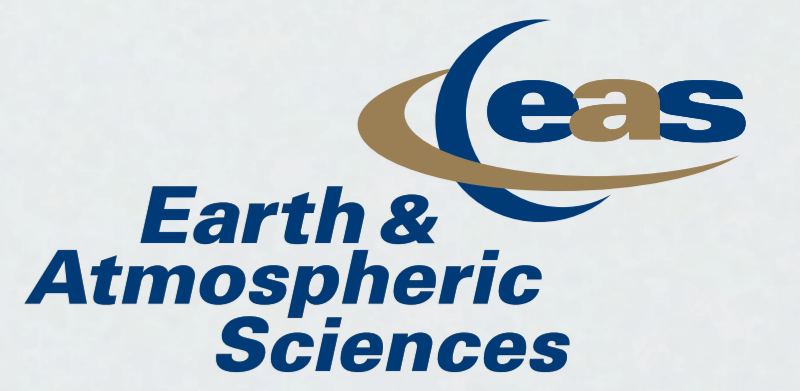




# Organizing Polar Science: Canada's Emerging Antarctic Interests

Anita Dey Nuttall

Canadian Circumpolar Institute, University of Alberta, Edmonton, Canada



## Context

Recent concerns over climate change and the politics of conservation in the Antarctic and Arctic have ensured that the polar regions remain firmly at the centre of global debate over environmental management and resource development (ACIA 2005, Anisimov et al. 2007). Building on research focusing on the international relations and critical geopolitics of both Antarctica (Chaturvedi 2001, Dey Nuttall 1997, Dodds 1998, 2002) and the Arctic (Huebert 2009, Young 2009), and against the background of a recent agreement on polar research between Canada and the United Kingdom (UK), this study is examining the development of Canada's interests in establishing and organizing an Antarctic research program and its efforts to consolidate it on a national scale (and the reasons for doing so), as well as the UK's greater interests in the Arctic and possible development of its own national Arctic strategy. The agreement presents an opportunity to examine the UK's potential for becoming a major player in Arctic science and politics and to consider Canada's ability to establish itself as a major Polar nation with internationally recognized research capacity in both the Arctic and Antarctica.



The study takes, as a point of departure, the analysis of how governments have responded in organizational terms, through their national agencies concerned with science policy and logistics, to the shifting physical, environmental, socio-economic and geopolitical challenges facing the polar regions. In doing so, it develops themes of my earlier work on the interface between science and politics in Antarctica and the organization and management of national Antarctic science programs (Dey Nuttall 1994, 1997), as well as recent research on the comparative politics of Nordic Arctic science and research policy (Dey Nuttall and Nuttall 2009a, 2009b).

## Canada and the UK: a Cooperative Research Agreement

In March 2009 the governments of Canada and the UK signed an agreement to share ships, aircraft and polar bases, and to increase science cooperation for a greater understanding of the rapidly changing polar regions (Natural Environment Research Council 2009). The agreement is an outcome of the fourth International Polar Year and aims to facilitate joint research programs in order to advance significant research areas of common interest and push forward the frontiers of polar science. Beyond the intended scientific research endeavours and the scientific merit of research that will be carried out as a result of the agreement, how will both countries benefit in terms of their aspirations to become key players in polar research and politics? How far, for instance, does the agreement give Canada and the UK a comparative advantage in Antarctica and Canada's Arctic respectively? What do both countries hope will be the practical application of science in the polar regions? For each country, what is the political dimension to the scientific questions that will drive the research that the agreement will facilitate? This study is concerned with finding answers to these and similar questions.



## Canada in the Antarctic

Canada is the second largest Arctic state (after Russia) and a key member of the Arctic Council. It is also a signatory to the Antarctic Treaty but it operates outside the decision-making apparatus and has no Antarctic research facility. In 2009, the federal government launched a new Northern Strategy and has asserted its claim to be an Arctic power and a polar nation. Scientists and policy-makers have argued, however, that both Canada's northern science and political strategies for the North should be framed within a larger context of a polar strategy that is not only circumpolar, but which encompasses the Antarctic as well. The Canadian Committee for Antarctic Research (CCAR) has identified the creation of a Canadian Antarctic Research Program (CARP) as one of its highest priorities and over the last decade or so – indeed, the initiation of CARP has been recommended by the CPC (e.g. Canadian Polar Commission 1995, 2002).



As the last Arctic state to accede to the Antarctic Treaty, Canada is also a major Arctic country that operates as a non-consultative party member outside the decision-making machinery of the Antarctic Treaty System (ATS). Canada acceded to the Antarctic Treaty in 1988. The same year it became a party to CCAMLR and then to CCAS in 1990. In 2003 Canada ratified the Madrid Protocol.

Notably, Canada is one of four non-consultative parties (the remaining three being Denmark, Romania and Switzerland) of the Antarctic Treaty that is a full member of the Scientific Committee of Antarctic Research (SCAR). Full membership of SCAR requires a country to have an active research program in Antarctica. After four years of associate membership to the SCAR, Canada was unanimously admitted as a full member in 1998. Yet, Canada has chosen not to participate as a decision-maker within the ATS. This has also meant a lack of commitment to the establishment of CARP.

Significant investments are required to sustain Antarctic operations and this has been identified as a key challenge for a Canadian Antarctic program (Canadian Polar Commission 2002). This research investigates the reasons and arguments put forward for a Canadian scientific presence in Antarctica. The study argues that it is important to make the distinction that matters relating to the Canadian Arctic are largely domestic issues for Canada, whereas the significance of Antarctica lies in it being a unique area where a system of international governance is being successfully developed.

This project will contribute to our understanding of the emergence of both Antarctica and the Arctic as international political regions and to the policy-focused literature on the future of both polar regions. There is very little critical literature available on the organization and management of polar science and the influence of politics in determining national priorities and funding of research and logistics in the polar regions. While there are some case studies of individual countries engaged in long-term polar science (eg Gaudin 2007), there are limited comparative studies on how governments handle the links between science and politics in the polar regions. This research will attempt to fill the gap in understanding such dynamics.



## For further details contact:

**Anita Dey Nuttall**  
Canadian Circumpolar Institute  
University of Alberta  
1-40 Pembina Hall  
Edmonton, Alberta T6G 2H8

Phone: (780) 492-9089  
Fax: (780) 492-1153  
Email: anitad@ualberta.ca

## Canada's Polar Science and Science Policy

The study places Canada's polar science interests within the context of national science strategies, and explores how the organizational approaches to polar science taken by Canada and the UK reflect each country's levels of organizational sophistication as well as their political and scientific involvement in the Arctic and Antarctic. It further investigates the proposition that long-term national Antarctic programs need to develop within the broader context of a nation's science and technology policy. The research is considering and investigating Canada's interests in Antarctica in the context of the federal government's Arctic research infrastructure, its recent Northern Strategy (<http://www.northernstrategy.ca/index-eng.asp>) and political moves to assert and affirm internationally that it is an Arctic/Polar nation.



This study examines three particular areas: first, the political, economic, and scientific milieu in which Canada has articulated its Antarctic interests in scientific and organizational terms; secondly, the organizational approach of the UK's Antarctic program; and thirdly, the development of the UK's Arctic research activities within the context of global science.

## To this end, this research is examining:

- the development of Canada's interests in the Antarctic and the UK's interests in the Arctic;
- Canada's strategy for augmenting polar science and its place in Canada's national science strategy;
- the UK's approach to organizing and defining its scientific interests in the Arctic and the relevance to its national science policy;
- the development of Canada's organization of Antarctic research program and its relevance to the Arctic;
- Canadian and UK policy discussions on science and sovereignty in the Arctic and Antarctica respectively; and
- the future of Canada's and the UK's international cooperation in polar science.

## References

Anisimov, O.A., D.G. Vaughan, T.V. Callaghan, C. Furgal, H. Marchant, T.D. Prowse, H. Vilhjálmsson, J.E. Walsh, T.R. Christensen, D.L. Forbes, F. E. Nelson, M. Nuttall, J.D. Reist, G. A. Rose, J. Vandenberghe, E.J. Wrona 2007 'Polar regions (Arctic and Antarctic)' in M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds.) *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge, 653-685.

Canadian Polar Commission 1995 *Toward a Policy for Canadian Polar Science and Technology* Polaris Papers N. 8, Ottawa: Canadian Polar Commission

Canadian Polar Commission 2002 *Antarctic Science and Bipolar Linkages: A Strategy for Canada* Ottawa: Canadian Polar Commission

Chaturvedi, S. "Ocean Governance and the Polar Regions: Geopolitics, Law and Sustainability" *Ocean Yearbook* (University of Chicago Press) vol. 15, 2001.

Dey Nuttall, A. 1994 Dissertation: *Origins, Development and organisation of National Antarctic Programmes: with special reference to the UK and India*

Dey Nuttall, A. 1997 'Profiles of national Antarctic operating agencies of Antarctic Treaty Consultative Parties: an introductory study' *Polar Record* 33(185): 133-144

Dey Nuttall, A. and M. Nuttall (eds) 2009a *Canada's and Europe's Northern Dimensions* Oulu: University of Oulu Press

Dey Nuttall, A. and M. Nuttall 2009b 'Europe's Northern Dimension: policies, co-operation, frameworks' in A. Dey Nuttall and M. Nuttall (eds) 2009a *Canada's and Europe's Northern Dimensions* Oulu: University of Oulu Press, pp. 23-33.

Dodds, K. 1998 *Geopolitics of Antarctica: views from the Southern Oceanic Rim* Chichester: Wiley

Dodds, K. 2002 *Pink Ice: Britain And The South Atlantic Empire* London: Tauris

Gaudin, C. 2007 *French polar research. An audit on the occasion of the 4th international polar year* Paris: Parliamentary Office for the Evaluation of Scientific and Technologic Choices

Huebert, R. 2009 *Canadian Arctic security and sovereignty in a transforming circumpolar world* Toronto: Canadian International Council

Natural Environment Research Council (NERC) 2009 *Planet Earth Online: Environmental Research News* 'UK agrees deal with Canada to share polar facilities' <http://planetearth.nerc.ac.uk/news/story.aspx?id=367> (accessed 2nd October 2009)