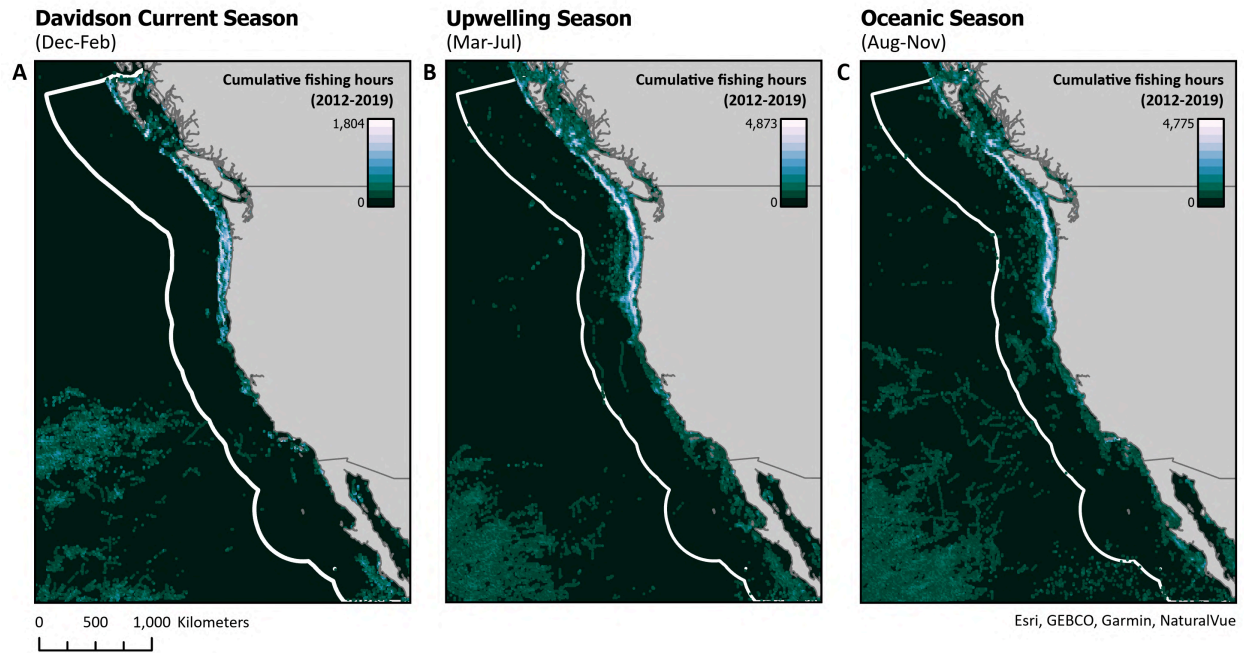


**Fig. S1. Two individual 4-year tracks showing modes of salmon shark movement patterns from the Alaska Downwelling Region (ADR) to the extended California Current region (ECCR; outlined in black).** Colors correspond to consecutive years of individual tracks with red denoting year 1, yellow for year 2, blue for year 3, and gray for year 4. Maps show daily positions within the ECCR and inset maps show the entire tracking record for each shark. (A) An individual which spent two consecutive years (year 2 and 3) within the ECCR before migrating back to the ADR; (B) an individual which made annual excursions from the ADR to the ECCR. Each animal's unique identification number is shown in the top left of each panel.



**Fig. S2. Seasonal total apparent fishing effort throughout the extended California Current region (ECCR) drawn from the Global Fishing Watch database for 2012–2019 for all gear types. Color scale shows total number of apparent hours from zero (dark green) to maximum (white) for each season within  $0.1^\circ \times 0.1^\circ$  cells. The ECCR is outlined in white in all panels.**