

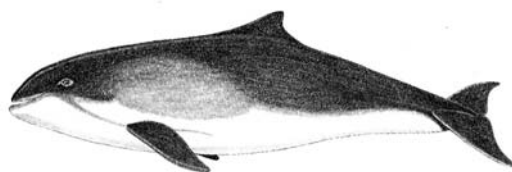


Marine Environmental Monitoring

www.strandings.com

Marine Mammal Strandings (Welsh Coast) Annual Report 1995

R.S.Penrose. January 1996



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Environmental
Monitoring**



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1. INTRODUCTION

Little is known about disease and causes of death in marine mammals around the British Isles. Without this knowledge it is difficult to interpret the significance of sudden die-offs such as that which occurred in 1988 when approximately 17,000 seals were killed by the Phocine Distemper Virus (PDV).

At present a collaborative Marine Mammal Strandings scheme for England and Wales has been funded by the Department of the Environment (DOE) since 1990 which involves *post-mortem* and other studies of seal and cetacean carcasses. This research is being carried out by the Institute of Zoology (IOZ) in close collaboration with the Natural History Museum (NHM) and the Sea Mammal Research Unit. *Post-mortem* examinations of Welsh strandings are carried out by the Department of Veterinary Pathology, University of Liverpool and the Institute of Zoology, London. It includes studies on the correlation between contaminant levels and disease, reproduction, and immunological status. Samples taken include those for virology, bacteriology, parasitology, histopathology, measurement of heavy metals, organochlorines and radionuclides, DNA fingerprinting and fixed and frozen material for archive.

Records of live and dead strandings of cetaceans are kept by the Strandings Co-ordinator and are passed for correlation at the Natural History Museum (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, Countryside Council for Wales (CCW) and the Department of the Environment through the Institute of Zoology, London and private individuals. Support of certain items of equipment has been provided by the National Rivers Authority.

2. MATERIALS AND METHODS

A 24 hour Strandings Answerphone (**01348 875000**), 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 Institute of Zoology (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.

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

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 Storage of animals

During 1995 the decision was taken not to store animals frozen, since as a result of freezing the following had been found:-

- Loss of micro-organisms, viruses and bacteria.
- Damage to tissue for histology.
- Possible loss of fluids from internal organs which may effect analysis of toxicology results.
- Decrease in interpretation of normal and abnormal tissues due to haemolysis of red blood cells.
- Internal organs had remained part-frozen in some animals extending and delaying the *post-mortem* examination.

If the animal is not to be transported immediately then storage at +4⁰ Celsius is preferable for a maximum time period of one week.

As a result of this change of procedure, the present storage facilities kindly provided at Fishguard are no longer suitable for the storage of animals and new facilities are needed for 1996.

3. RESULTS

3.1 Marine Mammals

Table 1.

1995 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	0	0	0	1	0	1	0	0	0	3
Risso's dolphin	0	0	0	0	0	0	0	0	0	2	0	0	2
Striped dolphin	0	2	0	0	0	0	0	2	0	0	0	0	4
Atlantic white-sided dolphin	0	0	0	0	0	0	0	0	0	0	0	0	0
Fin whale	0	0	0	0	0	0	0	0	0	0	0	0	0
Long finned pilot whale	0	0	0	0	0	0	0	0	0	0	0	0	0
Harbour porpoise	2	5	3	4	1	7	4	4	5	3	2	0	40
Cetacean sp. Indent.	0	1	0	1	0	0	0	0	0	1	0	0	3
Common/Striped?	0	0	1	0	0	0	0	0	0	0	0	0	1
Total cetaceans	2	9	3	5	1	7	5	6	7	6	2	0	54
Grey seal	5	4	4	1	2	2	4	1	9	21	6	3	62
Total animals	7	13	7	6	3	9	9	7	16	27	8	3	116

Table 2.

1995 Number of live cetacean strandings (Welsh Coast).													
Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Common dolphin	0	1	0	0	0	0	1	0	0	0	0	0	2
Striped dolphin	0	2	0	0	0	0	0	1	0	0	0	0	3
Harbour porpoise	1	2	1	1	0	2	0	0	2	0	0	0	9
Total animals	1	5	1	1	0	2	1	1	2	0	0	0	14

Of the 116 strandings 12% live-stranded (14 animals), 3 cetaceans had live-stranded and were returned to the sea, 4 cetaceans had live-stranded and subsequently died, 7 cetaceans were found dead but indicated as having live-stranded under *post-mortem* examination.

Table 3.

1995 Number of animals suitable for <i>post-mortem</i> examination.													
Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Bottlenose dolphin	0	0	0	0	0	0	0	0	0	0	0	0	0
Common dolphin	0	1	0	0	0	0	0	0	0	0	0	0	1
Risso's dolphin	0	0	0	0	0	0	0	0	0	1	0	0	1
Striped dolphin	0	2	0	0	0	0	0	0	0	0	0	0	2
Atlantic white-sided dolphin	0	0	0	0	0	0	0	0	0	0	0	0	0
Fin whale	0	0	0	0	0	0	0	0	0	0	0	0	0
Long finned pilot whale	0	0	0	0	0	0	0	0	0	0	0	0	0
Harbour porpoise	1	5	3	3	1	3	2	1	3	2	0	0	24
Total cetaceans	1	8	3	3	1	3	2	1	3	3	0	0	28
Grey seal	2	0	1	0	0	0	1	0	0	2	0	0	6
Total animals	3	8	4	3	1	3	3	1	3	5	0	0	34

Of the 116 strandings 29% (34 animals) were suitable for *post-mortem* examination.

Table 4.

1995 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	0	0	0	0	0	0	0	0	0	0
Risso's dolphin	0	0	0	0	0	0	0	0	0	1	0	0	1
Striped dolphin	0	0	0	0	0	0	0	1	0	0	0	0	1
Atlantic white-sided dolphin	0	0	0	0	0	0	0	0	0	0	0	0	0
Fin whale	0	0	0	0	0	0	0	0	0	0	0	0	0
Long finned pilot whale	0	0	0	0	0	0	0	0	0	0	0	0	0
Harbour porpoise	0	0	0	1	0	1	2	3	2	1	2	0	12
Cetacean sp. Indet.	0	0	0	0	0	0	0	0	0	1	0	0	1
Common/Striped?	0	0	1	0	0	0	0	0	0	0	0	0	1
Total cetaceans	0	0	1	1	0	1	2	4	3	3	2	0	17
Grey seal	0	4	0	1	0	1	1	1	4	15	3	3	33
Total animals	0	4	1	2	0	2	3	5	7	18	5	3	50

Of the 116 strandings 43% (50 animals) were decomposed and the relevant local council contacted for safe disposal of remains. Samples were taken whenever possible for NHM. Funding for seals 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 28% (32 animals) were confirmed reports but were unable to be retrieved or disposed of due to various reasons. i.e. live and returned to the sea, no access to stranding, floating or washed away.

Marine mammal strandings figures from Wales for 1995 are down on 1994, presumably due to the favourable weather over this period and lack of strong south, south-west winds, reducing the number of carcasses being blown ashore.

3.2 Unusual Occurrences

A total of 3 porpoise (*Phocoena phocoena*) SW1995/53, SW1995/106 and SW1995/115 were found to have been killed by bottlenose dolphin (*Tursiops truncatus*) on *post-mortem* examination by Dr J.R.Baker, the first recording of such activity off the Welsh coast.

One dead porpoise (*Phocoena phocoena*) SW1995/50 found stranded at Porthcawl on the 13th April 1995, was removed from the beach by persons unknown before collection. On the 14th April 1995, Shropshire police reported a dead porpoise in 100mm of water in a stream below a road bridge near Oswestry. This animal was picked up by Dr J.R.Baker. It is assumed this is the same animal that stranded at Porthcawl on the 13th April 1995.

One porpoise calf SW1995/65a live-stranded at Porthcawl, it is thought that the animal mistook a surfer for it's mother and ended up on the beach with the surfer. The Coastguard were informed and the animal was held in the surf until further help could arrive. During this period, some 2 hours, an adult porpoise appeared in the surf, presumably the mother, and the calf was successfully released.

4. OTHER MARINE ANIMALS REPORTED TO THE NETWORK.

4.1 Fish

A 3.7 metre male basking shark (*Cetorhinus maximus*) live-stranded on the 16th May 1995 at Ferryside, Dyfed. The animal had sustained an injury to its head and was eventually euthanased and delivered to the Carmarthen Veterinary Investigation Centre, by the Strandings Co-ordinator, for overnight storage. Swansea University was contacted and a *post-mortem* examination was carried out by Paul Llewlyn from Swansea University the next day.

4.2 Turtles

A total of 7 leatherback turtles (*Dermochelys coriacea*) were reported to the network. The first 2 animals were attended and were assumed to have drowned whilst becoming entangled in whelk pot rope as rope was still wrapped around the fore flippers on both animals. Samples from the first animal ST1995/1 were taken for Glasgow University, and the head to Swansea University. Subsequent animals were in a state of advanced decomposition and the relevant local authorities were informed for safe disposal of remains. Swansea University were also informed and it is understood that some material was taken for their collection.

5. EQUIPMENT

The main storage chest freezer based at Fishguard was found to be not working on the 4th July and was not repaired until the 23rd July (repaired under warranty). The unusually hot weather was thought to be the cause of the failure. No material was lost as a result of this failure thanks to the temporary loan of various domestic freezers and skilful re-packing by Robin Pratt of a 2.24 metre adult seal into a 1.5 metre freezer.

Funding of 50% towards certain capital equipment, made available towards the end of 1995 through the Welsh Office/NHM, should enable a modified trailer to be purchased along with a replacement vehicle and mobile phone, dependant on match funding, and will enable the project to continue.

Due to the change in procedure as explained in 2.3 (Storage of animals), the facilities based at Fishguard are no longer suitable due to lack of available space for a cold-store. Unfortunately, alternative premises including a cold-store, plus the facilities of mechanical handling, office/storage space and washing down facilities that were kindly afforded to the project at Fishguard are now needed.

6. TRAVEL

In excess of 6,000 miles were covered by the Strandings Co-ordinator in retrieval and transportation of animals in 1995. The majority of animals were taken to the Leahurst Field Station, Liverpool University and others to the Institute of Zoology, London.

7. ADMINISTRATION

In excess of 110 copies of *post-mortem* examination reports were posted out to finders and associated interested parties concerning each relevant stranding.

8. ACKNOWLEDGMENTS

Carmarthen Veterinary Investigation Centre for their help in overnight storage of the basking shark and safe disposal of waste material from the leatherback turtle ST1995/1.

CCW Skomer Marine Nature Reserve team for their help and use of facilities during the live-stranding of striped dolphin SW1995/13.

Countryside Council for Wales for its contribution towards the Strandings Project.

David Wheeler, CCW for the loan of a trailer for transportation of animals to IOZ, Liverpool Uni. And Swansea Uni., assistance in collecting animals, for maintaining cover enabling the Strandings Co-ordinator to attend meetings.

John Penrose, for unlimited use of 4x4 Range Rover on the Strandings project to date.

Milford Haven Fire Department and the Marine Rescue Unit for their help during the live-stranding of the striped dolphin SW1995/13.

Robin Pratt for providing base of operation at Fishguard, storage facilities, freezer running costs and the provision of consumables to maintain continuity of the project.

Roger Miln, National Rivers Authority for providing a histology microscope and IT equipment for the project.

Sally Budd, CCW for transporting porpoise SW1995/86 from Anglesey to Dolgellau enabling the animal to be taken to the Institute of Zoology the next day.

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

Swansea University for their help in obtaining samples from the leatherback turtle ST1995/1 for Glasgow University.

Veterinarian Dr John O'Conner for attending throughout the live-stranding of the striped dolphin SW1995/13.

Welsh Office / Natural History Museum for providing funds towards the project.

9. APPENDICES

Appendix 1. Cetacean strandings data for 1995.

Appendix 2. Atlantic grey seal data for 1995.

Appendix 3. Leatherback turtle stranding data for 1995.

Appendix 1. Marine Environmental Monitoring 1995 Welsh Coast Strandings (Cetaceans).

Family/Genus	species	Sex	Length	Condition	Date	SW Number	County	Locality	Grid	Comment
Phocoena	phocoena	?	?	?	18-Jan-95	SW1995/005	Anglesey	Church Bay	SH301894	
Phocoena	phocoena	M	1.54	slight decomposition	24-Jan-95	SW1995/007	Ceredigion	Aberaeron	SN460636	live stranding? taken to London by Richard Sabin
Delphinus	delphis	F	2.06	moderate decomposition	03-Feb-95	SW1995/010	Carmarthenshire	MOD Pendine	SN263073	
Phocoena	phocoena	M	1.71	slight decomposition	03-Feb-95	SW1995/011	Carmarthenshire	MOD Pendine	SN245076	
Stenella	coeruleoalba	F	1.39	live	08-Feb-95	SW1995/013	Pembrokeshire	Westdale Bay	SM798058	
Cetacean	sp.indet.	?	?	?	10-Feb-95	SW1995/015	Gwynedd	Abersoch	SH322296	not found.
Phocoena	phocoena	M	1.27	fresh	18-Feb-95	SW1995/018	Carmarthenshire	Pembrey	SN399002	
Stenella	coeruleoalba	F	1.74	live	21-Feb-95	SW1995/025b	Anglesey	Church Bay	SH301894	
Phocoena	phocoena	F	1.23	moderate decomposition	22-Feb-95	SW1995/028	Carmarthenshire	Pembrey	SN375023	
Phocoena	phocoena	F	1.63	fresh	23-Feb-95	SW1995/029.1	Gwynedd	Dinas Dinlle	SH436567	
Phocoena	phocoena	F	1.25	fresh	23-Feb-95	SW1995/029.2	Gwynedd	Dinas Dinlle	SH436567	
Phocoena	phocoena	M	1.34	fresh	05-Mar-95	SW1995/033	Ceredigion	Tan y bwlch	SN579806	cause of death not determined
Phocoena	phocoena	M	1.43	moderate decomposition	06-Mar-95	SW1995/034	Gwynedd	Aberdovey	SN595966	drowned in fishing gear with SS1995/35
Phocoena	phocoena	M	1.25	live	26-Mar-95	SW1995/045	Pembrokeshire	Newgale	SM850215	
Delph/Stenella	?	?	1.85	advanced decomposition	31-Mar-95	SW1995/045a	Anglesey	Cemlyn	SH324936	photo's taken Francis C. NWT
Phocoena	phocoena	F	1.58	moderate decomposition	03-Apr-95	SW1995/046	Pembrokeshire	Newgale	SM854205	
Cetacean	sp. indet.	?	?	advanced decomposition	04-Apr-95	SW1995/047	Pembrokeshire	Pwll Llong	SM842334	no skull
Phocoena	phocoena	F	1.07	moderate decomposition	13-Apr-95	SW1995/050	Bridgend	Rest bay, Porthcawl		removed by persons unknown.Osw? live stranding?
Phocoena	phocoena	M	1.07	advanced decomposition	14-Apr-95	SW1995/051	Carmarthenshire	Pembrey	SN424001	buried on beach by Ranger.
Phocoena	phocoena	M	1.14	fresh	21-Apr-95	SW1995/053	Ceredigion	Llanon	SN511679	
Phocoena	phocoena	M	1.38	moderate decomposition	14-May-95	SW1995/057	Ceredigion	Aberystwyth	SN579811	
Phocoena	phocoena	?	1.22	advanced decomposition	05-Jun-95	SW1995/059	Gwynedd	Pwllheli	SH400350	buried on beach by CCW.
Phocoena	phocoena	F	0.79	slight decomposition	09-Jun-95	SW1995/062	Pembrokeshire	Abermawr	SM881345	
Phocoena	phocoena	M	1.44	live	10-Jun-95	SW1995/063	Ceredigion	Tresaith	SN279516	
Phocoena	phocoena	?	Adult	advanced decomposition	15-Jun-95	SW1995/064a	Ceredigion	Ynys Lochtyn	SN316552	inaccessible
Phocoena	phocoena	?	calf	live	17-Jun-95	SW1995/065a	Bridgend	Porthcawl	SS800780	Adult appeared in surf, calf released.
Phocoena	phocoena	M	0.67	fresh	25-Jun-95	SW1995/068	Carmarthenshire	MOD Pendine	SN248077	
Phocoena	phocoena	?	?	?	30-Jun-95	SW1995/068b	Anglesey	Cemlyn	SH329936	
Phocoena	phocoena	?	0.75	advanced decomposition	02-Jul-95	SW1995/079	Ceredigion	Llangrannog	SN310543	headless, decomposed. bagged,council informed.
Phocoena	phocoena	F	1.54	slight decomposition	04-Jul-95	SW1995/084	Ceredigion	Penbryn	SN293526	
Phocoena	phocoena	F	1.72	fresh	07-Jul-95	SW1995/086	Anglesey	Trearddur Bay	SH250780	
Delphinus	delphis ?	?	?	live	13-Jul-95	SW1995/088	Pembrokeshire	Broad Haven	SM860136	returned to sea by public.
Phocoena	phocoena	M	1.68	advanced decomposition	30-Jul-95	SW1995/092	Carmarthenshire	MOD Pendine	SN260072	council informed for disposal
Stenella	coeruleoalba	?	?	live	04-Aug-95	SW1995/097	Anglesey	Foel	SH479649	Returned to sea by Anglesey Sea Zoo.
Phocoena	phocoena	F	1.22	advanced decomposition	04-Aug-95	SW1995/098	Pembrokeshire	Amroth	SN160068	6 teeth taken for NHM. Bagged, council informed for disposal.
Stenella	coeruleoalba	?	?	advanced decomposition	07-Aug-95	SW1995/100	Gwynedd	Caernarfon	SH432582	CCW attended, buried on beach by council
Phocoena	phocoena	F	1.54	advanced decomposition	23-Aug-95	SW1995/103	Gwynedd	Barmouth	SH611153	6 teeth taken from lower jaw. Council informed for disposal.
Phocoena	phocoena	F	1.73	decomposition	24-Aug-95	SW1995/106	Ceredigion	Llanrhystud	SN523688	
Phocoena	phocoena	M	1.37	advanced decomposition	25-Aug-95	SW1995/107	Gwynedd	Dyffryn Ardudwy	SH574222	6 teeth taken, jaw broken. Buried on beach. Council informed.
Phocoena	phocoena	M	1.33	advanced decomposition	06-Sep-95	SW1995/108	Gwynedd	Tywyn	SN581995	LH lower jaw taken for NHM. Council to dispose.
Phocoena	phocoena	M	1.10	slight decomposition	08-Sep-95	SW1995/109	Anglesey	Borth-Wen	SH297878	
Tursiops	truncatus	F	3.53	advanced decomposition	09-Sep-95	SW1995/110	Ceredigion	Aberaeron	SN456633	council informed for disposal.
Phocoena	phocoena	M	1.17	moderate decomposition	20-Sep-95	SW1995/115	Ceredigion	Aberporth	SN259515	
Phocoena	phocoena	F	1.58	slight decomposition	22-Sep-95	SW1995/116	Carmarthenshire	Pembrey	SN369033	
Phocoena	phocoena	F	1.32	advanced decomposition	25-Sep-95	SW1995/118	Pembrokeshire	Porth Gain	SM813327	6 teeth taken from lower jaw. Council informed for disposal.
Delphinus	delphis ?	?	?	moderate decomposition	26-Sep-95	SW1995/119	Carmarthenshire	Marros	SN217072	not found on 27th Sep.

Appendix 1. Marine Environmental Monitoring 1995 Welsh Coast Strandings (Cetaceans).

Family/Genus	species	Sex	Length	Condition	Date	SW Number	County	Locality	Grid	Comment
Phocoena	phocoena	F	1.67	moderate decomposition	01-Oct-95	SW1995/120	Ceredigion	Aberystwyth	SN582819	
Phocoena	phocoena	?	1.22	advanced decomposition	05-Oct-95	SW1995/121	Gwynedd	Black Rock Sands	SH530370	council informed for disposal.
Phocoena	phocoena	F	1.02	moderate decomposition	06-Oct-95	SW1995/122	Gwynedd	Friog, Fairbourne	SH610119	
Grampus	griseus	F	1.45	advanced decomposition	07-Oct-95	SW1995/123	Ceredigion	Aberystwyth	SN583822	
Cetacean	sp.indet.?	M	2.2	advanced decomposition	09-Oct-95	SW1995/124	Neath Port Talbot	Port Talbot	SS763867	left on British Steel beach, difficult access.
Grampus	griseus	?	3.25	advanced decomposition	30-Oct-95	SW1995/128	Gwynedd	Menai Straits	SH500659	Tim Jones CCW attended, council informed for disposal.
Phocoena	phocoena	?	1.85	advanced decomposition	18-Nov-95	SW1995/132	Carmarthenshire	MOD Pendine	SN250075	Teeth taken, animal disposed of.
Phocoena	phocoena	?	1.62	moderate decomposition	24-Nov-95	SW1995/134	Anglesey	Porth Cwyfan	SH338684	Rhianon Jones, Coastal Heritage Warden attended.

Appendix 2. Marine Environmental Monitoring 1995 Welsh Coast Strandings (Grey Seals).

species	Sex	Length (he)	Condition	Date	SS_No	County	Locality	Grid_ref	Comment
Halichoerus grypus	F	1.09	fresh	12-Jan-95	SS1995/002	Swansea	Port Eynon beach	SS469851	Streptococcal purulent pericarditis
Halichoerus grypus	? j	?	decomposed	17-Jan-95	SS1995/003	Ceredigion	Penbryn beach	SN294527	washed away
Halichoerus grypus	? j	?	decomposed	18-Jan-95	SS1995/004	Ceredigion	Borth	SN605920	washed away
Halichoerus grypus	?	?		23-Jan-95	SS1995/005	Anglesey	Anglesey	SH254788	
Halichoerus grypus	?	1.59	fresh	31-Jan-95	SS1995/006	Gwynedd	Black rock sands	SH511377	trauma to head (hammer)
Halichoerus grypus	?	Adult	decomposed	01-Feb-95	SS1995/007	Ceredigion	Borth	SN606907	council informed for disposal.
Halichoerus grypus	?	?	decomposed	08-Feb-95	SS1995/008	Bridgend	Skер point	SS790820	disposed of
Halichoerus grypus	M	Adult	decomposed	19-Feb-95	SS1995/010	Flintshire	Bagillt	SJ231751	
Halichoerus grypus	?	Adult	decomposed	23-Feb-95	SS1995/033	Pembrokeshire	Freshwater West	SM883000	disposed of
Halichoerus grypus	F	1.3	moderate dec.	06-Mar-95	SS1995/035	Gwynedd	Aberdyfi	SN595966	drowned in fishing net with SW1995/34
Halichoerus grypus	?	?	?	23-Mar-95	SS1995/042	Merseyside	Flint		
Halichoerus grypus	?	?	decomposed	13-Mar-95	SS1995/043	Pembrokeshire	Freshwater east	SS032979	
Halichoerus grypus	?	?	decomposed	20-Mar-95	SS1995/044	Anglesey	Rhosneigr	SH320741	
Halichoerus grypus	F	Adult	decomposed	29-Apr-95	SS1995/048	Pembrokeshire	Cwm yr Eglws	SN015402	council informed for disposal
Halichoerus grypus	?	?	?	10-May-95	SS1995/050	Ceredigion	Newquay	SN399594	not found
Halichoerus grypus	?	?	?	27-May-95	SS1995/068	Carmarthenshire	Carmarthen	SN406196	not found by police, washed away
Halichoerus grypus	?	Adult	decomposed	01-Jun-95	SS1995/069	Gwynedd			disposed of by council.
Halichoerus grypus	?	?	decomposed	09-Jun-95	SS1995/071	Pembrokeshire	Pwll Deri	SM893385	inaccessible beach.
Halichoerus grypus	?	Adult	fresh	05-Jul-95	SS1995/078	Gwynedd	Tywyn	SN584993	not found
Halichoerus grypus	M	2.24	fresh	13-Jul-95	SS1995/080	Pembrokeshire	Broadhaven	SM857135	Streptococcus zooepidemicus septicaemia
Halichoerus grypus	?	?	?	18-Jul-95	SS1995/081	Pembrokeshire	Haverfordwest		council informed for disposal
Halichoerus grypus	?	?	?	25-Jul-95	SS1995/083	Ceredigion	Mwnt	SN195523	not found, reported as shot. Persons with rifles with telescopic sights seen at Mwnt.
Halichoerus grypus	?	?	decomposed	18-Aug-95	SS1995/128	Pembrokeshire	Caer Fai	SM760240	council informed for disposal
Halichoerus grypus	?	?	decomposed	01-Sep-95	SS1995/138	Pembrokeshire	Newport	SN060395	removed to council tip, Fishguard.
Halichoerus grypus	F	1.4	decomposed	03-Sep-95	SS1995/139	Ceredigion	Tresaith	SN276516	council informed for disposal
Halichoerus grypus	?	?	decomposed	08-Sep-95	SS1995/140	Clwyd	Llandudno	SH787825	disposed of by Coastguard
Halichoerus grypus	M	1.8e	decomposed	09-Sep-95	SS1995/141	Ceredigion	Aberaeron	SN460635	Headless, disposed of by council.
Halichoerus grypus	?	?	?	11-Sep-95	SS1995/142	Ceredigion	Gwbert	SN159498	In sea off Gwbert, not collected.
Halichoerus grypus	?	?	?	12-Sep-95	SS1995/150	Pembrokeshire	Fishguard	SM960373	not collected
Halichoerus grypus	?	?	?	12-Sep-95	SS1995/151	Pembrokeshire	Trevine	SM842328	not collected
Halichoerus grypus	?	?	?	23-Sep-95	SS1995/163	Pembrokeshire	Porth Tre-wen	SM775303	inaccessible, not collected.
Halichoerus grypus	?	?	?		SS1995/167	Ceredigion	Borth	SN606907	
Halichoerus grypus	F	juv.	decomposed	01-Oct-95	SS1995/168	Ceredigion	Aberporth	SN259515	headless (cut) bagged and labelled. council informed.
Halichoerus grypus	?	?	?	06-Oct-95	SS1995/170	Pembrokeshire	Porth Gain	SM813327	inaccessible
Halichoerus grypus	F	1.03	decomposed	07-Oct-95	SS1995/171	Pembrokeshire	Newgale beach	SM846224	Traumatic injuries, too decomposed to ascertain cause of death.
Halichoerus grypus	?	?	decomposed	07-Oct-95	SS1995/172	Pembrokeshire	Newgale beach	SM853197	not collected
Halichoerus grypus	?	?	?	11-Oct-95	SS1995/173	Pembrokeshire	Solva	SM797234	
Halichoerus grypus	F	Adult	decomposed	11-Oct-95	SS1995/174	Anglesey	Newbury Warren	SH420630	
Halichoerus grypus	F	Adult	fresh	19-Oct-95	SS1995/176	Pembrokeshire	Aberiddy	SM796313	Starvation due to net in mouth.
Halichoerus grypus	?	?	decomposed	19-Oct-95	SS1995/177	Pembrokeshire	Aberiddy	SM796313	removed to council tip, Fishguard.
Halichoerus grypus	?	Adult	?	20-Oct-95	SS1995/178a	Pembrokeshire	Frainslake Sands	SR890980	council informed for disposal
Halichoerus grypus	?	?	?	20-Oct-95	SS1995/178b	Pembrokeshire	Frainslake Sands	SR890980	council informed for disposal
Halichoerus grypus	?	?	?	12-Oct-95	SS1995/179	Pembrokeshire	Manorbier	SS060974	Headless, disposed of by council.
Halichoerus grypus	?	?	?	09-Oct-95	SS1995/180	Pembrokeshire	Amroth	SN164070	Headless, disposed of by council.
Halichoerus grypus	?	?	?	10-Oct-95	SS1995/181	Pembrokeshire	Bridge	SN145060	Shot ?
Halichoerus grypus	?	?	?	21-Oct-95	SS1995/182	Pembrokeshire	Davids Head	SM727279	council informed for disposal
Halichoerus grypus	?	?	?	21-Oct-95	SS1995/183a	Pembrokeshire	Davids.	SM760243	council informed for disposal

Appendix 2. Marine Environmental Monitoring 1995 Welsh Coast Strandings (Grey Seals).

species	Sex	Length (he	Condition	Date	SS_No	County	Locality	Grid_ref	Comment
Halichoerus grypus	?	?	?	21-Oct-95	SS1995/183b	Pembrokeshire	Davids.	SM760243	council informed for disposal
Halichoerus grypus	?	?	?	21-Oct-95	SS1995/184	Pembrokeshire	Newgale Beach	SM846222	council informed for disposal
Halichoerus grypus	?	?	?	24-Oct-95	SS1995/185	Gwynedd	Pwllheli	SH377350	buried on beach.
Halichoerus grypus	?	?	?	28-Oct-95	SS1995/186	Carmarthenshire	Pendine	SN275066	council informed for disposal
Halichoerus grypus	?	?	decomposed	30-Oct-95	SS1995/187	Gwynedd	Llanbedrog	SH335315	buried on beach.
Halichoerus grypus	?	?	?	31-Oct-95	SS1995/188	Carmarthenshire	Marros beach	SN205075	council informed for disposal
Halichoerus grypus	?	?	decomposed	03-Nov-95	SS1995/189	Ceredigion	Penbryn	SN290524	council informed for disposal
Halichoerus grypus	?	j	fresh	06-Nov-95	SS1995/190	Anglesey	Cemlyn Bay	SH335932	council informed for disposal
Halichoerus grypus	?	?	decomposed	12-Nov-95	SS1995/192	Pembrokeshire	Dale beach	SM813056	council informed for disposal
Halichoerus grypus	?	?	decomposed	19-Nov-95	SS1995/193	Pembrokeshire	Marloes Beach	SM783073	reported at WWWWMMG
Halichoerus grypus	?	?	decomposed	21-Nov-95	SS1995/194	Pembrokeshire	Newport Beach	SN052404	reported at WWWWMMG
Halichoerus grypus	?	?	decomposed	22-Nov-95	SS1995/195	Pembrokeshire	Newgale Beach	SM848215	reported at WWWWMMG
Halichoerus grypus	?	Adult	?	01-Dec-95	SS1995/197	Pembrokeshire	Marloes Beach	SM784074	council informed for disposal
Halichoerus grypus	?	?	decomposed	01-Dec-95	SS1995/198	Pembrokeshire	Solva Harbour	SM805243	council informed for disposal
Halichoerus grypus	?	?	decomposed	28-Dec-95	SS1995/272	Ceredigion	Tresaith	SN277516	council informed for disposal

Appendix 3. Marine Environmental Monitoring 1995 Welsh Coast Strandings (Leatherback turtles).

RecordKey	Species	Sex	Length	Condition	Date	SW_NO.	County	Location	GridRef	Comment
T1995/09	<i>Dermochelys coriacea</i>	M	1.86	fresh	18/07/95	ST1995/1	PEMBROKESHIRE	SAUNDERSFOOT	SN140050	ENTANGLED AND DROWNED IN WHELK POT ROPE
T1995/29	<i>Dermochelys coriacea</i>	M	1.80	moderate	11/09/95	ST1995/2	CARMARTHENSHIRE	RAF PEMBREY	SN360050	ENTANGLED AND DROWNED IN ROPE
T1995/32	<i>Dermochelys coriacea</i>	?	?	decomposed	15/09/95	ST1995/3	CARMARTHENSHIRE	PEMBREY	SN390000	Buried on beach.
T1995/37	<i>Dermochelys coriacea</i>	?	1.20	decomposed	22/10/95	ST1995/4	CARMARTHENSHIRE	MOD PENDINE	SN290070	Council informed for disposal.
T1995/39	<i>Dermochelys coriacea</i>	?	?	decomposed	26/10/95	ST1995/5	CARMARTHENSHIRE	KIDWELLY	SN395065	Council informed for disposal.
T1995/40	<i>Dermochelys coriacea</i>	?	?	decomposed	28/10/95		CARMARTHENSHIRE	PENDINE	SN240075	SAME ANIMAL = ST1995/4 ?
T1995/02	<i>Dermochelys coriacea</i>	?	?	decomposed		ST1995/6	CARMARTHENSHIRE	RHOSSILI BEACH	SS410900	Buried on beach.
T1995/43	<i>Dermochelys coriacea</i>	?	?	?	25/11/95	ST1995/7	GWYNEDD	SHELL ISLAND	SH555270	HEADLESS