

ARCDIV.NET: a multidisciplinary research programme planned for the International Polar Year 2007-2009

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The Arctic Climate Impact Assessment assesses significant contemporary changes in regional variability and trends of climate and ecosystems in the Arctic. The report, however, mostly addresses the circum-Arctic scale and a main statement in the self-assessment in the report is that “there is a need to focus future assessments on smaller regions (perhaps at the landscape level) where an assessment of impacts of climate change has the greatest relevance and use”. A considerable gap exists, however, between the existing Arctic environmental records and the needs for such data in climate impact studies. “ARCTic climate and biological DIVersity studies NETwork” (www.arcdiv.net) is a network of projects planned for the coming International Polar Year (IPY) seeking to explore the diversity of climates and ecosystems at landscape scale within the Arctic region. The plans include integrating existing and new measurements and knowledge of key physical and biological variables and processes at multiple Arctic observatories. The principal objective of ARCDIV.NET is to give new insight into the links between the diversity in physical and biological parameters in the Arctic, at different temporal and spatial scales. The present introduction to the programme will focus on the project plans concerning the physical environment of Svalbard (Spitsbergen) and especially concerning exploring the climate variability in the area on different scales.