing) and J.M. von Breitenbach (checking and coloring). This historical document contains interesting detail, such as handwritten records of tree planting, tending and felling operations that had taken place during the planning period in the 1970's.

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For two decades, the **#AttakwasExtreme** has been South Africa's toughest one-day mountain bike race, pushing riders to their limits. Since its inception in 2007, it has earned **legendary status** as a must-do event on the mountain biking calendar .
On **17 January 2026**, the **20th Edition of the # HellOfTheSouth** took place and Richard Muller SAIF member & lecturer at NMU : George Campus, completed each of the 20 events. Congratulations with this major achievement and very well done Richard !

The Rob Thompson column

Take up space in 2026

By now most readers would have returned from leave and once again have taken up their respective places in the work environment, ready or not, to face what promises to be a very challenging 2026.
Only someone with the wildest of imaginations might (with an outside chance) have predicted the circumstances that the World (and South Africa) are now facing in 2026. There we were once upon a time, thinking that a global Covid outbreak, domestic riots and unrest, grand-scale corruption, whistleblower assassinations, floods, global economic mayhem and major international conflicts were the final spasms of a long run of unprecedented challenges.

We need to think again…

The USA invading Venezuela and the US President declaring himself acting president of Venezuela. That same USA , a key Nato member further wanting to invade another arctic-based Nato ally. Ongoing devastating conflict in the Middle East and Ukraine despite an official cease fire and ongoing peace talks respectively. Unprecedented USA trade tariffs imposed on a swathe of trade partners, initially removed and then reinstated with even more vigour. A Global Board of Peace established costing any nation (even known aggressors) a mere US$ 1 billion for permanent membership! One simply cannot make this stuff up!

On the home front we have equally bizarre circumstances unfolding. We are antagonising critical trade partners with Naval war games along our own coastline together with highly dubious "invited" participants. An undeclared national agricultural disaster in the form of a country wide, and as yet uncontrolled, Foot and Mouth outbreak. Another undeclared national disaster this time in the form of rampant Western Cape fires. A surprisingly declared national disaster in the form of 100-year floods ravaging Limpopo and Mpumalanga which critically tested our single functional SANDF helicopter to run rescue missions. All this, and more, whilst our politicians hone their spin doctoring skills to evade scrutiny and accountability allowing them to continue unfettered access to State resources.

And the most alarming development? Hardly anyone really seems to care! Have a look around you. People from all walks of life continue to embrace mediocrity. Influencers entice endless scrolling on devices permanently attached to one or other hand of unmotivated people with drone-like tendencies. Social media groups enable endless complaints and commiserations about the current (dis)order but with no sign of suggested actions to mitigate. New Year greetings between friends and loved ones are clinical and AI generated, whilst viral memes and reels gradually take over the role of personal conversation and engagement.

WhatsApp groups in the suburbs ping incessantly with complaints about uncollected refuse, burst water pipes, municipal ineptitude, electricity outages and strangers in the street. Not a single ping accompanied by a possible solution or contribution.

A glance towards the work environment, however, produces an ironically different image. The private sector as a collective, forced to survive in an environment of State ineptitude and non-support, tends to be quite innovative in its approach towards challenges. Our own forestry industry has come up with amazingly innovative ways to work around obstacles and remain successful. Community relations, precision forestry, supply chain monitoring, cost efficiencies, logistics are examples of key arenas that have progressed in leaps and bounds purely out of necessity. They have benefitted from the intellect and tenacity of employees willing and able to make a difference within their fields of expertise or influence.

Why then has this proven tenacity not gained more traction outside of the working environment and infiltrated deeper into people's psyche and thereby into the external root cause factors of the malaise that is affecting us all? My cynical self, whispers into my ear that this is likely the result of effort vs. reward. Employees get paid for their efforts. Conversely, individual attempts to mitigate overwhelming malaise and general decay is most often unseen and definitely very seldom rewarded.

The result? "Ho Ho It's off to Scrollin' we go!"

Around New Year my phone pinged!

It was an incoming greeting from an old friend which, unlike the other rote, overused greetings going around at that time, was more personal and meaningful. It was a quote from the rather contentious author Neil Gaiman and read as follows:-

"*May your year be filled with magic and dreams and good madness. I hope you read some fine books and kiss someone who thinks you're wonderful, and don't forget to make some art – write or draw or build or sing or live as only you can. And I hope, somewhere in the year, you surprise yourself*."

That greeting definitely rated as the best one I had received for 2026. Whilst my challenge remains to find out for sure if my wife still thinks I'm wonderful, the quotation certainly lays down a challenge to all who are concerned about our current state of (dis)order and malaise and mediocrity. I interpreted the quotation as an individual challenge to "take up space" in a world gone mad.

Regardless of how small, we need to take the time to create something unique (both at work and outside of work). We should regularly make something that means something to ourself as well as to others. With this mindset of continually creating something meaningful to self and others, we just have to make a positive difference.

- Instead of merely commiserating and complaining, we could be making an effort to suggest and promote solutions.
- Rather than being influenced down the path of mediocrity, we could actively influence beneficial change and tangible improvements by setting a practical example. Actually going to the trouble of picking up that piece of litter is an example that comes to mind, or teaching the neighbourhood how to recycle, or instigating a street patrol, would be further examples of meaningful influences.
- Applying your work-based communication skills towards tactfully directing everyday depressing narratives into more positive directions would contribute towards changed mindsets and be highly rewarding when seen from a satisfaction perspective.

- Using your own particular individual talents to create a needed object for someone unable to do so or to entertain a deserving soul, would, most certainly change positively , albeit minutely, the trajectory of the general moribund psyche prevailing.
- Respecting all life forms, practically demonstrating your subscription to this principle, and using your skill sets to explain the necessity of this ethic to others less informed, can only add value and take up positive space within the degrading environment upon which we rely.

Deciding to live positively and to contribute as best possible takes far more effort than deciding to just live and go with the flow. That flow easily draws one into a current that becomes inescapable. We constantly see people and events all around us that prove this theory to be true. Flashy politicians, bling adorned young 'diamonds', habitual scrollers, morbidly obese / sedentary individuals and pessimistic people are all caught up in that easy inescapable flow.

Not one of us can change the world by ourselves. A guy called Donald in the USA has taken up that challenge so we'll leave it up to him!

What we can do as we progress deeper into 2026, is to actively decide to take up a positive space and to create things (either tangible or intangible) that are meaningful to us and others. That shared contribution, if done with conviction, will certainly leave us feeling that we have done the right thing and those that benefit from our actions or see such occur, may just follow suit in their own unique manner.

We won't see results quickly, even if at all! But, that doesn't really matter.

Navigating 2026 along that positive chosen path is miles better than that slippery slide into sticky mediocrity! Appreciate your space and celebrate your chosen role. Bear in mind that wishes and dreams are not yours as they reside in the future. Rather spend time changing the present for the better and who knows, you may totally surprise yourself in 2026!

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Building Resilience Into Business DNA: Lessons NCT'S Journey

I don't think anyone would argue that our current Springbok team could be described as the epitome of resilience. They have become the kings of one-point wins. They have won against remarkable odds. They have faced the best in the world with 14 men. As world champions, they faced all and sundry and kept them all at bay. It's not coincidence. It's not that they decided to be tenacious and die hard for any particular season. Its been built in them and cultivated from an astute leadership collective, tested and refined over several seasons.

Resilience is not an emergency switch you flip when adversity strikes. It's a capability embedded in an entity's DNA – cultivated through preparation, adaptability and proactive systems. Drawing on NCT's experiences over the past few years, we can attest to how resilience is built, why it cannot be improvised and what activities businesses should nurture to stay strong in uncertain times.

In today's volatile world, resilience is often misunderstood as the ability to "bounce back" when things go wrong. But true resilience is not reactive – it's strategic. It's about anticipating risks, preparing for disruptions and creating a culture that thrives under pressure. Businesses that embed resilience into their operations and ethos are better positioned to survive and recover when adversity hits.

When disaster strikes, businesses without this embedded resilience scramble to respond. They lack systems, resources and decision-making agility. NCT's recent history has in reality prepared us in so many

ways. Like many South African businesses, we endured the COVID-19 pandemic, the 2021 looting and unrest, and the KZN floods of 2022. Then came the Richards Bay fire in October 2023, the Durban port loader damage in May 2024, and the strengthening rand over the past 15 months. These events wiped out revenues to a level that could have crushed most businesses. Our ability to adapt and overcome was not improvised – it was the result of years of preparation, capability building and a culture that allowed us to predict, plan and respond decisively.

Resilience begins with **identifying risks**, assessing their likelihood and impact, and planning accordingly. Risks range from major fires and exchange rate volatility to supply chain collapses, IT failures, labour unrest, and natural disasters like floods. Tools such as risk registers and heat maps help visualise exposure and prioritise mitigation measures. NCT has found that scenario planning is critical. Can your business use solid forecasting tools to model risk? Are you able to predict where you will be one year or two years in the future? Can you predict how cash flow will be impacted under different scenarios?

That leads to money, of course. **Financial resilience** was a cornerstone of our response to the Richards Bay fire. Resilient businesses diversify revenue streams, maintain strong **banking relationships** and build liquidity buffers. They hedge against currency volatility and keep reserves for emergencies. While NCT's **revenue diversity** is not unlimited, we don't have all our eggs in the Richards Bay basket. Revenue from our Durban export facility and domestic sales – making up more than 40% of our turnover – proved vital as circumstances unfolded. Then there were our **cash reserves**. Years of refining our reserve methodology paid off. Those reserves buffered the timing of insurance payouts and gave us leeway to keep buying and storing member timber in the interests of the Industry. Our long-standing relationship with FNB also came to the fore, with offers of support we could have called upon if needed.

As the smoke was still settling in Richards Bay, we were already identifying which incoming vessels could be diverted to Durban, how long we could afford to buy timber from members, where we could store it and what we should be telling stakeholders.

Foresight enables proactive action. Our ability to plot outcomes months into the future gave us confidence to make quick decisions when every hour counted.

Transparency during crises is essential. Stakeholders – members, customers, suppliers – must know what's happening so they can plan and mitigate their own fallout. Cushioning the impact on customers and maintaining trust prevents uncertainty. Contingency plans for high-risk events are non-negotiable. During the fire, we engaged unions, the local municipality and port authorities early. We invited TV crews onto ground zero and kept the public informed about the fire and its environmental impact. The support we received from the community, churches, the municipality and industrial peers was remarkable – and we were commended continuously for our transparency.

After the fire, as rebuilding began, we spent significant time updating international customers and members with details around completion dates, timber intake projections, insurance updates and financial impact. We were buoyed to regain all our international customers as soon as we could service them, with the last confirming contract resumption just last month. The take away from this is quite subtle. We have spent years and years nurturing our relationships with our major customers. There have been times when we have placed these relationships ahead of short-term gains. We have ensured these relationships extend beyond the board level and executive level, to ensure that even at operational and financial levels our employees are engaging and interacting with their peers in a respectful and proactive manner. We have made this an inherent part of the NCT culture. Its part of our brand. The manner and depth of these relationships played a large role on the levels of support, understanding and encouragement we received from these customers.

Culture drives resilience. Does your organisation embrace flexibility, continuous learning and innovation? Do leaders empower employees to make rapid decisions and share how they handle challenges? At NCT, supportive leadership and open communication have been key to navigating disruptions. We learned from COVID-19 how to empower the right levels of our organisation to

respond effectively while maintaining accountability. During the fire, board members were literally on the ground, sharing, supporting and motivating staff alongside senior managers.

Our experiences tell the story: resilience is cumulative, built through systems and culture – not improvised in a crisis. But here's the twist: even the best preparation sometimes isn't enough.

Consider the Welsh Rugby team – brave dragon warriors, trained and prepared to face the Springbok juggernaut. They analysed every scenario, trained relentlessly and played to the absolute best of their ability… and still got obliterated. Were they resilient? Absolutely – they got up after every tackle, every scrum, every try against them. But their resilience didn't change the outcome.

Businesses face similar realities. Sometimes, despite preparation, flexibility and tenacity, circumstances overwhelm available resources. Resilience doesn't guarantee a win – but it keeps you in the game long enough to fight another day. And that's still worth investing in.

Resilience is not about avoiding adversity – it's about enduring it and emerging stronger. Preparation, adaptability and proactive leadership make resilience a strategic asset. For NCT, resilience is not optional, it's a long-term investment. And for every business, the question isn't whether adversity will come, but whether you'll be ready when it does. While we can't predict every storm, we can build a ship that's ready to sail through most of them

"Resilience is not an emergency switch you flip when adversity strikes, its a capability cultivated through preparation, adaptability and proactive systems."

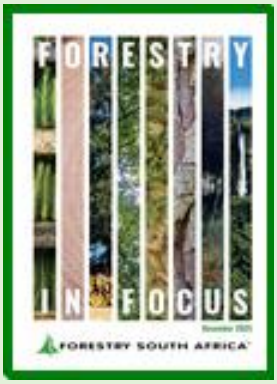
Written By: Danny Knoesen, General Manager – NCT Forestry Agriculture Co-operative Limited

Source: Forestry In Focus

https://forestry.co.za/building-resilience-into-business-dna-lessons-ncts-journey/

FORESTRY SOUTH AFRICA

Forestry in Focus : December 2025



Discover the fascinating wildlife and plant life that call our montane grasslands home.

Augur Buzzard (*Buteo augur*)
A medium-sized raptor that's easy to identify: black above, white below, with a rufous tail. This common species is often seen hovering in the wind or perched. Its call is a distinctive yelping sound, and it mainly preys on snakes and lizards.

Blue Swallow (*Hirundo atrocaerulea*)
A medium-sized swallow with blue-black plumage and, in males, long tail streamers. They feed over grasslands and forest edges and are intra-African migrants. Now endangered due to the loss of montane grassland habitats from the spread of wattle and pine.

Ground Orchid (*Disa versicolor*)
A beautiful orchid of moist montane grasslands in the mist belt. It produces a 20cm flower spike during the rainy season, with blooms ranging from cerise to magenta.

Ground Orchid (*Satyrium longicauda*)
Found in similar habitats to Disa versicolor, this orchid grows a 20–25cm flower spike during the rains. Its white to pale pink flowers have two long spurs and a sweet scent that attracts insect pollinators.

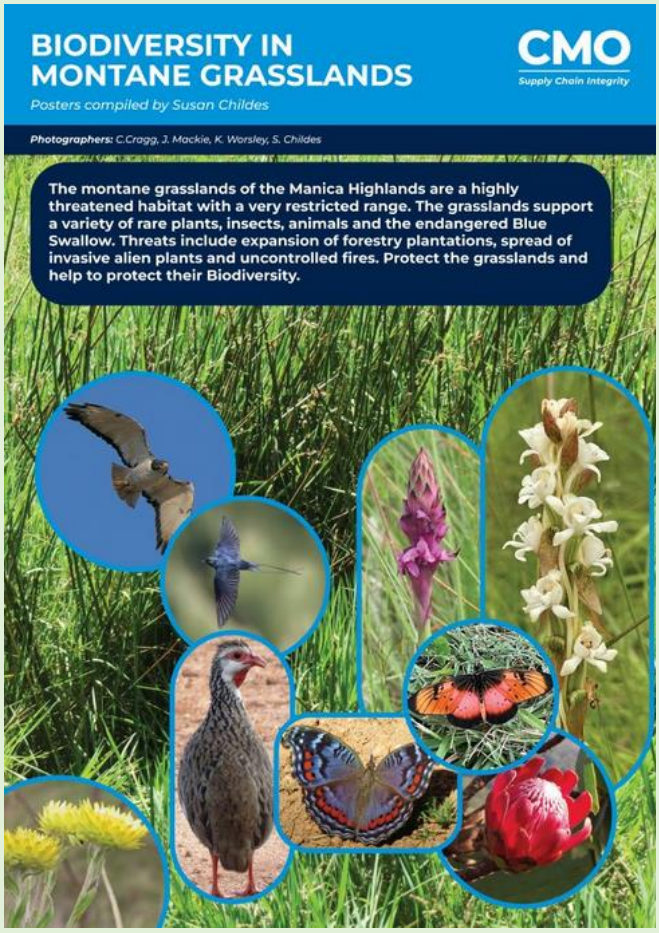
Natal Acraea (*Stephenia natalica*)
A common orange-red butterfly with black spots, known for its gentle, gliding flight over grasslands and forest edges.

Gaudy Commodore (*Precis octavia sesamus*)
A robust and brightly coloured butterfly often seen resting on the ground, slowly opening and closing its wings. It appears in two seasonal colour forms, with the blue form being the dry-season phase. Common in montane grasslands and forest edges.

Red-necked Spurfowl (*Pternistis afer*)
A medium-sized, chicken-like bird that frequents grasslands and forest edges. Shy and alert, it often runs into cover when disturbed. It calls in the morning and evening, feeding on seeds, leaves, and insects.

Yellow Everlasting (*Helichrysum nitens*)
Meaning "golden sun," the Helichrysum genus includes over 250 species in southern Africa. H. nitens is especially striking with silvery-grey leaves and bright yellow papery flowers blooming in April.

Manica Protea / Chinhendere (*Protea gazensis*)
A large shrub or small tree limited to the grasslands of the Manica Highlands. Its red flowers appear from October to April, adding a splash of colour to the landscape.



hashtag#Grasslands hashtag#Biodiversity hashtag#Wildlife hashtag#BirdsOfAfrica

hashtag#EndangeredSpecies hashtag#Conserva

Upcoming Events

Focus on Forestry 2026

Dear Forestry Colleague,

CMO, Forestry South Africa, and Nelson Mandela University are delighted to welcome you back to Focus on Forestry 2026, which will be held at Karkloof Country Club, just outside Howick in the KwaZulu-Natal Midlands, South Africa. Our 2023 event was the largest to date, attracting a record number of delegates and visitors — and 2026 promises to be even bigger and better! Focus on Forestry 2026 will be held over three days from 21–23 April 2026 under the Theme: "Operational Excellence in African Forestry: Building Resilient, Productive and Safe Forests".

We are thrilled to announce that the registration site for our highly anticipated Focus on Forestry event is now live. To register and book your ticket(s), please visit our online registration site at https://cmogroup.io/focus-forestry/

There, you will find a simple and user-friendly interface that will guide you through the process effortlessly. Don't delay, as spots are limited, and we anticipate a high demand for attendance. To reward early birds, we are offering a special discount on registration fees. The cost for early bird registration is R3250.00 (exc VAT) until the 15th of December. Afterward, the regular registration fee will be R3950.00 (exc VAT)

We recommend completing your registration as soon as possible to secure your participation. Feel free to share this information with your colleagues or anyone who might be interested in joining this enriching experience.

If you have any questions or encounter any issues during the registration process, please don't hesitate to reach out to us at focus@cmogroup.io , we will be more than happy to assist you.

Treehealthnet Register for TPCP and FMG-EPPI Symposia; 9-11 March, Pretoria

Dear Forestry Colleagues

Our very best wishes to you for 2026! We look forward to continue to build on our long-standing relationships to keep our forest resources productive and healthy!

This year, we will host the FMG-EPPI and TPCP symposium meetings in tandem from the 9th to the 11th of March 2026. This provides an exciting opportunity to (i) share recent achievements in tree molecular genetics and genomics research, forest health, biocontrol, data/information management and phenomics initiatives, (ii) discuss the challenges and opportunities affecting forestry, (iii) strengthen our collaboration and coordination among stakeholders and (iv) provide insights to guide future priorities and actions.

The symposia again promise to provide a vibrant and representative space for engagement. Apart from the feedback from our staff and students, we have three invited speakers; Prof Bill Hammond (University of Florida), Prof. Jim Leebens-Mack (University of Georgia) and Dr. Joey Tanney (Natural Resources Canada), as well as other international guests such as Dr Carlos Rodas and potentially Prof Jeremy Allison. We also expect representatives from collaborating research institutions around South Africa.

We encourage you to register as soon as possible at this link, and hope that you can join us for all three days in person. If not, please register to join us online. Register here: https://www.fabinet.up.ac.za/index.php/event/TPCP-CPHB%202026/

Best regards

Bernard Slippers and Sanushka Naidoo

Director: Forestry and Agricultural Biotechnology Institute (FABI)

SOUTHERN FORESTS : EDITORIAL

Forest Science Symposium 2024 – Ensuring a Sustainable Forestry Sector

The South African Institute of Forestry (SAIF)/ Forestry South Africa (FSA) Forestry Science Symposium has served as a regional platform for sharing scientific progress and applied research to support sustainable plantation forestry. After a suspension of in-person meetings since July 2017 due to the COVID-19 pandemic, and an interim FSA–SAIF webinar in 2022, the event successfully reconvened in November 2024 under the theme 'Ensuring a Sustainable Forestry Sector'. The return to face-to-face interaction was received with enthusiasm by the research community, industry, and stakeholders, with 209 delegates in attendance, 51 presentations, and 27 posters. This strong participation highlighted the continued importance of scientific exchange, collaboration and discussion among researchers, practitioners and industry partners. These interactions are vital for enhancing the resilience and competitiveness of the forestry sector in South Africa and beyond.

The 2024 programme was notable for its diversity, reflecting the broad research landscape in southern African forestry. Sessions covered numerous topics, including climate change adaptation, biotic threats, biodiversity conservation, forest product development, silvicultural innovation, and the rapid growth of precision forestry tools. Presentations ranged from basic studies of plant physiology and genetics to applied work on timber properties, silvicultural practices, and technological advancements. Overall, the programme demonstrated the sector's ability to integrate biological, ecological, technological, and socio-economic perspectives into a clear research agenda that meets sector needs and supports long-term sustainability. The forestry sector faces increasing challenges that will influence both current practices and future research directions.

Climate change is progressing rapidly in southern Africa, with temperatures rising faster than the global average, altered rainfall patterns, fewer rainy days, and more frequent extreme rainfall events (DSTI 2018). These changes raise the risk of droughts, wildfires, and other climate-related disruptions. Warmer conditions also favour new pests and pathogens (Gullino et al. 2022), which, together with the growing movement of people and goods (Hurley et al. 2016), heighten the risk of biological invasions and pest outbreaks. These biotic and abiotic pressures complicate breeding strategies, especially in clonal forestry, and highlight the urgent need for innovation in stand and site management and risk mitigation. Additionally, socioeconomic pressures on land, water, and labour resources increase the necessity for a stable and sustainable forestry sector (Barua et al. 2014; Ingram et al; 2016). Addressing these complex challenges will require ongoing long-term research and adaptive new approaches to ensure sector resilience.

This special issue of Southern Forests features selected peer-reviewed papers from the symposium, preserving a record of the discussions and shared knowledge. The contributions address the pressing issue of climate change, including innovations in climate prediction and adaptation strategies in plantation forestry (Dovey). Some papers focus on improving the sustainability of plantation management, such as alternatives to glyphosate for vegetation control (Little) and silvicultural methods to reduce mortality in eucalypt plantations (Hechter). The genetic improvement of tree species is crucial for the future of forestry, as highlighted in studies on the genetic control of early growth in pine hybrids (de Villiers). The contributions also included aspects of forestry science supporting the development of value-added forest products. Research on the mechanical properties of *Pinus patula* x

P. tecunumanii hybrids (Wessels) showcases the connections between silviculture, wood properties, and downstream uses. Moreover, the increasing integration of new technologies in forestry research and practice was evident in studies on machine learning applications for sawmill optimisation (Tshavhungwe), innovative remote sensing tools for stress detection (Ferreira), and the use of near-infrared spectroscopy to monitor soil carbon and nitrogen (Ramesar).

These contributions reflect not only the scientific depth of forestry research in the region but also its impressive diversity.

The symposium demonstrated how various research fields – ranging from genetics and physiology to forest health, silviculture, product development, and precision technologies – collaborate to address the main challenges in plantation forestry. The research presented shows the adaptive and innovative nature of forest science in the region.
The papers in this volume highlight the vital role of research in maintaining a productive, resilient, and sustainable forestry sector in the face of growing pressures. By presenting research directly addressing these issues, this special issue underscores the forestry research community's dedication to supporting the long-term sustainability of one of the region's most important renewable industries.

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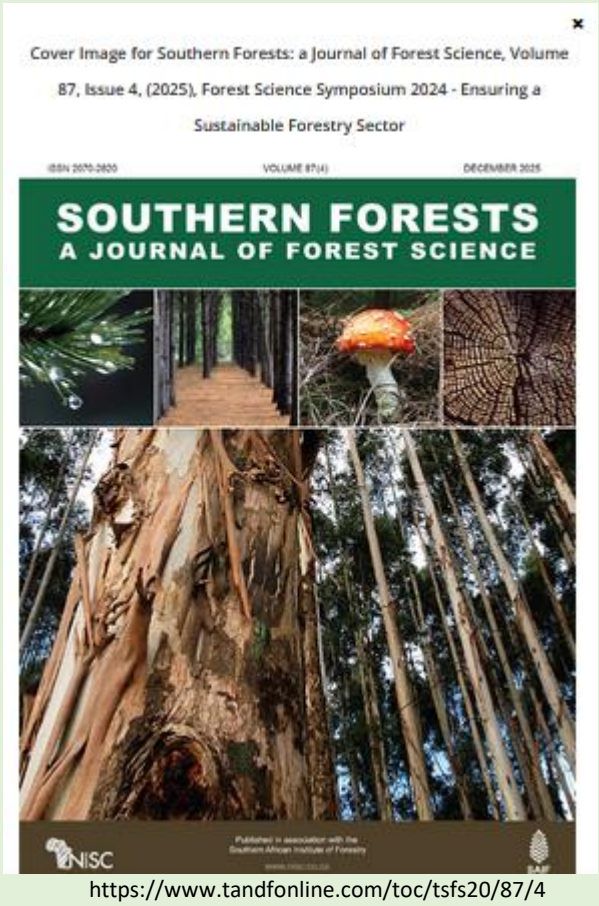

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Refinement of a site classification system for South African plantation forestry using regionally downscaled climate model input

Steven Dovey;Jacob Crous; & Yolandi Ernst

Abstract

Deemed a climate change hotspot, southern Africa is already experiencing increasing average temperatures associated with extreme weather events, such as drought and flooding. Climate change has already induced many weather and climate extremes in South Africa, and these are likely to increase due to continued anthropogenic greenhouse gas emissions, placing the commercial forestry industry at continued risk. This study aimed to assess expected changes in temperature and rainfall for the Mpumalanga and KwaZulu-Natal provinces in South Africa and the integration of modelled climate data into forestry-specific research and planning operations. Climate model data show increased intra-annual rainfall variability, less rainfall in many areas, and shifting climate zones from cool to warm and warm to subtropical. Cool areas in the Mpumalanga region are expected to be most impacted by these temperature increases. The refinement of the site classification system included more climatic variables, and these results will serve as baseline information in the adaptation of forestry management to changing climatic conditions. The study complements other existing projects focused on site-by-genotype matching and tree breeding strategies. Future research will also include strategies to adapt to hotter and drier climates and shifting seasons.

Pre- and post-emergent herbicides tested as alternatives to glyphosate for vegetation management during pine and eucalypt establishment, South Africa

Keith M Little & Ira Tzitzika

Abstract

Pre-emergent, selective and desiccant herbicides were tested for the control of competing vegetation in a pine and eucalypt trial and, if successful, to reduce the reliance on manual ring-weeding and/or glyphosate (current practice). Both trials consisted of ten treatments replicated three times and laid out in a randomised complete block design. The treatments included an untreated weedy control, a weedfree control (manual ring weed + glyphosate), two pre-emergent herbicides (isoxaflutole and/or indaziflam), a desiccant herbicide (pelargonic acid) and selective post-emergent herbicides (clethodim and clopyralid as a tank mix). The timing, frequency and quantity of herbicide applied per treatment were recorded after each spraying event, with vegetation cover, tree growth and phytotoxicity also assessed on these occasions. In comparison to the weedy control, all the herbicide treatments resulted in the suppression of competing vegetation, together with significantly improved tree growth (similar to that of the weedfree control). Of the herbicides tested, indaziflam and isoxaflutole provided effective and long-term suppression of the target vegetation, but with sedges and ferns not as well controlled as the other vegetation types. Although clethodim and clopyralid were effective for the control of younger, more susceptible vegetation types, they were not as effective on woody perennials. Pelargonic acid proved effective for the control of young weeds in the immediate area around the trees, but leaf scorch occurred where the herbicide came into contact with the lower needles/leaves. In the pine trial, some discolouration and abnormal needle growth was observed following application of clethodim and clopyralid, but this was transient and did not have an impact on overall tree performance. In addition to demonstrating the viability of desiccant, selective and pre-emergent herbicides as alternatives to glyphosate for vegetation management, the study showed that pre-emergent herbicides resulted in an overall reduction in the total active ingredient used to achieve this control.

To get access to other and the complete articles, please go to Volume 87, Issue 4, 2025 on : https://www.tandfonline.com/toc/tsfs20/87/4

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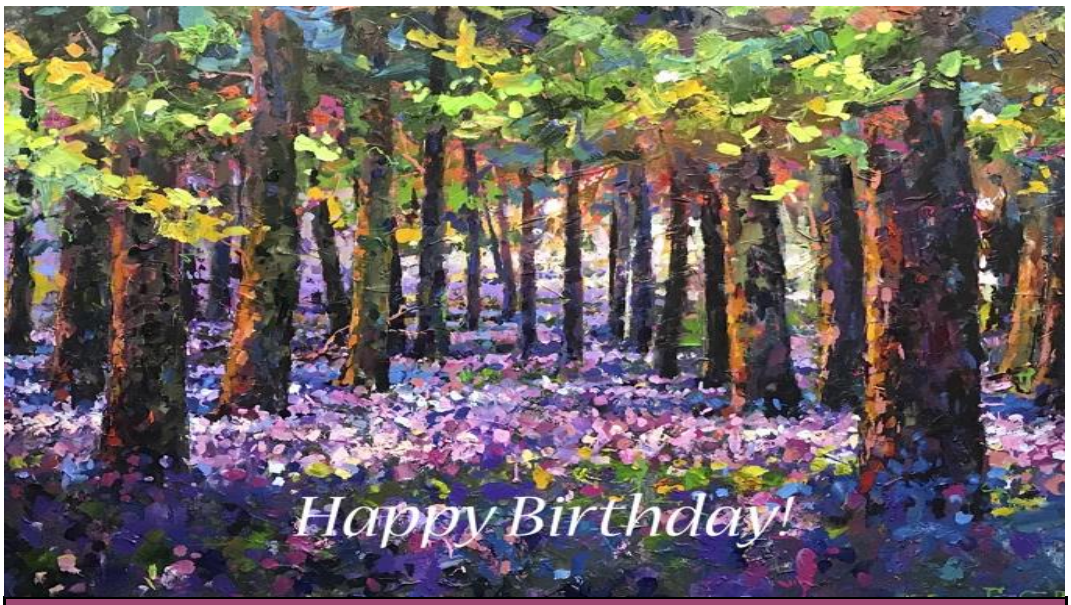
The following SAIF members celebrated their birthdays in January



JANUARY BIRTHDAYS			
02 Jan	PHILIP CRAFFORD	17 Jan	LEE CUNNINGHAM
03 Jan	JAMES BALLANTYNE	18 Jan	DIRK LäNGIN
05 Jan	MIKKA PARAG	21 Jan	CARL SEELE
06 Jan	SANDISO SOTIYA	24 Jan	GAVIN BURNHAMS
07 Jan	ED HAYTER	25 Jan	LUKE VAN VUGT
08 Jan	DUANE ROOTHMAN	25 Jan	LOUIS VAN ZYL
08 Jan	WILLEM KOTZE	25 Jan	JOH SCRIBA
09 Jan	CRAIG NORRIS	26 Jan	RICHARD MULLER
11 Jan	PETE ODELL	27 Jan	GARY HODGE
12 Jan	DAVE DOBSON	28 Jan	JIM MATSHO
13 Jan	P.E VON BUDDENBROCK	30 Jan	CHURCHILL MKWALO
16 Jan	GJALT HOOGHIEMSTRA	31 Jan	RICHARD LIVERSAGE
16 Jan	ERIC DROOMER	31 Jan	JACK SWART

The following SAIF members will be celebrating their Birthday in February

FEBRUARY BIRTHDAYS			
02 Feb	AZWIANEWI MAKATU	14 Feb	JOLANDA ROUX
03 Feb	ARTHUR DAUGHERTY	16 Feb	WAYNE JONES
03 Feb	WILLEM HOLLESTEIN	17 Feb	GAVIN SCHAFER
04 Feb	NICKY JONES	21 Feb	NIGEL PAYNE
05 Feb	ROBIN HULL	21 Feb	COLIN SMITH
05 Feb	GRAEME HARRISON	21 Feb	TIM ROSS
06 Feb	JACOB KOTZè	22 Feb	PHILIP DAY
08 Feb	JOHAN NEL	22 Feb	OWEN PETERSEN
09 Feb	TATENDA MAPETO	24 Feb	KYLA VAN ZYL
12 Feb	PETER KEYWORTH	25 Feb	JEREMY CARR
13 Feb	ANDREW McEWAN		

The SAIF would like to wish every member who celebrated their birthday in January and those who will celebrate their birthday in February a very Happy Birthday and congratulations with reaching another milestone.
Thank you for your continued support and God bless for the next year ahead.

The Southern African Institute of Forestry

Handbook order form

The Southern African Institute of Forestry publishes three industry specific handbooks.

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Price: SAIF members: R400
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