

## **Rebecca Attends Bangor Peatland Conference**

### ~ New contacts made to further restoration efforts in the Falklands ~

In the last week of June I was lucky enough to attend the Joint British Ecological Society and IUCN UK Peatland Programme Symposium 2012 'Investing in Peatlands – Demonstrating Success', held at Bangor University in Wales. Professor Jim McAdam presented a jointly produced talk about peatlands in the Falkland Islands - their origins, status and active conservation work taking place to help look after them, as well as future priorities.

alterations to drainage, overgrazing and land conversion. Investment in peatland restoration work is mainly being driven by concerns about reduced water quality, carbon storage and biodiversity. This is a noticeable shift to focus on the important services provided by peatland ecosystems.

A novel community project which was presented in a brief film. Artist Pip Woolf works with volunteers to trial felted wool as a geo-textile on an eroded area of upland peat.



The Round-leaved Sundew (Drosera rotundifolia) growing within a Sphagnum moss bog in Wales. The Sundew native to the Falklands (Drosera uniflora) is commonly found growing within Astelia bogs.

The conference really emphasised the need for cross-sectoral partnerships when tackling peatland conservation issues. In the UK this means, for example, links between water companies, conservation practitioners, university researchers, policy makers and landowners. In the Falklands we can similarly only make real progress in improving eroded sites by working in partnership with landowners and the government.

In the UK the major causes of peatland degradation are past and ongoing of the aspects discussed would be good to use as starting points for considering potential agri-environment schemes that suit the Falkland Islands. An insight into the emerging carbon market was also provided; this is a field that the Falkland Islands may want to investigate in the future.

funding

The last day of the

overview of how

work in the UK as

well as the EU. Some

structures

Before and after the conference there were opportunities to go on two extremely insightful field trips. I went to a site on Anglesey where calcareous fen is being restored and a site close to Bangor

where blanket bog has been successfully restored. It was immediately obvious how many different people need to collaborate to bring success to such largescale restoration projects. A botanical highlight at the fen site was seeing the rare Fly Orchid Ophrys insectifera for the first time.

The primary reason for going to the conference was to make contacts that should prove useful for Falklands Conservation's upcoming Darwin Challenge fund that will be investigating the use of

native seed mixes for re -vegetation of eroded peatland areas. We are currently recruiting for а project officer to work on the project, which will include: ~ Botanical surveys of revegetation



plots set up in 1998

~ Identification of sites for large-scale restoration trials

~ Intensive seed collecting of target species to be used in restoration trials

Over the course of the conference I made some useful contacts for this project and it is hoped that we can benefit from various collaborations. The conference also provided a good overview of the range of resources to hand which will be invaluable when planning the large-scale restoration trials.

Overall, the three days proved a rewarding and useful experience, raising the profile of Falklands Conservation along the way.



Cynthia with Graham Walters - leader of the Alpine House Nursery Team at Kew.

Cynthia Williams, an employee of Stanley Nurseries and Garden Centre of 15 years, has been involved in the Native Plants Nursery since early 2009. With thanks to the Shackleton Scholarship Fund, Falklands Conservation and Stanley Nurseries she was able to visit and work at the Royal Botanical Gardens Kew for a period of four weeks. Here Cynthia reports on her experiences:

After fifteen years another opportunity presented itself for me to work at Kew Gardens. My aim this time was to gain more specialist training in maintaining and developing the collection of plants we have here in the Falkland Islands Native Plants Nursery that was set up in November 2009.

Over the four weeks at Kew I worked with various specialists and have gained a variety of skills:

~ Practical and theoretical training about the conditions which are maintained in the Alpine unit that benefit the slow growing plants of the Falklands.

~ General plant cultivation, plant health hygiene and behaviour including a focus on invasive species issues.

~ Record keeping and labelling.

~ Different techniques using seeds and cuttings from mature plants without having any detrimental effect on the wild population.

~ Seed sowing, selecting cuttings, potting and re-potting, production of displays for sale.

~ Working with botanical keys to help identify plants and weeds.

All of these skills will help to further expand and continue to maintain the native and non-native plants that are kept at the Stanley Nurseries, to the highest level of care.

The highlight of my trip was a behind the scenes visit to the Millennium Seed Bank (MSB), Wakehurst Place, with spectacular views of natural rolling hills, valley water-ways and grand garden

## **Cynthia visits Kew Gardens with** help from FI Shackleton Fund

displays. The aim there is to collect and conserve seeds from the world's flora. Each batch of seeds that arrives undergoes a series of processing and monitoring steps before finally reaching the long -term storage area held at -20°C. I was lucky to be part of the team for three days and follow the process step by step. The building has huge thick walls, doors, vaults and huge walk-in freezers.

With a batch of seeds that had been drying in a special Dry Room, I was introduced to a number of principles and practices of seed drying using low cost measures - an area I was comfortable working in:

Step 1: Rub seeds in a sieve using a rubber glove and this method freed many seeds from their outer husks.

Step 2: Place seeds in an aspirator, where the gentle airflow separated the good seeds from any empty seeds (that are much lighter), the husks and any other debris.

Step 3: Cut-testing where a selection of seeds were collected and cut in half to check the embryo under the microscope to see if they were viable or not. On finding a successful batch they were then added and updated on the MSB database.



Cynthia working with native Falklands plants in the Alpine Nursery.

Step 4: The next step was to take a collection of 50 seeds (or fewer for rarer or smaller collections) to the X-ray machine and we were able to see if the seeds were viable, empty, partially full or even infested. Depending on the results the seeds would be given further consideration.

Step 5: Germination testing and the scoring of these tests were the final stages; this is when seeds are placed on agar and once a seed produces a radical it is then scored. All the information gained from these steps is then updated on the MSB database.

This amazing opportunity at the seed bank gave me a much greater appreciation for the life of a seed from collection to storage. Even though I will not be able to apply many of the techniques in the Falkland Islands, I will now fully appreciate the seeds when they come back to the Falklands for use in the Native Plants Nurserv.



The Davies Alpine House provides the environment to grow Falklands plants.

I also worked at the Herbarium with the UK Overseas Territories Team (UKOTs) where I leant more about plant conservation including the legal aspects. Brief overviews were provided of CITES, the IUCN Red Listing, allowing me to gain knowledge in areas that are applicable to the process of growing and selling native plants of the Falkland Islands. This knowledge will also be vital if there are requests to move plant material out of the islands. An overview of the Falkland Islands Red List helped me to appreciate the conservation status of the plants that are being cultivated in the Native Plants Nursery.

Overall, I thoroughly enjoyed my time and found it to be very successful. The experience of working in a professional botanical research environment was invaluable and I cannot wait for spring when I will put my experiences into practise here in the Islands.





# Furious wind, wild moorland and the most majestic of seabirds.

These were the images stirring in my mind, as our old wooden sailing boat creaked through the molten blackness. It was midnight, 8<sup>th</sup> March 2012 and the loom of Puerto Williams was receding behind us. We were breaking loose from the arteries of Chile's canals and heading into the open for the furious fifties of the South Atlantic and its mystical land; The Falkland Islands.

During the past four years my husband and I have sailed over 20,000nm recording seabirds and other wildlife. From Devon, UK, we crossed the Atlantic, mapped seabirds in the Eastern Caribbean, ploughed through the Panama Canal and sailed a great arc from the Galapagos to Isla Pascua and finally Chile.

Three marine biodiversity hotspots shine out from our voyage: the waters of the Galapagos, the South Pacific below 37°S and the Chilean channels. Yet now, as an undulating grey landmass, resonant of the tors of Dartmoor, cloaked in cumulus clouds, pierced the horizon, we could hardly comprehend the sheer volume of the marine life of the Falklands. Five sei whales blew and tail slapped. With a maximum length of 21m, these colossal mammals are the fourth biggest animal of our vast oceans and a formidable sight to view from a 15m floating platform.

Royal albatrosses glided passed. Like juggernauts of the ocean, they are one of the largest seabirds in the world, with a wing span up to 3.5m. Compare this to the sparrow-sized Wilson's storm petrel that plucked plankton from the crests of waves; with a wing span nearly 100 times smaller! Between these two extremes soared and dabbled: blackbrowed albatrosses, giant petrels, cape petrels, great shearwaters, and magellanic penguins. In the finest welcoming committee we have ever received, further throngs arrived as we drew into the bay: Peale's dophins, southern sea lions, Commerson's dolphins, kelp geese, Falklands' steamer-ducks, rock cormorants, imperial cormorants, our first ever gentoo penguins (!) and countless other interested parties.

During our all too rapid two week sail in the Falklands, we counted over 22,400 individual birds, 36 species of which 26 were marine birds and four species of marine mammal... and that's excluding the king penguins and many other incredible species that the Falklands are renowned for!

As well as being struck by the sheer diversity and abundance of marine life in the Falklands, we were also surprised by the boldness of the wildlife. We were joined near our kayak by curious cormorants, ogling at us metres above our head and fat steamer-ducks, apparently interested as to the nature of the new floating 'duck' in their bay.



The very same birds that had fled at the mere sniff of us in Patagonia appeared to seek us out. A tussacbird

alighted on Dave's shoulder and another four invited themselves on deck. Upland geese pottered at our feet, a Johnny Rook (striated caracara) eye-balled us at arm's length and Falkland thrushes sung at our side.

After an amazing couple of days of relative calm, the legendary Falklands weather ignited. We were blasted from anchorage to anchorage, screaming at one another above the howling wind. Sails were heaved up and down until the boat was reduced to bare poles and record speeds.

Of course it was not just the wealth of wildlife that left us dazed; we also met a bevy of wonderfully friendly islanders; whom picked us off the road sides, invited us for meals and drew us into kitchens for tea and cake.

Far too hastily we were preparing the boat to sail north to plan for our new project, the "5000mileproject"; to run the length of South America, for its wildlife and wild places.

Two stitched shredded sails, one sheep hanging in the rigging, three pints of fresh raw milk and four pots of marmite later, we were once again heading into the darkness, sailing from Port Stanley.

And what images now? Tempestuous weather and rugged lands; of course, but of the marine life; extraordinary.

As we bucked into the wildest sea we have ever sailed, surfing mighty curdling waves in a four day storm of constant nausea, it would have to be something incredibly special to pull us back to those screaming southern latitudes...! And a week later, we found ourselves discussing that very subject, "You know, the waves weren't that bad were they? With a decent weather window it would only take a five day passage to head back down again. Just think about brooding king and rockhopper penguins; all the spectacles we missed, the bird surveying potential.....??!!"

Katharine is currently living with her husband David in Uruguay, planning and training for the 5000mileproject expedition. On the opening day of the London Olympics, 27 July 2012, they will begin running the length of South America, over 5000 miles, without a support crew, in a year. They aim to raise money and awareness about South America's threatened wild lands and wildlife. As well as running they have created "the BigToe Classroom" aimed at involving students from around the world in the project. They are also undertaking the world's longest "Mega Transect"; a survey of birds and other wildlife along the route. For further information on the project check out, <u>www.5000mileproject.org</u> and <u>www.facebook.com/5000mileproject</u>. Katharine formerly worked as an ecologist for the RSPB. On leaving the UK, the couple undertook the first complete breeding seabird census of the Eastern Caribbean and an extensive marine education programme. "The Seabird Breeding Atlas of the Lesser Antilles" was published in 2012 and is available at CreateSpace.com and Amazon.com

# **Small Grants Success at Paragon House**

This time last year Vernon and Gail Steen applied to our Falklands Conservation Small Grants Scheme. Thev needed a contribution to fencing off an area to then plant with native tussac grass. The area is located at Paragon House, East Falkland. Gail recently let us know how the project was progressing:

soaked them in the pond for 4 hours, then planted them along with some water (30 October 2011). From that day it only rained properly twice in November and we thought they would fail; we gave then no water after the initial watering in as we felt they either survived naturally or not.

Our tussac trial has been fairly successful so far. We seemed to have everything going against us at the outset -'things' seemed to conspire

against us but we were determined to get it started. Consequently it was later in the year than intended when we planted and it has been exceptionally dry at Paragon this last summer.

We origito get tillers from an island belonging to FLH at Kelp Harbour (permission given), but ended up using a big bog from our garden (this bog was planted in



nally planned Tussac plants surviving the winter

February 2005 from tillers from a Goose Green hen yard to decorate Karen and Paul's wedding venue at our cowshed). These tillers were tied to the building for a few days and when I took them down they were still looking okay, so just to see how they would do, I planted them into the top of the garden, which is fairly dry (and I never soaked them) and by the time we used this bog (October 2011) it was 5ft tall with a good root structure.

#### We took 103 tillers from our bog and

**Chief Executive Officer: Dr James Fenton UK Executive Officer: Sarah Brennan Office Administrator: Farrah Peck Community Science Officer: Sarah Crofts Conservation Officer: Dr Andrew Stanworth** Plant Conservation Officer: Dr Rebecca Upson Education Officer: Maggie Battersby **Invasive Plants Officer: Richard Lewis** Protected Areas Strategy Officer: Clare Cockwell

Now a year later we have 45 healthylooking plants. I was surprised that most surviving plants are on the more exposed part of the site - so although we had initial problems in

getting started we are encouraged that this season will be even more successful. We plan to get planting earlier - it will be interesting to see if the tillers from the island will be any different to those

> from old hen runs. I still have a bog in the old hen run here and aim to plant from that too to have a comparison. The fencing

from the small grant scheme has withstood any invasion

from the many hares that live around here

Thank you to Falklands Conservation for the grant; it is much appreciated.





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As of the 1<sup>st</sup> June 2012 Dr Andrew Stanworth took over as the new Conservation Officer, following the departure of Dr Al Baylis.

I am very pleased to be the new Conservation Officer and, though I am new to the team, I am not new to Falklands Conservation or the Falklands Islands. I have now been in the Falklands for almost two years having come down from the UK with my wife Andrea and two children, Neve and Hayden, in 2010. As a result, I have already been involved in several Falklands Conservation projects, as well as working locally in nature tourism, and undertaking fisheries work at South Georgia, slightly further afield.

I started out in nature conservation in the early 90's wardening a small, island nature reserve with a residential field centre. The island supported a large, mixed, gull colony and during this time I completed my doctorate on lesser blackbacked gulls, looking into the adaptive nature of egg-size variation, egg production and dietary switching. Later I moved to agricultural research, primarily ecotoxicology and risk assessment working with beneficial invertebrates and integrated pest management systems, before a short return to college to obtain a teaching qualification.

Most recently before arriving in the Falkland Islands I have worked for several years in ecological consultancy. This has involved working with, amongst others, developers, landowners, government and non-government organisations on ecological projects involving a wide range of species and habitats, wildlife legislation, planning policy and conservation initiatives.

As Conservation Officer I am certainly looking forward to even greater opportunities to work with the incredibly inspiring fauna and flora of the Islands, and to further our understanding and conservation of them.

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