

# removing a tickler chain from a whitefish trawl to reduce the capture of skates, rays and sharks while retaining commercial species

## TARGET SPECIES

Haddock, whiting and monkfish

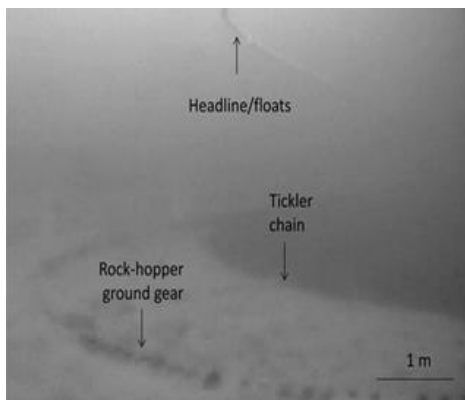
## AREA, VESSEL

17 paired alternate hauls took place in the west of Scotland on board the MRV *Scotia*

## GEAR MODIFICATION

A commercial whitefish trawl was towed both with and without a tickler chain.

Tickler chain was 37.5m long, made from 19 mm mid-link chain



the tickler chain running along the seabed 4m ahead of the rock-hopper groundgear.

## RESULTS

removing the tickler chain:

- significantly lowered the catch rate of skates and sharks,
- had little effect on catch rates of haddock, whiting, and flatfish, but
- caused a marked decrease in the catch rate of commercially valuable anglerfish.

|                   | % retained in trawl when |             |
|-------------------|--------------------------|-------------|
|                   | tickler on               | tickler off |
| <b>Skates</b>     |                          |             |
| Cuckoo ray        | 63                       | 25          |
| Flapper skate     | 64                       | 23          |
| Spotted ray       | 87                       | 48          |
| Thornback ray     | 53                       | 54          |
| <b>Sharks</b>     |                          |             |
| Blackmouth        | 12                       | 5           |
| Lesser spotted    | 58                       | 45          |
| Spurdog           | 96                       | 92          |
| <b>Flatfish</b>   |                          |             |
| Lemon sole        | 69                       | 64          |
| Megrim sole       | 45                       | 88          |
| Plaice            | 78                       | 77          |
| <b>Anglerfish</b> |                          |             |
| Angler            | 31                       | 15          |
| <b>Gadoids</b>    |                          |             |
| Haddock           | 98                       | 97          |
| Whiting           | 91                       | 78          |

## FURTHER INFORMATION

Kynoch, R. J. et al., 2015. A simple technical measure to reduce bycatch and discard of skates and sharks in mixed-species bottom-trawl fisheries. ICES JMarSci 72: 1861–1868.

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