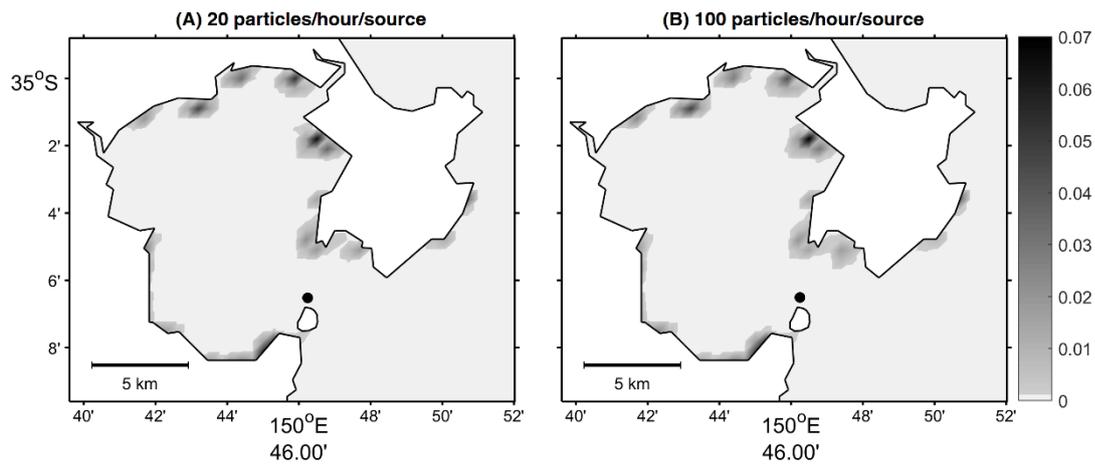


## Supplementary Material

Probability density maps of microplastics released at site 1 (Fig. 1) were calculated for two particle release rate in order to explore if this parameter could affect the results. In particular, Figure A compare this probability distributions after 5 simulation days for rates of 20 and 100 particles per hour per source. Results show that the accumulation patterns of particles are practically identical for both scenarios, so the selected rate of 20 particles/hour/source provides accurate results of transport patterns in Jervis Bay.



**Figure A. Probability density distribution (greyscale bar) of microplastics released at site 1 (black dot) after 5 days of simulation, for a particle release rate of (A) 20 and (B) 100 particles per hour per source.**