



The Wanderer

MARION ISLAND 67TH OVERWINTERING TEAM

Augustus 2010

Disturbing the waters - Cobus Cronjé

A tranquillity descends over everything once a team has settled into island life. Separated from all we once knew by thousands of kilometres we had set about our daily tasks on Marion, almost not realizing how accustomed we had become to being so utterly undisturbed, albeit for only a short few months. It was very strange to see the SA Agulhas after our isolation, and I was surprised to realise that the ship was sailing into what I suddenly and inexplicably considered to be M67 territory.

The August construction voyage brought many changes. The few days of anchoring were filled with work and preparations for the construction period ahead, leaving little time to ponder these changes. Now that construction of the new base is running smoothly and the Agulhas is home safely, it is time to take stock of what has changed. The island is now home to 69 people, including the construction team and support personnel. We have also welcomed two new team members, Greg and Hugh.

Sadly, we had to say goodbye to our team mates Matt and Lourens, who both had to leave us due to injuries preventing them to do field work. It is no easy thing to say goodbye to a fellow Marionite,

especially when it is not the time to do so. Many islanders far more skilled than I in the art of writing have tried to explain the bonds that form between people who come to this place. I can only add that they are deep, profound and lasting.

Besides the regular contributions to this newsletter, there are many things to read about the exciting but busy time ahead for the field personnel, as well as many photographs for those who keep begging for more images of Marion.

A note on the weather statistics is necessary. The minimum temperature recorded does not accommodate for the wind chill, which often leads to temperatures 10 °C colder than the recorded minimum. This temperature is known as the apparent temperature, and is mostly what is experienced on Marion, owing to the strong winds prevalent throughout the year.

Enjoy this issue and feel free to contact us with any suggestions on how to improve our news to you.

**Marion Base
telephone number**

021—405 9460



Ave Max Pressure	1016.4 hPa
Ave Min Pressure	1002.1 hPa
Ave Pressure	1009.6 hPa
Max Pressure	1029.4 hPa
Min Pressure	981.5 hPa
Ave Max Temp	6.6 °C
Ave Min Temp	2.1 °C
Ave Temp	4.3 °C
Max Temp	11.0 °C
Min Temp	-2.1 °C
Ave Humidity	83 %
Max Humidity	100 %
Min Humidity	55 %
Max Wind Gust	35.0 m/s 126.0 km/h 69.8 kt
Total Rainfall	166.8 mm
Highest in 24 Hours	39.4 mm
Total days with rain	27
Total days > 1mm	21
Total Sunshine	85.1 hrs

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A fear of lightning

- J.K. Davis

I clenched my fist, squeezing the excess water from my sopping gloves, and pondered the futility of this exercise considering that I was soaked to the bone. We were walking from Swartkops in misty, rainy weather, and having munched on some much needed snacks in the Rooks hut. We were back on the path that climbs steeply up the escarpment then across to Grey Headed ridge. The thick, dark sky above rumbled ominously. I took that opportunity to look back over my shoulder and tell Barend and Tristan of how terrified I am of lightning in the field.

Where exactly this fear stemmed from I am not sure, but my theory reaches back to when I was a young child of four or five. I remember enduring numerous extremely loud lightning storms hiding on my bedroom floor, clutching my teddy bear for dear life, terrified of the thunderous explosions and bright flashes raging war outside! This truly traumatic experience perhaps distilled a deep-seated fear within me that I continue to carry today.

The little four year old in me trembled slightly as I bravely began the climb uphill towards the source of all my fear. Within seconds we were in the centre of the storm, with lightning touching down all around us, followed rapidly by the deafening roar of thunder. Lightning on Marion, which is supposedly rare, can be rather pretty as it is pink for some

reason and the very air itself can have a pink hue which is lovely to experience... from a distance.

Now slightly too close for any comfort whatsoever, I stopped in my tracks half-way up the escarpment and, with my inner four year old getting the better of me, I refused to go any further. The guys urged me on, so with heart rate rising, and body trembling, I walked up a few steps amidst the cascading sounds of crashing thunder. That's when it happened.

Where the lightning bolt hit we can't be sure, but all I saw was a blinding flash of brilliant pink and white that enveloped my entire view, then an almost simultaneous explosion of sound! I literally collapsed to the ground and curled up in the foetal position amongst the wet grass (as if this would do any good). Barend had had a similar reaction, Tristan on the other hand, first jumped then dropped. Laughing one of those frantic 'I nearly died' laughs, I maintained my position flinching with every flash, cowering much like I did all those years ago on my bedroom floor.

After discussing our options, we decided to continue up slope. I could only manage a few steps at a time in between trying to assimilate into the ground around me. Reaching the three quarter mark I sat down and would go no further for I was sure that certain death awaited me! Barend took the lead

and sure enough, another very close strike hit which frightened him (and obviously me). The only one who seemed OK with our situation was Tristan. Clearly he never spent any time huddled on the floor of his room as a child!

I overtook the shaken Barend, and we continued our climb – totally exposed. We may as well have been on a golf course – on top of a mountain! I was terrified, but facing my fear – my mind was humming with thoughts. Still convinced that I could die at any second, a rather terrifying realisation, my very skin tingled with panic. I thought of my family, friends, my doggie, and even wondered in some twisted logic that if I thought less about being struck that I might not get struck at all. I cursed myself for not completing my Will. I remembered that story about the guy who survived a lightning strike because he was totally soaking wet, I thought it a good thing that I found

myself in a similar situation. This then lead me to think about my gumboots and how they might insulate me from the ground, and so I stopped using my walking stick, just in case I was on to something. Eventually, I started to accept that there was nothing I could do about it, and comforted myself with the thought that being struck by lightning on Marion wasn't a totally bad way to go. At least it would be quick, hopefully painless, and I'd be exiting with a bright pretty pink flash. How many people could say that? I gained confidence with every step I took and soon, with the storm further away, I was back to normal, but feeling as though I had cheated death somehow.

I don't think I'll ever forget my experience on the slopes at Rooks that day, and I'm undecided as to whether it has helped or hindered my fear of lightning. What I do know is that my Will is now in order, you know, just in case.

Oh well, it's just one of those things

- Yolokazi Galada

Sitting in my room, I was wondering what I'm going to write about for this month's Wanderer. Well... I could say something about being a first-time mom (had my first egg), maybe about how cute the Gentoo penguins are, perhaps about how I'm so terrified of the seals, about how the Albie chicks snap at me or the fear of one day being attacked and eaten by the gulls on

my way to Ship's. Also, I could always write about how fun it was playing Kings on my birthday... hmm! Well, seeing that there is so much happening on this island and we still have many Wanderers to come, how about this:

The story begins with two islanders (and gorgeous too!). One day one islander said to the other: "What do you think of a seven-day

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round island?" Number Two: "That sounds like a good idea". Off they went into the wild, where no man has gone with their wings flapping as they disappeared over the mist in search of the mysterious skua. The journey was a pleasant one until Mr. Mist and your honour, Mr. Rain, started creeping in. However, that wasn't going to spoil their fun and adventure... so they walked with their heads down, escaping

some of the whacking by his honour, Mr. Rain.

From a little distance they could hear the one and only Mr. River saying something they couldn't understand as they were unfamiliar with the language used. After not saying a word to each other for a very long time... Number Two asked: "Can you hear that?" Number One replied "YES!" They came closer, hoping to hear what

Mr. River was saying..."perhaps we should go up a bit, it does get better upstream" said Number One. Up... up... up... up and up they went.

Number Two: "What do you say we try here, (putting the stick on Mr. River)... or maybe not."

"I'm sure it gets better up", Number One replied. So they continued going up!!! Number Two thought "perhaps I could try hitting

Mr. River with my stick, it worked for Moses and the Israelites... hmm... maybe not". After hours and hours and hours (okay, just one hour) of walking... Number One said: "That's it, I can't go up anymore". After those words from Number One, we were not quite sure what happened. This is what we heard a few minutes later "Yeah! We did it!"

Little did they know...

Profile of the month



Name	Mia Elizabeth Cerfonteyn
Age	24
Hometown	Durbanville, Cape Town
Occupation in SA	Student, UCT post-graduate
Designation in Marion	Birder (PFIAO)
Favourite dish	Pancakes with lemon and cinnamon!
Favourite Marion moment	Hugging a Wandering Albatross.
Next hair colour	Depends on my mood, maybe blonde!
Best sci-fi movie ever	STAR WARS!
Coffee or tea?	Both! I love fresh filter coffee in the morning and some Earl Grey tea in the afternoon. In the evening I choose from a selection of mint, chamomile, ginger, orange and lemon tea.
What do you miss the most back in SA?	My two canaries, Mielie and Melkie, who are cute feathered bundles of joy.

How do you drink your coffee?

Usually with milk and 1/4 teaspoon sugar.

Favourite object brought to Marion

My down duvet! It makes me feel like I'm at home.

What do you sing when you are alone?

'Send me a song' – Celtic Women

'Colours of the wind' – From Disney's 'Pocohontas'

'Angel' – Sarah McLachlan

'Empty' – The Cranberries

Do you talk to the birds, and what do you say?

All birders talk to the birds, it's in the job description. I try to keep conversations light and interesting. Topics range from the weather, condition of the nest, condition/hygiene of the bird or anything new in its environment. I try to keep subjects relevant, as not to confuse the animals.

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Top: Cloud formations at Marion Island, owing their shape to the influence of the mountain peaks (Photo: Kari Schoonbee). **Bottom:** Sunrise at Cape Davis hut, with Boot Rock visible in the background (Photo: Cobus Cronjé).

Spring-time on Marion

- Linda Clokie

This has to be one the most exciting and busiest times for field workers on Marion Island. There is so much to do and see, but all you have to do is get out there. This is not always the most pleasant thing to have to do as the weather (which everyone knows) does not work in a field assistant's favour. Needless to say, the normal dinner table chatter on Marion goes something like "what a challenge" "I did it" "did you see" "wow, that wind" and so on.

And the reason we are here is to look, learn and listen (sometimes prod or tag) to the animals. The more you watch, the more one realises that the animals are playing out daily soapies. The difference is it is not shared with everyone - no flashing lights, no scripts just pure honest nature. Here are a few scenes from this week's episodes of Marion soapies' top favourites.

1. Probably the bravest is EV, the resident skua that arrived back on the island a few days ago, from who knows where, to claim his territory back. The claim came from the paddy's who have had the run of the island whilst the skuas move away for the winter months.

2. AAM, the resident macho male paddy who owns the base, has had to move to smaller quarters, which is below my little house on the point. All day, he patrols from his lookout outside my door. He has the advantage that if any predator comes by, he can duck under

the house or hide in the passage. Now AAM seems unable to make up his mind about which mate he actually wants. He has had 2 over the past few weeks and ABI seems to be the "flame of the moment", (will keep you posted). Needless to say he brings "the flame of the moment" to his lookout every day where they run up and down and S---T all over the place. Problem is, EV also likes to see what is going on around my house, and to my amazement in the past, I have seen AAM and EV standing together outside the front door. I wonder if they have some kind of agreement?! or is AAM just being a brave fool?!

As if that is not enough, the female elephant seals will soon arrive, and start giving birth to their 40kg monsters, the Gentoo penguin chicks are now getting bigger and forming crèches, the Northern Giant petrels settled down about 3 weeks ago and the females have laid eggs and the Southern GP's are about to follow their lead. The Sooty albatrosses are also starting to arrive slowly, so nice to hear their wonderful calls and watch their graceful flying around the cliffs at the beaches. Another expected arrival is the White-chinned petrels who can be heard each night just about everywhere one goes during their breeding season. They burrow sometimes up to 2 - 3 metres into the Blechnum slopes to make their nests.

But the most exciting spectacle is still to come next month, when besides the Killer whales arriving back, we await the arrival of

300 000 Macaroni penguins who within four weeks will walk out of the ocean and make their way back to their breeding sites. Two of the sites have over 100 000 birds who normally return to the same spot they use each year to meet up with the same wife they have had forever.

So for the next few weeks you can see that we will be busy enjoying the circle of life. If only people in the real world could just find the time and patience to admire these marvellous animal miracles we are so fortunate to be watching firsthand. But similar miracles also happen in one's own back garden. You just have to get out there and find them, and if more people took the time to do this, this world would be a far better place for us all!

We can only hope!!



A Gentoo penguin patiently sitting on the nest with its two adorable chicks.
(Photo: Kari Schoonbee)

Marion Landscapes Mires

- Barend van der Merwe

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Ah mires, certainly by far the most memorable of Marion Landscapes with its ominous undertones. Tales are abound considering its life-threatening characteristics with stories of entire field assistant teams vanishing in them without a trace being told to young Marionites by the seasoned old, usually after a couple of glasses of whisky. Ask anybody who has ever set foot on this island what his impression of a mire was and they'll most likely give the same answer as most, namely a profound negative impression (along with some colorful metaphors) related to a sinking feeling while crossing these landscapes.

Mires (a.k.a bogs) belong to a broad classification group related to organic rich soils (also termed peatlands) that form in certain specific environmental conditions. The classification of these peatlands can either be based on their chemical or hydrological characteristics (Mitsch & Gosselink, 2000). Chemically the classification scheme contains six categories namely minerotrophic (basically meaning that the chemical properties are influenced by water first moving through a mineral soil before entering the mire), ombrotrophic (receiving nutrients and minerals exclusively from precipitation), mesotrophic (intermediate between minerotrophic and ombrotrophic), eutrophic (nutrient rich) and oligotrophic (nutrient poor) (Mitsch & Gosselink, 2000). The last two terms are older terms used within the academic literature on the topic (Mitsch & Gosselink, 2000).

Hydrologically the classification scheme is based on the same precipitation/mineral soil source of water with geogenous referring to mires receiving their water from an outside source other than rainfall and onbrogenous referring to, you guessed it, mires that are only open to precipitation (Mitsch & Gosselink, 2000). What all of this tells us is that the main variable that determines the type of peatland that we are looking at is the source of its water. If we know this then we can infer quite a bit about the characteristics of the peatland system.

Pedologically speaking (another one of those fancy science words that merely refers to soil science) all mires are just soils that are almost entirely derived from the accumulation of the organic remains of vegetation that grows on its surface. Soils of this type are generically named peat or according to WRB (World Reference Base for soil classification) a Histosol (IUSS, 2006). Most peat forming systems contain two layers, an aerobic acrotelm layer, where the presence of oxygen speeds up the decaying process, and an anaerobic catotelm where the opposite occurs (Clymo, 1984). Owing to the high water content of the mires on Marion it can be expected that the acrotelm, in places where it does exist, will be extremely shallow in comparison to the catotelm.

As yet there is no map that depicts the distribution of mires on Marion Island so it is impossible to say for cer-

tain the surface area covered by this landform. There are, however, estimates as to the maximum elevation at which they occur which is approx. 300m.a.s.l (Smith & Steenkamp, 2001). It is also safe to say that mires form a significant component of the landscape below this elevation (approx. 50% according to Smith & Steenkamp, 2001) and as such deserve some attention from geomorphologists. Therefore a rough approximate of the total area of mires on Marion is 72.80km² (derived from the area calculations in Meiklejohn & Smith, 2008), or stated somewhat differently approximately 24% of the total surface area of the island (though it can feel a lot more than this when you are actually walking over the landscape).

But let us start at the very beginning. The key element in the growth of any mire is that organic material is added to the system at a faster rate than it is removed. Addition of material occurs as a result of primary productivity (essentially referring to the growth of plants on the surface) that produces the organic material, at this stage still living, that falls to the soil surface when the plant dies. Initial decay occurs mostly in aerobic (meaning in the presence of oxygen) conditions (Clymo, 1984). However, when anaerobic conditions occur in which oxygen is not readily available the decomposition process slows down (Clymo, 1984). The anaerobic conditions are due to the increase in the water content of the soil as

the subsurface water level continues to rise (Clymo, 1984). Therefore mires literally grow from the bottom up with new vegetation growing on the remains of the old. Combine this with the rising water table (the exact mechanism of this will unfortunately consume many additional pages), which slows down the decomposition of the underlying layers, and you get a soil that progressively deepens as long as new material is added faster than it is lost.

This 'growth' of mires takes a very long time and since they are built up of the organic remains of vegetation they are ideal candidates for carbon dating. In 1985 carbon dating of peat cores on Marion Island was undertaken (Scott, 1985) and a peat sample collected at a depth of 600cm in the Kildalkey region was dated to approximately 7300 years (Scott, 1985). To place this date into some sort of perspective remember that the Stone Age in Europe only ended approximately 4000 years ago. Other dates are 6930 years for a sample at Skua Ridge (130-140cm depth) and 5990 years for samples collected near Albatross Lakes (1353 – 363cm depth) (Scott, 1985). In other words the mires on Marion can be many thousands of years old, something to think about when you are walking across them. Just sinking have a gumboot into the mire can place you in contact with the remains of plants that lived half a millennia ago.

Another interesting fact about mires is how warm

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they are, relatively speaking of course. Data suggests that the subsurface temperature of mires never drops below freezing (Van der Merwe, unpublished data) even when the above ground temperatures are below freezing. Furthermore they are remarkably stable and experience precious little fluctuations between seasons as well as between day and night, with night time temperatures sometimes being warmer than day time temperatures. Yet it must be mentioned that you do see a clear seasonal pattern even to a depth of 70cm (Van der Merwe, unpublished data).

From a geomorphological perspective there are still a number of key questions that need to be addressed regarding mires on Marion.

One of the key questions is how the mires contribute to the overall hydrological behavior of the landscape. Their presence and water retention capabilities within the catchment of the rivers have as yet unknown impacts in the overall hydrology of the island's rivers. Other questions relate to their formation in general, for example what the initial conditions were that started the peat forming process. Some basic work has been done on geomorphological processes acting on the mires of Marion, mostly relating to erosion and mass movement processes, but there are still a lot to be done.

Mires are an unappreciated element within the Marion landscape, often scoffed at and seen as near insur-

mountable obstacles to an already weary hiker. True their waterlogged nature and lack of secure ground underfoot do make them difficult to cross, but at the same time they do have research potential. From the study of pollen in the peat cores to the study of how they regulate the island's water supply these landscape elements are intimately associated with life on Marion.

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Dear Jean

- Jean Purdon

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With another month drawing to a close, construction and two new team members arriving, the sad departure of two old team members, life on Marion base continues. Due to the chaos of August and the start of the elephant seal breeding season time has been a major constraint. The most pertinent question was therefore answered, leaving the other less serious but not at all less important problems for next month.

Dear Jean

I was hoping that it would go away, but now I can't endure the discomfort anymore. I was not sure of whom to confide in so I decided to be silent about it. Now I'm realizing that it's eating me alive and sucking all the joy of being in this wonderful place. The problem started on my 1st round island. At that particular time it wasn't bothering me that much because the muscles were tortured and needed my attention. But after not going away for two months I started to worry.

I seem to have a leak... if you know what I mean? The problem gets worse when it's very cold. I'm scared that I might have caught an island bug. Whenever I'm in the field I can't get my nose to stop running... my fear is that this might affect my work because I then have to blow my nose every minute. I also fear that this might lead to some sort of deficiency as I might be losing a lot of fluids. I've even stopped carrying a handkerchief anymore as it seems to worsen the situation. And this has taken a toll on my gloves since I have to wash them

daily. Now I always walk behind the person with me in the field as I don't want the... you know what... splashed all over my field mates. Doctor, is this normal or should I be worried? I know I should be seeing the medic for this but I can't bear the embarrassment of my nostrils being exposed. Please, Jean, help me!

Yolo

My dear friend Yolo, your nose is an amazing complex organ, which enables you to experience the wondrous smells of this island. Penguin colonies and their foul stench excluded of course!! Your nose, surprisingly enough, secretes almost a liter of mucus a day which helps to warm up the incoming air as well to act as a filtration device. All this mucus needs to

go somewhere, and that somewhere is the back of your throat, resulting in the average persons swallowing nearly a liter of mucus a day! Cold weather (even a temperature change of just a few degrees), results in the dilation of many tiny blood vessels of your nose which are situated underneath the mucus producing glands. This increases the blood supply to your nose protecting it against the cold, but also increasing the quantity of mucus. Due to the excessive amount of mucus produced in cold weather the excess needs to be released in one way or another. The only option is for the excess to exit through the front of your nose. On Marion Island especially out in the field this may be done by employing the tactic

known as the "Marion Blow". It is, (note, only on this island) a highly accepted practice, and there is no need to feel ashamed! Just check the wind direction and your field mate's position before you do, or as you say, splatter may occur! As for your gloves, with the amount of rain that precipitates on this island, I'm sure with every round-island they will be washed clean with beautiful fresh rain water. Do not be alarmed about fluid loss or any sort of deficiency, you will be fine! So this is a very normal occurrence for all of us in this cold sub-Antarctic environment. I hope this has helped you out, and until next month keep soldiering on Marion 67, breeding season has arrived!!



Elephant seal under-yearling (Taken by Jean Purdon)



Clockwise, from the top left: The SA Agulhas sailing into Transvaal Cove (Photo: Kari Schoonbee); Barend (centre) saying goodbye to Lourens (left) and Matt (right) (Photo: Kari Schoonbee); Our chef, Oom John (left), celebrating his birthday, seen with Pierre (centre) and Hennie Smit (right) (Photo: Cobus Cronjé); M67 waiting for the first flights from the SA Agulhas (Photo: Kari Schoonbee) .





Clockwise, from the top left: Sleeping fur seal pup (Kari Schoonbee); A King penguin under a waterfall (Jean Purdon); Female fur seal (Jean Purdon); An adult Wandering Albatross, appearing to be yawning whilst being talked to by Mia (Kari Schoonbee); An adult Skua recently returned to Marion (Cobus Cronjé); A killer whale catching a fur seal pup, with Giant Petrels floating in the background (Jean Purdon); A sheath-bill or Paddy, characteristically standing on one leg (Jean Purdon).

