

Dawson, S.M., Read, A.J. & Slooten, E. 1998. Pingers, porpoises and power: Uncertainties with using pingers to reduce bycatch of small cetaceans. *Biological Conservation* 84(2):141-146.

Abstract:

Incidental mortality in gillnets is probably the most serious global threat to dolphin and porpoise populations. In 1994, a well-designed study demonstrated a 92% reduction in bycatch of harbour porpoises in sink gillnets equipped with acoustic pingers. This result has not yet been fully replicated; in the New Hampshire area where the experiment was conducted or elsewhere. Statistical power analyses indicate that such studies are feasible only in areas of high entanglement rate. Currently unanswered research questions include whether the 1994 results can be replicated, whether habituation might decrease effectiveness over time, and what the mechanism of deterrence is. Practical constraints include the size, cost and battery life of current pingers, and whether their use could be monitored cost-effectively. From a management perspective, even if the effectiveness of pingers is confirmed, widespread incorporation of them into gillnets may not alone be sufficient to meet the requirements of the US Marine Mammal Protection Act. For this reason scientists, managers and fishers must continue to explore other options, including time/area closures and encouragement of more selective fishing methods.