The Wanderer

OCTOBER 2018

DAY-WALKER

the leucistic king penguin

PICTURES AND STORIES

ISLAND LIFE

hut of the month

Swartkops

Breeding season mayhem

seals and penguins

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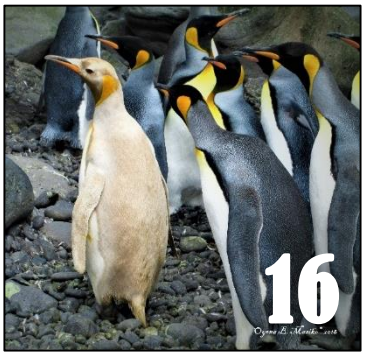

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Macronectes halli
- Elsa van Ginkel

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

SANAP

The day is TODAY
MARION75
The time is NOW

letter from the editors

What a month! Time flies... This month has been packed with adventure, hard work and long hours out in the field as well as at base. Everyone is still smiling through all the deadlines, censussing, walking, sampling, reporting and many other time consuming activities that make up our daily routine but every moment has been enjoyable. So here it is: October's edition. Sit back, relax, grab a coffee and relive our experiences with us.

Elsa van Ginkel
Editor

Another month of Marion life whisked by with many awesome memories and fantastic experiences! I have had the privilege of adding two more field huts to my adventures as well as all the incredible sights and landmarks on the way. The seasons are changing rapidly and with this comes a great deal of work for all the fieldworkers, who are rarely seen indoors these days. Base life is continuing as normal and we are all healthy and happy albeit often tired after a long days work. We hope you enjoy this October edition of the Wanderer!

James Burns
Co-Editor

Swartkops

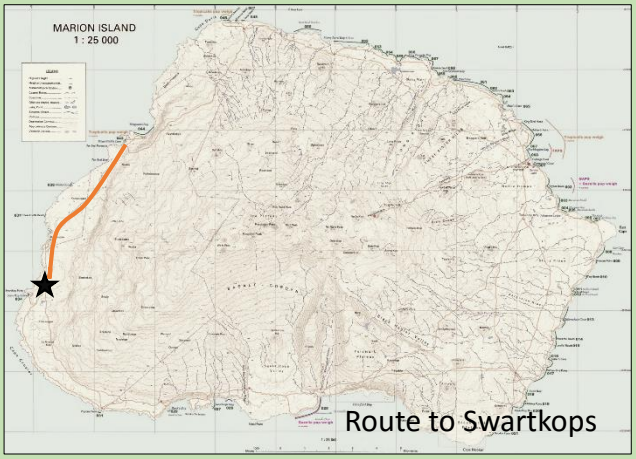
Hut Stop # 4

- Elsa van Ginkel

Hut of the month: Swartkops

Route to Swartkops

The walk from Mixed Pickle to Swartkops is kinder to the knees than any of the previous walks and it takes less than two hours. It's a very enjoyable walk indeed, unless nightfall makes his appearance while you are still hard at work – only then, this island might throw a bit of a challenge at you.



Route to Swartkops

As you head off to Swartkops from Mixed Pickle hut, you'll see Neville Kop on your left hand side and you'll hear the seal pups screaming from Fur Seal Bay to your right. Frome here, it's a gentle stroll towards Kampkoppie, which you'll pass on its East slope.

Sickle Cove

In the distance, northwest from Kampkoppie, there is a beach that goes by the name of Sickle Cove, a small yet beautiful area when you stumble upon it. If you're lucky, you'll find a few Macaroni Penguins (*Eudyptes chrysolophus*) here. Another interesting feature can be found east of Kampkoppie – black lava flow – the latest evidence of Marion truly being a vulcanic island.

Black lava flow

The next stretch of path from Kampkoppie, is a calming walk towards Kaalkoppie – as the name of this koppie suggests, it is a bare *all-black* koppie right next to the coast and it has some brilliant rock formations. It is also home to a colony of Macaroni Penguins and they are quite comical to watch.

Kaalkoppie

Once you have reached Kaalkoppie, nothing can stop you from finding the hut (except perhaps the mist?) as you can see it in the distance – with Skuinskop to the East and the Amphitheatre towering in front of you. Now you know you've reached home. Well, at least for the night.

Welcome to Swartkops!

The Hut

Swartkops is still my favourite hut! It's not really the hut, it's more the location than anything else – the sunsets will absolutely exceed all possible expectations if you are lucky enough to reach Swartkops on one of his show-casing days. The Amphitheatre is just the cherry on top of the cake. What more could one ask for?

Swartkops Hut

Water

This is the only hut where we collect water from one of the lakes close to the hut. It's your own choice whether you want to boil the water or not...

Water supply

Sunset at Swartkops

Hut recipe: Hamburger Patties

Ingredients:

- 1x packet of soya mince
- Onion flakes
- Dollop of chutney
- Water
- Oats (to bind)

Methods:

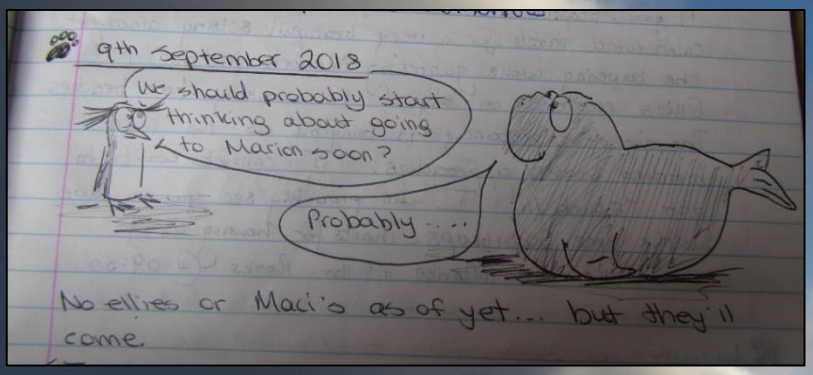
1) Mix all ingredients (except oats), place in pot and cook until quite sticky.

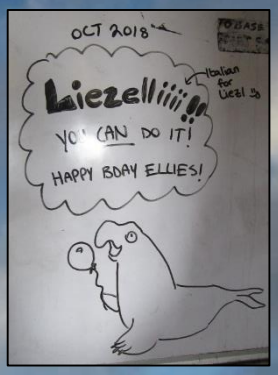
2) Add the oats and form patties.

3) Fry patties in a pan until brown on both sides.

4) Serve with steam- or pan-bread...

Hut entry





Work in the area

Winders/Botanists: Four wind stations between Mixed Pickle and Swartkops and one wind station at Swartkops. The 'Inyangas' have many vegetation transects and plots in the area.

Sealers: Census many beaches along the coast, as well as other seal-work on a monthly basis.

Photo credits: Elsa van Ginkel, Dineo Mogashoa

Birders: The birders count every bird imaginable on this island during their Round Islands but at Swartkops, especially this time of the year, the Maci's take first prize as they fill up the Amphitheatre.

Amphitheatre filled with Macaroni Penguins

Kildalkey Hut Visits...

My Kildalkey Adventure

- Zinhle Shongwe

My first hut visit with Dineo (a winder and my tour guide) was absolutely amazing! The preparations were quite fascinating; you would reckon I was going on a vacation. All I wanted was to make the most of it. We left the base in the afternoon. Walking over rough terrain and miry grounds was inescapable owing to undefined route (after Stoney Ridge). I got mired at some point but it wasn't much of a struggle to drag my foot out and with cold water inside my boot surprisingly my foot felt warmer as we walked. We were greeted by a flowing stream next to the hut. Our arrival time was exactly 2hrs and 30mins (recorded as one of the fastest, if not the fastest). As base personnel, I was quite impressed and proud of myself.

On arrival I felt like a hosted visitor. Dineo showed me around, the hut wasn't in the bad state I had imagined, quite frankly it was decent and warm, although the toilet took me by surprise as there is no shelter around it. Dineo prepared and served supper at same time as we normally have it on base. The meal was delicious and the setting (with candle light) was very romantic. We went to bed at 9pm; sleeping arrangements were great, the sleeping bag kept me warm though the night even though falling asleep was a mission as I am used to sleeping after 12pm. I scrolled through my phone until I fell asleep.

In the morning the weather wasn't as pleasant, it was very foggy and drizzling, we had to cancel some site visits, nonetheless I was honoured to work on two Winders stations close to the hut, it was good to know what they get up to when they leave base for work. As soon as the weather cleared up we visited Kildalkey Bay. The moment I saw the Macaroni Penguins' colony I felt my trip was complete. I had the best time, hut life is great. Kildalkey was just the beginning, I will visit more huts. I also came to realise that long walks are easy when one is prepared, both physically and mentally.

Photo credit: Dineo Mogashoa

Mike T visits Kildalkey hut

- Monica Leitner

What to do when one of our beloved huts have a leak? Mr Mike T is on the job! On his first ever hut trip, he experienced all the beauties Kildalkey and its surrounds have to offer. On a wind-still, sunny morning (lucky guy!) we set off on a lovely hike, did some hut maintenance and even had time to pop down to the penguins at Kildalkey Bay. A full hut (4 people) made for some great conversation and hut food before snuggling up in our sleeping bags for the night. A great introduction to many more hut visits?! Thank you Mike!

Interview with…

BASE ENGINEER "DK"

Our base engineer, affectionately known as DK, is not only a highly qualified and practical engineer but also a truly nice guy! His great smile and bubbly personality makes him a well-loved team member and fun to be around. He also loves music and has entertained the team with his musical talents (and dance moves!) on many occasions! Here he answers a few questions…

Job description on the island as a base engineer: I am responsible for day-to-day maintenance and servicing base equipment such as UPS, electrical reticulation system, fire detection, building management system, waste water & sewage system, power generator, air condition and heating, freezer rooms, warm & cold water reticulation, etc.

Best part of my job: My job's best part is that I come across different kinds of faults/problems that make me to grow more and more in my career.

What do you miss most back home? I miss my wife and kids and all the music performances I used to do on weekends.

Favorite book: the Bible.

Favorite movie: Wonder woman.

Favorite food dish on the island: Pap and magulu.

Favorite animal on the island and why: My favourite animal is the Elephant seal; the way it sounds is like our V8 Ossis generator ☺.

Describe the hardest day that you've experienced on the island so far: It was the day the antenna tower fell and I had to weld it. In the process of doing that, the wind started and it was blowing too much and my welding helmet got carried away by the wind. I ran after it, fell and complained alone at the same time and by the time I got the helmet it was damaged and I had to pack my stuff and go. But the good thing was I was done with my duty.

Describe the weather on the island in three words: Snowing, raining and stunning.

What do you like most sbout base? Well, what I like most about the base is that we have everything we want inside the base and you sometimes even forget that you are far away from home.

What do you like most of being out in the field? What I like most of being out in the field (although we don't go out much as a base personnel) is I am able to see lots of the things that I haven't seen in my life as we explore on the island and it feels good to experience new things.

Favorite hut on the island and why: My favourite hut on the island is Kildalkey, well, out of all names of the huts I just feel for Kildalkey hut and I ended up going to see the place and it looks good! I cannot compare with the other huts since I have only been to few of them but not all.

How would you have packed differently with your knowledge about island life now? Well, from what I have brought I think I would have packed the same stuff with the addition of a camera and more of my gym track suites.

Any advice to future Marionites? When you come to the island you must come being prepared physically, mentally and emotionally and be able to cope with any situation. By doing that the expedition will be so easy for you. Make sure you team up with the person you are going to replace so that you get more info in terms of what you should bring along with.

DK works hard to keep the base running smoothly and also enjoys the marvels of the island when he gets a chance!

Interview with…

The Metkassies

Zinhle Shongwe

Sechaba Nyaku

James Burns

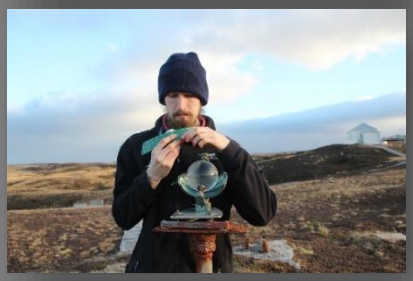
This dynamic trio makes up the Meteorological Technicians' team, affectionately known as the "Metkassies". They are responsible for maintaining the weather station here on Marion Island and making numerous meteorological observations throughout the day and night on behalf of SAWS. All three of them are truly beautiful people, inside and out! Sechaba always impresses with his easy smile and dance moves. Zinhle is the personification of a lady and a master in dressing up. James is a real gentle soul and gives great hugs. The M75 team would definitely not have been the same without them! We asked Sechaba (SN), Zinhle (ZS) and James (JB) some questions to get to know them a little bit better…

What is your job description here on Marion Island?

SN - Senior Met. Technician. Provide observation reports in the timelines requested by the department. Provide mentorship and leadership to appointed Assistant Met. Technicians. Daily quality control of meteorological observational data.

ZS - As an Assistant Meteorological Technician shift worker my job includes performing daily surface meteorological observations, conducting upper air balloon launches, sunshine chart reduction, measuring sea surface temperature and quality control of meteorological data. In ensuring reliability of the data I am required to perform re-active and routine maintenance and verification of meteorological instruments.

JB - As an assistant meteorological technician, or metkassie, I share responsibility for managing and maintaining the SAWS weather station here on Marion Island. We do regular observations of cloud-cover and other conditions and send these and the data collected by our equipment to the mainland.



Best part of your job?

SN - Developing new techniques and establishing new methodologies for office.

ZS - Well I love everything about my job; all the daily duties interlink. The surface observations are my favourite and I enjoy seeing how quickly the weather, and clouds / sky, changes, and we often experience all seasons in one day. Becoming proficient in my duties, particularly with the synoptic coding, is very rewarding.

JB - The best for me is knowing that the work I do here is contributing to the global community for forecasting and modelling weather. Also the view from the office is amazing!

What do you miss most from home?

SN - my nephew.

ZS - I miss my whole family, mostly my son though.

JB - I really miss my family, friends and church. Also fruit ... fresh fruit.

Favourite book?

SN - "To Kill a Mockingbird" by Harper Lee.

ZS - "The Only Way is Up" by Carole Matthews.

JB - Probably Harry Potter. Possibly "Tuf Voyaging" by George R. R. Martin. Or "The Little Prince'" This is a difficult question... next!

Favourite movie?

SN - Pulp fiction

ZS - Gifted

JB - The Perks of Being a Wallflower

Favourite food on the island?

SN - Braaivleis

ZS - Samp and beans. This reminds of home, my dad and son always appreciate me preparing it with a smile.

JB - Spaghetti bolognaise

Favourite animal and why?

SN - Macaroni Penguins, got to spend a day helping the field assistants with weighing, learned a lot regarding their behaviour and relationship with the environment they inhabit.

ZS - Wandering Albatross. This bird survives all the extreme weather conditions of Marion patiently waiting for its parent to feed it. It has inspired me to remain rooted and unshaken in my position through the storms of life. There's always light at the end of the tunnel and difficulties only prepare us for better days.

JB - The skuas are my favourite. They are super intelligent, good looking and curious. Also, they gave me my nickname which has stuck.

Describe your hardest day on the island so far…

ZS - My first long stretch to see a leopard seal which had already left by the time we got there was probably my worst. Half way there I was very tired; the hiking and mires put a lot of strain on my legs and the wind and snow didn't help. There was a time where I couldn't feel my feet and the thought of still having to walk back to base was draining.

JB - My toughest day so far has probably been when my knee started giving problems and I couldn't continue on an adventure but had to hobble back to base instead. It took a lot longer than it should have to get back and my leg was in pain but I made it and I'm still keen to get out.

Describe the island's weather in three words…

SN - Wet, cold and windy

ZS - Inconsistent, gale and snowy

JB - Unpredictable, inconsistent, entertaining

What do you like most about base?

SN - What I like about base is that I'm constantly in contact with family and friends

ZS - My room which has the most beautiful view of the island and the ocean.

JB - Running and warm water, cooked meals and good company

What do you like most of being out in the field?

SN - Out in the field I get to see nature's wonders and relaxing after a long walk outside.

ZS - The exposure to such a pristine island, seeing all the beautiful plants and animals, appreciating their uniqueness and hearing about what the field workers do under harsh conditions is very refreshing.

JB - The fresh air, nature sounds (or quiet rather), beautiful landscapes and awesome wildlife

Which hut do you like most and why?

SN – Killdalkey hut is my favourite, I was part of the hut restock; taking supplies with the helicopter

ZS - I am not yet in a position to compare huts as I have only been to Kildakey Hut but I loved it. Kildalkey Bay with its lovely Macaroni Penguins was great and I had so much fun and captured every moment

JB - I've enjoyed all of the huts I've stayed at. Cape Davis has a beautiful setting but I'm hoping to get to the huts on the other side of the island

Would you have packed any differently with the knowledge about the island that you have now?

SN - I wouldn't have packed differently if I got the chance, all my needs are met

ZS - I can't really say if I would have packed differently. I have mostly everything I need; I did my research before coming to the Island and have no regrets.

JB - Everything we need is provided; but I would have brought more pictures and stuff to personalise my room

Any advice for future Marionites?

SN - Don't binge watch all your series in the first few months… you should save some for later.

ZS - Marion is a wonderful place and it's a privilege to come here. Isolation is not child's play; be psychologically prepared and bring your best attitude. You will have to do some introspection and get to know the real you but remember to explore, appreciate and enjoy every second of your time here and please bring a camera to capture and preserve every moment.

JB - Don't mind the weather ... there's nothing you can do about it and it's usually not as bad as it looks. Spend as much time as you can outside but bring/have something good to do indoors as well.

Keep up the good work! And remember, you are truly special to all of us.

PICK OF PICS

A Killer's view...

Killer Whale

Orcinus orca

"Hi there..."

Elephant seal
Mirounga leonina

Will you accept this pebble?

Macaroni Penguin
Eudyptes chrysolophus

How EGG-ceptional!

Brown Skua
Stercorarius antarcticus

Wanderer's Meet

Wandering Albatross
Diomedea exulans

Experience the Natives

species of the month...

- Marike Louw

Plant of the month: *Acaena magellanica*

If you had joined one of the botanists on their field work a couple of months ago, you would have witnessed them hovering over a shriveled-looking mess of a plant with concern plastered on their faces. All over the slopes of Marion Island, *Acaena magellanica* looked like it had all but given up.

Perhaps it was one too many years of "four seasons in one day" weather, and the low growing plant with its creeping stems had withered dramatically out of life.

But now, with the arrival of spring, burgeoning greenery on the slopes mark an incredible resurrection. "Oh!" the plant-loving individuals cry in surprise. "Oh no…" other fieldworker individuals remark fearfully. Their trepidation is not unfounded, for this clever plant has an uncomfortable trick for seed dispersal.

They sport lovely red flower heads during Spring, but these quickly metamorphose into sinister, circular prickly clumps. All over the slopes, it looks like tiny sea urchins have placed themselves on stalks to hover above the vegetation, swaying gently or chaotically according to the moods of the wind.

But crawl through a sea of these guys and you'll come up covered in long, pokey seeds that refuse to relinquish any hold on any item of clothing.

Consequently, if you are with another fieldworker, you will sit like baboons at the top of the slopes picking each other clean from these devilish fiends. Not even the birds are spared from the hooked seeds. But if you had been travelling alone and walk into a hut at the end of a long day, you can expect to be greeted with the comment, "Ah, I see you have had a run in with some Ass-cena…"

Fun facts!

- *A. magellanica* is in the same family as garden roses, Rosaceae.
- Apart from creeping along other sub-Antarctic islands, this plant can also be found at the tip of South America.
- Its common name is *buzzy burr* but no one has ever uttered this name during our time on Marion Island. We prefer "Ass-cena" due to its nature of making life uncomfortable for the innocent fieldworker.

Photo credit: Elsa van Ginkel

The Day-Walker

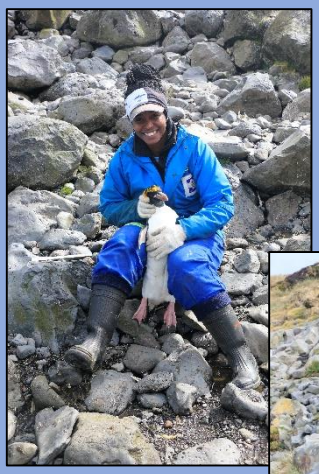
- Oyena "Oyster" Masiko

A very rare sighting of a Leucistic King Penguin occurred at Log Beach on the 15th of this month and as you can imagine, all the bird fanatics were pretty riled up and so we put our gumboots on and missioned to go see this beautiful creature ourselves. The face, the flippers and the back were all white as opposed to the usual black. Some researchers call this genetic anomaly Leucism, others Isabellism and well the rest just Albinism…me? I just call it *Bad-Ass*. After doing a little digging, I found that the last recorded sighting of a Leucistic King on Marion was in November of 2007 at the Kildalkey Bay King Penguin colony (which also happens to be second largest King Penguin colony on the island). Needless to say, this was an amazing sight to see, definitely worth the 4-hour return walk to go find it.

Macaroni Penguin Weighing

- Oyena "Oyster" Masiko

Male and female Macaroni Penguins are weighed immediately upon arrival at the start of their breeding season. They are weighed using a strop that hugs them around their flippers and are thereafter marked with a harmless colorant to avoid re-capture. The culmen length and depth are also measured in order to determine the sex of each individual. This is usually done at Bullard North where the birds are caught using a birders' crook (the most majestic piece of equipment a birder can possess, see picture below). The males arrive before the females and, naturally, are the first to be weighed (usually in the first week of October each year). The females then arrive (and are weighed) approximately a week later and, after yet another week post their arrival, egg-laying usually occurs.



Stappersgedagtes...

treë van sweet
vlae van reën
grou berge
bespikkel met groen
trap sirkels
in tuimelend
die visioen.

Somerbevlekte dae
gekamoefleer met winterswapens
grade van koud –
dansend benoud

dae nou lank,
Ure oortol,
gedagtes druis tydsaam
teen die helm se muur.

Elsa van Ginkel

My favourite piece of equipment...

Versatile stick — important work equipment for sealers on Marion Island.

Unlike the normal walking or hiking sticks, versatile sticks facilitate three important roles for the sealers, who spend a lot of time out in the field handling very vicious animals.

First, sealers utilize versatile sticks for walking to attain balance against resilient winds and/or when they are traversing narrow streams around the Island.

Second, sealers use versatile sticks as protective tools to intimidate animals, often when conducting seal census work.

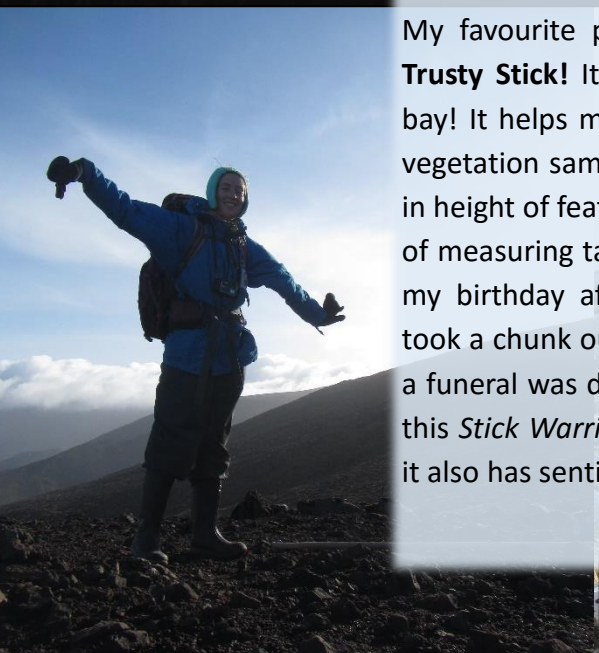
Third, versatile sticks are used by sealers to achieve the photogrammetry work, which is defined as the art of science that entails estimation of animal's weight and length by interpreting photographic images. In so doing, two sticks demarcated with distance measurements are placed next to the organism of interest to estimate the dimensional coordinates of points on the animal and subsequently taking photographic images from different positions.

- Welly Qwabe

I have to agree with Wellster…

My favourite piece of equipment is also… **The Trusty Stick!** It's an extra limb! It keeps seals at bay! It helps me scuttle over hills! I use it in the vegetation sampling plots to measure the change in height of features within the plots - with the aid of measuring tape. I was given the Trusty Stick on my birthday after the black lava at Santa Rosa took a chunk out of my original stick *Ranunculus* - a funeral was duly held at Grey headed in July for this *Stick Warrior*. May it rest in peace. Therefore it also has sentimental value.

– Marike Louw

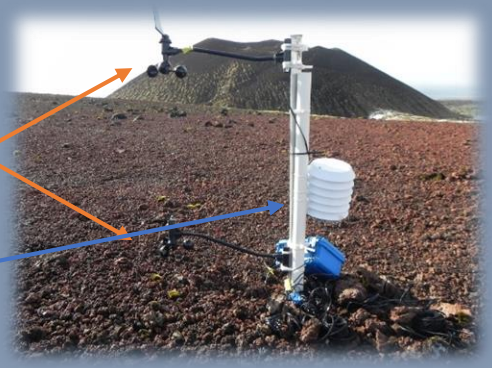


Mini Automated Weather Station

- Abu Nguna

Geo back with a relatively high-tech piece of equipment that I like and use for my field experiments. It's a mini Automated Weather Station - a *Pace Scientific data loggers and sensors-product*. In the photos you will see a blue case, which is where the loggers are stored to keep them nice and dry because Marion Island has perennial rainfall.

a) The 3-cup anemometers are responsible for recording wind velocity. On both my study sites (Mesrug and 3rd Sister) we have an upper and lower sensor to monitor the differences in wind velocity at different heights and the dominant wind direction.



b) Radiation screen with a temperature sensor. The radiation screen protects the sensor from recording solar radiation because we are mostly looking to record/monitor ambient air temperatures.

c) The tipping rain bucket records any rainfall events that occur. It comes with a mechanism that resembles a see-saw, where every raindrop is recorded by the tipping of the "see-saw".

...and every second month, on a good, sunny and rain free day, I get to download all the data and clear the buffer and reset the logger and start logging the data for the forth coming months. The data is logged at an interval of 5 minutes - now you can imagine how much data is being recorded!

Farewell, furry friends!

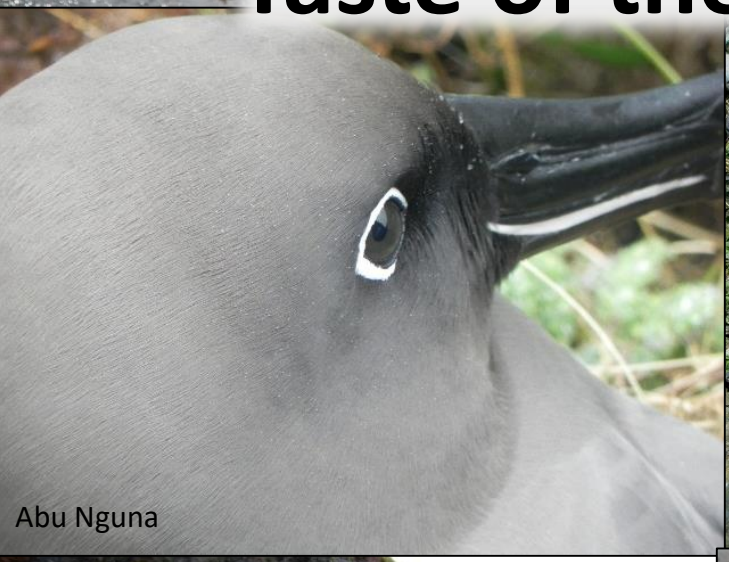
- Liezl Pretorius

Unfortunately we had to say “Bon voyage!” to the Subantarctic fur seal pups that we have grown so fond of. At 10 months’ of age, they have finally weaned and are now braving the big Southern Ocean to find their own food. The island is markedly more quiet and we miss seeing them play in all the rock pools around the island. Good luck little ones, we hope that you have a successful time out there and hope to see you back at the island again sometime!

Taste of the Island life

Welly Qwabe

Elsa van Ginkel


Abu Nguna

Marike Louw

Elsa van Ginkel

Elsa van Ginkel

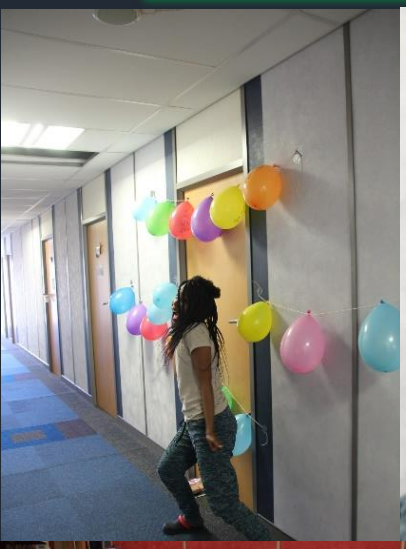
Welly Qwabe

Breeding season mayhem!!!

- Liezl Pretorius

The Southern elephant seal breeding season was in full swing during October and kept the sealers busy trying to read all the moms' tags, tagging the new generation with the brand new Blue-Blue tags and weighing some of the weaned pups. The beachmasters have also kept us on our toes by fiercely protecting their harems. On the 15th – 16th of October, the maximum haul-out for the elephant seal breeding season, the sealers circled the entire island to do a total island count of every single ellie on the beaches. It was great fun and one of the biggest harems was at Funk Bay, with 58 females. It has been a crazy month, but we loved it! These are truly phenomenal creatures and it is a privilege to experience this part of their life cycle. A lot of the pups have now weaned and are lazing away some time on the beaches, getting ready to brave the big ocean soon and the moms have left to feed before moulting season. Good luck, we wish you all the best!

OCTOBER BIRTHDAYS



Dineo's Pyjama Party

Celebrating Welly's birthday

What's up with this Weather?

... recording the rainfall...

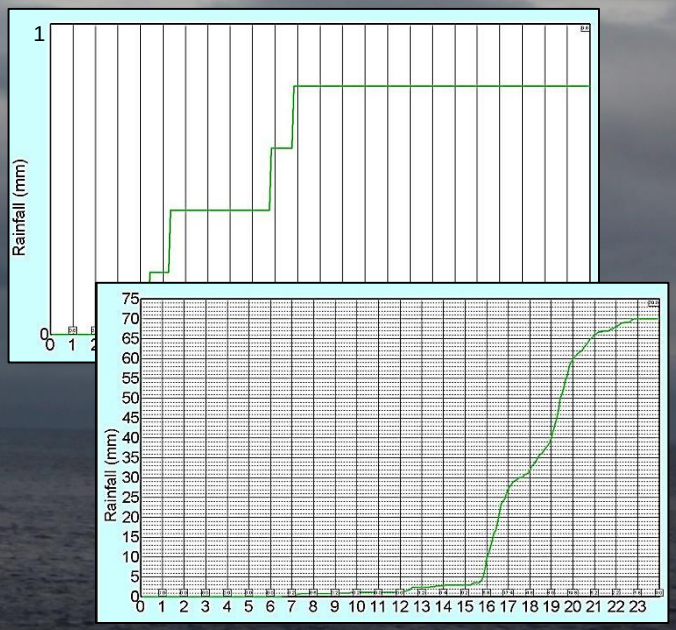
- James Burns

We have, at last, been able to see a clear change in season and the month of October has blessed us with a number of scorchers (reaching up to 12 degrees on a few occasions!). We have switched over to thesummer sunshine chart and the days have continued to stretch; it's become harder to sleep late with rays of light sneaking through closed blinds. Although the wind chill outside still encourages one to wear a number of layers for the most part, certain areas in base with large windows (especially the braai room and tunnels) are fantastically comfortable. The first half of October didn't see too much rain but a number of showers later in the month made up for this. We also had a few snow days and, while much deeper at other places around the island, we didn't get much more than a dusting at base.

For this month's edition of the Wanderer we'll be looking at how we measure rainfall. It is true that during our regular observations we do report, as the present weather, if it is raining, whether it is continuous or intermittent and also whether it's light, moderate or heavy rainfall. These observations are quantified, however, by our automatic rain gauge which is one component of the automatic weather station we maintain here on the island. Like the sunshine recorder, this device is genius in design; although, not entirely as independent, it requires the flow of electricity.

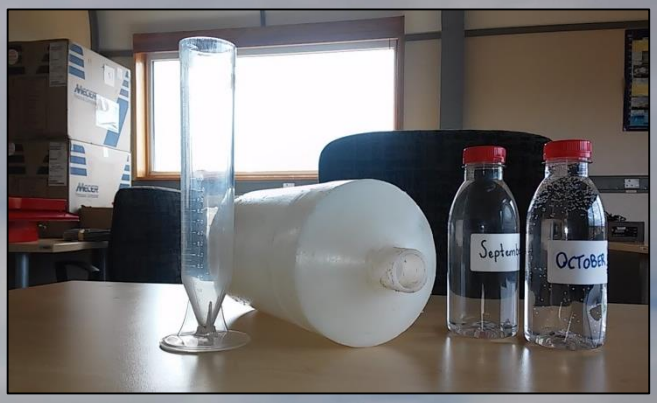
Now I will try not to get too technical (not that I am by any means an expert) but here's how it works. From the outside it doesn't look very different from the manual rain gauge standing next to it; it is also cylindrical and has a catchment funnel for the incoming precipitation. The main component is the internal tipping bucket positioned directly under the funnel.

Two adjacent compartments or "buckets" form a type of see-saw. The size of the buckets are such that after filled with 0.2mm of rain, the see-saw tips causing the second bucket to fill as the water from the first bucket drains out ... Simple enough.



What's up with this Weather?

So now we know that each bucket gets 0.2mm of rain before it tips ... great ... how does that help us? Well the trick is knowing when or how often the bucket tips, essentially how many times it tips. Here is where it starts to get more complicated. Important to understand here is the concept of continuity; when a (closed) circuit allows uninterrupted flow of electrical current, it is known to be continuous. Each time the bucket tips, the circuit connecting the rain gauge to the control box is momentarily closed and there is continuity. This brief "ping", so to speak, is registered as 0.2mm of rain by our software. To elaborate, the more pings, the more rain and the faster the pings come, the harder it's raining. And that's how we know it's raining without getting wet!



One of the main issues we encounter with this piece of equipment is that it only works in 0.2mm intervals. This become problematic when there is, for example, 0.5mm of rain or if, perhaps, it is drizzling; you'd only be able to record 0.2mm steps instead of the continuous precipitation. For the most part though it is fairly accurate and each morning, after measuring the sea-surface temperature, we collect the rain from the manual rain gauge and can compare the amount with what the automatic gauge has reported for the previous 24 hours.

SAWS MONTHLY WEATHER STATS – October 2018

TEMP	MIN	MAX	AVERAGE	AVERAGE LOW	AVERAGE HIGH
	-3.3°C	16.0°C	5.6°C	2.6°C	8.6°C
PRESSURE	MIN	MAX	AVERAGE	HUMIDITY	AVERAGE
	979.7hPa	1027.8hPa	1011.7hPa		83%
RAIN	TOTAL	DAYS WITH RAIN (>1mm)		MAX IN 24 HOURS	
	134.2mm	17 (9)		78.4mm (30th September)	
WIND	MAX	DIRECTION	SUNSHINE	TOTAL	
	146km/h	SW		107.6 HOURS	

South African Weather Service

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