

Executive Summary

WKFRAME met for 4 days in late March to provide some technical guidelines to assist ICES expert groups in the implementation of the ICES MSY concept in advice for 2011. The workshop was attended by scientists from the ICES community, stakeholders from the fishing Industry and environmental interest groups, as well as representatives from one of ICES clients (EC). The primary area addressed by the group was to provide technical guidelines for the estimation of an exploitation rate based MSY target or if necessary a proxy, which should include; criteria for selection of proxies for F_{msy} and criteria for advice when catch forecasts are not available. While the workshop focused on the technical issues related to defining F_{msy} proxies, the discussions touched on other issues related to the implementation of an MSY based advice. These issues which include: the role of management plans in relation to MSY based advice, the function and definition of the $B_{trigger}$ in the ICES implementation of an MSY advice, the definition of F_{msy} as a target or limit reference point, and the inclusion of estimation or implementation errors in the MSY target. The effects of multi species/predator prey interactions on F_{msy} targets, requires further consideration. In relation to these issues, for the purposes of generating ICES advice for 2011, practical approaches are proposed by ACOM. With regard to the estimation of F_{msy} proxies, the general approach advocated by WKFRAME is to explore the data through a range of methods with different assumptions, to identify the range of plausible candidates. The workshop suggested that EG's explore the sensitivity of the estimates of these candidates to uncertainty and assumptions in the model parameters, and finally, where possible, to check the response of the stock to fishing at any proposed target in the long term (through simulation). Technical guidelines in terms of methods, sensitivity analyses and things to look out for are detailed in chapter 2 of the report. With regard to the criteria for advice when there is no forecast; the workshop suggests that F advice in relation to putative F_{msy} targets should be framed in terms of moving exploitation rates towards the target, rather than specifying a harvest in relation to the current stock status and/or expected short term development of the stock. Thus advice arising from circumstances where there is no short term forecast, has to be seen in the context of a "soft" evaluation of stock status relative to crudely estimated proxies. There are no new methods or techniques proposed in this report, and indeed the most basic equilibrium based methods are those used in the early years of fisheries science. The implementation of guidelines suggested in this report, require some degree of "expert judgement" and (in the cases of simulation) a caution against over interpretation of the results. This leads ultimately to a conclusion that the move to MSY based advice has to be seen as a stepwise process, which will require data exploration and sensitivity analysis by the EG's, and a willingness from both ICES and its clients to work with recursively updated targets.