

*Antarctic Science*, 27 (2015)  
doi:10.1017/S0954102015000115

## **A Story of Antarctic Co-operation – 25 years of the Council of Managers of National Antarctic Programs**

G. Wratt  
COMNAP Secretariat, Christchurch, 2013.  
ISBN 0473247763, softback, 210 pp.

Historic accounts of international organizations are always of general interest. They may not be the most exciting literature, but they document some important historic steps in a fast changing political world. This certainly applies to this book, put together by a COMNAP insider: Gillian Wratt from New Zealand (COMNAP Chair 1997–2001). It is, however, not the first account of the COMNAP activities (Fowler 2000).

The book consists essentially of three major parts: The History of COMNAP, and COMNAP Members National Antarctic Programmes (currently 29 members), and finally an assortment of appendices with factual information related to COMNAP activities. Part II will not be commented upon in this review, but it offers a useful up-to-date account of modern research in Antarctica.

The entire book is richly illustrated with photographs of Antarctic landscapes and wild life, as well as the very different infrastructures and technical installations on the continent and people “in action”; either in the field or during meetings. Scattered through the book are 25 commissioned texts, covering a wide variety of topics related to COMNAP activities. These include statements from some former COMNAP chairs, accounts on technical items such as stations and laboratories, and the subject of Women in COMNAP. Women were an exception during the early years of Antarctic research, but are nowadays normal participants on the stations, ships and expeditions serving the scientific exploration of Antarctica.

COMNAP (Council of Managers of National Antarctic Programs), together with its federal partner SCAR (Scientific Committee on Antarctic Research; see further below), has to be considered a huge success which can be exemplified by the achievements of the last IPY (International Geophysical Year) (2007–09). Antarctic research and logistics are running relatively smoothly under the guidance of SCAR and COMNAP, and under the political umbrella of the Antarctic Treaty System (ATS). There are many examples of successful mutual collaboration and assistance which are achieved through COMNAP.

However, there are shortcomings too, as is obvious from this book. It is worth noting that despite the international nature of COMNAP there are astonishingly few internationally run stations, like the French-Italian

Concordia Station and the UK-Netherlands Dirck Gerritsz Laboratory at Rothera. It is well known that many of the research stations on Antarctica are not used to capacity, and in spite of initially using existing facilities before establishing their own research programmes many of the new nations to the ATS have chosen to establish their own national stations.

Research activities in Antarctica are today supported by numerous, mostly national stations, many of them located close to the coasts, with fewer of them in the interior. It is not clear if all of them are really needed. The most surprising example is the assemblage of research stations around the tip of the Antarctic Peninsula, mainly on King George Island, where COMNAP proposed the APASI (Antarctic Peninsula Advanced Science Information system) under the leadership of INACH, but where COMNAP failed to convince the nations (except Chile) to support this co-ordinating effort (vividly described by the COMNAP Chair who initiated this activity in 2009).

Antarctic research, and the entire political system around Antarctica, experienced dramatic and positive changes when the experiences of the IGY 1957–58 helped in getting agreement for an Antarctic Treaty. It was agreed upon with the aim to reserve Antarctica and the adjacent Southern Ocean for international research and to preserve the Antarctic/Southern Ocean environment as pristinely as possible. Just before the Treaty was signed a scientific organization (SCAR) was founded to continue to develop the initiatives of the IGY, and to offer guidance and advice to the Antarctic Treaty. Its history has relatively recently been described and analysed by Walton & Clarkson (2011).

Research in Antarctica and the Southern Ocean has been going on for more than 100 years, initially in a fairly unregulated fashion. National claims on segments of Antarctica were put aside by the Treaty, but since research in the extremely hostile Antarctic environment was not only expensive, but also dangerous, it needed highly motivated scientists, expensive infrastructure as well as secure and efficient logistics to be successful. SCAR’s membership initially comprised largely senior members of national polar institutes or programmes, who defined the national scientific priorities. It was always clear that logistics would play an important role, and early in its history SCAR formed a permanent Logistics Working Group. But as Antarctic science operations developed, activities sometimes required determined and rapid decision making which SCAR was inadequately structured to provide in a timely fashion. A growing uneasiness developed between the two actors, helped by some national programme managers with strong opinions and characters.

As described in this book, managers of the national programmes started to meet separately on the side of the formal SCAR meetings, with the growing numbers of SCAR members adding complexity to the discussions. The managers developed frustrations about the limited

way they could influence SCAR science prioritization. In the mid-eighties (when SCAR leadership obviously did not provide for strength and vision) the managers established their own council, with their own list of priorities and management concerns. In 1988 they finally decided to split away from SCAR as a new independent organization COMNAP, while maintaining a loose contact to SCAR in the form of a “Federation”.

Whilst the co-operation between COMNAP and SCAR has functioned reasonably well under the chairs from both sides, there is still a certain degree of fuzziness about the distribution of responsibilities. This concerns the distribution of environmental responsibilities, the establishment of long time series and monitoring programmes, and a number of biological questions which are claimed by CCAMLR (established in 1980). In the original Antarctic Treaty, science was one of the top priorities, but this has been watered down since the establishment of the CEP 1991 and CCAMLR (with environmental protection and conservation, respectively, as main themes). The results of two internal COMNAP reviews are discussed in the book and after 25 years of existence it may be timely to initiate a truly external and thorough review of COMNAP and its links to ATCM and the other science related ATCM observers.

In conclusion, the book is likely to be of great interest to many who have worked in the Antarctic, as the primary author and the many other contributors provide a fascinating and well-informed account of the active and former players who raise their voice about the history of an exciting chapter of modern research and its political context.

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*Antarctic Science*, 27 (2015)  
doi:10.1017/S0954102015000140

## Biogeographic Atlas of the Southern Ocean

Edited by Claude de Broyer & Philippe Koubbi  
Scientific Committee on Antarctic Research (SCAR), Cambridge, 2014.  
ISBN-13: 978-0948277283, softback, 510 pp, £80.00.

The *Biogeographic Atlas of the Southern Ocean* is a milestone product of 21st century Antarctic Science.

During the last quarter of the 20th century, ecology became dominated by hypothesis-driven science and the labour-intensive systematic accumulation of environmental and taxonomic/distributional data became unfashionable and difficult to fund; just at the time when knowledge of biodiversity and environmental shifts became crucial to our understanding of climate change and its present and likely future impacts. Thankfully the last two decades have seen a reversal of this short-sighted policy, notably by virtue of the 10 year Census of Marine Life, a US\$650 million global programme initiated by the Alfred P. Sloan Foundation of New York in 2000. The whole Census occupied around 2700 scientists from 80 countries. The Census of Antarctic Marine Life (CAML) was a subset of the global programme and centred upon fieldwork and associated meetings and symposia that mostly took place during the third International Polar Year (IPY: 2007–09). The *Biogeographic Atlas* is effectively a summary document of the results and their analysis. It represents over one million records of around 9000 species ranging from phytoplankton to marine birds and mammals. The Scientific Committee on Antarctic Research Marine Biodiversity Information Network (SCAR-MarBin) archived and provided access to data, thus facilitating the use of standard survey and analysis protocols.

The volume has 165 direct contributors drawn from all continents; their expertise encompasses taxonomy, biogeography, ecology, molecular genetics, informatics, GIS and mathematical modelling. Their efforts have been augmented by numerous data providers and a host of reviewers who have helped provide excellent quality control. The weighty (3.2 kg, 28 × 37 × 3 cm!) paperback tome is subdivided into 12 parts and 64 separate chapters, most of which are reviews of survey findings and their relationship to the literature and development of the relevant fields. Each chapter is accompanied by a comprehensive reference list. These lists reveal that hundreds of scientific papers have already stemmed from the CAML and IPY, and that numerous interactive websites have been constructed. Therefore, they represent a most valuable resource for researchers. Throughout, the large glossy page format and small print combine to pack huge amounts of information into the volume's 498 pages.

Part 1 (Introduction) provides a cogent history of Antarctic marine biodiversity initiatives from the late 18th century onwards, together with a summarization of the literature devoted to the variety of biogeographic schemes that have been proposed or adopted since the late 19th century. The introduction also outlines the events and funding sources that led to the production of the *Biogeographic Atlas*, emphasizing the multinational nature of the enterprise.

Part 2 (Methods) I found rather perfunctory and unsatisfying. It tells us little of data collection, but gives