



Management options for coastal harbour porpoise (*Phocoena phocoena*) in the outer Moray Firth in northeast Scotland

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Introduction

Fine-scale coastal studies of harbour porpoises (*Phocoena phocoena* L.) in the outer southern Moray Firth in northeast Scotland (Figure 1) have revealed that the inshore waters of this large, North Sea embayment may provide a significant habitat for the species during the summer and autumnal months (Whaley & Robinson 2004, Robinson et al. 2007). In recent years, however, alarming declines in porpoise abundance have been noted for this region (Clark et al. 2006), suggesting that conservation measures need to be implemented for the identification and subsequent mitigation of those activities negatively impacting upon these communities.

The threats and problems

The combined and potentially synergistic effects of disease, stress (induced by disturbance) and contaminant exposure, are likely to be having detrimental effects on North Sea harbour porpoise populations. Even if the respective impacts of contamination and disturbance have not decisively been established, preventive action can be justified. Other risks have not been investigated adequately yet, but disturbance by commercial and recreational traffic, dredging and some forms of coastal development (e.g. wind parks) could emerge as significant negative factors.

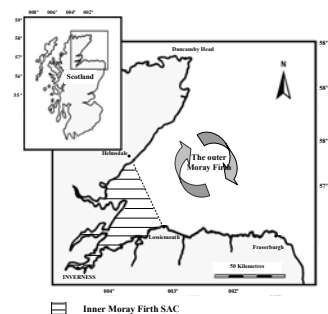
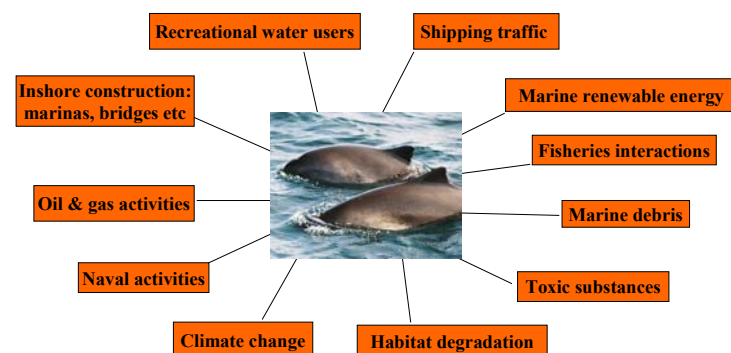


Fig. 1. Showing the location of the Moray Firth in northeast Scotland.

Legal protection for harbour porpoises

- Listed under Annex II & IV of the EC Habitats and Species Directive 1992 (92/43/EEC)
- Listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- Listed in Appendix II of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)
- Listed in Appendix II of the Convention on Migratory Species (Bonn Convention)
- Protected under Schedule 5 of the Wildlife & Countryside Act 1981
- Listed in the IUCN Red List of Threatened Species as *vulnerable* throughout their range
- Covered by the Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS), a regional agreement under the Bonn Convention.

There are a multitude of factors that impact on harbour porpoises in the North Sea, and particularly in the Moray Firth. Incidental bycatch is recognised to be the single most significant anthropogenic threat to coastal porpoise populations in the Moray Firth. However, four years after the adoption of EC Regulation 812/2004, one of the main provisions aimed at reducing these bycatch levels, namely the compulsory use of pingers on specified set nets, remains difficult to enforce and somewhat impractical to regulate. Moreover, as the requirements are costly and unpopular within the Scottish fishing industry, and in the industry in general, there appears to be little incentive for EU Member States to find a solution to this problem. Furthermore, the harbour porpoise is listed in the Habitats Directive, but the UK government has not yet designated any areas to protect it.

Management options

Policy and legislation

- Monitoring and controlling gill nets and other set net fisheries;
- Continuing the duty on sea fisheries regulators, to take account of potential wider impacts on wildlife and habitats (in addition to target species) when deciding fishery management measures;
- Considering alternative mitigation measures to reduce harbour porpoise bycatch, such as targeted restriction of fishing effort in the priority gear types and fisheries;
- Initiating infringement procedures in the case of EU Member States that are neither implementing the provisions of 812/2004 nor making concerted efforts to enable them to do so in the short-term;
- Improving coastal water quality by reducing the discharge of substances which are toxic, persistent and liable to bioaccumulate;
- Continuing to introduce agreed codes of conduct to reduce disturbance from acoustic sources and physical pressures.

Site safeguard and management

- Reviewing existing UK marine site protection to determine how it might be improved. If appropriate, introducing additional protection and emergency designation to benefit the species.

Future Research and Monitoring

- Establishing long-term research on the areas frequented by harbour porpoise, to identify waters which may qualify for further protection as Special Areas of Conservation (SAC's) or Marine Nature Reserves;
- Regular evaluation of the impact of all fisheries, particularly gillnet fisheries;
- Monitoring of local populations and reporting of by-catch (including placing observers on vessels);
- Minimising the by-catch of small cetaceans by promoting research into fishing gear (including pingers) and other possible mechanisms (e.g. fisheries closures);
- Promoting research into the causes of death of the species within local and UK waters to determine the context and need for future conservation action.

Communications and Publicity

- Encouraging fishermen to report sightings and by-catches through awareness programs;
- Encouraging international exchange of information to assess and reduce by-catch figures;
- Continuing to publicise reporting schemes for strandings and live-sightings.

References

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- Whaley, A.R. & K.P. Robinson 2004. The southern outer Moray Firth in NE Scotland as a potential "safe area" candidate for the harbour porpoise (*Phocoena phocoena* L.). *European Research on Cetaceans* 18.

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