



Interannual variability and long-term trends of coastal currents off Atlantic Canada from satellite altimetry

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The inshore Labrador Current and the Nova Scotian Current are important coastal current features off Atlantic Canada and can significantly affect physical and biological environments off eastern Canada and northeastern United States on seasonal and interannual time scales. So far, there is no long-term in situ monitoring of the two coastal currents. In this study coastal altimetry product from CTOH since 1993 is used to investigate interannual variations and long-term trends of the inshore Labrador Current and the Nova Scotian Current. The geostrophic currents derived from along-track altimetry data are compared with available in situ measurements and coastal circulation model output. Both currents are stronger in fall and winter and weaker in spring and summer, and show substantial interannual variations. The inshore Labrador Current has a positive linear trend over the study period, while the Nova Scotia Current has little linear trend.