



Understanding the impact of extra-tropical storms from CORDEX projections over the Scandinavian coast

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Response of extra-tropical storms to climate change over the Scandinavian coast in high resolution regional climate projection is investigated in the current study. The complex interactions between North Atlantic oscillation, arctic amplification, ocean-atmospheric interactions and changing nature of synoptic waves will affect the generation and extremity of storm types. The nature of these storms is dependent on large-scale systems over this region, and hence higher resolution climate models might be able to represent the structure and intensity of the storms with accuracy. We propose a tracking algorithm for two seasons autumn (September-October-November) and winter season (December-January-February) providing features to detect the frequency and intensity of storm types for a given coast. Our objective is to understand the impact of changing nature of extreme storm types over the Scandinavian coast. Using a spatial assessment, possible impacts due to future storms in RCP8.5 scenario are assessed and hazard levels are represented.