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**Title Dr.**

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Theme -Theme 1: Design, Optimization and Implementation of the Observing System

Author list (in order) Christensen, Torben Røjle; and Arndal, Marie Frost

Poster title (brief) The Greenland Ecosystem Monitoring programme

Abstract - text box

Greenland Ecosystem Monitoring (GEM) is an integrated monitoring and long-term research programme on ecosystems and climate change effects and feedbacks in the Arctic. Since 1995 the programme has established a coherent and integrated understanding of the functioning of ecosystems in a highly variable climate, which is based upon a comprehensive, long-term interdisciplinary data collection carried out by Danish and Greenlandic monitoring and research institutions.

The GEM Programme put around 75 scientists in the field annually to collect data on ecosystem and climate change in Greenland. GEM consist of five sub-programmes: ClimateBasic, GeoBasic, BioBasic, MarineBasic and GlacioBasic. Furthermore there are a number of strategic cross cutting initiatives that also includes remote sensing and collaboration with other complimentary operational monitoring and research activities.

The GEM database currently covers data from monitoring programmes from Zackenberg (1995-), Kobbefjord at Nuuk (2007-) and Disko (2017-). The well over 2000 parameters are freely available via the GEM Database and used by GEM participants and external scientists to produce scientific papers, scientific assessments, advisory reports, etc.