



The *Totorore*, built by Forest and Bird member Gerry Clark of Kerikeri, sails by Giekie Glacier, South Georgia. Photo: Chris Sale

guin chicks at all but three sites. Not only does this represent the most comprehensive survey of either of these species yet undertaken at South Georgia but, because all colonies were visited within a short time-span in a single season, it provides an excellent baseline against which to assess future changes".

Our task, with myself and Chilean Julia von Meyer as Gerry's team, was primarily to count the three remaining colonies of king penguin chicks, uncounted the previous year because of their large size.

We had a fairly gentle passage from Chile, and many black-browed, grey-headed and wandering albatrosses as well as many cape pigeons, various prions, giant petrels, Wilsons storm petrels and other birds soared about us. We sailed down the northern coast of South Georgia in fairly cold and wild conditions to check in to the authorities at Grytviken, and then headed back up the coast to a small island just to the north of South Georgia — Bird Island. There we were greeted by three scientists at a small British Antarctic Survey (BAS) station.

### Vast seabird population

Bird Island has a vast population of seabirds breeding on it and many fur seals, most of which were absent as our stay was during the winter, but there were many wandering albatross chicks still on their nests. They are huge, covered in thick white down with big soft brown eyes, and when you walk past they clap their beaks at you with a sharp, clacking noise of deterrence. There were also many giant petrels.

We immediately departed to start counting the large king penguin colonies. We counted the first colony one by one — the chicks only — in Ample Bay, in the Bay of Isles a quarter of the way down the island at the foot of glacier, a situation favoured by most of the colonies. To count them we moved them very gently off the area where they were and let them move back again through a narrow gap left between us. The adults are undescribably beautiful with bright yellow colouration about the head, and the chicks are covered in dark brown down. The adults have a trumpeting call,

while the chicks sort of whistle.

Our group moved from there to Salisbury Plain, a vast flat area between two large gently sloping glaciers, a short distance along the coast from Ample Bay. This population was counted by estimating a group, then counting the group, then estimating on the basis of that the rest of the population.

### Month-long count

However, the final group (the largest and numbering more than 34,000), we counted again one by one, having to separate them with fences to ensure that, over the month that it took, the same chicks were not counted twice. This was a tremendous task in logistics, getting fencing materials on the site, working in very adverse conditions at times to transfer the materials more than a mile across the snow. At times the snow thawed so we fell through into icy glacier-fed streams, filling our boots with water. When we inevitably ran out of fencing materials we cut big blocks of ice and built long walls.

The island of South Georgia is covered in snowy mountains and is divided up by many deeply crevassed glaciers. In the winter it is covered with snow right down to the water line.

During the period *Totorore* was there the great majority of seals were absent, but there were still reasonable numbers of young elephant seals and fur seals, as well as quite a few leopard seals and some passive Weddell seals.

After completing the counts of king penguin chicks, our party went to off-lying Anenkov Island on the wild and exposed west coast of South Georgia, to count the wandering albatross chicks there. We counted the populations of chicks, doing the same on Albatross Island in the Bay of Isles, completing the count of the two biggest populations of wandering albatrosses after Bird Island.

During our stay we were helped enormously by the BAS scientists. The weather was at times fine and at times very cold and windy, allowing us to experience everything the climate had to throw at us.

### Ice-beset waters

We departed from South Georgia and headed for the South Sandwich Islands through ice-beset waters, seeing large numbers of Antarctic petrels and southern fulmars. The weather treated us well and we managed to land on two of the islands, Candlemas Island and Vindication. All of the islands of this chain are volcanic, mostly active, and are all covered in snow and ice, some carrying thick icecaps. Many icebergs grounded near the islands had large numbers of chinstrap penguins on them which seem to travel large distances, using icebergs as a home.

On the cliffs around the South Sandwich Islands, southern fulmars, cape pigeons and snow petrels nested there in abundance. On Candlemas we were pleased to find approximately 90 Adele penguins.

We headed south down the chain of islands until the pack ice was reached, when we turned and headed to Bouvetoya. On the way to Bouvetoya there were three days of heavy icing and all hopes of landing on that island were dashed when it was found that the waves were very severe there.

To collect data on the distribution of sea birds at sea, wherever possible every hour during daylight for a period of ten minutes we counted the number of birds and their species, as well as taking sea temperatures. So we still made good use of every day even when landings could not be made, although Gerry took advantage of every opportunity to get ashore.

### Temperature rises

On the passage north to Cape Town the sea and air temperature rose on average by one degree C a day and we started seeing on average one new species of bird per day. We were now in a changed environment..

The work that the expedition has been doing is vital, although its role is very small. *Totorore* has been collecting data in areas seldom visited, rich in wildlife. The great southern continent could possibly be exploited in the not so distant future. Without the adequate data on which to base controls, the effect on wildlife in this region, out of the public eye, could be catastrophic. Not everybody, of course, has the good fortune of taking a trip such as this, but the ordinary citizen can influence the future of this hitherto unspoiled area in supporting groups like Greenpeace and the Antarctic and Southern Ocean Coalition, of which Forest and Bird is a member. 🐧