

# Supporting Information for "Identifying Marine Sources of Beached Plastics Through a Bayesian Framework: Application to Southwest Netherlands"

Bram van Duinen<sup>1</sup>, Mikael L. A. Kaandorp<sup>1</sup>, Erik van Sebille<sup>1</sup>

<sup>1</sup>Institute for Marine and Atmospheric Research Utrecht, Utrecht University, Utrecht, The Netherlands

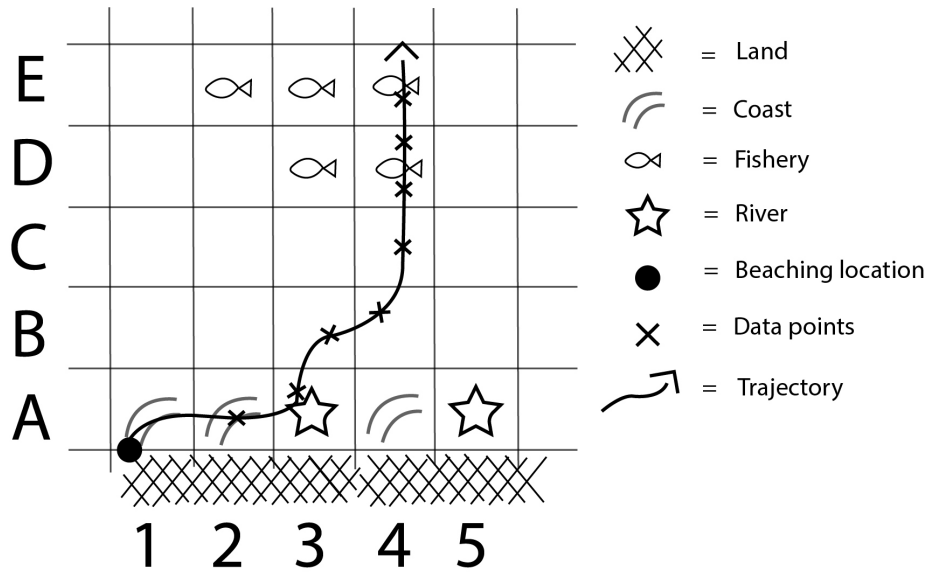
## Contents of this file

1. Figures S1 to S4

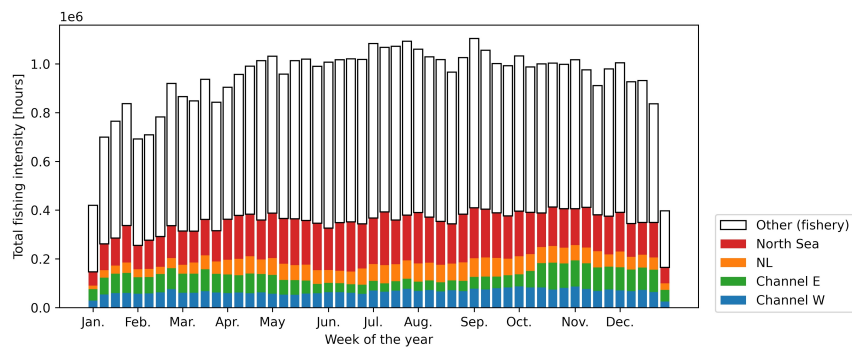
## Introduction

In this document, we provide four Figures to get a more detailed understanding of the framework presented in the main paper.

---

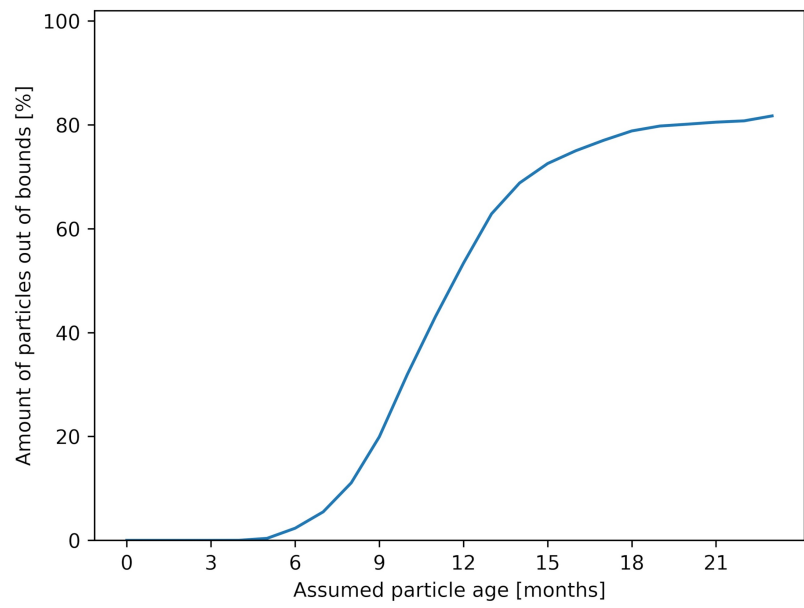


**Figure S1.** Schematic illustration of backtracking procedure for one particle.

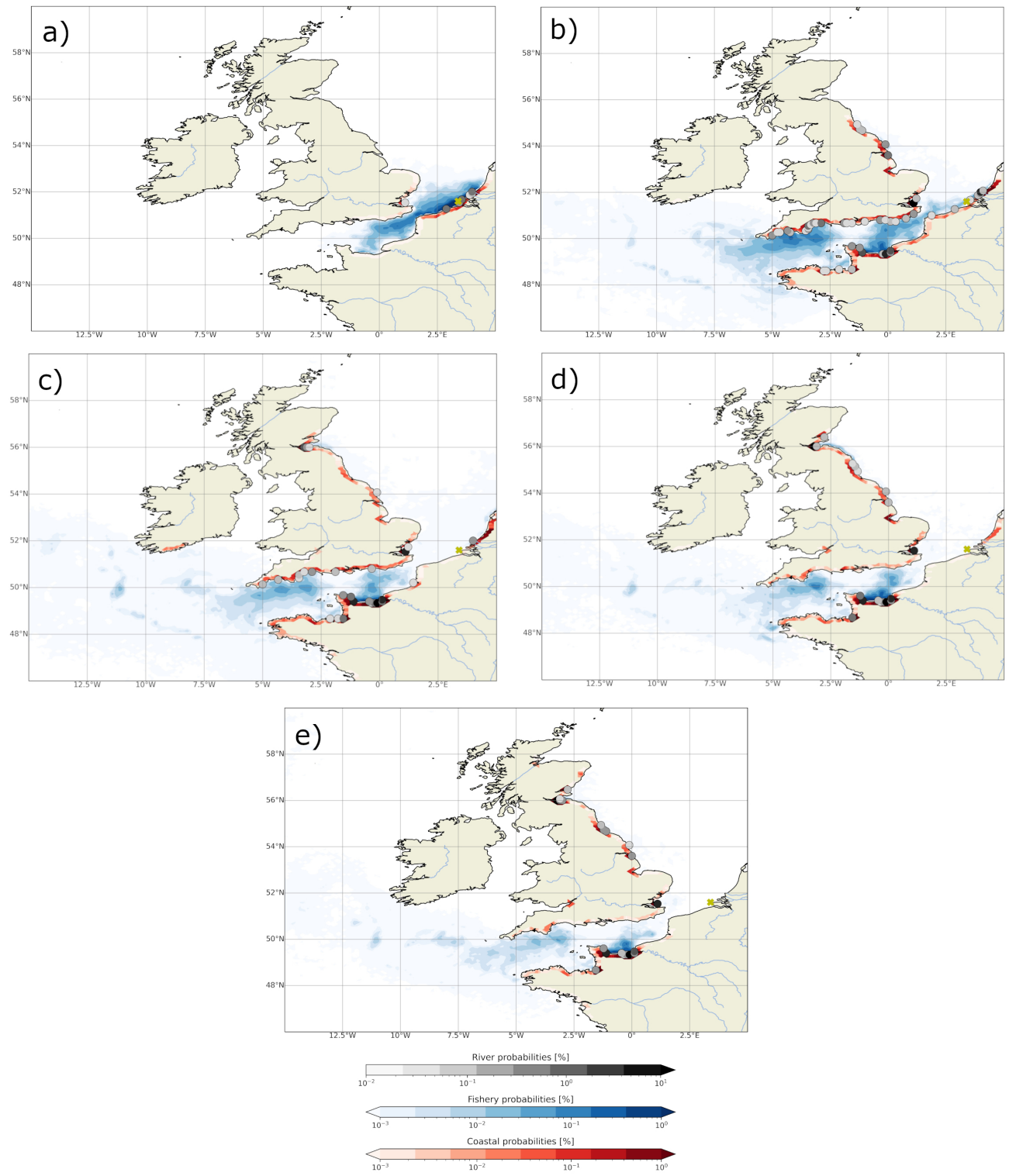


**Figure S2.** Total fishing intensity per fishery region shown as a function of week of the year.

This is the time-dependent prior  $P(\text{Source})$  for fishery sources.



**Figure S3.** Percentage of particles out of bounds as a function of particle age.



**Figure S4.** Source probability for different particle ages. a) age = 0-1 month, b) age = 5-6 months, c) age = 11-12 months, d) age = 17-18 months, e) age = 23-24 months.

September 2, 2021, 2:42pm