

Southern African Institute of Forestry

Delivering a professional service to forestry

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Photo of a veldfire burning during 2023/24 Cape fire season (Fire & rescue International Newsletter, 23/2/2024)

From the President's Desk

Climate Change and the 2024 Fire Season

It is that time of year again when the seasons are changing and the summer rainfall region where most of the plantations in South Africa are located, are fast approaching their winter fire season.

How should we prepare for the coming fire season given the impact of a quite severe El Nino and against the background of the ongoing climate change? It seems that there is general consensus that climate change does exist. It is however not the first time that we experience climate change, as over numerous decades and centuries, there were several so-called ice ages, warming and other dramatic climatic events.

Global warming and climate change most certainly have significant implications for fire management and needs to be carefully considered.

The late Dr. Neels de Ronde during his life and career has been recognised internationally as a fire expert. He pointed out in one of the last articles written by him before his death, that in the USA, a number of scientists have apparently automatically assumed that a general increase in average air temperature ("global warming") will result in an increase in wildfire damage. It however appears that this is an unsubstantiated research approach and at best only partly correct. According to reports, no scientific evidence for this exists to determine (i) to which fire behaviour parameters weather variables are positively correlated or (ii) what relationship exists



between weather variables and the main biomes in the USA.

The Fire Triangle (shown below) is well-known to everybody involved in veld- and forest fires.



It is common knowledge amongst veldfire practitioners, -experts and foresters, that two of the three elements are associated with weather and climate which are essentially beyond human control. The only component which can be reasonably controlled or mitigated would be the “fuel” component. The management/ reduction of fuel loads is primarily achieved by actions like preparation of fire belts, prescribed burning, under-canopy burning and mulching.

According to De Ronde, in South Africa (SA), prescribed burning application, as a fuel management measure, is still falling far short of requirements, for various reasons. As a result, extreme wildfires are still causing havoc with existing firebreak systems, which are still ineffective to say the least. Another problem with prescribed burning is the application without proper motivation or regional planning, resulting in at best creating nothing more than “prescribed burning islands” in the landscape.

Back to the weather: According to Seasonal Climate Watch (2 May 2024) El Niño Southern Oscillation (ENSO) is currently in a strong El Niño state but weakening and predicted to decline rapidly now towards winter. El Niño is therefore unlikely to affect the weather further during winter months.

The link between El Niño and the conditions in southern Africa is complex and does not always follow a simple pattern. In general, El Niño brings drier weather to the summer rainfall region of southern Africa. This would be expected to result in a more intense fire season according to Tessa Oliver in her article regarding lessons learnt from W-Cape 2024 fire season . There have been many exceptions to this rule in which El Niño did not

bring drier conditions. In the southern and western parts of the country, El Niño does not seem to have a predictable effect on rainfall.

The South African Weather Service (SAWS) multi-model rainfall forecast indicates mostly below-normal rainfall over most of the country during May-Jun-Jul (MJJ), Jun-Jul-Aug (JJA) and Jul-Aug-Sep (JAS), except for some parts over KwaZulu-Natal, Eastern Cape and Mpumalanga for May to July where above-normal rainfall is expected. Higher temperatures are also forecasted for the 2024 winter and early spring. There may however be some exceptions with more rainfall in some parts of South Africa.

More Lessons from the Western Cape

Over the past few years the cooperation and collaboration between municipalities, the Western Cape government and different firefighting agencies have, overall, led to more efficient response to wildfires that reduces the amount of damage wreaked on infrastructure and the environment.

Working on Fire (WoF) managing director Trevor Abrahams says the Provincial Disaster Management Centre (PDMC) in the Western Cape has a first-response strategy where they pay for the first hour of aerial resources, meaning someone doesn't have to sit with a calculator wondering if they can pay for aerial resources or not. “They can get there and throw as much water [on the fire] within the first hour. What that does is 80 percent of our fires are controlled in the first hour... If you can get to fires quickly and early, you limit the actual costs you eventually spend on that fire,” he said.

Experts warn that key lessons firefighting and management authorities in the rest of the country should heed, is not to focus only on firefighting response (fire suppression) but to implement prevention and mitigation measures ahead of the fire season.

Sources:

1. Fire and Rescue(FRI) Vol. 1 No. 12 : Climate Change is a reality in S.A. (Dr. C de Ronde)
2. FRI Newsletter, 23 February 2024 : Crucial lessons for future preparedness from the Western Cape fire season (Tessa Oliver)
3. SAWS, Seasonal Climate Watch, May-Sept. 2024; issued on 2 May 2024



The Rob Thompson Column

A lesson from Rambo!

So... I'm a Rambo fan. Be nice, don't judge me!

That said, when a thumbnail depicting Sylvester Stallone popped up in my social media feed the other day, I did the obvious and clicked.

There was the man himself, a few decades older than his original Rambo and Rocky days, proudly holding up an ancient pair of boxing gloves. Sylvester was lamenting the fact that the gloves he held so dear and which he had used in all the Rocky series, were no longer legal in current boxing circles. They are now considered too dangerous to both the receiver and deliverer of the blows rendered through them. This was proof, according to Sylvester, that modern people are getting far too soft.

His view is that humans are designed to work hard, embrace challenges, experience discomfort and ultimately win through as a better and stronger person.

There is simply no room or need for wheels underneath suitcases that travelers actually once carried. Escalators should be banned, and people reintroduced to the concept of stairs, and, for heaven's sake people, whatever happened to sucking up the pain of a broken knuckle or a dislocated jaw given the use of a thin but comfortable boxing glove.

That short video played over in my mind regularly over the next few days. The man certainly had a point. Humans really have embraced a life of convenience and ease and perhaps not always for the best.

This thought process was emphasized when I suddenly realized that I was possibly the only one left in my office who actually still has a car key. All the other vehicles in the parking bays are keyless contraptions with self-opening and closing boot lids and self-start pre ignition aircons. Imagine the risk to your wrist of actually turning a key in the ignition and the health threatening shock to the system when entering a too cold or too hot car interior. Of course, it goes without saying that vehicles should now park themselves, brake themselves and provide all round automatic camera visuals and hazard warnings.

It's just not on any more to actually have to think for oneself whilst driving. The brain-strain would be unbearable.

Even the few, once pleasurable vices, that we indulged in have apparently become risk averse. The good old coffee grinder and plunger have made way for pre-ground and hermetically sealed coffee-pods. This has probably saved thousands from the ravages of facial disfigurement caused by loose coffee ground ricochets, and shoulder dislocations resultant from depressing plungers without adequate warm up.

At least, one might argue, that there is room for some risky activity in the form of bravely walking around a shopping mall to replenish spent coffee pods. Not so, say the modern risk averse. You now have Sixty60 which shall deliver to your door any commodity that you may deem required within 40 minutes of being summoned. You can just hear the sighs of relief from the millions of users now that the dangers of an elevated heartrate and potentially tired feet have been eradicated.

But you still have to get to meetings and engage with people from afar, I hear the old school cohort argue. That's quite true, respond the modern generation, but we have online Teams now! Far better than risking personal contact and long drives to other locations. Imagine the stress that that would cause?

In the event that all of this risk-free living give you the nibbles, but you do not relish the thought of tackling a hot stove and dangerously sharp cooking implements, a plethora of modern fast food is your obvious salvation. Take your pick, pay, and pick up, or have delivered all within a mere half hour. You can then sit back, munch on a cholesterol laden burger, and think about your loser hunter gatherer ancestors necessitated to run for miles after swift and cunning antelope and buffalo in the hope of securing protein. How unhealthy that must have been!

Don't be so disparaging, some might say. We still do sport and as you know sport has inherent risk. Absolutely, I would agree. There is always the risk of falling out of the electric golf cart and I even know some folk who have suffered serious muscle discomfort after a round of Padel.

Oh, now you're just being facetious, I hear people saying, there are modern hunters too! Mmm...true that, and the long-range thermal scopes and precision rifles significantly reduce the tracking time and bakkie chase distance, leaving far more time available for a celebratory brandy or five, and carcass pick up by independent recovery vehicle. After all we are now hunters, no longer gatherers!

...and whilst on the topic of brandy, modern imbibers of our National drink (Branners en Coke) are saved the effort of mixing their own. They can simply pour a pre-mix from a bottle and be free of the mental gymnastics of gauging four fingers by eye. After all, you need to preserve all your faculties and not put them under any strain in order to last the distance when imbibing with your fellow partakers.

A couple of brandies later and people often begin to reminisce about days gone by. For colleagues of my era who spent hours, days and months, practicing fire and movement, and "dekking slaan", on some thorn riddled, rock strewn, and unhospitable terrain, must now envy the turn that modern warfare has made. Unmanned drones now used to collect and deliver intelligence and ordinance without the need for the operator to be anywhere near anything sharp or explosive.

There has to be some room for entertainment no matter which era you happen to hail from. The current entertainment rendering can really be described as "instant". Instant access on your phone or any other electronic device. So, whilst not even having to drive down to the local movie house or drive in (who can remember those?) you simply swipe your screen. Having watched one item online one is then automatically pummeled with suggestions of what next to watch based on your previous preference. So, no need to think, or stress about making a choice. You need simply swipe, watch, and swipe again. The saving on expended decision-making brain neurons must be immeasurable. Hopefully however, people take every precaution to guard against carpal tunnel syndrome given reckless screen swiping.

So, you experience some pain? Never fear, online medical diagnosis is only a few clicks away. In the event that you do have to exert yourself and head to the doctors surgery in person, you don't have to fear

the exertion of any rigorous physical examination Your medical practitioner will merely fill in a crossword puzzle of pro-forma tests to have performed, take a phial of blood and you're good to go until the computer underworld deciphers the blood results and affliction present.

To all of the foresters out there, with roots tenuously linked into the past exploits of tough lumberjacks (not the Monty Python variety I hope), I pose the question: Just how tough are you really? Have we become softer than our predecessors and if so, is this a good or a bad thing? Has modern progress benefited us or is it an insidious affliction dragging us down an endless spiral of regression?

I'm not going to attempt an answer here. I am however grateful that Rocky, aka Rambo, took the trouble to pose the question and get me thinking about all of this.

May the content of this article be the stimulus to you to ask probing questions of yourself and to actively halt any possible softening that is not contributing towards you emerging a better person.

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Announcement: CropLife SA Webinar Schedule 2024



[Crop Protection : Webinar Series 2024 - CropLife South Africa](https://www.forestrysouthafrica.co.za/tip-mag/)

For the latest news and updates on chemicals / pesticides , visit the TIPWG website at :

<https://www.forestrysouthafrica.co.za/tip-mag/>

How Responsible Forestry can be Part of the Plastic Pollution Solution

While life without plastic might be hard to imagine, there is a renewable, recyclable and sustainable alternative to single-use plastics and many other fossil fuel derivatives: wood from responsibly managed plantations and forests.

This is the message from Forestry South Africa (FSA) on the 54th annual Earth Day, 22 April 2024.

“Since inception in 1970, Earth Day has grown into one of the largest civic events. Against the theme *Planet vs Plastic*, the need for solutions to ensure the health of the planet could not be more urgent, especially when it comes to dealing with the proliferation of plastic,” says FSA’s Dr Ronald Heath, adding that farmed trees have the unique potential as the starting block for countless materials.

A host of fossil-fuel derived, energy-heavy materials can be substituted with wood-based derivatives such as timber in place of steel and concrete, and specialised cellulose for textiles like viscose and rayon.



Paper packaging is finding its way back onto supermarket shelves as brand owners make the switch from plastic. Cellulose and nanocellulose can be used as food additives, functioning as thickening agents, stabilisers or emulsifiers, providing a natural alternative to synthetic additives.

Lignin, a by-product of papermaking, can be used as in agriculture, construction and for dust suppression.

“Our sector can even make polymers and chemicals out of wood. And, of course, wood and pulp provide the ingredients for everyday essentials like furniture and toilet paper,” notes Heath.

While wood holds promise in various industries due to its renewable nature, biodegradability and versatile properties, the key to a wood-based revolution is its sustainable, responsible production, the theme of FSA’s new video “*What is responsible forestry?*”

Across South Africa, from Limpopo and Mpumalanga, through KwaZulu-Natal, to the Eastern and Western Cape, there are 1.2 million hectares of commercial forestry plantations, more than 85% of which are certified as meeting the stringent environmental and social standards set by the Forest Stewardship Council® (FSC®).

In addition, 40% of these plantations have international PEFC certification through the recently established Sustainable African Forest Assurance Scheme (SAFAS).

From these plantations, more than 15 million tonnes of wood and fibre are harvested annually and for every tree removed, another is planted in its place. This wood, grown using carbon dioxide (CO₂), keeps carbon stored long after harvesting and transformation into timber for beautiful buildings, cellulose for high-end fashion, additives for food and pharmaceuticals, and bio-chemicals. One cubic metre of *Eucalyptus* wood removes around 880kg of CO₂ from the air, storing around 240kg of carbon.

“South African forestry should be recognised as part of the solution for climate change, plastic pollution and rural unemployment. Wood is a renewable, low-carbon alternative to many of the drivers of climate change. Globally, forestry is considered an integral role player in a green economic recovery: certainly, this is the case in South Africa. It is time we promoted it as such, explaining what responsible forestry looks like and how it can be part of the solution to the environmental crises we currently face,” says Heath.

In an article by the Food and Agricultural Organisation, titled *Time to realise the potential*

sustainable wood for the planet, the authors make a strong argument for wood as a solution to climate change, believing wood can play a key role by substituting single use plastics such as drinking straws and food packaging as part of the global movement to end plastic pollution.

Responsible forestry goes way beyond the trees. As a rural industry in South Africa, forestry creates employment and entrepreneurial opportunities in some of the country's most impoverished communities. Through social initiatives, it delivers education, health care, infrastructure and hunger eradication programmes.

Amid the forestry landscape, countless wetland, grassland and biodiversity conservation projects are underway in the 305 000 hectares of unplanted, natural areas within forestry landholdings.

Earthday.org seeks to end plastics for the sake of human and planetary health, demanding a 60% reduction in the production of ALL plastics by 2040. According to a recent study in the journal *Science Advances*, around eight billion tonnes of plastic have been produced over the past six decades, 90.5% of which has not been recycled, explains Aidan Charron from EarthDay.org.

"Our reliance on plastics could be the biggest gamble in the story of human health in history. We are all ingesting and inhaling microplastics. They are everywhere. Are we just hoping they are safe, or is even the remotest possibility they might be toxic so terrifying that we can't contemplate it?" asks Kathleen Rogers, president of EarthDay.org.

Forestry Facts:

- For every tree harvested, another is replanted in its place, ensuring the sustainability and renewability of this natural resource and its carbon capturing potential.
- More than 20% of forestry landholdings remain unplanted and is proactively managed to preserve biodiversity and ecological services upon which we rely.
- There are some 62 000 hectares of indigenous forest, 171 000 hectares of grasslands and associated wetlands, and 12 902 hectares of fynbos found within the forestry landscape.
- More than 85% of forestry landholdings are internationally certified, illustrating the industry's commitment to environmental and social

stewardship.

- Wood-based products can provide sustainable carbon-neutral alternatives to fossil-fuels, plastics, concrete, clothing and even energy production.
- The sector employs more than 150 000 South Africans, largely from rural communities.
- The forestry sector invests heavily in initiatives that empower and uplift the rural communities that neighbour the industry's plantations.

GARDEN ROUTE | KAROO NEWS

George Herald : 22 April 2024

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Save the Date : SAIF/FSA Forestry Science Symposium : 26-27/11/24



Book the date! - 14th Fire management Symposium 6-8 November 2024

Passive restoration of fynbos after afforestation with exotic pines, South Africa

By Johan A. Baard (SANParks), B. Adriaan Grobler & Tineke Kraaij (Nelson Mandela Univ.)

Plantations, and associated invasions, of exotic *Pinus* trees occur extensively in the southern hemisphere, threatening the persistence of biodiverse Mediterranean-climate vegetation. Large-scale decommissioning of such plantations in the eastern Cape Floristic Region (South Africa) enabled a wide-ranging study showing successful passive restoration of fynbos vegetation after afforestation. Using a paired study design, we compared the diversity, and floristic and growth-form composition of post-fire recovering fynbos in former plantations with that in recently burnt neighbouring fynbos in a natural state within the Garden Route National Park. The fynbos of the study area showed good autogenic recovery after several decades of pine afforestation and a fire subsequent to the clearcutting of these trees. On average, native plant abundance and species richness (particularly of shrubs) were significantly lower, and non-native plant species richness significantly higher, in former plantation areas than in natural fynbos, but these differences were small. Species diversity (Shannon–Wiener index) did not differ significantly between the two vegetation states. The former plantations harboured 91% of the number of native species that the natural fynbos had, while the similarity of the two floras was 65%. Non-metric multidimensional scaling ordination and multivariate generalized linear models accordingly showed no clear distinction in community composition between the two vegetation states. We concluded that the restoration potential of the montane grassy fynbos in the study area is superior to that previously documented in montane proteoid fynbos, and that fire and invasive alien plant control after clearcutting of the plantations is essential to promote fynbos restoration.

Key words: autogenic recovery, Cape Floristic Region, fynbos diversity, invasive alien plants, *Pinus pinaster*, *Pinus radiata*, plantation clearcutting

Implications for Practice: Passive restoration of grassy fynbos in the southeastern CFR after long-term afforestation with exotic pines is likely to be successful provided that the area is burnt and invasive alien plants are controlled.

RESEARCH ARTICLE : RESTORATION ECOLOGY 2023

New Insect Pest on *Acacia mearnsii* in South Africa confirmed by TPCP

Symptoms of a small stem borer were observed during the initial stages (end January 2024) of monitoring pests and pathogens in young wattle stands in KwaZulu-Natal, as part of the DFFE funded national monitoring of pests and pathogens. Larvae and adult beetles were found in the tunnels and brought back to the FABI Diagnostic Clinic. Sequence data confirmed the insect as a *Melanterius* sp., and more recently we have confirmed that it is either *M. inconspicuus* or a closely related species. *Melanterius* species, native to Australasia, are known to be seed feeders, so the finding of this species feeding on shoots and twigs is unexpected.

Five *Melanterius* species have been intentionally introduced into South Africa as biological control agents, feeding on the seed pods of different invasive *Acacia* species. Importantly, the sequence data confirms that the species reported here is not the same as any of those species.

Infestations can result in dieback of the shoots, but the impact of infestation on the tree (e.g. growth) as well as the distribution and generally biology of the species still needs to be determined.

New Pest Alert!

Melanterius weevil on *Acacia mearnsii*

Background
In January 2024, signs of pest attack were noticed in *Acacia mearnsii* plantations in the KwaZulu-Natal Midlands. Investigations by the TPCP Field Extension team and TPCP Diagnostic Clinic confirmed symptoms were due to feeding of a weevil of 3-5 mm in size identified as a species of *Melanterius*.

Symptoms
Small holes are present on the shoots and twigs. Swelling of the shoots starts around the entrance hole due to the growing larva and its feeding. Feeding within the shoots leads to cracking of the shoots, yellowing and dieback.

Distribution and prevalence
The pest has only been detected around Howick area in KwaZulu-Natal.

Origin
The weevil likely originates from Australia.

Identification
Based on DNA sequence data, the weevil was confirmed to be either *Melanterius inconspicuus* or a very closely related sister species. Five species of *Melanterius* have been purposely introduced into South Africa as biological control agents of various invasive wattle, feeding on the seed pods. The DNA sequences confirm that the collected specimens were not any of those species.

Biology and ecology
Melanterius weevils are seed feeders that lay their eggs and feed on wattle seed. It appears the collected species has undergone a feeding shift and is now infesting and feeding on young shoots and twigs of *Acacia mearnsii*. The weevils typically have one generation per year, coinciding with seed maturation. However, as the weevils are now infesting the shoots and twigs it is unsure how many generations can be sustained per season.

Ongoing and future investigations
Investigations are ongoing to confirm the species identification of the weevil and determine its distribution, and the impact of its feeding, on the tree.

Should potential infestations of this pest be observed, please contact Sandisiwe Jali (Sandisiwe.jali@fabi.up.ac.za). Please distribute this pest alert to spread awareness.



1mm

tpcp

FABI

Dying crops, food and water shortages — drought affects millions in Southern Africa

The Southern African region is experiencing one of its worst droughts in decades and an estimated 20 million people now face “crisis levels of acute hunger” and water shortages amid a growing climate crisis, fuelled by the El Niño weather phenomenon. The drought has affected critical crops and livestock, exacerbating already persistent high food prices.

A new study by the World Weather Attribution, presented on 18 April 2024, has found that the severe drought was driven primarily by El Niño, rather than human-caused climate change, and that with these El Niño conditions, droughts of this severity would likely be happening at least twice in every decade.

Given the devastating impacts of this year’s drought, the study emphasises that drought preparedness in southern Africa is critical to avoid food shortages in future El Niño years – which is expected to occur more frequently as the climate continues to warm.

The study states: “From January 2024, large parts of Southern Africa experienced significantly below-average rainfall, with Zimbabwe, Zambia, Malawi, Angola, Mozambique and Botswana receiving less than 20% of the typical rainfall expected for February, with devastating consequences for the population largely depending on rain-fed agriculture.”

The drought also led to dramatic water shortages, particularly in Zambia and Zimbabwe, where water supply infrastructure was underdeveloped. As a consequence, the countries had been battling major outbreaks of cholera and other water-borne diseases. The affected countries also face an increased risk of severe food insecurity between the current and the next rainy season. Zambia, Zimbabwe and Malawi have already declared a national disaster over the drought.

Severe droughts twice as likely to occur in El Niño years

Using four different observational data products, they found that droughts such as this were expected to occur in today’s climate once every decade.

However, when they considered the effect of El Niño, they found that these droughts were twice as likely to occur in El Niño years, making El Niño a key driver of the 2024 event.

To further evaluate the role of climate change in the current drought, the scientists combined the observations with climate models. They said the models that passed the model evaluation did not show a significant relationship between rainfall and global warming levels with increasing global temperatures.

She said El Niño events will continue to happen and there had been research that showed their cycles were continuing more frequently; they used to be maybe once every seven years, but studies now show they happen at least once every three to five years.

The drought in southern Africa occurred during the traditional growing season for key staple crops such as maize and coincided with multiple high pre-existing levels of vulnerability and exposure.

Maja Vahlberg, one of the study’s authors and a risk consultant at the Red Cross Red Crescent Climate Centre, said: “What we conclude in this study is that multiple drivers contributed to the currently high and rising food insecurity and malnutrition levels. This drought is compounded by pre-existing high food prices, economic challenges, livestock and crop pests and diseases, and ongoing recovery from shocks including floods and cholera outbreaks.

“Chronic vulnerability to drought disproportionately affects rural populations dependent on small-scale and rain-fed agriculture and livestock herding, as well as marginalised groups like female-headed households and those living with HIV and Aids,” she said. Vahlberg added that high deforestation rates across Mozambique, Zambia and Zimbabwe, in particular, exacerbate the risk and impacts associated with the drought.

The study also concluded that maintaining traditional land governance systems with appropriate integration into modern frameworks was “crucial for sustainable land management and reducing drought vulnerability in southern Africa”. In addition, it found that effective early warning systems, anticipatory action and coordinated



emergency response efforts were in place, but could be further strengthened by commitments to shock-responsive social protection systems.

Disaster response

The African Risk Capacity (ARC) Group discussed the response to this drought emergency to minimise the impact on the lives and livelihoods of the most vulnerable as about 20 million people were now facing crisis levels of acute hunger because of the El Niño-induced drought. They estimated that 20 million people in southern Africa were now facing crisis levels of acute hunger because of the drought.

World Food Programme Southern Africa regional director Menghestab Haile said: “The drought is hitting at a time of significant protracted unmet needs, with alarming food insecurity and malnutrition levels, and funding shortages that have stalled humanitarian activities. The drought has decimated livelihoods across southern Africa.”

The affected countries have varying levels of development, infrastructure and governance systems that affect their ability to respond to the drought. According to the study, Botswana was relatively more developed than the other countries and its economy and people were less reliant on rain-fed agriculture, resulting in fewer impacts.

However, before the start of the 2023/24 agricultural season, Malawi, Mozambique, Zambia and Zimbabwe joined the ARC risk pools for drought as a means to respond to disasters like this, and based on early projections from ARC’s season monitoring tools, all four countries are likely to receive insurance payouts.

ARC said this would be confirmed at the end of the season and that the risk pools, run by the insurance affiliate of the ARC Group (ARC Limited), responsible for risk pooling and transfer, will provide timely funds to facilitate early response to a disaster event. Ahead of the end of the agricultural season, ARC and the in-country technical working groups of the four countries are finalising the final implementation plans which outline the use of an ARC payout ahead of the end of the season.

Shortened from article which appeared in “Daily Maverick” (DM) 23 April 2024

<https://www.dailymaverick.co.za/>

Act No. 13 of 2023: National Veld and Forest Fire Amendment, Act 2023

The State President signed Act No. 13 of 2023: National Veld and Forest Fire Amendment, Act 2023 on the 3rd of April 2024. (Government Gazette: No. 50428)

This came after approximately ten years of consultation and changes made during the process. The new amendments from the old act Veld and Forest Fire Act, Act. No 101 of 1998, intends to tighten up on gaps in the “old act” which were unfortunately exploited starting with the definitions of amongst other a “veldfire”, “fires in the open air”, “municipality” and “public entity”.

The sections of NVFFA (101 of 1998) which have been amended are Sections 3, 4, 10, 11, 26, 32A, and replacement of Section 37. It is now trusted that municipalities which have formerly refused/neglected to join the local registered Fire Protection Association (FPA) in their area, will now be obliged to join the FPA as well as Public entities like ESKOM, Transnet etc.

The Act came into effect on the date of signature by the President namely on the 3rd of April 2024.

Some Fire Protection Associations like the Northwest Umbrella Fire Protection Association already seized the opportunity to inform their members of the latest amendments and arranged a workshop to discuss the implications and enforcement of the amendments.



The new amendments will hopefully contribute to better coordination and cooperation at FPA level between public and private landowners.

News from SA Forestry Online

The handover of three more state plantations to local communities in the Eastern Cape is the result of a 'welcome burst of energy' from the Department of Forestry, Fisheries & the Environment that gives transformation a boost and provides a window of opportunity for rural economic development at grassroots level. These handovers bring the total number of state plantations entrusted to local communities in the past few years to 27, totalling some 6 210 hectares of forest land.

Most of these small plantations were established years ago by previous governments to provide resources for rural communities. Unfortunately, many of them have fallen into disrepair due to a general lack of management, uncontrolled harvesting and wildfires. Now the traditional authorities and the communities they represent – who have signed a Community Forest Agreement with DFFE - have received a clear mandate and responsibility to rehabilitate these plantations and utilise the resource to establish their own forestry businesses.

Forestry stakeholders need to get involved in providing support to help turn these mini plantations into success stories that benefit the communities and provide a catalyst for the development of the local rural economies.

Now we need DFFE to move decisively to hand over to suitable forestry operators the 22 000 ha of state plantations in the southern Cape region that are earmarked for re-commissioning. This will truly spark a forestry and wood processing revival that will benefit the entire region.

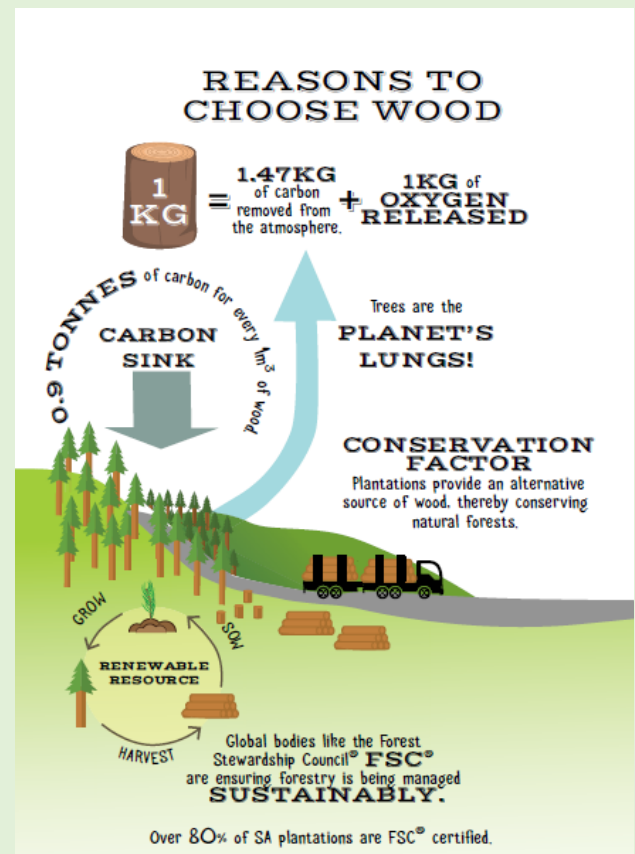
Compiled by Chris Chapman

Editor-in-Chief

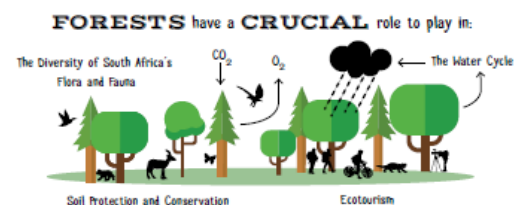
SA Forestry chris@saforestrymagazine.co.za

SA Forestry
ONLINE

Interesting facts from FSA : Forestry Explained



GETTING TO KNOW SOUTH AFRICA'S FORESTS



Globally, there are over **800** definitions of a forest!

In South Africa, a forest is considered to be:

An area of land **DOMINATED** by **TREE SPECIES** with **OVERLAPPING CANOPIES**, covering at least **75%** of the area and very **LITTLE** grass or herbaceous **GROUND COVER.**



Although, South Africa by nature is not a forest rich country, it does have some natural (or indigenous) forests, as well as timber plantations.

www.forestryexplained.co.za



Newsletter : March 2024

Some Food for Thought

6 "BIGGEST THREATS TO BIODIVERSITY"



1. CLIMATE CHANGE

Increase in the temperature of the atmosphere has major effects on the environment such as the seasons, rising of the sea levels, and glacial retreats.



2. HABITAT LOSS & DEGRADATION

Habitat loss may either be caused by natural events like natural calamities and geological events or anthropogenic activities like deforestation and man-induced climate change.



3. POLLUTION

Be it water, air, or land pollution, all forms of pollution appear to be a threat to all life forms on Earth.



4. INVASIVE SPECIES

An exotic or unnatural species can be any kind of organism that has been introduced to a foreign habitat. This introduction can cause major threats to the native species.



5. OVEREXPLOITATION

Overexploitation refers to the act of over-harvesting species and natural resources at rates faster than they can actually sustain themselves in the wild.



6. OTHER POTENTIAL THREATS

Epidemics and infectious diseases of wildlife such as Ebola virus disease, infectious bursal disease, and flu affect wildlife and biodiversity.

Source: <https://www.bioexplorer.net/threats-to-biodiversity.html/>

www.wessalife.org.za



We are the Centre for Invasion Biology

The C.I.B is an inter-institutional Centre of Excellence established in 2004 within the DSI-NRF Centres of Excellence Programme. Its members undertake research on the biodiversity consequences of biological invasions, largely through post-graduate student training. The principal aims of the Centre's work are to reduce the rates and impacts of biological invasions by furthering scientific understanding and predictive capability, and by developing research capacity. Find out more [about us](#).

What if we told people which aliens they CAN use?

<https://blogs.sun.ac.za/cib/what-if-we-told-people-which-aliens-they-can-use/>

20 March 2024 | By Sabrina Kumschick

Alien species, especially the invasive ones, can cause immense harm to the recipient environment. Such impacts include the transmission of diseases to livestock and humans, predation of native species leading to population reductions or even species extinctions, and changes in ecosystem processes such as fire regimes, just to mention a few. Therefore, we should avoid the use of harmful alien species, should not plant, sell or trade them, and in many cases we should actually control and remove them. These are all negative messages which we hear a lot. Although we know them to be true and within reason, we'd often rather look at the bright side and know what we CAN plant, CAN trade and CAN use.

A recent study led by C-I-B Core Team member Dr Sabrina Kumschick and including many other members of the C-I-B lab group tackles exactly this issue.

The study was published in the journal *Bioscience* and it outlines a roadmap for developing and implementing positive or safe lists of alien species. The study outlines what safe lists are and can be, including their purpose, development, and implementation. Firstly, one should always ask why a safe list is needed, who wants it, and how it will be used. This includes for example the consideration if it should be legally implemented, or just used as advisory, voluntary list. Regarding the development, criteria for species selection need to be determined, and cut off levels for acceptable risk defined. This step is often the most difficult and can make or break the safe list. Lastly, it needs to be assessed if implementation is practical a decision regarding implementation is made.

Read the full paper :

Kumschick S, Fernandez Winzer L, McCulloch-Jones EJ, Chetty D, Fried J, Govender T, Potgieter LJ, Rapetsoa MC, Richardson DM, van Velden J, van der Colff D, Miza S, Wilson JR (2024) Considerations for developing and implementing a safe list for alien taxa. *Bioscience* 74 (2): 97–108.

<https://doi.org/10.1093/biosci/biad118>

Monitoring urban biological invasions using citizen science: the polyphagous shot hole borer (*Euwallacea fornicatus*)

By L.Potgieter, M.Cadotte, F.Roets, D.M Richardson

Abstract

Benefits provided by urban trees are increasingly threatened by non-native pests and pathogens. Monitoring of these invasions is critical for the effective management and conservation of urban tree populations. However, a shortage of professionally collected species occurrence data is a major impediment to assessments of biological invasions in urban areas. We applied data from iNaturalist to develop a protocol for monitoring urban biological invasions using the polyphagous shot hole borer (PSHB) invasion in two urban areas of South Africa. iNaturalist records for all known PSHB reproductive host species were used together with data on localities of sites for processing plant biomass to map priority monitoring areas for detecting new and expanding PSHB infestations. Priority monitoring areas were also identified using the distribution of *Acer negundo*, a highly susceptible host that serves as a sentinel species for the detection of PSHB infestations. iNaturalist data provided close to 9000 observations for hosts in which PSHB is known to reproduce in our study area (349 of which were *A. negundo*). High-priority areas for PSHB monitoring include those with the highest density of PSHB reproductive hosts found close to the 140 plant biomass sites identified. We also identified high-priority roads for visual and baited trap surveys, providing operational guidance for practitioners. The monitoring protocol developed in this study highlights the value of citizen or community science data in informing the management of urban biological invasions. It also advocates for the use of platforms such as iNaturalist as essential tools for conservation monitoring in urban landscapes.

Keywords Biological invasions ▪ Citizen science ▪ Pests and pathogens ▪ Polyphagous shot hole borer ▪ Monitoring ▪ Urban

Source: Journal of Pest Science

<https://doi.org/10.1007/s10340-024-01744-7>

IUFRO : Forestry and Society towards 2050 : 23-29 June 2024



<https://www.iufro.org/events/congresses/2024/>

WoodEX for Africa 2024 : 4-6 June 2024



<https://woodexforafrica.com/>



<https://www.fireexpo.co.za/>

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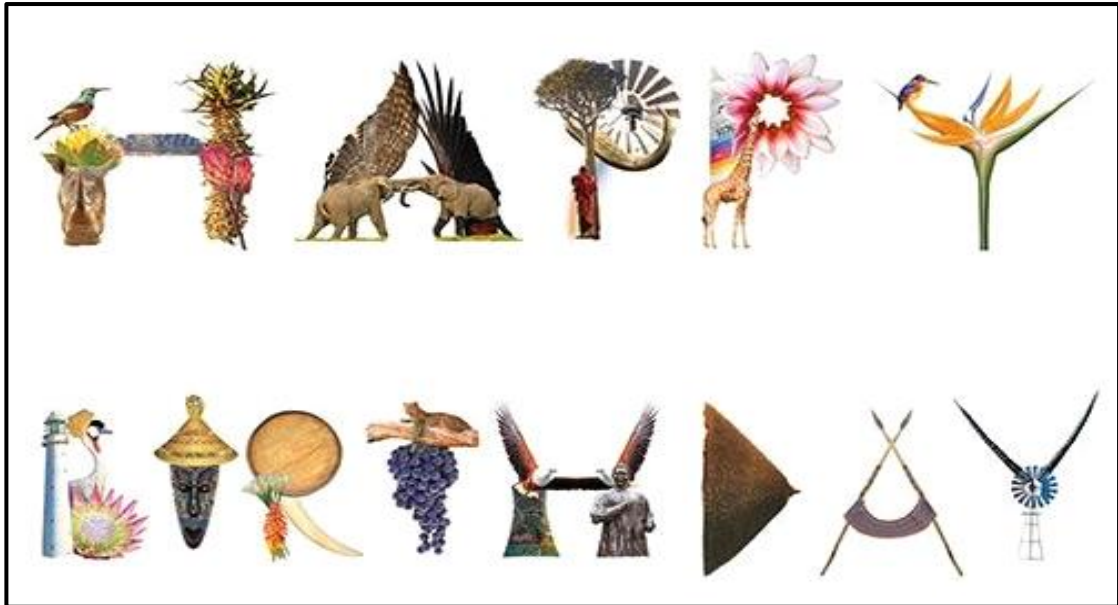
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May / June Birthdays



MAY BIRTHDAYS

May 02	LOUIS DU PLESSIS	May 19	KLAUS VON GADOW
May 05	ARIE BIJL	May 20	BERNARD SLIPPERS
May 05	COLIN SUMMERSGILL	May 21	RIAAAN SCHOOMBEE
May 06	KEVIN CAZALET	May 24	BEN DU TOIT
May 06	DAVID EVERARD	May 24	BILL ESLER
May 07	MEYER PRETORIUS	May 27	WALDO HINZE
May 07	LEESHAN MAHADEO	May 27	PATRICK KIME
May 12	RIAAAN FERREIRA	May 27	WESLEY NAIDOO
May 13	FRANCOIS OBERHOLZER	May 28	BEN VAN HEERDEN
May 14	DAVID DREW	May 29	TONY BOLD
May 16	GUNTER GERISCHER	May 29	AYABONGA STEMELE
May 17	BRAND WESSELS	May 30	NICOLAAS HATTINGH
May 18	CLIFF WALTON	May 31	GLENN SIMPSON



JUNE BIRTHDAYS

Jun 01	WERNER MEYER	Jun 14	WILLI GEVERS
Jun 01	ILARIA GERMISHUIZEN	Jun 14	THOBISELA MHONE
Jun 02	GODFREY VISAGIE	Jun 15	CLIVE HENDERSON
Jun 03	LEIGH WILLIAMS	Jun 15	HEYNS KOTZE
Jun 04	JOCK BOAKE	Jun 16	MARTIN BUCHLER
Jun 06	JOHN FEELY	Jun 17	MUEDANYI RAMANTSWANA
Jun 06	DALI LUBALA	Jun 17	JOHAN BOTHMA
Jun 07	FANELE MABASO	Jun 19	ROB THOMPSON
Jun 08	ANDREW MORRIS	Jun 20	RAJESH RAMSAMY
Jun 08	JOHN CRAWFORD-BRUNT	Jun 21	BENICE SIVPARSAD
Jun 10	MARTINA MEINCKEN	Jun 23	IAN HARRISON
Jun 13	NONSIKELELO MHLONGO	Jun 30	JAN JANSEN

Happy Birthday and congratulations to all our members who celebrate(d) their birthdays in May 2024 as well as those members who will celebrate their birthdays in June 2024.



The Southern African Institute of Forestry

Handbook order form

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

I would like to order:

South African Forestry Handbook

Price: SAIF members: R400

Non members: R500



Fire Manager's Handbook on Veld and Forest Fires

Price: SAIF members: R300

Non members: R400



There's Honey in the Forest

Price: SAIF members: R100

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