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Climate Change and Arctic and Alpine Environments

Date(s)	Tuesday 1st (10:00) - Thursday 31st October 2013 (17:00)
Contact	Workshop Leader: **Professor Alexander Milner (/staff/profiles/gees/milner-alexander.aspx)**
Download	**Add to Calendar (/research/activity/ias/workshops/2013/climate-change-and-arctic-and-alpine-environments.aspx?ical=true)**

As the evidence for human induced climate change becomes clearer, so too does the realization that its effects will have significant implications for physical and ecological systems. Some regions are more vulnerable than others, both to the expected changes and to the consequences they will have for ways of life. Arctic and Alpine regions are some of the most sensitive and vulnerable environments to this change. Arctic areas in particular, and alpine areas to a lesser extent, also have potential positive feedback to climate change due to their large storage of carbon, thereby enhancing these effects. Evidences of glacial retreat, permafrost reduction and changes in snowfall regimes have already been observed in many Arctic and Alpine regions, which will have many significant implications. For example, snowmelt is already occurring earlier in mountain areas, with potential reductions in glacial runoff, will influence agriculture, water resources, forestry, power generation and tourism. These effects then have significant implications for associated mountain and native communities including services like transport infrastructure, construction, water supply and food resources. An interdisciplinary and integrated examination of present and future effects is necessary to mitigate impacts to ecosystems and society in these sensitive environments.

Within the University and across a number of Schools, there are various staff who work or have interests in these regions but have never communicated or had interdisciplinary discussions.

The aim of the workshop would be to provide a forum to examine common interests and develop possible strategies for funding calls related to these environments. Although there are universities in the UK (e.g. Sheffield) that have interests in the Arctic areas, there is no one group combining both these environments and working across a variety of disciplines as occurs in the US (e.g. INSTAAR – Institute of Arctic and Alpine Research). This would be a unique opportunity to see if Birmingham can fulfil such a role within the UK academic environment and is truly interdisciplinary. This would link to International agendas in Arctic and Alpine environments, which are generating a large degree of interest both within funding activities (NERC, EU – recent USA/UK workshop on Arctic collaboration in Cambridge) but also strategy approaches to mitigating potential effects and addressing inter-disciplinary research (e.g. the International Arctic Science Committee (IASC) and associated Arctic Climate Impact Assessment.

Internal attendees

David Hannah, Martin Widmann, Ian Fairchild, Chris Bradley, Nicholas Ketteridge, Stefan Krause, Bill Bloss (GEES), Scott Hayward, Roland Brandsetter, and Jeff Bale (BioSciences), David Haughton and Stuart Eggington (Physiology), John Bridgeman, Cynthia Carliell Marquet, David Chapman and Chris Rogers (Civil Engineering) and Chris Baker (Transport). Socio-economic interests would also hopefully be addressed by interested parties within UoB and Allan and Hill (external attendees).

External attendees:

Cyan Ellis-Evans – Head of the Arctic programme for BAS , Martyn Tranter (University of Bristol), Philip Wookey and Andy Hodson (University of Sheffield) Tristam Irivine-Flynn (University of Aberystwyth). Andrew Allan (University of Dundee), Margo Hill (University of Geneva).

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