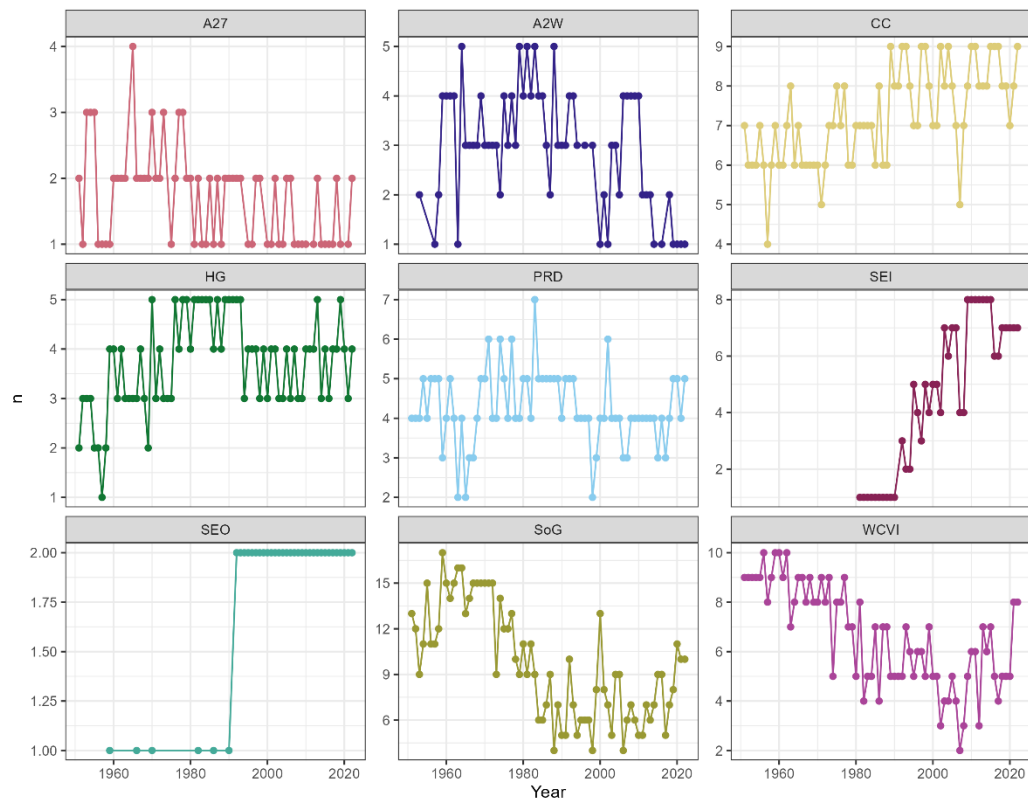
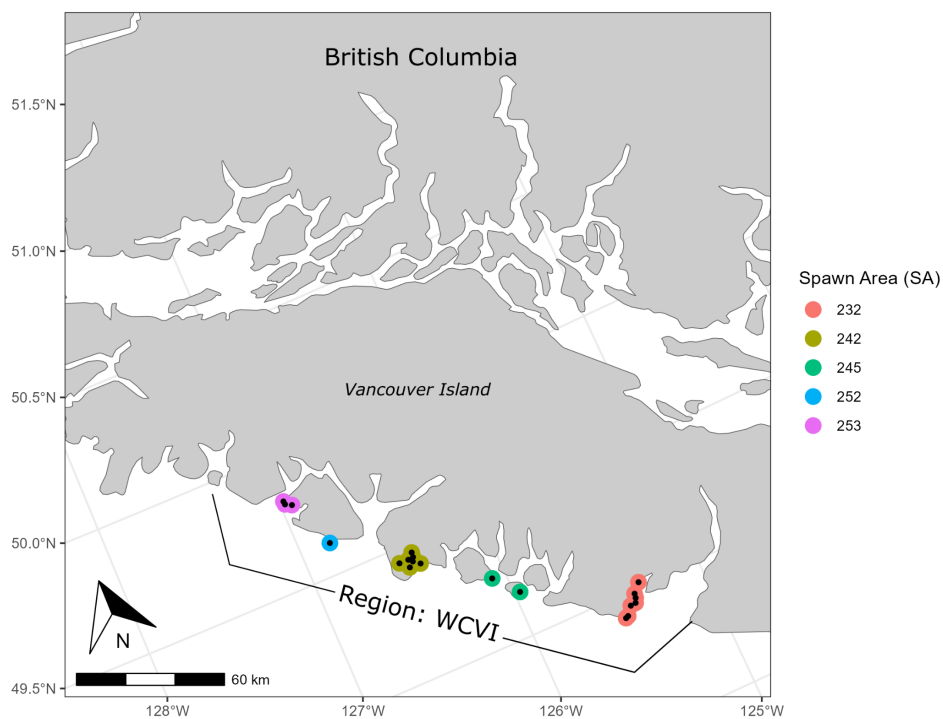


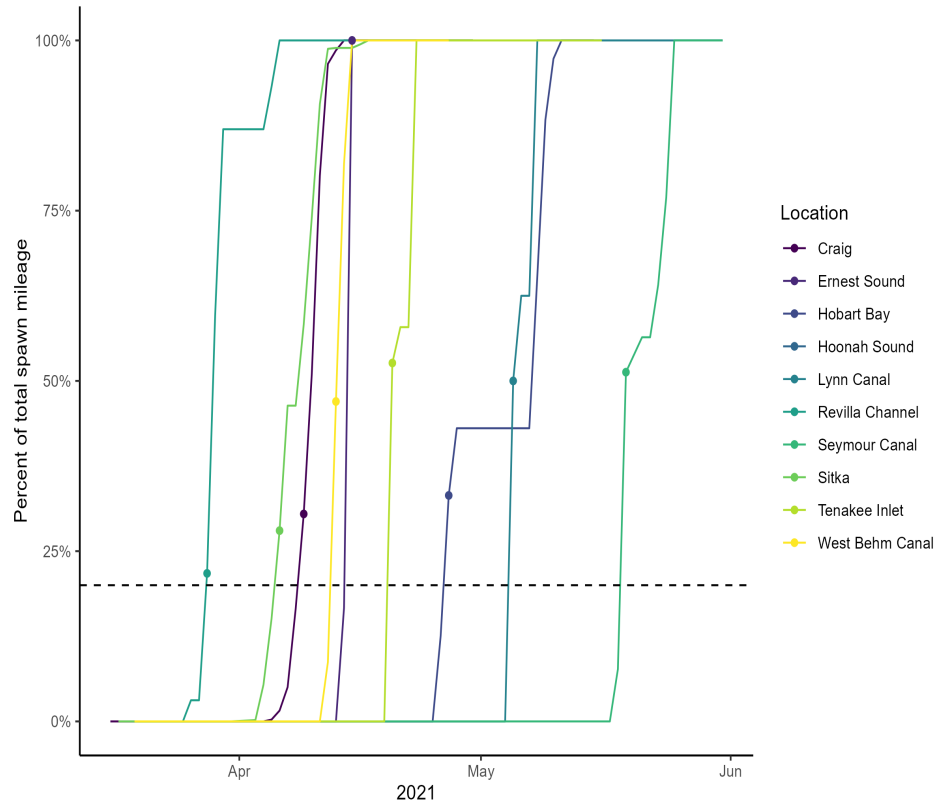
Supplemental Figures



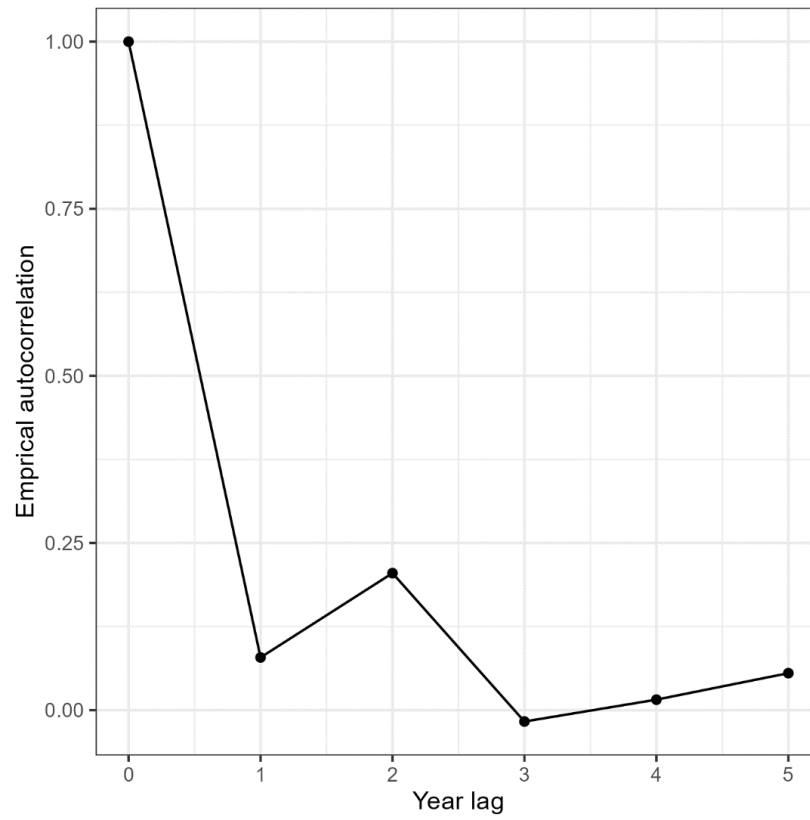
**Figure S1** Number of unique spawning areas in each region over the period of record of this study. For region abbreviations see Table 1 in manuscript.



**Figure S2** Map showing distribution of individual spawn survey locations (from 2020) aggregated by spawn area for British Columbia spawning region West Coast Vancouver Island (WCVI).



**Figure S3** Example of robust first spawn dates (FSD) calculated for spawn areas (SAs) in Southeast Alaska. Data shown are for surveys conducted in 2021. Lines represent the progression of spawn miles as a percentage of the total spawn miles for that year/SA, and points indicate the date at which the cumulative spawn miles crossed 20% of the total spawn mileage for that year/SA.



**Figure S4** Empirical autocorrelation of SDA derived from a generalized least squares model.