

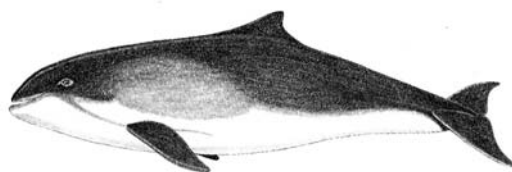


Marine Environmental Monitoring

www.strandings.com

Marine Mammal Strandings (Welsh Coast) Annual Report 1999

R.S.Penrose. January 2000



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1. INTRODUCTION

Little is known about disease and causes of death in marine mammals around the British Isles. In 1990 the Collaborative UK Marine Mammal Strandings Project was initiated and part-funded by the UK Department of the Environment (now DETR). The project involves detailed pathological and other investigations of stranded marine mammal carcasses (mostly cetacean) from UK waters. It forms part of the Department's international obligations towards conservation agreements including the Agreement on the conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS). The research is being co-ordinated in England and Wales by the Institute of Zoology (IOZ) in close collaboration with a number of organisations including the Natural History Museum (NHM), the Centre for Environmental Fisheries and Aquaculture Science (CEFAS), the University College Cork and the Department of Agriculture for Northern Ireland. *Post-mortem* examinations of Welsh strandings are carried out by the Department of Veterinary Pathology, University of Liverpool and the Institute of Zoology, London. In addition to pathological and related investigations, a range of frozen and fixed material, collected *post-mortem*, are currently archived at the Institute of Zoology.

Records of live and dead marine mammal strandings are kept by the Welsh Strandings Co-ordinator. Cetacean records are passed to Alex Muir for correlation at the NHM. Since 1913 records have been, and continue to be kept, by the NHM, in co-operation with the Receiver of Wrecks and HM Coastguard.

Funding towards this project in Wales has been provided by the Welsh Office through the Natural History Museum, London, the Countryside Council for Wales (CCW), Department of the Environment through the Institute of Zoology, London and the European Regional Development Fund (ERDF). Support of certain items of equipment has been provided by the Environment Agency.

2. MATERIALS AND METHODS

A 24 hour Strandings Answerphone (**01348 875000**), funded by CCW is interrogated at regular intervals. A message requests callers to leave details of the stranding and location, along with their name and contact phone number, so they can be reached if confirmation of details are required. (If the stranding is a live stranding then a message on an answer-phone informs the caller to contact the RSPCA immediately. see 2.1)

A network of volunteers, rangers, wardens, coastal officers, harbour masters etc. has been formed who can be contacted by the Strandings Co-ordinator to confirm the stranding, assess its condition and secure the animal from the effects of the tide, predation etc. until it can be dealt with.

The following criteria are applied: -

2.1 Live Animals

(Condition code 1)¹

In 1994 the Marine Animal Rescue Coalition (MARC) was formed. This consists of all the major animal welfare and conservation bodies involved with marine mammals in the UK. It has been agreed that in the case of a live stranding the first point of call would be the RSPCA as they support a manned 24-hour emergency phone. The RSPCA would then contact the relevant organisations, Marine Environmental Monitoring etc.

2.2 Dead Animals

(Condition code 2a extremely fresh as if just died)¹

(Condition code 2b slight decomposition)¹

The animal is retrieved using a 4-wheel drive vehicle and trailer. Health and safety precautions are followed with the animal being handled only with gloved hands. It is placed in a body-bag then taken immediately for *post-mortem* examination.

(Condition code 3 moderate decomposition)¹

The animal is retrieved using a 4-wheel drive vehicle and trailer. Health and safety precautions are followed with the animal being handled only with gloved hands. It is placed in a body-bag then taken to a storage facility where it is bagged, labelled and stored for later transportation or transported immediately. (see 2.3).

(Condition code 4 advanced decomposition)¹

(Condition code 5 mummified carcass)¹

Species identified, basic measurements and 6 teeth taken from the lower jaw if possible. Health and safety precautions being observed. Local council then contacted for safe disposal of remains.

All live and dead stranded cetaceans are reported to the NHM and are allocated a “SW” number. All dead seals are reported to the IOZ) and are allocated a SS number. Records of all strandings in Wales are kept by the Strandings Co-ordinator and passed on to the NHM and ZSL on a regular basis.

Copies of *post-mortem* examination reports are sent from the Strandings Co-ordinator to the finder and others associated with the relevant stranding.

2.3 Euthanasia

Euthanasia of cetaceans in the UK have to date relied upon Large Animal Immobilon (Etorphine) administered intramuscularly. During 1999 it was found that the manufacturers intended to cease production of this drug due to lack of demand and consequently the drug was withdrawn from the UK veterinary market in the summer of 1999. It was thought that no other drug combination could achieve the rapid effects of LA Immobilon and that firearms would have to be brought back as the most humane method of euthanasia.

The recommendation for humanely killing cetaceans using a firearm state that the calibre should not be less than .30 and only solid bullets should be used. The bullet should be of at

¹ Body condition based on the Institute of Zoology condition code.

least 140 grains weight.

The firearms division of the Dyfed-Powys police was contacted, and although not part of their normal remit they agreed to respond to marine mammal strandings and dispatch animals under veterinary supervision if required.

In mid October a letter appeared in the Vet Record from the manufacturers of Immobilon stating that they had managed to keep the drug on the market.

3. RESULTS

3.1 Marine Mammals

Table 1.

1999 Total number of reported marine mammal strandings (Welsh Coast).													
Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Bottlenose dolphin	0	0	0	0	0	0	0	0	1	0	0	0	1
Common dolphin	0	1	0	1	0	0	0	0	1	1	0	2	6
Cuvier's beaked whale	1	0	0	0	0	0	0	0	0	0	0	0	1
Risso's dolphin	0	0	0	0	0	0	0	0	1	0	0	0	1
Striped dolphin	0	0	1	0	0	0	0	0	0	0	0	1	2
Long-finned pilot whale	1	0	0	0	0	0	1	0	0	0	0	0	2
Harbour porpoise	1	1	8	3	9	11	11	5	8	7	4	4	72
Cetacean sp. Indent.	0	0	1	0	0	1	0	1	2	1	0	0	6
Common/striped?	0	0	0	0	0	0	0	0	0	1	0	0	1
Total cetaceans	3	2	10	4	9	12	12	6	13	10	4	7	92
Grey seal	2	6	4	7	4	2	2	6	12	24	5	6	80
Total animals	5	8	14	11	13	14	14	12	25	34	9	13	172

Table 2.

1999 Number of live cetacean strandings (Welsh Coast).													
Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Common dolphin	0	0	0	0	0	0	0	0	0	0	0	0	0
Striped dolphin	0	0	0	0	0	0	0	0	0	0	0	0	0
Harbour porpoise	0	0	0	0	1	0	0	0	0	1	0	0	2
Total animals	0	0	0	0	1	0	0	0	0	1	0	0	2

Of the 92 cetacean strandings 2.2% live-stranded (2 animals), under *post-mortem* examination a larger number were determined as having live-stranded.

Table 3.

1999 Number of animals suitable for <i>post-mortem</i> examination.													
Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Common dolphin	0	1	0	0	0	0	0	0	1	0	0	0	2
Striped dolphin	0	0	1	0	0	0	0	0	0	0	0	1	2
Harbour porpoise	1	0	5	0	2	1	1	3	1	2	1	3	20
Total animals	1	1	6	0	2	1	1	3	2	2	1	4	24

Of the 92 cetacean strandings 26% (24 animals) were suitable for *post-mortem* examination. In addition one euthanased adult grey seal from Poppit sands, Cardigan was taken for examination.

Table 4.

1999 Number of Animals decomposed / disposed of. (Welsh Coast).													
Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Bottlenose dolphin	0	0	0	0	0	0	0	0	1	0	0	0	1
Common dolphin	0	0	0	1	0	0	0	0	0	1	0	2	4
Cuvier's beaked whale	1	0	0	0	0	0	0	0	0	0	0	0	1
Risso's dolphin	0	0	0	0	0	0	0	0	1	0	0	0	1
Striped dolphin	0	0	0	0	0	0	0	0	0	0	0	0	0
Long-finned pilot whale	1	0	0	0	0	0	1	0	0	0	0	0	2
Harbour porpoise	0	1	3	3	7	8	9	2	5	1	1	0	40
Cetacean sp. Indent.	0	0	0	0	0	0	0	0	0	0	0	0	0
Common/striped?	0	0	0	0	0	0	0	0	0	1	0	0	1
Total cetaceans	2	1	3	4	7	8	10	2	7	3	1	2	50
Grey seal	2	2	2	5	3	2	2	2	9	22	5	5	61
Total animals	4	3	5	9	10	10	12	4	16	25	6	7	111

Of the 172 strandings 64% (111 animals) were decomposed and the relevant local council contacted for safe disposal of remains. Funding for seals again was limited throughout the year and this is reflected in the relatively high numbers of animals passed to local councils for safe disposal.

The remaining 22% (38 animals) were confirmed reports but were unable to be retrieved or disposed of due to various reasons. i.e. no access to stranding, washed away or retrospective reports.

3.2 Unusual Occurrences

SW1999/1 was reported stranded on the 7th January at Gyrn Goch, Lley Peninsular. This was a 6.20 metre female beaked whale in a state of advanced decomposition. Unfortunately, due to the condition of the carcass a positive identification of species could not be made so the head was removed for later examination of the skull. The Natural History Museum (NHM) in London was unable to receive this specimen at the time so the National Museum & Galleries of Wales (NMGW) in Cardiff was contacted and were able to accommodate this item. Twelve months later the skull has finally been cleaned and with the help of NHM has been identified as a **Cuvier's beaked whale** (*Ziphius cavirostris*), the first recorded stranding of this species for Wales. It is hoped that this specimen will be exhibited at the NMGW sometime in 2000.

SW1999/175 was reported stranded on the 24th September at Pwllheli. This was a 2.96 metre female **Bottlenose dolphin** (*Tursiops truncatus*). Unfortunately, no pathologists were available to attend this animal and although I categorised it as advanced decomposition, due to the important status of this cetacean, a full range of samples were taken with the assistance of Lin Gander and Pwllheli Harbourmaster Ken Fitzpatrick.

SS1999/19 was reported on the 9th April at Aberffraw, Anglesey. This was an **Atlantic grey seal** (*Halichoerus grypus*) with an orange/red plastic tag in its rear flippers numbered 134. Recent enquiries have established that this animal was tagged by The Welsh Mountain Zoo.

SS1999/123 was reported on the 31st October at Poppit Sands, Cardigan. This was a 1.82 metre female **Atlantic grey seal** (*Halichoerus grypus*). This animal was reported to the RSPCA as being in distress and was found lying on the beach with quantities of mucus emanating from its nose and being petted by members of the public, not a sign of a healthy seal. The RSPCA together with a veterinary surgeon from Priory vets in Cardigan attended and the animal was eventually euthanased. As the animal was adult and extremely fresh I took the carcass for *post-mortem* examination.

4. OTHER MARINE ANIMALS REPORTED TO THE NETWORK.

4.1 Turtles

Only one **Leatherback turtle** (*Dermochelys coriacea*) was reported stranded during 1999. However, 5 Leatherbacks were reported live in the Irish Sea together with one **Loggerhead turtle** (*Caretta caretta*).

ST1999/2 was reported on the 30th November at Broadhaven, Pembrokeshire. This was a live stranded 0.40 metre **Kemp's ridley turtle** (*Lepidochelys kempii*). It was found upside down during severe weather amongst seaweed on the strandline and was taken to St Davids Oceanarium. A vet checked the turtle over and it appeared fit and healthy. The animal weighed 12kgs and measured 40cm O/A with a curved carapace length (CCL) of 29cm and a curved carapace width of (CCW) of 31cm (juv.). Only a few other measurements were taken, as we did not want to stress the turtle further. The animal was taken by RAF helicopter to Gatwick Airport where it was flown to Florida by British Airways. Final destination was Seaworld at Orlando where it arrived on the 13th December. As of the 12th January 2000 the turtle continues to do well at Seaworld and a release date is hoped to be fixed sometime in the spring when the sea has warmed up.

The Kemp's ridley is classified as 'Critically Endangered' and 95% of the population nest on one beach "Rancho Nuevo" in Mexico. The population had declined drastically from 40,000 in 1947 to 5,000 in 1997 mainly due to the taking of eggs from nest sites. Rancho Nuevo has now become a National Nature Reserve and we should hopefully see a rise in this population. The stranding at Broadhaven is the fourth record of this species for Wales ('TURTLE' database 1999) since 1748.

4.2 'TURTLE' Database

Marine Environmental Monitoring has secured funds through the 'Species Recovery Program', JNCC, EN, SNH and CCW to compile all available marine turtle sightings and strandings from the UK and Ireland. At present the database holds over 712 records and earliest records are dated 1748. The database will be available during the year 2000.

4.3 Turtle Bycatch

As part of the above 'TURTLE' contract, an analysis of data on marine turtle bycatch has also been carried out. This report should also be available in 2000.

5. SAMPLES.

Normal procedure for the taking of samples is from fresh animals that have been taken for *post-mortem* examination.

Samples of muscle have continued to be taken by the strandings co-ordinator from animals, which would normally have been disposed of. These samples have been stored at -20° C for later radionuclide comparisons with samples taken in Ireland.

Starting in 1998, skin has also been collected from these cetacean carcasses and archived at -20° C for IOZ hopefully for later DNA analysis.

A full range of samples were taken from the **Bottlenose dolphin** SW1999/175 which consisted of skin, blubber, muscle, scapula, rib, liver, heart, stomach contents and head including teeth and ears. The liver was later found to be too autolysed for any analysis.

6. FUNDING.

Continuation of Phase 2 of the Welsh Office/NHM contract has been received, this will run until March 2000.

As stated previously, funding towards this project in Wales has been provided by the Welsh Office (Assembly), through the Natural History Museum, London, Countryside Council for Wales and the DETR through the Institute of Zoology, London. The Environment Agency has also provided equipment support.

Additional funding through the "Interreg" programme, part of the European Regional Development Fund (ERDF), ceased in March 1999.

7. EQUIPMENT.

BT Caller ID has been added to the Strandings telephone line at Fishguard to assist in recording caller details.

An upgraded additional computer was purchased in December 1999 to back up data in view of potential impending Y2K problems.

A digital camera has also been purchased for the project which will allow instant transfer of images to IOZ / NHM as attachments to emails to confirm species/injuries/body condition/skin marks etc. Sample digital images included in Appendix 4.

8. PORPOISE DATA ANALYSIS.

In response to the request for any information pertaining to the use of Welsh coastal waters by Harbour porpoises feeding and breeding for the establishment of a Special Area of Conservation (SAC), ten years of Welsh porpoise strandings data were analysed.

The results indicated that Harbour porpoises do indeed give birth and nurse calves in Welsh coastal waters and although Wales represents only 6.5% by length, of the total coastline (UK and Ireland), 33% of all neonate porpoise strandings were reported from Wales over this 10 year period. Further details can be found in:

Penrose, R.S., Pierpoint, C.J.L. (1999). The use of Welsh coastal habitats as calving and nursery grounds for the Harbour porpoise. *Phocoena phocoena*. MEM.CCW.

9. PUBLICITY.

A Web site has been launched to provide details of both the Collaborative UK & Celtic strandings projects. Although this is intended primarily for Wales key contact details are given for England, Scotland and Ireland. The pages can be viewed at <http://www.Strandings.com> I would be grateful for any comments on the Web site and any further links to other sites that may be of interest.

Through Interreg funding, Posters and Leaflets were produced to increase awareness of the project. These have continued to be distributed throughout the coast of Wales and the East Coast of Ireland. Turtle Codes produced by CCW have also been distributed throughout the Welsh Coast.

10. TRAVEL.

In excess of 18,000 miles were covered by the Strandings Co-ordinator in retrieval and transportation of animals in 1999. The majority of suitable animals were taken to Liverpool University and others to the Institute of Zoology London.

The European Cetacean Society Conference in Valencia, Spain on the 5th April - 8th April was attended.

11. ADMINISTRATION.

In excess of 64 copies of *post-mortem* examination reports were posted out to finders and associated interested parties concerning each relevant stranding.

12. ACKNOWLEDGEMENTS.

Gerry Jones, Paul Newman, Lin Gander, Jemma Pratt, Chris Pierpoint and John Goold for their help in retrieving animals.

Robin Pratt for providing base of operation at Fishguard

Strandings Network volunteers, too numerous to mention for their help confirming, reporting and securing animals for collection.

Welsh Office / Natural History Museum, Countryside Council for Wales for providing funds towards the project.

Pembrokeshire Coast National Park wardens for recovering common dolphin SW1999/164 from Newgale Beach and delivering it to the cold store at Fishguard while I was unavailable delivering an animal to the Institute of Zoology, London for *post-mortem* examination.

13. APPENDICES.

- Appendix 1. Cetacean stranding data for 1999.
- Appendix 2. Atlantic Grey Seal stranding data for 1999.
- Appendix 3. Turtle stranding data for 1999.
- Appendix 4. Digital image examples.

Family/Genus	species	Sex	Length	Condition	Date	SW Number	County	Locality	Grid	Comment
Ziphius	cavirostris	F	6.20	advanced decomposition	01-Jan-99	SW1999/001	Gwynedd	Gyrn Goch	SH395485	reported by Holyhead CG. possibly stranded 1st Jan reported 7th Jan. Lisa Davies CCW to confirm species.
Phocoena	phocoena	M	1.20	moderate decomposition	13-Jan-99	SW1999/008	Pembrokeshire	Pwllgwaelod	SN005399	reported by M. Baines as entangled in monofilament netting.
Globicephala	melas	?	4.65	advanced decomposition	20-Jan-99	SW1999/012	Pembrokeshire	Freshwater East	SS023981	Samples taken and LA informed.
Delphinus	delphis	F	1.74	slight decomposition	16-Feb-99	SW1999/029	Ceredigion	Llangranog	SN311544	
Phocoena	phocoena	F	?	fresh	23-Feb-99	SW1999/035	Ceredigion	Aberaeron	SN462636	Large part of animal missing from lower jaw to mid stomach, internal organs exposed. Taken for Pems college.
Phocoena	phocoena	?	c.1.00	moderate decomposition	01-Mar-99	SW1999/036a	Ceredigion	Aberystwyth	SN583824	LA informed for safe disposal.
Phocoena	phocoena	?	?	moderate decomposition	05-Mar-99	SW1999/043	Anglesey	Bryn Moryd	SH293806	Paul Townsley attended. Local Authority contacted for safe disposal.
Phocoena	phocoena	M	1.10	advanced decomposition	08-Mar-99	SW1999/044a	Ceredigion	Llanina	SN402596	Samples taken, LA informed for disposal.
Phocoena	phocoena	?	?	skeletal remains	15-Mar-99	SW1999/050	Gwynedd	Fairbourne	SH611124	Chris Peirpoint attended.
Stenella	coeruleoalba	M	1.70	slight decomposition	15-Mar-99	SW1999/052	Gwynedd	Fairbourne	SH611133	Chris Peirpoint attended.
Cetacean	sp. indet.	?	?	?	17-Mar-99	SW1999/053	Gwynedd	Aberdaron	SH175262	Nothing found by Harbour Master.
Phocoena	phocoena	M	1.33	slight decomposition	22-Mar-99	SW1999/056	Gwynedd	Harlech	SH573300	
Phocoena	phocoena	F	1.36	fresh	22-Mar-99	SW1999/058	Gwynedd	Trefor Beach	SH380472	
Phocoena	phocoena	M	1.14	slight decomposition	23-Mar-99	SW1999/060	Ceredigion	Ynyslas	SN603928	
Phocoena	phocoena	M	1.24	slight decomposition	29-Mar-99	SW1999/063	Carmarthenshire	Pendine	SN233077	
Phocoena	phocoena	F	1.20	advanced decomposition	03-Apr-99	SW1999/069a	Ceredigion	Llanon	SN512681	Samples taken, remains bagged and tagged. LA informed for disposal.
Phocoena	phocoena	M	1.52	advanced decomposition	12-Apr-99	SW1999/076	Carmarthenshire	Pembrey	SN400000	buried on beach.
Delphinus	delphis	?	?	moderate decomposition	13-Apr-99	SW1999/078	Ceredigion	Llanrhystud	SN530700	Not possible to retrieve due to no access, not visited. Large "bite or prop damage" behind dorsal fin.
Delphinus	delphis	M	1.90	moderate decomposition	18-Apr-99	SW1999/078	Ceredigion	New Quay	SN389602	Presumed to be Llanrhystud animal as damage to tail stock same as description. LA informed for disposal.
Phocoena	phocoena	?	?	advanced decomposition	29-Apr-99	SW1999/094	Anglesey	Stanly Embankment	SH285802	reported by Mr A Geethsen to Ivor Rees. First found 21st April by Colin Harrington.
Phocoena	phocoena	F	1.11	slight decomposition	01-May-99	SW1999/096	Ceredigion	Wallog	SN589857	Animal removed for pm.
Phocoena	phocoena	M	1.25	moderate decomposition	08-May-99	SW1999/097	Ceredigion	Ynyslas	SN604934	Skin and muscle samples taken. Blubber looked at for evidence of Bnd attack.
Phocoena	phocoena	M	1.55	mod/advanced decomposition	10-May-99	SW1999/098	Carmarthenshire	Pendine	SN235078	reported by MOD Pendine to EA. Scavenger damage. Samples taken LA informed for disposal.
Phocoena	phocoena	?	?	mod/advanced decomposition	11-May-99	SW1999/100	Carmarthenshire	Pendine	SN235078	Scavenger damage. Stored frozen at Llechryd.
Phocoena	phocoena	F	1.15	advanced decomposition	12-May-99	SW1999/101	Neath Port Talbot	Aberavon	SS742898	reported by Swansea CG to NHM. Removed to LA depot. Samples taken.
Phocoena	phocoena	?	1.30	mod/advanced decomposition	13-May-99	SW1999/102	Carmarthenshire	Pembrey	SS420990	Samples taken. Carcass buried on beach.
Phocoena	phocoena	F	1.57	live	13-May-99	SW1999/104	Conwy	Llanfairfechan	SH675755	reported by Insp. Phil Lewis. Live stranded / euthanased.
Phocoena	phocoena	F?	?	advanced decomposition	24-May-99	SW1999/106	Neath Port Talbot	B-Steel Harbour	SS751886	reported by ? to LA to EA. Sub-Adult heavily scavenged and decomposed, head missing. Skin & muscle taken.
Phocoena	phocoena	?	1.30	mod/advanced decomposition	29-May-99	SW1999/109	Ceredigion	Borth	SN607890	Skin and muscle taken. Heavily scavenged, bagged and LA informed for disposal.
Phocoena	phocoena	M	?	mod/advanced decomposition	08-Jun-99	SW1999/111	Ceredigion	Aberystwyth	SN582819	Heavily scavenged, skull (loose) and chest cavity exposed. Removed to transfer station. Skin & muscle taken.
Phocoena	phocoena	F	1.23	moderate decomposition	08-Jun-99	SW1999/112	Ceredigion	Aberystwyth	SN582819	Carcass opened by scavengers intestine exposed. Removed to transfer station. Skin & muscle taken.
Phocoena	phocoena	M	0.90	fresh	10-Jun-99	SW1999/113	Gwynedd	Skerries	SH270950	reported by Alistair Moralee RSPB
Cetacean	sp. indet.	?	?	advanced decomposition	10-Jun-99	SW1999/114	Gwynedd	Hellsmouth	SH270270	reported by "a tourist". Nothing found next day by HM officers.
Phocoena	phocoena	M	?	moderate decomposition	12-Jun-99	SW1999/116	Ceredigion	Aberporth	SN259516	Removed by Env. Health. Scavenger damage, no head, sub-adult, skin and muscle taken.
Phocoena	phocoena	F	1.65	moderate decomposition	12-Jun-99	SW1999/117	Ceredigion	Wallog	SN589857	
Phocoena	phocoena	F	1.63	mod/advanced decomposition	13-Jun-99	SW1999/118	Ceredigion	Aberaeron	SN452627	Removed to Glangyafon depot for disposal. Skin and muscle taken.
Phocoena	phocoena	?	1.27	fresh	17-Jun-99	SW1999/120	Gwynedd	Tywyn	SH576005	Removed by LA beach cleaner.
Phocoena	phocoena	M	1.30	advanced decomposition	21-Jun-99	SW1999/121	Ceredigion	Borth	SN607903	Removed to LA site by SC. Skin and muscle taken.
Phocoena	phocoena	M	0.70	advanced decomposition	25-Jun-99	SW1999/122	Ceredigion	Ynyslas	SN610947	Skin + muscle taken.
Phocoena	phocoena	F	0.70	advanced decomposition	30-Jun-99	SW1999/125	Gwynedd	Tywyn	SH576005	Animal removed by beach cleaner to depot. Skin + muscle taken.
Phocoena	phocoena	?	?	fresh	30-Jun-99	SW1999/126	Gwynedd	Tywyn	SN588980	Animal reported as fresh calf, nothing found on 1st July.
Phocoena	phocoena	M	1.30	moderate decomposition	01-Jul-99	SW1999/127	Carmarthenshire	Pembrey	SS420998	Carcass punctured prob. by scavengers. Skin + muscle taken. Carcass to be buried by warden.
Phocoena	phocoena	M	1.48	mod/advanced decomposition	02-Jul-99	SW1999/128	Vale of Glamorgan	Ogmore-on-Sea	SS865744	Netmarks on animal. Skin & muscle taken. Removed from beach.
Phocoena	phocoena	?	?	?	05-Jul-99	SW1999/129	Swansea	Hunts Bay	SS553871	reported as "Front half eaten away". David Smith, Env. Health Swansea informed, nothing found.
Phocoena	phocoena	?	?	fresh	09-Jul-99	SW1999/132	Gwynedd	Barmouth	SH594192	Animal removed to tip immediately.
Phocoena	phocoena	F	1.55	mod/advanced decomposition	12-Jul-99	SW1999/133	Ceredigion	New Quay	SN386605	Presumed to be Llanrhystud animal. Skin & muscle taken, removed to Pentod tip.
Phocoena	phocoena	?	?	fresh	10-Jul-99	SW1999/133	Ceredigion	Llanrhystud	SN526697	reported by Gwyn Jones, Camp owner + multiple holidaymakers. Nothing found on 11th.
Phocoena	phocoena	M	0.78	moderate decomposition	16-Jul-99	SW1999/138	Gwynedd	Tywyn	SH576005	Animal removed by beach cleaner to depot. Skin + muscle taken.
Phocoena	phocoena	M	1.62	moderate decomposition	16-Jul-99	SW1999/139	Carmarthenshire	MOD Pendine	SN265073	
Phocoena	phocoena	?	?	fresh	18-Jul-99	SW1999/140	Gwynedd	Fairbourne	SH610130	No head on carcass and intestine exposed. LA informed for disposal.
Globicephala	melas	M	6.25	advanced decomposition	18-Jul-99	SW1999/141	Gwynedd	Pwllheli	SH383342	reported by Nth Wales Police. Skin & muscle taken, no teeth in head. Buried on beach by LA.
Phocoena	phocoena	F	c.1.37	decomp	18-Jul-99	SW1999/142	Gwynedd	Tal-y-bont	SH580210	
Phocoena	phocoena	M	0.85	slight decomposition	21-Jul-99	SW1999/144	Gwynedd	Tywyn	SH576005	Animal removed to LA depot by beach cleaner. Carcass heavily scavenged, skin & muscle taken.
Phocoena	phocoena	M	0.75	advanced decomposition	24-Jul-99	SW1999/145	Gwynedd	Barmouth	SH585203	reported by Holyhead CG / SunnySands Holiday Park. Skin & muscle taken carcass removed to HM office.
Phocoena	phocoena	M	1.34	slight/moderate decomposition	17-Aug-99	SW1999/152	Bridgend	Porthcawl	SS837766	reported by Mark James > Swansea CG > Alex Muir.
Phocoena	phocoena	F	0.70	moderate decomposition	24-Aug-99	SW1999/155	Gwynedd	Abersoch	SH315284	
Cetacean	sp. indet.	?	?	?	24-Aug-99	SW1999/155a	Gwynedd	Abersoch	SH315284	retro report from Alex Muir 20th Sep. 1999.
Phocoena	phocoena	F	c.0.60	mod/advanced decomposition	25-Aug-99	SW1999/156	Gwynedd	Pwllheli	SH383342	
Phocoena	phocoena	?	?	moderate decomposition	27-Aug-99	SW1999/157	Ceredigion	Ynyslas	SN604929	Nothing found on 28th.
Phocoena	phocoena	F	1.50	moderate decomposition	29-Aug-99	SW1999/157	Ceredigion	Borth	SN607895	Animal thought to be Ynyslas porpoise washed down the coast. Samples taken and removed to LA depot.
Phocoena	phocoena	F	0.88	fresh	31-Aug-99	SW1999/158	Ceredigion	New Quay	SN390600	Found 1/4 mile off New Quay.
Cetacean	sp. indet.	?	?	?	06-Sep-99	SW1999/162	Ceredigion	Llangranog	SN310544	reported by Sean Townsend as dead dolphin in sea. Nothing found on in morning
Phocoena	phocoena	F	c.1.75	advanced decomposition	07-Sep-99	SW1999/163	Carmarthenshire	Pembrey	SS420998	Measured by wardens and buried at site.

Appendix 1.

Family/Genus	species	Sex	Length	Condition	Date	SW Number	County	Locality	Grid	Comment
Delphinus	delphis	M	2.21	slight decomposition	08-Sep-99	SW1999/164	Pembrokeshire	Newgale	SM854203	Retrieved on 9th Sep. by PCNP wardens and delivered to cold store.
Phocoena	phocoena	M	0.80	advanced decomposition	09-Sep-99	SW1999/166	Ceredigion	Ynysias	SN604944	Skin and muscle taken, removed to council depot.
Grampus	griseus	F	?	advanced decomposition	10-Sep-99	SW1999/167	Pembrokeshire	Freshwater East	SS023981	for incineration.
Phocoena	phocoena	F	1.50	advanced decomposition	14-Sep-99	SW1999/169	Gwynedd	Tywyn	SH577004	Skin and muscle taken and removed to LA depot.
Phocoena	phocoena	F	1.50	advanced decomposition	14-Sep-99	SW1999/170	Gwynedd	Tywyn	SH577004	found at LA depot. Skin sample taken.
Phocoena	phocoena	?	?	?	17-Sep-99	SW1999/171	Ceredigion	Borth	SN607895	reported by Milford CG > Kevin Kirkland CCC. Nothing found, presumably taken by tide.
Phocoena	phocoena	F	1.50	advanced decomposition	23-Sep-99	SW1999/173	Pembrokeshire	Amroth	SN173072	reported by EA and RSPCA. Large female poss. pregnant or gassed up. Skin + muscle taken, tagged and left for council at side of road.
Phocoena	phocoena	?	?	?	23-Sep-99	SW1999/174	Gwynedd	Fairbourne	SH616150	reported by Julian Kirkham to Barmouth HM. Presumed to have washed away.
Tursiops	truncatus	F	2.96	advanced decomposition	24-Sep-99	SW1999/175	Gwynedd	Pwllheli	SH353334	First seen 21st Sep. Skin, muscle, stomachs, liver, rib, blubber, heart, scapula, teeth and head taken. Left with council to bury remains.
Cetacean	sp. indet.	?	?	?	25-Sep-99	SW1999/176	Pembrokeshire	Off Dale	SM813060	
Phocoena	phocoena	M	1.25	moderate decomposition	25-Sep-99	SW1999/177	Carmarthenshire	Pembrey	SN375025	
Phocoena	phocoena	?	?	fresh?	02-Oct-99	SW1999/180	Ceredigion	Aberystwyth	SN579810	Nothing found. Contacted council, coastguard, harbourmaster and police. Presumed removed by persons unknown.
Phocoena	phocoena	?	?	live	03-Oct-99	SW1999/181	Gwynedd	Tywyn	SH577004	reported by Insp. Phil Lewis RSPCA. Animal returned to sea by public. Later search by RSPCA found nothing but SW1999/182.
Phocoena	phocoena	?	?	advanced decomposition	03-Oct-99	SW1999/182	Gwynedd	Tywyn	SH577004	reported by Insp. Phil Lewis RSPCA. Tail stock of decomposed porpoise found when investigating the above.
Cetacean	sp. indet.	?	?	?	05-Oct-99	SW1999/183	Ceredigion	New Quay	SN390600	as animal floating off Newquay.
Delphinus	delphis	M	2.29	mod/advanced decomposition	07-Oct-99	SW1999/184	Bridgend	Kenfig NNR	SS788799	Animal tagged for collection. lower jaw and samples taken.
Delph/Stenella	?	?	c. 2.0	mod/advanced decomposition	08-Oct-99	SW1999/185	Swansea	Rhossili Beach	SS407914	reported by David Smith Swansea Env. Health. as having prop cuts on the body. Buried by council.
Phocoena	phocoena	F	1.16	fresh	26-Oct-99	SW1999/189	Ceredigion	Penbryn	SN290525	reported by Holly Arnold / Emyr Brown.
Phocoena	phocoena	M	?	fresh?	28-Oct-99	SW1999/191	Gwynedd	Barmouth	SH605160	Nothing found on arrival.
Phocoena	phocoena	F	1.48	slight decomposition	29-Oct-99	SW1999/192	Gwynedd	Barmouth	SH605160	
Phocoena	phocoena	?	1.46	advanced decomposition	31-Oct-99	SW1999/192a	Gwynedd	Harlech	SH560320	Buried on beach.
Phocoena	phocoena	?	?	?	01-Nov-99	SW1999/193	Gwynedd	Criccieth	SH515376	Nothing found by ass. HM Portmadoc.
Phocoena	phocoena	?	?	advanced decomposition	09-Nov-99	SW1999/195	Gwynedd	Criccieth	SH485375	reported by Holyhead CG as decomposed porpoise entangled in fishing net.
Phocoena	phocoena	M	1.32	moderate decomposition	09-Nov-99	SW1999/196	Ceredigion	Borth	SN607910	Heavy scavenger damage to head and neck. Skin & muscle taken, carcass taken to LA depot.
Phocoena	phocoena	F	1.60	moderate decomposition	23-Nov-99	SW1999/198	Ceredigion	Borth	SN607902	
Phocoena	phocoena	F	1.13	slight decomposition	05-Dec-99	SW1999/202	Gwynedd	Pontllyfni	SH431526	retrieved by Dr John Goold and delivered to Dr John Baker.
Delphinus	delphis	M	2.05	moderate decomposition	12-Dec-99	SW1999/203	Pembrokeshire	Freshwater West	SM880001	Samples taken LA informed for disposal.
Delphinus	delphis	?	1.85	moderate decomposition	12-Dec-99	SW1999/204	Ceredigion	Borth	SN607905	Samples taken LA informed for disposal.
Phocoena	phocoena	F	1.51	slight decomposition	15-Dec-99	SW1999/205	Ceredigion	Llangrannog	SN311544	
Stenella	coeruleoalba	F	1.65	fresh	15-Dec-99	SW1999/206	Ceredigion	Wallog	SN589857	
Phocoena	phocoena	F	1.25	slight/moderate decomposition	26-Dec-99	SW1999/208	Swansea	Langland Bay	SS606873	reported by Mrs J Hussein to Swansea CG.
Phocoena	phocoena	?	?	?	31-Dec-99	SW1999/210	Ceredigion	Borth	SN607895	reported by Mr Roberts CCC - Mr Raegan

species	Sex	Length (mm)	Condition	Date	SS No	County	Locality	Grid_ref	Comment
Halichoerus grypus	?	?	fresh	10-Jan-99	SS1999/002	Ceredigion	Tan-y-blwch	SN578797	reported by A.O. Chater. animal decapitated.
Halichoerus grypus	?	?	advanced decomposition	25-Jan-99	SS1999/004	Ceredigion	Cei Bach	SN413598	reported by A.O. Chater. skeletal remains.
Halichoerus grypus	?	?	fresh	04-Feb-99	SS1999/005	Ceredigion	Tan-y-blwch	SN578797	reported by A.O. Chater. animal decapitated.
Halichoerus grypus	?	?	?	17-Feb-99	SS1999/006	Denbighshire	Prestatyn	SJ085845	reported by Mathew Ellis CCW. Investigated by CCW - nothing found.
Halichoerus grypus	?	?	?	17-Feb-99	SS1999/007	Denbighshire	Prestatyn	SJ085845	reported by Mathew Ellis CCW. Investigated by CCW - nothing found.
Halichoerus grypus	?	?	?	17-Feb-99	SS1999/008	Denbighshire	Prestatyn	SJ085845	reported by Mathew Ellis CCW. Investigated by CCW - nothing found.
Halichoerus grypus	?	?	?	17-Feb-99	SS1999/009	Denbighshire	Prestatyn	SJ085845	reported by Mathew Ellis CCW. Investigated by CCW - nothing found.
Halichoerus grypus	?	?	advanced decomposition	23-Feb-99	SS1999/010	Gwynedd	Porth Colman	SH199343	reported by Nick Harris. LA informed for disposal.
Halichoerus grypus	?	?	?	06-Mar-99	SS1999/013	Ceredigion	Tan-y-blwch	SN578797	reported by ? LA informed.
Halichoerus grypus	?	?	advanced decomposition	23-Mar-99	SS1999/015	Pembrokeshire	Abermawr	SM872346	reported by ? Checked by Freya Pratt.
Halichoerus grypus	?	?	?	24-Mar-99	SS1999/016	Denbighshire	Rhyl	SJ005817	reported by
Halichoerus grypus	?	?	fresh?	27-Mar-99	SS1999/017	Denbighshire	Rhyl	SJ005817	reported by Mark Bud Local Authority. Removed for disposal.
Halichoerus grypus	?	?	?	10-Apr-99	SS1999/018	Ceredigion	Gilfach-yr-Halen	SN438617	reported by Mrs Claire / Jean Bryant. LA informed for disposal.
Halichoerus grypus	?	?	?	09-Apr-99	SS1999/019	Anglesey	Aberffraw	SH335683	reported by Mrs Brown. Plastic orange/red tag on tail/flippers No.134
Halichoerus grypus	?	?	?	11-Apr-99	SS1999/020	Carmarthenshire	MOD Pendine	SN265073	reported by MOD Police. LA informed for disposal.
Halichoerus grypus	?	?	?	14-Apr-99	SS1999/021	Pembrokeshire	Abermawr	SM872346	reported by Joy Hughes EA.
Halichoerus grypus	?	?	?	17-Apr-99	SS1999/022	Ceredigion	Cei Bach	SN413598	reported by Steve Hartly.
Halichoerus grypus	?	?	fresh?	24-Apr-99	SS1999/023	Anglesey	Porth Cwyfan	SH337676	reported by Fiona West.
Halichoerus grypus	?	?	advanced decomposition	30-Apr-99	SS1999/024	Ceredigion	Borth	SN607890	reported by Liz Allen. LA informed.
Halichoerus grypus	?	?	?	03-May-99	SS1999/025	Swansea	Gower	SS418931	reported by Mrs Jeffries. LA informed.
Halichoerus grypus	?	?	?	05-May-99	SS1999/026	Pembrokeshire	Saundersfoot	SN138046	reported by ? Buried by Peter Scourfield Saundersfoot HM.
Halichoerus grypus	?	?	?	09-May-99	SS1999/027	Anglesey	Aberffraw	SH335683	reported by RSPCA
Halichoerus grypus	?	?	?	10-May-99	SS1999/028	Pembrokeshire	Saundersfoot	SN138046	reported by Mrs Osborne / Saundersfoot HM.
Halichoerus grypus	?	?	?	08-Jun-99	SS1999/029	Denbighshire	Rhyl	SJ005817	reported by Colwyn Bay Police. LA informed for disposal.
Halichoerus grypus	M	?	advanced decomposition	25-Jun-99	SS1999/030	Ceredigion	Llanon	SN512681	reported by Ceredigion Highways dept. LA informed for disposal.
Halichoerus grypus	?	?	?	05-Jul-99	SS1999/032	Pembrokeshire	Amroth	SN167071	reported by Louise Edwards EA. LA informed for disposal.
Halichoerus grypus	?	?	?	13-Jul-99	SS1999/052	Ceredigion	Tresaith	SN276516	reported by Pip Alexander AUX CG. Council informed for disposal.
Halichoerus grypus	?	?	?	15-Aug-99	SS1999/054	Pembrokeshire	Aberdinas Bay	SM776304	reported by Holiday maker.
Halichoerus grypus	?	?	?	15-Aug-99	SS1999/055	Carmarthenshire	Harbour	SN440000	reported by Catherine Hammond
Halichoerus grypus	?	?	?	24-Aug-99	SS1999/056	Pembrokeshire	Annes Head.	SM810035	reported by holidaymaker. Possible headless adult.
Halichoerus grypus	?	?	?	26-Aug-99	SS1999/057	Pembrokeshire	Manorbier	SS020977	reported by Charles Matheson PCNP.
Halichoerus grypus	?	?	?	26-Aug-99	SS1999/058	Pembrokeshire	Freshwater West	SM880000	reported by Joy Hughes. Animal location between Freshwater West and West Angle.
Halichoerus grypus	?	?	?	31-Aug-99	SS1999/059	Ceredigion	Borth	SN607890	reported by Borth Safety Officer. LA informed for disposal.
Halichoerus grypus	?	?	advanced decomposition	01-Sep-99	SS1999/060	Gwynedd	Hells Mouth	SH265270	reported by Ken Fitzpatrick, Pwllheli HM. LA to dispose of.
Halichoerus grypus	M	?	slight decomposition	01-Sep-99	SS1999/061	Gwynedd	Harlech	SH570310	reported by Glyn Jones, Barmouth HM. LA to dispose of. Prop cuts in animal ?
Halichoerus grypus	?	?	?	10-Sep-99	SS1999/062	Pembrokeshire	St Davids area	SM826230	reported by Anna Lees RSPCA as between Solva and Newgale beach.
Halichoerus grypus	?	?	?	17-Sep-99	SS1999/063	Gwynedd	Aberdaron	SH175263	reported by RSPCA.
Halichoerus grypus	?	?	?	18-Sep-99	SS1999/064	Pembrokeshire	Newgale Beach	SM850210	reported by Mr Scammal
Halichoerus grypus	?	?	?	20-Sep-99	SS1999/065	Pembrokeshire	Manorbier	SS020977	reported by PCC and Tenby TIC.
Halichoerus grypus	?	?	?	21-Sep-99	SS1999/067	Gwynedd	Hells Mouth	SH265270	reported by RSPCA
Halichoerus grypus	?	?	?	21-Sep-99	SS1999/068	Gwynedd	Hells Mouth	SH265270	reported by RSPCA
Halichoerus grypus	?	?	?	26-Sep-99	SS1999/069	Pembrokeshire	Beach	SM826229	reported by Joanna Walters.
Halichoerus grypus	?	?	?	27-Sep-99	SS1999/096	Pembrokeshire	Skrinkle haven	SS085975	reported by Ms Lewis.
Halichoerus grypus	?	?	?	28-Sep-99	SS1999/097	Pembrokeshire	West Dale Beach	SM797058	reported by Jenny Hancock RSPCA Fort Popton.
Halichoerus grypus	?	?	?	28-Sep-99	SS1999/098	Pembrokeshire	West Dale Beach	SM797058	reported by Jenny Hancock RSPCA Fort Popton.
Halichoerus grypus	?	?	advanced decomposition	02-Oct-99	SS1999/099	Anglesey	Warren	SH420630	reported by John Goold. Headless pup, LA informed for disposal.
Halichoerus grypus	?	?	?	03-Oct-99	SS1999/100	Pembrokeshire	Newgale Beach	SM850210	reported by Jenny Hancock RSPCA Fort Popton.
Halichoerus grypus	?	?	?	03-Oct-99	SS1999/101	Pembrokeshire	Newgale Beach	SM850210	reported by Jenny Hancock RSPCA Fort Popton.
Halichoerus grypus	?	?	?	03-Oct-99	SS1999/102	Pembrokeshire	Newgale Beach	SM850210	reported by Jenny Hancock RSPCA Fort Popton.
Halichoerus grypus	?	?	?	03-Oct-99	SS1999/103	Pembrokeshire	Newgale Beach	SM850210	reported by Jenny Hancock RSPCA Fort Popton.
Halichoerus grypus	?	?	?	04-Oct-99	SS1999/104	Ceredigion	Ynyslas	SN604930	reported by Nigel Betts
Halichoerus grypus	?	?	?	04-Oct-99	SS1999/105	Ceredigion	Ynyslas	SN604930	reported by Nigel Betts
Halichoerus grypus	?	?	?	04-Oct-99	SS1999/106	Pembrokeshire	Whitesands Bay	SM733270	reported by Lloyd Morgan. LA informed.
Halichoerus grypus	?	?	?	05-Oct-99	SS1999/107	Gwynedd	Pontllyfni	SH430526	reported by Ken Fitzpatrick, Pwllheli HM as head being cut off.

Appendix 2.

species	Sex	Length (mm)	Condition	Date	SS No	County	Locality	Grid ref	Comment
Halichoerus grypus	?	?	?	05-Oct-99	SS1999/108	Gwynedd	Pontllyfni	SH430526	reported by Ken Fitzpatrick, Pwllheli HM as head being cut off.
Halichoerus grypus	?	?	?	05-Oct-99	SS1999/109	Gwynedd	Barmouth	SH604165	reported by ?
Halichoerus grypus	?	?	?	07-Oct-99	SS1999/110	Pembrokeshire	Nolton Haven	SM857185	reported by Mrs Poole.
Halichoerus grypus	?	?	?	08-Oct-99	SS1999/111	Ceredigion	Gwbirt	SN160500	reported by WWWT
Halichoerus grypus	?	?	?	09-Oct-99	SS1999/112	Pembrokeshire	Broadhaven	SM860135	reported by RSPCA and Milford Haven CG.
Halichoerus grypus	?	?	?	11-Oct-99	SS1999/113	Anglesey	Cable Bay	SH333707	reported by CCW
Halichoerus grypus	?	?	?	11-Oct-99	SS1999/115	Ceredigion	Aberystwyth	SN580820	reported by Kevin Kirkland. LA disposing of.
Halichoerus grypus	?	?	?	22-Oct-99	SS1999/116	Pembrokeshire	Newport	SN051403	reported by Mr Evans. LA informed.
Halichoerus grypus	?	?	?	23-Oct-99	SS1999/117	Ceredigion	Borth	SN607900	reported by ?. LA informed.
Halichoerus grypus	?	?	?	26-Oct-99	SS1999/118	Pembrokeshire	Broadhaven	SM860135	reported by public. LA informed.
Halichoerus grypus	?	?	?	26-Oct-99	SS1999/119	Pembrokeshire	Broadhaven	SM860135	reported by public. LA informed.
Halichoerus grypus	?	?	?	28-Oct-99	SS1999/120	Ceredigion	Borth	SN607900	reported by Jenny Higgins. LA informed.
Halichoerus grypus	?	?	?	28-Oct-99	SS1999/121	Ceredigion	Borth	SN607900	reported by Jenny Higgins. LA informed.
Halichoerus grypus	?	?	advanced decomposition	28-Oct-99	SS1999/122	Gwynedd	Barmouth	SH604165	reported by Mr P Taylor. LA informed
Halichoerus grypus	F	1.82	live/euthanased	31-Oct-99	SS1999/123	Ceredigion	Poppit Beach	SN155490	reported by Jenny Hancock RSPCA.
Halichoerus grypus	?	?	fresh	03-Nov-99	SS1999/132	Gwynedd	Aberdovey	SN615958	reported by Dave Davies Aberdovey HM. Disposed of by LA.
Halichoerus grypus	?	?	?	09-Nov-99	SS1999/133	Gwynedd	Sands	SH530370	reported by Helen Jenning. LA informed.
Halichoerus grypus	?	?	?	09-Nov-99	SS1999/134	Gwynedd	don beach	SH385350	reported by Pwllheli ass. HM. LA to deal with.
Halichoerus grypus	?	?	?	10-Nov-99	SS1999/135	Ceredigion	Ynyslas	SN604925	reported by member of public whilst attending SW1999/196. Buried on beach by CCW warden.
Halichoerus grypus	?	6'	?	01-Dec-99	SS1999/136	Gwynedd	Fairbourne	SH611133	reported by Glyn Jones Barmouth HM. Animal reported as headless.
Halichoerus grypus	?	3'	?	01-Dec-99	SS1999/137	Gwynedd	Fairbourne	SH611133	reported by Glyn Jones Barmouth HM. Animal reported as headless.
Halichoerus grypus	?	?	?	02-Dec-99	SS1999/138	Swansea	Rhossili, Gower	SS410900	reported by Sian, NT Warden. Animal reported as head missing, remainder cut in half, presumed prop damage.
Halichoerus grypus	?	?	?	03-Dec-99	SS1999/139	Gwynedd	Tywyn	SH577004	reported by ?
Halichoerus grypus	?	?	?	05-Dec-99	SS1999/140	Ceredigion	Poppit Beach	SN155490	reported by RSPCA
Halichoerus grypus	?	?	?	19-Nov-99	SS1999/141	Ceredigion	Tresaith	SN276516	reported by Mr Alexander aux. CG. LA informed.
Halichoerus grypus	?	?	?	14-Dec-99	SS1999/149	Gwynedd	Tywyn	SH577004	reported by Mrs Brown.

Species	Sex	Length	Condition	Date	ST Number	County	Locality	Grid Ref	Comment
<i>Dermochelys coriacea</i>	?	?	live	Sunday, July 18, 1999	ST1999/sas1				reported by Rob Colley. Sighted alongside commercial boat 2 miles off Cefn Sidan Sands, 1 mile south east of D28 Pembrey. Animal live & healthy.
<i>Dermochelys coriacea</i>	?	5'	live	Sunday, August 22, 1999	ST1999/sas2				reported by Glyn Jones assistant HM Barmouth. Yacht Pegasus sighted 5' turtle at 52 39N 04 08W. Thought to be unwell?
<i>Dermochelys coriacea</i>	?	?	live	Tuesday, August 31, 1999	ST1999/sas3		Carmarthen Bay		reported by Haydyn Morgan SWSF, 1.5 miles off Burry Holmes travelling NW.
<i>Dermochelys coriacea</i>	?	?	live	Tuesday, August 31, 1999	ST1999/sas4		Carmarthen Bay		reported by Haydyn Morgan SWSF, 1.5 miles off Burry Holmes travelling NW.
<i>Dermochelys coriacea</i>	?	?	live	Tuesday, August 31, 1999	ST1999/sas5		Carmarthen Bay		reported by Haydyn Morgan SWSF, 1.5 miles off Burry Holmes travelling NW.
<i>Caretta caretta</i>	?	?	live	Thursday, September 02, 1999	ST1999/sas6		Carmarthen Bay		reported by Haydyn Morgan SWSF, between Burry Holmes and Worms Head.
<i>Dermochelys coriacea</i>	?	5'	advanced decomposition	Saturday, October 02, 1999	ST1999/1	Anglesey	Ynys Llanddwyn	SH391634	reported by John Goold. Skin taken by JG and LA informed for disposal. Further dimns. taken by Sally Ellis CCW.
<i>Lepidochelys kempii</i>	?	0.4	live	Tuesday, November 30, 1999	ST1999/2	Pembrokeshire	Broad Haven	SM860135	reported by and retrieved by Gary Cross to St David's Oceanarium.

Appendix 4.



Digital image sample, showing the quality of image that can be sent via email to IOZ/NHM.



Digital image of fish spine in Harbour porpoise stomach.