



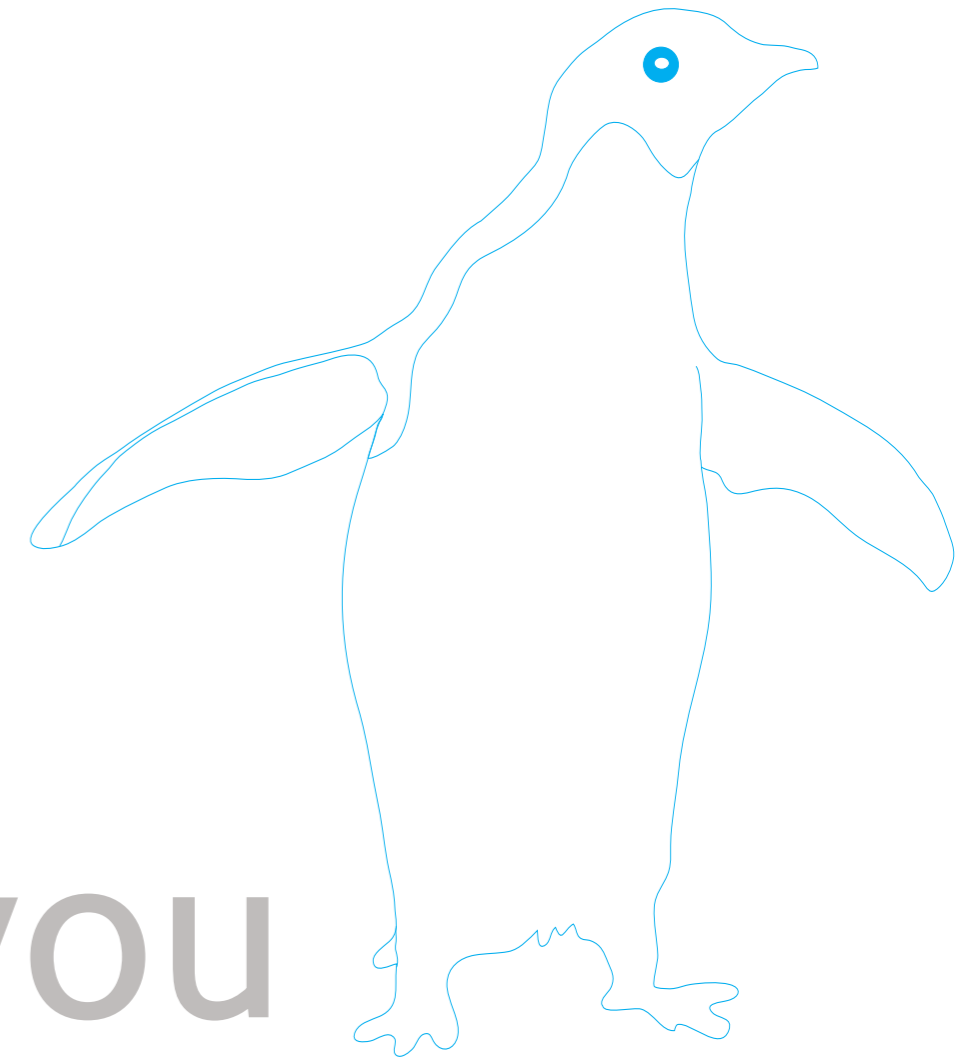
BLOG:

[I] AM FULLY ANTARCTIC WINTER SURVIVAL FIELD TRAINED. I CAN SAW BLOCKS OF SNOW, BUILD ICE HOLES

... The trick is to keep your gloves and hat on all the time, sleep with your drinking water bottle so it doesn't freeze, but not get it mixed up with your pee bottle!

I'm proficient at melting snow for tea, have climbed into and out of a crevasse, and have my car, quad bike and ski-doo licences.

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Are you
ready to go?

WHAT DOES IT COST? Despite these layers of multi-national organisation, you still have to apply for funds to put your scientific ideas into action. This doesn't happen overnight, and proposals and the full cost of your science project have to be submitted to national funding organisations several years before anything happens. Be it a proposal to study plankton in the ice-covered Antarctic waters, or the effects of global climate change, your research proposal needs to include details of cost. And it isn't cheap. First there are the costs to get the team down there. Then there are the funds needed to do the actual work, including the collecting of samples, analyses, and writing up the results. Each researcher and technician will need a salary, both for the fieldwork and any follow up work back home. Every last little bit of your scientific equipment and polar clothing has to be listed, any survival training you need and the necessary pre-expedition medical check-ups. Not as easy as it sounds three or four years before you intend to start the project.

If there's one thing that will help your request for funds get approved, it's if you show how the planned work fits into the larger scheme of research in Antarctica. For this reason, scientists from different countries often combine activities to make stronger cases and this is where SCAR comes in. Again this takes time, so before a research proposal is even written there may have already been a decade or more of preliminary work invested in it. With only 33 research stations and a handful of research ships, competition is fierce. When the positive answer arrives there is a real sense of elation and the real planning, rather than just the wistful dreaming, can start.

➡ Preparation

Packing takes on a whole new meaning when preparing for Antarctica. Once you're there, you can't just run out to the shops for a forgotten set of batteries, or phone up a supplier for a replacement bit of equipment. Absolutely everything you could possibly need has to be taken with you. A golden rule for scientists is always take spare parts. If you think you'll need ten collecting bottles, take 20. If you do run out of things, be prepared to improvise. One expedition ran out of glass sample bottles, so they drank as much Coca Cola as they could and used the screw-capped bottles instead, so the precious samples could be preserved and stored.

But pack too much, and you'll pay the earth in shipping costs. It's a difficult trade off between what you absolutely need and what would simply be desirable. Deciding months before you go makes it even more difficult. For ship-based expeditions, chemicals and equipment may have to be stowed on board six months or more in advance. Imagine having to pack for your summer holiday three months before you go. It can sometimes be a big surprise to open up a box you packed ages ago, and wonder why on earth you packed a particular item in the first place.

IT'S THE LITTLE THINGS THAT COUNT

Don't get completely distracted by the essential gear you'll need. In amongst your thermals and scientific equipment, bring lots of reading material, a music collection and a stack of DVDs. They make all the difference when the nearest cinema or pub is weeks away. Make room for your favourite biscuits or chocolate, too, as well as mementoes from home.

As for the bulkier stuff, skis and climbing gear are a must for some, whereas for others it's the latest camera and video equipment (with plenty of spare batteries). And just as high a priority to pack is the high-factor sunblock and sunglasses, to combat the skin-frying ultraviolet radiation. Good-quality polar clothing is essential, and is often supplied by the national Antarctic organisation funding the work. You really get a sense that the trip is coming close when trying on the bulky overalls, thick, padded jackets and well-insulated boots. Fur-lined gloves and hats keep out the wind and freezing temperatures, and it's worth taking time to make sure things fit and are comfortable – after all, these are what will keep you alive out there.

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Everything needed for an Antarctic expedition has to be stowed away in containers many months before.



BLOG:

When we arrive on board all the laboratories are completely empty, and so when it has been less bumpy we have found our 60 or so boxes of chemicals and equipment... and begun to set up our laboratory. These were delivered to Bremerhaven... transported to Cape Town to be on board when we arrived. It is always a big relief to see that the stuff has made it. ■



TEST EVERYTHING – EVEN YOU Although there are doctors and other medical personnel at most of the bases on Antarctica and on all the research ships, it's important everyone arrives medically fit. The level of pre-expedition medical tests will depend on how long you go for, and how remote your work is. Even for short stints you'll need a series of blood, heart and lung function tests as well as intensive dental check-ups. Tests become more rigorous for longer stays. The last thing you want is for your trip (and the work of your colleagues) to be compromised by ill health, and it's important to make sure you're up to the physically demanding strains of working at crippling low temperatures.

For the longer trips, those up to several years, some countries will scrutinise your emotional aptitude to be away for long periods at a time. Sharing a relatively small living space with the same people, day after day, far from home and under extreme conditions, won't suit everyone. Any problems need to be identified before you go, or they could jeopardise a whole expedition.



Conducting fieldwork can be physically demanding.



An array of clothing layers is needed to keep out the cold.



Field laboratory – even here sophisticated chemistry can be carried out.