Trial to assess the effects of fitting scallop dredges with skids in ICES Divisions 7.a and 7.g

NWWAC Focus Group Scallop
04/12/2025

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Trial context

BIM carried out 2 scallop dredge ring size selectivity trials in ICES 7.e and 7.d (western and eastern Channel) during 2023 and 2024.

During these trials, the Irish scallop fishing industry highlighted the issue of ring size diameter increasing due to wear from contact with bottom substrates.

Heriot-Watt University in Scotland has developed the Low Impact Scallop Innovation Gear (LISIG) or skid gear that raises scallop dredge bellies off the bottom which reduces bottom contact and ring wear but may also affect selectivity.

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Trial aims

Assess the cost and practicality of fitting Irish scallop dredges with the LISIG or skid gear.

Assess the impact of the skid gear on the selectivity of scallop dredges fitted with a range of ring sizes.

Skid gear

Skid gear comprised:

- Solid steel frame (20 mm ø)
- Raised steel plates and
- Sacrificial Hardox steel wear plates or skids

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Trial vessel

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Trial details

The trial took place during September 2025

In EU waters of ICES divisions 7.a (south of 52° 30’N) and in 7.g

Scallop Minimum Conservation Reference Size is 100 mm in this area

16 valid hauls carried out

Haul duration between 1.5 and 2 hours

Depths ranged from 70 to 90 m

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Cost of skids and dredge bellies

Cost of custom-built skid gear:

- €335 for solid steel frame
- €76 for 2 sacrificial Hardox steel skids (recurring cost)

Cost of dredge bellies:

- €640 for 75 mm
- €600 for 85 mm
- €492 for 92 mm

Bellies may be replaced after 6 months depending on hardness of ground

Longer term testing would be required to assess the effect of skids on ring wear and costs associated with replacing dredge bellies

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Results - practicalities

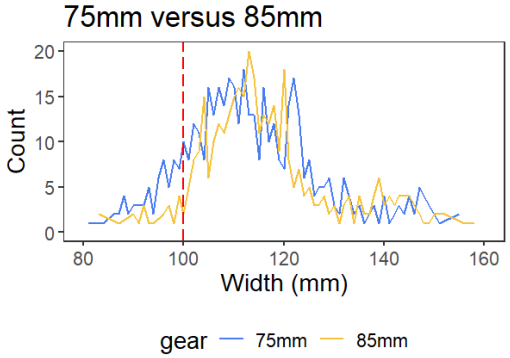
The trial Skipper suggested that the design of the skid gear could be improved to:

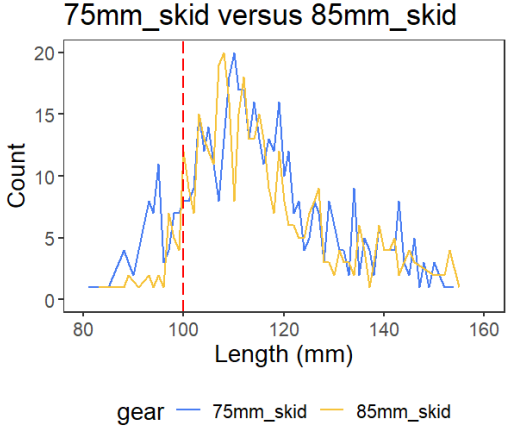
- Reduce the height of the skid
- Move it to the rear of the belly
- Reduce the weight of the frame and
- Reduce the overall cost

- After 4 days and 16 deployments the Hardox steel skids had little wear from bottom contact.

- More testing would be required to gauge the skids long-term effect on ring wear.

Results - effect on selectivity





Key findings:

- Little difference in catches of scallops ≥ MCRS in 85 compared with 75 mm ring size with and without skids.
- Some reduction in catches of scallops < MCRS in 85 compared with 75 mm ring size with and without skids.
- Large losses of ≥ MCRS in 92 mm ring size with and without skids.

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Conclusions

- Feedback from the Irish scallop fishing industry suggests that further work is required to optimise the design of the skid gear for Irish dredges
- Longer term testing would be required to assess the effect of skids on ring wear and on dredge belly replacement costs
- 85 mm ring size worked well with and without skids
- BIM plans to carry out more work in the Irish scallop fishery in 2026

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Acknowledgments

Thanks to owners Breadan Scallops Limited, Skippers Fred and Ben Redmond and the Crew of the MFV Rackard. Thanks also to John Lynch of the ISEFPO for assistance with trial planning.

This work was funded by the Irish Government; and part-financed by the European Union through the EMFAF Operational Programme 2021 – 2027.

The trial report is being prepared and will be available for download at:
https://bim.ie/publications/fisheries/

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Government of Ireland

Arna chomhchistiú ag an Aontas Eorpach

Co-Funded by the European Union

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