Royal encouragement and support by Project Director Prof. Tony Martin

The South Georgia Heritage Trust's Patron, Her Royal Highness the Princess Royal, graciously hosted a lunch in support of the Habitat Restoration Project at St. James's Palace in London on June 26th. Organised by the Trust's Director of Development Peter Taylor, and his splendid team, the event was centred around a very pleasant lunch in Henry VIII's palace on the Mall.

We were delighted that the Princess was accompanied by her husband, Admiral Sir Tim Laurence, with whom she visited South Georgia as a guest of the Trust in 2009. Memories of that trip came flooding back. I overheard a conversation between Admiral Sir Tim and Trustee Prof. Elaine Shemilt on the subject of a conga dance on the deck of the Grigory Mikeev at anchor off South Georgia! You can read more about this fund-raising event later in this Newsletter, when Peter Taylor talks about his team's efforts to meet the eye-watering £3m target for next year's fieldwork.

The speed with which Phase 2 is approaching has struck home with the realisation that in six months the vanguard of Team Rat will be in Stanley preparing to load our supply vessel, the RRS Ernest Shackleton, for its imminent departure for South Georgia. As I write this, orders are being finalised and placed for much of the equipment and supplies we will be needing next year. Alison and Nici are dealing with contracts, shipping and the large Screwfix order, which covers a multitude of things from tools to fixings to generators. Geoff Pring in Stanley is sorting out fuel and local storage, in preparation for the arrival of many shipping containers from the North. Wiz Pasteur is dealing with our tent accommodation and many aspects of day-to-day life in the camps, and in this she has an experienced ally in the form of Rob Webster, our newest recruit. Rob has assumed the much-needed role of Deputy Project Director, and is a very welcome and capable addition to the team.

Many other people have recently been confirmed for the 2013 fieldwork. The team of four pilots is now complete, with Dave McClaughlin and Tony Michelle joining Peter Garden and George Phillips. Sam Moore and Roger Stilwell join as field staff, both bringing valuable skills and experience to the team. Engineers will join soon who will be tasked with keeping our veteran helicopters flying and in good order. Welcome all.

Another valued addition to the Project is Peter Harrison, who has accepted Dr Mike Richardson's invitation to join the Steering Committee. Peter is a legendary ornithologist and artist, with an intimate knowledge of South Georgia, and a passion to see the island's seabirds recover their ancestral home from the introduced rats and mice. Peter has kindly written a piece for this Newsletter (page 3).

The Government of South Georgia and the South Sandwich Islands (GSGSSI) has played an important role in supporting most of the post-Phase 1 monitoring - the means by which we establish whether the baiting worked or not. Jennifer Lee, GSGSSI's new Environment Officer, made her first visit to South Georgia recently and writes in this Newsletter of the work she and Andy Black carried out on the Thatcher Peninsula to see if they could
find any surviving rats. Did they? Find out on Page 5.

Preparations for Phase 2 remain encouragingly on track and on budget, and we have assembled a magnificent team of people to make it happen. The next few months will see the ordering of equipment and myriad supplies just about completed, and the first deliveries being received by Geoff Pring in Stanley. A crucial element of next year's work - the bait, all 182 tonnes of it - will be made in Wisconsin and you can read about it and Bell Labs, the manufacturers, on Page 4 of the Newsletter. Finally, our third helicopter will be chosen and bought during this period. Exciting times!

Retreat of South Georgia’s Glaciers
Comment by Dr John Gordon, Geologist

Dr. John Gordon explains why glacial retreat is making habitat restoration on South Georgia an urgent priority:

“The key barriers to rodent movement on South Georgia are the Briggs Glacier in King Haakon Bay and several smaller glaciers to the west on the south side of the bay. If these glaciers retreat further inland it will make the Cape Rosa area vulnerable (to rat infestation). Then only the glacier in Shallop Cove would protect the large Nunez Peninsula. Recent satellite images show further recession and break up of the Briggs icefront since 2003 (BAS satellite image and map) which is a worry. The glacier appears to be grounded on rock at around sea level but the big uncertainty concerns the subglacial topography inland. If the glacier retreats further back onto land, then an ice-free corridor would likely appear in front, but if there is a basin below sea level, then it would calve back to the next pinning point. The form of the glacier surface tends to suggest the former.

The recent pace of retreat of South Georgia's glaciers threatens not only to open up new areas of the island to predation by invasive rodents, but also to close the small window of opportunity we have to remove rodents before baiting areas increase and put at risk the achievements so far. This emphasises the urgency of completing the Habitat Restoration project and the need to support this critical work.”

NASA MODIS Image of the Day: April 29, 2012 - South Georgia, South Atlantic Ocean
Predators in Paradise  
by Peter Harrison MBE, one of the world’s foremost experts on seabirds and a FOSGI Board member

Sir Ernest Shackleton, perhaps South Georgia’s most revered visitor, described South Georgia as the “Gateway to Antarctica.” More recently visitors have described this lonely outpost as the “The Alps in Mid-Ocean” and little wonder; over half of South Georgia’s surface area is covered in permanent ice and snow. There are 150 glaciers and over 300 mountain peaks between 2,000 feet and 8,000 feet with the island’s highest peak, Mount Paget, nearly 10,000 feet above sea level. And yet, remarkably, the island is barely one hundred miles in length and just twenty or so miles in width.

Visually and emotionally, South Georgia overwhelms most of those fortunate enough to reach its glittering shoreline. Its glacier-clad flanks rise sheer and steep from the icy-gray waters of the Southern Ocean, midway between the Antarctic Continent and the shores of South America. Its dark, jagged peaks are set against blinding-white glaciers and are fringed with an emerald border where tussock pedestals meet the roiling ocean. For me, South Georgia is the most hostile yet the most breathtakingly beautiful place on the planet – quite simply, my favourite place on Earth. The island has a haunting, indelible beauty. It is inspirational; a place that always revives one’s spirit. Little wonder then that I count myself as one of the most fortunate of all people for I visit South Georgia at least once each year and have done so for over quarter of a century.

Due to its teeming wildlife, South Georgia has also been dubbed “The Serengeti of the Southern Ocean”. It is home to the largest concentrations of penguins, seals, and albatrosses to be found anywhere on the planet. There are over two million Antarctic Fur seals, over half of the world’s population of Southern Elephant Seals, over a quarter of a million King Penguins, a third of the world’s Gentoo Penguins, more Macaroni Penguins than anywhere else on earth and it is home to no less than four species of breeding albatross including the largest of them all, the Wandering Albatross.

The fragile island eco-system of South Georgia is on the point of collapse. The world’s climate is changing, South Georgia’s glaciers are on the retreat, and a horde of voracious alien predators, millions strong, are waiting to invade what few remaining rat-free areas remain on the mainland of South Georgia.

This must not happen. It is in these rat-free areas that the remnants of a once-thriving small-bird community made up of storm-petrels, prions, blue petrels, pipits and the like, cling to survival. Perhaps less than ten percent of their original numbers remain. If the rats can be removed before the ice retreats further it is these pockets of survivors that will provide the breeding stock for the re-colonization of a rat-free island. If the rats break through the ice barriers and these surviving population pockets are lost, re-colonization may never be fully possible.

South Georgia, wild and remote, must be saved. It deserves our protection and wise stewardship. It is our responsibility, and those who follow, to return South Georgia to its former glory, quite simply the most visually magical spot on the planet and the world’s most important nesting habitat for seabirds.
A successful rodent eradication operation can be likened to a chain. The chain has hundreds of links, and the strength of the chain is dependent on the strength of every link. A crucial link in our operational chain is the bait we disperse from the helicopters. The pellets must be of uniform size and colour, of a specified level of toxicity, be attractive to rodents, resistant to weathering, and capable of being transported around the world without degradation. During Phase 2 of the SGHR project we will be using 270 tonnes of bait, which equates to about 100 million pellets with a combined value of well over half a million pounds. It is, then, vital that we are equipped with bait of the highest quality.

Another innovation for Phase 2 has been the way that the bait is packaged and shipped. Craig Riekena is my primary contact at Bell, and he has headed up the research leading to the decision that we will use palletised cardboard boxes throughout. These octagonal boxes (called Oxboxes) are made of extremely strong material, are waterproof, and can be stacked three high in our shipping containers, completely filling them to the brim. This in turn reduces the number of containers we need to buy and ship, and consequently our costs. Craig had them tested for durability by sending some, stacked 3 high, to Florida and back by road. They passed the test!

In Phase 1 we received a very generous donation of bait from Bell Laboratories, of Wisconsin, USA. As readers of our newsletters are aware, the results of the Phase 1 operation were as good as they could be (no rats found to date in the baited area). Furthermore, the staff at Bell Labs have always been knowledgeable, innovative and a real pleasure to interact with, so the decision to award Bell the contract for Phase 2 of the project was one of the easiest we’ve made.

Whereas during Phase 1 we only had rats to worry about, in Phase 2 we will also be tackling mice (in zones Rosa and Nunez). The specifications of the bait for the two species are different in respect of pellet size and density of the active ingredient, and the Bell Labs team has been very helpful in ensuring that we get exactly what we need.

Bait for the 2013 fieldwork will, over the next few months, be manufactured, packed, containerised and begin its long journey to the South Atlantic via Southampton and Ascension Island. After the container doors have been closed in Madison, Wisconsin, the bait will next see the light of day on the deck of the RRS Ernest Shackleton, just off the coast of South Georgia. From there it will be underslung to depots on the island in 500 helicopter loads, and later dispersed at low densities wherever rats or mice occur.

We thank Craig, Steve Levy, Peter Martin and all the Bell Laboratories staff and management for their continued support to the South Georgia project and for always being a pleasure to work with, no matter what challenge is put in front of them. We wish them well as they gear up for the huge task of making our 8,000 bags of bait for next year’s fieldwork.
Royal Patron encourages support for Phase 2 of the Habitat Restoration
by Peter Taylor, Fundraising Director

SGHT Patron, HRH The Princess Royal, accompanied by Admiral Sir Timothy Laurence, provided fulsome support for the next phase of our Habitat Restoration Project when she hosted a splendid lunch at St James’s Palace on Tuesday 26th June. The event was attended by existing and potential supporters and had a truly international flavour with guests from the UK, USA, Norway and Australia. It was also good to welcome members of our US affiliate organisation the Friends of South Georgia Island (FOSGI) to the occasion.

Speaking in the splendid surroundings of the Queen Anne Room, the Princess congratulated the HR Team on the success of Phase 1 where there has been no sign of rats in the treated areas of South Georgia in over a year since the initial baiting.

The Princess thanked in particular the Island Foundation for its continuing support for the HR project, evidenced by a further award that week of $750,000, and founder Trustee Professor Frederik Paulsen for his vision and leadership for this project.

The Princess pointed out however, that despite this support and assistance from DEFRA and British Antarctic Survey, there was still a job to be done on fundraising in order to begin the next phase of the project and she encouraged those in the room to get behind this internationally significant project. Guests included representatives of the Antarctic cruise ship companies Zegrahm Expeditions and One Ocean Expeditions, who have supported the Trust so substantially in 2011/12, and also members of the Government of South Georgia and South Sandwich Islands, the Foreign and Commonwealth Office and IAATO.

Project Director Professor Tony Martin provided an enthralling and stimulating update on our plans to start Phase 2 of the Habitat Restoration project in February 2013. Pointing out the magnitude of the task with graphic views of the South Georgia terrain, Tony illustrated how the remaining 88% of the island will be baited over two seasons in 2013 and 2014, leading eventually to an anticipated increase in numbers of over 100 million seabirds.

The Princess and Sir Timothy circulated among the guests for over an hour and showed a continuing close interest in the Habitat Restoration Project. They expressed an interest in visiting South Georgia to view the baiting activity in 2014.

Although plans are well advanced for starting Phase 2 of the Habitat Restoration Project in early 2013, SGHT still aims to raise a further £1.4 million in 2012, and £2 million for the 2014 fieldwork, bringing the expected total cost to £7.5 million. Despite the huge area to be cleared, this total is still significantly less than what has been spent on other smaller eradication projects around the world, and SGHT has every confidence that South Georgia supporters will rise to the challenge.
You often hear people say that they will give ‘100%’ but it is only really in eradication operations where the difference between 99.9% and 100% is complete failure or absolute success of the project. Even just a small remnant population of the target species spells disaster. For the SGHT Habitat Restoration Project, post-baiting monitoring to detect the presence of rats in the Phase 1 area is particularly important as it is vital to know that the methodology is successful before moving on to Phase 2 in early 2013.

In the last Newsletter, Andy Black reported on post-baiting monitoring on the Green Peninsula and early signs that the eradication had been successful here. However, much of the Phase 1 area had yet to be checked, so last month, on a Government of South Georgia and the South Sandwich Islands initiative, Andy and I looked for signs of rats in the largest zone treated in 2011 - the Thatcher Peninsula.

The Thatcher Peninsula covers an area of approximately 5640 Ha of which 1620 Ha is vegetated. Over a 30-day period we placed 119 peanut flavoured wax tags in all major areas of coastal tussac vegetation including Maiviken, Harpon and the coast from Sooty Bluff to Discovery Point. In addition, some tags were placed at vegetated inland sites in the Bore Valley and around Gull Lake.

Depending on your perspective, the weather when we were out in the field was either perfect or decidedly sub-optimal as there was snow down to sea-level for the entire period. This made moving between sites more difficult than usual but it provided an excellent opportunity to search for rat tracks in the snow. Happily I can report that we did not find any rat tracks on the Thatcher Peninsula although whilst searching for rat sign at Maiviken, we saw the tracks of a South Georgia pipit. This species is negatively affected by rats and so indications that individuals are utilising recently baited areas bode well for the re-establishment of breeding populations in the future.

Although it is still too early to declare that the Phase 1 operation was a success, the lack of any evidence of rats on both the Greene and Thatcher Peninsulas is very encouraging. Tags at all sites will be checked again in late spring when numbers of rats in any remnant populations would be increasing.

The peanut flavoured tags are very attractive to rats. Trials in Coral Bay, an area that has yet to be baited, have shown that even when rats are at very low densities the tags are gnawed after only a week. This gives us confidence that the wax tags are an effective monitoring tool.
You can help breathe new life into South Georgia by sponsoring a hectare for £90/$145

From devastation to restoration at the click of a button...

Stop the rats in their tracks!

Non-USA donors

www.sght.org

USA donors

www.fosgi.org