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Another common theme in The Wanderer this month is the moon. Since the dawn of human civilisation, the moon has held a wondrous significance over us as beings. Although it has transformed from something primal to that which holds cultural and religious significance, it has and remains central to our humanity. This holds true for all of us on Marion Island, from the spiritual to the scientific as we all take part in celebrating this months important events related to our celestial satellite. June has seen mid-Winter celebrations with the first full moon winter solstice since 1948, as well as Ramadaan, the beginning and end of which is determined by the lunar Islamic calendar, based on visual sightings of the crescent and new moon respectively.





New



Waxing Crescent



First Quarter



Waxing



Full





Waning



Last Ouarter



Waning Crescent



New



### MOONRISE



A poem by Camilla Kotzé

A COMMON QUESTION AMONGST ALL OF HUMANITY,
TO GAUGE PERSONALITY THROUGH PARTIALITY.
THROUGH WHICH DO YOU GAIN INTROSPECT,
SUNRISE OR SUNSET?

OVER THE EARTH'S CURVATURE, SUNRAYS BEGIN TO CREEP, ILLUMINING THE SKY TO THE GROUND BENEATH OUR FEET, CARRIED ON VINES OF LIGHT, PROSPECT.
SUNRISE OR SUNSET?

OVER THE EARTH'S CURVATURE, SUNRAYS START TO RETREAT, BLACKENING THE SKY TO THE GROUND BENEATH OUR FEET.
FADING WITH THE LIGHT, TRIALS ARREST.
SUNRISE OR SUNSET?

INTROSPECT IS GAINED FROM NEITHER SUNRISE NOR SUNSET, MY FAVOUR LIES WITH THE MOON AND ITS SELF-INTEREST, THROUGH ITS FILTER, PERSPECTIVE GROWN.

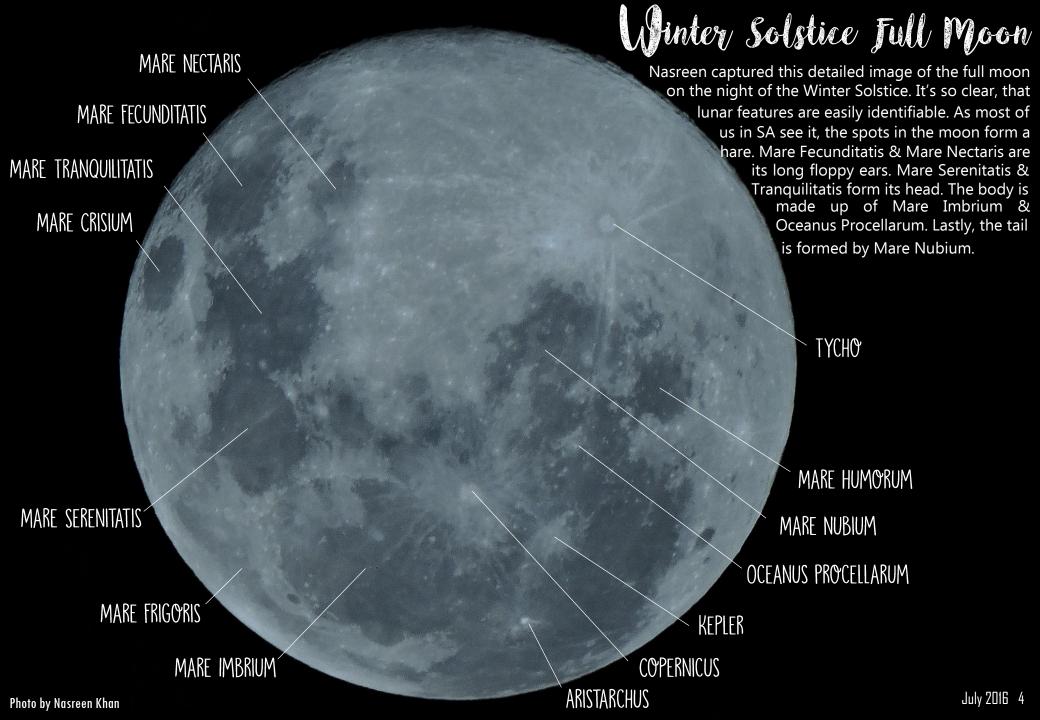
THE MOONRISE ALONE.

THE MOON HOGS THE LIGHT WITH A SPINNING LUMINESCENCE, SILVER REFLECTIONS UPON THE BASIC HUMAN ESSENCE, PERSONAL REVERIES, RE-KNOWN.

THE MOONRISE ALONE.

IN ANSWER TO THE QUESTION OF SUNRISE OR SUNSET.

I THEREFORE DARE SAY THAT THE MOONRISE ALONE, IS BEST.



### See the First Solstice Full Moon in More Than 50 Years Text by Camilla Kotzé



The full moon rises behind the Lick Observatory in California.

PHOTOGRAPH BY RICK BALDRIDGE, NASA ASTRONOMY PICTURE OF THE DAY

For us in the Southern Hemisphere, the June solstice happens when the sun's zenith is at its furthest point from the equator, giving us the shortest days and longest nights of the year. A welcome relief for M73 as we can look forward to increasingly longer days!

For the first time in 68 years, the full moon coincided with the June solstice. Naturally, this event differed by time zone globally.

### **June Solstice Times UTC:**

California: 20/06/2016, 15:34

London: 20/06/2016, 23:34

Johannesburg: 21/06/2016, 00:34

Marion Island: 21/06/2016, 01:34

### This Strawberry Solstice Moon Is the Last for 46 Years

Skywatchers won't see another full moon on a June soistice until 2062.





Photo by Jessie Berndt

Marion



### RAMADAAN DIARIES ON MARION

"You can't drink anything?", "What about a sip of water?", "...but surely you could have energy sweets at least." I got these comments and questions after explaining what a dry fast is. So, no, during the fast there is no food, no water, nothing, whenever the sun is out, every day for the whole month of Ramadaan.

Ramadaan is highly celebrated in a Muslim's life; it's a chance to detox both physically and spiritually; a time for introspection, a practice on self-restraint, discipline and prayer. Ramadaan is not only about abstaining from food, and water; but from all negative thoughts of people and on life, it's a chance of taking into account ones actions and influences on the people that surround them daily. The mind goes through a journey of self discipline. In its entirety; it's an ideal of how one should be for the entire year until the next Ramadaan. Alas we are all just human, and that is indeed a difficult thing to do, however, that intermittent tug of hunger at the pit of ones stomach is a constant reminder of not only ones fast, but of all the above.

### RAMADAAN ON THE ISLAND:

My Marion Ramadaan is something I will remember for a lifetime, not many, or should I say very few, get to experience solitude for days on end. Solitude in its purest; no traffic/vehicles, no Wi-Fi connection, and best of all; no commercialism with subliminal advertisements in the alpha-wave state tantalising ones taste buds toward the nearest finger-licking hot-wings and mouthwatering ½ L coke, with a better deal if you upsize your order, yum!

### **MIXED PICKLE COVE:**

I began and ended Ramadaan alone, on the west coast of Marion at a place called Mixed Pickle Cove. Introspection, contemplation and serenity, in the quiet emptiness of rolling hills, crushing waves and seal calls. I spent 18 days away from Marion Base and despite missing my family back home and my Marion family back at Base, it was a glorious time for me to re-connect spiritually.

### **FASTING AND WORKING:**

Back home in South Africa I usually cease most physical activity during Ramadaan, which is not possible here on Marion. So, I wasn't really sure my body could manage such a physically demanding job. As a fieldworker on Marion, it means hiking around the island going about your strenuous duties for a full day; in my case with an empty stomach. On some days the fast was easier than others, it's remarkable how the body can adjust to new patterns with a correct mind set and a determined spirit. However, there were rather challenging days, which tested me both physically and mentally. What's more, on Marion, there are thirst quenching, pristine rivers flowing around, and drinking water straight out of the streams is what I look forward to on my hikes on usual days. These become definite tests of fortitude when you're ravenous and beyond exhausted.

#### **REMINISCING:**

Ramadaan teaches one about the importance of fraternity and community. There is always a hive of activity with cacophonous streets in the twilight of dusk and dawn, and busy neighbourhoods whereby plates of food are being sent to each other just before the sun dips. I missed the smell of pies and samoosas and freshly made dekh-haleem (dekh: big pot cooked on an outside fire, haleem: Indian barley soup synonymous with Ramadaan festivities), or my mums famous Malay soup at ifthaar/boekah time (when one breaks their fast). Being on a secluded island and experiencing the complete opposite to this, moreover, beginning and ending the month alone, away from my Marion-family and with no communication with family back home, made me appreciate them all and the daily formalities even more.

#### **BACK AT BASE:**

Most suhoor (predawn) meals were spent in Elana and Albert's company. Elana who had also been my coffee fairy in the mornings, also inspired my daily get-you-through-your-fast concoction; Milo, coffee and Ensure all in one cup and dates on the side, perfect! On one morning I even got treated to Travis's famous French toast, and then at iftaar time I always had the company of Sanele, Thando or Phillip. Phillip and Jessie also tried partaking in the fast. My Marion family has been superb in filling in the gaps and had made me less nostalgic and homesick.

#### FASTING ON EID DAY:

I guess you've never heard that one before. The news of Eid had not yet arrived during the ritual communication at 6pm between Marion Base and the Mixed Pickle hut on the eve of Eid, for this reason I had assumed it was still Ramadaan, and continued with my fast. It was sheer luck that I took a chance to contact Marion Base at midday on Eid, and luckily Phillip was in the radio room at the time to confirm that it was indeed Eid. I immediately celebrated Eid by breaking my fast with some hut-coffee and continued to enjoy the solitude of my own company.



### **POST EID CELEBRATIONS:**

After my second 18 day stint away and now back way after Eid, my absolutely wonderful Marion family, treated me to a post Eid celebraton, with Jessie and Camilla making samoosas from scratch, my first drie-hookie-kookie for the year, yay! We all celebrated by painting mendhi (henna) onto our hands, arms, faces...everywhere. What's Eid without mendhi to an Indian girl! ©

Thank you to each and every one of the absolutely incredible 20 individuals I now call family, you all have made this place feel like home.

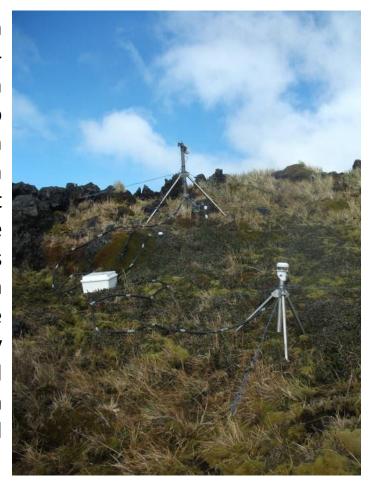




### The History of Botany

by Alta Zietsman

first scientific research The program on Marion in the mid-60's was primarily focussed on plant taxonomy. From 1971 to 1976, the expeditions to Marion Island were concentrated energy and nutrient flows. It specifically focussed on how the spray, seals, and birds influence the nutrients found in the soils and plants. During the 1970's and 1980's, botany research was centred around primary production found within the island's main ecosystems and their influencing factors.



Recently research has been focussing on energy and nutrient flows, photosynthesis, ecological interactions, invasive species and climate change. With new technology and research teams, new mysteries about Marion Island's flora will be unlocked and can help to answer some important questions.



## MEET THE M73 POTAL WIND OF THE POTAL WIND OF THE



The botanists on Marion are a triple threat. Yes, there are three of them. But, with each being blessed with beauty, brains and botany, Marion Island doesn't stand a chance. The Inyangas triumph every time, scoffing in the face of harsh weather conditions, come rain, sleet or snow!



M73 Botanist-Stellenbosch University

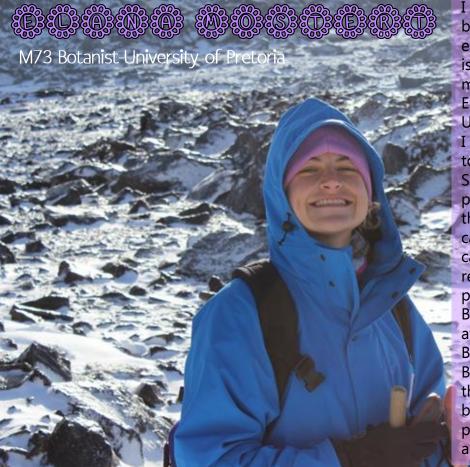
I was born in Pretoria in 1993 and moved to Cape Town soon after. I started my studies at Stellenbosch University in 2011, finishing my undergraduate degree in Conservation Ecology by 2015. The primary focus of which, was nature conservation and entomology. I was fortunate enough to be part of the SANAE 55 cruise to Antarctica in December 2015 as one of the bird observers on the ship. The project formed part of the Seabird Atlas Program to document the distribution and abundance of seabirds. Although plants were not my sole focus during my undergraduate studies, when the opportunity arose to spend a year on Marion while completing an MSc in Botany, I jumped at the opportunity.



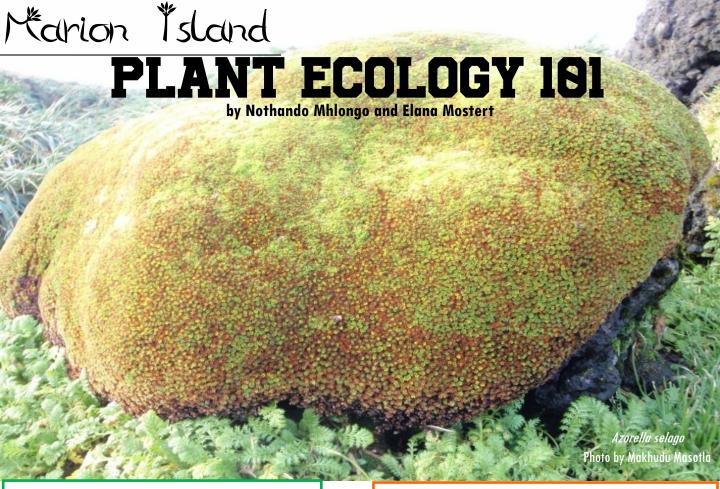
M73 Botanist- University of Pretoria



Born (1993) and raised in KwaZulu-Natal (Richards bay); first time away from home. I enrolled for a BSc in Botany and Microbiology at the University Zululand and with the first lecture, I was in love with the discipline. From then onwards my love for Botany has grown (pun not intended). Obtaining my BSc degree in 2014, I furthered my studies in 2015 with a BSc Botany Honours in Plant and Conservation. Ecology For Honours degree, I focused on the identification, description and mapping of plant communities in Enseleni Nature Reserve (Richards bay) which was a phytosociological study. I've enjoyed everything about the island so far, and I am learning more each day. I am so grateful to be here with my team (M73) of amazing human beings. Life gave me lemons and God made lemonade for me, and here I am on the most beautiful and amazing place. For me, coming to Marion island was a once in a life time opportunity, and I'm planning to make the most out of it. Mbonge uJehova mphefumulo Intomb'YomZulu wami. YaseLangeni Inyanga M73 😊



I grew up loving the outdoors, becoming more aware of environmental and conservation issues as I got older. This motivated me to do my BSc in Environmental Sciences at the University of Pretoria. Even though I am interested in all things related to the Natural and Biological Sciences, my main passion is plants. The more you study them, the more you discover what they can do: photosynthesise, some are carnivorous or some's flowers can resemble insects to attract pollinators. I completed my BSc(Hons) Plant Science (Ecology). at UP, followed by an MSc in Botany, focusing on Invasion Biology, at Stellenbosch University thereafter. I feel very privileged to be employed doing what I am passionate about on such an amazing place as Marion Island.



Plant Ecology is a sub-discipline of ecology which studies the distribution and abundance of plants, the effect of factors upon environmental the abundance of plants, and the interactions among and between plants and other organisms.

Climate exerts a key control over the distribution of the world's major ecosystems and on different continents. With distantly related flora, similar vegetation formation occurs under similar climatic conditions. For example, the distribution of major biomes in the world can be broadly predicted from temperature and precipitation data. This has major implications for climate change.

The project that the Botanists, associated with University of Pretoria Plant Ecology, are working on focuses on plant interactions; improving our understanding of their their dynamics, influence long-term communities' fine-scale structure, their environmental condition dependency, and their potential to affect species distribution patterns on a broader scale.

On Marion Island we are looking at incorporating biotic interactions (i.e. plant interactions) to improve predictions of the ecological effects of climate change vegetation on distribution.

This research studies both interactions between different plant species and among plants of the same species, where the main aim is to disentangle the strength of these interactions between and within species and the relative influence of these interactions in current vegetation patterns. This will be accomplished through a detailed examination of the interactions between plants on sub-Antarctic Marion Island

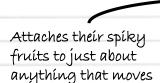
### Inyanga fact sheet

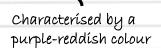
Get to know the most common plants:



Azorella Cushion' selago

Vascular plant occurring from the HIGHEST elevation to the coast





22 native plant species 18 species introduced (most likely by humans)



Acaena magellaníca

a.k.a Kerguelen cabbage: used to be eaten to prevent scurvy



Pringlea antiscorbutica



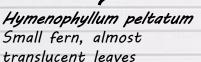


### Inyanga fact sheet

Grammitis kerguelensis Smallest fern (1-5cm)

Inyanga, the
Botanist's
nickname,
meaning herbal
doctor in Zulu









Elaphoglossum randii
This fern is rare, and
difficult to spot between
the Blechnum it grows in



Some species can easily be confused with one another, like *Limosella australis* and *Ranunculus moseleyi*. To be sure what the above species is, we need to wait for spring to see the flower colour.

Plants got to the island by dispersing massive distances across the ocean (Marion is a volcanic island and has never been attached to other land masses). The natural rate of plants successfully colonizing the island is 1 species every 20 000 years. Human visits to the island is, however, introducing alien species to the island at a rate of 1 species every 10 years!

### Inyanga fact sheet



Racomítríum lanugínosum

Some species change appearance, depending on the environmental conditions, like under wet and dry conditions as shown here

Marion diversity Mosses-100 species Liverworts-36 species Lichens-120 species

Primitive plants rule!

This hardy moss simply rolls over when disturbed, e.g. by wind or frost heave, forming 'moss balls'



Dítríchum stríctum

Easily distinguishable, liverwort is usually found in or around areas with animals



Marchantía berteroana

Pesky mice eat Cushion
stems, causing Visible
damage, as well as the
seeds of uncinia
compacta, reducing seed
numbers



### The Tech Side of Botany

With strange and mysterious equipment appearing around the island (seemingly overnight), the rumours started spreading. "They must be part of SANSA's (South African National Space Agency) equipment. Maybe they are measuring magnetic fields...or are they measuring irradiance from the sun?" With suspicion growing on the island, no-one seemed to guess that the new age of botany has arrived and that plants were the culprit for the strange equipment.

by Alta Zietsman

With remote sensing, a new way of studying plants has come forth. Remote sensing can be used to determine the structural and physiological characteristics of plants without damaging the plant itself. By different measuring incoming wavebands of light, as well as the reflected wavebands (by the plants), we can see what the plant is doing photosynthetically.

This study forms part of my Masters in Botany at Stellenbosch University. With remote sensing, we are looking at what environmental factors are influencing production of the plants.



Above: The equipment being used to look at the photosynthesis of the plants

Due to the unique environmental conditions found on sub-Antarctic islands, the plants on these islands are specially adapted to cope with these conditions. These plants, therefore, respond differently than plants found back home (in sunny South Africa). I am, therefore, looking at what it is that drives production on the island (what influences photosynthesis of these plants). Is it the cold temperatures, high wind speeds, limited exposure to sunlight or a combination of different factors? With this study, we will hopefully be able to answer these questions.



From Left: Sensors measuring incoming and reflected wavebands; Rain gauge (measuring one of the many environmental factors;

The equipment battling with snow and ice

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Itamate Accessories

TEXT AND PHOTOS BY CAMILLA KOTZÉ

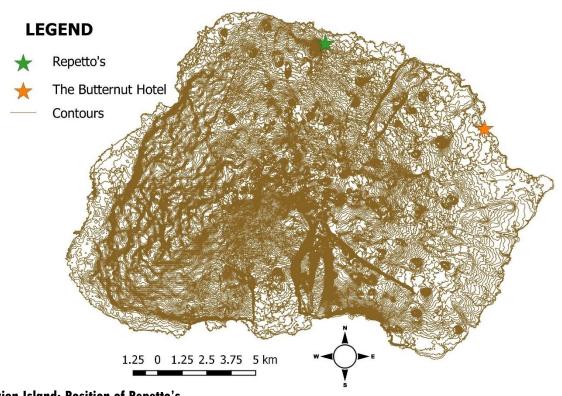
### the Princess and the frog

With a fairy tale flare, this frog inspired headband will be sure to keep your head nice and toasty this winter.

Bright and bold like its wearer, *Louise Gadney*, our one and only Mad Marion Medic.



### Readers' Round Island







Repetto's Hill, a single scoria cone with an elevation of 369m.

### Base to Repetto's:

They say that the hardest part of a Round Island is taking the first step off the catwalk. With the worst behind you, keep along the well worn trail. Go over the Van den Boogaard River, passing the old hydroshack. Hop, skip and a jump over Hoppies' Hell while aiming for the Third Sister, which will take you over Long Ridge. Goney Plain is all that's left, and voila, Hello Repetto's.

As the skua flies, the coastal route from Base to Repetto's is roughly 10km, or two to three hours. With a mostly flat terrain, the moisture levels of the mires along the route difficulty. determine its Highlights of the walk include Prinsloo Lake and penguin chatter carried on the wind from King Penguin Bay, which is sure to keep the loneliest round islander company. If you are feeling adventurous, with a



surplus of energy, you can always take the inland route. Aside from the views of Prince Edward, there are many peaks to climb, such as Eduard, Middelman and Gordons.

Repetto's Hill

Prinsloo Lake

JUST COASTING: View of coastal route from Long Ridge

Repetto's Hill

GOING INLAND: View of the coastal route from Gordons

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### Hut Recipe of the Month



1 tin sweetcorn 1 pinch salt 2 cups self-raising flour 1tsp vinegar

"Gooi the whole lot together and mix with a bit of milk. The dough must be firm but gooey. Spoon onto pan with oil. Brown both sides over low heat. Fritters are cooked when you tap them and a hollow sound is produced".

Adios Cheryl

Photo by Jessie Berndt					TS  ne
MAXIMUM WIND GUST	201 km/h				
TOTAL RAINFALL	171 mm		NEE .		
HIGHEST IN 24	38 mm		AVE	MAX	MIN
HOURS		TEMPERATURE (°C)	5.5	12	-0.4
TOTAL DAYS WITH	26 days				
RAIN		PRESSURE (hPa)	1005	1025	970
TOTAL DAYS > 1 MM	7 days				
TOTAL SUNSHINE	69.5 hours	HUMIDITY (%)	85	97	66
				The Control	

#### **WINNER**

### 'Ships Cove' by Camilla Kotzé

An odd combination of grey and pink in the clouds gave way to a delightful lilac hue which saturated the sky. The air had a slight bite to it, unveiling the precipice of winter as four girls head out into the Marion wilderness on the last Monday morning of May. Feeling spontaneous, I gave my new Google Street View app a try which allows the user to capture a 360° photo sphere. The result was this breath-taking panoramic of Ship's Cove, one of two sandy beaches on Marion Island and a real beauty to behold.







#### 2ND

ABOVE: 'The Interior' by Alta Zietsman

This pano perfectly portrays the shear beauty of Marion's interior. Snow providing a gorgeous contrast against the red scoria scree slopes. Although most field workers stick to the coast, Alta is lucky in that her job takes her to the interior; The Polar Desert Biome.

### 3RD

BELOW: 'Behind Black Haglet' by Jessie Berndt

This photograph was taken at the top of Black Haglet; a ridge of peaks every Round Islander has to pass on their journey. However, this photo is unique, revealing the lesser used inland route which was taken from Kildalkey hut over to Katedraal.





TOP: 'Good Morning Marion' by Alta Zietsman

Highly commended

### Highly commended

BOTTOM: 'Sun-up at Sealers Cave' by Camilla Kotzé





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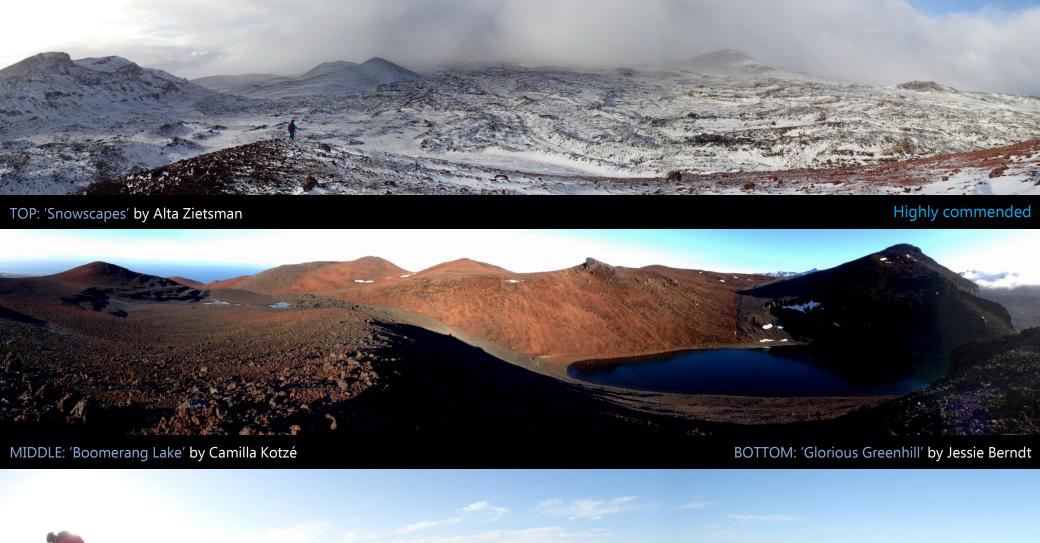
TOP: 'Ponderous at Piew Crags' by Alta Zietsman

Highly commended

### Highly commended

BOTTOM: 'Trypot Fault' by Kim Stevens





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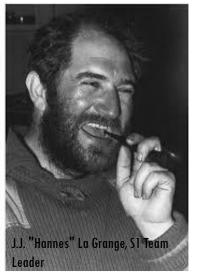
### La Grange Villa and the Johnston Staircase: Marion Island's oldest structures

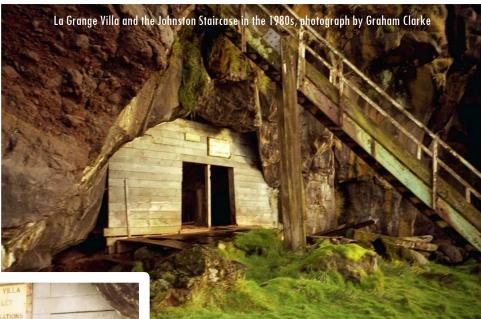
by John Cooper

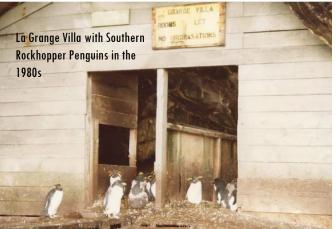
Principal Investigator, Antarctic Legacy of South Africa, Department of Botany and Zoology, Stellenbosch University

Look towards East Cape from the new base at Marion Island and you see the scattered buildings of the old base awaiting demolition and removal, except for the old Marine Mammal Laboratory on top of White-chin Ridge, which, it has been suggested should be kept to house an island museum as the oldest building on the island. Erected in the mid-1950s it originally housed diesel engines to generate power for the base, replacing the original power shack erected in 1948 – now long gone. But there are two older structures on the island that were erected earlier in the decade and still survive, if only in a dilapidated state. These are La Grange Villa and the Johnston Staircase on Boulder Beach.

La Grange Villa – it has now lost its nameplate with the added message "Rooms to let no orgirasations [sic]" – is essentially the partially boarded -in cave at the back of Boulder Beach in Transvaal Cove. The entrance has a wooden entrance floor and the interior is divided into two sections that, it is believed, were used to house the three domestic pigs that arrived on the H.M.S.A.S. *Transvaal* in April 1951 and spent a year on the island before being killed and eaten.

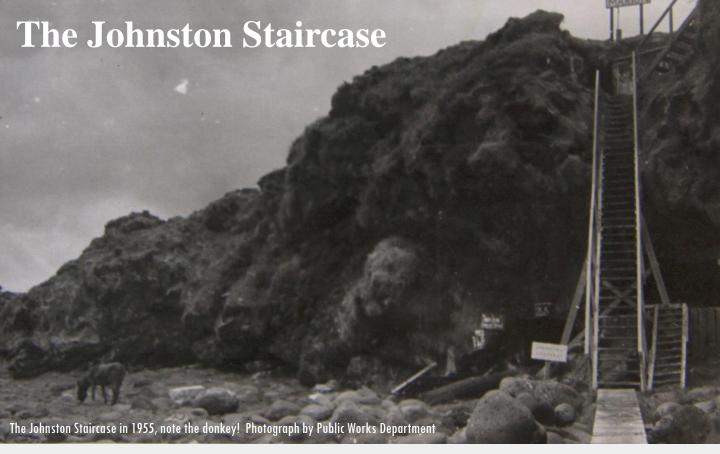






The villa is named after Johannes Jacobus "Hannes" La Grange, a meteorologist who spent the period October 1950 to April 1952 on Marion with the 6th, 7th and 8th Teams. It is likely then that the villa was erected early during this period. Occupied by Southern Rockhopper Penguins until recent years (the island population has declined), now only the odd Subantarctic Fur Seal may be found within.

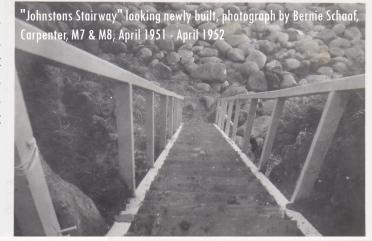
Hannes La Grange returned to the island in 1954 with M11, and later was the first South African to reach the South Pole with the Commonwealth Trans-Antarctic Expedition in January 1958. He then led the First South African overwintering team to Antarctica (SANAE 1) over 1960 to 1962. La Grange deserves more than the villa to commemorate him, such as a statue in Cape Town's Waterfront to mark a true Antarctic pioneer.



As for the La Grange Villa it is not known exactly when the Johnston Staircase (or Stairway) that connects Boulder Beach to the cliff above was built but is thought to date from around the early 1950s, if not before, although the earliest photo of it found so far is from 1955. Repaired and rebuilt several times (most recently in the 1980s) it is only recently that the Antarctic Legacy of South Africa has discovered its name via old team photos. Neither has it yet been discovered who Johnston was. He was not a team member so may have been a member of a Public Works Team that constructed the staircase. It seems rather unlikely he was Lieutenant-Commander James Johnson DSC (spelt without a 't') who captained the *Transvaal* to the island in April 1951 with members of M7.

The Johnston Staircase is now unsafe to use and has been placed "out of bounds". If it is allowed to deteriorate further without repair it will surely eventually collapse. A decision is needed how both of these historical structures should be treated; this could usefully form part of an assessment of how (and when) the old base is to be removed.

- 1. Looking down the Johnston Staircase, photograph by Bernie Schaaf
- 2. Bernie Schaaf, Carpenter, M7 & M8, April 1951 April 1952
- 3. Looking up the Johnston Staircase, photograph by Bernie Schaaf









# THANDO'S THROW BACK NASREEN'S 8 HOUR KILLER OBS



It started off as a beautiful day; woke up late since we were excited about Nasreen's return to base from Mix-pickle. For some reason it felt like she was gone for a month, and it was only a few weeks. I opened my blinds and Marion blessed us with an awesome day. Being a wind still, sunny day, it was sure not a day to be indoors. See, my window faces Nasreen's killer rock, and when I saw her there alone, I just had to go chill with her for a few hours and catch up. We started calling for base for everyone to be out, not to miss this amazing day. My Inyanga (Elana) went off exploring Tripod, and when she came back she joined us on the rock. You know what they say, the more the merrier. When we thought it's just a ladies and killer whale outing, the guys joined us. Fun was had with me and Sanele experiencing the strong swell with cold sea waters. We were dripping wet and cold but it was worth every second. Ok friends and family see you next issue.......TBM:)

## Good times are rolling by by Christiaan Willem Brink

While many use the island as an opportunity to start putting away some money for retirement the islanders have also started preparing for retirement in another way. June has seen the islanders pick-up the new hobby of "rolbal" or bowls after an old dusty set was discovered in the corner of a storeroom. Space was made in the lounge for this great event and contestants dressed up in their best kaki's, knee high socks and skirts (so long that they discreetly covered everything from belly-buttons to ankles). The islanders however play with stakes that would be too much for any but the young at heart. The buy in for each match was a quality street (a rare commodity on the island), and the winner of each round walked away with all the chocolates in the pool. I myself lost a large part of my stocks but was consoled by winning two high stakes games (winning a giant bar-one and a steristumpie).

Alta was however the clear champion of the evening and later on people were too scared to join in a round if Alta was also competing. She had a knack for stealing the win from competitors who rolled what was by the spectators considered to be sure victory rolls. In response Morgan also developed his own strategy for stealing the win, requiring a bit more force than Alta's carefully calculated rolls. His tactic was to simply smash the yellow ball (the target) away from the balls of his competitors and hope that his ball ends up closest to it when the dust settles. A strategy that payed off many times and was emulated by many in future rounds. Multiple evenings since have since been spent rolling lopsided balls across the lounge carpet.



