

Supplementary Information for

**A modeling study of temporal and spatial  $p\text{CO}_2$  variability on the biologically active  
and temperature-dominated Scotian Shelf**

Krysten Rutherford<sup>1</sup>, Katja Fennel<sup>1</sup>, Dariia Atamanchuk<sup>1</sup>, Douglas Wallace<sup>1</sup>, Helmuth Thomas<sup>1,2</sup>

<sup>1</sup>Department of Oceanography, Dalhousie University, 1355 Oxford Street, Halifax, Nova Scotia, B3H 4R2,  
Canada

<sup>2</sup>Institute of Coastal Research, Helmholtz Center Geesthacht, D-215502 Geesthacht, Germany

**Table S1: Summary of observational datasets, including latitude, longitude location and month/year of sampling.**

<b>Observational Dataset</b>	<b>Location</b>	<b>Year &amp; month of sampling</b>
CARIOCA Buoy	44.3°N, 63.3°W	<b>2007:</b> <i>May, Jun, July, Aug, Sept, Oct</i> <b>2008:</b> <i>Jan, Feb, Mar, Apr, May, Jul, Aug, Sept, Oct, Dec</i> <b>2009:</b> <i>Sept, Oct, Nov, Dec</i> <b>2010:</b> <i>Jan, Apr, May, Jun, Jul, Aug, Sept</i> <b>2011:</b> <i>Jul, Aug, Sept, Oct, Nov, Dec</i> <b>2012:</b> <i>Jan, Feb, Mar, Apr, May</i> <b>2014:</b> <i>Feb, Mar, Apr, May, Jun, Jul, Aug, Sept, Oct, Nov Dec</i>
Atlantic Condor Transect	43.8°N, -60.6°W to 44.6°N, -63.5°W	<b>2018:</b> <i>Feb, Mar, Apr, May, Jun, Jul, Sept, Oct, Nov</i> <b>2019:</b> <i>Jun, Jul, Oct, Nov</i>