

## **A survey of climate change knowledge and attitudes of Nova Scotia teachers**

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We report the results of a survey of Nova Scotia in-service teachers' climate change knowledge, attitudes, and comfort levels; current climate change teaching practices; perceived or actual barriers to teaching climate change; and needed resources for climate change instruction. This survey was designed to identify strengths and weaknesses of Nova Scotia climate change instruction to help target professional development efforts. 427 teachers at 24 schools in three school boards (Halifax Regional, Cape Breton-Victoria Regional, and Strait Regional) were invited to participate. 188 teachers completed an anonymous online survey (44% response rate), with 58% of respondents teaching at the high-school level and 42% at the elementary level. Overall results found that teachers were highly concerned about climate change impacts and were supportive of adaptive and mitigative efforts, as well as broad integration of climate change instruction across the curriculum. Survey respondents had high-levels of general scientific literacy, but showed serious gaps in climate science knowledge, confused priorities for climate change adaptation/mitigation, and held misconceptions about the causes and effects of climate change. The majority (87%) of respondents already address climate change in some manner in their classrooms, but half of those teachers report that lack of knowledge or lack of time limits their instruction. Lack of support materials (29%) and curriculum integration (75%), rather than concerns about the uncertain nature of climate science (4%) or negative reaction from parents (4%), are the primary reasons teachers fail to teach about climate change. These results indicate an opportunity for Nova Scotia geoscience professionals and educators to influence climate change instruction in Nova Scotia public schools through materials development and mentoring.