

Supplementary Material

1 SUPPLEMENTARY TABLES AND FIGURES

1.1 Figures

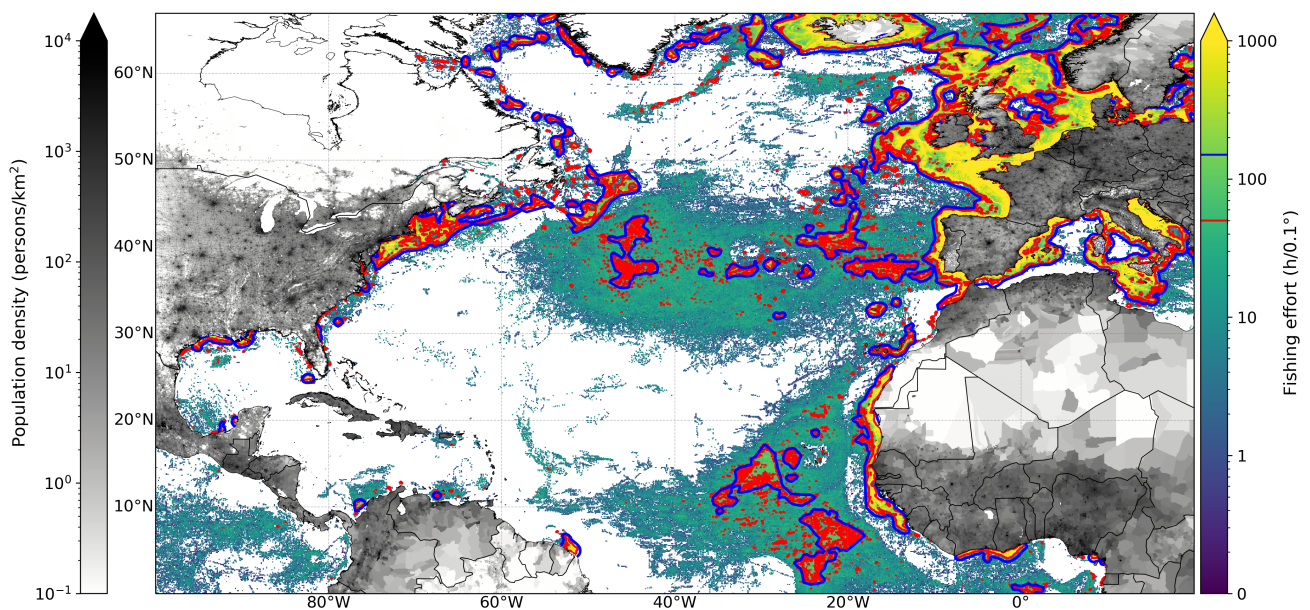


Figure S1. Fishing efforts and population density in the North Atlantic Ocean. Data for fishing efforts is represented in the original 0.1° resolution, with red contours delimiting areas with >50 hours of fishing activity. Blue contours represents delimited areas with >150 hours in the re-sampled 0.2° resolution data (> 5000 km²).

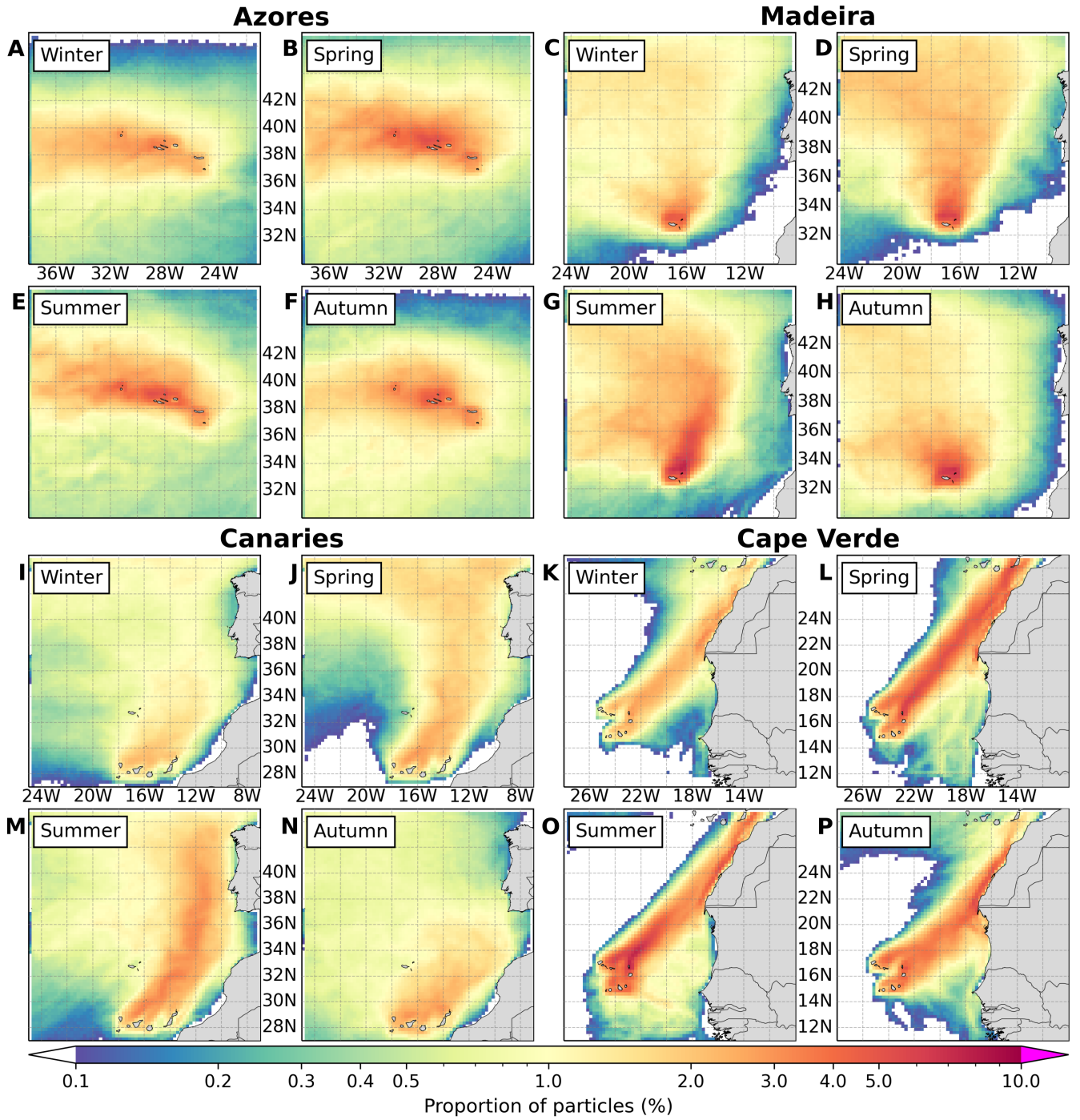


Figure S2. Seasonal proportion of $B_{surface}$ particles detected in 0.5° grid cells. Seasons were defined according to the astronomical calendar. Color map is in logarithmic scale, in which cells with $< 0.1\%$ are masked.

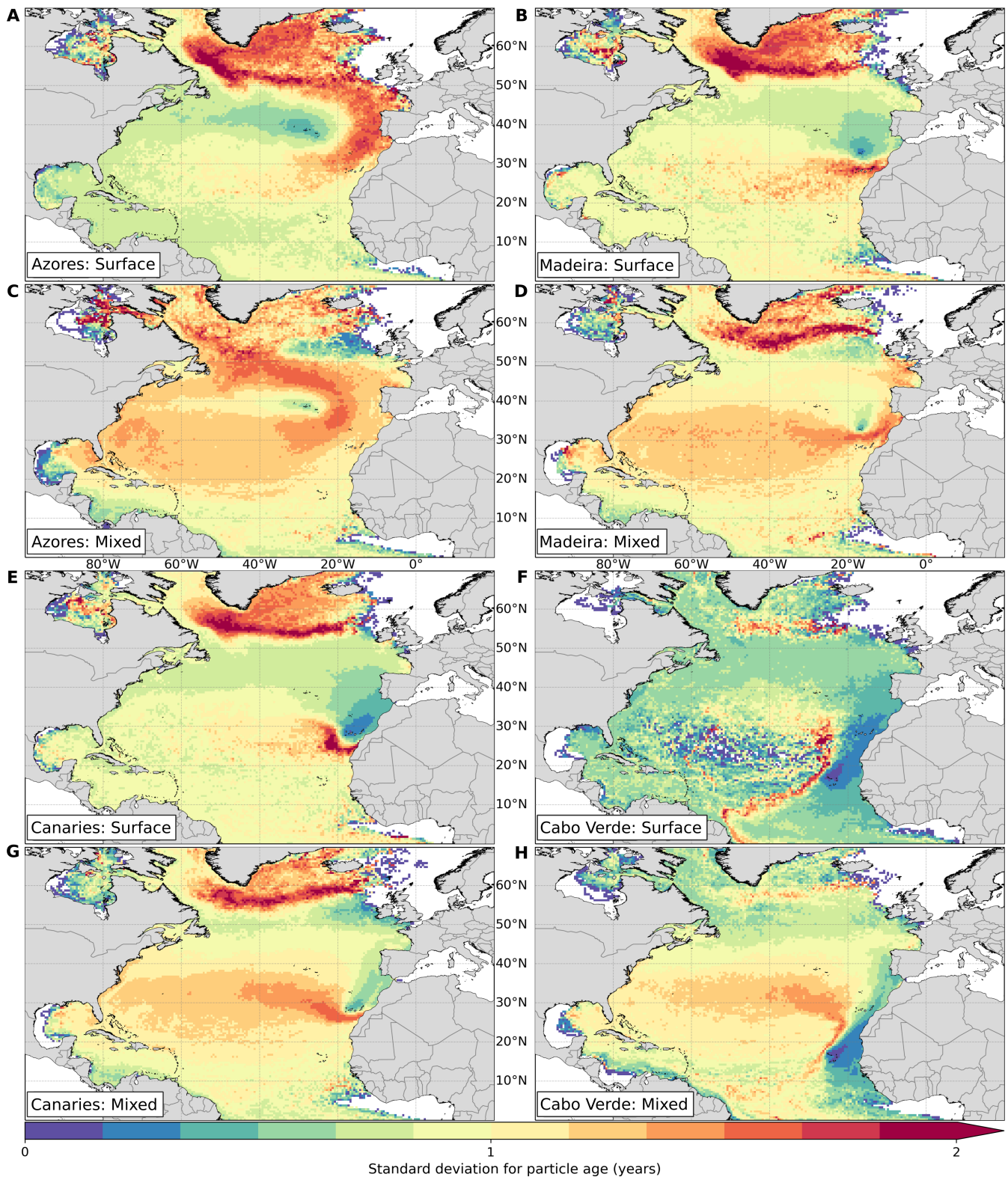


Figure S3. Standard deviation for the age of $B_{surface}$ (A,B,E,F) and B_{mixed} (C,D,G,H) particles before intercepting the archipelagos, detected in 0.5° grid cells. Colour scale is divided with a 2-month interval.

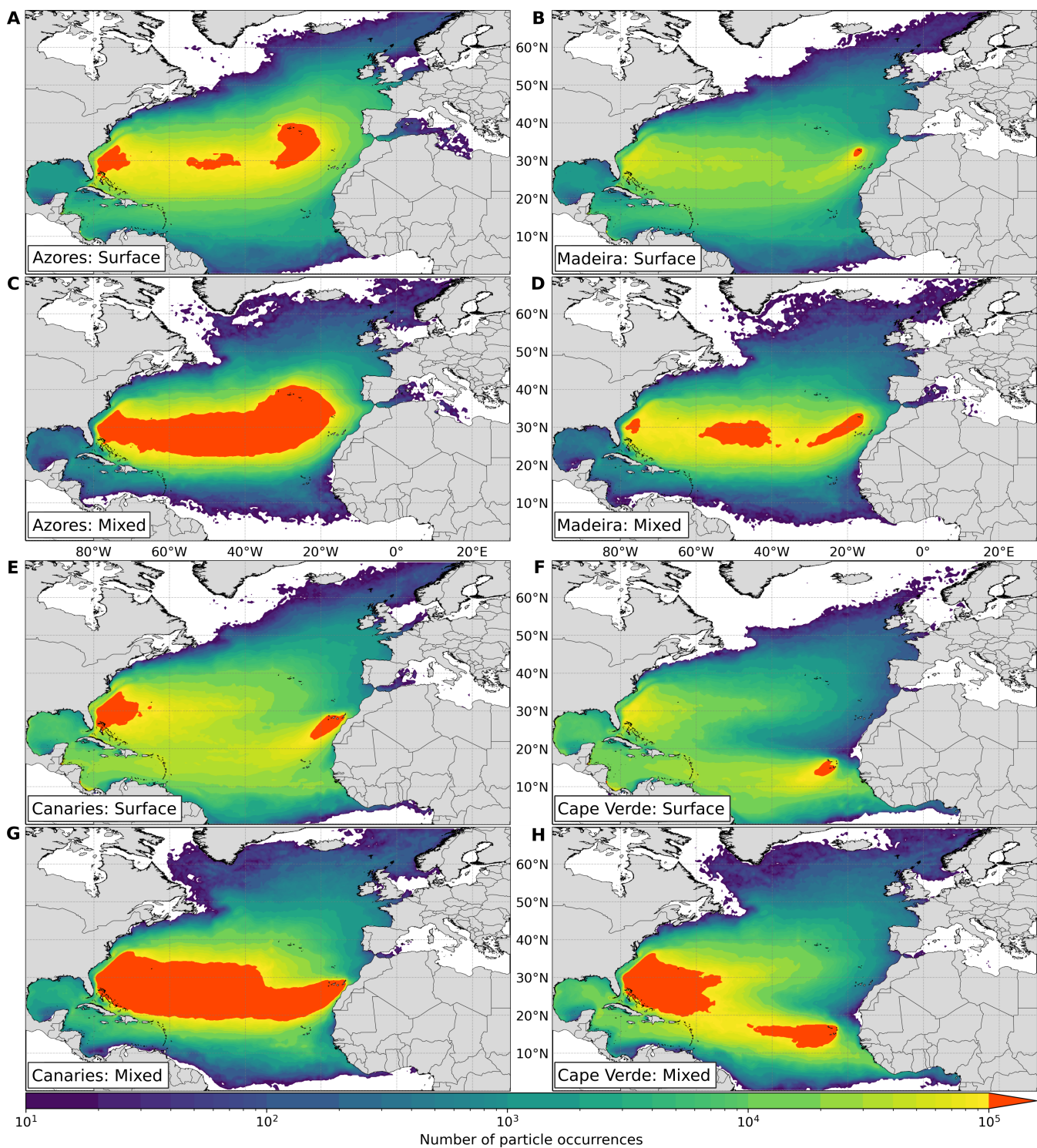


Figure S4. $F_{surface}$ (A, B, E and F) and F_{mixed} (C, D, G and H) particle occurrence per grid 0.5° grid cell, represented on a logarithmic scale.

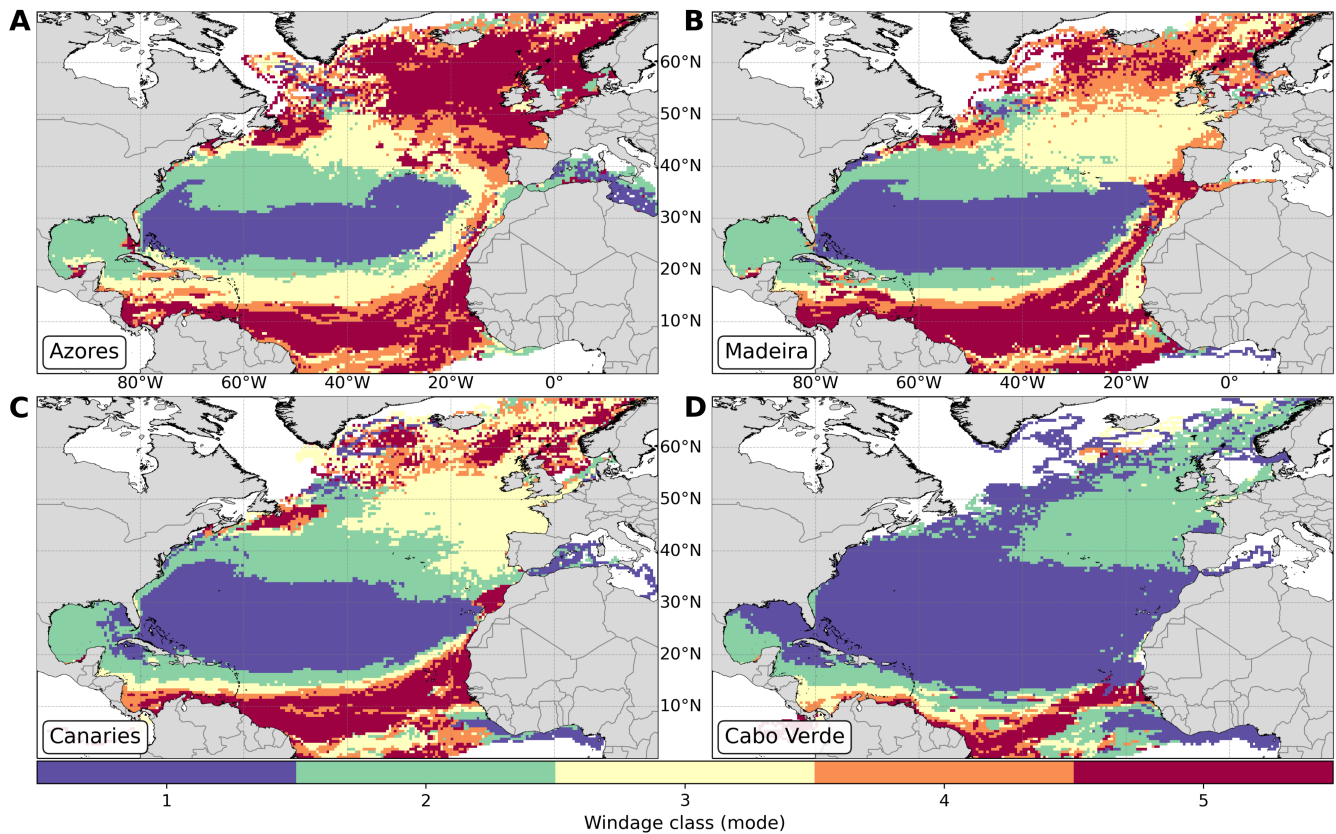


Figure S5. Most frequent occurrence of $F_{surface}$ particle windage class per 0.5° grid cell. Windage coefficient values correspond to the percentage contributions of wind forcing at 10 m above sea level.

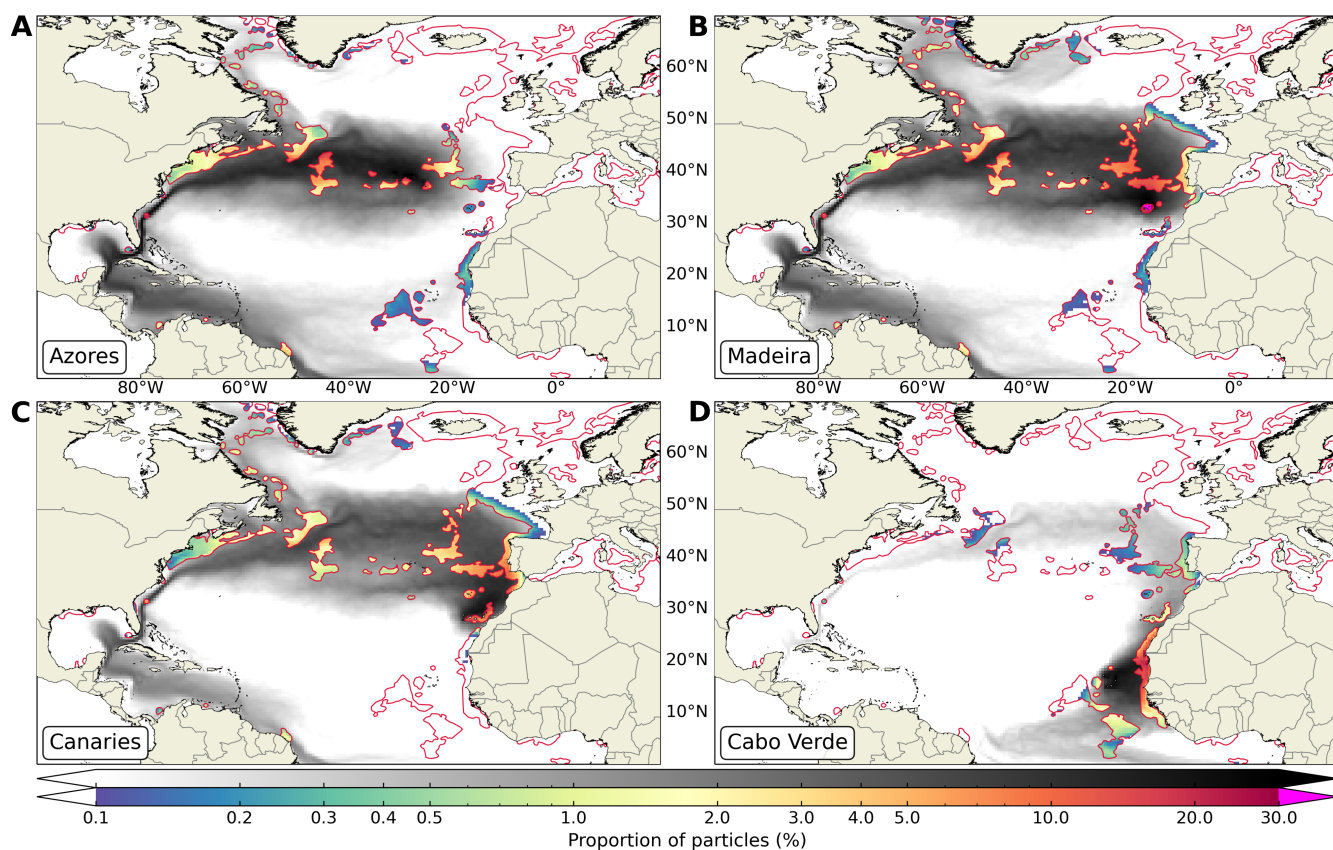


Figure S6. Proportion of B_{mixed} particles detected in 0.5° grid cells, clipped by the areas with > 150 hours of fishing effort (per 0.2° grid cell) reported in the Global Fishing Watch dataset. Only fishing areas with $> 5000 \text{ km}^2$ are represented by the red contours. Color maps are in logarithmic scale, in which cells with $< 0.1\%$ are masked.

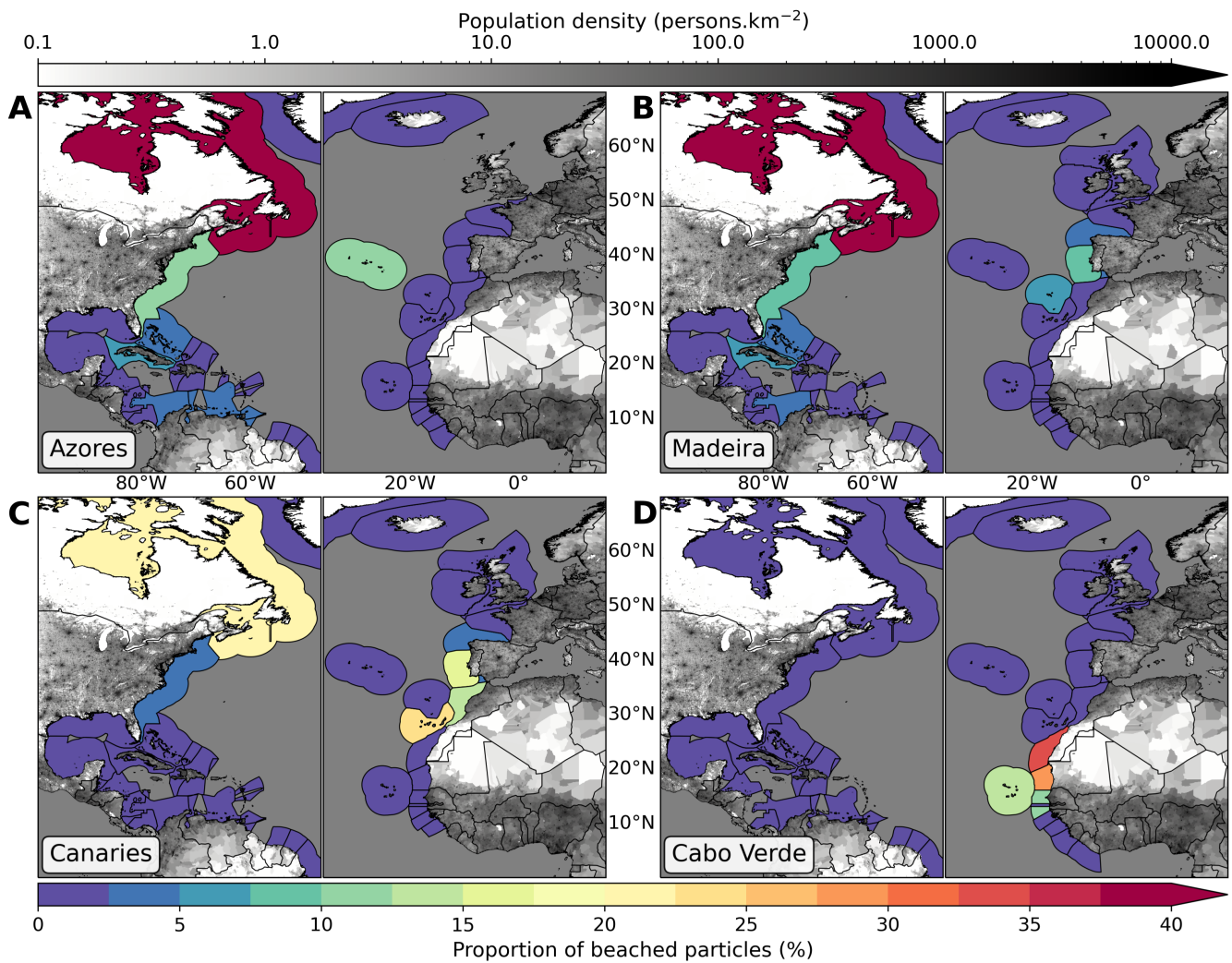


Figure S7. Proportion of B_{mixed} particles beached per country coastline. Countries with coastlines in different seas are divided accordingly (e.g. Atlantic and Mediterranean Spain). On land, gray color map represents population density.

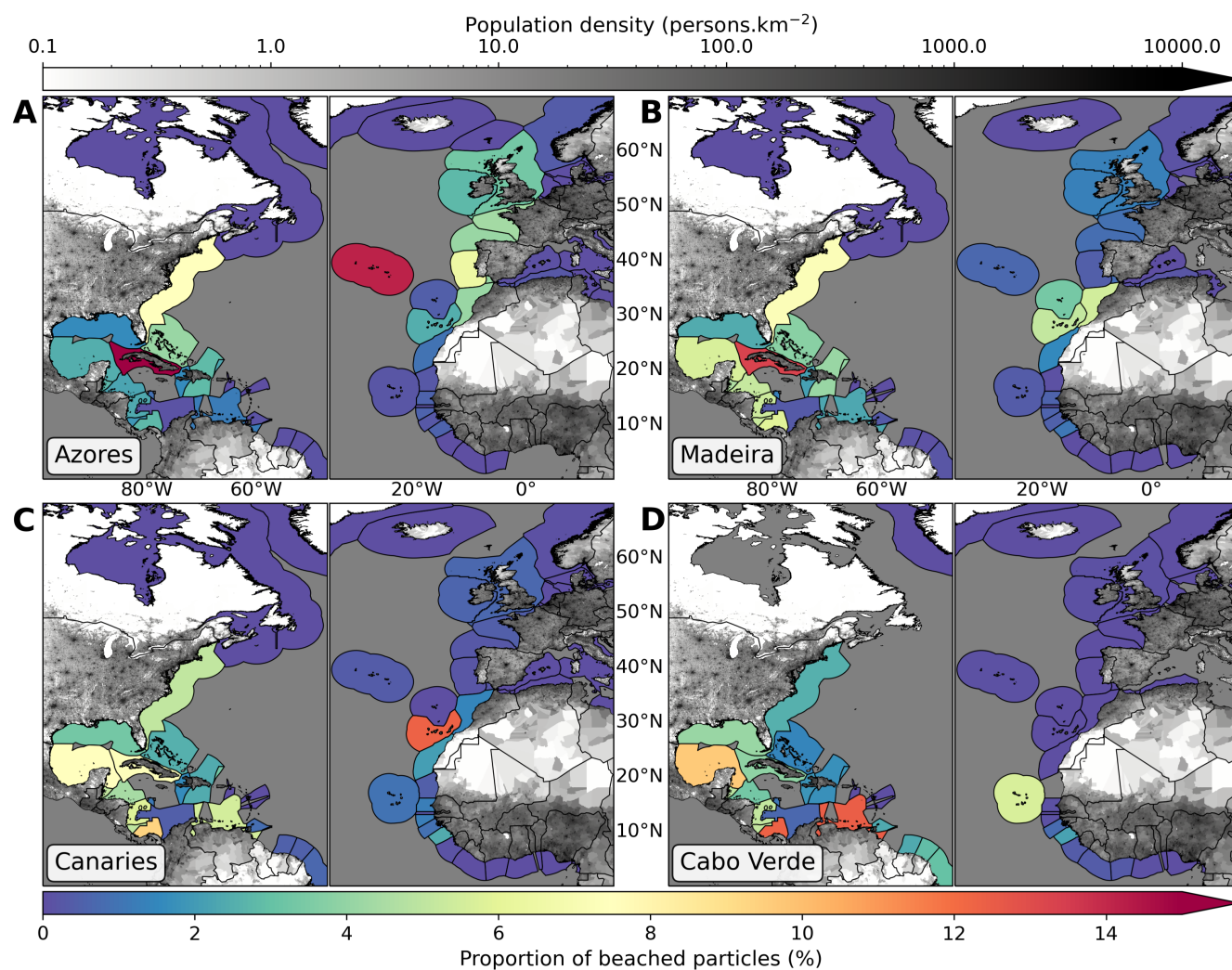


Figure S8. Proportion of $F_{surface}$ particles beached per country coastline. Countries with coastlines in different seas are divided accordingly (e.g. Atlantic and Mediterranean Spain). On land, gray color map represents population density.