The following supplement accompanies the article

Long-term Bering Sea environmental variability revealed by a centennial-length biochronology of Pacific ocean perch *Sebastes alutus*

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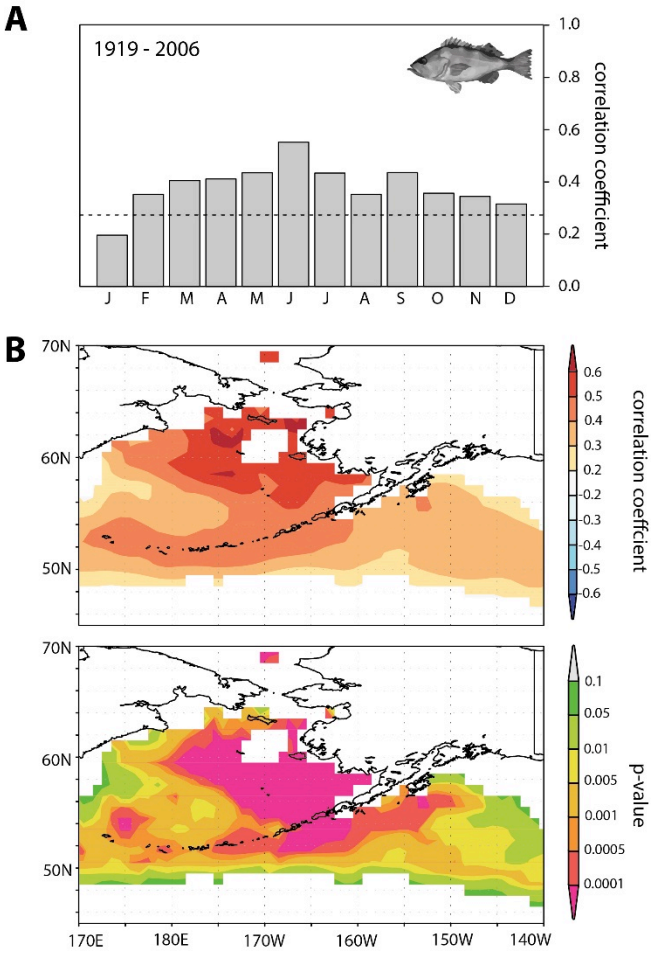

Fig. S1 | Correlations of Pacific ocean perch (POP) *Sebastes alutus* chronology with sea surface temperature (SST) data (Hadley ISST1) over the 1919–2006 interval. (**A**) Correlation coefficients of the POP chronology with monthly SST values in the area from 55–60°N, 170–175°W (region 1 in Fig. 1A). Dashed line indicates a 0.01 significance level. (**B**) Correlation coefficients and associated p-values for the relationship between the POP chronology and mean February–December SST.

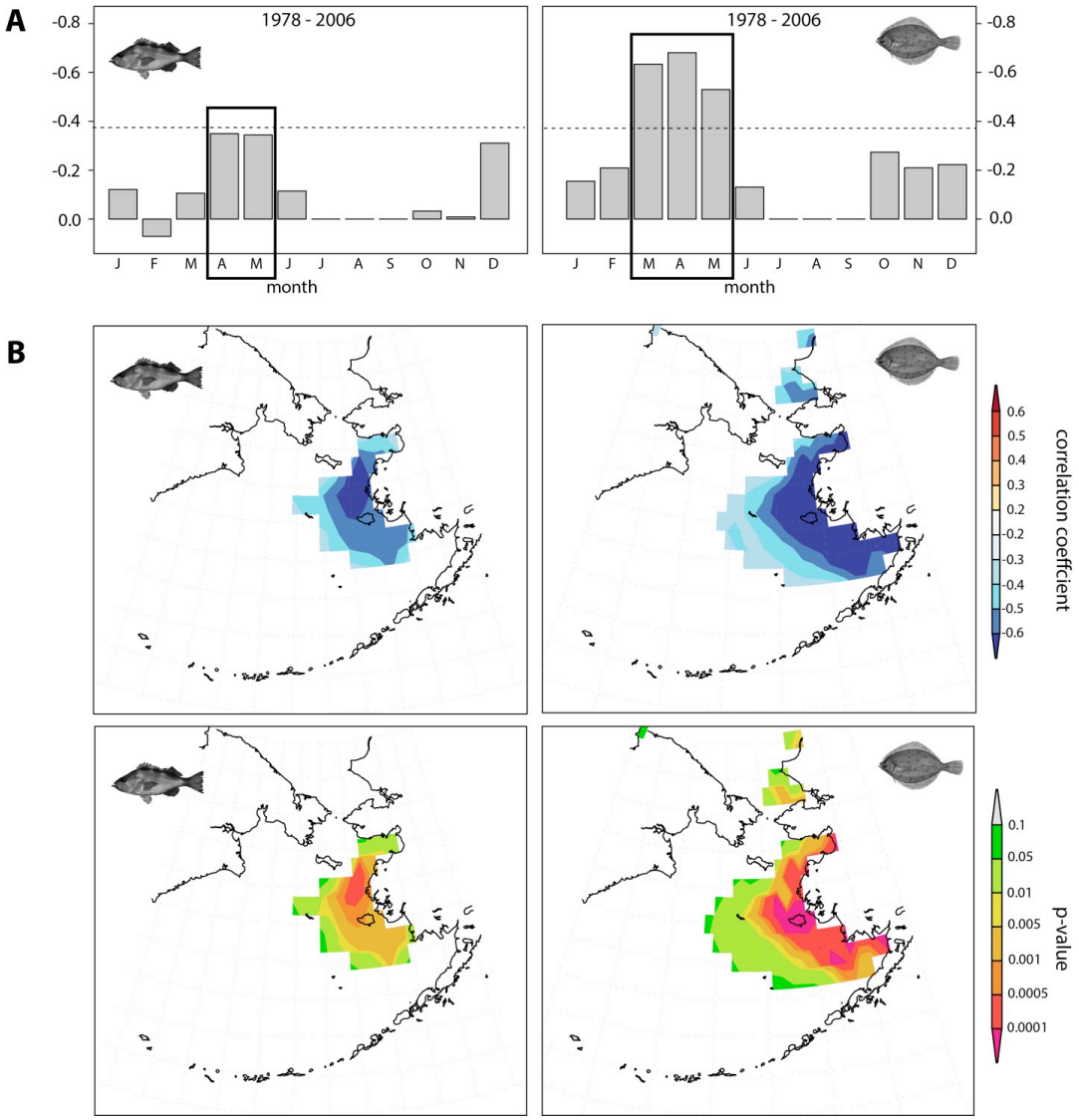

Fig. S2 | (A) Correlations of the Pacific ocean perch (POP) *Sebastes alutus* and yellowfin sole (YFS) *Limanda aspera* chronologies with sea ice concentration (NSIDC) in regions 1 and 2, respectively (see region boundaries in Fig. 1A). Dashed line indicates a 0.05 significance level. The rectangles indicate the months over which SST was averaged to generate correlation maps. (**B**) Correlation maps and associated p-values, as calculated for the 1978–2006 interval over which sea ice concentration data were available. The months of April and May were averaged for POP, while the months of March-April-May were averaged for YFS.

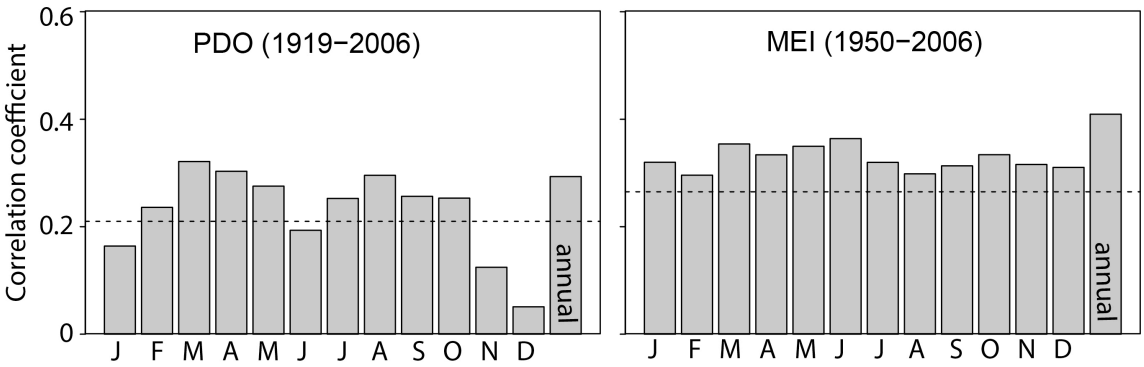

Fig. S3 | Correlation between the RCS detrended Pacific ocean perch (POP) *Sebastes alutus* chronology, monthly values of the Pacific Decadal Oscillation index (PDO), and monthly values of the Multivariate El Niño-Southern Oscillation Index (MEI). Dashed line indicates a 0.05 significance level; "annual" refers the average annual PDO index and MEI index.

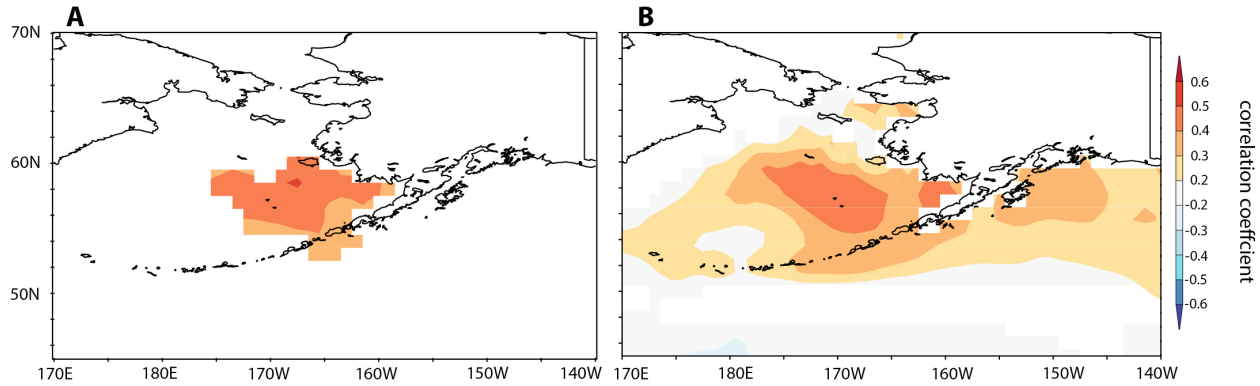

Fig. S4 | Correlation between mean January–December sea surface temperatures (HadISST1) and (**A**) the Pacific ocean perch (POP) *Sebastes alutus* chronology generated using samples collected in 1981 (n = 9; 1950–1980 interval), and (**B**) the chronology generated using the 2008-10 samples (n=16, 1950-2006 interval). Although the exact sample locations of the 1981 samples are not known, the correspondence between these correlation patterns suggests that overlapped with the sample locations of the 2008-10 samples.