# Knowing the ropes

*by*
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## Using sinking rope in Scottish pot fisheries will reduce whale entanglements.

**As Dan Jarvis says in his article, large whale entanglements are a serious concern, both to the whale itself, and to those trying to disentangle it. In the UK, large whale entanglements mostly occur in the static fishing gear used to fish for crab, lobster and langoustine. Only a very small proportion of entangled whales can be successfully disentangled. It's always better to try to prevent these entanglements from happening in the first place.**

The Scottish Entanglement Alliance (SEA), a collaborative partnership of fishing industry, science and NGO groups, was set up to understand more about marine animal entanglements in fishing gear in Scotland, and work with fishermen to find solutions.

Interviews with creel fishermen (in Scotland the pots fishing for crab, langoustine and lobster are known as creels) showed that the majority of whale entanglements (and also basking sharks) occur in the rope which links creel pots together on the seabed (known as the groundline or backrope). This rope is usually buoyant polypropylene, which floats in loops between each pot, often several metres high, which can entangle whales by their mouths, tails or flippers. Fishermen suggested that floating rope could be replaced with sinking rope, which is slightly weighted and lies on the seabed.

A still from Remotely Operated Vehicle (ROV) footage showing a creel on the seabed with floating groundline rising into the water column to form an arch. Photo by Bally Philp

Kyleakin creel fishermen Martin and DL MacKinnon have been trialling sinking rope in their crab and prawn creels and found it easy to work with. Photo by Susannah Calderan

SEA's work is based on fishermen taking the initiative to address issues in their industry, increasing the chances that any changes will be practical and more likely to be supported. Funded by the Scottish Government, we began trials of sinking rope with fishermen on Scotland's west coast in 2022, to find out if there might be any issues with its use. We have since rolled out this trial all around Scotland's coast, discussing with fishermen what their advice and concerns are, how any widescale implementation of sinking rope might work, and asking them to trial sinking rope for themselves. In inshore creel fisheries any 'one-size-fits-all' approach to implementing sinking rope will be impossible. In some areas it may be quite straightforward, whereas in others it might be more problematic. Equally, not all areas have an equal risk of entanglement. Many of the fishermen we are working with were initially unsure about whether sinking groundline was practical, the main concerns being whether it would be more liable to snag or abrade, especially on hard, bouldery ground, or pick up sediment on soft ground.

But the major advantage of sinking rope, compared to many other ways of reducing entanglement in fishing gear, is that it doesn't change the way that fishermen fish – it is simply rope that is slightly heavier. And our trials so far with over 60 fishermen around Scotland – from Shetland to the Clyde – have suggested that in most cases the rope is practical to fish with. In some cases, fishermen actually prefer it to floating rope. The main issue is that it is more expensive. SEA is now working on implementation options which could see sinking rope subsidised or incentivised to make it more affordable, enabling fishermen to make the change without it impacting on them financially.

Bycatch and entanglement of marine mammals in fishing gear have always presented complex conservation and management issues. But no creel fishermen wants to entangle a whale or basking shark, and SEA's collaborative, bottom-up approach is proving to be a successful way of finding win-win solutions for whales and fishermen. Its implications are key to supporting the government commitments to reduce incidental bycatch in fisheries.

A still from ROV footage showing a creel on the seabed with sinking groundline lying next to it. Photo by Bally Philp