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Frozen assets: using logbooks to understand Arctic climate change 1750 to 1850

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The Arctic region is one of the most vulnerable to climate change and in turn influences conditions elsewhere. Yet it remains the least well-understood of the world's regions. Most certainly, recent decades have seen an burgeoning of monitoring sites and of satellite observations but for earlier years the seeming paucity of information has limited our understanding. This presentation draws attention to a hitherto largely unexplored source of information for the pre-instrumental period before the mid-nineteenth century; the logbooks of whaling vessels and ships in the service of the Hudson's Bay Company and the Royal Navy. The work has been carried out as part of the Leverhulme Trust-funded ARCdoc project (http://arcdoc.wordpress.com/) and this presentation explores the nature and value of these documents and offers some derived reflections on the nature of Arctic climate change in the final decades before anthropogenic influences on global climate can be considered identifiable. This period includes also forcing events such as the Dalton Minimum and the Tambora eruption and the response of the Arctic to these events can be explored in a degree of detail hitherto not possible.