

## **APPENDIX 1 Construction of the mental map of Lough Neagh**

Map construction was a three stage process. The investigator initially interviewed 120 fishermen, randomly chosen to give a statistically valid sample of the total population of active fishermen. A questionnaire was used to collect information on various aspects of the fishing culture. One of the questions (Question 20, Appendix 1 in Donnelly 1986) specifically asked for information on physical problems encountered in fishing. From the answers it was clear that the fishermen had a detailed knowledge of the Lough bed, both substrate and water depth. Indeed, every reply made some reference to these characteristics.

The second stage involved a selection of 12 fishermen, all aged over 60, with some over 70. Three were chosen from each shore. All were interviewed individually in a single 2-3 hour session. There was no consultation. Each subject was given an approximately A3-sized outline map of Lough Neagh, a full-scale tracing from a 1: 63 360 (one inch to one mile) Ordnance Survey (OS) map. The scale was explained (see Discussion in main text), and the men were then asked to draw “their” Lough bed. In about a third of the cases the map was left with the fisherman to be collected later, but in the remainder the map was completed while the investigator was present. In some cases the fisherman did the actual drawing himself, in others the drawing was done by the investigator to the fisherman’s instructions. Since the investigator himself had no prior knowledge of the Lough bed, there was no bias in this procedure.

The completed maps demonstrated virtual unanimity, with no real differences or disagreements. Not every fisherman drew every bed feature in the same detail, because each was making a selection, but there was no disagreement about the nature or position of any feature. While all had a good general knowledge of the Lough, individual fishermen tended to be more familiar with areas close to their own shore, or areas further afield where they had routinely fished. Occasionally, individuals in the twelve would suggest checking a point with another (named) fisherman, not necessarily one of the twelve, who they regarded as especially knowledgeable about a particular area. However, this was just as a ‘check’, as none of the twelve showed any reluctance to produce their own map of the Lough.

In the third stage the investigator prepared a composite map from the 12 maps produced above. There were few differences, but several minor points required clarification (for example, a fishermen might have marked the centre of a bed feature, but did not fully define its boundary). Four of the 12 fishermen above, one from each shore were selected. The basis for selection was age and experience. All those chosen were aged over 70. Each of the four was interviewed separately in a 2-3 hour session. They were presented with the composite map drawn by the investigator from the 12 individual maps, and they were asked to clarify all remaining issues. There was complete agreement on a final draft. The agreed draft was then taken to a professional cartographer who produced the pen and ink version in Fig. 2 (main text).