

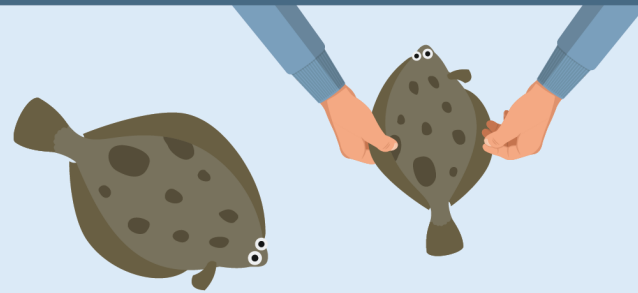
# How can the chances of survival of undersized fish returned to the sea be assessed?



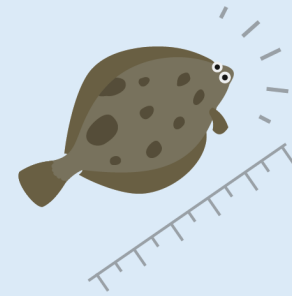
European Union,  
European Maritime  
and Fisheries Fund  
(EMFF)

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. How does this work?

More info at: [www.wur.eu/fishsurvival](http://www.wur.eu/fishsurvival)



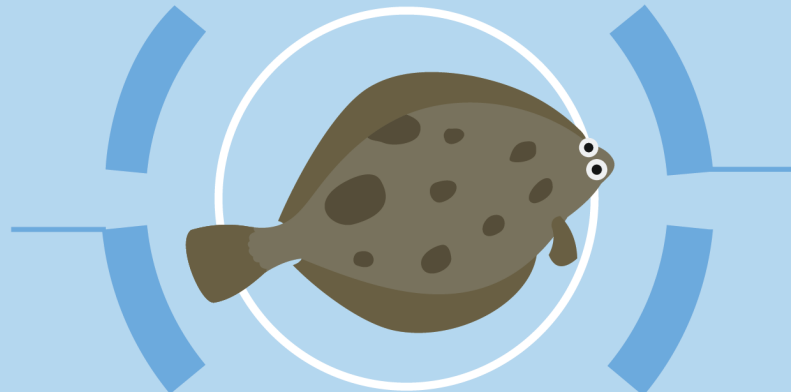
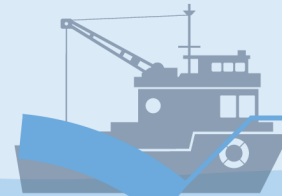
1. After being caught by the fishing vessel, undersized fish are randomly collected.



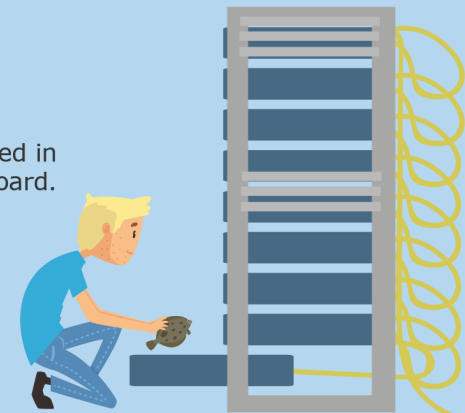
2. The condition of the fish is investigated. Its reflexes are measured, and its external characteristics assessed. For example: does the fish try to swim away if its tail is held? Does it show signs of damage?



7. From all the data collected on board and in the lab, conclusions are drawn about the chances of survival of the undersized fish in the catch.



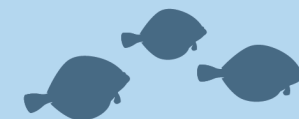
3. The fish are placed in survival tanks on board.



4. A group of healthy control fish is taken out to sea as well. They undergo the same treatment as the fish from the catch.



5. On return to port, the fish are brought to the lab, where they are cared for, and the monitoring continues until stabilisation sets in and mortality ceases.



6. While on board and in the lab, the temperature and oxygen level in the survival tanks are monitored and kept constant.

