Data for this study comes from the WHOI-MIT Joint Program orientation cruises aboard the Sailing School Vessel Corwith Cramer. These cruises are typically 10-days in length and occurred every year from 2003 to 2013 in late June (table?) to the south of Cape Cod.

The majority of sampling on these cruises occurred along standard sections forming a “U” shape off the New England shelf-break, along the slope, and back onto the shelf (see figure). The unique nature of sampling under sail produced some variability in precise sampling locations depending on the year. The two offshore transects are separated by XXkm and typically consisted of 5-7 casts each with a typical resolution of approximately XX km (see tanle for full information). For the purposes of this paper we will refer to the two sections in any one year as “west” and “east”. The along slope section will before referred to as the slope section.

For this study we use CTD data from these sections to look at the mean structure and trends across the shelf-break. We processed all data on to a vertical resolution of 1 dbar and removed data spikes. In

In addition, we produced standard gridded sections across the shelf-break. Each section was objectively mapped on to a standard section and gridded using a laplacian spline interpolator (e.g. Sutherland? Nikolopoulos et al., 2009)  with vertical and horizontal resolutions of 5m and 5km respectively.