A SUMMARY OF THE LITERATURE ON ESCAPEMENT OF FISH THROUGH DIFFERENT PARTS OF AN OTTER TRAWL

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Four pertinent papers were found and reviewed. The conclusions of these are given below.

(1). Margetts (1957) found that: "Generally escapes through the wings were nil, through the square neglible, through the forward belly variable but mostly relatively few, and through the after belly often alot." The species considered by Margetts (1957) were plaice, dab, whiting (European), sprats, and herring. In these experiments large portions of the forward net were covered as was the cod end, by small mesh nets.

(2). Ellis (1957) used trawl nets in which small mesh pockets were attached to different portions of the forward part of the net as well as having the cod end covered. The main species caught were herring and sprats, whiting (European), dabs, and Gadus esmarkii. The data was very limited but did indicate that escape through the wings was neglible while that from the square and baiting more important. By expanding the number caught in each pocket to the total area of the forward parts of the net Ellis (1957) gave maximum estimates of releases "from squares and baitings relative to the cod end of: herring and sprats about 50%, whiting 17% and Gadus esmarkii about 80%."

(3). Gullard (1956) reported on four hauls made with a trawl with its cod end and baitings covered. For whiting (European) the percentage in the baitings cover for all hauls combined was 50.0% for

the hake (European) 2.7%. The hake found in Europe is the same genus as the silver hake or whiting landed in the United States. The whiting found in Europe is a different genus than the silver hake.

(4). Clark (1957) reported an experiment dealing with silver hake and haddock. The data are not sufficient for final conclusions. Both covered nets and paired and alternate haul experiments were made. The results with haddock indicate that escapement through the forward parts of nets of the sizes now used in the haddock fishery were small. A series of hauls made with a 2-1/2 inch mesh net overall which had its cod end, belly and square covered indicated a relatively small escapement of silver hake through the forward portion. If only hake under 20 centimeters long were considered the percentage escaping through the covered forward part was 13.3. If all sizes were considered the corresponding percentage was 2.7. However, in an experiment with four alternate hauls made with nets where the forward parts were of 2-1/2 inch mesh with one net and 3-1/2 inch with the other and the cod end mesh size was constant, an escapement through the forward parts of the larger size net was estimated to be 44.3 percent when all sizes were considered. When only fish under 20 centimeters are considered the corresponding percentage was 52.8.

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