

44575 was a bird on a mission ...

Satellite tracking Heard Island's albatrosses



ROGER KIRKWOOD

44575 was a bird on a mission. Heading north by northwest, speed 25 knots. Sooty '75 had a belly-full and digestion was not on her mind.

The cold grey dawn failed to budge the blanket of gloom hanging over the Jacka Valley. Roger hit the alarm at 6 am and flicked the switch on the pinger. Nothing. Fifty consecutive days of rain and we were due a tracker.

Grey waves licked the underside of '75's wing. She wheeled her rollercoaster way north, impervious to sleet, hail and headwind. She'd been away for a week – time to go. Krill was hard to come by this year, the fish were unusually small. No, it wasn't great hunting, but '75 had found enough and now she shrieked homeward with the grim determination of a mother with a mouth to feed.

By 8:30 we'd talked to Nick (who had email access to the latest satellite hits) on HF radio and learned the low-down: 'There are in-bound albatrosses lads, stay vigilant'.

We lurked in the lean-to, sheltering and waiting, passing time. We'd spent many

days this way; drinking tea, listening for the pinger. Sometimes we'd talk, mostly not. Sitting on our respective boxes we peered out into the gloom. When we did talk it was often about the weather.

'Looks like we'll break 300 miles for the month.'

'Gee.'

'More than the average for Atlas.'

'Aha.'

'Looks sunny at Spit today.'

And then (you guessed it) ping.

Scramble. There were two of us; we had 15 nests to check, and 20 minutes in which to do it. Roger opted for checking the black-browed albatrosses in their colony on the cliff-tops behind camp. To get to them he would have to climb 200 metres up steep loose scree to the start of the fixed ropes. From there he had a 50 metre traverse across exposed ledges to the end of the line, then across another scree, and down to the colony. If Carl Lewis could do it in 19 minutes, Roger could do it under 20. He was away.

I'd drawn the light-mantled sooties. We had satellite trackers on 10 black-browed albatrosses and 5 light-mantled sooties. From the top of the cliff Roger could check all the black-browed nests, but the sooty nests were distributed throughout the valley and checking them involved approaching each one. I checked numbers 73 and 74,



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Roger Kirkwood waits in the lean-to. He knew how to pass time.

the closest to camp, while Roger charged up to the black-browed colony. I then made my way around to the steep tussocky slopes below the nest owned by 44575. I was a few hundred metres short when she came in.

Fresh off a seven-day flight she dropped the landing gear (legs) and planted herself nest-high. Within a minute she was downloading her precious cargo to a hungry chick. There was not a moment to lose. I got on the VHF to Roger: 'It's '75 – I saw her come in'.

'Okay, there's definitely nothing up here. I can't get there in time – you'll have to go for it.'

This was par for the course. We'd timed the download duration of a number of parents and they were averaging eight minutes from start to finish. Therefore if I didn't get myself up to that nest in a jiffy, 44575 would spread her wings and set forth on another 4000-kilometre trip for a piece of squid.

I crept stealthily and with great haste. I was hot. The change from tea-drinking-sloth to tracker-retrieving-athlete would normally require a change of clothes, but there wasn't time. Onward, upward. I slithered on my belly up the steep ridge of azorella, trying

up until I'm right beneath the nest. When I do I'm underneath '75's tail feathers and she hasn't seen me. Phew. Double-check, pocket knife, check, catch breath, check.

Then there's the moment you love and you hate. I willed her to give another mouthful of food to her chick, and already

after her with a smile. Her chick looks up startled at the noise – and I'm sure I glimpse a snigger.

The final few weeks of our stay were spent on high alert in this way. This was the first time albatrosses breeding on Heard Island had been tracked by satellite telemetry. We were interested in finding out the birds' foraging zones, the hotspots in the ocean that the albatross depend on for a feed during the energy-demanding egg-brooding and chick-rearing periods.

The black-browed albatross of the Jacka Valley are cliff dwellers, they build their mud nests on ledges a few metres wide and several hundred metres above the valley floor. We fixed climbing ropes along the ledges leading to the colony, once there we were lucky enough to be able to access about 30 nests on the highest ledge without the need for safety gear.

Selecting a candidate black-brow for tracker deployment was a tricky business. As with any animal, individuals vary in temperament. We were on the look-out for birds with an easy going nature but with a strong attachment to the nest; individuals that could handle the disruption of being



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A black-brow with tracker attached. Once in place, the albatross preens the 30-gram tracker in amongst its feathers so that only the aerial remains visible.

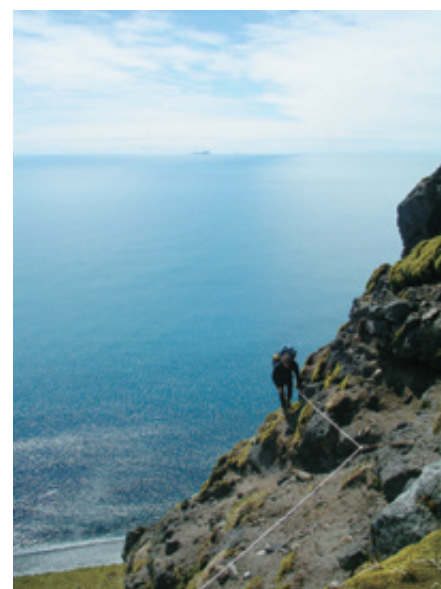
felt bad about what I was going to do. I was twitchy at the same time. All she had to do was open her wings and she'd be away. I thought each step through, wished for it to be quick, efficient and painless, took a deep breath... and then she saw me. The wings open and she's gone.

'Hey Roger – I missed her.'



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Left: The view across the Jacka Valley camp towards Atlas Cove, on a rare occasion when the cloud lifted. The glaciers falling into the ocean from the sides of Big Ben can be seen in the distance, and beyond that there is a patch of blue sky over the Spit Bay camp. The black-brows nest atop the black buttness behind the tents. Right: Kieran follows the hand-line along the cliff top traverse to the black-brow colony.



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to stay out of sight. I could hear the chick begging for food, and the clacking of bills. The theory goes that if you look an animal in the eye it gets spooked – it knows you're coming for it – and will flee. So I don't look

'No worries mate, nothing more you could have done.'

There's a confusion of emotions. I'm disappointed. But there's something else – pride. 'Go you cheeky bugger', I yell

pinned to their nest for a few minutes while a 30-gram tracker was attached to their back with cloth tape and glue. To find the right one we'd slowly approach each potential bird, crawling through the mud, staying low

and averting our eyes. Once within a few metres of a nest we'd sit by and just observe for a while; if the bird moved, stood up off the egg, or otherwise looked shifty, we'd move on. If it sat tight on its egg and glared back at us we selected it for deployment.

The light-mantled sooty albatrosses are the mild-mannered gentlemen of the albatross world; deploying trackers on them was a delight. They nest individually on the terraces above and around cliffs and there were probably 30 pairs in the amphitheatre of the Jacka Valley itself. Their solitary habit made approaching the nest easy, there was no need to slither past neighbouring birds in the mud as in the black-browed colony. Once close one of us would hold the bird on the nest while the other glued. At times it seemed a token gesture to hold the bird at all, their nature so placid they barely glanced over their shoulder to check we'd lined the tracker up straight. We even had non-breeders come and land next to us mid-deployment, just to see what the fuss was about. I can imagine now what these onlookers were thinking as they flip-flapped (albatross have a peculiarly big-footed way of walking; they walk as if they have just discovered they have feet and are amazed every time the next one hits the ground) around us on the ledge. 'Aha looks like another tracker going on.' 'Yep, I can just read the number now - 44575.' 'Oh boy, they'll have their hands full getting that one back.'

We discovered the black-browed albatross favoured a foraging zone northeast of the island, and about 100 kilometres off-shore. All the black-brows went there every trip, except one. The exception was the outstanding breeder of the season, K-bird (parent of chick on nest marked K). This bird broke the trend and went south, sticking close by the island and foraged off shore not far from Long Beach. Canny K-bird could do return trips in a day, and K chick was correspondingly gigantic.

The sooties meanwhile took long foraging trips, going as far south as the Antarctic continental shelf, over 2000 kilometres distant. They were consistently away for a week or more, at times averaging 45 km/h for 24 hours on the return trip to their waiting chick.

Our study yielded about 60 tracks from black-browed albatrosses and 25 tracks from light-mantled sooty albatrosses, and preliminary analysis indicates that we will be able to determine the foraging zones these birds were dependent upon when raising

About the albatrosses

Black-browed albatross *Thalassarche melanophrys*



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Vital statistics

Weight: 2.9 - 4.6 kg
Wingspan: 210 - 250 cm
Age of first breeding: 10 years
Longevity: 30+
Breeding frequency: annual

Distribution and abundance

Breeding pairs:

Falklands (Islas Malvinas): 382,000
Chile: 123,000
South Georgia (Isla Georgia del Sur): 98,000
All other islands: ~15,000
Total: 618,000

Population status

- IUCN status recently upgraded from 'vulnerable' to 'endangered'.
- Falklands population has declined from 506,000 pairs in 1980 to 382,000 pairs in 2000.
- South Georgia population has declined 4% per annum since 1975.
- Trends in majority of other populations are unknown.

Light-mantled sooty albatross *Phoebastria palpebrata*



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Vital statistics

Weight: 2.5 - 3.7 kg
Wingspan: 180 - 220 cm
Age of first breeding: 6 - 8 years
Longevity: 32+
Breeding frequency: biennial

Distribution and Abundance

Breeding Pairs:

South Georgia (Isla Georgia del Sur): ~6,000
Auckland: ~5,000
Kerguelen: ~4,000
All other islands: ~5,000
Total: 20,000

Population status

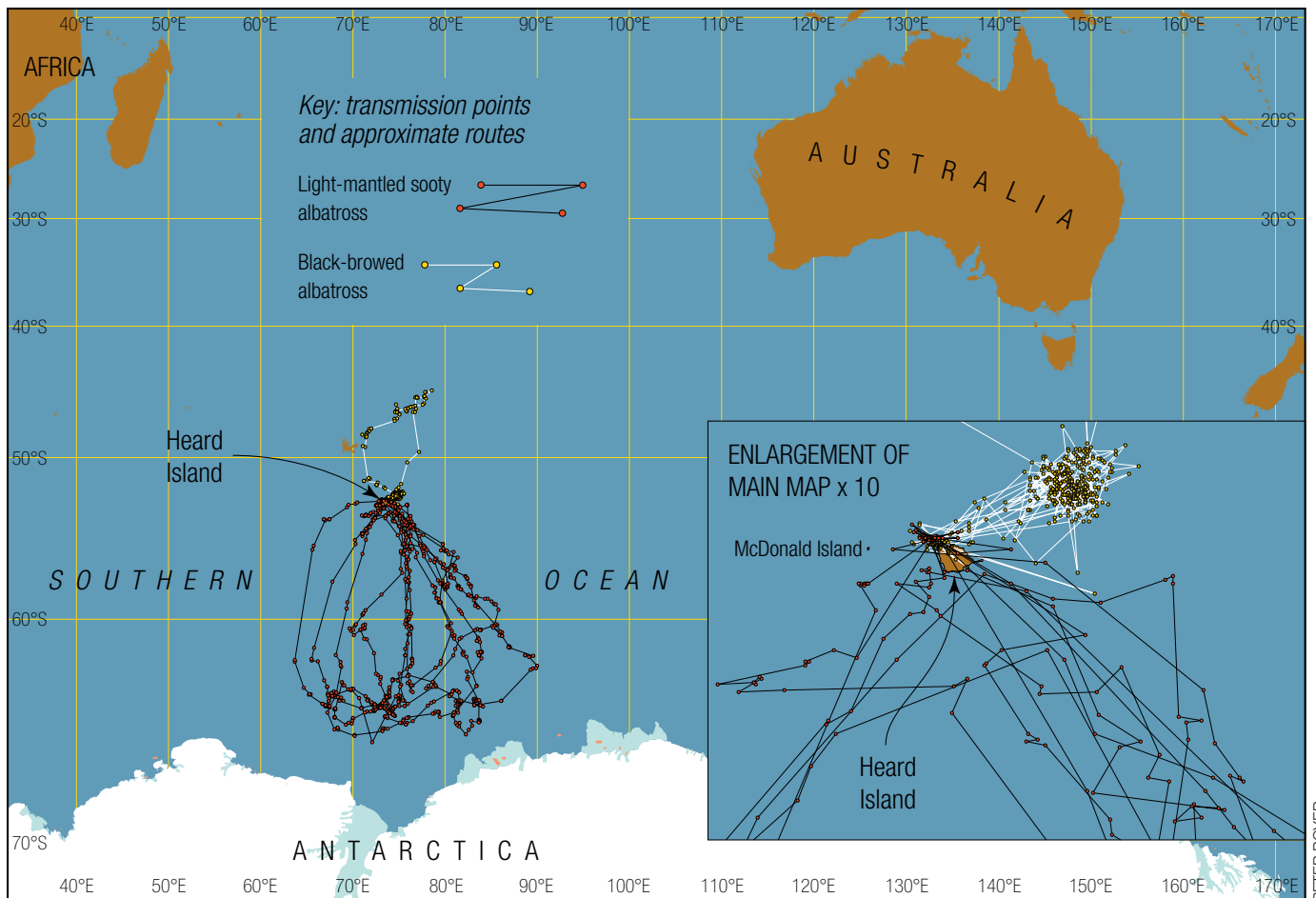
- IUCN status 'near threatened'.
- Ile de la Possession (Crozet) population has declined 1.7% per annum since 1966.
- Trends in 95% of populations are unknown.

their chicks, in this year at least. Along the way we scraped poo samples from the sides of nests (these will be used to determine diet composition from genetic signature), counted the numbers, and recovered hooks from long-line fishing that were evident throughout the colony.

Black-brows particularly are susceptible to drowning in long-line fisheries when they dive for baited hooks, and range across the Southern Ocean in the non-chick-rearing period. The knowledge gained during this program will be used in modelling the potential interactions between seabirds and Heard Island and McDonald Islands

fisheries (trawl fisheries for toothfish and icefish, and a likely future long-line fishery), and is part of the efforts of the Australian Antarctic Division's Antarctic Marine Living Resources Program to reduce fisheries-related mortality of Southern Ocean seabirds.

Roger Kirkwood and I camped in isolation for 69 days. For us time slowed. Our local environment, the Jacka Valley, took on an unaccustomed immediacy and importance. The animals within developed characters, the landscape moved through a season; a kelp gull that was an egg on our arrival learned to fly. We eventually retrieved



Above: The foraging tracks of light-mantled sooty 44575 and black-brow 44567, made between mid-December 2003 and mid-February 2004. Light-mantled sooty 44575 made a succession of long excursions along the edge of the Antarctic continental shelf, which was the typical foraging strategy used by all the sootys we tracked. The black-browed albatrosses focused on a foraging zone to the north-east of Heard Island. The season's tracks taken by black brow 44567 illustrate this zone that lies within a few hundred kilometres of the island. As with most animals, the idea of going walkabout on a whim seems never far from the busy parent's mind, and 44567 chose to go on a long trip up past Kerguelen mid-season. Right: Black-browed albatross chicks sit at attention waiting for a returning parent.

12 of the 15 trackers – the ones we missed all had their stories. Sooty 44575 evaded the web twice more and we take our beanies off to her – she was one wily mother and at last count had a healthy (smug) chick. We chose poorly with Black-brow 44568 who proved to have a naturally timid temperament; neither of us could get within cooe of the colony without spooking her. And Sooty 44577 flew to the South Atlantic and never came back.

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