

## 4 Introductory material: Ecospace

Ecospace dynamically allocates biomass across a grid map (sketched with a mouse by the user, and typically defined by 20 x 20 cells), while accounting for:

- i. Symmetrical movements from a cell to its four adjacent cells, of rate  $m$ , modified by whether a cell is defined as "preferred habitat" or not (running means over adjacent sets of five cells allows for smooth transitions between habitat types, which are also user-defined);
- i. User-defined increased predation risk and reduced feeding rate in non-preferred habitat;
- i. A level of fishing effort that is proportional, in each cell, to the overall profitability of fishing in that cell, and whose distribution can also be made sensitive to costs (e.g., of sailing to certain areas).

For more details about Ecospace, see: [An overview of Ecospace](#); [Representing seasonal migration in Ecospace](#); [Advection in Ecospace](#); [Prediction of mixing rates](#); [Predicting spatial fishing patterns](#); [Numerical solutions](#); [Representing multi-stanza life histories in Ecospace](#); [Spatial optimization procedures](#)

For instructions on using Ecospace see [Ecospace inputs](#) and [Ecospace outputs](#).