## An evaluation of the Fishing for Litter (FFL) scheme

ME5418: Fishing for Litter in the South West

#### What's the problem?

Fishing for Litter (FFL) is a voluntary scheme started in the UK in 2005. FFL had four aims: 1) to reduce the amount of marine litter in our oceans by removing litter, and 2) to increase awareness amongst the fishing industry that it is not acceptable to throw litter overboard, targeting fishers' attitudes and behaviours, 3) to monitor the marine litter coming ashore, and 4) to investigate the possibility of recycling the litter. Litter retrieved through FFL is monitored, but no evidence exists about fishers' general attitudes and behaviours regarding marine litter and waste disposal, and no research has explored whether taking part in FFL is associated with differences in attitudes or behaviour. There is also no systematic analysis of opportunities and barriers to the FFL scheme, and it is unclear how useful FFL litter monitoring is. Exploring attitudes and behaviour change is important because they could lead to long-lasting sustainable improvements in waste management in the fishing industry.

#### What are the aims of the project?

The main aims of the research were:

- (1) to investigate potential associations between taking part in the scheme and fishers' attitudes and behaviours regarding marine litter and its disposal.
- (2) assess the marine litter data available from this scheme,
- (3) assess the opportunities and barriers for the future of FFL
- (4) undertake a limited comparison of FFL with other similar schemes.

This 5 month project was led by a Marine Biologist and a Psychologist / Behavioural Scientist at Plymouth University and involved surveys or interviews with 97 fishers and 22 stakeholders (from within the scheme, harbours, government etc.).



Figure 1: Skipper Jimmy Buchan with some of the items brought back to shore at Peterhead as part of the Fishing for Litter Scheme (photo credit: Karen Murray).

#### Which policy areas will the research inform?

FFL directly relates to policies in the marine environment and is recognised in the OSPAR Regional Action Plan and associated UK programme of measures for the Marine Strategy Framework Directive (MSFD). FFL contributes to industrial engagement with environmental protection and waste management. From an educational perspective the scheme raises awareness and support for marine litter policies within the fishing industry.





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# What are the results from the project and how will they be used?

The FFL scheme (Figure 1) is widely recognised among the fishing industry. Stakeholders and fishers agree with the aims and ethos of the scheme and fishers are willing to participate. Fishers say the scheme is simple and not a major burden upon their workloads. Some fishers reported improved fishing as a result of catching less litter.

Aim 1: Our research indicates that the scheme is associated with behaviour change as well as pride/ positive press for fishers, thus demonstrating much wider benefits than simply removing litter from the sea. Fishers that are part of the FFL scheme reported they will not throw things overboard and instead bring litter found at sea back to the land for disposal (Figure 2).

Aim 2: Within the scheme, two forms of litter data were collected: overall tonnage of waste and, where possible, information on composition. Stakeholder interviews indicated monitoring was not a primary aim of the project, that there were potential anomalies in the reliability of the data and that FFL resources might be better spent expanding the scheme rather than improving and refining data collection.

Aim 3: Positive features of the scheme were: (1) organisation was simple, passive, voluntary, yet effective; (2) raising awareness amongst fishers and the public; (3) reducing litter in the marine environment and (4) producing a feel good factor for participants. The main barriers were: (1) difficulties participating because of boat size, fishing practises, and lack of FFL facilities in harbours, (2) misuse of the FFL waste system; (3) obstacles to raising awareness and (4) limited resources (especially regarding the need to pay landfill tax). Overall, participants felt the scheme should be maintained and strongly voiced hope that it would be expanded.

**Aim 4:** FFL falls within schemes that can be grouped into: 'passive' and 'active' fishing for litter, and ghost net retrieval. KIMO's FFL is thought to: target marine litter more broadly, encourage greater involvement by fishers, and have wider geographical coverage. It was regarded as good value since it does not involve payment for participants which could undermine intrinsic motivation. In summary FFL has established itself as the leading scheme for fishers to remove marine litter from the sea.

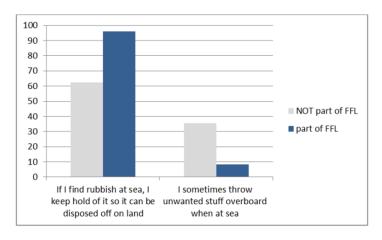


Figure 2: Percentage of fishers who agree or strongly agree with two behaviour statements, divided into those that are part of FFL and those that were not

The findings show an overwhelmingly positive evaluation of the scheme and its outcomes and provide recommendations for ways to improve the scheme, as well as for future research beyond the scope of this small project.

A parallel paper will be published in a peer-reviewed journal (Marine Pollution Bulletin) preliminary reference is: Wyles, K. J., et al. (in preparation). An evaluation of the Fishing for Litter (FFL) scheme in the UK.

Where can I find further information about this and related research?

Contact Dr Sabine Pahl (sabine.pahl@plymouth.ac.uk) or Professor Richard Thompson (r.c.thompson@plymouth.ac.uk) at Plymouth University, and see www.fishingforlitter.org.uk.

Alternatively, please contact Defra's Marine and Fisheries Science Unit: marinescience@defra.gsi.gov.uk

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