

ICES FTFB Working Group Meeting in Dublin, April 24-25, 1989

ARE PAST MESH SELECTION DATA AND METHODS OF INVESTIGATION VALID FOR TODAY'S FISHERIES?

Steinar Olsen

Institute of Fishery Technology Research

Bergen, Norway

Current mesh regulations are based on the selectivity data accumulated over more than 30 years by experiments largely based on the standards prescribed by ICES for the covered cod end method. While these data might have been valid for the fisheries of the past, there are reasons to question whether they still are for the trawl gears and methods of operation applied in today's fisheries.

Thus, on the one hand, the technological development with larger and more powerful vessels and winches, heavier and stronger nets and gear, as well as better trained and more cunning fishermen, might have led to a rather different selectivity than that assumed as basis for the mesh size regulations.

Secondly, there is mounting evidence suggesting that the standard covered codend method is more seriously biased than previously assumed. Especially at the current high towing speeds the so-called 'cover effect' might be quite significant, and parameters, such as the relative width of the codend, have recently been shown also to affect the selection factor estimated from covered codend experiments.

The aim of the present note is to generate discussion of these issues within the ICES Fish Capture Committee. Are we confident that the advice on mesh size selection rendered by ICES is adequate also today? Certainly in the trawl fisheries for NE-Arctic cod and haddock the problem of wasteful discards of large quantities of undersized fish is at least as prevalent today as at any time since the current mesh size regulations were introduced. Consequently these regulations do not seem to fulfill their aims to protect the young fish.

If that is a valid conclusion, we have to address the question of why it is so? Is it because of mal-practices - or intentional circumventions of the regulations? Or is it because even with the use of legal nets in present trawl fishing the release of small fish is impaired compared with the situation at the time the regulations were introduced?

The first is a matter of enforcement, which we as fish capture technologists are only indirectly concerned with. In the second case, however, it is our job to quantify the change, establish the reasons for it, and advise on more efficient technological methods to prevent destruction of undersized fish.

This calls for unbiased methods of studying mesh selection, and, therefore, the need to make a fresh evaluation of the covered codend method. Can it be improved or should we resort to other methods? In this connection it should be recognized that the covered codend method by some management authorities is considered "The ICES-Authoritative Method" since ICES has prescribed guidelines for its conduct and reporting. Accordingly results obtained by other methods are not readily accepted by these authorities. Perhaps we therefore need to "authorize" also other approaches.

National scientific findings alone are only rarely accepted for international fishery regulations. If the issues raised above are found to warrant new investigations, a coordinated international research program is therefore required. It is suggested that this is discussed during the present FTFB-WG-meeting, and subsequently brought to the attention of the Fish Capture Committee at the Council Meeting in den Haag.