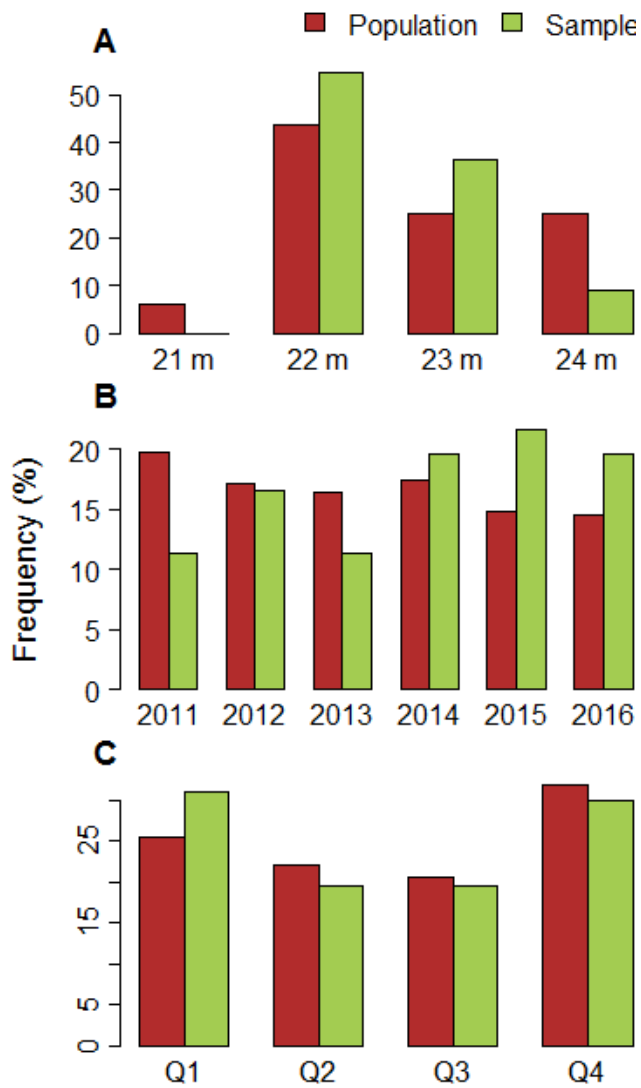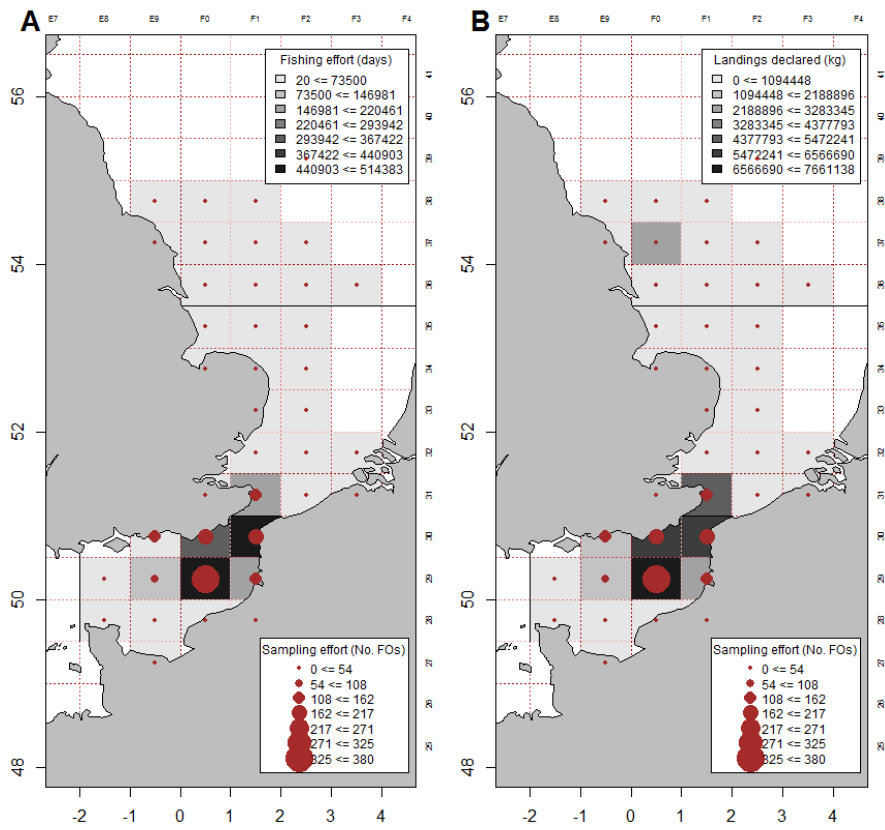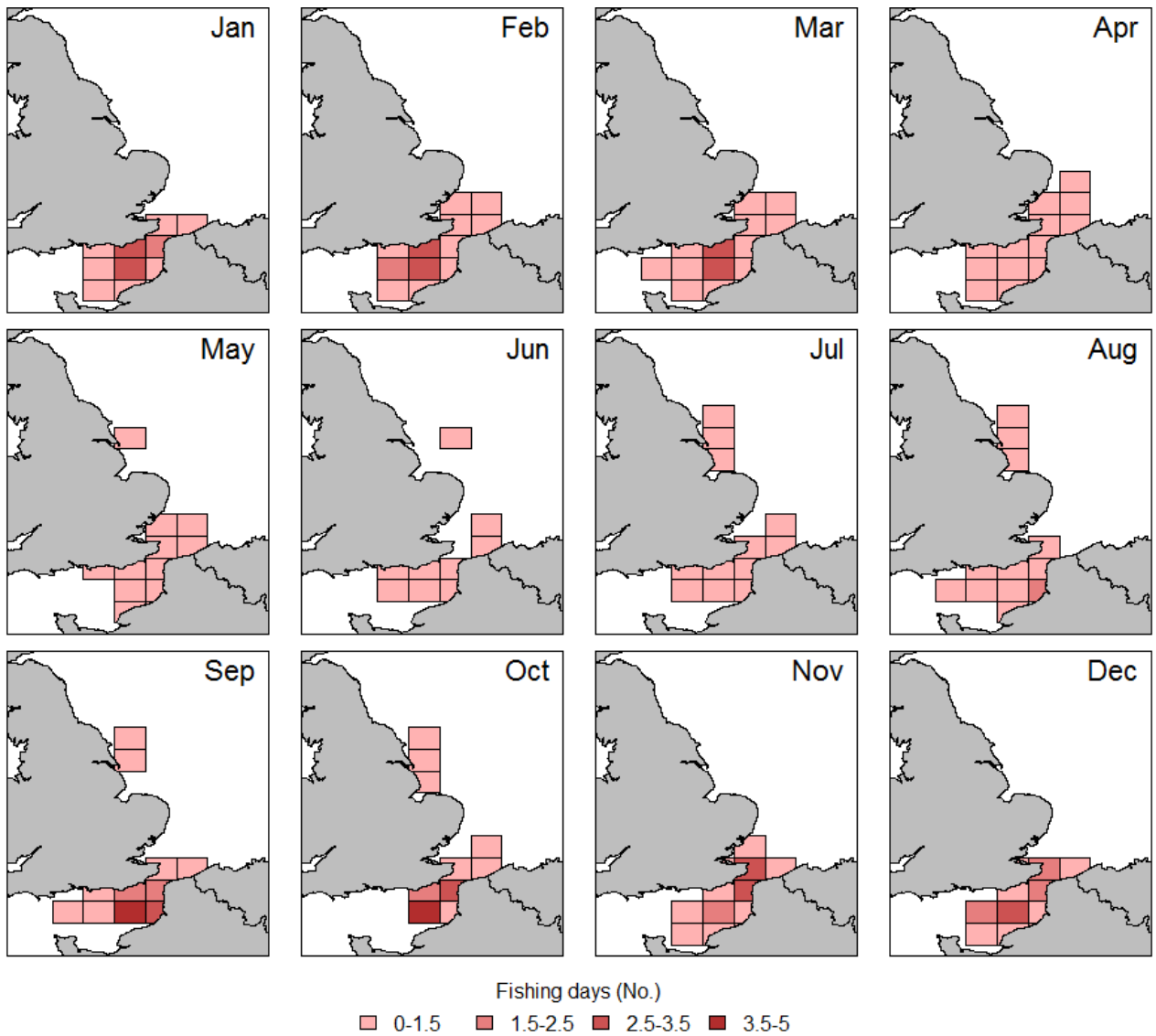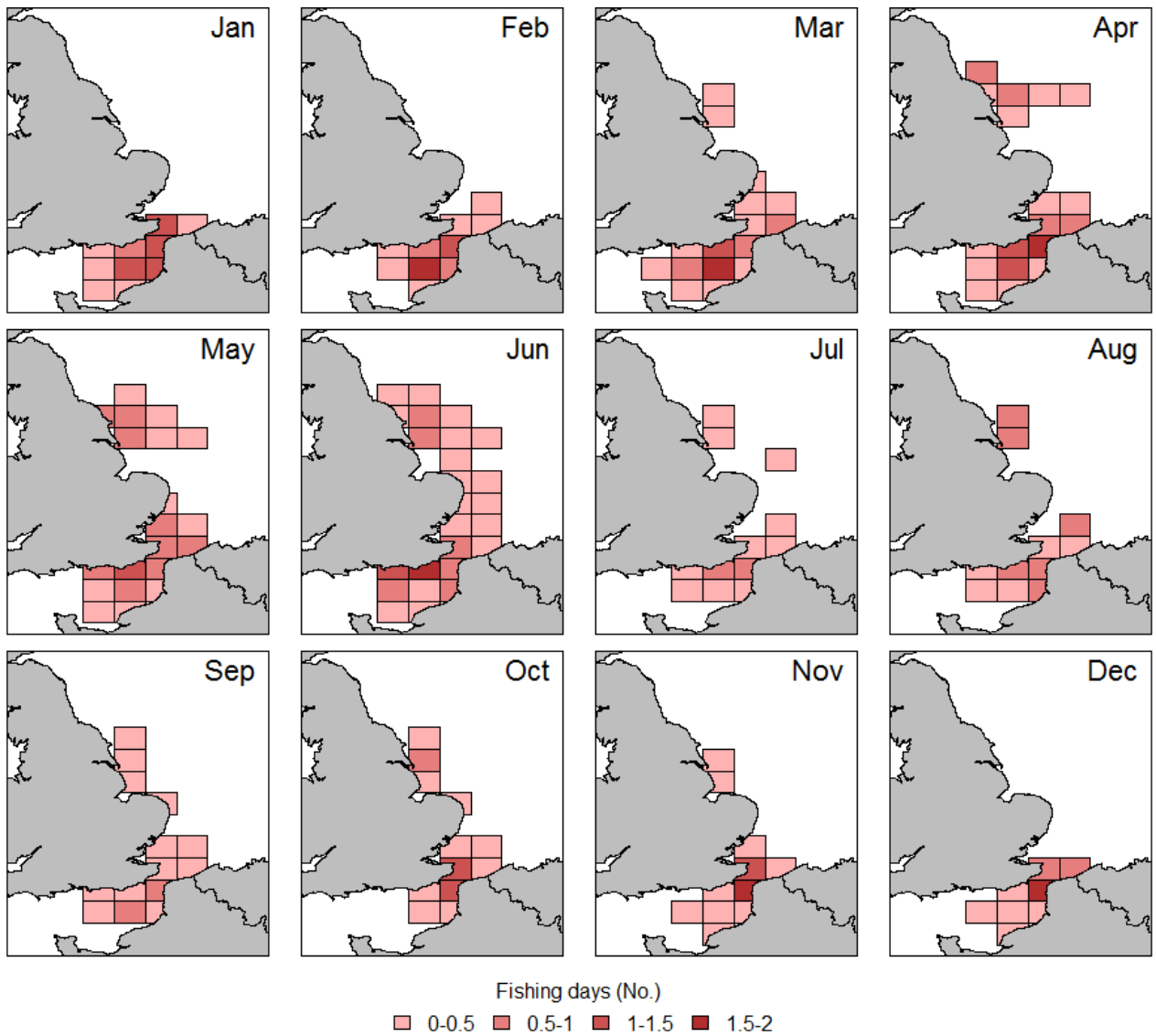**Supplementary material**

S1: Distribution (%) of vessel sizes for the Obsmer samples versus the whole fleet (A), and of sampling effort versus actual fishing effort in trip numbers per year (B) and per quarter (C) from 2011 to 2016.
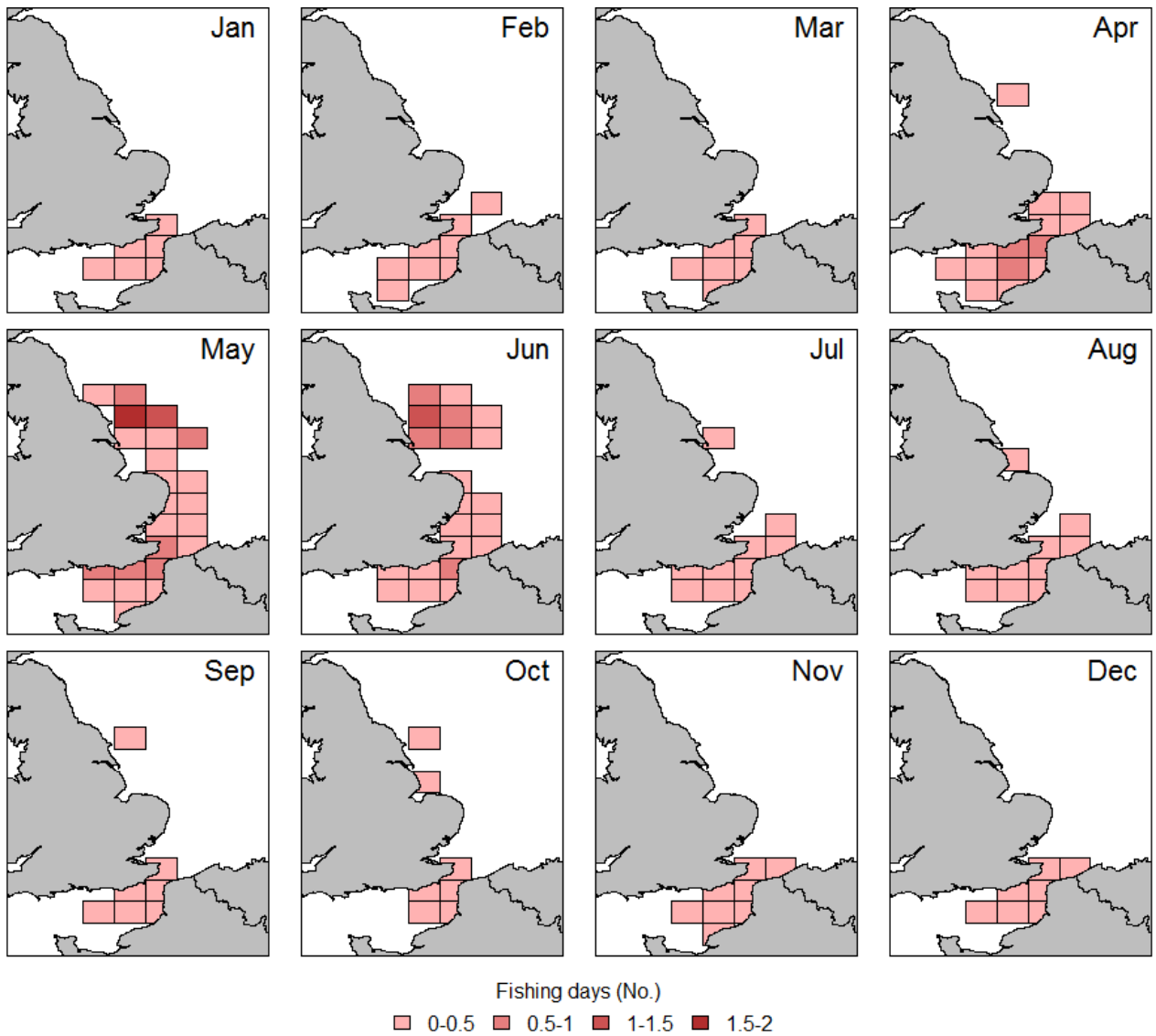
S2: Spatial distribution of observed FOs (circles), and (A) fishing effort or (B) landings (rectangles) for trawlers from 2011 to 2016.
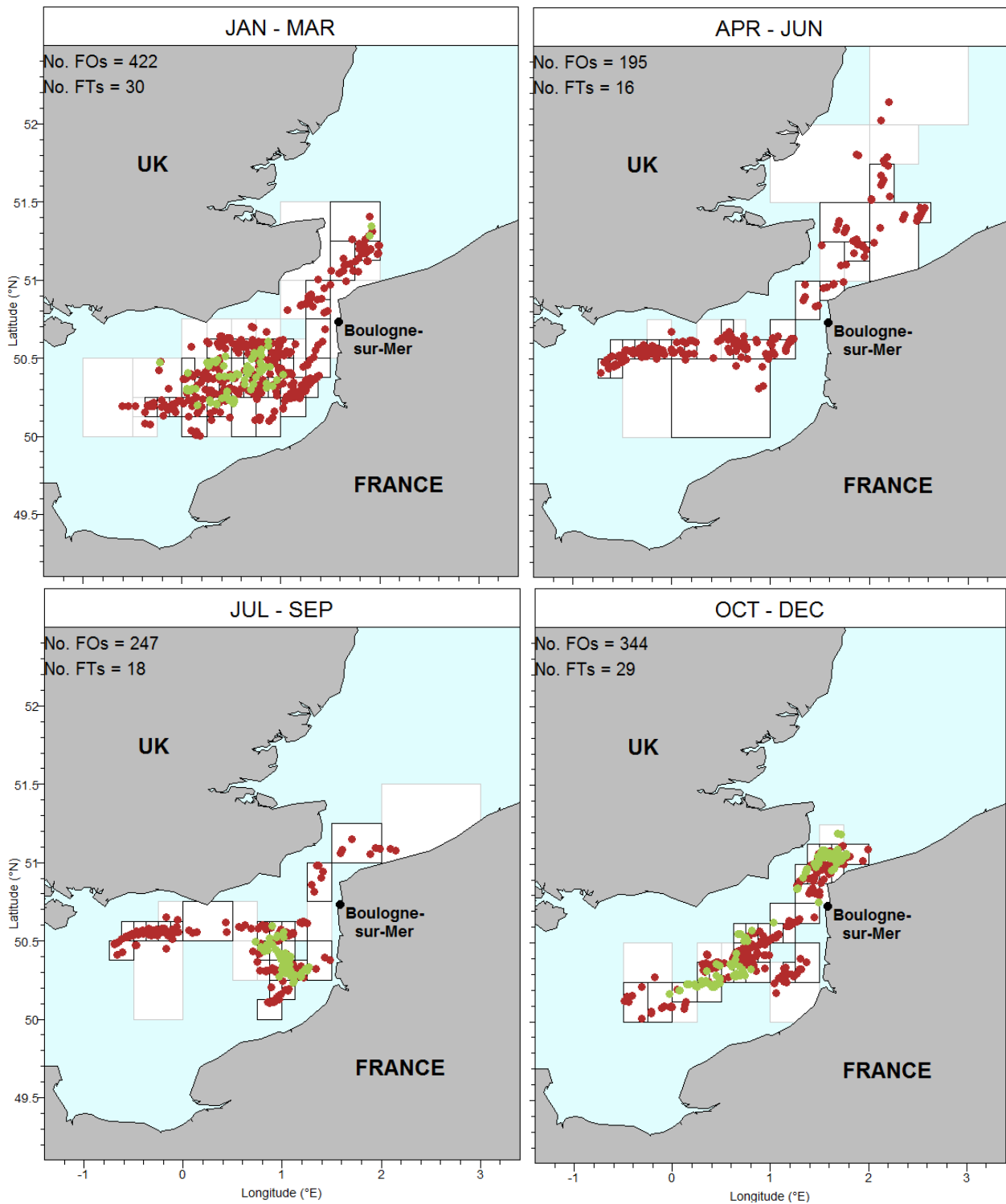
S3: Average number of days spent at sea per month and per ICES statistical rectangle in a year for bottom otter trawlers targeting cephalopod (OTB_CEP).
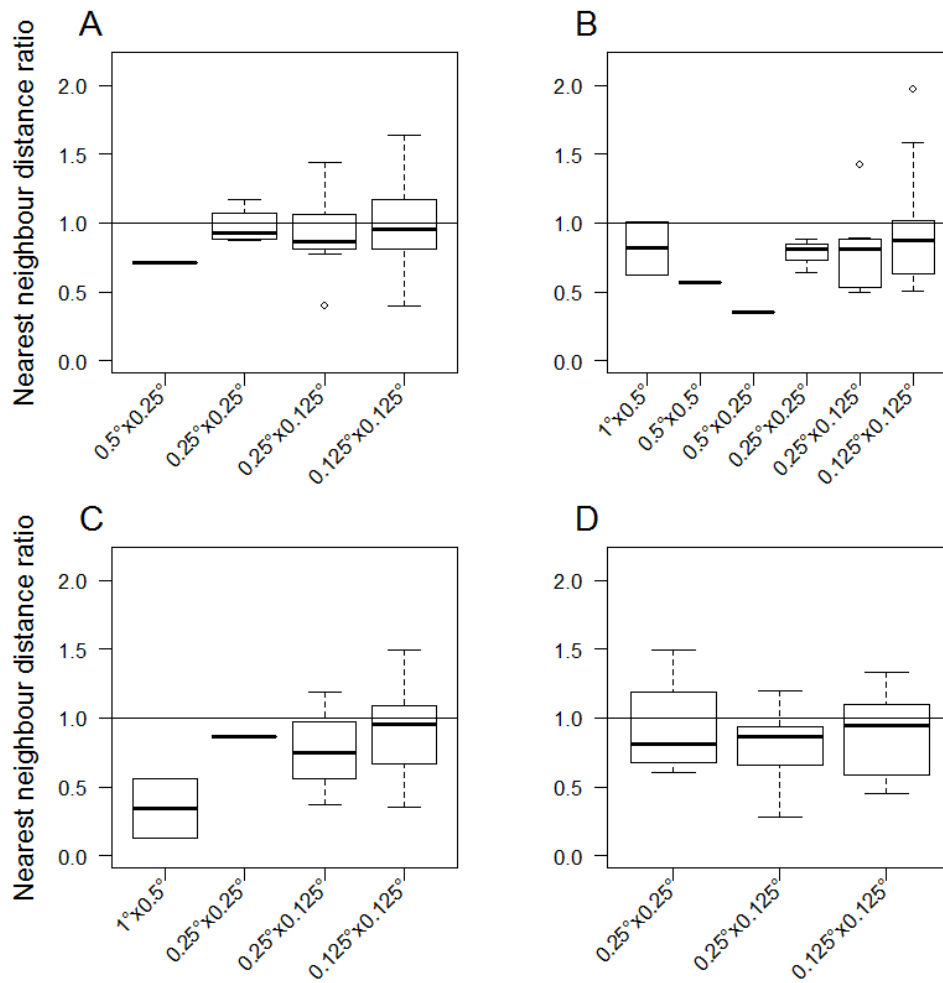
S4: Average number of days spent at sea per month and per ICES statistical rectangle in a year for bottom otter trawlers targeting demersal fish (OTB_DEF).

S5: Average number of days spent at sea per month and per ICES statistical rectangle in a year for bottom/mid-water otter trawlers targeting small pelagic fish (OTBM_SPF).

S6: FOs (dots) observed from 2011 to 2016, and the associated nested grids (rectangles) for bottom otter trawlers targeting cephalopod (OTB_CEP; green) and demersal fish (OTB_DEF; red) from January to March, April to June, July to September and October to December. Black (grey) lines define cells with (in)sufficient amounts of FOs to make estimates with a precision level of 0.35. FOs, fishing operations; FTs, fishing trips.

S7: Nearest neighbour distance ratio with cells from 1° x 0.5° to 0.125° x 0.125° in size from (A) January to March, (B) April to June, (C) July to September and (D) October to December. The horizontal line is the distance ratio expected under a random uniform distribution. This figure only includes cells with a sufficient amount of FOs to make estimates with a precision level of 0.35.