



Tundra fires and sea ice in the Arctic

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A regional climate model WRF is used for studying a potential link between sea ice conditions and drying of tundra in the Arctic. Two different years are picked for the experiment – 1996 as a year with no tundra fires and relatively high sea ice extent, and 2007 as a year of record low sea ice extent and significant number of fires. Different ice forcings are applied in order to assess the role of sea ice on summer and autumn tundra conditions against the role of the large-scale atmospheric circulation. Our experiments indicate that the large-scale atmospheric circulation might be playing a bigger role than arctic sea ice extent in preconditioning summer tundra dryness. Model experiments are done for Beringia.