

High survival exemption for plaice caught by TR2 vessels using Otter Trawls in ICES areas VIId and VIIe

Request under Article 15.4(b) of Regulation (EU) 1380/2013 to exempt from the landing obligation plaice caught by otter trawls in ICES areas VIId and VIIe.

Summary

Article 15.4(b) of Regulation (EU) 1380/2013 on the Common Fisheries Policy states that the landing obligation shall not apply to:

“species for which scientific evidence demonstrates high survival rates, taking into account the characteristics of the gear, of the fishing practises and of the ecosystem;”

In response to industry’s view that Plaice has a high rate of survival, the Centre for Environment, Fisheries and Aquaculture Science (Cefas) was commissioned to carry out a number studies on high survivability of Plaice. This study undertaken by Cefas.

The North Western Waters regional group notes that scientific evidence demonstrates a survivability rate of 64% for plaice (*Pleuronectes platessa*) caught by TR2 vessels using otter trawls in area VIId and recommends that catches of Plaice caught in areas VIId and VIIe should be exempt from the landing obligation on grounds of high survival rates, as provided for by Article 15.4(b) Regulation (EU) 1380/2013. This will reduce the risk of vessels being prevented from continuing to fish at sea due to their low Plaice quota.

Key Information

Exemption target: Plaice (*Pleuronectes platessa*)

Exemption grounds: High survivability.

Survivability rates: 64%

Vessels affected: 205 (UK vessels)

Discard rate: 32%

2018 UK TAC: 3,014

Fishery

In 2017, 205 vessels registered in the UK caught plaice with Otter Trawls in area VIId and VIIe, with a total catch of 741 tonnes. The discard rate for the stock in area VIId and VIIe is

currently at 32%. An estimated 237 tonnes will be discarded in 2019. The survival rate in the study is 64%, which would indicate that around 151 tonnes of the discarded Plaice will survive.

Study

The vessel selected for this study was a twin-rig otter trawler that traditionally works from Brixham, England to exploit the Lyne Bay lemon sole and squid fishery. The vessel measures 14.98m in length overall and is able to undertake 4-5 day trips. Brixham (See Figure 1) is one of the principal fishing ports in England and is the base for the largest beam trawl fleet in the UK and a fleet of up to 20 inshore trawlers which are able to land their catches at all states of the tide.

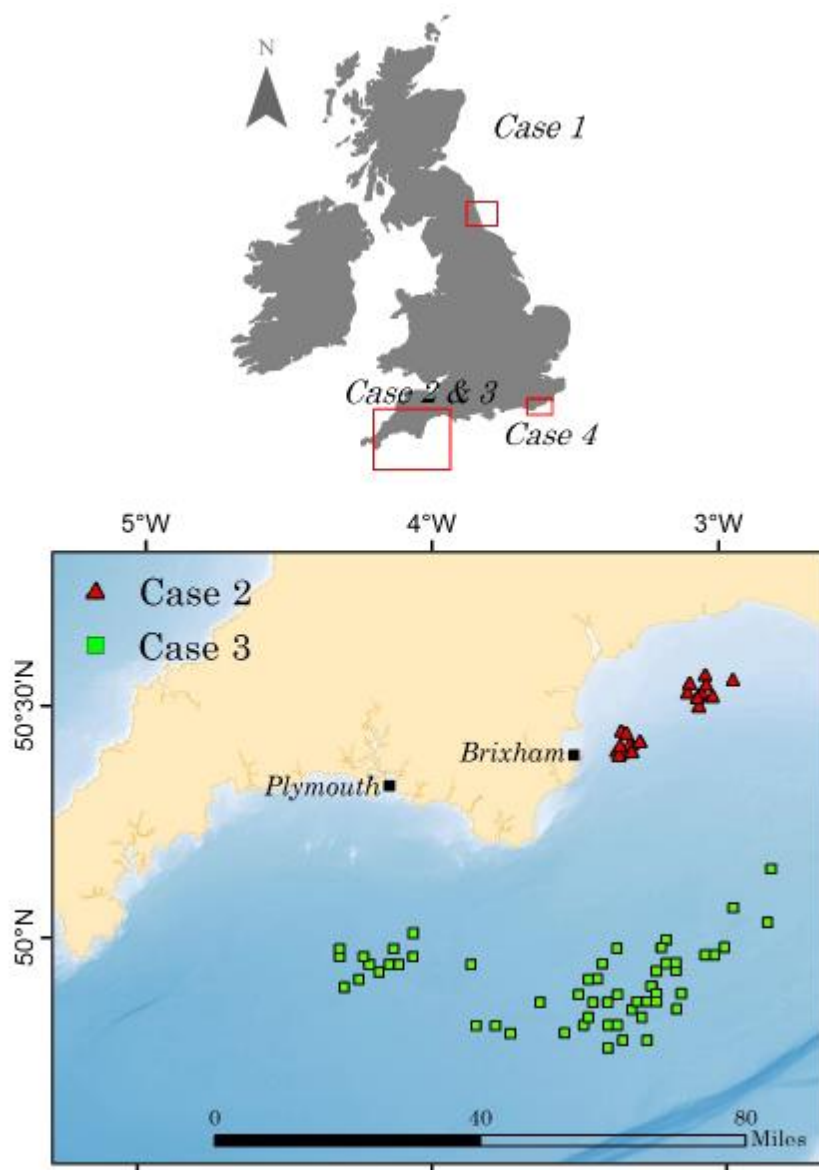


Figure 1. The locations of the hauls observed in this study (Case 4) on plaice high survival in otter trawls.

The demersal fishery is mixed but the main targets are non-quota species, such as lemon sole, squid and cuttlefish. The twin-rig otter trawl had a footrope length of 22m, and cod ends were 90mm mesh made of a 4mm diameter single braid twine. Water depths were generally shallow but 275m of trawl wire and 110m of bridles were deployed to achieve effective herding of lemon sole to the trawl mouth. As a result hauling usually took about 20 minutes.

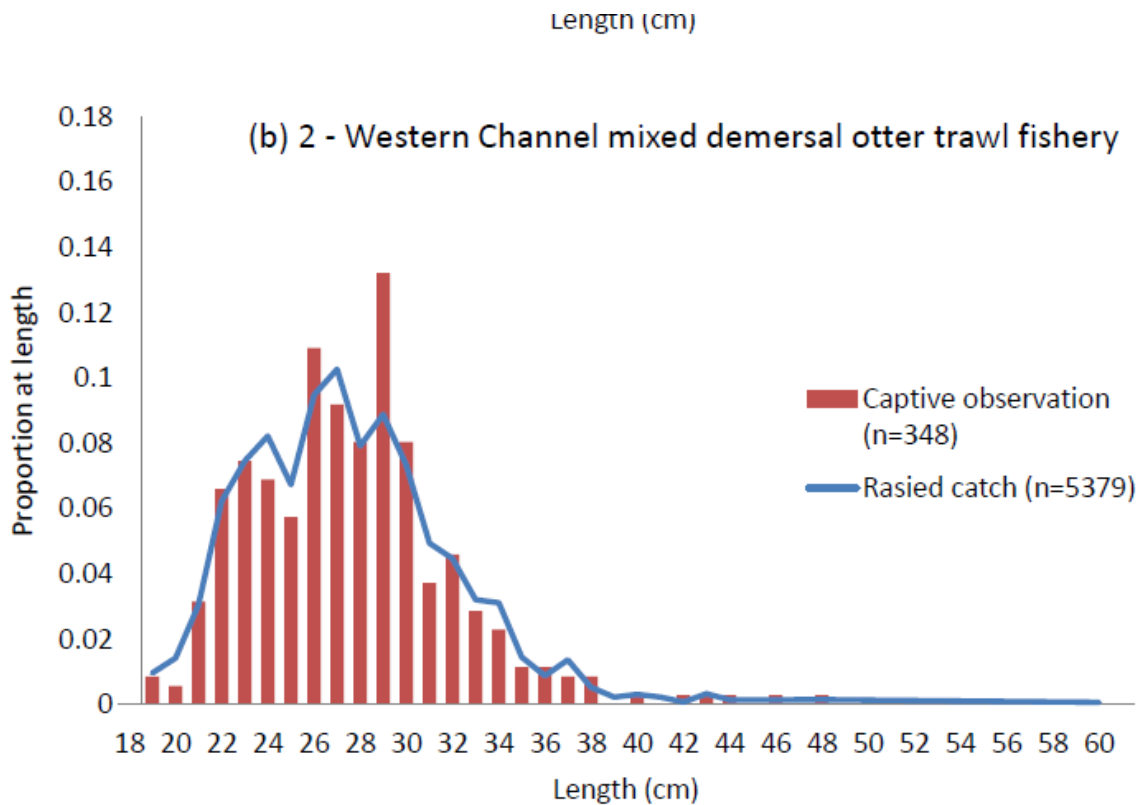


Figure 2. Length frequencies of plaice in trammel net catches and held for observation

Data collection

All plaice caught were recorded by length. Each individual fish was measured and scored using a predefined assessment protocol developed methods described in the ICES WKMEDS 2014 report and refined in the Cefas laboratory using aquarium kept plaice. Vitality was assess using a semi-quantitative assessment of activity and a quantitative reflex and injury scoring method.

Vitality assessment

A total of 5379 plaice were caught. Table 1 sets out the vitality assessment and survival probability of the caught plaice. Fish were held in captivity for 66-133 hours

Table1. Survivability and catch profile of study by vitality assessment for plaice.

Vitality assessment	Proportion of fish at each vitality	Survivability probability (%)
Excellent	0.38	90.2
Good	0.34	73.9
Poor	0.18	36.6
Moribund	0.08	5
Dead	0.01	-

Results

When weighted to the proportion of fish in each vigour category in the total catch, the estimated survival in the observation period was 64.4%. As the rate of mortality had reduced within the observation time; the forecast survival estimate was comparable to that at the end of the observation period, 47.1%-62.8%.

The study identified a number of potential stressors on the captive fish associated with the methodology in this study, which are likely to have resulted in experimental induced mortality and therefore underestimated survival. Specifically these stressors included:

- Handling fish to conduct the vitality assessments, length measurements and to put fish into the on-board tanks
- Captivity in the on-board tanks (movement caused by vessel movement; proximity with other fish; serial flow of water from top to bottom tank)
- Stopping water flow to on-board tanks on approach to port until docked (reducing dO₂)
- Transfer of fish into tubs (handling of fish)
- Carrying tubs off the vessel and transporting, by van, to onshore holding tanks (increased temperature, reduced dO₂, movement)

- Handling the fish to transfer into onshore tanks
- Adjusting to salinity and temperature
- Monitoring captive fish using tail grab

Conclusion

The UK believes that the fishing practices in this study resulting in survival rates of 64% for bycatches of Plaice are representative of general fishing practices by the vessels fishing for sole using otter trawls in ICES areas VIIId & e.

On this basis we would like to request a high survival exemption for plaice caught by otter trawls in ICES Areas VIIId & e.

Further information on the study can be found in Annex A, under case study 2.

Table 5: Completed STECF table for high survivability proposal

Country	Exemption applied for (species, area, gear type)	Species as bycatch or target	Number of vessels subject to the landing obligation	Landings (by landing obligation subject vessels)	Estimated Discards	Estimated Catch	Discard Rate	Estimated discard survival rate from provided studies
UK	Plaice Vlld and Vlle TR vessels using Otter Trawls	By catch	205	504t	237t	741t	32%	64%