



Harbour Porpoise Bycatch Management Option 4: Mandatory requirement for ADDs

A legal requirement to have devices that emit a sound causing animals to avoid fishing gear.

Acoustic deterrent devices (ADDs), commonly referred to as pingers, emit sound and enhance the detection of fishing gear by echolocating cetaceans, causing animals to avoid the source. This option could include expanding the current ADD requirements¹ to all gillnet vessels, including vessels under 12 m in length and those over 12 m vessels that do not currently require ADDs in the North Sea.

This option could be considered for managing porpoise bycatch within the Stage 4 porpoise MPAs and/or wider MMO waters. The advantages, disadvantages and considerations listed below will vary depending on the scale at which the option is implemented. For further detail on spatial scales please see the handout on spatial scales for harbour porpoise bycatch management.

Advantages	Disadvantages
<ul style="list-style-type: none">• Devices on gillnets are highly effective at reducing harbour porpoise• Under 12 m vessels account for the majority of gillnet activity in the MPAs and the majority of the UK gillnet fishery, so expanding ADD use could significantly reduce bycatch• Proven and available technology that does not impact target catch and has limited interference with operations	<ul style="list-style-type: none">• Habitat exclusion, with devices possibly excluding porpoise from potentially high-quality habitat.• Disturbing foraging behaviour of porpoise which may be particularly vulnerable to reduced energy intake• Contribute to a noisy seascape and the thresholds for noise disturbance set for the MPAs.• Socio-economic costs for increased workload and to purchase, charge and maintain devices.

Other considerations:

- Cost, disturbance, spacing and potentially bycatch effectiveness can vary with device type.
- Impacts on porpoise behaviour are likely short-lived and over small spatial scales so habitat displacement may not be an issue at the population scale.
- Consider regulatory mechanism, including cross-over with marine wildlife licences, and resources for enforcement.

¹ <https://www.gov.uk/guidance/reduce-dolphin-and-porpoise-by-catch-comply-with-regulations>

- Devices need to be used correctly otherwise could cause bycatch through funnelling into sections of net without pingers.
- Smaller vessels may have less physical space and capacity to charge and store devices.
- Limited evidence for decreasing response (habituation) of porpoise to ADDs
- Limited evidence for dinner bell effect so far but increased feeding on/nearby nets cannot be ruled out for seals and dolphins given their ability to learn behaviours.
- Consider avoiding intense ADD use in inshore waters.

Summary

The use of ADDs would allow fishing to continue whilst significantly reducing harbour porpoise bycatch however, behavioural disturbance and habitat exclusion must be considered as well as the cost of purchasing and maintaining the devices. Mandatory use of ADDs could be a viable option, though further analysis would be needed of the cost-benefits trade-offs and the spatial and temporal scales at which any requirement would be implemented.

Questions to discuss:

- What are the main benefits of this option at either spatial scale?
- What are the main challenges of this option at either spatial scale?
- What are the socio-economic impacts of this option at either spatial scale?
- What are the environmental impacts of this option at either spatial scale?
- What are the practical implications of the option at either spatial scale?
- How feasible is this option to implement at either spatial scale?

ADD questions:

- Do you have additional evidence on environmental ADD concerns, particularly acoustic disturbance, dinner bell effect, use of devices inshore and habituation?
- What would the practical implications be of requiring all gillnetting vessels to require ADDs? (e.g., charging, storage, costs, deploying on different metiers - concerns for tangle and trammel nets?)
- Are there any health and safety concerns regarding use of ADDs?
- Would ADDs on under 12 m gillnet vessels in porpoise MPAs be acceptable or not? If not, why not?
- Do you have additional evidence on the effectiveness of ADDs for reducing harbour porpoise bycatch on bottom towed gear?
- What gillnet net lengths, number of nets and soak times are typically used for over vs under 12s, specifically in MPA areas?
- How many fleets of net do you shoot typically per day?
- Do you have a preference on device type? E.g., are Banana pingers preferred to Dolphin Deterrent Devices (DDD).
- Could current pinger requirements for over 12s be improved? E.g., net lengths over 400 m in the North Sea do not require ADDs (only shorter lengths to capture the 'wreck-net' fishery do).