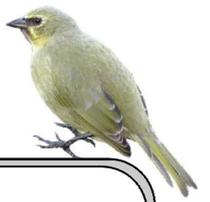




# **HAPPY MIDWINTER 2010**

From The Gough Island Expedition Team  
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# GOUGH BUNTING



## Photography on Gough Island

Gough island is an incredibly beautiful place. No amount of storytelling, photos or videos will ever be able to fully explain the true beauty and essence of the Gough experience, but photography is at least a fun way to try and capture some of the islands beauty.

Photography has evolved dramatically over the years. In the days of film photography, islanders had to bring hundreds of rolls of film to the island. Photos could be developed in the darkroom on the island but all the chemicals and paper had to be brought with as well. Even then, with so many pictures taken, one would bring back most of the film for developing back home, hoping that the photos came out as expected.

With digital cameras you only need a memory card and a PC to collect thousands of photos. It is no longer necessary to wait until after developing to see if the photos you took came out right. Snap a picture, see if it's OK on the camera LCD screen and take a few more without worrying that you will run out of film. Developing the photos now happens in the "digital darkroom" with editing programs like Photoshop, Lightroom, Aperture and many others that makes adjustment and correction of photos a breeze. Printing these photos is lightning quick and inexpensive with modern photo printers.



*A collection of cameras on Gough island*

Photography is a fascinating and fun hobby to practice on Gough island. With so many things to photograph it gives the opportunity to experiment with different techniques and to really be creative.

To capture the landscape is a challenge. Big mountains, cascading waterfalls and sheer cliffs in a rugged landscape makes getting to the location for a photo no easy task, but the views of the island is truly a sight to behold. A good wide angle lens does wonders to capture the landscape and gives an idea of the scale of the terrain. Multiple images can be captured of a scene and stitched together to give an even wider or even a 360 degree view of the terrain. Using software like Pano2VR or similar panorama software, these panoramas can even be used to create an immersive view of the environment allowing one to view the landscape as if you were there.



# GOUGH BUNTING



With the use of telephoto lenses, combined with wildlife that is oblivious to a human presence, some truly spectacular photos of the wildlife on Gough can be captured. Seals will just give lazy glances to passersby and birds will continue their displaying and courting, unperturbed by someone snapping away a few quick photos. Sometimes the inquisitive birds will even come up close to investigate the photographer and start nibbling or preening the strange creature with the camera.



*A fur seal pup lazing around*



*A spiky Albatross chick after a rain storm*

Even the smallest detail in the plants can present great opportunities for photography. Getting down on the ground and up close to plants and insects opens up a new world waiting to be photographed. Details barely visible to the naked eye can be captured using macro lenses and enlarged to see the unseen on the island.



The islanders themselves also make great targets for avid amateur photographers. No party or celebration is complete without at least a team photo and individuals need to constantly pose for a photo.

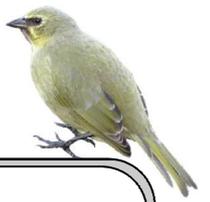


*Liverwort spore cups close-up*

The sights and experiences on Gough island presents endless opportunities for a photographer to play and practice. The end result is the capturing of thousands of memories that will later be looked at with much reminiscing and longing for the old days.

***Llewellyn Kriedemann***

# GOUGH BUNTING



## A Tradition Continues



Top left to right: Martin helping with Bunting capture, Martin holding a wandering albatross, Llewellyn and Martin heading into the mountains to help with bunting capture.

Middle: Martin helping with aviary construction, Llewellyn with a load of Buntings, Martin and Gough's gentle wind, Martin and a nervous albatross.

Bottom: Llewellyn and Martin helping with Bunting capture, early stages of aviary building, Martin wrangling penguins.

Gough Island is widely recognised as being critically important to seabirds. For this reason, it has been the focus of decades of conservation research and is a highly sought after destination for many conservation biologists. However, the isolation of Gough and the single annual ship visit to the island has limited the number of researchers over-wintering due to the time and/or funding required.

Fortunately in the absence of biologists there has been a strong tradition of members in the overwintering team volunteering their time and getting out and amongst the amazing birdlife to gather valuable data. This effort has contributed greatly to the conservation knowledge over the years.

The best example is the Yellow-nosed albatross colony that is a short five minute walk from the base. This colony has yielded a great amount of insight into these majestic birds over a 27 year (and counting) study. The grand majority of these years there were no biologists on the island so medics, metkassies, radio-technicians or diesel mechanics visited the colony regularly and ringed the chicks at the end of the breeding season.

# GOUGH BUNTING



Last year Henk Louw and Paul Visser had help from many members of their team in their tasks. In previous years medic Petrus Kritzinger (two overwintering trips to Gough) and Kholekile Cita have greatly assisted Cape Town University researchers by collecting valuable data on different albatross species and on Gough Buntings. Martin Slabber, a Radio Technician, also helped with tasks far outside his regular brief. It would be a long list to name all of the people who have had fun getting out and about in the beauty of Gough Island's permanent avian residents to help gather important data.

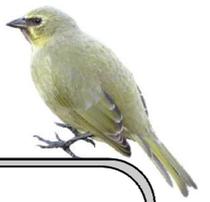
Fortunately this year is no different. Kalinka and I are extremely fortunate to have the opportunity to conduct research for a year on Gough Island and to be hosted by DEAT in our work for the Royal Society for the Protection of Birds. Our job list has been huge and although we have kept busy, we never would have achieved what we have without the help of team members. It is important to us to thank Llewellyn Kriedemann for being a courier of buntings from the mountains back to base twice now -certainly delicate cargos on a two hour walk. He also weighed and counted seal pups and penguins AND brought his technical abilities to the table, inventing several different mouse-catching machines. Leon Keyser also helped us with a couple important aspects of aviary construction.

But the help of Martin (aka Mutton) the metkassie has been (and continues to be) massive. Martin has been bitten by a number of birds, vomited on by albatross, covered in mud, beaten with penguin flippers, dive-bombed by skuas, played waiter to birds in aviaries, counted moorhen calls, dispatched mice, shredded his fingers and strained his wrists building aviaries, held up dead things for photos, weighed wriggly seals and angry biting penguins, successfully stalked and caught buntings, investigated seabird burrows, shovelled mud, scraped Scirpus and smiled most of the way through it all to help us with our conservation research. Martin has contributed substantially to our work on Gough, work that will hopefully help secure the future of the island's inhabitants.

Few people get to live in a World Heritage Nature Site, yet the few of us who over-winter each year on Gough Island get to wake up to abundant natural beauty and uniqueness every day. Long may the tradition of team members volunteering their time to conservation research continue.

P.S. The other advantage of Martin helping us so much is we can continue to argue about who the greatest rugby team on earth is. He keeps trying to convince me it's the Springboks whereas I'm certain it is obviously the All Blacks!

*Graham Parker*



## Nature Notes

It's clearly winter - rain and wind have taken over. The odd bit of hail, a light snow-dusting on Mt Zeus and some surprisingly chilly days have finished off the bracken, which was starting to die down last month. Now the hills have gone brown and even rainbows are a bit rarer, with less sun poking through the clouds. The days are as short as they get on Gough – all the more reason to stay cosy in the base while the weather rages.

But although it seems that things are slowing down, life goes on. Sagina, the wee invasive plant pest, is still growing merrily – it's supposed to stop in winter! Moorhens still chase each other and cackle loudly all through the lowlands. This year's moorhen chicks – wee black fluffballs in January - are starting to get red shields and yellow legs, looking like smallish brownish adults. In the hills, buntings still wake you at the crack of dawn with their amazingly loud chirruping. Atlantic and Grey petrels are still rushing in to the island each evening to feed their chicks and Broad-billed prions occasionally show up and make a ruckus. Every so often we hear a Kerguelen petrel (*Lugensa brevirostris*) yelling his heart out, crackling cacking and hooting in a most un-tuneful way, presumably hoping that some other brevirostris will hear him.



*Kerguelen petrel*

Kerguelen petrels are big, loud, strong and awfully cute-looking. Their huge eyes are set quite far back in the head and the tiny bill looks permanently smiley. To finish off the almost cartoon-like comic look, the forehead cuts off steeply, making the head seem even bigger. It's not just us - naturalists over time have noticed the funny forehead, with the *brevirostris* part of its scientific name meaning 'short-face'.

In short, life goes on while Gough's humans hide from the weather.

PS: If you'd like to hear a bit more about what Gough is like, some of the conservation work being done here and the seabirds vs. mega-mice story, we did a 15-minute radio interview on New Zealand's national radio recently. If you're interested in hearing the show, click on (or go to) this link and choose the show that aired on the 24th of June

[http://www.radionz.co.nz/national/programmes/ourchangingworld/programme\\_archive](http://www.radionz.co.nz/national/programmes/ourchangingworld/programme_archive)

***Kalinka Rexer-Huber***



## The Raingauge

A rain gauge measures the amount of liquid precipitation that falls. It can measure either rain or, with added steps, the liquid equivalent of snow. Placement should be away from any buildings, trees, walls or other tall objects that would distort the readings.

Here on Gough island we are making use of the Manual Standard rain gauge as well as the Electronic Tipping Bucket rain gauge. Both rain gauges have more or less the same principle going as to the shape of the outer collecting cylinder.



*Electronic Automatic Tipping Bucket Rain gauge*

A tipping bucket rain gauge has several components that allow it to measure rainfall accurately. It consists of a brass capped cylinder funnel with a diameter of 20cm. This funnel has a small receiver funnel mounted just underneath it.

As precipitation falls it lands in the cylinder funnel from where it travels down and passes into the receiver. The receiver funnel helps to reduce the flow rate for accuracy.



*Tipping buckets underneath the inner receiver funnel*

# GOUGH BUNTING



The rain travels down the receiver funnel and drips into one of two carefully calibrated buckets, balanced on a pivot. (like a see-saw)

Each bucket can only collect 0,2mm of water in order for it to tip once. Whenever the bucket has collected the calibrated 0,2mm of rain, it tips under the weight of the water. The water then empties down a drainage hole and raises the other to sit underneath the receiver funnel.

When the bucket tips, a magnet passes over a Reed Switch, which is at the back of the tipping bucket. When this happens, a break in the current occurs. This break in the current causes a pulse which is sent to the Automatic Weather station's logger, where it registers 0,2mm for each tipping of the bucket. Because the logger runs according to time rainfall rate, the frequency and the period can be determined.



*Reed Switch at the back of the tipping bucket*

The tipping bucket rain gauge needs 5 Volt DC to work. We use a multimeter to test if the rain gauge is working properly. If the current is being broken then 0,5 Vdc will be registering on the multimeter while it is raining. If the voltage is going from 0 to 5Vdc when the current is broken, then the Reed Switch is OK. If the Reed Switch is OK, then all the connections will have to be checked.

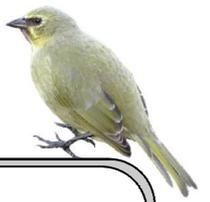
If the voltage is constantly staying at 5Vdc, even when the current is broken during a tipping, the switch is faulty and needs to be replaced.

The Manual Standard 127mm rain gauge consists of a copper collecting outer funnel which ends in a tube-like funnel pipe. The collecting funnel fits securely over a galvanized iron cylinder which is mounted on an iron tripod stand.



*Standard 127mm Rain Gauge*

# GOUGH BUNTING



This iron cylinder houses the collecting inner bucket.



*Inner bucket in the iron cylinder housing*

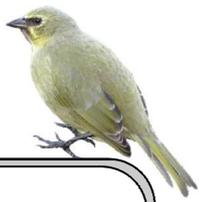
This collecting inner bucket is usually made out of copper or plastic. To prevent theft it is recommended that the outside of the rain gauge be painted to hide the beautiful copper which makes it so attractive for thieves. Fortunately, we don't have to worry about that here on Gough. ☺



*An evaporation disc and with felt underneath*

The funnel pipe must have an evaporation disc with a felt underneath. Water that passes through the funnel is collected in the bucket. The evaporation disc with felt underneath is necessary to avoid the evaporation of the rainwater, because it fits securely over the mouth of the bucket. Rainwater is then collected this way. A measuring glass is used to measure the amount of rainwater collected in the bucket manually.

*Daphne Hollenbach*



## Keeping Gough 55 Reading

Now that the days are shorter and the nights longer an even greater appreciation is felt by Gough 55 for the generous support of two groups:  
Many thanks from Gough 55 to Exclusive Books for their generous donation of many many great reads. We'd also like to thank Cape Town Library for continuing to let the SANAP teams check out books for a whopping 14 months. Great stuff.



*Graham Parker*

# GOUGH BUNTING



## Photo Synthesis



Presented here is a selection of photos taken by the team during their time here on Gough island.  
*Please vote for your favourite photo.*

Email: [gough@sanap.ac.za](mailto:gough@sanap.ac.za)  
Telephone: 021 405 9470

### Winning photo for last month

Inquisitive Albatross preening the photographer by Kalinka Rexer-Huber



# GOUGH BUNTING



*Moonlight glow*



*Inquisitive Bunting*

# GOUGH BUNTING



*Hungry Albatross Chick*



*Lightning storm at Gough*

# GOUGH BUNTING



## Pressure

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<b>Ave Max Pressure</b>	<b>1010.4 hPa</b>
<b>Ave Min Pressure</b>	<b>998.9 hPa</b>
<b>Ave Pressure</b>	<b>1004.7 hPa</b>
<b>Max Pressure</b>	<b>1025.3 hPa</b>
<b>Min Pressure</b>	<b>970.3 hPa</b>

## Temperature

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<b>Ave Max Temp</b>	<b>12.3 °C</b>
<b>Ave Min Temp</b>	<b>8.5 °C</b>
<b>Ave Temp</b>	<b>10.4 °C</b>
<b>Max Temp</b>	<b>14.6 °C</b>
<b>Min Temp</b>	<b>4.4 °C</b>

## Humidity

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<b>Max Humidity</b>	<b>97 %</b>
<b>Min Humidity</b>	<b>44 %</b>
<b>Ave Humidity</b>	<b>79 %</b>

## Wind

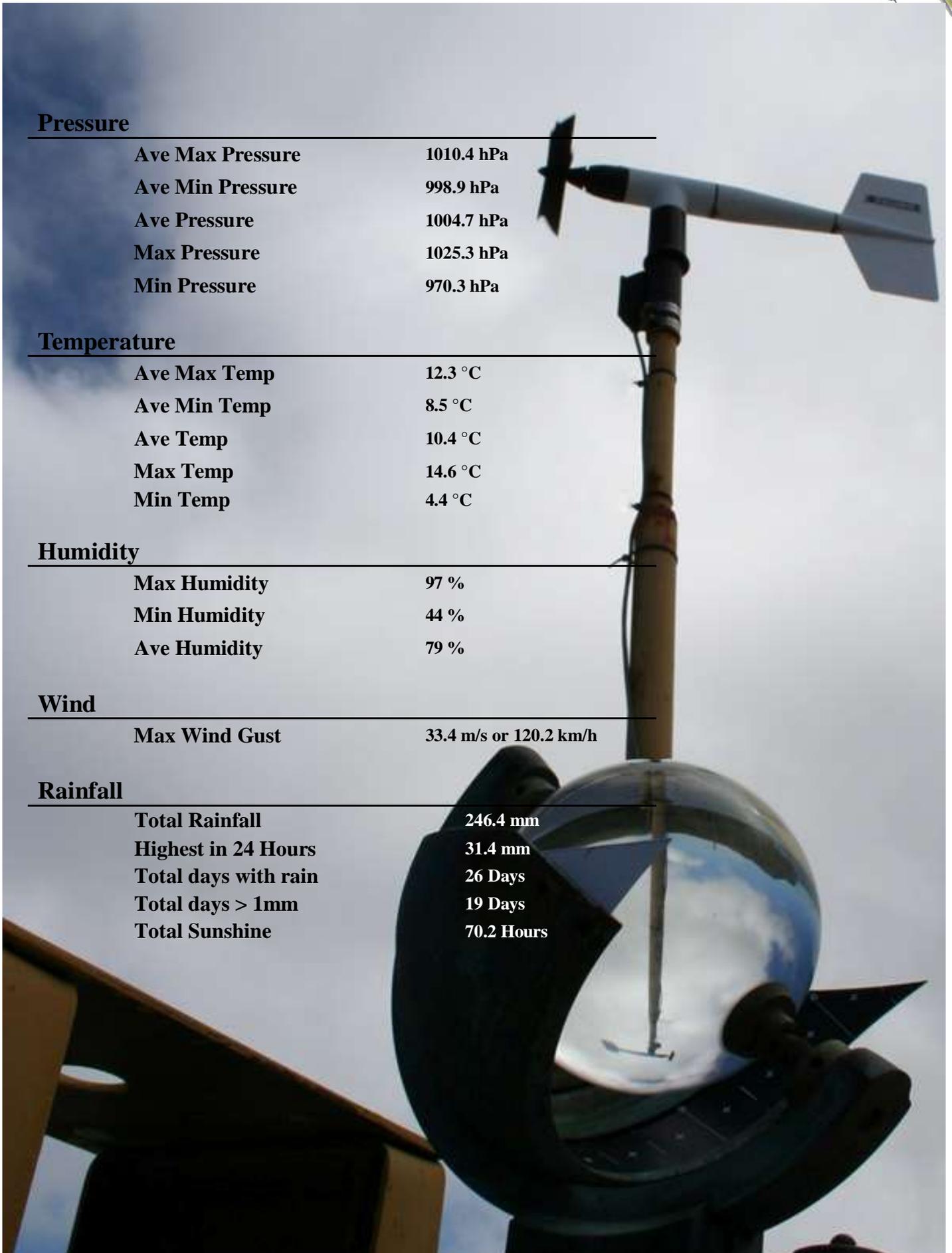
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<b>Max Wind Gust</b>	<b>33.4 m/s or 120.2 km/h</b>
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## Rainfall

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<b>Total Rainfall</b>	<b>246.4 mm</b>
<b>Highest in 24 Hours</b>	<b>31.4 mm</b>
<b>Total days with rain</b>	<b>26 Days</b>
<b>Total days &gt; 1mm</b>	<b>19 Days</b>
<b>Total Sunshine</b>	<b>70.2 Hours</b>



# GOUGH BUNTING



## Sponsors

We would like to thank the following sponsors for making life on Gough island even more exciting.

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