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## Mercury dynamics from pan-Canadian survey of lakes: analyses of sediment cores

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Strong measures have been taken since the 1970s to reduce mercury emissions in Canada. However, long-range transport of emissions continues and constitutes a large percentage of the total anthropogenic deposition of mercury in Canada. Natural sources of mercury are also heterogeneously distributed across the Canadian landscape. As part of the LakePulse network ([www.lakepulse.ca](http://www.lakepulse.ca)), we are quantifying mercury concentration in hundreds of lake sediment cores across 13 Canadian ecozones. Analyses from eastern Canada lakes showed that total mercury is significantly different among ecozones, and many ecozones showed higher total mercury concentrations in contemporary sediments. Contemporary methyl mercury concentrations also differed among ecozones. Our overarching goals are to map the heterogeneity in mercury concentrations across the country and to identify the most parsimonious set of predictors considering a suite of physico-chemical and land-use variables from lakes and their watersheds set across the temperate to subarctic landscape.