

Exploring MHW effects on fish abundance in trawl surveys

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11/20/2020

Exploring marine heatwaves

North America

Characterizing MHWs in North America

How frequent and severe have heatwaves been in North America since 1982 (the start of the MHW data)?

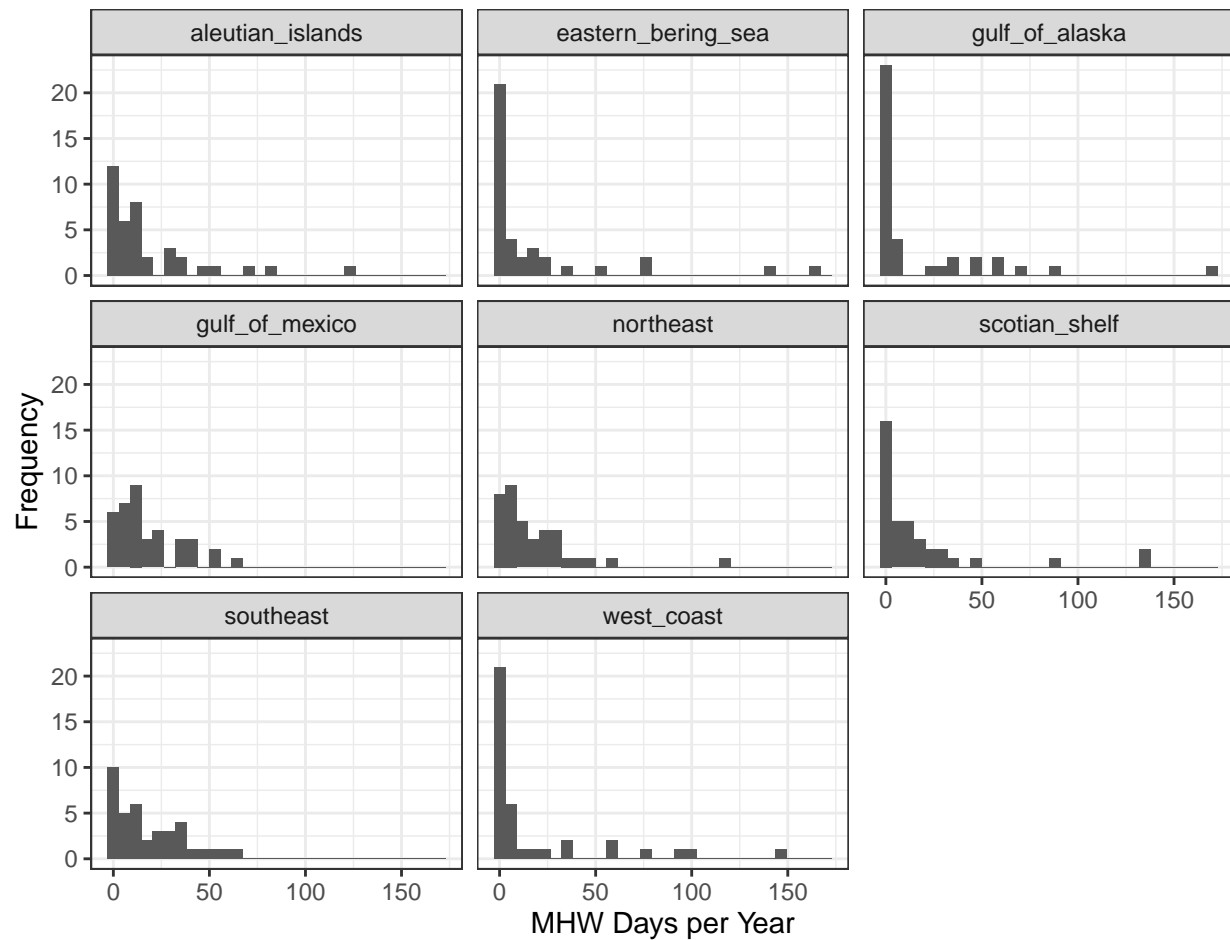


Figure 1: Frequency of MHW Events in North America

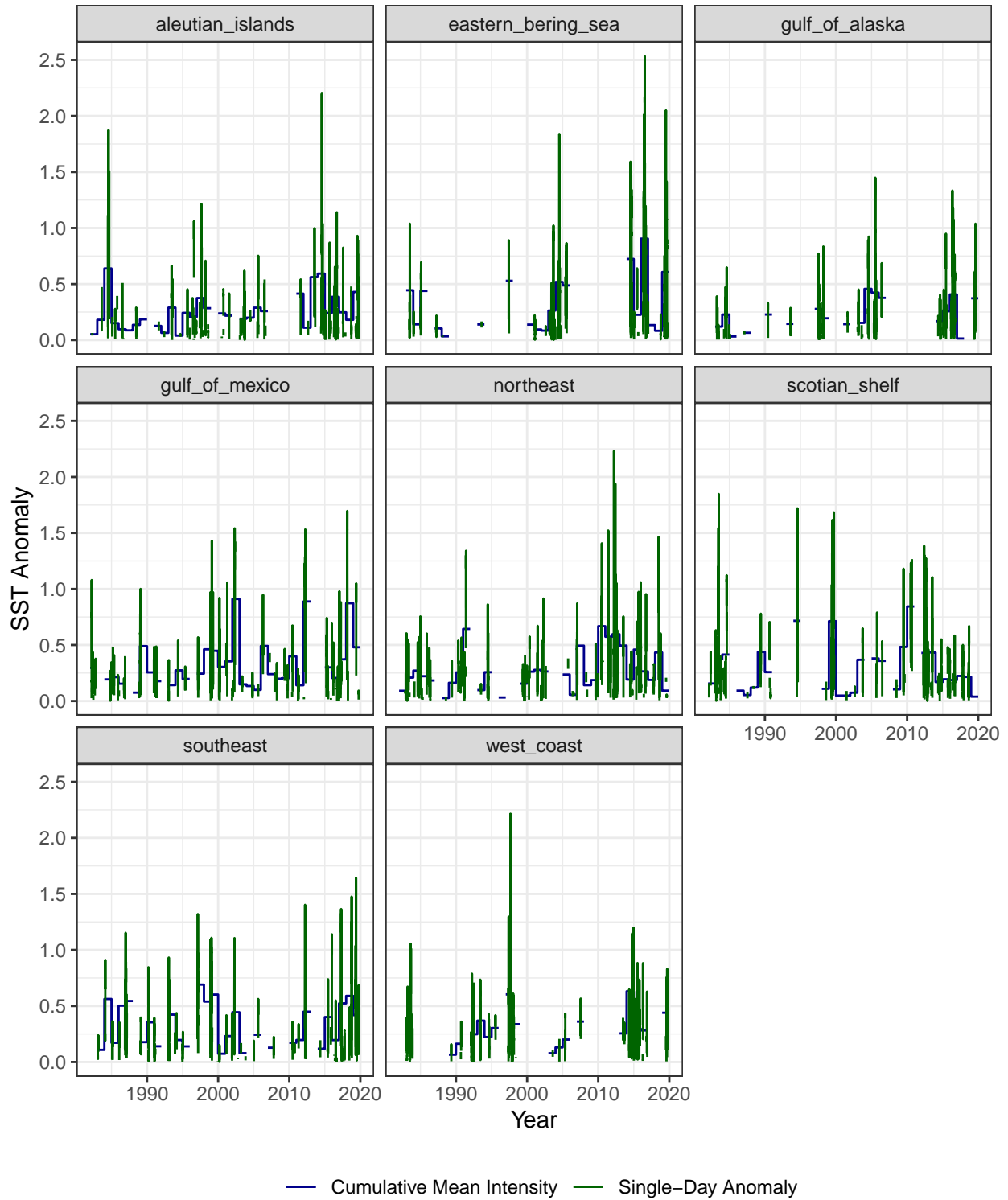


Figure 2: Anomaly of MHW Events in North America

MHWs vs. CPUE

Let's look at annual cumulative mean intensity (sum of SST anomalies in the calendar year / number of MHW-days in the calendar year) vs. trends in aggregate abundance (total CPUE across all species) for the

whole region. The two metrics of CPUE change used are proportion change CPUE vs. last year $((\text{cpueThisYear} - \text{cpueLastYear})/\text{cpueLastYear})$, and proportion change CPUE relative to the long-term mean $((\text{cpueThisYear} - \text{cpueSeriesMean})/\text{cpueSeriesMean})$.

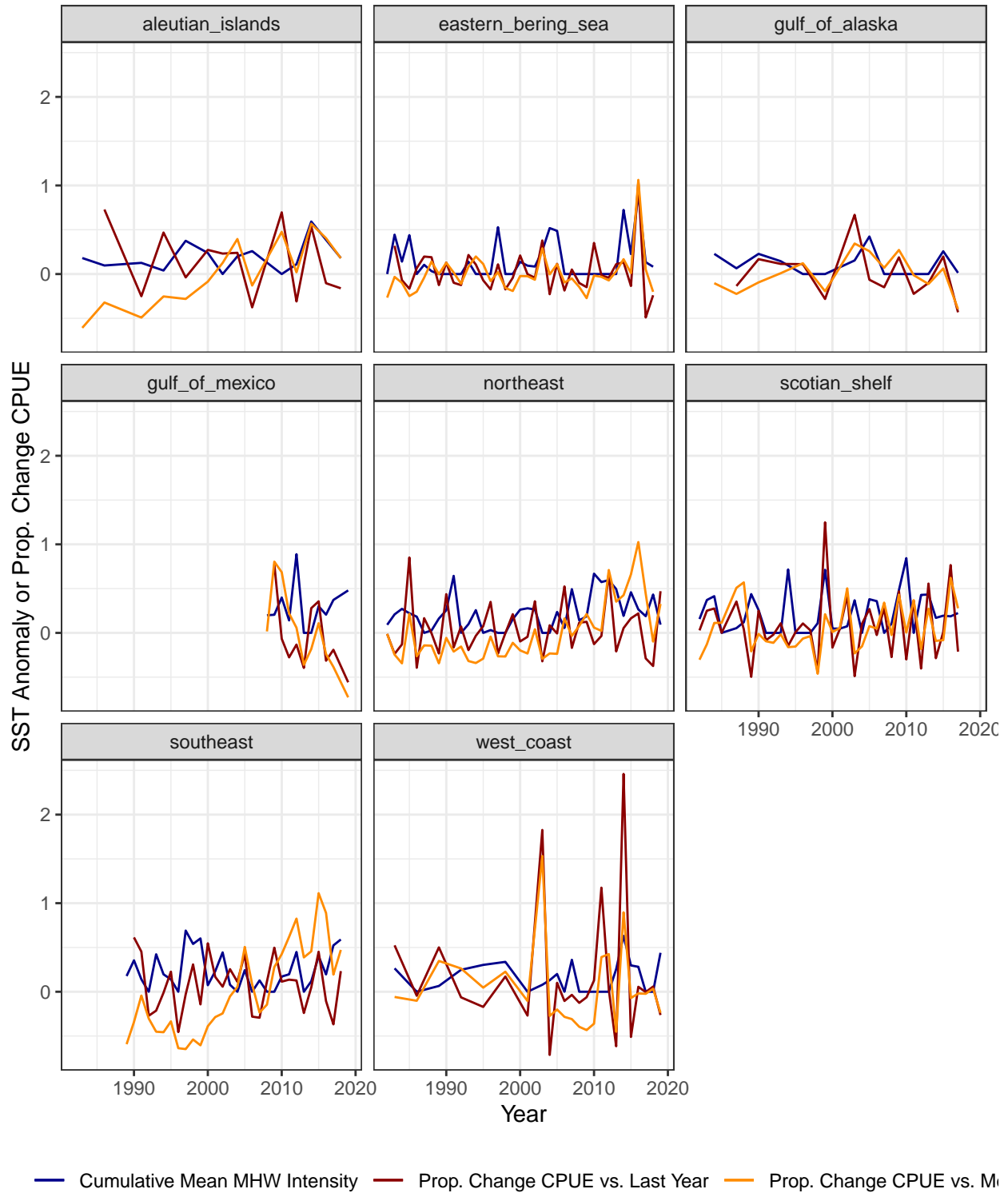


Figure 3: MHW Cumulative Mean Intensity vs. Change in Total CPUE