

Fig. S1: Number of particles released in each model grid cell in the river scenario (top) and in the population scenario (i.e., mismanaged waste from the coastal population) (bottom). A total of 5,589,080 and 5,571,720 particles are released in the river scenario and the population scenario, respectively.

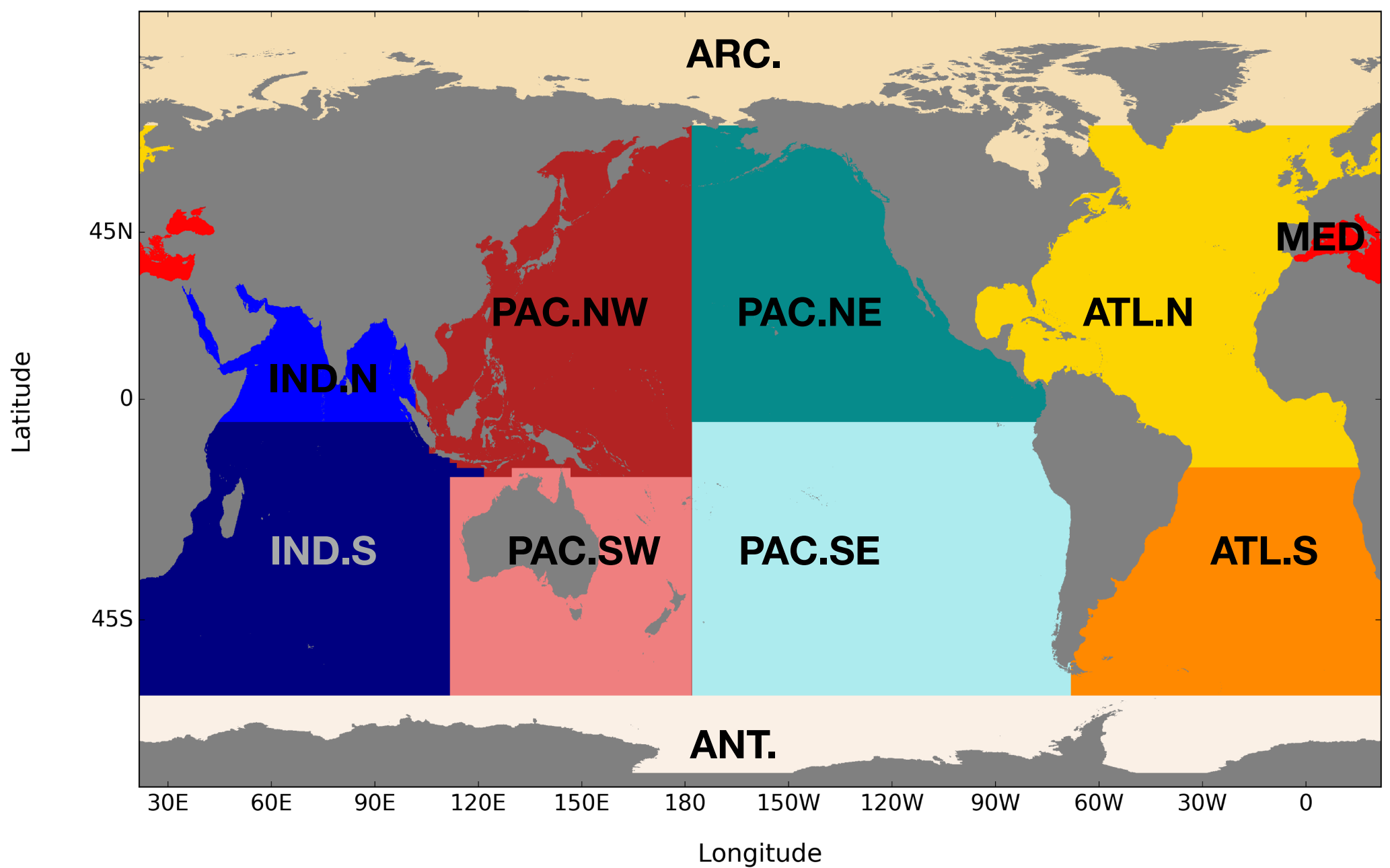


Fig. S2: Definition of the 11 oceanic regions. Note that our definition of the Southwest Pacific actually represents Oceania, and includes the extreme eastern Indian Ocean.

RIVERS

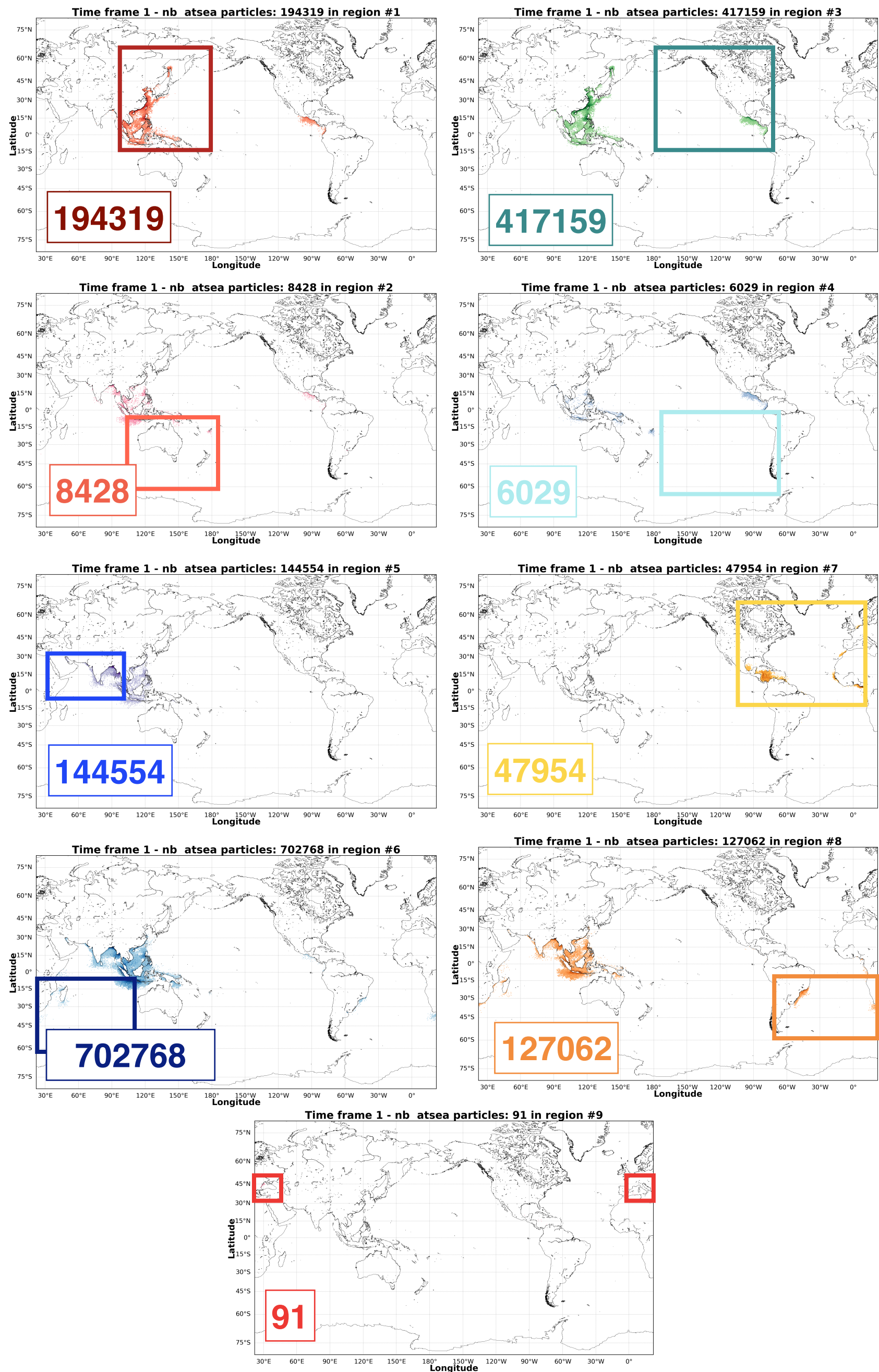


Fig. S3: Near-initial position (1-month after release) of particles ending at sea (case a) in the different oceanic regions in the river scenario. The number of particles is given in the lower left box for each panel.

POPULATION

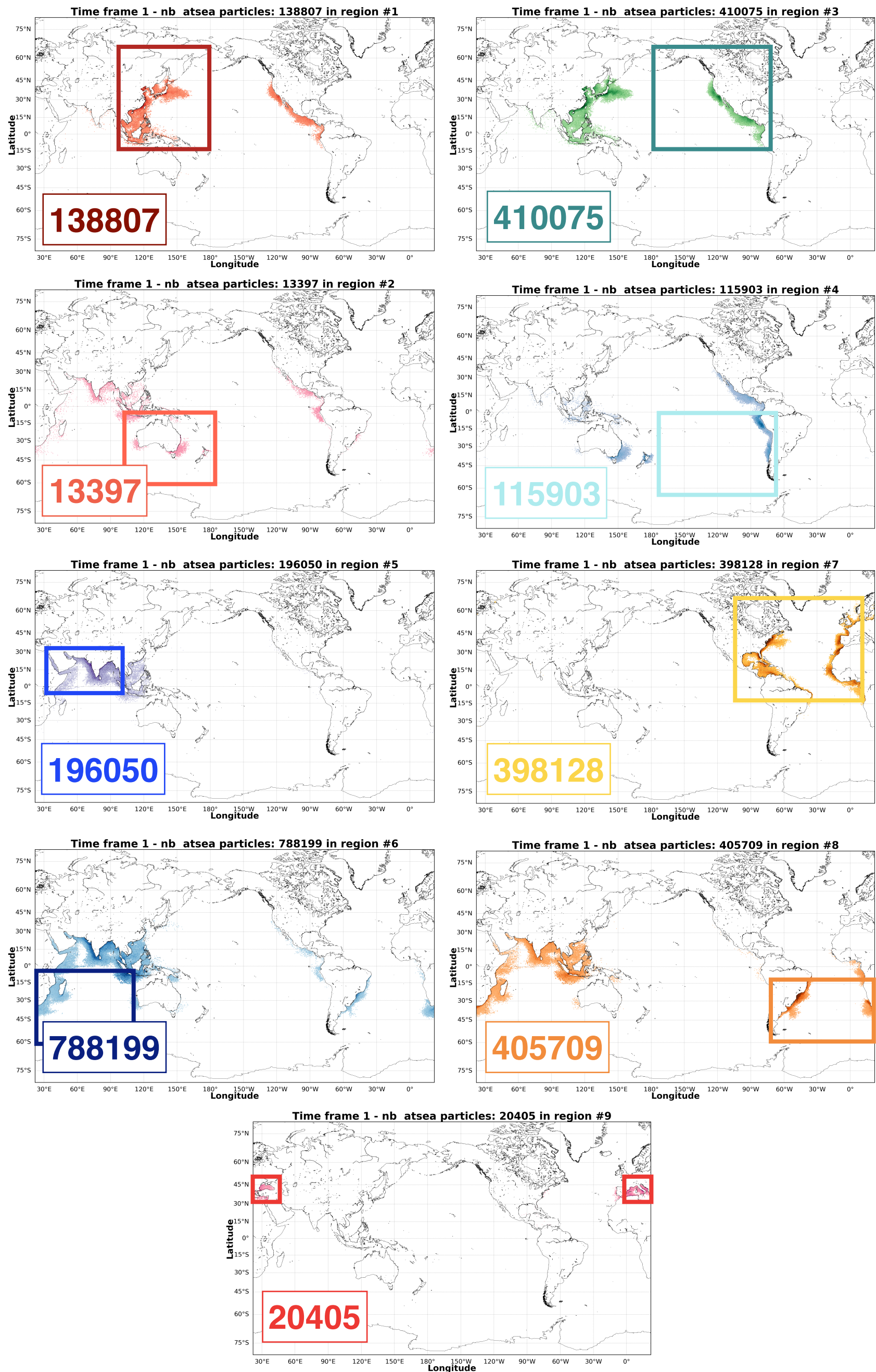
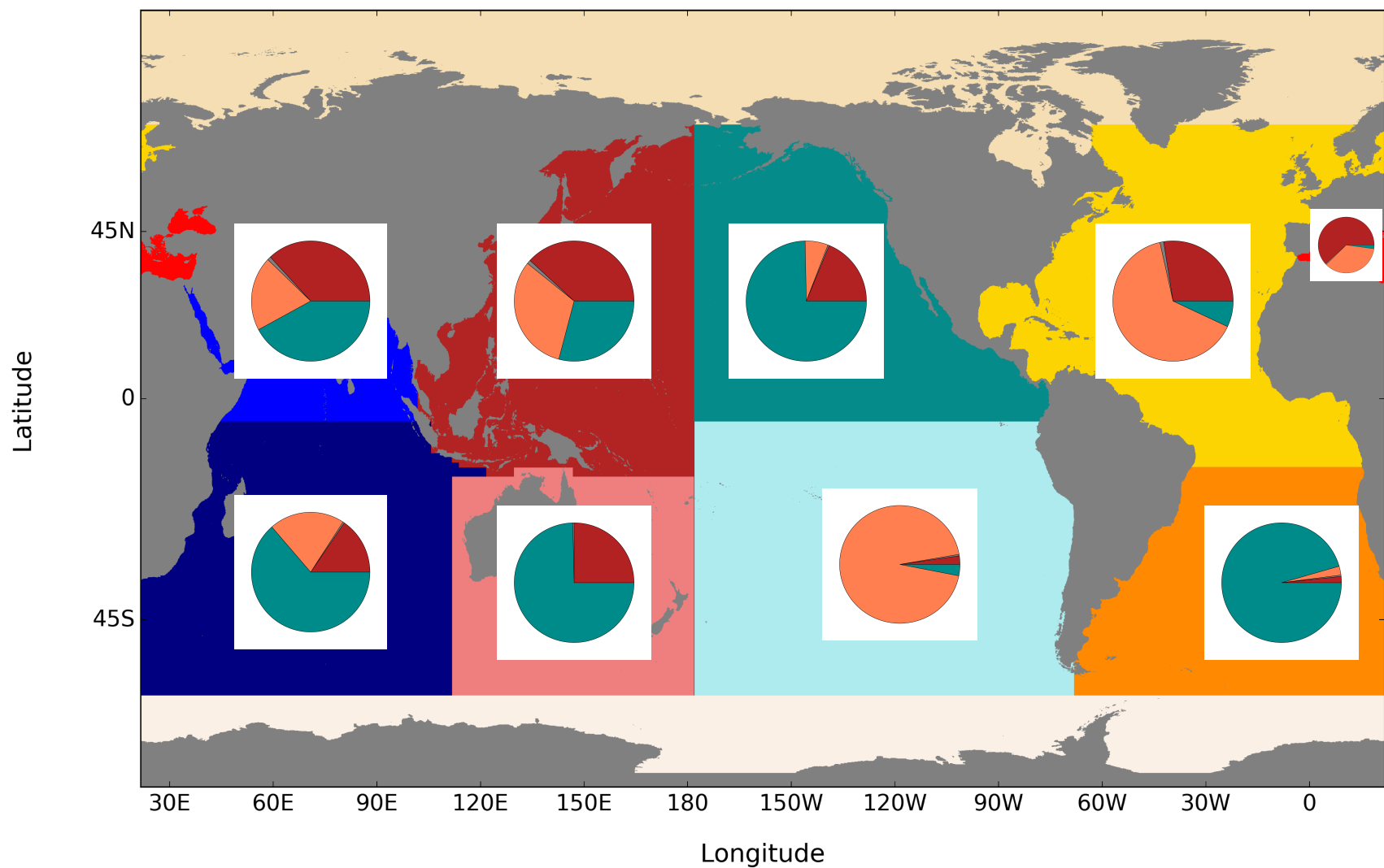


Fig. S4: Near-initial position (1-month after release) of the particles ending at sea (case a) in the different oceanic regions in the population scenario (i.e., mismanaged waste from the coastal population). The number of particles is given in the lower left box for each panel.

RIVERS SCENARIO



POPULATION SCENARIO

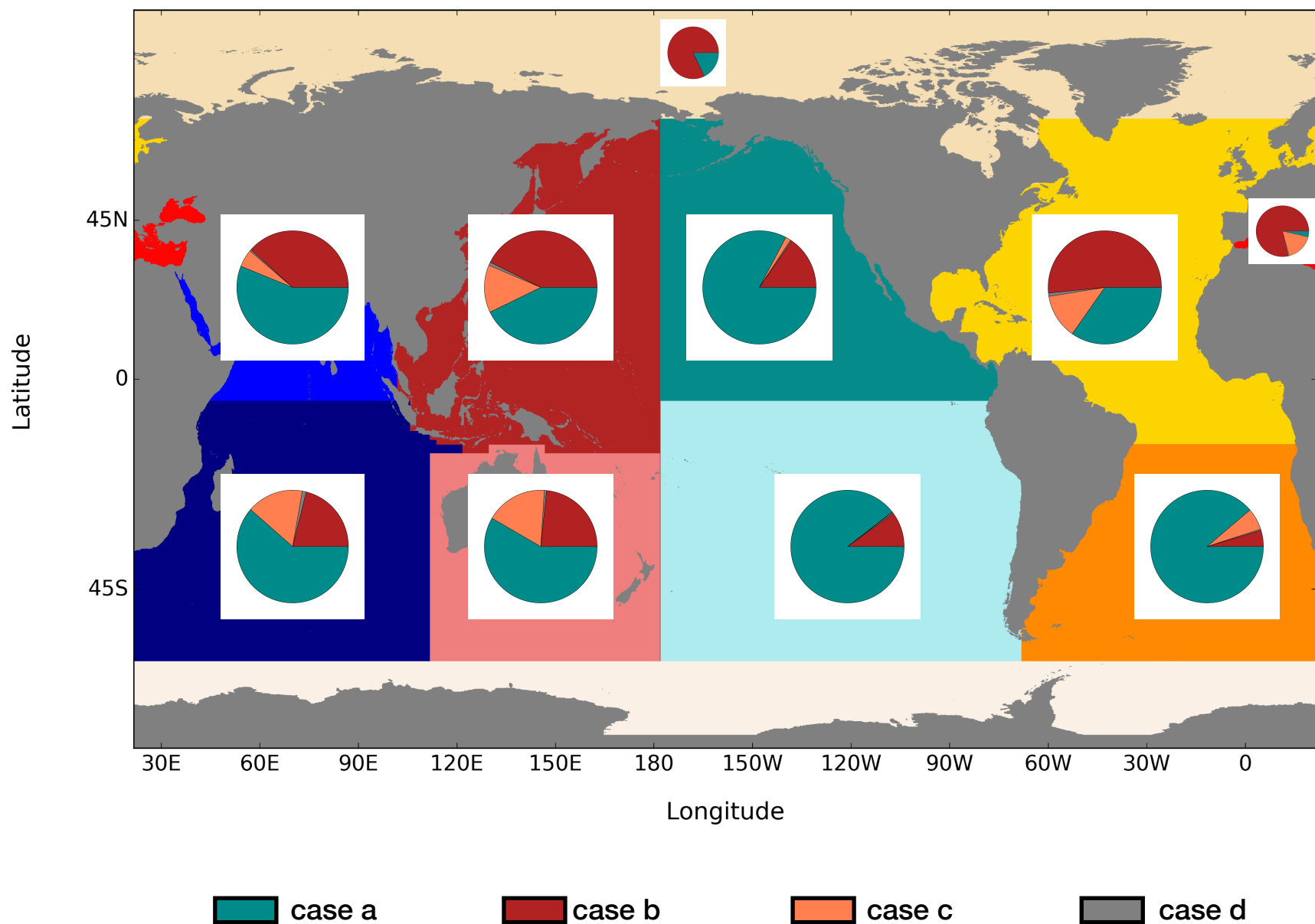


Fig. S5: Pie chart of the fate of particles in cases a (particles ending at sea, in green), b (beached particles, in red), c (particles remaining along the coast, in orange) and d (particles that do not move, in gray) as a function of their initial position in the different oceanic regions (defined in Fig. S2) in the river scenario (top) and the population scenario (i.e., mismanaged waste from the coastal population) (bottom).

RIVERS

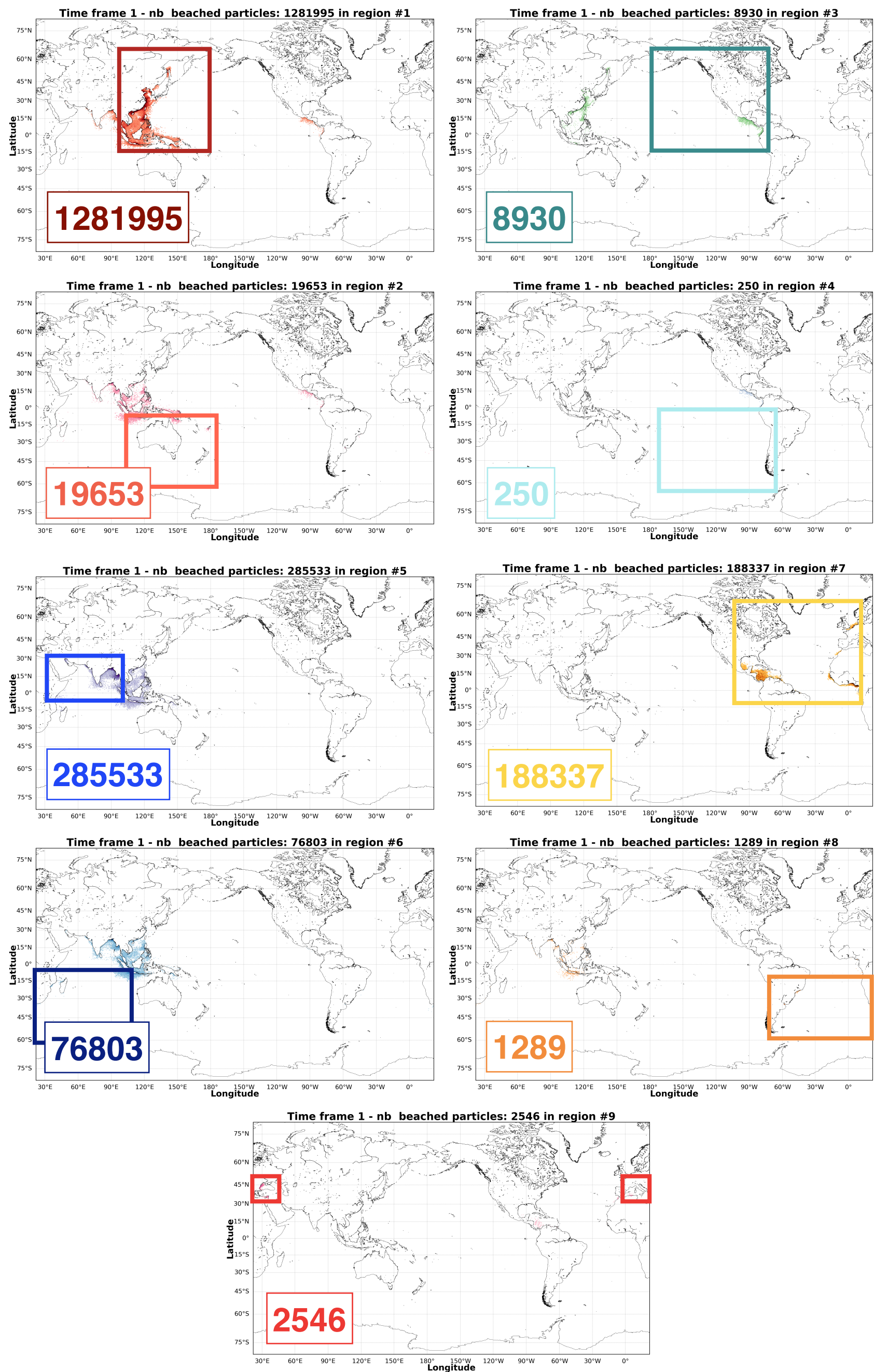


Fig. S6: Near-initial position (1-month after release) of the beached particles (case b) in the different oceanic regions in the river scenario. The number of particles is given in the lower left box for each panel.

POPULATION

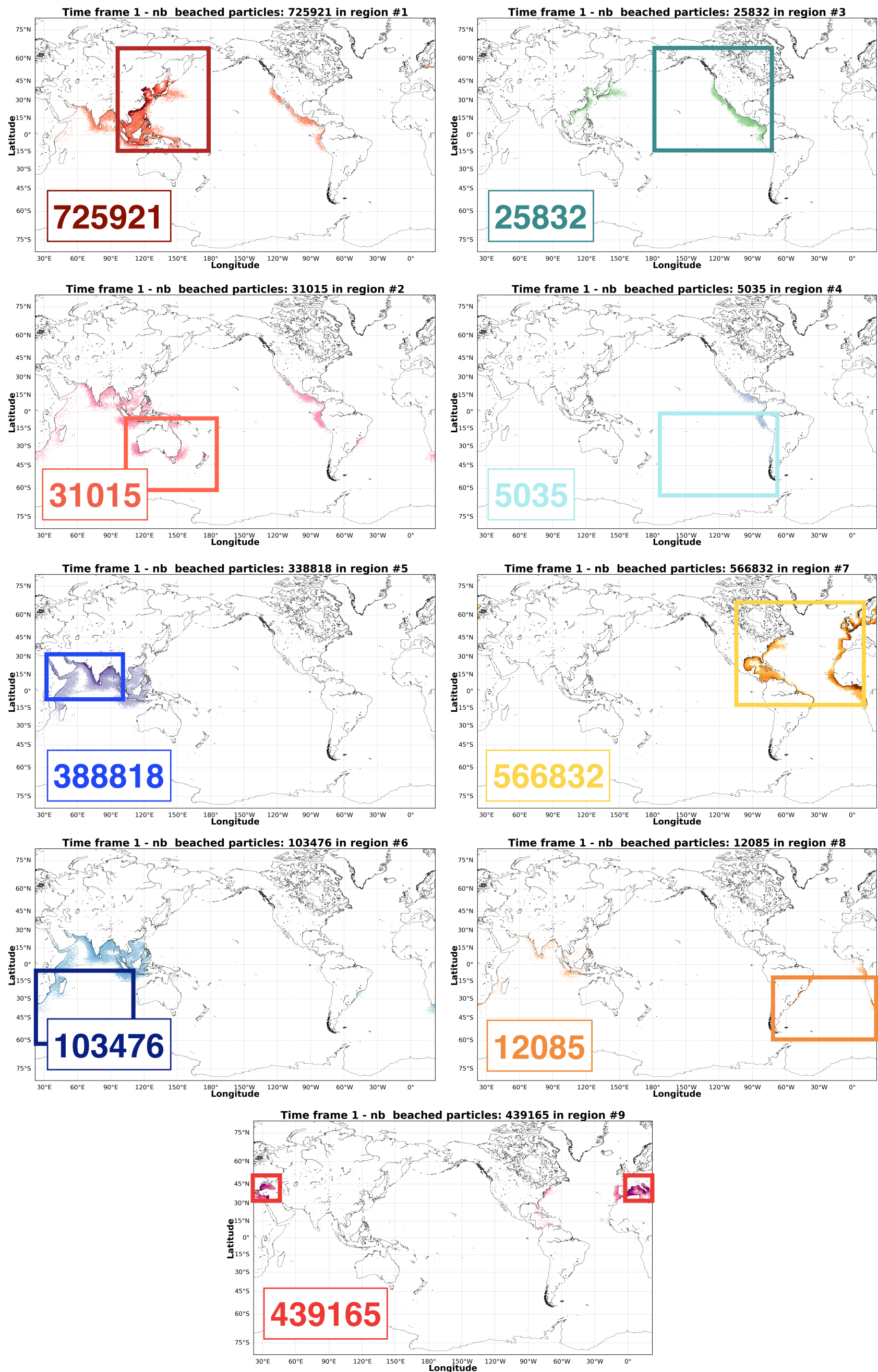


Fig. S7: Near-initial position (1-month after release) of the beached particles (case b) in the different oceanic regions in the population scenario (i.e., mismanaged waste from the coastal population). The number of particles is given in the lower left box for each panel.

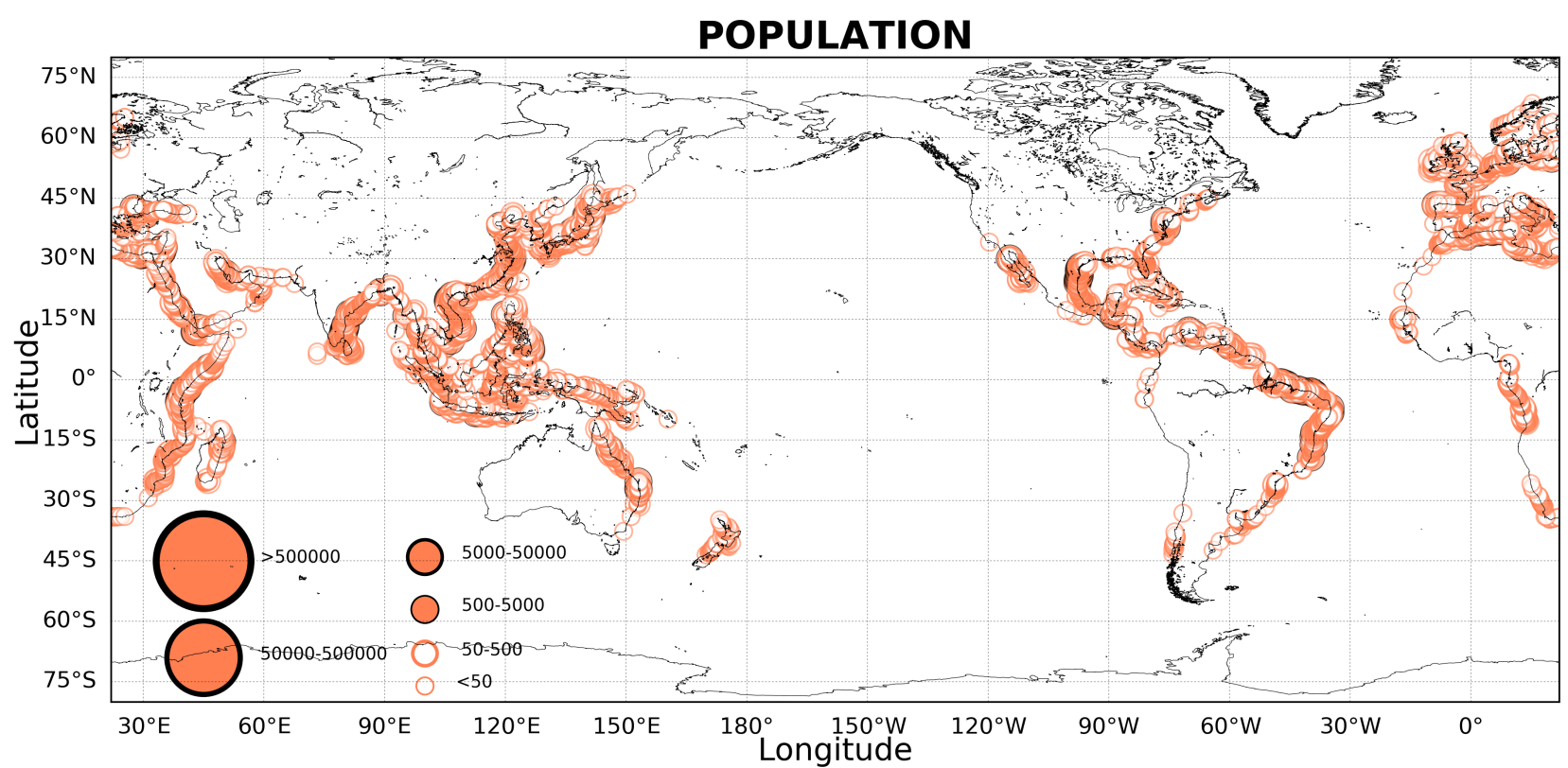
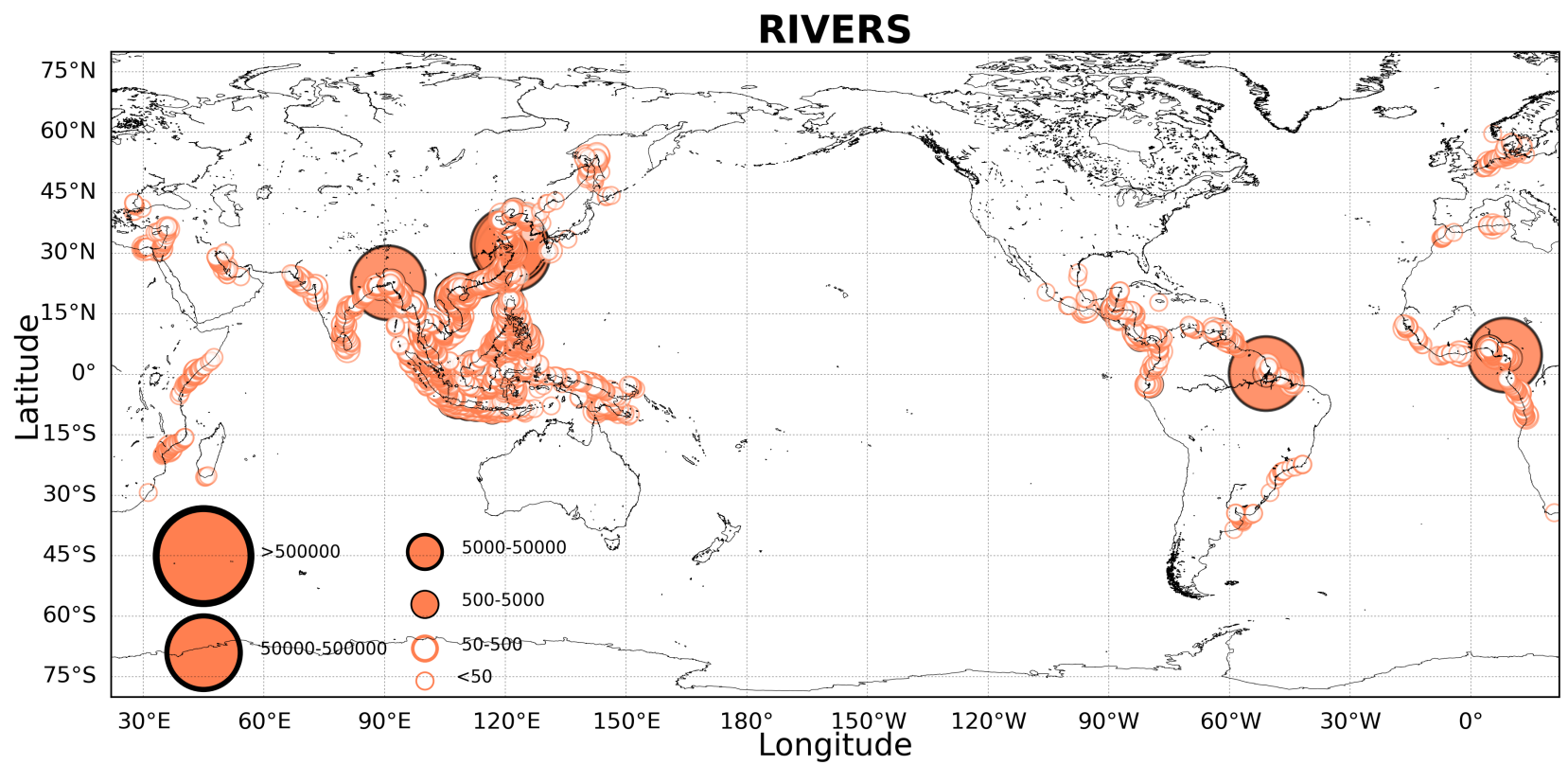


Fig. S8: Number of particles remaining on the shore (case c) in each coastal grid cell at the end of the simulation (year 23) in the river scenario (top) and the population scenario (i.e., mismanaged waste from the coastal population) (bottom).

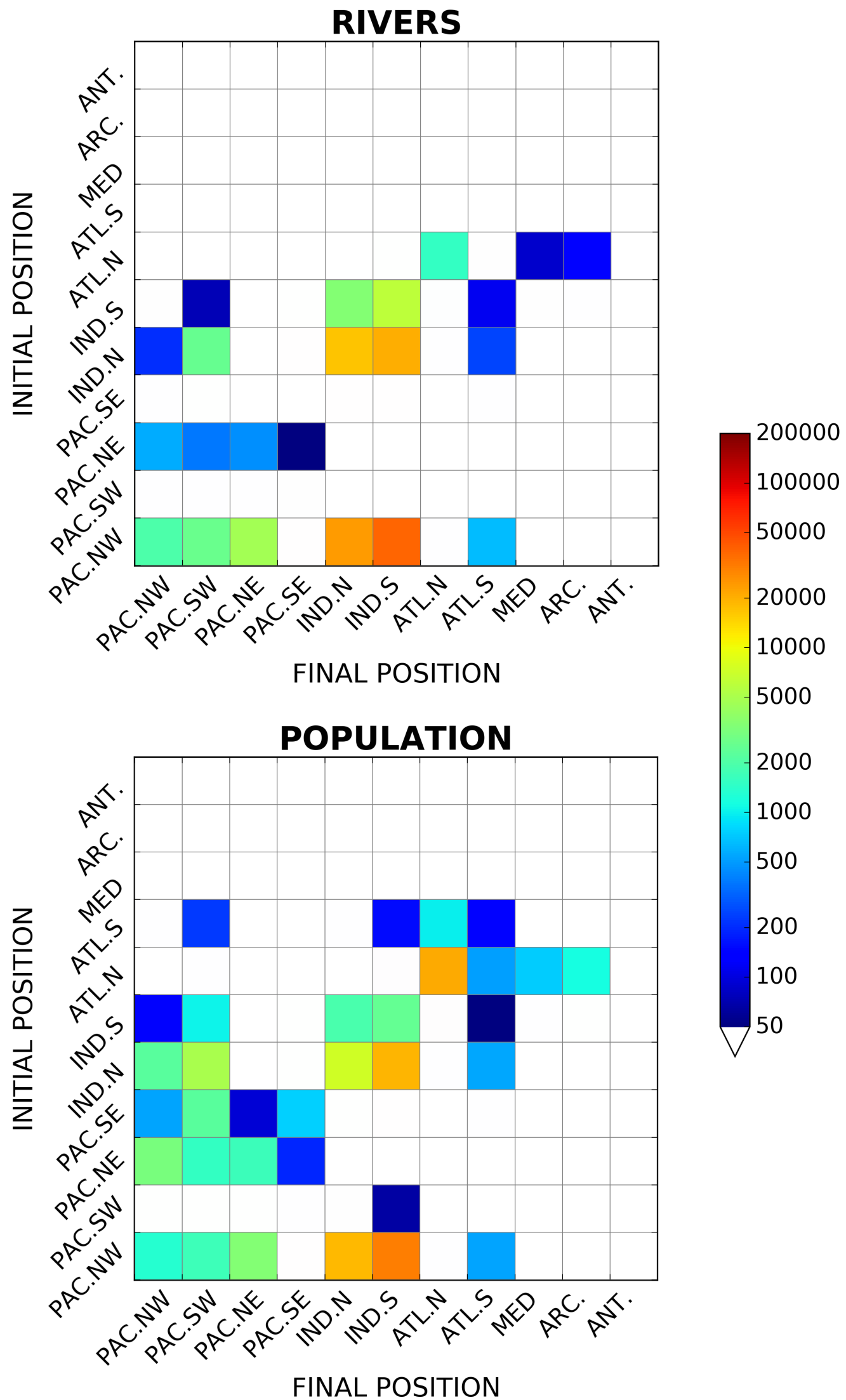


Fig. S9: Connectivity matrix for beached particles that have traveled a long distance, i.e., >5000 km (sub-selection from case b) at the end of the simulation (year 23) in the river (top) and population (bottom) scenarios. Cells are colored according to the number of particles originating from the region indicated on the y-axis and ending up in the region indicated on the x-axis. White cells indicate low connectivity (fewer than 50 particles).