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Among the Giants

By Wayne Jones

On a recent trip to the USA with family and friends, we were reminded of the breath-taking grandeur of trees. Sequoia, Kings Canyon and Yosemite National Parks in California are extensive wilderness areas, with deep canyons and dramatic landscapes formed by ice age glaciers in the Sierra Nevada mountain range and are home to the world's largest trees. Commonly known as the giant sequoia, *Sequoiadendron giganteum*, not be confused with the tallest tree in the world, the coastal redwood, *Sequoia sempervirens*, from further north on the Pacific coast.

In terms of wood volume, the majestic giant sequoia is the earth's largest living tree. Its nearly conical trunk, with little taper, remains thick, high up into the canopy. Giant sequoias grow naturally on the western slopes of the Sierra Nevada between 1 500 m to 2 100 m above sea level on moist unglaciated ridges. Well over 75 sequoia groves making up 15 000 hectares can be found across this region with an understory canopy of mixed conifer forests of *Abies concolor* (white fir), *Pinus lambertiana* (sugar pine), *Pinus ponderosa* (ponderosa pine) and *Calocedrus decurrens* (incense cedar). Other associated species include *Pinus jeffreyi* (Jeffrey pine), *Abies magnifica* (red fir), *Cornus muttallii* (Pacific dogwood) and on the lower, warmer slopes, *Quercus kelloggii* (black oak).

Fast facts about Sequoias:

Height: up to 95 m

Age: up to 3,200 years

Base diameter: up to 12.2 m

Inside This Issue

| | |
|---|---|
| Among the Giants | 1 |
| Among the Giants (cont.) | 2 |
| Early Forest Men: Part 3 | 3 |
| Café chats rule! | 4 |
| SAIF photo competition 2019 | 5 |
| Dedicated Service Award: Ms Martie Joubert. | 5 |
| SAIF contact details | 6 |
| August 2019 birthdays | 6 |

Standing amongst a grove of sequoias in the Sequoia National Park is Juan José Acosta (Camcore) and Nicky and Wayne Jones (Sappi).



Among the Giants (cont.)

Due to their grandeur and stature some sequoias have been personified. The General Sherman Tree at Sequoia National Park is the world's largest living tree at 1,487 m³ in volume, which is equivalent to more than half the volume of an Olympic-size swimming pool. However, it is not the tallest tree in the world. This honour is bestowed upon Hyperion, at a staggering 115.7 m. This redwood is also located in Pacific north west of California. Another, well known redwood is the McKinley Tree named in honour of William McKinley, the 25th President of the USA.

General Sherman:**Height:** 83.8 m**Age:** > 2,300-years-old**Base diameter:** 11.1 m**Volume:** 1,487 m³**Height of first branch:** 39 m**Diameter of largest branch:** 2.1 m**Date discovered:** 1879**Date seeded:** 700 – 300 BC**McKinley Tree (and Jones family):****Height:** > 88.7 m**Age:** > 2,000-years-old**Elevation:** 2,123 m

Giant sequoias produce as many as 2,000 egg-sized cones per season, which can potentially yield over 400,000 seeds when the cones open. Douglas squirrels and the larvae of cone-boring beetles facilitate the release of some seeds, but fire is the key to seed dispersal and seedbed fertility. To facilitate the natural processes, park authorities conduct and manage fires to maintain the ecosystem.

For nearly a decade, this area has experienced periods of severe drought receiving below average rainfall. Less precipitation coupled with increased temperatures, fires and a higher number of bark beetles has resulted in the weakening and death of many trees. While the sequoias are not immune to these effects, they tend to tolerate conditions better due to their thick bark and resistant wood due to high tannin content. Species most impacted are ponderosa pine, sugar pine and the white firs. The sobering reality of climate change in action was disturbing but also a reminder of the resilience of the ecosystem where some niche pockets of forest continue to thrive and broad-leaf species such as the black oak and dogwoods are starting to move up the slopes to occupy the open areas. The image below shows climate change at work – the dying conifers in the Sierra Nevada.



Foresters who contributed towards the protection of the indigenous forests of the garden route

Part 3: The Forest Scientists, by Georg von dem Bussche

John F.V. Phillips was appointed as the first forest research officer at Diepwalle in 1922. His book "Forest Succession and Ecology in the Knysna Region", being the thesis submitted in partial fulfilment to obtain his "D.Sc." from the University of Edinburgh in 1927, is still regarded as the foundation of all indigenous forest research of the Garden Route forests (Phillips 1931). He published also a vast amount of scientific papers and in his later life became the first professor for ecology at the University of Natal in Pietermaritzburg. (The author of this paper still had the honour to meet Dr Phillips and talked to him about the most suitable management of the Knysna forests).

F.S. Laughton followed Phillips as forest research officer. He introduced for the first-time enumerations (measurements of trees along strips) after harvesting in the sections had taken place and drafted the first working plan for Diepwalle. His system of selective fellings was based on scientific principles taking the growth pattern of the main tree species into account. He published his findings in 1937 in the book "The Sylviculture of the Indigenous Forest" and proposed a research project to monitor the growth pattern of the forest, which was only implemented after the Second World war.

D.G.M. Donald implemented Laughton's selection system on a small scale after the war, but it was not pursued, and the forests were not harvested in accordance scientific systems anymore until the "Indigenous Forest Research Station" at Saasveld was established in 1963.

F. von Breitenbach, who had previously worked as Chief Forester in Ethiopia, established the station at Saasveld and achieved overall control of all State-owned indigenous forests along the Garden Route. His main achievement was to develop and implement a "Multiple Use Indigenous Forest Management System" (Seydack 2004). After mapping the different forests according to geographical and ecological features separate areas for production (timber harvesting), protection, conversion (forest reconstruction and rehabilitation), recreation and research were set aside. The silvicultural system consisted of selective removal of trees in order to achieve a normality of the specific forest area (Von dem Bussche, 1975).

Von Breitenbach also published a comprehensive book on the "Southern Cape Forests and Trees" and started the South African Dendrological Society, which is still flourishing today and aims at general education of interested people in trees and forests.

After the disbanding of the Indigenous Forest Research and Management office the system was further improved by A.H.W Seydack with the support and scientific inputs from many outstanding researchers and managers. A few are mentioned as follows: C. Geldenhuys, K. von Gadow, H. van Daalen, W.J. Vermeulen, T.C. Stehle,

M. Cameron and many others of which some of them are still active. The improvement of the silvicultural system was mainly based on data, which were obtained from research sites established previously. This system is still today applied by SANPark's management and controlled by their scientific personnel.

OUTLOOK

The indigenous forests, also on private land, enjoy today full protection in accordance with the Forest Act of 1998, which makes provision that no group of indigenous trees may be felled without the approval of the forestry authority of the Department of Agriculture, Forestry and Fishery, commonly called DAFF. Further protection is given to a long list of trees, which include the Yellowwoods (*Podocarpus falcatus* and *P. latifolius*), Stinkwood (*Ocotea bullata*) and Milkwood (*Sideroxylon inerme*).

Recent devastating veld fires have burnt vast fynbos areas and have destroyed commercial plantations and other infrastructure, however the indigenous forests were by and large just scorched along the edges and only at a few places larger parts of the forest were affected, which are at present recovering. Further damage will however cause a steady shrinking of this valuable natural asset if the warming tendency will continue.

SPECIAL NOTE BY THE EDITOR:

The Author of the three part series of the History of the Indigenous Forests in the Southern Cape namely Mr. Georg von dem Bussche also made a major contribution to the planning and management of the forests during his forestry career. Although his name is not specifically mentioned, his very valuable contribution needs to be recognised as well as the wonderful gesture to compile these articles. He continues at the ripe age of 81, to be a stalwart of the SAIF and a mentor to many a forester for which we honour him.

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Café chats rule!

By Rob Thompson

The words “Café chat”, to some, are likely to conjure up the mental image of a romantic café liaison on a French boulevard, whispering sweet nothings into the ear of a significant other, whilst a discrete barista hovers in the background, ready to attend to your espresso requirements at first wink.

Alternatively, to the more eclectic amongst us, the steampunk coffee culture may come to mind. An Americano or Cortado, enjoyed amongst décor more suited to life after the apocalypse, in the company of like-minded friends or family, in order to discuss and solve the problems of the world, is the go-to café chat choice.

Coffee-fuelled conversation in a pleasant environment, is arguably one of the most underrated strategies that mankind has against total self-annihilation. We should do more of it.

Hopefully, millennia from now, uber-advanced cultures, all across the globe, will be celebrating national holidays in honour of the Java-bean and the contribution it made to a civilised civilisation. Before reading any further you are called upon to grab another cuppa thereby endorsing this hope and showing your proud allegiance to the Java revolution. Beans forever!

Most foresters that I know love Java. Not the computer variety. Rather the real, hot, strong stuff, served early in the morning and at further regular intervals throughout the day. Whilst knowing this and having for years succumbed to the caffeine habit myself, little did I understand the immense transformative power that the sharing of the humble bean, in a group setting, could have on individuals and groupings.

This realisation started to dawn on attending the recent Nelson Mandela University Forestry curriculum advisory meeting. After a very insightful meeting, proceedings concluded with the newly appointed Forest Management lecturer Tatenda Mapeto sharing her experiences of an innovative approach to prepare apprehensive students for their year of experiential training.

Students are placed into small random groupings and are asked to discuss, and record in writing, their fears, ideals, expectations etc. of the coming year. Of course, this is all happens around a cup or five of magic potion called coffee and in the required relaxed environment. From the collective discussion records, common trends are then discussed and potential solutions suggested. This exercise generally highlights to the students that that they are not alone and that any trepidation felt, is entirely normal. Equipped with suggestions of how to overcome expected challenges, they are better able to face the unknown.

On completion of the experiential phase, more potion is brewed and another group chat session is conducted with the original chat records on hand. Tatenda reports that the transition from initial apprehension to post practical confidence, is remarkable

to note. The pre-practical chat holds immense value and in effect prepares receptive minds to achieve success. I think the coffee also helps.

The organisation that I work for, recently relocated its Head Office, and in so doing, we inherited a wonderful café area at the new premises. Such was the allure of this area, that staff threatened mutiny should management not provide an industrial coffee percolator in order that they indulge their habit within its ambience. This facility was ideal to explore Tatenda’s café chat approach within our own staff contingent and we launched the concept of a monthly café chat over lunch time.

Staff are encouraged to share anything that they might feel of interest to others. To date, we have learnt the finer aspects of long distance running, the benefits of yoga and meditation and have been encouraged to adopt healthy eating habits with less processed food (coffee is not processed).

Interesting results have been attained. Every Wednesday lunch time a stalwart bunch of staff members ride, run walk or crawl around the adjacent municipal plantations in keeping with their rekindled desire for healthy living. They even stretch properly on conclusion and have discarded sandwiches for smoothies. Some managers have even been seen to be practicing long sessions of meditation at their desks. Such is the power of café chats.

Some joker recently suggested a discussion on the topic of body-detox. We almost spilt our coffee on hearing this. Fortunately, grounds were found for said persons dismissal before too much damage was done. Sucker.

A few SAIF café chats have also been arranged in the facility with an invitation to all staff to attend. We have had occasion for Aileen van der Mescht and Dave Boden to come and present talks on insect biodiversity and Eucalyptus in Borneo respectively. This has been a great way to introduce administrators, bean counters, computer geeks and other non-forest practitioners to the world of MAI’s, insect assemblages, soil horizons, organic layers, site productivity, species selection et al. We may have to re-think this shared approach though. Already our accountant is walking around demanding that we increase our MAI on all sub-optimum sites in order that more money be made over the rotation...damn! Give them a little knowledge and they turn into experts.

Into the future we intend to increase focus on café talks. There is something special about a relaxed environment, a passionate speaker, an interesting topic, engaged participants and a well selected variety of Coffee arabica. Wars can literally be won following the gains made from such combination.

May your coffee experiences going forward add just as much value as that which I have begun to discover. Beans forever!

SAIF photo competition 2019

The popular SAIF photo competition will again be taking place in 2019. The top 13 photos will be used to compile the 2020 SAIF calendar. Stihl has kindly confirmed sponsorship of the photographic competition prizes. The prizes are as follows:

1. STIHL RE 88 High Pressure Washer
2. STIHL HSA 25 Cordless Shrub Shears
3. STIHL SE 62 Vacuum Cleaner

The rules of the competition are as follows:

- Entry is only for paid-up SAIF members.
- Photos must be a minimum of 500kB and preferably greater than 1 Mb
- A maximum of three photos may be submitted per SAIF member, of which only one can be in the top three positions. The other photos may still be selected for the calendar.
- If more than one photo is submitted, each photo must be different (not variations of the same subject).
- Any forestry related photo can be entered. The photo must have some evidence of forestry (natural or plantation) in it.
- The photo must be taken in Southern Africa. Previously entered photos may not be used and photos may not be older than 3 years.
- During judging, very low pixel resolution photos will not be selected if they cannot be used for the calendar.
- All photos submitted to the branches will be used for the national competition. It could occur that the winning national photo did not make the top three list of the branch.
- The SAIF reserves the right to use the photographs in their marketing material and on the SAIF website.
- The closing date for the competition is 30 September 2019.
- Judging is at a national level. Each branch will select a forestry related person that has good photographic skills. These five people will each select their top 13 photos.



SAIF Dedicated Service Award: Ms Martie Joubert

Ms Martie Joubert has a long-standing relationship with the SAIF and council. From 2005 to 2010 she was the appointed auditor (Le Roux & Joubert Auditors) and in 2011 she was re-appointed as the accountant of the SAIF. She is well-known for her dedication, enthusiasm, good time management, friendly demeanour and love for the institute. Other initiatives that Martie spearheaded to date, include:

- Changes to the constitution to keep the SAIF finances current with SARS policies
- Advice and research on best practices to save money
- Regular updates on financial matters that pertaining NGO and NPO
- Liaison between the SAIF and the auditors (Gregory Butt & Marx) to ensure smooth running of year end, bimonthly financial statements and minimal changes to the annual books

Martie is a good example of a committed accountant that is willing to run the extra mile for the Institute. She is always available on short notice to assist with questions, request and/or advice. Her dedication was evident the past two months when she compiled the year-end books for National AGM which is scheduled within nine days after year-end (31 March) and three months earlier than necessary. Furthermore, she assisted Corine even though she was in a severe accident and hospitalised and still on medical leave. With this award, we want to show Martie our sincere appreciation for contributing to the success of the SAIF.



SAIF contact details

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|----------------------------|---------------------|----------------------------|--------------|
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August 2019 birthdays



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|--------|-------------------|--------|------------------|
| 02-Aug | DE RONDE C. | 14-Aug | MABENA K. |
| 02-Aug | MPHAHLELE L.I. | 14-Aug | SINUKA L.T. |
| 04-Aug | GOUS G. | 15-Aug | BARNARD W.H. |
| 05-Aug | SCHROEDER E.W. | 16-Aug | HAM H. |
| 07-Aug | HEATHMAN W.Z. | 19-Aug | ERASMUS N. |
| 07-Aug | ALLPASS A.D.C. | 19-Aug | VAN DER ZEL D.W. |
| 09-Aug | IMMELMAN J.A. | 19-Aug | MPHAHLELE M.M. |
| 09-Aug | BEZUIDENHOUT R.M. | 26-Aug | PRIGGE D.L. |
| 10-Aug | HAM C. | 28-Aug | LEISEGANG K.W. |
| 10-Aug | FERREIRA E. | 28-Aug | BLAKEWAY F. |
| 12-Aug | CROUS J.W. | 29-Aug | NEWTON T.R. |
| 12-Aug | MATTISON C.E. | 31-Aug | HUGHES J.P. |
| 14-Aug | ESTERHUYSE C.J. | 31-Aug | DU PLESSIS C.S. |

Newsletter compiled by Andrew McEwan