

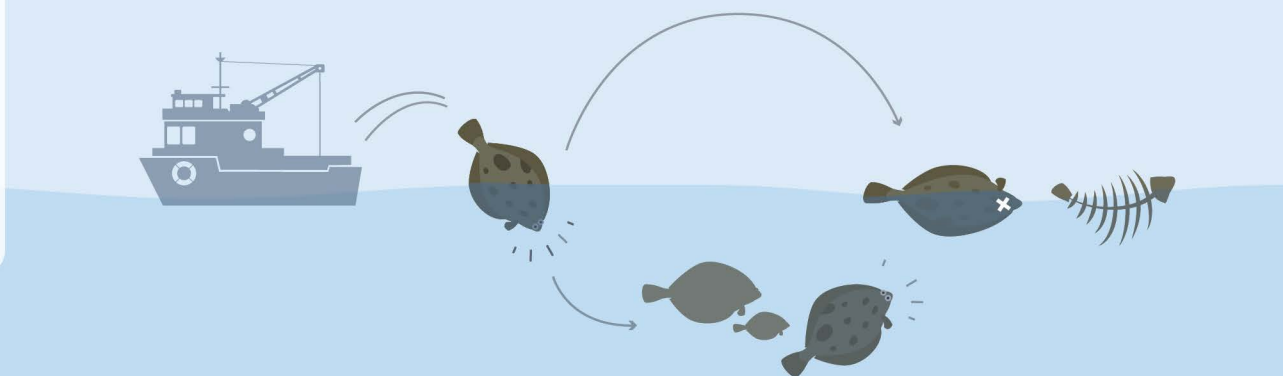
What are the chances of survival of flatfish and rays that are returned to the sea?



European Union,
European Maritime
and Fisheries Fund
(EMFF)

There is a great deal of discussion about the landing obligation. In principle, the European Union wants all fish to be landed. But fishers have a different view. If they are no longer allowed to return undersized fish to the sea, these fish are certain never to reach adulthood and will not be able to reproduce. But how many of the fish that fishers put back into the sea actually survive? Wageningen Marine Research is investigating this together with the fishing industry. What are their chances of survival in the pulse fishery?

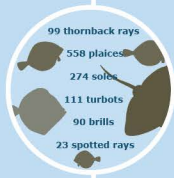
www.wur.eu/fishsurvival



Undersized fish were randomly collected and examined from the catch of fishing vessels (12m pulse gear, 80mm mesh size).



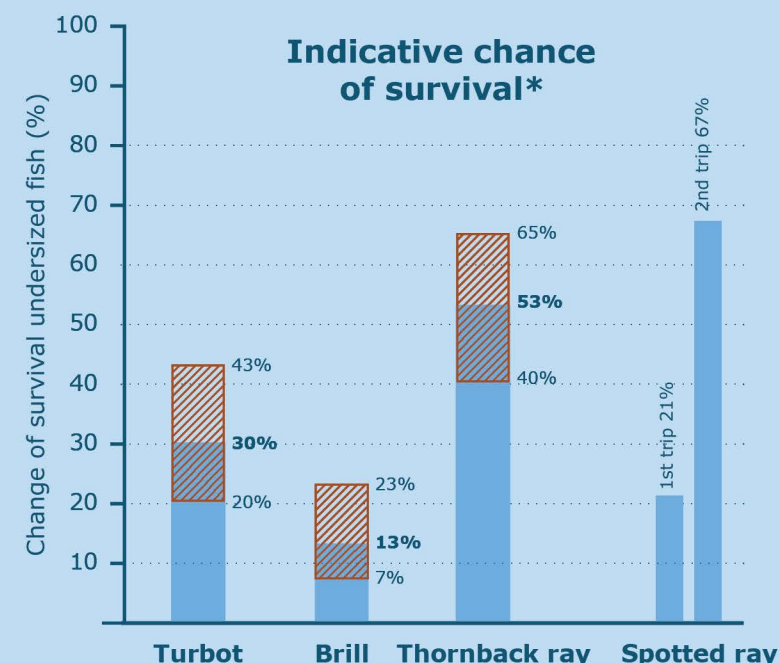
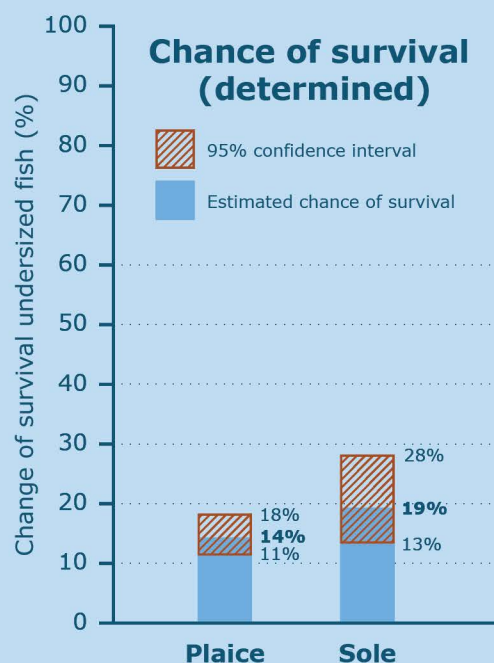
The study followed the guidelines of the International Council for the Exploration of the Sea (ICES).



Because it is impossible to examine all undersized fish that were caught, a sample was taken.



A 95% confidence interval was chosen. This means that there is a 95% probability that the estimated interval contains the actual chance of survival.



*because of smaller sample

The better the condition of the fish when they come on board, the higher the survival rate. It is relatively easy to determine the condition of the fish. This enables improvement measures to be assessed quickly. The starting points for improving the fish's condition and thus increasing the chances of survival occur mainly during the catching process itself, so before the fish come on board.