

AGENDA ITEM 8 - BYELAW REVIEW ANNEX A by MMO appointee Mr Steve Brown:

Key Points on Shrimp Netting Byelaw: Background & suggested measures

Summary of suggested measures

Amalgamate existing measures across the entire District:

- Maximum headline length 10m
- Minimum mesh size 18mm
- Requirement to riddle with a mesh of no less than 5mm X 60mm

Background

Shrimp fishing because of its potential to damage significant numbers of juvenile fish has been the subject of considerable scientific effort. The noted works of Dawson brought about the more selective "raised bar shank". A world leading step forward in its day, this device, while in many ways is obsolete, is still in use today. As research facilities have improved we now have a much improved knowledge of selectivity in shrimp trawls of many types. W. Cook also produced a document describing the shrimp fishing practices within the Lancashire & Western District and their economic importance to the area.

We have a good variety of small scale shrimp fisheries, both afloat and ashore working within the District. Small twin beam trawlers in the Solway, single beam and small otter trawls in Morecambe Bay the Mersey and the Dee. From Morecambe Bay to the Mersey vessels are used to fish shrimps and are an important part of the intertidal fisheries within the district mainly using the rigid framed shank net. There is a hand net fishery where shrimps are fished using a variety of push or hand pulled beam nets, many local net types date back into antiquity. There are even occasions when static filter nets are used to take shrimp. Excellent descriptions of the fishing gear used in the District can be found in the works of FM Davis.

Selectivity is the key to a successful type of shrimp net and in general while a different approach is taken in separate parts of the District they all seem to work.

Existing byelaws in the District

Restrictions on the amount of gear that can be worked vary slightly amongst the three different Byelaw areas that make up the NWIFCA District.

Headline length: In the **Cumbria** District a maximum of **9 metres** of headline is allowed when using beams or otter trawls. While in the **NWSFC** part of the District a maximum of **10 metres** of headline is allowed when using beams, shanks or otter trawls. The discrepancy between the two areas arose when EU guidelines on how nets should be measured were changed. The NW&NWSFC made allowance for the change the CFSC did not. In the **Dee** where very small boats are used to fish for shrimp a headline of **7.62 metres**, beam or otter trawl is the only restriction.

Requirement to riddle: Both **Cumbria** and **NWSFC** have a **riddling requirement** using a riddle with a **mesh of no less than 5mm X 60mm**.

Mesh size: Because of its extensive intertidal fisheries, the **NWSFC** part of the District has a Byelaw **mesh size requirement of 20mm**. **CSFC** and in the **Dee** byelaws rely on EU/National mesh size requirement of 18mm.

Options for amalgamating measures

Clearly the simple solution is to amalgamate the requirements of the three sets of Byelaws:

- A **maximum headline length of 10m** (beam and shank from outside extremities as with EU/National requirements and in the case of an otter trawl net end to net end)
- **Minimum of 18mm mesh size** (needed to keep parallel between vessel and intertidal fisheries)

- Requirement to riddling shrimps with a mesh of **no less than 5mm X 60mm** (already in place in the existing byelaws and used elsewhere, the industry will almost certainly demand a riddling requirement)

Effect of riddling and reducing minimum mesh size

The obvious question is will such an amalgam of measures have any adverse effect upon the fishery or local environment?

Although riddling almost certainly does more harm than good as survival rates are not high, the industry will almost certainly wish to retain this requirement. Riddling of shrimps still takes place in parts of the District where there is no legal requirement to do so, and as such there is unlikely to be resistance to this measure.

Likewise, mesh size is almost an irrelevance. The key issue is the water flow through the net the more the water flow is obstructed the less efficient the net. My own practical experiments have confirmed the old knowledge that it is the cut of the trawl or other towed net that governs the efficiency of the net. Only in hand nets can any significant difference be detected when a small mesh size is used: it's harder work to push the net, and the catch is both smaller and of poorer quality. It must be remembered that there is no such thing as an undersized shrimp but there is a clear offence of landing undersize fish. This is one of the many reasons why the Minimum Fish Size Byelaw is such a high priority in the Byelaw review process.

Other measures to consider

The requirements for fish selectivity panels in vessel-towed shrimp nets are to be found in National legislation and are not appropriate for use in the intertidal zone.

Steven Brown
NWIFCA Member

Key Points on Vessel Length Byelaw: Background & suggested measures

Summary of suggested measures

Basic option for entire District:

- Maximum 15m overall length
- Maximum 221 KW engine capacity

Alternative option:

- Maximum 10m overall length within the 0-3nm limit
- Maximum 15m overall length within the 3-6nm limit
- Maximum 221 KW capacity
- A sunset clause prohibiting any vessel with a greater capacity built after the introduction of the byelaw, but allowing any existing vessel to continue until it is withdrawn from the fishery

Background

Where do the 15 metre length overall and 221 KW come from?

In the late 1930's a remarkable scheme was developed. It was known that large numbers of fishing vessels would serve and inevitably be lost in the war. To summarise fishermen were consulted and the Admiralty had a series of vessels built to standard designs. These boats were built as tenders but designed with the express purpose of being sold off after Victory to the fishing industry for conversion to fishing vessels. They were built to standard sizes the smallest a nominal 45 ft registered which equates in modern terms to 13.7 metres. At 50 ft overall (15 metres) they were eminently suitable for purpose. It was a totally brilliant piece of planning that was to not only make the UK fishing industry prosper but to attempt to do so in a sustainable way. If the minutes of post

war SFC meetings are correct the Admiralty craft scheme was a major factor in the introduction of vessel length Byelaws, it worked, and in many ways is still with us today. During the 1990's various licensing and vessel registration changes came in which hinged around 15 metres overall length. When the SFC's Districts were extended the NW&NWSFC considered its vessel size Byelaw there was really no alternative to selecting 15 metres overall length as the maximum size of vessel allowed to fish in the District.

With an overfishing crisis underway in the North Sea caused by a combination of the development of the modern twin beam trawl fishery and powerful light weight diesel engines Europe had to act. What they did was a piece of excellently drafted legislation. It was however to prove too little and too late. Basically twin beam trawlers fishing within 12 miles of the land were restricted to a maximum engine capacity of 221KW. This was to spawn the brilliantly successful "Eurocutter" class of vessel. Unfortunately, this incredibly successful measure was never extended to other fishing methods. What was even more brilliant was how it was introduced, a sunset clause prohibiting any vessel with a greater capacity built after the introduction of the law from fishing within 12 miles of the shore yet allowing any existing vessel to continue until it was withdrawn from the fishery. It worked that well that 221KW is almost set in stone in European (not just EU) thinking. As with 15 metres length overall we have little alternative but to use this measure.

Conclusion, we have a situation where we will come "unstuck" at some time in the future as existing legislation is not up to modern standards. Do nothing is not an option.

Existing byelaws in the District

Cumbria Byelaw 3 is complex, parts of it are not drafted to modern standards but it works. NW&NWSFC Byelaw 9 is brilliantly simple in its conception but prevented any investment and vessel replacement in the now southern part of the District.

There are no vessel length restrictions in place in the Dee fisheries. This is not a significant problem but in the process of amalgamating the Byelaws in a coherent fashion is a matter that must be addressed.

Suggested measures to include in new vessel byelaw

Given the background, existing byelaws and make-up of vessels in the district, I conclude that basic measures of **15 metres overall length and an engine capacity of 221KW introduced with an EU style sunset clause** is our only really viable option. Will it work certainly, but it will be a least another decade before we start to see the undoubted benefits that will follow.

An additional option to improve sustainability would be to set **an overarching limit of 15 metres overall length and an engine capacity of 221KW on the District with a separate 10 metre overall length for vessels working within the 3-mile limit**. Given the new potting byelaw, it would be necessary to include exemptions within this option for certain fisheries.

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