HIGH-GRADING AND OVER-QUOTA DISCARDING IN MIXED FISHERIES

Jurgen Batsleer1, Katell G. Hamon2, Harriet. M.J. van Overzee1, Adriaan D. Rijnsdorp1,3, Jan-Jaap Poos1 1Wageningen IMARES, Institute for Marine Resources and Ecosystem Studies, PO Box 68, 1970 AB IJmuiden, The Netherlands 2LEI, PO Box 29703, 2502 LS The Hague, The Netherlands 3Aquaculture and Fisheries group, University of Wageningen, PO Box 338, 6700 AH Wageningen, The Netherlands

High-grading is the selective discarding of marketable sized fish that is caught. High-grading occurs when price differences exist among different grades of fish, or among seasons. In this study we 1) present a literature review for the existence of high-grading in fisheries, 2) model a mixed flatfish fishery with individual quota and its susceptibility for high-grading, and 3) review the data from the European Fisheries Control Agency for infringements of a high-grading ban. We find that although observations of high-grading in scientific literature are scarce, they do exist worldwide. Most of the high-grading observations come from mixed demersal fisheries. The model suggest that indeed mixed fisheries are very susceptible to high-grading. The data from the European Fisheries Control Agency suggest that high-grading is difficult to detect because it can only be detected by fishery inspectors when fishers are caught in action and the processing of the catch will be relatively short. Given the difficulties in obtaining reliable estimates of the amount of marketable fish that is discarded, modelling studies can provide the urgently required insight in the quantity, the age and size structure as well as the conditions when this may be expected. the insight in the quantity as well as the size or age structure of the discarded catch will allow fisheries scientist to explore the accuracy of their assessment of the stock and the quality of the scientific advice discussed. The quality of the advice depends on the precision of the discards data when catches are used to assess the removals from the populations.