Pot modifications to minimise ghost fishing potential

Pembrokeshire Sustainable Shellfish Initiative

Summary Information Sheet

Losing fishing gear happens. Lost fishing gear is lost income to fishermen. In addition, ghost fishing can happen when pots are lost and in a good enough condition to continue to fish. The 'catch' which has no opportunity to escape and which is trapped in the pot will eventually die, acting as bait encouraging other fish and crustaceans to enter the pot, and so the cycle continues. This process is commonly referred to as ghost fishing and it can have a negative impact on the environment and future stocks and the sustainability of the fishing industry.

The way in which a trap becomes lost and where, and the type of trap lost, are all factors that influence the likelihood of any ghost fishing occurring. Not every lost pot found is capable of ghost fishing, but the available evidence does show that ghost fishing is prevalent at least in lost pots under 2 years old.

What is needed is a 'weak link' that will degrade and allow the pot to open after a length of time and so release ghost-fished species. The 'weak link' needs to be weak enough to fail after a period of time, but not so weak in that it becomes inconvenient to routine fishing operations, needing to be changed too frequently. The Pembrokeshire Sustainable Shellfish Initiative (PSSI) trialled different 'weak link' modifications to the hook and also to hatches in 2016-17. Split rings (keyrings) were tested but these were found by most fishers to not be strong enough, failing when put under tension.

Participants found that the best solution was the Ghost Buster hog ring made of annealed steel available from GT Products. These worked out to cost approximately 3.5p per hog ring.

This set-up is the same for both hard eye (top entry) and soft eye (side entry) pots.

GHOST BUSTER HOG RING

Crimping tool and individual hog ring photographed open and crimped closed.

MODIFIED HOOK

Hog ring modified hooks. The set-up involves the Ghost Buster hog ring securing the elastic shock cord within the eye of the hook. In the event that the hog ring fails, the twine from the hook to the elastic cord behind the cable tie/standard hog ring retains the hook.

The PSSI trial found that all Ghost Buster hog ring modified hooks lasted between 11-17 months. For those who bring their pots in over the winter, replacing all hog rings on hooks in the spring should ensure secure catches for the new season. For those who keep their pots out 12 months of the year, a recommendation is to stagger installation of modified hooks to prevent mass failure and ease maintenance. Carrying spare modified hooks on board in a sealed bag can aid speedy hook changes.

Ghost Buster hog rings are used extensively overseas where they are used to fix in escape hatches and are designed to have a lifespan of 12months. The majority of participants preferred a weak link on the hook as opposed to an escape hatch/panel as it can be monitored better. In addition it was most likely to fail during tensioning of the hook.

Taking a proactive approach to the issue of ghost fishing is a sensible precaution, and as the PSSI has shown, it is easily achieved. Whilst such modifications are unlikely to completely stop ghost fishing from happening should pots become lost, it is taking steps to help reduce it.

A good support network can aid fishers with the relocation and retrieval of gear in the event that pots become lost. Liaising with local divers can be advantageous to fishers as a means of relocating and retrieving lost gear.

More information including a short film on the Pembrokeshire Sustainable Shellfish Pilot Initiative can be found at:
www.pembrokeshiremarinesac.org.uk/pssi.html
Or contact the project manager.
Email: pembrokeshireSSI@gmail.com

@PembsMarineLife

@PembrokeshireMarineWildlife

Pembrokeshire Sustainable Shellfish Initiative

December 2017

Design by Blue Fin Designs