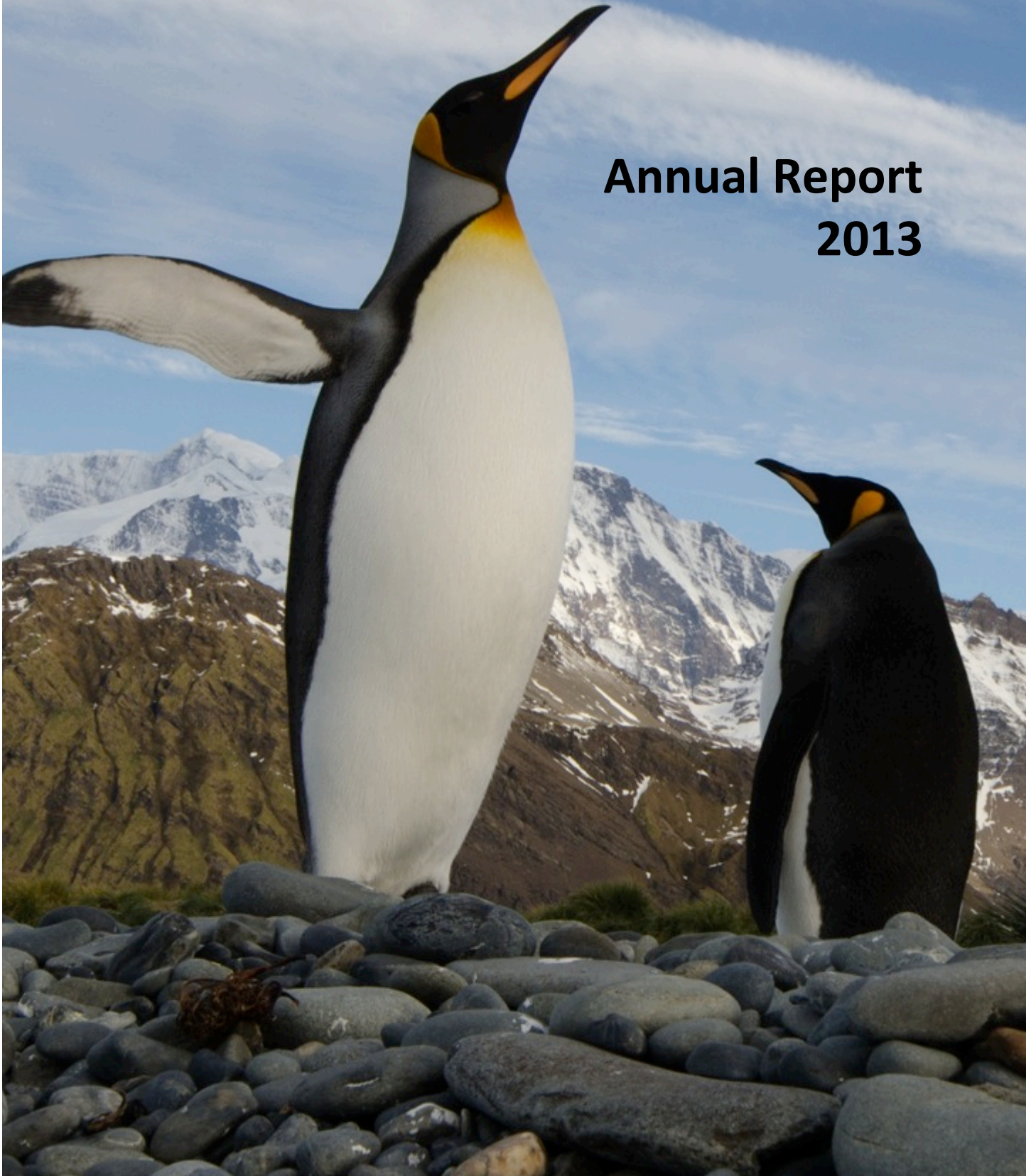


# Government of South Georgia and the South Sandwich Islands

**Annual Report  
2013**



## A Message from the Commissioner

The 2012/13 season has been a busy and eventful one for the Government of South Georgia and the South Sandwich Islands. In addition to the normal work of the Government, the last twelve months has seen the start of the reindeer eradication project, the first year of Phase II of the SGHT's rodent eradication project, the renovation of Discovery House, a range of new cultural heritage projects, the announcement of new measures to enhance our Marine Protected Area, and the inquest into the death of a cruise ship passenger. All told, this has probably been the busiest year on South Georgia since the end of the whaling era.



In January I was fortunate to visit South Georgia and saw first hand the early stages of the reindeer eradication. I was very impressed with the professionalism of the Sámi, their fellow Norwegians from the SNO and the GSGSSI staff and am delighted to report the success of the first phase of the eradication. The visit to South Georgia also provided an opportunity to visit the old whaling stations in Stromness Bay. The stations are in a very poor state but, thanks to funding from the UK and Norwegian governments we are undertaking laser surveys of them, to ensure we have full documentation of their present condition.

The last 12 months have seen some significant changes in personnel in GSGSSI. In November 2012 Katherine Ross joined the office team in Stanley as our Marine & Fisheries Officer and Jackie Gumsley joined as a part-time Administration and Logistics Assistant. In July this year Richard McKee left his post in Stanley, but will continue to work part-time from the UK. Richard's Stanley role will be taken on by Keiron Fraser, who will take on the role of Operations Manager in October. Keiron will be replaced as Government Officer (at KEP) by Simon Browning. Simon is currently a Lieutenant Colonel in the army and will be joined at KEP by his wife Sarah. I would like to take this opportunity to welcome the new staff and to thank Richard for his many years of dedicated work and wish him well in his new role.



The forthcoming summer will, sadly, be my last as Commissioner. In April 2014 Colin Roberts will succeed me as Commissioner (and Governor of the Falkland Islands) and I am confident that the stewardship of South Georgia and the South Sandwich Islands is in good hands.

Finally, the annual report is a new initiative, designed to keep stakeholders, and other interested parties informed about activities on South Georgia and the South Sandwich Islands. We would welcome feedback on the content and structure of the report.

**Nigel Haywood C.V.O.**



## Fisheries

Fisheries remain the primary source of income for the Government of South Georgia and the South Sandwich Islands (GSGSSI) and it is imperative that we continue to manage fisheries in a cautious and sustainable manner. In April 2012 the Centre for Environment Fisheries and Aquatic Sciences (CEFAS) succeeded Marine Resources Assessment Group in providing stock assessments and management advice to GSGSSI and we will work closely with CEFAS to ensure continued good management of the fisheries.

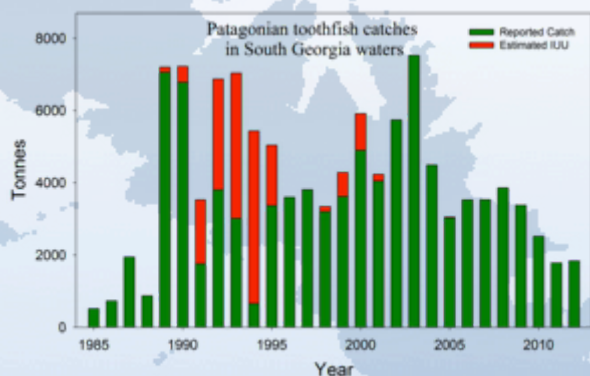
GSGSSI is committed to having the highest possible standards in all the fisheries. In 2013 we have been inspecting all vessels to ensure that they are compliant with the provisions of the Torremolinos Protocol. This Protocol ensures that the vessels have safe operating practices and that the working and living conditions on board the vessels are of an acceptable standard. By the end of 2013 all vessels will have been inspected and for 2014 it will be a pre-requisite that all vessels have passed the inspection.

The fisheries for toothfish in the SGSSI Maritime Zone account for over 70% of GSGSSI revenue. However the high value of toothfish also means that it is essential that we have a dedicated patrol vessel, the costs of which use 80% of the toothfish revenue.



*Fisheries Patrol vessel Pharos SG*

Recent years have seen a reduction in toothfish quota, with the catch limit reduced from 3,500 tonnes in 2009 to 1,800 tonnes in 2011. The reduction was implemented to address concerns about the strength of future recruitment (young fish growing and entering the fished population). Trawl surveys in 2010 and 2011 showed evidence of strong year classes, so the quota was increased to 2,100 in 2013. It is hoped that the quota will remain between 2,000 and 2,500 tonnes for the next few years.



*Toothfish catches between 1985 and 2012*

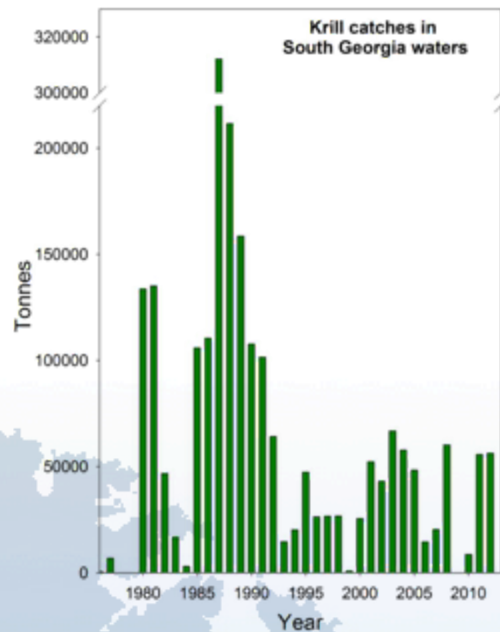
In recent years there have been some further improvements in the management of the toothfish fishery, with the introduction of marked hooks, the prohibition of net bags and the establishment of the Benthic Closed Areas. GSGSSI will strive to maintain the highest standards of management of this key fishery.

The current Marine Stewardship Council (MSC) certification of the fishery will expire in September 2014. GSGSSI will be seeking to continue the MSC certification and the re-assessment process will commence shortly.

Toothfish licensing decisions were subject to Judicial Review challenges in 2011 and 2012. In both cases the decisions taken by the Director of Fisheries were upheld by the courts.

After poor krill years in 2009 and, to a lesser extent 2010, applications for access to the krill fishery and krill catches have been considerably better in 2011 and 2012, with over 50,000 tonnes caught each year. By the middle of August this year, 25,000 tonnes of krill had been caught in South Georgia waters, with five vessels continuing to fish.

The icefish fishery continues to be highly variable. There were some exceptional catches early in 2013 during a period in which 1,353 tonnes were caught. It is expected that licensed icefish vessels will return to South Georgia in October. The icefish fishery was recently MSC certified in an industry led initiative and GSGSSI will work with industry to maintain that certification.



*Krill catches between 1985 and 2010*

## Marine Protected Area

In February 2012 GSGSSI announced the creation of a large, sustainably managed Marine Protected Area (MPA) that encompasses the SGSSI Maritime Zone north of 60 °S. This initial designation enshrined in law much of the existing protection that had been established under the fisheries licensing regime and legislation and created a 1.07 million km<sup>2</sup> MPA that included the prohibition of all bottom trawling and a ban on bottom fishing at depths less than 700 m. No-take zones (NTZs; IUCN Category 1) were created around South Georgia, Clerke Rocks, Shag and Black Rocks and the South Sandwich Islands, totalling 20,431 km<sup>2</sup>. The NTZs provide refuges for fish, protection for the benthos and spawning fish and avoid competition between fisheries and land-based foragers.

Following the initial designation, GSGSSI convened a scientific workshop in April 2012 to consider what, if any, further protection should be incorporated within the MPA. On the basis of the workshop report, and following a stakeholder consultation, further

temporal and spatial protection has now been implemented.

A revised Marine Protected Area Order came into force on June 13<sup>th</sup> 2013. The additional protection includes a ban on bottom fishing deeper than 2,250 m, the creation of benthic closed areas in the depths fished for toothfish, a seasonal closure (November 1<sup>st</sup> until March 31<sup>st</sup>) of the Antarctic krill fishery and a 12 nm pelagic closed area around the South Sandwich Islands.



*Map of the SGSSI Marine Protected area*

This combination of spatial and temporal protection provides an example of best practice that could easily be modified for other areas. The establishment of the MPA clearly demonstrates that even in an environment as rich and diverse as South Georgia and the South Sandwich Islands, it is possible to have sustainable fisheries with minimum impact on the marine environment.



*A sea spider*

Many of South Georgia's iconic flying seabird populations are in decline as a consequence of fisheries related mortality, but that mortality happens outside of the SGSSI Maritime Zone. There is an urgent need to improve fishing practices in other parts of the world, particularly southern Africa, to help protect South Georgia's seabirds.

Following the revision of the MPA Order, the Marine Protected Area Management Plan has been revised and will shortly be available on the GSGSSI website.

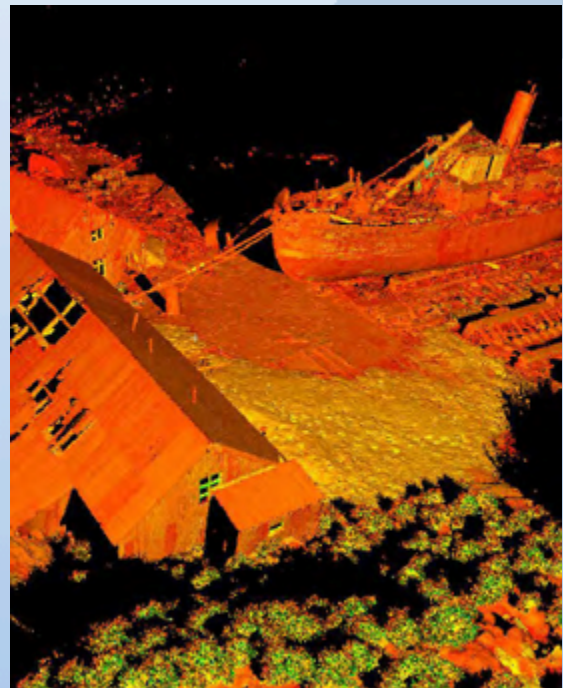
GSGSSI will monitor activities throughout the MPA and will undertake a formal review every 5 years. Where appropriate GSGSSI will also seek to address any issues raised between formal reviews.

## Heritage

The centenary of Amundsen and Scott's journeys to the South Pole were marked by an agreement between the Norwegian and British governments to jointly contribute funds to science and heritage projects in the Antarctic region. GSGSSI has benefited from these funds to undertake heritage projects on South Georgia, including laser surveys of the whaling stations, partial restoration of the Nybrakke at Grytviken and stabilisation of the old Manager's Villa at Stromness.

In October 2012 a team from Geometria (NZ) undertook a laser survey of Husvik whaling station, the original Stromness Manager's Villa and the old whale catchers and remaining buildings at Grytviken to archive the current state of the structures. The project has produced some impressive results and a similar survey of Leith is planned for October 2013. The data from the surveys will

be archived at the British Antarctic Survey.



*Laser scan of part of the Husvik station showing the whale catcher Karrakatta*



In early 2013 work was undertaken to seal the exterior and roof of the Nybrakke at Grytviken. Further work will be undertaken during 2013/14 to clear the water from the basement, replace the roof and reglaze the windows. The long-term plan is to use the Nybrakke as emergency accommodation and stores. Late 2013 will also see work undertaken to stabilise the original Manager's Villa at Stromness. Here the work will focus on preserving the exterior of the building whilst maintaining the style of the exterior.

### **Discovery House**

The 2012/13 season saw significant progress in the renovation of Discovery House. Discovery House was originally built in 1925 as the shore station for the Discovery Investigations. Following the Discovery Investigations it was used for a range of functions including as a workshop and storage for British Antarctic Survey scientists.



*Restored exterior of Discovery house*

The roof of Discovery House was replaced in 2005 to protect and stabilise the building and asbestos was removed from the interior. In 2010 it was decided that the rest of the building would also be renovated to create space for visiting scientists. Work began in November 2012 and, whilst the exterior has remained largely unchanged, the interior has been redesigned to provide accommodation and living space for up to eight people,

together with office space and a conference room.

So far, all the windows and doors have been replaced with modern versions of the originals and the exterior has been repainted.



*The new Discovery House kitchen*

Considerable progress has been made on the interior fittings including the installation of a state of the art kitchen and modern bathroom facilities. Work on Discovery House is due to be finished in November, ready for an official opening in December 2013. The first visiting scientists to use the new facilities are likely to arrive in February 2014.

### **Grytviken Church**

Preparations are underway to mark the celebration of the centenary of Grytviken church, which will be marked by a visit of many Norwegian ex-whalers and their families at Christmas time.



*Star trails over the church at Grytviken*

## Environment

### Reindeer

Following several years of consultation and planning, January and February 2013 saw the first phase of the eradication of reindeer from South Georgia. Just over 1,900 reindeer were eradicated from the Busen area; one of the two peninsulas which were occupied by the reindeer. An additional 1,555 reindeer were shot on the Barff Peninsula.

Depending on the terrain, one of two methodologies was utilised. In central areas a team of Sámi reindeer experts gathered the reindeer into a corral where they were humanely killed under veterinary supervision. Animals were then ferried to a processing vessel where they were further processed and then butchered. In total, 929 animals were processed in this way and approximately 7,500 kg of meat was recovered.



*Reindeer being herded from Husvik.*

In outlying areas, where the terrain meant it was not possible to herd, animals were shot by experienced marksmen from the Norwegian Nature Inspectorate (SNO). In total, 1,012 animals were shot in the Busen area and because shooting on the Busen took less time than anticipated, shooters were deployed on the Barff Peninsula to reduce the population there prior to full-scale eradication in 2014.

On the whole, phase 1 of the reindeer eradication project went well. At the end of the operational period searches of the Busen area were made by foot patrols, baiting flights by SGHT helicopters and the embarked aircraft on the *HMS Argyll* made a helicopter reconnaissance in June. No reindeer have been sighted and GSGSSI are confident that the area is now clear of reindeer.

### Monitoring non-target mortality

In March 2012, the South Georgia Heritage Trust began Phase Two of an island wide rat eradication project (see [www.sght.org](http://www.sght.org)). The eradication involved dropping cereal bait pellets laced with Brodifacoum, a second-generation anti-coagulant poison. Brodifacoum works by blocking the synthesis of vitamin K dependent clotting factors in the liver and is toxic to all vertebrates. Although designed to be palatable to rodents, pellets are likely to also be attractive to other species, resulting in primary poisoning. Predators and scavengers that feed on poisoned rats or other primarily poisoned non-target species will succumb to secondary poisoning if sufficient toxin is ingested.

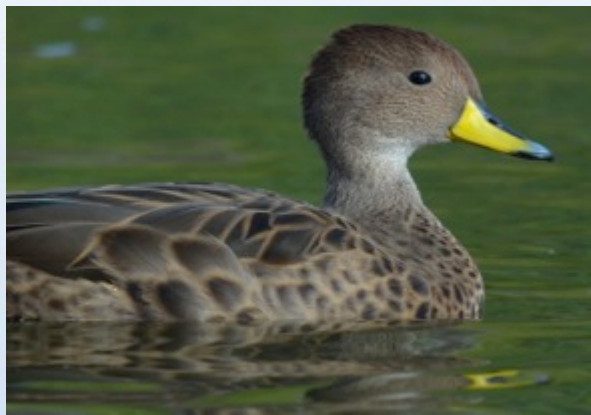


*A skua and chick*

To determine the impact of introducing large quantities of poison into the environment, GSGSSI, in collaboration with SGHT, undertook a programme of monitoring in the Stromness and Salisbury baiting zones.



In both zones there were relatively high levels of mortality of the South Georgia pintail (*Anas georgica*). Based on experience from the trial phase, this was not unexpected and it is likely that the populations will recover quickly in the absence of rats. More surprising were the relatively high levels of brown skua (*Stercorarius lonnbergi*) mortality and observations that both adult and juvenile birds ate the pellets directly. Other species that were affected, but to a lesser extent, were kelp gulls, snowy sheathbills and giant petrels. There is some concern over the disappearance of South Georgia pipits (*Anthus antarcticus*) from the Stromness area but further investigation is needed to be sure of the cause.



*South Georgia pintail*

### Weed management

Invasive plants have long been studied on South Georgia but it is only in recent years that invasive plant control has become a priority.

In 2013 there have been continued efforts to remove high-risk species such as bittercress (*Cardamine glacialis*) from Grytviken and King Edward cove. This season only 2 m<sup>2</sup> of bittercress required spraying, which was down from 373 m<sup>2</sup> last season. Pearlwort (*Sagina procumbens*) control is also going well with just 2 m<sup>2</sup> in need of control this season down from 33 m<sup>2</sup> last season.



*Flower of Cardamine glacialis*

Surveys and control of invasive plants were also undertaken for the first time since the 1990's at the whaling stations at Husvik, Stromness and Leith. Some species such as St John's wort (*Hypericum perforatum*) which had previously been recorded in the whaling stations could not be relocated and are presumed to have died out whereas others such as sneezewort (*Achillea ptarmica*), *Trisetum strictum* and tufted hair grass (*Deschampsia cespitosa*) seem to have increased in range significantly since the last surveys. A concerted effort was made to spray herbicide on high priority species such as the procumbent pearlwort and sneezewort and follow up visits will be made in the coming years to complete the surveys and check that the management action was effective. The new information from the whaling stations will be incorporated into the weed management strategy.



*Achillea ptarmica in Husvik*



## Tourism

During the 2012/2013 season an estimated 10,500 people visited South Georgia. This included 5,792 passengers and 612 staff on cruise ships and 182 people on yachts. Others included visiting military and civilian staff, either on patrol or as guests of the Royal Navy and Royal Fleet Auxiliary, and staff working on the fishery patrol and research ships

### Cruise ships

22 cruise ships made a total of 51 visits to South Georgia with 5,792 passengers during the 2012/2013 season. This is approximately the same number of visitors as the previous year. Two vessels made their first visit to South Georgia during the 2012/13 season. These were the *Arctic P* and *Sherekhan*.



*Le Boreal in Cumberland Bay*

Visitors from 57 countries visited the island on cruise ships this season. The largest number of passengers came from the United States of America (25%), followed by Germany (20%), United Kingdom (11%), Australia (10%), Switzerland (8%), then Canada (4%). 52% of passengers came from English speaking countries.

A variety of activities was carried out by cruise ship passengers including boat

landings, zodiac cruising, extended walks, kayaking and ship cruising.

Activity	Number of sites	Number of passengers	Number of times activity carried out
Small boat Landing	28	25,088	285
Zodiac Cruising	30	5,891	86
Extended Walk	17	2,535	68
Kayaking	29	462	47
Ship Cruising	9	N/A	44

*Summary table of activities, sites and visitor numbers*

The most popular activity was small boat landing with the most popular locations being Grytviken, Salisbury Plain and Stromness.

### Yachts

There was a significant increase in the number of yacht visits over the previous season with a total 16 visits by 11 different yachts.

36 different sites were visited by private and charter yachts, the largest number of persons ashore at any one time from a yacht being 21. Following a similar trend to previous years, the most popular landing sites for people on yachts was Grytviken, Gold Harbour and St Andrews Bay.

## Expeditions

An expedition is defined as any activity that involves a night ashore other than at Grytviken. Expeditions are required to be supported a vessel that will be in place to render assistance in case of an emergency. Last year there were seven such trips that occurred on South Georgia.



*An expeditioner on Mt Carse*

Four of the expeditions attempted to complete the Shackleton crossing of which three completed the journey successfully; the other had to abandon the attempt at Possession Bay due to poor weather. One particularly notable attempt was the 'Shackleton Epic' which involved team members first sailing from Elephant Island in a replica of the *James Caird* and completing the crossing of South Georgia using traditional skills and equipment.

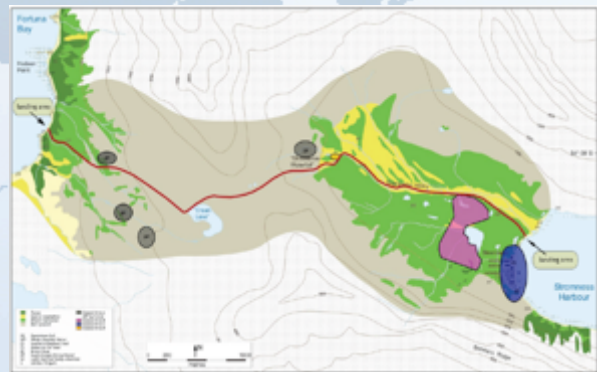
The other expeditions undertook a range of activities including taking ice cores from the Nordenskjöld and Fortuna Glaciers, and undertaking traverses and climbing peaks in various parts of the Island.

## Inquest into the death of a cruise ship passenger

In January 2013 an inquest was held in the Coroner's Court in Stanley to consider the circumstances surrounding the death of a

cruise ship passenger. The deceased, who was a passenger on the Clipper Adventurer, died whilst undertaking the last stage of the 'Shackleton Walk' from Fortuna Bay to Stromness in January 2012.

The Coroner found that the passenger died of multiple injuries sustained when, during the descent into Shackleton Valley, she slipped and fell down a steep cliff. In returning a narrative verdict he noted that the passengers were not on the official route recommended in the GSGSSI Site Visitor Management Plan and that some passengers did not fully appreciate the remoteness (from medical facilities) of South Georgia.



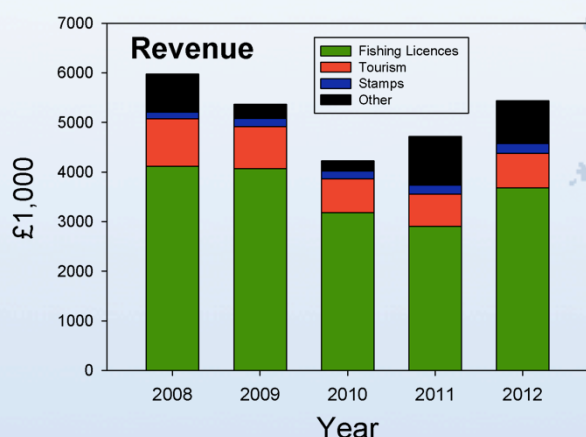
*Sketch map of the official Shackleton Walk route*

Following the verdict the Coroner (Mr Carl Gumsley) wrote to the company involved (Zehgrams), GSGSSI and the International Association of Antarctica Tour Operators (IAATO) and asked that they address some of the issues raised. As a consequence, GSGSSI will implement new procedures and documentation for Visitor Permit Holders. In conjunction with IAATO, GSGSSI will also undertake a review of all guided walks on South Georgia, including the Shackleton Walk, and will also review the provision of medical support on cruise ships that visit South Georgia.



## Finance

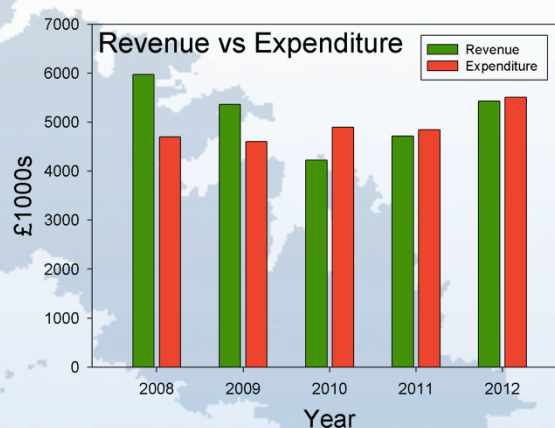
Fisheries licence revenue accounts for around 70% of GSGSSI revenue. The 50% reduction in toothfish quota between 2009 and 2011, accompanied by two poor years in the krill fishery, a dip in tourism and a rise in fuel prices severely stretched GSGSSI resources. This led to a deficit of £674,000 in 2010. In 2011, the deficit was reduced to £125,000 and the preliminary figures for 2012 suggest a deficit of £79,000. The 2011 figures include unused King Edward Point funds returned by BAS, which reduced the deficit considerably.



*GSGSSI Revenue 2008 to 2012*

During that period GSGSSI has sought to make operational savings, including using only economy travel and, since 2012, purchasing fuel from the Ministry of Defence. GSGSSI has also allowed the

*Pharos SG* to undertake short periods of sub-charter work in Falkland Island waters to recover some of the charter costs. The 2012 figures include £160,000 spent on the reindeer eradication and Discovery House, so a deficit of £79,000 represents a balanced operational budget.



*GSGSSI Revenue vs. expenditure 2008 to 2012*

Despite further expenditure on reindeer eradication and Discovery House in 2013, it is expected that GSGSSI will show a small surplus. In the long-term we are seeking to maintain at least one years operational costs in reserve. In 2011 the FCO provided additional funds to bolster our reserves.

## Photo Credits

The photographs in this report were provided by: Andy Black, Martin Collins, Samantha Crimmin, Keiron Fraser, Richard McKee, Sally Poncet, Stephen Venables and the Shallow Marine Surveys Group.

## GSGSSI Staff

### **Dr Martin Collins – Chief Executive and Director of Fisheries**

Martin has been in the post of Chief Executive and Director of Fisheries since May 2009. Previously Martin worked as a Marine Ecologist with the British Antarctic Survey (2002-2009), including much time spent working on or around South Georgia and as a lecturer at Aberdeen University (1997-2002).



### **Richard McKee – Executive Officer (Part-time)**

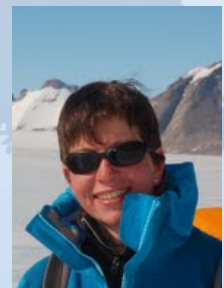
Richard has been employed by GSGSSI since 2001, initially spending two winters at King Edward Point as Government Officer. He then returned to Stanley to work in the Office of the Commissioner, firstly as Assistant Operations Manager, prior to moving to the Operations Manager and then Executive Officer positions. Richard is currently working from Edinburgh for approximately 2 years.

Prior to working for GSGSSI, Richard spent 3 years working as a Fishery Protection Officer in the Falkland Islands and South Georgia Maritime Zones.



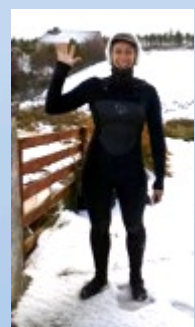
### **Dr Jennifer Lee – Environment Officer**

Jennifer joined GSGSSI as the Environment Officer in March 2012. Since her appointment she has been involved in several projects including eradication of non-indigenous mammals and plants, developing biosecurity policy and initiating a programme of habitat restoration monitoring. Prior to moving to GSGSSI Jennifer studied Antarctic terrestrial ecology and invasion biology at the Centre of Excellence for Invasion Biology at Stellenbosch University, South Africa during which time she spent time on sub-Antarctic Marion Island and on the Antarctic continent.



### **Dr Katherine (Frin) Ross – Marine Fisheries Officer**

Frin studied benthos and scallop aquaculture at Port Erin Marine Laboratory on the Isle of Man. She subsequently spent two years as the Fisheries Scientist at King Edward Point. Prior to taking up her current post Frin enjoyed practical work on fish and shellfish stock assessment and habitat restoration in the Outer Hebrides. She also worked on Marine Protected Area policy for the Joint Nature Conservation Committee in Aberdeen. She returned to work for GSGSSI in November and is enjoying the variety of work her job entails.





## GSGSSI Staff

### **Dr Keiron Fraser – Operations Manager**

Keiron joined GSGSSI in 2009 as a Government Officer based at King Edward Point. From October 2013 he will become the Stanley based Operations Manager with responsibility for logistics and operations. Prior to working for GSGSSI Keiron worked at the BAS for 10 years as a Marine Biologist, Diver and Base Commander.



### **Jackie Gumsley – Administrative and Logistics Assistant**

Jackie joined GSGSSI in October 2012 having worked across many sectors within the UK as both IT Trainer and more latterly as IS Project Manager. She enjoys her role in the office in Stanley looking after much of the admin work together with the never ending task of trying to keep Martin's end of the office tidy! In her spare time she enjoys walking her two dogs (Bonnie and Betty), various craft activities and cooking and baking.



### **Pat Lurcock – Government Officer**

Pat graduated in Electrical and Electronic Engineering in 1985. After a two-year stint in the Antarctic doing geospace physics, followed by three years in the Falklands running the IT for the government Fisheries Department, Pat has spent the last twenty-odd years working on South Georgia, supported by his wife Sarah.



### **Joanne Cox – Government Officer**

Jo joined the GSGSSI team in 2012 as a Government Officer based on South Georgia. She is a seafarer by trade and spent the 10 years prior to joining GSGSSI working for BAS on the research vessels RRS James Clark Ross and RRS Ernest Shackleton. Jo attained her Master Mariners certificate of competency in 2011 and brings a wealth of seafaring knowledge to the South Georgia team.



### **Simon Browning – Government Officer**

Simon has a degree in Environmental Biology from Swansea University. After spending a season working as marine biologist at Sherkin Island Marine Research Station he attended the Royal Military Academy Sandhurst and joined the Army as a Logistics Officer where he gained 24 years experience. Within the Army he saw deployments around the globe; his last being the Falkland Islands. He has spent the last 2 years volunteering as a diver with the Shallow Marine Surveys Group and working on invasive plant eradication projects. He is a BSAC dive leader, yacht sailor and qualified RHIB handler. Simon is married to Sarah.

