

THIS WEEK

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Antarctic Treaty is cold comfort

Researchers need to cement the bond between science and the South Pole if the region is to remain one of peace and collaboration.

“All the day dreams must go; it will be a wearisome return.” Written almost exactly a century ago, in the diary of doomed Antarctic explorer Robert Scott, those words mark the moment at which the British naval officer realized that the game was up. He had lost the race to the South Pole to his Norwegian rival Roald Amundsen, and the return journey was to prove worse than Scott imagined. By the end of March 1912, Scott and his two remaining companions had perished, just 18 kilometres from life-saving supplies. Their ill-fated expedition had a scientific slant too, and the zoologist Edward Wilson, who died alongside Scott, was the first scientist to see the South Pole.

It is perhaps a fitting legacy that the hostile landscape of Wilson’s final months is now the scene of unprecedented scientific cooperation. Amid conflicting territorial disputes, the 1959 Antarctic Treaty handed the continent to the world’s researchers, with the explicit goal of ensuring “in the interests of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord”. Some 30 countries now operate research bases in Antarctica, and the Iranian Students’ News Agency reported last week that Iran intends to open one within three years.

The international rush to Antarctica in the name of science has not gone unnoticed by some with interests beyond research. In an article published in *The Australian* newspaper on 31 December, Sam Bateman and Anthony Bergin of the Australian Strategic Policy Institute in Canberra raised the provocative prospect that countries such as China and India could use bases recently opened there to improve satellite communications to military forces that increasingly depend on space-based infrastructure. “To do so would be at odds with the Antarctic Treaty, but the sparse use of the treaty’s inspection mechanisms means that such activity could go undetected,” Bateman and Bergin say. “If Antarctic sites take on military significance, we could see a move towards destabilisation of Antarctica as a zone of peace.”

That may seem a far-fetched scenario, but events may not have to take such a dramatic turn to undermine the treaty and weaken the monopoly that science currently has on Antarctica. The late Christopher Joyner of the Department of Government at Georgetown University in Washington DC identified three potential challenges to the cooperative spirit of the agreement, driven by the changing global political and economic climate. States might implement national continental-shelf claims in offshore Antarctic waters in pursuit of energy resources, he suggested, or tensions could escalate between Japan and Australia over whaling in Antarctic waters. Joyner’s third scenario — widespread and unregulated bioprospecting — is a topic already identified as problematic by treaty members, and one discussed at their annual meeting last summer, held in Buenos Aires. Nearly 200 research organizations from 27 states are carrying out research for commercial purposes in the Antarctic, Joyner said, and one big goal is sifting its

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plants and animals for beneficial genetic and biochemical resources.

Although the Antarctic Treaty seems under no immediate threat, one need only look at the escalating political importance of the Arctic to see the potential for change in the south. Just this week, members of the Arctic Council were due to discuss requests from China and India for official observer status. And even under the strict conditions of the treaty, the appeal of Antarctica to some nations searching for new mineral and energy resources has never been too far from the surface.

“There remains great appeal in the spirit of Scott’s expedition — of scientists as explorers.”

Scientists can play an important part in preserving the treaty and protecting their unique Antarctic playground, and the promise it continues to offer for research. Interest in the poles is currently sky-high — witness the success and international syndication of the BBC’s *Frozen Planet* series — and the more that scientists can promote

the work that they do there, the more the bond between the two will be cemented in the public’s mind. There remains great appeal in the spirit of Scott’s expedition, of scientists as explorers, and in that vein, sometime this year, researchers in Antarctica are likely to be the first to penetrate a sub-glacial lake. The long-standing Russian effort to drill into Lake Vostok stalled again this month, raising the prospect that, if they fail to break through this month, then a British team seeking to investigate Lake Ellsworth could beat them to it in December. Not that priority — the loss of which so devastated Scott — matters in 2012. “It’s not a race,” a spokeswoman for the British project insists. We believe them, just. ■

Face up to fraud

The UK government and funding agencies must address research misconduct.

Many people in science would rather not talk about the problem of research misconduct, much less act on it. After all, who directly involved would benefit from a serious crackdown? Certainly not the institutions at which the misconduct takes place — they are nominally responsible, but can face legal repercussions, embarrassing headlines and a public-relations disaster if they expose cheating academics. It is much easier to shuffle miscreants out of the side door with vague references and a promise of silence, effectively pushing the problem somewhere else, and onto someone else.

So it is perhaps a sort of progress that the *British Medical Journal* and the international Committee on Publication Ethics were able to