MY LIFE WITH VERREAUX'S EAGLES

HIGH FLYER

On a stormy day in the Cederberg, two soaring eagles caught themselves a human prey. Over the next three years, zoologist Megan Murgatroyd hiked all over the mountains in pursuit and witnessed unexpected behaviour. **By Scott Ramsay**

JAY VAN RENSBURG

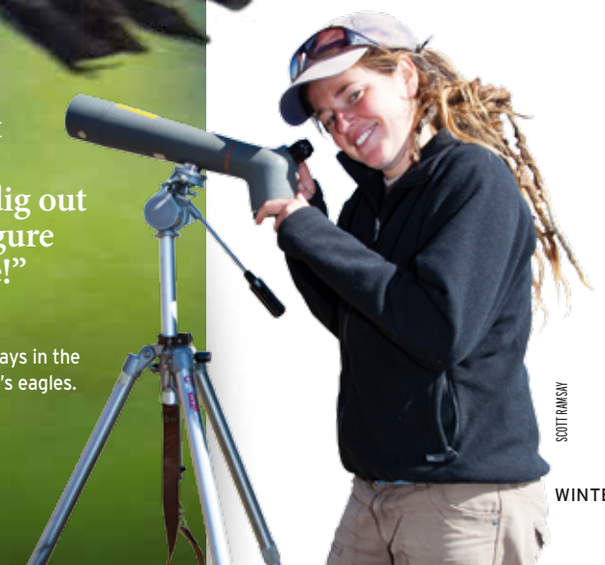
MEGAN MURGATROYD IS PROBABLY THE WORLD'S LEADING EXPERT on Verreaux's eagles, but the first time ever she saw one of these imperious birds she had no idea which species it was. In fact, she'd never been to the Cederberg before. Born and raised in the UK, the 24-year-old free-spirited Megan backpacked from Ethiopia to Cape Town, before taking up a volunteer position with the Cape Leopard Trust in 2010.

"I was driving up one of the mountain passes and it was raining hard because it was the middle of winter," she recalls. "I had no map, I was getting seriously lost and was wondering what I was doing here at the bottom of Africa.

"Then these two huge black birds circled above me in the stormy clouds. Wow! I'd never seen such beauty before. They are the most elegant flyers. But, honestly, I had to dig out my bird book to figure out what they were!" Megan laughs.

From that moment on, she was hooked in their talons. These eagles, one of the biggest in Africa, with a wingspan of over two metres, had claimed Megan. "I'd always wanted to initiate my own research programme and when I saw those eagles I knew I was destined to study them."

"They are the most elegant flyers. But, honestly, I had to dig out my bird book to figure out what they were!"



Megan Murgatroyd spends her days in the Cederberg researching Verreaux's eagles.

SCOTT RAMSAY

Then the Cape Leopard Trust's Quinton Martins co-incidentally suggested she do her PhD on the eagles in the Cederberg. Megan was already a qualified conservation biologist, having earned her BSc (Honours) at the University of West England, which included studying Damara terns in Namibia. Both leopards and Verreaux's eagles are apex predators and have the same base prey, rock hyraxes (dassies). So Quinton, whose research on Cape leopards is well known, thought it would be valuable to understand the biology of the eagles in these mountains and their relationship with the environment.

Through the University of Cape Town's Animal Demography Unit Megan set about to study the eagles. The goals of her PhD were to find and identify as many eagles as possible in the Cederberg and adjacent Sandveld plains, locate their nests, figure out their breeding habits, determine their diet and try to work out the size of their home ranges.

Despite their popular status among the public, Verreaux's eagles had never been researched intensively in the Cederberg. When you consider the challenges posed by the terrain, it's little wonder. These Cape fold mountains, 150 kilometres long and 100 kilometres wide, are some of the wildest in the country. Reaching 2 000 metres in height, the sandstone cliffs and valleys are mostly too rugged for farming or agriculture, too hot in summer and too cold in winter. It's proper wilderness, a mecca for hard-core hikers, mountain climbers and nature lovers, who swear by the intoxicating atmosphere of blazing night skies, wonderful rock formations, sheer cliffs, rock paintings, crystal clear rivers and splendiferous fynbos.

The eagles almost always build their nests on cliffs, of which there are thousands. Most are not conveniently in sight of hiking paths. Megan soon realised she'd have to traipse across every square kilometre of the mountains if she was to successfully complete her study.

Scanning cliffs by helicopter has enabled Megan to locate the nests of Verreaux's eagles.

Climb every mountain

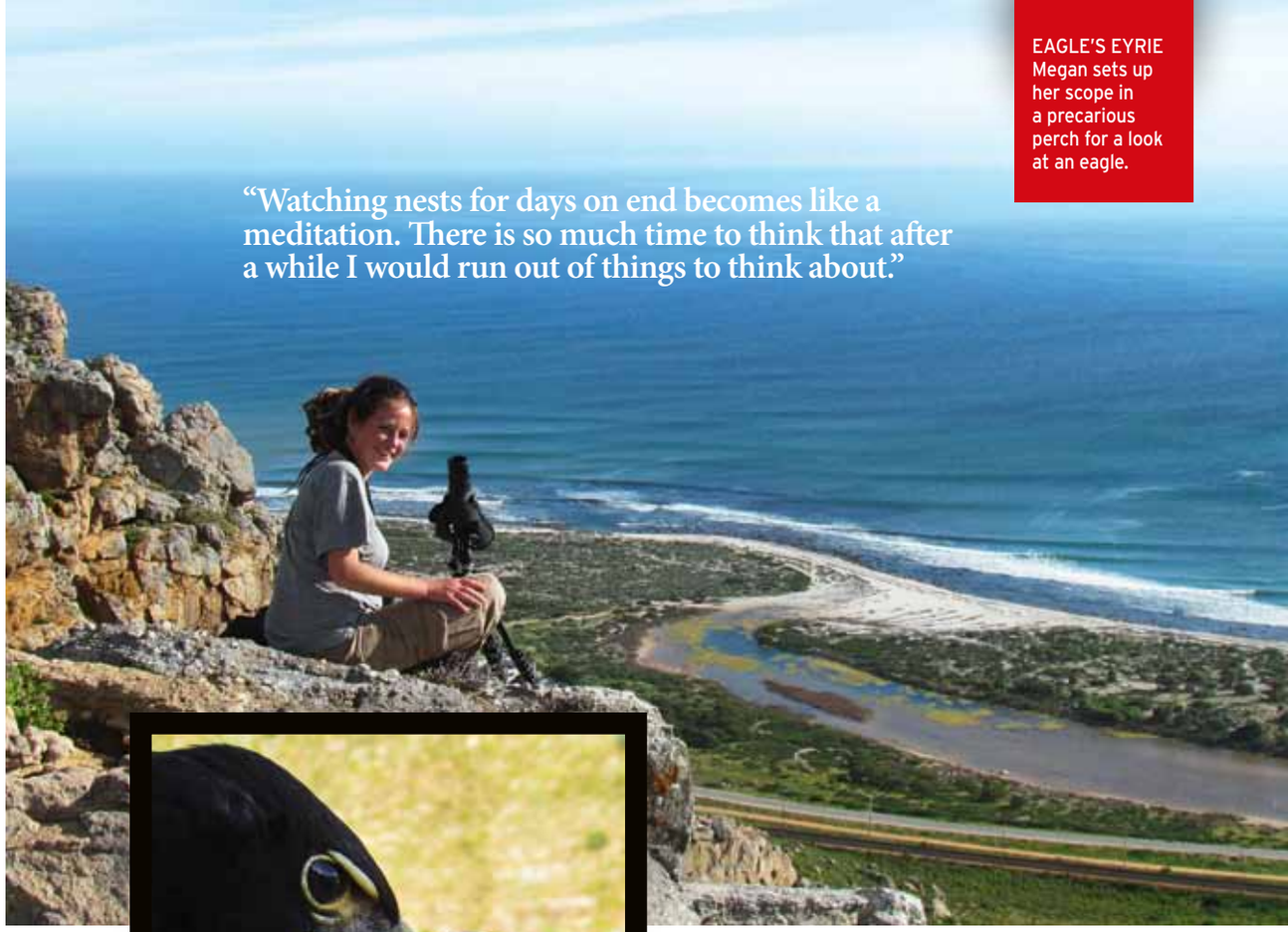
In March 2011, the slight lass, no taller than a young protea sugarbush, set off into the mountains. She would eventually walk about 4 500 kilometres in her three-year study, an average of 10 kilometres every day during the seven-month breeding season.

"When I began, most locals said there could be about seven or eight pairs of eagles in the mountains," Megan explains. "But I soon realised there were going to be way more than that." Eventually, after peering through her telescope for days on end, Megan identified 78 individual resident eagles in her study area: 38 eagles in the Cederberg and 40 in the adjacent Sandveld region.

Initially she found about one nest a week, which was frustratingly slow progress. In her last year, helicopter trainee pilots volunteered to fly her around the mountains, which was easier on her legs and much more productive. "In one week we found 47 nests," Megan says. "The chopper's doors were off and I was leaning out, scanning the mountains. At first it was very scary, because we had to fly very close to the cliffs."

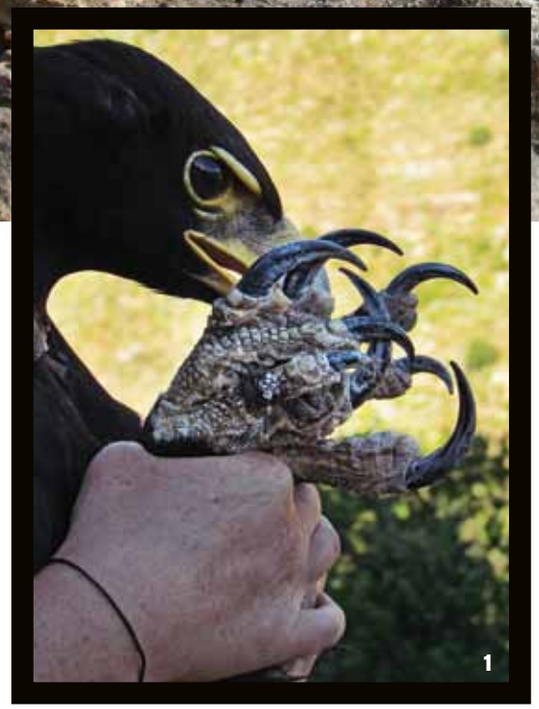
Eventually, she located 112 nests, some active and some disused. From May to November, for three years, she'd spend her

The Cederberg lies some 200km north of Cape Town.



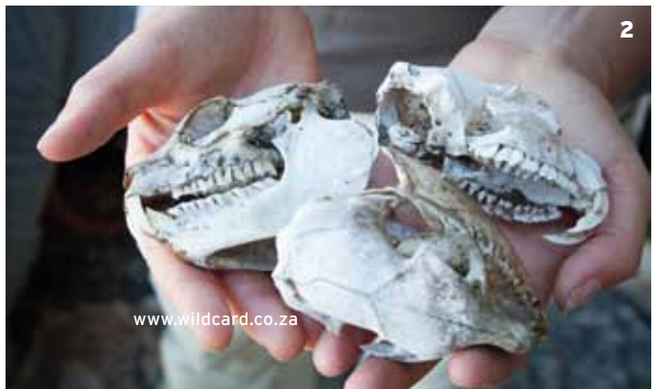
EAGLE'S EYRIE
Megan sets up her scope in a precarious perch for a look at an eagle.

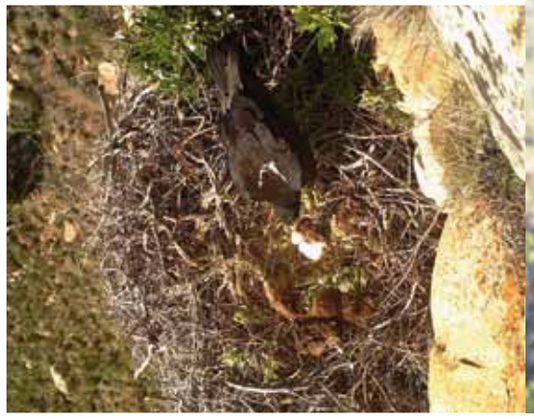
"Watching nests for days on end becomes like a meditation. There is so much time to think that after a while I would run out of things to think about."

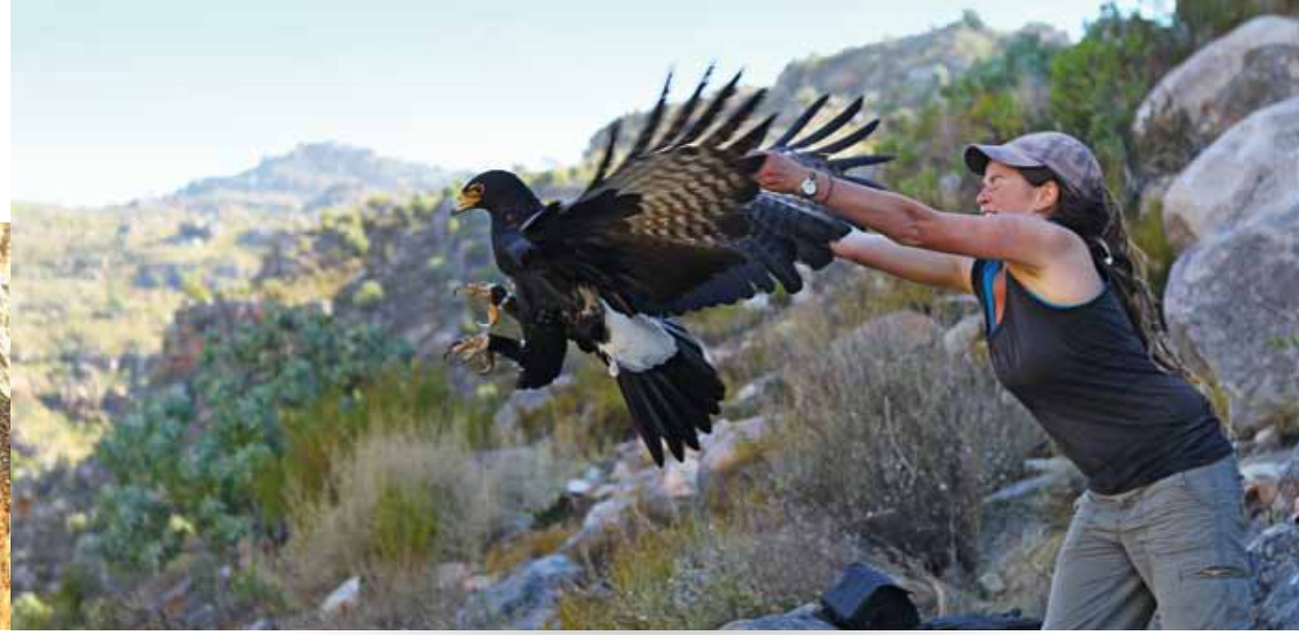


SCOTT RAMSAY

1 The bird's impressive talons are used in hunting and territorial disputes.
2 The skulls of favoured prey, dassies or rock hyraxes, which can weigh up to 5 kg. 3 Megan uses mountaineering gear to install a camera above a nesting site.







Right: Although two eggs are usually laid, only one chick is raised. The other is killed by its sibling. Far right: It can take a pair between six and 16 weeks to build their nest.

MEGAN'S FAVOURITE CEDERBERG HIKES

DUIWELSGAT TO SNEEUBERG HUT AND ON TO THE MALTESE CROSS
The first part is really steep, then there's a beautiful plateau and the cliffs at Duiwelsgat are amazing. You overnight at the hut.

FROM WELBEDACHT TO PANORAMA CAVE, then on to Wolfberg Arch via Gabriels Pass and on to Langkloof. Gabriel's Pass is very steep.

THE KROMRIVER PATH TO DISA POOL is special, and the pool is great to swim in.

days staring through her telescope at the nests until her eyes hurt, hoping to see a chick. "Watching nests for days on end becomes like a meditation. There is so much time to think that after a while I would run out of things to think about." Later in her study, she roped in climbing friends to install a few time-lapse cameras above different nests, giving valuable photographic evidence of the adults incubating, feeding and tending to the hatchlings.

One pair usually lays two eggs and, after about 44 days of incubation in the middle of the Cape winter, the first hatchling emerges, followed a couple of days later by the second. But the first chick almost always kills the second. This behavour, known as obligate siblicide or Cainism (after the story of Cain and Abel in the Bible) can be quite gruesome to watch, Megan said. The adults may even eat the dead chick. The parents will feed the chick for three months, tearing flesh off hyraxes or mole rats with their beaks. If the chick survives the cold winter, it will fly from the nest around the end of October, but will remain reliant on the adults for around another two to three months.

Compared to the adjacent Sandveld, the mountains are a tough environment for the eagles. On average, Megan recorded a higher breeding success in the flatter Sandveld farming region. "It's difficult to say for sure why the eagles in the Sandveld breed more successfully than those in the mountains, but it may be because of the more temperate climate and the increased availability of prey, especially mole rats, which are common pests for farmers." The predation of mole rats by the eagles wasn't commonly known. Now farmers are starting to realise the eagles are beneficial to them.

Eagle tracker

Megan's work meant she was often on her own for days on end, alone in the mountains during sweltering summers and bone-chilling winters, when frequent snowfalls would test her resolve."The winters were so cold that no matter how many clothes I wore, my whole body hurt." Then, near the end of Megan's first year, her father died. After a short trip back to the UK, Megan returned to the Cederberg and buried herself in her work.

As if things couldn't get tougher, Megan set off one morning on another hike and, after slipping on a rock, broke her right leg, badly. The fibula was broken clean through and the tibia shattered into seven different pieces.

"My foot was sticking out at 90 degrees. Fortunately, I had recently received a sponsored satellite phone and it was the first hike that I had it with me! So I called my friends Dawie Burger and Hennie Spamer from Driehoek Farm where I was staying, who came to rescue me."

The excruciatingly painful accident was perhaps a blessing in serious disguise. "Breaking my leg was the only thing that was going to stop me from pushing myself so hard. I had to return to the UK for three months to have several operations and recover."

After the serious lows of that year, Megan's research took off to new heights, literally. She sourced funding to fit GPS transmitters onto five eagles and, after three weeks of trying to trap the first eagle, she succeeded. It was a male, thought to be territorial, but after only four weeks it was ousted from its territory by another male and flew off into the Tankwa Karoo to the east of the Cederberg. This ousting behaviour had never been recorded before and questioned a common idea that black eagles form a life-long pair bond. Over the coming months Megan followed his tracks as he moved regularly between the Cederberg and the Karoo, obviously no longer holding a territory.

The eagle was divebombing the leopard, which hardly seemed to care.

The data from the GPS log lifted Megan's spirits. "It was so satisfying to see where he was flying and how much he was moving around. I've also moved around a lot in my life, so I guess I identified with him."

But the male's nomadic nature was an anomaly. Megan's GPS data from the other four eagles proved that pairs of eagles are highly territorial and will hardly ever leave their patch of mountain. At the end of her three-year study, on one of her last hikes, the mountain gods conspired to cap off her research in style.

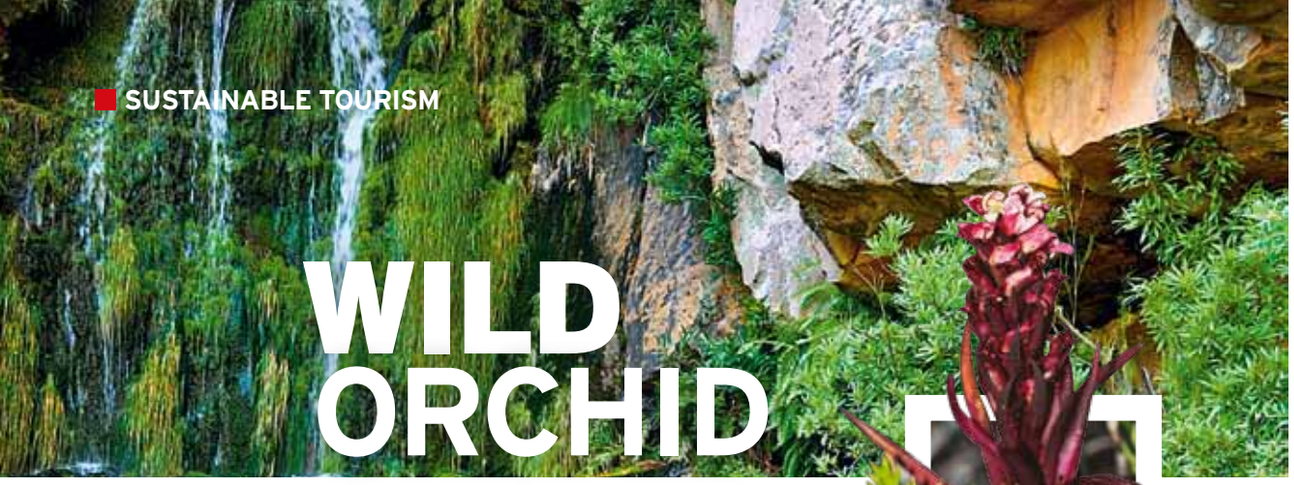
Megan was watching a nest when she noticed an eagle swerving aggressively and repeatedly towards the ground. She turned her telescope and saw a Cape leopard walking below. "The eagle was divebombing the leopard. Because they compete for the same prey, the eagle was probably trying to chase the leopard out of the area." Despite the eagle's outstretched talons, the leopard hardly seemed to care. "He simply kept on walking!"

Not only is Megan one of very few people to witness this behaviour, but chances are she's seen it more than anyone else. It was the fifth time she'd recorded it. "Most locals never even see a Cape leopard, let alone an eagle chasing one! For me to see that five times is a highlight of my life."

The young researcher releases an eagle after fitting a GPS transmitter.

TRIP PLANNER
Cederberg Wilderness Area is 200 km north of Cape Town, about three hours' drive. You can either camp (from R200 a night) or opt for one of the various self-catering options (from R580 a night). For more information go to www.capenature.co.za
Bookings
CapeNature
021-483-0190

WILD ORCHID



The Cederberg Wilderness Area is known for mountain pools and quirky rock formations.

It's been nearly 10 years since CapeNature field ranger Jacques van Rooi stumbled upon an unidentified orchid on the slopes of the Cederberg's highest peak. Ever since, this rare gem has remained shy and secretive. **By Rebekah Funk**

PARTICK LANE

Disa linderiana

When Jacques van Rooi found about 40 flowers of an unnamed species of disa near the summit of Sneeuberg in the Cederberg in November 2004, he caused quite a stir in botany circles. The plant with beetroot-red leaves was eventually named *Disa linderiana*.

The fourth generation of conservationists in his Algeria-born family tree, Jacques has made the arduous 1 800-metre climb in search of it three more times, once in 2009, then again in 2012 and 2013. While the elusive bud has yet to resurface on Sneeuberg, other CapeNature rangers have found the same species on neighbouring Sneeukop, at a similar elevation.

The absence of the red disa on the steep slopes of the Sneeuberg is likely due to weather and timing, says Jacques. "If they've finished flowering, you'll never see the plant. The orchid is underground so it'll die and then come up the next year again." He thinks his team may need to make the trek more often to catch the plant in bloom. "We need to be looking from the last week in October until the end of November. I also think that if you really want to monitor your plant, you must do it every year."

The orchid is not the only discovery CapeNature staff have made recently. Every year they are rediscovering species not seen for decades, says Jacques. These exceptional finds fuel his passion for preserving the biodiversity of the Cederberg Wilderness Area from its biggest threats: forest fires, alien plant introduction and the often-harsh impact of tourists.

A protected wilderness since 1973, the Cederberg is one of South Africa's least-disturbed natural wonders. The 71 000 hectare reserve and surrounding conservancies are a treasure for those who seek sustainable tourism options with a minimal environmental footprint. The Cederberg Wilderness Area stretches from the Middelberg Pass in Citrusdal to north of Pakhuis Pass at Clanwilliam. It's rife with rock art, fossils, otherworldly rock formations and wildlife such as klipspringers, duiker, rock dassies, honey badgers and the Cape mountain leopard, to name but a few.

The Cederberg is popular with those seeking peace and quiet, world-class rock climbing or a relatively accessible weekend away from Cape Town. Due to the increase in interest in the region, CapeNature has implemented measures to monitor the number of visitors to any given area. "We lower the numbers if we see there's an impact, or we close the area for a certain time," says Jacques.

Field ranger Jacques van Rooi discovered an unknown disa in the Cederberg.

REBEKAH FUNK

“The day I planted a Clanwilliam cedar tree”

Volunteers have planted more than 1000 young cedar trees against the slopes of Krakadouw. You too can hike to the planting site and join in the fun.
By Fiona McIntosh | Photos Shaen Adey

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Last weekend [17 MAY] saw the annual planting of the Clanwilliam cedar trees in the Cederberg Wilderness. Massive fires in January 2013 destroyed 30% of the wilderness, devastating the cedar tree population; so this year’s event was particularly poignant.

Patrick Lane, Conservation Manager at Cederberg Wilderness, CapeNature, set the scene. The endemic Clanwilliam cedar tree, one of 1000 surviving conifer species in the world, only occurs in the Cederberg mountains but is at risk of extinction in the wild as a result of fire damage and unsustainable exploitation in years gone by, so is classified as endangered on the Red Data List. Thanks to the efforts of the Cedar Tree Project more than 1000 young cedar trees have been planted in the Cederberg area.

Now in its 13th year the event - a partnership between Bushmans Kloof Wilderness Reserve & Wellness Retreat and CapeNature - attracted a number of high profile conservationists including the new CEO of CapeNature, Dr Razeena Omar and Vice-Chairperson of the CapeNature Board Gavin Maneveldt, who joined Michael Tollman, representing the owners of Bushmans Kloof, the Tollman family, in the lodge’s game viewing vehicles for the bumpy, scenic ride from the Pakhuis Pass to Heuningvlei.

We joined a group of local school children (where the project forms an integral part of environmental and conservation education) planting seeds, which would be incubated for the next two years in the Bushmans Kloof Nursery. Then the real fun began, the transplanting of mature seedlings back into the wilderness area.

It was an exhilarating treasure hunt. We hiked up to the planting site where we were given a two-year-old seedling, a trowel, a numbered tag and a bottle of water then set loose to find a suitable place that would best ensure that ‘our’ tree survived sun, wind, fire and the attentions of greedy donkeys. Once the locations were GPSed it was back to Heuningvlei for lunch and the after party.

And what a party it was. The sun was shining and we sat out in the shadow of the majestic mountains feasting on authentic local fare as the local dance troupe, Die Nuwe Graskoue Trappers, regaled us with an enthusiastic performance of Riel Dance.

The day was a triumph for conservation. Everyone had fun and the symbolism of the planting of the seed was clearly, yet subtly communicated. And as Patrick quipped, the Cederberg is a bit like a disease. It’s contagious. I for one will be

Razeena and michael toll Sa ea peri dolo rpore, quides dicaboressit qui istium et