

HARBOUR PORPOISE

(*Phocoena phocoena*)

What is the HARBOUR PORPOISE?

The harbour porpoise, along with whales and dolphins, belongs to a group of mammals known as cetaceans. Within the larger group of cetaceans, it belongs to a smaller group called the toothed whales. It has a rotund body with a dark brown or grey back and a whitish belly. Adults are usually less than 1.8 metres long and weigh between 45 and 70 kilograms. Harbour porpoises are not very gregarious and tend to occur either in pairs or groups of five to ten. These groups are normally found in sea depths of 18 metres or less. They are fast moving but are not very conspicuous because they rarely approach boats and have a regular diving pattern, seldom breaching or leaping from the water. Harbour porpoises breed from mid to late summer (June - August). Gestation is thought to be about a year and calves are born between May and August, with a strong peak in June around the British Isles. They feed on a variety of fish and cephalopods.

Where are they found in the UK?

The harbour porpoise is the most numerous cetacean around Britain. It occurs most frequently in the central and northern North Sea and over the continental shelf of the British Isles.

Why is the harbour porpoise of CONSERVATION INTEREST?

The harbour porpoise is classified as a globally threatened species, although there is no comprehensive estimate of the world population.

There is evidence of a decline in the numbers of harbour porpoises in UK waters, since the 1940s.

It is thought to be extinct in the southern North Sea (i.e. south of the Humber). Harbour porpoises have also virtually disappeared from the Baltic Sea and the winter migration they once undertook from the Baltic into the North Sea has ceased.



STATUS: *The harbour porpoise is protected under Schedule 5 of the Wildlife and Countryside Act 1981 which prohibits deliberate killing, injury or disturbance of porpoises to a distance of 12 nautical miles offshore. The species is also protected under Appendix II of the Bonn Convention, Annexes II and IV of the EU Habitats and Species Directive (92/43/EEC) and Appendix II of CITES.*

The harbour porpoise is also covered by the Agreement on the Conservation of Small Cetaceans of the Baltic and North Sea (ASCOBANS) and the Convention of European Wildlife and Natural Habitats.

Other action plans and statements covering issues relevant to the harbour porpoise:-

COMMERCIAL FISH***

BASKING SHARK***

TOOTHED WHALES***

BALEEN WHALES***

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THE HARBOUR PORPOISE IN THE DURHAM AREA

How HEALTHY is the local population?

The estimated population of harbour porpoises in the North Sea is approximately 340,000 (Small Cetacean Abundance in the North Sea Survey, July 1994). The population of the northern and central North Sea is much healthier than that of the southern North Sea.

How much do we know about the harbour porpoise in the DURHAM AREA?

Most of the information about the harbour porpoise in the Durham area comes from offshore sightings and onshore strandings. Records of sightings off the coasts of North Yorkshire and Northumberland are more frequent than for the Durham coast. However, given that marine mammals are highly mobile (harbour porpoises can travel up to 20 kilometres a day), it can be safely assumed that harbour porpoises occur regularly off the Durham coast, although it is difficult to determine numbers.

WHERE has the harbour porpoise been found in the Durham area?

The harbour porpoise occurs throughout the North Sea with periodic sightings and strandings on north-east beaches. Since 1992, the Environment Agency has recorded 12 instances of strandings of harbour porpoise on the beaches of Durham and Sunderland. These strandings were recorded at Seaham, Crimdon, Easington and Roker. There are 20 records of sightings/strandings listed in the Durham area in "The Marine Fauna and Flora of the Cullercoats District" (2000).

Harbour porpoises are at RISK from:

HABITAT LOSS - as a result of construction impacts, effluent discharge, rubbish dumping, marine transport, alien species introduction, mariculture, fisheries, recreational use including leisure boats, resort and marina construction and (ironically) whale watching. Typically, the most productive marine habitats are found

near the coast which is where the detrimental effects of urban and industrial development are felt most keenly.

LITTER - items recorded in the stomachs of dead porpoises include plastic bags, plastic bottle tops, fishing line and banana skins.

POLLUTION - harbour porpoises from many areas, including UK waters, have been found to carry heavy burdens of pollutants, including chlorinated hydrocarbon compounds, insecticides, PCBs and heavy metals. The effects of these pollutants is largely unknown although it is thought that pollution impacts on reproduction and immune function in other marine mammals.

DISTURBANCE FROM SHIPPING, RECREATION AND OIL EXPLORATION - industrial and commercial developments, and dredging in coastal areas may deter porpoises from entering areas they once frequented. Increased boat traffic in coastal waters may mean that foraging time is reduced due to the time spent avoiding boats.

INTENSIVE FISHING REDUCING THE AVAILABILITY OF PREY - the tight energy budget of harbour porpoises makes them vulnerable to declines in high energy fish species resulting from over-fishing.

CLIMATE CHANGE - climate change including both global warming and increased exposure to UV-B radiation may affect productivity by killing plankton at the bottom of the food chain, altering ocean currents and affecting prey ability.

BY-CATCH - the most significant threat is accidental capture or entanglement in fishing gear. Harbour porpoises are especially vulnerable to by-catch in bottom-set gillnets set on the seabed. Figures suggest that 4,450 harbour porpoises are killed annually in North Sea fishing operations; this is a significant proportion of the total estimated population in the North Sea.

NOISE - harbour porpoises use their hearing for navigation and finding food. The seas around Britain are now filled with the sound of vessel traffic, seismic exploration for oil and gas deposits and other powerful sounds which may interfere with porpoises' ability to

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hear. The consequences for harbour porpoises are unclear; they may be disturbed or displaced by such noise.

Harbour porpoises BENEFIT from:

RAISED PUBLIC AWARENESS and involvement with their conservation.

IMPLEMENTATION OF AN EFFECTIVE INTEGRATED COASTAL ZONE MANAGEMENT STRATEGY for the DBAP coastline which includes conservation objectives.

INCREASED CO-ORDINATION OF CONSERVATION WORK at a regional, national and international level with regard to the marine environment.

THE DEVELOPMENT OF A MARINE AGENCY AND A SEPARATE MARINE PLANNING SYSTEM - the current planning system extends only to the intertidal zone there is no government body with single responsibility for the marine environment.

FURTHER RESEARCH ON POPULATION STRUCTURE, ABUNDANCE AND DISTRIBUTION OF HARBOUR PORPOISES - the population biology of harbour porpoises needs to be more fully understood before the effects of by-catch, marine pollution, noise etc. can be accurately quantified.

REDUCED LEVELS OF POLLUTION AND UNDERSEA NOISE.

REPORTS OF ALL SIGHTINGS AND STRANDINGS.

SUSTAINABLE FISHERIES - changes in fisheries policy need to be made at the European level, when the Common Fisheries Policy is reviewed in 2002.

RESEARCH INTO METHODS OF REDUCING BY-CATCH - such as the use of "pingers" and other practical methods to reduce by-catch.

Important HABITATS for harbour porpoises are:

OPEN SEA

SHALLOW COASTAL BAYS

ESTUARIES

TIDAL CHANNELS

TARGETS

- 1** Establish, as far as is practical, the current number of harbour porpoises in the North Sea. (ONGOING)
- 2** Take appropriate action to uncrease population levels of harbour porpoise and seek to increase their range. (ONGOING)
- 3** Monitor the numbers of harbour porpoises occurring along the coast of the Durham area. (ONGOING)
- 4** Raise public awareness concerning the presence of, and conservation of, harbour porpoises along the Durham coast. (ONGOING)

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ACTION PLAN

ACTION	DATE	Possible PARTNERS	Meets TARGET No.
POLICY AND LEGISLATION			
1. Support national policy initiative to extend ASCOBANS boundaries to include Irish Sea and western approaches.	ONGOING	All Partners, Local Communities	2
2. Lobby for reform of CFP in 2002.	ONGOING	All Partners, Local Communities	2
3. Lobby for marine planning system, marine protected areas and increased species protection.	ONGOING	All Partners, Local Communities	2
SPECIES MANAGEMENT AND PROTECTION			
4. Seek to improve the quality of coastal waters and reduce levels of pollution. Monitor discharges of sewage and other pollutants.	ONGOING	DEFRA, EA, NWL	2
5. Inshore regulation of fisheries should include enforcement of conservation by-laws.	ONGOING	NESFC	
6. Introduce and publicise codes of conduct to reduce disturbance from noise, physical pressures and the risk of collisions, resulting from whale watching.	2002	EN, JNCC, EA, WCDS, MCS, All boat users	2, 4
7. Reduce litter in the sea and on beaches.	ONGOING	All Partners, Local Communities	2
8. Take an active role in measures to reduce global warming.	ONGOING	LA 21, All Partners, Local Communities	2
RESEARCH AND MONITORING			
9. Record all sightings and strandings to monitor local population.	ONGOING	All Partners, Local Communities, EA	1, 3
10. Contribute data to national monitoring schemes at SMRU, JNCC, WDCS, MCS.	ONGOING	All Partners, Local Communities	1, 3
11. Promote and support research into mechanisms for reducing by-catch and ghost-fishing.	ONGOING	All Partners, Local Communities	2

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ACTION	DATE	Possible PARTNERS	Meets TARGET No.
RESEARCH AND MONITORING continued			
12. Support research into whether porpoise populations can sustain current levels of by-catch (including the integration of information from local observers).	CURRENT	SRMU, DWT, MCS, WDSCS	2
13. Support research into the impact of noise pollution at the local level and promote recognition of noise as an environmental constraint to marine development.	ONGOING	EA, EN, DEFRA, Local Industry	2
14. Submit records to the local LRC.	ONGOING	All Partners, Local Communities	1, 3
ADVISORY			
15. Provide information sources for local people and links to voluntary organisations that they can support.	2001	DBAP, DBAP, EN	2, 4
COMMUNICATIONS AND PUBLICITY			
16. Raise awareness of the problems faced by the harbour porpoise and of the need to protect cetaceans from local to European and international level.	ONGOING	DBAP, DWT, NT, EDC, DCC	2, 4
17. Support the exchange of information to reduce by-catch at an international level.	ONGOING	All Partners, Local Communities	2
18. Support the work of voluntary groups e.g. MCS, WDSCS by membership, local events etc.	ONGOING	All Partners, Local Communities	2, 4
19. Report suspected pollution incidents to the Environment Agency.	ONGOING	All Partners, Local Communities	2
20. Report all on shore strandings to the Natural History Museum, SMRU, EN, EA.	ONGOING	All Partners, Local Communities	1, 3
21. Report all offshore sightings of harbour porpoise.	ONGOING	All Partners, Local Communities	1, 3