NORFOLK BIODIVERSITY ACTION PLAN

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Plan Leader:	Eastern Sea Fisheries Joint Committee	
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HARBOUR PORPOISE
(Phocoena phocoena)

The harbour porpoise is the smallest cetacean to occur in UK waters, never reaching more than 2m in length. It has a dark grey back and is paler below. It has a robust body and a small, round head with no beak. The dorsal fin is small, triangular and centrally placed on the back. Porpoises are usually sighted alone or in very small groups. They are undemonstrative, travel slowly and rarely approach boats.

1. CURRENT STATUS

National Status

- The harbour porpoise is predominantly a coastal species, favouring shallow waters over the continental shelf. It is limited to the cold temperate and subarctic waters of the Northern Hemisphere. In the eastern North Atlantic it ranges from Iceland south to the coasts of Senegal, including the North Sea, the Baltic Sea and the western Mediterranean.

- There is some evidence of a decline in the numbers of harbour porpoise in the UK since the 1940s. However, generally the conservation status around the UK is poorly known. The SCANS (Small Cetacean Abundance in the North Sea and adjacent waters) surveys, coordinated by the Sea Mammal Research Unit (SMRU) in July 1994, provided the first population estimates of harbour porpoises and other small cetaceans around the UK, including the North Sea. The surveys estimated a total harbour porpoise population in the North Sea, English Channel and Celtic Sea of approximately 340,000 (Hammond *et.al.* 1995). An estimate of abundance in the eastern sector of the North Sea between the North Norfolk coast and the north-east coast of Scotland was 16,900 animals (Hammond *et.al.* 2002). In the 1994 SCANS survey no porpoises were recorded in the North Sea south of the Wash. The SCANS surveys were repeated in July 2005 and preliminary results have shown an increase in the density of porpoises in the southern North Sea, including the Norfolk sector (Macleod et al 2006).

- The harbour porpoise is listed on Appendix II of the Bern Convention and Annexes II and IV of the EU Habitats Directive. It is on Appendix 2 of the Bonn Convention and is covered by the Agreement on the conservation of small cetaceans in the Baltic and North Seas (ASCOBANS), a regional agreement of the Bonn Convention. It is protected under schedule 5 of the Wildlife and Countryside Act 1981 (As amended by the Countryside and Rights of Way Act 2000). No SACs have currently been designated for this species.

Norfolk Status

- Found off the Norfolk coast. The local status is poorly known, but anecdotal sighting records and stranding data indicates that harbour porpoises were previously more common in Norfolk waters and that the population declined during the middle part of the twentieth century (Seago 1992, 1997). However, in the last decade, there has been an increase in sightings and strandings along the entire Norfolk coast, with a peak in records during the winter and early spring (Jan-April).

- Similar increases have been noted in neighbouring Dutch waters. Porpoises were virtually extinct in Dutch coastal waters in the early 1960s, but systematic annual land-based and at-sea surveys carried out since 1970 have shown significant increases in sightings and strandings since the mid-1980s, with a marked increase in records over the last 15 years (Camphuysen 2004).

2. CURRENT FACTORS IN NORFOLK CAUSING LOSS OR DECLINE

There are several factors affecting the status of this species:

- **Bycatch:** Accidental capture in fishing nets is considered to be a major threat to this species around the UK (UK BAP). Harbour porpoises are particularly vulnerable to bottom-set gillnets because they tend to feed at, or close-to, the seabed. During the early 1990s, it was estimated that 7,000 harbour porpoises were caught annually in the Danish North Sea gillnet fishery, and 1,000 in the UK gillnet fishery. The latter figures represent more than 2% of the total porpoise population in the central and southern North Sea. According to the International Whaling Commission and ASCOBANS, continued bycatch at this rate is likely to be unsustainable.

- **Environmental contaminants (toxic substances at sea, marine debris, disease and noise disturbance):** Contamination of the marine environment by anthropogenic input has increased dramatically over the last 50 years. Many of the contaminants which give the greatest cause for concern (e.g. PCBs) are relatively poorly metabolised or excreted by animals. As predators at the top of the food chain, harbour porpoises are very susceptible to the build-up of such contaminants.

- **Environmental change (effects of fishing and possibly climate change):** In UK waters, Evans (1990) has suggested that the decline in porpoise numbers during the latter part of the 20th century was due to the depletion of herring stocks. It has also been suggested that the decline in harbour porpoise strandings along the Dutch coast may have been caused by changes in the herring stocks through overfishing, particularly in the mid-1960s (Smeenk & Addink 1990). The increase in the North Sea herring stock in recent years may be one of the reasons for an increase in sightings of harbour porpoises in the south-eastern North Sea (Camphuysen 1994).

- **Disturbance:** Disturbance from boat traffic is thought to be increasing, as boat-based leisure activities become more popular. Porpoises are prone to disturbance of two principal types: 1) Physical disturbance: Vessels cause disturbance, and fast craft can potentially cause physical injury through collisions; 2) Noise disturbance: Noise travels far underwater, and noise from boat engines and echosounders may cause disturbance to porpoise activities or mask porpoise echlochation. In the long-term, areas of high boat traffic may be avoided by porpoises, potentially excluding them from important feeding or calving areas.

  Offshore windfarms may potentially impact on populations of harbour porpoises and other cetaceans. The precise impact of offshore windfarms on harbour porpoises is currently not fully understood. Impact may be positive, creating artificial reefs around the moorings, which could increase fish abundance; or negative, with displacement of prey species or porpoises themselves due to disturbance. This disturbance may be acoustic if there is transmission of sound or vibrations from the rotating blades into the water.

3. CURRENT ACTION IN NORFOLK

- Post mortems and tissue studies are carried out by the Natural History Museum (London) on stranded specimens to establish the cause of death and condition of the animals at the time of death.

4. ACTION PLAN OBJECTIVES AND TARGETS

National

- Maintain the current geographical range of the harbour porpoise.
- Maintain the current abundance of the harbour porpoise.
- In the long-term, ensure that no anthropogenic factors inhibit a return to waters that it previously occupied.

Norfolk

- Ensure that the local populations of harbour porpoise are maintained and enhanced.

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.1	**Policy and Legislation**			
5.1.1	Extend the ASCOBANS boundary to include the Western Approaches and the Irish Sea through a bilateral treaty with the Republic of Ireland and agreement of ASCOBANS Parties.	No action proposed.		
5.1.2	Seek to improve coastal water quality by reducing the discharge of substances which are toxic, persistent and liable to bioaccumulate, giving priority to phasing out PCBs, and reducing discharges of organohalogens to safe levels.	Seek to improve coastal water quality where discharges of these substances are present in Norfolk.	EA	
5.1.3	Continue the duty on sea fisheries regulators to take account of wider impacts on wildlife and habitats (in addition to target species) when deciding fishery management measures.	Assess the impact of fisheries management on harbour porpoise, in keeping with the duty to take account of wider impacts on wildlife and habitats.	ESFJC, DEFRA	NE, SMRU
5.1.4	Consider in the light of research at 3.2, the possible need to monitor and control gill nets and other set net fisheries.	Assess the need to monitor and control bottom-set gill nets and other set net fisheries.	ESFJC, DEFRA	SFCs, Cefas
5.1.5	Continue to introduce agreed codes of conduct to reduce disturbance from acoustic sources and physical pressures.	Assist with the introduction of codes of conduct as and when these become available.	LAs, Coastal BAP Group	

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.2	**Site Safeguard and Management**			
5.2.1	Review existing UK marine site protection to determine how it might be improved. If appropriate, introduce additional protection and emergency designation to benefit the species.	No action proposed.		
5.3	**Species Management and Protection**			
5.3.1	Work with fishers with the aim of reducing and avoiding by-catches in active and passive gear, and to dispose of discarded gear safely.	Advise fisheries managers and fishermen on best practice.	ESFJC, DEFRA	Seafish, Cefas
5.3.2	Introduce codes of practice to reduce disturbance from whale-watching.	Encourage the development of codes of practice for ports, harbours and staithes that safeguard marine animals from sea-based recreational activities.	NE, LAs, Wash & North Norfolk SAC, Harbour Authorities	
5.4	**Advisory** No action proposed.	No action proposed.		
5.5	**Future Research and Monitoring**			
5.5.1	Expand research on the areas frequented by harbour porpoise to identify waters which may qualify for further protection as SACs or Marine Nature Reserves.	Carry out further surveys to assess distribution of porpoises.	ESFJC, Coastal BAP Group, NNNS	DEFRA, JNCC, SMRU, Seawatch Foundation, Cefas
5.5.2	Establish long-term research on population and conservation needs of all small cetaceans in UK waters, co-ordinated through ASCOBANS.	Produce and distribute a sightings card and set up a recording network to report all sightings. ESFJC to assist with distribution of sighting cards and collation of records from SFC staff.	Coastal BAP Group, ESFJC, NNNS	SFCs, DEFRA, JNCC, SMRU, Seawatch Foundation

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.5.3	Subject to the results of the research at 3.2, consider monitoring of UK populations and reporting of by-catches of small cetaceans (including observers on vessels, where feasible).	Produce and distribute a sightings card. Monitor local populations and set up procedures to report bycatches of small cetaceans. ESFJC to assist with distribution of sighting cards to Fishery Officers and collation of records from SFC staff.	Coastal BAP Group, ESFJC,	SFCs, DEFRA, JNCC, SMRU, Cefas
5.5.4	Seek to minimise the by-catch of small cetaceans by promoting research into fishing gear and other possible mechanisms.	Disseminate information about improved fishing gear and other mechanisms for reducing bycatch.	ESFJC, DEFRA	Seafish, SFCs, Cefas
5.5.5	Promote research into the causes of death of the harbour porpoise within UK waters to determine the context and need for future conservation action.	Disseminate information about causes of harbour porpoise deaths.	ESFJC, DEFRA	Cefas
5.5.6	Pass information gathered during survey and monitoring of this species to JNCC or BRC in order that it can be incorporated in a national database and contribute to the maintenance of an up-to-date Red List.	Pass survey and monitoring data to NBRC and JNCC.	ESFJC, Coastal BAP Group, NNNS	Cefas
5.6	**Communications and Publicity**			
5.6.1	Subject to the results of research at 3.2, consider the need to encourage fishermen to report sightings and by-catches through an awareness programme.	Launch an awareness programme in Norfolk to encourage reporting of sightings by fishermen, recreational sailors and the bird watching community.	Coastal BAP Group, NNNS, DEFRA	LAs, fishermen, recreational sailors, birdwatchers

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.6.2	Encourage international exchange of information to assess and, if appropriate, reduce by-catches.	Encourage exchange of information and datasets between Norfolk and other North Sea research groups.	ESFJC, Coastal BAP Group	Cefas
5.6.3	Continue to publicise reporting schemes for strandings and live sightings.	Publicise local reporting schemes for strandings and live sightings.	NE, NNNS, Coastal Topic Group	NHM

Abbreviations

Cefas	Centre for Environment, Fisheries and Aquaculture Science
DEFRA	Department of Environment, Food and Rural Affairs
EA	Environment Agency
ESFJC	Eastern Sea Fisheries Joint Committee
JNCC	Joint Nature Conservation Committee
LAs	Local Authorities
NBRC	Norfolk Biological Records Centre
NE	Natural England
NHM	Natural History Museum
NNNS	Norfolk and Norwich Naturalists' Society
SAC	Special Area of Conservation
Seafish	The Sea Fish Industry Authority
SFC	Sea Fisheries Committee
SMRU	Sea Mammal Research Unit

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