

ハタハタに対する駆け廻し式底曳網の網目選択性

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日水誌, 78 : 27-36 (2012)

Mesh selectivity of Danish seine for Japanese sandfish *Arctoscopus japonicus*.

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Mesh selectivity of Danish seine codend for Japanese sandfish *Arctoscopus japonicus* was determined to reduce bycatch of the small fish. Covered codend experiments using three different mesh openings: 35.6, 42.0, and 48.6 mm were conducted off Kyoto prefecture from April to May in 2005. Two hauls were towed for each mesh opening. Logistic parameters were estimated by the SELECT method, considering sub-sampling. Catch size dependent model of which logistic parameters were expressed as a function of codend catch, was chosen by the AIC model selection, not only for individual-haul selection curve, but as well for the master curve of size selectivity in terms of ratio of fish length to mesh opening. From the master curve with the codend catch of 105 kg, body lengths of 50 % retention were estimated to be 114, 138, and 163 mm for 35.6, 42.0, and 48.6 mm mesh openings, respectively. In Japanese sandfish caught by a commercial seiner with codend of 22 mm mesh opening at April 2005, enlargement in mesh opening to 38.8 and 42.0 mm could allow 72.0 and 91.0% of sand fish below 135 mm body length to escape out, while retaining 97.7 and 88.5 % of larger commercial fish.

(京都府農林水産技術センター海洋センター業績 No.166)