

Editorial

Polar collaborations

The Polar Regions are synonymous with ice and snow and, in the public mind, very similar. Yet for polar scientists there seem to be many important differences. At the heart of the differences are that Antarctica is an uninhabited continent surrounded by sea, whilst the Arctic is a shallow sea surrounded by inhabited land. Add to this the recognition of the “Third Pole” - the mountains of the Himalayas and Hindu Kush - which contain the greatest amount of permanent snow and ice outside the Poles and you have three research communities with different but linked interests.

In recent years, the importance of these three regions has grown. Whilst since 1959 the Antarctic has been devoted to peace and science, the Arctic has been a key element in military thinking. Whilst the Antarctic has been spared any development of mineral resources, the Arctic is increasingly mined for minerals, oil and gas. Moreover, whilst the mass of East Antarctica seems to grow, West Antarctica, Greenland and glaciers in the high mountains worldwide are melting rapidly.

We have rather different governance systems for these regions. In the Arctic, with the established and recognised sovereignty of several nations, the Arctic Council, a forum of officials with no legal standing, provides a valuable way to discuss common problems and co-ordinate uncontentious activities. The International Arctic Science Committee (IASC) advises the Council, but IASC is only one among many unranked observers at these meetings. By contrast, Antarctica is governed by the legal framework of an international treaty whose membership of 53 countries now represents almost 70% of the global population. Here the Treaty is advised scientifically by the Scientific Committee on Antarctic Research (SCAR), a special Observer, pre-dating the Treaty, and specifically mentioned in its documents. And for the high mountains a wide range of different national procedures are involved.

Whilst there have always been academic interests in comparing the two principal polar areas, the joint SCAR/IASC meeting in St Petersburg in 2008 was a major step in connecting the two communities. A resounding success, it established many areas of common interest and provided for much better scientific connections between the Arctic and Antarctic communities.

Ten years later, we can now celebrate the second SCAR/IASC Open Science Meeting, this time in Davos. This meeting was larger than St Petersburg with an even broader range of topics, including high mountain studies to represent the Third Pole. The 2400 delegates presented 1600 posters and over 1000 oral papers, providing the opportunity to hear about progress in virtually all fields of science as well as discuss governance, indigenous people, and the role of the social sciences and humanities. The deliberate mixing of Arctic, Antarctic and alpine contributions in most sessions definitely provided new perspectives for everyone.

Everyone will have their own specific benefits from what they heard and who they met but several things are clear. First, there will be no convergence between the governance systems, second the divergence in exploitation will continue with increasing efforts to extract as much economic value from the Arctic as possible whilst continuing to protect the Antarctic, and third all three regions will play a highly significant role in modelling the future climate and sea level of the world.

Some politicians still refuse to accept the facts of global change, but for the others sound and connected advice from SCAR and IASC is even more essential for informed policy choices. Inclusive community meetings like Davos are hard to organise yet they provide the basis on which we can build our future efforts in science, advice and outreach. These efforts really matter.

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