

# Stakeholder report on non-lethal seal deterrents

Interactions between seals and fishing gear include depredation of fish catches by seals and bycatch of seals in fishing gear. Throughout England, depredation is an issue for static net fisheries in particular.

The Marine Management Organisation (MMO) has to provide advice on interactions between seals and fishing gears. In order to improve the specificity of advice, MMO would like to understand the interactions between seals and fishing gear and non-lethal deterrent options better, to be able to offer advice. This may also have positive side effects on fishing by reducing seal by-catch and net-based feeding.

[Project MM01131](#) was set up aiming to explore the following seven objectives:

1. Understand how seals take fish from nets and what factors assist them (for example, location, visual cues etc.)
2. Identify what factors influence depredation behaviour (for example, opportunistic or specialist)
3. Identify the breeding populations of individuals undertaking depredation
4. Review non-lethal deterrent measures currently available that may be appropriate for reducing the seal–gear interactions at sea
5. Review what modifications to fishing gear or fishing tactics may mitigate seal depredation and bycatch
6. Clarify potential impacts and benefits and risks to the fishing industry, managers and seals of implementing non-lethal measures, gear modifications or tactics identified through V) and VI) and prioritise a sub-set of mitigation measures for testing
7. Design and undertake testing in collaboration with the fishing industry of the most promising depredation deterrent measures

The project will meet these objectives through undertaking the following tasks:

1. A desk-based [literature and data review](#) to further inform understanding of the nature of fishing gear/seal interactions, the factors which influence these interactions and potential non-lethal deterrent methods and their effectiveness
2. A programme of stakeholder engagement through survey and interview to gain a detailed understanding of the issue of seal depredation and by-catch in fisheries throughout England. [The report](#) was published on 2 August 2019
3. An expert/steering group workshop to review the above outputs and agree on the preferred deterrent to be trialled, the geographic area for the trials and the trial design (covered in report above)
4. Undertaking at-sea trials of the chosen deterrent method to determine its effectiveness