



MARINE ENERGY WALES

MARINE ENERGY TEST AREA (META)

Environmental Impact Assessment: Appendices

Appendix 9.1. - Sightings data in the local marine mammal, basking shark and otter study area (WWBIC, 2019)

EOR0730

Marine Energy Test Area

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Document Status

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Approval for issue

Jessica Hooper

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Prepared by:

RPS Energy Ltd.

Prepared for:

Marine Energy Wales

A.9.1.1 Incidental sightings

Grid Ref	Scientific Name	Common Name	Record Type	Record Date	Abundance	Verification Level	Location Name	Survey Name
SM823052	<i>Cetorhinus maximus</i>	Basking Shark	Field Observation	06/06/1960	1 Count of SACFORN	Unassessed	Dale Fort Beach	NRW Marine Records
SM817040	<i>Cetorhinus maximus</i>	Basking shark	Field Observation	06/06/1960	1 Count of SACFORN	Unassessed	Watwick Bay	NRW Marine Records
SM812056	<i>Cetorhinus maximus</i>	Basking shark	Field Observation	06/06/1960	1 Count of SACFORN	Unassessed	Brig Stones	NRW Marine Records
SM968051	<i>Delphinus delphis</i>	Common dolphin	Field Observation	06/06/1960	1 Count of SACFORN	Unassessed	Neyland	NRW Marine Records
SR8294099288	<i>Delphinus delphis</i>	Common dolphin	Field Observation	17/10/2009	2 Count	Unassessed		Sea Trust Small Boat Survey
SR8011599391	<i>Delphinus delphis</i>	Common dolphin	Field Observation	17/10/2009	4 Count	Unassessed		Sea Trust Small Boat Survey
SM7957301714	<i>Delphinus delphis</i>	Common dolphin	Field Observation	04/09/2014	3 Count	Unassessed		Sea Trust Small Boat Survey
SM7884502027	<i>Delphinus delphis</i>	Common dolphin	Field Observation	02/09/2010	3 Count	Unassessed		Sea Trust Small Boat Survey
SM812057	<i>Grampus griseus</i>	Risso's dolphin	Field Observation	06/06/1960	1 Count of SACFORN	Unassessed	Dale Beach	NRW Marine Records
SR8897	<i>Halichoerus grypus</i>	Grey seal	Field Observation	14/08/2013		Unassessed	Bluckspool beach	iRecord - Other Surveys
SM8404	<i>Halichoerus grypus</i>	Grey seal	Field Observation	26/04/2009	1 Count of Adult	Unassessed	Thorne Island	local records - WWBIC personnel
SM8106	<i>Halichoerus grypus</i>	Grey seal	Field Observation	1982		Considered Correct		Mammals Pembrokeshire
SM866027	<i>Halichoerus grypus</i>	Grey seal	Field Observation	26/06/1979		Considered Correct		Mammals Pembrokeshire
SM848037	<i>Halichoerus grypus</i>	Grey seal	Field Observation	27/06/1979		Considered Correct		Mammals Pembrokeshire
SM816056	<i>Halichoerus grypus</i>	Grey seal	Field Observation	01/09/1981		Considered Correct		Mammals Pembrokeshire
SM8902	<i>Halichoerus grypus</i>	Grey seal	Field Observation	16/08/1982		Considered Correct		Mammals Pembrokeshire
SM813058	<i>Halichoerus grypus</i>	Grey seal	Field Observation	18/09/1982		Considered Correct		Mammals Pembrokeshire
SM8206	<i>Halichoerus grypus</i>	Grey seal	Field Observation	06/04/1983		Considered Correct		Mammals Pembrokeshire
SM823055	<i>Halichoerus grypus</i>	Grey seal	Field Observation	01/05/1983		Considered Correct		Mammals Pembrokeshire
SM819050	<i>Halichoerus grypus</i>	Grey seal	Field Observation	20/11/1983	1 Count of dead	Considered Correct		Mammals Pembrokeshire
SM825051	<i>Halichoerus grypus</i>	Grey seal	Field Observation	24/03/1984		Considered Correct		Mammals Pembrokeshire
SM813066	<i>Halichoerus grypus</i>	Grey seal	Field Observation	26/05/1984		Considered Correct		Mammals Pembrokeshire
SM824053	<i>Halichoerus grypus</i>	Grey seal	Field Observation	31/05/1984		Considered Correct		Mammals Pembrokeshire
SM824053	<i>Halichoerus grypus</i>	Grey seal	Field Observation	14/07/1984		Considered Correct		Mammals Pembrokeshire
SM824054	<i>Halichoerus grypus</i>	Grey seal	Field Observation	10/09/1984		Considered Correct		Mammals Pembrokeshire
SM937039	<i>Halichoerus grypus</i>	Grey seal	Field Observation	17/10/1984		Considered Correct		Mammals Pembrokeshire
SM813066	<i>Halichoerus grypus</i>	Grey seal	Field Observation	26/05/1985		Considered Correct		Mammals Pembrokeshire
SN0005	<i>Halichoerus grypus</i>	Grey seal	Field Observation	20/11/1990	1 Count of dead	Considered Correct		Mammals Pembrokeshire
SM8107	<i>Halichoerus grypus</i>	Grey seal	Field Observation	01/12/1992	1 Count of dead	Considered Correct		Mammals Pembrokeshire
SM874025	<i>Halichoerus grypus</i>	Grey seal	Field Observation	30/06/1993		Considered Correct		Mammals Pembrokeshire
SM874025	<i>Halichoerus grypus</i>	Grey seal	Field Observation	10/11/1993		Considered Correct		Mammals Pembrokeshire

Grid Ref	Scientific Name	Common Name	Record Type	Record Date	Abundance	Verification Level	Location Name	Survey Name
SM851033	<i>Halichoerus grypus</i>	Grey seal	Field Observation	24/04/1994		Considered Correct		Mammals Pembrokeshire
SM873026	<i>Halichoerus grypus</i>	Grey seal	Field Observation	27/06/1994		Considered Correct		Mammals Pembrokeshire
SM857067	<i>Halichoerus grypus</i>	Grey seal	Field Observation	20/08/1994	1 Count of dead	Considered Correct		Mammals Pembrokeshire
SM870028	<i>Halichoerus grypus</i>	Grey seal	Field Observation	29/11/1994		Considered Correct		Mammals Pembrokeshire
SM871034	<i>Halichoerus grypus</i>	Grey seal	Field Observation	08/12/1994		Considered Correct		Mammals Pembrokeshire
SM874032	<i>Halichoerus grypus</i>	Grey seal	Field Observation	03/01/1995	1 Count of dead	Considered Correct		Mammals Pembrokeshire
SM849037	<i>Halichoerus grypus</i>	Grey seal	Field Observation	12/01/1995		Considered Correct		Mammals Pembrokeshire
SM850034	<i>Halichoerus grypus</i>	Grey seal	Field Observation	16/02/1995		Considered Correct		Mammals Pembrokeshire
SM8401	<i>Halichoerus grypus</i>	Grey seal	Field Observation	28/06/1995		Considered Correct		Mammals Pembrokeshire
SR8898	<i>Halichoerus grypus</i>	Grey seal	Field Observation	14/03/1998		Considered Correct	SR8898 Great Furzenip 1km sq	Mammals Pembrokeshire
SR8898	<i>Halichoerus grypus</i>	Grey seal	Field Observation	12/12/1998		Considered Correct	SR8898 Great Furzenip 1km sq	Mammals Pembrokeshire
SR8897	<i>Halichoerus grypus</i>	Grey seal	Field Observation	19/12/1998		Considered Correct	SR8897 Bluckspool 1km sq	Mammals Pembrokeshire
SR8898	<i>Halichoerus grypus</i>	Grey seal	Field Observation	13/02/1999		Considered Correct	SR8898 Great Furzenip 1km sq	Mammals Pembrokeshire
SR8897	<i>Halichoerus grypus</i>	Grey seal	Field Observation	13/03/1999		Considered Correct	SR8897 Bluckspool 1km sq	Mammals Pembrokeshire
SR8898	<i>Halichoerus grypus</i>	Grey seal	Field Observation	28/08/1999	1 Count of juvenile	Considered Correct	SR8898 Great Furzenip 1km sq	Mammals Pembrokeshire
SR8897	<i>Halichoerus grypus</i>	Grey seal	Field Observation	02/10/1999	1 Count of juvenile	Considered Correct	SR8897 Bluckspool 1km sq	Mammals Pembrokeshire
SR8897	<i>Halichoerus grypus</i>	Grey seal	Field Observation	02/10/1999	1 Count of juvenile	Considered Correct	SR8897 Bluckspool 1km sq	Mammals Pembrokeshire
SR8897	<i>Halichoerus grypus</i>	Grey seal	Field Observation	13/11/1999		Considered Correct	SR8897 Bluckspool 1km sq	Mammals Pembrokeshire
SR8898	<i>Halichoerus grypus</i>	Grey seal	Field Observation	27/11/1999	1 Count of juvenile	Considered Correct	SR8898 Great Furzenip 1km sq	Mammals Pembrokeshire
SR8898	<i>Halichoerus grypus</i>	Grey seal	Field Observation	16/09/2000		Considered Correct	SR8898 Great Furzenip 1km sq	Mammals Pembrokeshire
SR8897	<i>Halichoerus grypus</i>	Grey seal	Field Observation	23/09/2000	2 Count of Adult	Considered Correct	SR8897 Bluckspool 1km sq	Mammals Pembrokeshire
SR8897	<i>Halichoerus grypus</i>	Grey seal	Field Observation	18/10/2000	1 Count of juvenile	Considered Correct	SR8897 Bluckspool 1km sq	Mammals Pembrokeshire
SR8898	<i>Halichoerus grypus</i>	Grey seal	Field Observation	04/11/2000		Considered Correct	SR8898 Great Furzenip 1km sq	Mammals Pembrokeshire
SR8897	<i>Halichoerus grypus</i>	Grey seal	Field Observation	12/11/2000		Considered Correct	SR8897 Bluckspool 1km sq	Mammals Pembrokeshire
SM9504	<i>Halichoerus grypus</i>	Grey seal	Field Observation	05/07/2010		Considered Correct		Mammals Pembrokeshire
SM8205	<i>Halichoerus grypus</i>	Grey seal	Field Observation	26/02/2011		Considered Correct	Dale Fort 1km sq	Mammals Pembrokeshire
SR89589968	<i>Lutra lutra</i>	European otter	Field Observation	21/08/2014		Considered Correct	Gupton Farm - Fen meadow drainage channel	1. WWBIC Online Import
SM992016	<i>Lutra lutra</i>	European otter	Field Observation	28/06/2016	3 Count	Considered Correct	Pembroke Upper Mill Pond	1. WWBIC Online Import
SM99240159	<i>Lutra lutra</i>	European otter	Field Observation	26/07/2016		Considered Correct	Pembroke Upper Mill Pond	1. WWBIC Online Import
SM99180158	<i>Lutra lutra</i>	European otter	Field Observation	28/09/2016		Considered Correct	Pembroke Upper Mill Pond	1. WWBIC Online Import
SM99250160	<i>Lutra lutra</i>	European otter	Field Observation	18/07/2017	1 Adult Count of female	Considered Correct	Pembroke Upper Mill Pond	1. WWBIC Online Import
SM824051	<i>Lutra lutra</i>	European otter	Field Observation	22/04/2015		Unassessed		iRecord - Other Surveys
SM9801	<i>Lutra lutra</i>	European otter	Field Observation	01/05/2011-08/05/2011		Considered Correct		Mammal Records Pembrokeshire from BTO

Grid Ref	Scientific Name	Common Name	Record Type	Record Date	Abundance	Verification Level	Location Name	Survey Name
SM984021	<i>Lutra lutra</i>	European otter	Field Observation	1995		Considered Correct		Mammals Pembrokeshire
SM8107	<i>Lutra lutra</i>	European otter	Field Observation	2004		Considered Correct	BBS square	Mammals Pembrokeshire
SM8107	<i>Lutra lutra</i>	European otter	Field Observation	2007		Considered Correct	BBS square	Mammals Pembrokeshire
SM813049	<i>Lutra lutra</i>	European otter	Field Observation	2009		Considered Correct	Maryborough Farm	Mammals Pembrokeshire
SM8606	<i>Lutra lutra</i>	European otter	Field Observation	2011		Considered Correct	South Hook	Mammals Pembrokeshire
SN007029	<i>Lutra lutra</i>	European otter	Field Observation	2011		Considered Correct	Park House Cosheston	Mammals Pembrokeshire
SM8307	<i>Lutra lutra</i>	European otter	Field Observation	2013	1 Count	Considered Correct	St Ishmaels	Mammals Pembrokeshire
SM8506	<i>Lutra lutra</i>	European otter	Field Observation	2013	1 Count	Considered Correct	Castle Bay	Mammals Pembrokeshire
SM984016	<i>Lutra lutra</i>	European otter	Field Observation	06/09/1980		Considered Correct		Mammals Pembrokeshire
SM8107	<i>Lutra lutra</i>	European otter	Field Observation	03/04/1986		Considered Correct		Mammals Pembrokeshire
SR8899	<i>Lutra lutra</i>	European otter	Field Observation	08/07/1987		Correct	Freshwater West Burrows	Mammals Pembrokeshire
SM9801	<i>Lutra lutra</i>	European otter	Field Observation	21/11/1990		Considered Correct		Mammals Pembrokeshire
SM837081	<i>Lutra lutra</i>	European otter	Field Observation	01/12/1990	1 Count of dead	Considered Correct		Mammals Pembrokeshire
SM9801	<i>Lutra lutra</i>	European otter	Field Observation	04/01/1991		Considered Correct		Mammals Pembrokeshire
SM984017	<i>Lutra lutra</i>	European otter	Field Observation	10/01/1991		Considered Correct		Mammals Pembrokeshire
SM997017	<i>Lutra lutra</i>	European otter	Field Observation	20/02/1992		Considered Correct		Mammals Pembrokeshire
SM995066	<i>Lutra lutra</i>	European otter	Field Observation	29/02/1992		Considered Correct		Mammals Pembrokeshire
SM9801	<i>Lutra lutra</i>	European otter	Field Observation	18/04/1992		Considered Correct		Mammals Pembrokeshire
SR895995	<i>Lutra lutra</i>	European otter	Field Observation	21/06/1992		Considered Correct		Mammals Pembrokeshire
SN003034	<i>Lutra lutra</i>	European otter	Field Observation	09/09/1992		Considered Correct		Mammals Pembrokeshire
SM9606	<i>Lutra lutra</i>	European otter	Field Observation	01/02/1993		Considered Correct		Mammals Pembrokeshire
SM9801	<i>Lutra lutra</i>	European otter	Field Observation	27/09/1994		Considered Correct		Mammals Pembrokeshire
SM9801	<i>Lutra lutra</i>	European otter	Field Observation	01/02/1996	1 Count of Adult	Considered Correct		Mammals Pembrokeshire
SM864010	<i>Lutra lutra</i>	European otter	Field Observation	03/02/1996		Considered Correct		Mammals Pembrokeshire
SM9401	<i>Lutra lutra</i>	European otter	Field Observation	24/02/1996		Considered Correct		Mammals Pembrokeshire
SM828065	<i>Lutra lutra</i>	European otter	Field Observation	22/11/1997		Considered Correct		Mammals Pembrokeshire
SM9985002950	<i>Lutra lutra</i>	European otter	Field Observation	30/11/2000	1 Count	Considered Correct	SM9902 Slade Cross 1km sq	Mammals Pembrokeshire
SM8407	<i>Lutra lutra</i>	European otter	Field Observation	July 2006	1 Count	Considered Correct	Bicton	Mammals Pembrokeshire
SN0003	<i>Lutra lutra</i>	European otter	Field Observation	26/05/2007		Correct	SN0003	Mammals Pembrokeshire
SN0003	<i>Lutra lutra</i>	European otter	Field Observation	27/05/2007		Correct	SN0003 Cosheston 1km sq	Mammals Pembrokeshire
SN0003	<i>Lutra lutra</i>	European otter	Field Observation	28/05/2007		Correct	Ford near Cosheston	Mammals Pembrokeshire
SM989015	<i>Lutra lutra</i>	European otter	Field Observation	08/09/2007	2 Count	Considered Correct	Pembroke Mill Pond	Mammals Pembrokeshire
SM989015	<i>Lutra lutra</i>	European otter	Field Observation	08/11/2007	1 Count	Considered Correct	Pembroke Mill Pond	Mammals Pembrokeshire
SM9606	<i>Lutra lutra</i>	European otter	Field Observation	18/11/2007		Considered Correct	Westfield Pill	Mammals Pembrokeshire

Grid Ref	Scientific Name	Common Name	Record Type	Record Date	Abundance	Verification Level	Location Name	Survey Name
SM964068	<i>Lutra lutra</i>	European otter	Field Observation	07/01/2008		Considered Correct	Westfield Pill	Mammals Pembrokeshire
SM964068	<i>Lutra lutra</i>	European otter	Field Observation	07/01/2008		Considered Correct	Westfield Pill	Mammals Pembrokeshire
SM9704	<i>Lutra lutra</i>	European otter	Field Observation	14/01/2008		Considered Correct	4 otters seen from Pembroke Ferry Pub going towards the Old Warrior	Mammals Pembrokeshire
SR8897	<i>Lutra lutra</i>	European otter	Field Observation	17/02/2008		Considered Correct	nice set of otter prints on Blucks Pool beach.	Mammals Pembrokeshire
SR8897	<i>Lutra lutra</i>	European otter	Field Observation	17/02/2008		Considered Correct	Blucks Pool beach	Mammals Pembrokeshire
SM822045	<i>Lutra lutra</i>	European otter	Field Observation	13/12/2008		Considered Correct	Watwick Point	Mammals Pembrokeshire
SM8204	<i>Lutra lutra</i>	European otter	Field Observation	09/07/2010		Considered Correct	Watwick Point	Mammals Pembrokeshire
SN007029	<i>Lutra lutra</i>	European otter	Field Observation	01/01/2011	1 Count of present	Considered Correct	Park House Cosheston	Mammals Pembrokeshire
SM9801	<i>Lutra lutra</i>	European otter	Field Observation	01/05/2011	4 Count	Considered Correct	BTO Garden Birdwatch	Mammals Pembrokeshire
SM9801	<i>Lutra lutra</i>	European otter	Field Observation	19/07/2011	1 Count	Considered Correct	Pembroke Middle Pond	Mammals Pembrokeshire
SM989015	<i>Lutra lutra</i>	European otter	Field Observation	09/09/2011	2 Count	Considered Correct	Pembroke Mill Pond	Mammals Pembrokeshire
SM989015	<i>Lutra lutra</i>	European otter	Field Observation	09/11/2011		Considered Correct	Pembroke Mill Pond	Mammals Pembrokeshire
SM9832401654	<i>Lutra lutra</i>	European otter	Field Observation	05/05/2013	1 Count of present	Correct	GPS	Mammals Pembrokeshire
SM842076	<i>Lutra lutra</i>	European otter	Field Observation	09/11/2014	1 Count	Considered Correct	Bicton Reservoirs	Mammals Pembrokeshire
SM9861301501	<i>Lutra lutra</i>	European otter	Field Observation	16/01/2015		Considered Correct	GPS	Mammals Pembrokeshire
SM835074	<i>Lutra lutra</i>	European otter	Field Observation	01/03/2015	1 Count	Considered Correct	St Ishmaels	Mammals Pembrokeshire
SM984021	<i>Lutra lutra</i>	European otter	Field Observation	1990 - 1996	1 Count	Considered Correct	SM9802 King's Wood 1km sq	Mammals Pembrokeshire
SR8999	<i>Lutra lutra</i>	European otter	Field Observation	1990 - 1999	1 Count	Considered Correct	SR8999 Gupton Farm 1km sq	Mammals Pembrokeshire
SM8903	<i>Lutra lutra</i>	European otter	Field Observation	1980 - 1989	1 Count	Considered Correct	SM8903 Fort Popton 1km sq	Mammals Pembrokeshire
SN0011	<i>Lutra lutra</i>	European otter	Field Observation	22/11/1999	1 Count of Adult; 1 Count of juvenile	Considered Correct	SN0011 Picton Point 1km sq	Mammals Pembrokeshire
SN021122	<i>Lutra lutra</i>	European otter	Field Observation	28/11/1994		Considered Correct		Mammals Pembrokeshire
SM8903	<i>Lutra lutra</i>	European otter	Field Observation	1995		Considered Correct		Mammals Pembrokeshire
SN0112	<i>Lutra lutra</i>	European otter	Field Observation	29/12/2011		Considered Correct	Picton Point	Mammals Pembrokeshire
SN0008	<i>Lutra lutra</i>	European otter	Field Observation	14/11/2009		Considered Correct	nr Ferry Cottage	Mammals Pembrokeshire
SN0112	<i>Lutra lutra</i>	European otter	Field Observation	22/11/1999		Considered Correct	Picton Ferry	Mammals Pembrokeshire
SN0011	<i>Lutra lutra</i>	European otter	Field Observation	16/06/2015	1 Count	Considered Correct	Picton Ferry	Mammals Pembrokeshire
SN009046	<i>Lutra lutra</i>	European otter	Field Observation	August 2011	1 Count of Adult	Considered Correct	Rosehill Cottage, Cosheston	Mixed taxa ad-hoc sightings received by WWBIC in 2012
SM87490331	<i>Lutra lutra</i>	European otter	Field Observation	04/09/2012		Considered Correct		Mixed taxa ad-hoc sightings received by WWBIC in 2012

Grid Ref	Scientific Name	Common Name	Record Type	Record Date	Abundance	Verification Level	Location Name	Survey Name
SM987016	<i>Lutra lutra</i>	European otter	Field Observation	09/04/2016	1 Count	Unassessed	Pembroke Millpond	Mixed Taxa Records from PMAG 2016
SM987016	<i>Lutra lutra</i>	European otter	Field Observation	11/06/2016		Unassessed	Pembroke Millpond	Mixed Taxa Records from PMAG 2016
SM987016	<i>Lutra lutra</i>	European otter	Field Observation	13/08/2016	3 Count	Unassessed	Pembroke Millpond	Mixed Taxa Records from PMAG 2016
SM987016	<i>Lutra lutra</i>	European otter	Field Observation	11/01/2017	1 Count	Unassessed	Pembroke Millpond	Mixed Taxa Records from PMAG 2017
SM987016	<i>Lutra lutra</i>	European otter	Field Observation	14/04/2018		Unassessed	Pembroke Millpond	Mixed Taxa Records from PMAG in 2018
SM964066	<i>Lutra lutra</i>	European otter	Field Observation	2009	1 Count of DAFOR	Unassessed	Westfield Pill WTSWW Reserve	Mixed Taxa Records WOYP Westfield Pill 2009
SM818039	<i>Lutra lutra</i>	European otter	Field Observation	05/03/2017	2 Count	Considered Correct	Watwick Bay	Mixed taxa records, 2017, Vaughn Matthews
SM9915601575	<i>Lutra lutra</i>	European otter	Field Observation	15/10/2011	1 Count of Adult; 2 Count of juvenile	Considered Correct	Pembroke Upper Mill Pond	Mixed taxa records, Wildlife Trust Reserves, Pembrokeshire
SM9915601575	<i>Lutra lutra</i>	European otter	Field Observation	18/10/2011	1 Count of Adult	Considered Correct	Pembroke Upper Mill Pond	Mixed taxa records, Wildlife Trust Reserves, Pembrokeshire
SM9606	<i>Lutra lutra</i>	European otter	Field Observation	10/05/2007	1 Count of Adult	Considered Correct	Site name protected	NRW License Return Dataset (NBN Download)
SM968062	<i>Lutra lutra</i>	European otter	Field Observation	10/05/2007	1 Count of Adult	Considered Correct	Not provided	NRW License Return Dataset (NBN Download)
SM823052	<i>Lutra lutra</i>	European otter	Field Observation	06/06/1960	1 Count of SACFORN	Unassessed	Dale Fort Beach	NRW Marine Records
SM8205	<i>Lutra lutra</i>	European otter	Field Observation	06/06/1960	1 Count of SACFORN	Unassessed	Site name protected	NRW Marine Records
SM98350328	<i>Lutra lutra</i>	European otter	Field Observation	14/09/2008		Correct		Otter Road Casualty Project (Cardiff University)
SM98800147	<i>Lutra lutra</i>	European otter	Field Observation	16/05/2011		Correct		Otter Road Casualty Project (Cardiff University)
SN003062	<i>Lutra lutra</i>	European otter	Field Observation	April 2007		Unconfirmed	Roose Ferry	Otter spraint records, Pembrokeshire
SM827063	<i>Lutra lutra</i>	European otter	Field Observation	26/07/2007		Unconfirmed	Monkhaven	Otter spraint records, Pembrokeshire
SM855075	<i>Lutra lutra</i>	European otter	Field Observation	26/07/2007		Unconfirmed	Sandy Haven	Otter spraint records, Pembrokeshire
SM855075	<i>Lutra lutra</i>	European otter	Field Observation	30/09/2007		Unconfirmed	Sandy Haven	Otter spraint records, Pembrokeshire
SM9605	<i>Lutra lutra</i>	European otter	Field Observation	05/10/2007		Unconfirmed	Neyland	Otter spraint records, Pembrokeshire
SM827063	<i>Lutra lutra</i>	European otter	Field Observation	27/10/2007		Unconfirmed	Monkhaven	Otter spraint records, Pembrokeshire
SM855075	<i>Lutra lutra</i>	European otter	Field Observation	27/10/2007		Unconfirmed	Sandy Haven	Otter spraint records, Pembrokeshire
SM9605	<i>Lutra lutra</i>	European otter	Field Observation	04/11/2007		Unconfirmed	Neyland	Otter spraint records, Pembrokeshire
SM827063	<i>Lutra lutra</i>	European otter	Field Observation	27/12/2007		Unconfirmed	Monkhaven	Otter spraint records, Pembrokeshire
SM855075	<i>Lutra lutra</i>	European otter	Field Observation	27/12/2007		Unconfirmed	Sandy Haven	Otter spraint records, Pembrokeshire
SM827063	<i>Lutra lutra</i>	European otter	Field Observation	26/01/2008		Unconfirmed	Monkhaven	Otter spraint records, Pembrokeshire
SM855075	<i>Lutra lutra</i>	European otter	Field Observation	26/01/2008		Unconfirmed	Sandy Haven	Otter spraint records, Pembrokeshire
SM827063	<i>Lutra lutra</i>	European otter	Field Observation	23/02/2008		Unconfirmed	Monkhaven	Otter spraint records, Pembrokeshire
SM855075	<i>Lutra lutra</i>	European otter	Field Observation	23/02/2008		Unconfirmed	Sandy Haven	Otter spraint records, Pembrokeshire
SM9605	<i>Lutra lutra</i>	European otter	Field Observation	13/03/2008		Unconfirmed	Neyland	Otter spraint records, Pembrokeshire
SM9605	<i>Lutra lutra</i>	European otter	Field Observation	25/03/2008		Unconfirmed	Neyland	Otter spraint records, Pembrokeshire
SM9605	<i>Lutra lutra</i>	European otter	Field Observation	29/03/2008		Unconfirmed	Neyland	Otter spraint records, Pembrokeshire

Grid Ref	Scientific Name	Common Name	Record Type	Record Date	Abundance	Verification Level	Location Name	Survey Name
SM827063	<i>Lutra lutra</i>	European otter	Field Observation	29/03/2008		Unconfirmed	Monkhaven	Otter spraint records, Pembrokeshire
SM827063	<i>Lutra lutra</i>	European otter	Field Observation	03/05/2008		Unconfirmed	Monkhaven	Otter spraint records, Pembrokeshire
SM855075	<i>Lutra lutra</i>	European otter	Field Observation	03/05/2008		Unconfirmed	Sandy Haven	Otter spraint records, Pembrokeshire
SM9605	<i>Lutra lutra</i>	European otter	Field Observation	10/05/2008		Unconfirmed	Neyland	Otter spraint records, Pembrokeshire
SM855075	<i>Lutra lutra</i>	European otter	Field Observation	25/05/2008		Unconfirmed	Sandy Haven	Otter spraint records, Pembrokeshire
SM827063	<i>Lutra lutra</i>	European otter	Field Observation	06/06/2008		Unconfirmed	Monkhaven	Otter spraint records, Pembrokeshire
SM9605	<i>Lutra lutra</i>	European otter	Field Observation	05/07/2008		Unconfirmed	Neyland	Otter spraint records, Pembrokeshire
SM996089	<i>Lutra lutra</i>	European otter	Field Observation	05/08/2007		Unconfirmed	Llangwm	Otter spraint records, Pembrokeshire
SM996089	<i>Lutra lutra</i>	European otter	Field Observation	09/08/2007		Unconfirmed	Llangwm	Otter spraint records, Pembrokeshire
SM996089	<i>Lutra lutra</i>	European otter	Field Observation	01/11/2007		Unconfirmed	Llangwm	Otter spraint records, Pembrokeshire
SM996089	<i>Lutra lutra</i>	European otter	Field Observation	10/12/2007		Unconfirmed	Llangwm	Otter spraint records, Pembrokeshire
SM996089	<i>Lutra lutra</i>	European otter	Field Observation	28/01/2008		Unconfirmed	Llangwm	Otter spraint records, Pembrokeshire
SM996089	<i>Lutra lutra</i>	European otter	Field Observation	20/02/2008		Unconfirmed	Llangwm	Otter spraint records, Pembrokeshire
SM996089	<i>Lutra lutra</i>	European otter	Field Observation	13/03/2008		Unconfirmed	Llangwm	Otter spraint records, Pembrokeshire
SM996089	<i>Lutra lutra</i>	European otter	Field Observation	30/03/2008		Unconfirmed	Llangwm	Otter spraint records, Pembrokeshire
SM996089	<i>Lutra lutra</i>	European otter	Field Observation	30/05/2008		Unconfirmed	Llangwm	Otter spraint records, Pembrokeshire
SN008107	<i>Lutra lutra</i>	European otter	Field Observation	24/07/2007		Unconfirmed	Landshipping Quay	Otter spraint records, Pembrokeshire
SN008107	<i>Lutra lutra</i>	European otter	Field Observation	12/08/2007		Unconfirmed	Landshipping Quay	Otter spraint records, Pembrokeshire
SN008107	<i>Lutra lutra</i>	European otter	Field Observation	24/08/2007		Unconfirmed	Landshipping Quay	Otter spraint records, Pembrokeshire
SN008107	<i>Lutra lutra</i>	European otter	Field Observation	14/12/2007		Unconfirmed	Landshipping Quay	Otter spraint records, Pembrokeshire
SN008107	<i>Lutra lutra</i>	European otter	Field Observation	30/01/2008		Unconfirmed	Landshipping Quay	Otter spraint records, Pembrokeshire
SN008107	<i>Lutra lutra</i>	European otter	Field Observation	14/02/2008		Unconfirmed	Landshipping Quay	Otter spraint records, Pembrokeshire
SN008107	<i>Lutra lutra</i>	European otter	Field Observation	18/03/2008		Unconfirmed	Landshipping Quay	Otter spraint records, Pembrokeshire
SN008107	<i>Lutra lutra</i>	European otter	Field Observation	14/04/2008		Unconfirmed	Landshipping Quay	Otter spraint records, Pembrokeshire
SN008107	<i>Lutra lutra</i>	European otter	Field Observation	14/05/2008		Unconfirmed	Landshipping Quay	Otter spraint records, Pembrokeshire
SN008107	<i>Lutra lutra</i>	European otter	Field Observation	29/06/2008		Unconfirmed	Landshipping Quay	Otter spraint records, Pembrokeshire
SM996089	<i>Lutra lutra</i>	European otter	Field Observation	08/02/2008		Unconfirmed	Llangwm	Otter spraint records, Pembrokeshire
SM809035	<i>Lutra lutra</i>	European otter	Field Observation	17/07/2007		Unconfirmed	Mill bay	Otter spraint records, Pembrokeshire
SM809035	<i>Lutra lutra</i>	European otter	Field Observation	18/09/2007		Unconfirmed	Mill bay	Otter spraint records, Pembrokeshire
SM996016	<i>Lutra lutra</i>	European otter	Field Observation	26/09/2009		Unassessed	Pembroke	Otter Survey of Wales 2009-2010
SR885991	<i>Lutra lutra</i>	European otter	Field Observation	26/09/2009		Unassessed	Freshwater West	Otter Survey of Wales 2009-2010
SM857087	<i>Lutra lutra</i>	European otter	Field Observation	26/09/2009		Unassessed	Sandy Haven Pill	Otter Survey of Wales 2009-2010
SN002063	<i>Lutra lutra</i>	European otter	Field Observation	26/09/2009		Unassessed	Ferry Hill at Daugleddau River	Otter Survey of Wales 2009-2010
SM881002	<i>Lutra lutra</i>	European otter	Field Observation	16/11/2015	1 Count of Adult	Unconfirmed	Freshwater West beach, Pembrokeshire. South West Wales	Otters - International Otter Survival Fund

Grid Ref	Scientific Name	Common Name	Record Type	Record Date	Abundance	Verification Level	Location Name	Survey Name
SM8829105367	<i>Lutra lutra</i>	European otter	Field Observation	23/07/2014	1 Count of Adult	Unassessed	Sea at Gelliswick, Pembrokeshire	Otters - International Otter Survival Fund
SM9214004982	<i>Lutra lutra</i>	European otter	Field Observation	14/02/2011		Unassessed	Waterstone Refinery, Tunnel E	Waterston Ecological Survey - AECOM
SM964066	<i>Lutra lutra</i>	European otter	Site Monitoring	1991		Unconfirmed	Westfield Pill	Wildlife Trust Data Mob - Pembs
SM993016	<i>Lutra lutra</i>	European otter	Observation	1995		Unconfirmed	Pembroke Upper Mill Pond	Wildlife Trust Data Mob - Pembs
SM964066	<i>Lutra lutra</i>	European otter	Site Monitoring	1997		Unconfirmed	Westfield Pill	Wildlife Trust Data Mob - Pembs
SM964066	<i>Lutra lutra</i>	European otter	Site Monitoring	1998		Unconfirmed	Westfield Pill	Wildlife Trust Data Mob - Pembs
SM823052	<i>Orcinus orca</i>	Killer whale	Field Observation	06/06/1960	1 Count of SACFORN	Unassessed	Dale Fort Beach	NRW Marine Records
SM818039	<i>Phocoena phocoena</i>	Harbour porpoise	Field Observation	05/03/2017	3 Count	Considered Correct	Watwick Bay	Mixed taxa records, 2017, Vaughn Matthews
SM8448003417	<i>Phocoena phocoena</i>	Harbour porpoise	Field Observation	08/06/2008	1 Count	Unassessed		Sea Trust Small Boat Survey
SR8548198140	<i>Phocoena phocoena</i>	Harbour porpoise	Field Observation	28/09/2014	1 Count	Unassessed		Sea Trust Small Boat Survey
SM8335103744	<i>Phocoena phocoena</i>	Harbour porpoise	Field Observation	23/06/2015	2 Count	Unassessed		Sea Trust Small Boat Survey
SM8020301931	<i>Phocoena phocoena</i>	Harbour porpoise	Field Observation	08/06/2005	2 Count	Unassessed		Sea Trust Small Boat Survey
SM7929802082	<i>Phocoena phocoena</i>	Harbour porpoise	Field Observation	16/06/2010	2 Count	Unassessed		Sea Trust Small Boat Survey
SM8038201794	<i>Phocoena phocoena</i>	Harbour porpoise	Field Observation	10/08/2012	3 Count	Unassessed		Sea Trust Small Boat Survey
SM7978502414	<i>Phocoena phocoena</i>	Harbour porpoise	Field Observation	10/08/2012	1 Count	Unassessed		Sea Trust Small Boat Survey

A.9.1.2 Small vessel transect surveys (Neyland to the Celtic Deep) 2005 - 2015

Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
08/06/2005	Cartlett lady	Common dolphin	10:06	10:16	2					5	3	2	0	51.5655	-5.239833333
08/06/2005	Cartlett lady	Common dolphin	10:18	10:24	2					15				51.55716667	-5.284666667
08/06/2005	Cartlett lady	Common dolphin	10:28	10:36	2					20				51.555	-5.3255
08/06/2005	Cartlett lady	Common dolphin	12:07	12:07	1					30	30	0	0	51.68516667	-5.593
08/06/2005	Cartlett lady	Common dolphin	12:15	12:15	1					8	8	0	0	51.87116667	-5.612
08/06/2005	Cartlett lady	Common dolphin	12:56	13:15	1					100				51.725	-5.641833333
08/06/2005	Cartlett lady	Common dolphin	13:27	13:30	1					5	5	0	0	51.74916667	-5.7115
08/06/2005	Cartlett lady	Common dolphin	13:32	13:40	1					5	3	2	0	51.75633333	-5.722166667
08/06/2005	Cartlett lady	Common dolphin	13:39	13:41	1	5				12	10	2	0	51.76283333	-5.738333333
08/06/2005	Cartlett lady	Common dolphin	15:08	15:13	1	5				40				51.8165	-5.811
08/06/2005	Cartlett lady	Common dolphin	15:14	15:22	2	5				12	12	0	0	51.82933333	-5.801833333
08/06/2005	Cartlett lady	Common dolphin	15:30	15:30	2	5				12	11	1	0	51.838	-5.804333333
08/06/2005	Cartlett lady	Common dolphin	15:49	15:49	2	5				6	6	0	0	51.81016667	-5.7435
08/06/2005	Cartlett lady	Common dolphin	16:07	16:28	2	5				20	10	10	0	51.77	-5.641333333
08/06/2005	Cartlett lady	Common dolphin	16:45	16:45	1					2	2	0	0	51.74166667	-5.598166667
08/06/2005	Cartlett lady	Harbour porpoise	17:20	17:20	2					1	1	0	0	51.69616667	-5.3705



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
08/06/2005	Cartlett lady	Common dolphin	17:21	17:21	2					8	8	0	0	51.69066667	-5.358833333
08/06/2005	Cartlett lady	Harbour porpoise	17:43	17:43	2					1	1	0	0	51.665	-5.230666667
08/06/2005	Cartlett lady	Harbour porpoise	18:11	18:11	2					2	2	0	0	51.673	-5.180333333
22/06/2005	Cartlett lady	Common dolphin	13:35	13:45	2	6				10				51.65576667	-5.73815
22/06/2005	Cartlett lady	Common dolphin	15:19	15:29	1	6				7				51.47736667	-5.580966667
22/06/2005	Cartlett lady	Risso's dolphin	15:44	16:23	1	6				12	9	0	3	51.48036667	-5.4919
16/07/2005	Cartlett lady	Jellyfish	10:03	10:03						1				51.69851667	-5.22515
16/07/2005	Cartlett lady	Harbour porpoise	10:06	10:06						1	1	0	0	51.71281667	-5.265483333
16/07/2005	Cartlett lady	Harbour porpoise	10:16							4				51.7412	-5.322783333
16/07/2005	Cartlett lady	Harbour porpoise	10:18							3				51.74725	-5.32255
16/07/2005	Cartlett lady	Harbour porpoise	10:20							2				51.7577	-5.33765
16/07/2005	Cartlett lady	Harbour porpoise	10:21							2				51.76078333	-5.342183333
16/07/2005	Cartlett lady	Harbour porpoise	10:23							1				51.76766667	-5.34865
16/07/2005	Cartlett lady	Common dolphin	10:30							30	15	8	7	51.80316667	-5.3398
16/07/2005	Cartlett lady	Seal	10:34							1				51.8046	-5.37435
16/07/2005	Cartlett lady	Harbour porpoise	10:56							1				51.8693	-5.455033333
16/07/2005	Cartlett lady	Harbour porpoise	10:57							1				51.87306667	-5.459
16/07/2005	Cartlett lady	Seal	11:33							1				51.97811667	-5.649066667
16/07/2005	Cartlett lady	Common dolphin	11:44											51.94641667	-5.676266667
16/07/2005	Cartlett lady	Common dolphin	13:03							500	250	150	100	51.9782	-5.632366667
16/07/2005	Cartlett lady	Common dolphin	13:50							8				51.92143333	-5.752816667
16/07/2005	Cartlett lady	Common dolphin	14:10							10	10	0	0	51.92478333	-5.757933333
16/07/2005	Cartlett lady	Common dolphin	14:11							40	20	20	0	51.92368333	-5.76025
16/07/2005	Cartlett lady	Common dolphin	14:19											51.91743333	-5.78555
16/07/2005	Cartlett lady	Common dolphin	14:45							19				51.89705	-5.848383333
16/07/2005	Cartlett lady	Common dolphin	14:47							15	15	0	0	51.89773333	-5.856933333
16/07/2005	Cartlett lady	Common dolphin	14:52							8	7	1	0	51.89695	-5.3705
16/07/2005	Cartlett lady	Common dolphin	15:08							4	3	1	0	51.89925	-5.924983333
16/07/2005	Cartlett lady	Common dolphin	15:09							30	20	9	1	51.89991667	-5.9299
16/07/2005	Cartlett lady	Sunfish	15:25							1	1	0	0	51.88456667	-5.927416667
16/07/2005	Cartlett lady	Common dolphin	15:30											51.88433333	-5.925966667
16/07/2005	Cartlett lady	Common dolphin	15:41											51.849	-5.867
16/07/2005	Cartlett lady	Common dolphin	15:47							6				51.83481667	-5.86
16/07/2005	Cartlett lady	Common dolphin	15:50							6				51.82641667	-5.698216667
16/07/2005	Cartlett lady	Common dolphin	15:58							6				51.81898333	-5.8514
16/07/2005	Cartlett lady	Common dolphin	15:59	16:02						4	3	1	0	51.81661667	-5.845333333



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
16/07/2005	Cartlett lady	Common dolphin	16:05	16:11						6				51.80925	-5.82135
16/07/2005	Cartlett lady	Common dolphin	16:13							15	8	6	1	51.80436667	-5.799083333
16/07/2005	Cartlett lady	Common dolphin	16:15							6	6	0	0	51.80283333	-5.799816667
16/07/2005	Cartlett lady	Common dolphin	16:27							1	1	0	0	51.79581667	-5.982333333
16/07/2005	Cartlett lady	Common dolphin	16:30							6				51.79441667	-5.75635
16/07/2005	Cartlett lady	Common dolphin	16:32											51.79275	-5.743533333
16/07/2005	Cartlett lady	Common dolphin	16:35							1	1	0	0	51.79011667	-5.72345
16/07/2005	Cartlett lady	Common dolphin	16:41							5	0	5	0	51.78505	-5.7041
16/07/2005	Cartlett lady	Harbour porpoise	17:12											51.73296667	-5.506016667
16/07/2005	Cartlett lady	Seal	17:15							1				51.7329	-5.485116667
17/07/2005	Cartlett lady	Harbour porpoise	10:10	10:11	1	6				1				51.67996667	-5.325333333
17/07/2005	Cartlett lady	Harbour porpoise	10:12	10:12	1	6				1				51.68001667	-5.334333333
17/07/2005	Cartlett lady	Harbour porpoise	11:00	11:00	1	6				2				51.73758333	-5.614816667
17/07/2005	Cartlett lady	Common dolphin	11:25	11:40	1	6				15	11	3	1	51.77338333	-5.60485
17/07/2005	Cartlett lady	Common dolphin	12:08	12:25	1	6				10	8	2	0	51.75116667	-5.786833333
17/07/2005	Cartlett lady	Common dolphin	12:56	13:18	1	6				20	18	2	0	51.68763333	-5.839866667
17/07/2005	Cartlett lady	Common dolphin	13:25	13:28	1	6				6				51.6992	-5.8221
17/07/2005	Cartlett lady	Harbour porpoise	13:28	13:29	1	6				2				51.7007	-5.8244
17/07/2005	Cartlett lady	Common dolphin	13:36	14:06	1	6				500				51.6888	-5.820383333
17/07/2005	Cartlett lady	Sunfish	14:00	14:02	1	6				1				51.70625	-5.785416667
17/07/2005	Cartlett lady	Common dolphin	14:11	14:27	1	6				15				51.70525	-5.757183333
17/07/2005	Cartlett lady	Harbour porpoise	14:31	14:31	1	6				1				51.70333333	-5.72405
31/07/2005	Cartlett lady	Harbour porpoise	11:20	11:20	1	4				2	1	0	1	51.70215	-5.309716667
31/07/2005	Cartlett lady	Harbour porpoise	11:28	11:30	1	5				5	3	0	2	51.69451667	-5.3514
31/07/2005	Cartlett lady	Harbour porpoise	11:35	11:37	1	5				1	1	0	0	51.67741667	-5.353516667
31/07/2005	Cartlett lady	Sunfish	13:15	13:15	2	5				1				51.65286667	-5.71745
31/07/2005	Cartlett lady	Common dolphin	14:51	14:57	1	5				20	14	4	2	51.46093333	-5.52875
31/07/2005	Cartlett lady	Common dolphin	15:04	15:18	1	5				5	5	0	0	51.464	-5.535266667
31/07/2005	Cartlett lady	Common dolphin	15:20	15:35	1	5				20	14	4	2	51.43035	-5.512683333
31/07/2005	Cartlett lady	Common dolphin	16:18	16:26	2	5				12				51.48933333	-5.382416667
31/07/2005	Cartlett lady	Common dolphin	16:29	17:00	2	5				50	30	0	20	51.4865	-5.400416667
31/07/2005	Cartlett lady	Common dolphin	17:13	17:15	2	5				2				51.49875	-5.3771
31/07/2005	Cartlett lady	Common dolphin	17:19	17:50	2	5				200	100	20	30	51.5173	-5.356316667
31/07/2005	Cartlett lady	Common dolphin	17:54	17:54	2	5				4	0	4	0	51.52306667	-5.35875
31/07/2005	Cartlett lady	Common dolphin	18:19	18:23	2	5				20	10	7	3	51.62933333	-5.245733333
14/06/2006	Cartlett lady	Harbour porpoise	18:44							1				51.54848333	-4.905366667



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
14/06/2006	Cartlett lady	Common dolphin	19:24	20:00						60	35	15	10	51.46716667	-4.992216667
14/06/2006	Cartlett lady	Common dolphin	20:01							1				51.48293333	-4.95185
14/06/2006	Cartlett lady	Harbour porpoise	20:58							1				51.60691667	-5.212783333
05/07/2006	Cartlett lady	Jellyfish	17:07							1				51.65575	-5.199416667
05/07/2006	Cartlett lady	Jellyfish	17:27							1				51.65315	-5.31845
05/07/2006	Cartlett lady	Harbour porpoise	17:38							1	1	0	0	51.66275	-5.438933333
05/07/2006	Cartlett lady	Harbour porpoise	18:02							2	2	0	0	51.70135	-5.618383333
05/07/2006	Cartlett lady	Harbour porpoise	18:08							2	2	0	0	51.71048333	-5.65855
05/07/2006	Cartlett lady	Harbour porpoise	18:24							1	1	0	0	51.71898333	-5.723366667
05/07/2006	Cartlett lady	Common dolphin	18:31							8	6	2	0	51.70351667	-5.761883333
05/07/2006	Cartlett lady	Common dolphin	18:33							7	1	6	0	51.73698333	-5.768533333
05/07/2006	Cartlett lady	Common dolphin	18:36							5	5	0	0	51.7356	-5.78585
05/07/2006	Cartlett lady	Common dolphin	18:43							4	4	0	0	51.7388	-5.793283333
05/07/2006	Cartlett lady	Common dolphin	18:48							6	3	3	0	51.74625	-5.799733333
05/07/2006	Cartlett lady	Common dolphin	18:54											51.74883333	-5.812016667
05/07/2006	Cartlett lady	Common dolphin	18:57							8				51.74803333	-5.822333333
05/07/2006	Cartlett lady	Common dolphin	19:11							100	33	66	1	51.71816667	-5.826216667
05/07/2006	Cartlett lady	Harbour porpoise	19:48							1	1	0	0	51.70246667	-5.756416667
05/07/2006	Cartlett lady	Common dolphin	19:51							2	2	0	0	51.70643333	-5.744933333
05/07/2006	Cartlett lady	Seal	19:53							1				51.70835	-5.739366667
05/07/2006	Cartlett lady	Harbour porpoise	20:10							1				51.73933333	-5.638466667
05/07/2006	Cartlett lady	Harbour porpoise	20:54							1				51.74216667	-5.359216667
05/07/2006	Cartlett lady	Harbour porpoise	21:00							1				51.73523333	-5.326433333
05/07/2006	Cartlett lady	Harbour porpoise	21:01							1				51.73128333	-5.321783333
05/07/2006	Cartlett lady	Harbour porpoise	21:06							2				51.72033333	-5.327266667
05/07/2006	Cartlett lady	Seal	21:12							1				51.70455	-5.247766667
15/09/2006	Cartlett lady	Harbour porpoise	11:05	11:05	2	3		p	200	1				51.64516667	-5.241166667
15/09/2006	Cartlett lady	Common dolphin	12:20	12:20	3	3		s	uts	20				51.61283333	-5.609166667
15/09/2006	Cartlett lady	Common dolphin	14:10	14:10	4	3				15				51.7575	-5.821333333
15/09/2006	Cartlett lady	Common dolphin	14:30	14:30	3	3			uts	10	7	2	1	51.77283333	-5.761
15/09/2006	Cartlett lady	Common dolphin	14:35	14:35	3	3			uts	12				51.77416667	-5.756
15/09/2006	Cartlett lady	Common dolphin	15:21	15:21	3	3			uts	6				51.8085	-5.688833333
15/09/2006	Cartlett lady	Common dolphin	16:21	16:21	3	3			uts	11	9	1	1	51.73416667	-5.495833333
15/09/2006	Cartlett lady	Common dolphin	16:24	16:24	3	3			uts	10				51.7415	-5.5025
22/07/2007	Cartlett lady	Common dolphin	10:35	10:47	5	3			uts	25	10	10	5	51.48733333	-5.287166667
22/07/2007	Cartlett lady	Minke whale	11:30	11:35	5	3			1000	1	1	0	0	51.59433333	-5.418666667



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
22/07/2007	Cartlett lady	Minke whale	11:36	11:38	5	3			100	1	1	0	0	51.605	-5.421833333
05/05/2008	Cartlett lady	Common dolphin	14:22	14:22	2	3		p	uts	70		4	1	51.48516667	-5.434333333
05/05/2008	Cartlett lady	Common dolphin	15:36	15:36	1	3			uts	12	9	3	0	51.543	-5.308833333
07/06/2008	Cartlett lady	Harbour porpoise	12:22	12:22	2	3		s	200	1	1	0	0	51.72366667	-5.2945
07/06/2008	Cartlett lady	Harbour porpoise	12:23	12:23	2	3		p	150	3	3	0	0	51.7245	-5.301666667
07/06/2008	Cartlett lady	Harbour porpoise	12:30	12:30	2	3		s	50	1	1	0	0	51.724333333	-5.314833333
07/06/2008	Cartlett lady	Minke whale	12:48	12:48	2	3		p	100	3	1	1	1	51.72366667	-5.396666667
07/06/2008	Cartlett lady	Harbour porpoise	13:15	13:15	2	3		s	300	1	1	0	0	51.741733333	-5.459916667
07/06/2008	Cartlett lady	Common dolphin	14:15	14:15	1	3			600	50	29	10	1	51.707183333	-5.68895
07/06/2008	Cartlett lady	Common dolphin	15:00	15:00	1	3		s	400	2	2	0	0	51.666333333	-5.566266667
07/06/2008	Cartlett lady	Common dolphin	15:14	15:14	2	3		s	500	4	2	2	0	51.63215	-5.501966667
07/06/2008	Cartlett lady	Harbour porpoise	15:39	15:39	1	3		p	200	2	1	0	1	51.619833333	-5.29135
08/06/2008	Cartlett lady	Harbour porpoise	09:47	09:47	2	3		p	250	1	1	0	0	51.688	-5.1195
08/06/2008	Cartlett lady	Common dolphin	10:04	10:04	2	3		s	600	25	18	5	2	51.62966667	-5.1385
08/06/2008	Cartlett lady	Common dolphin	10:38	10:38	2	3			300	18				51.54081667	-5.12685
08/06/2008	Cartlett lady	Common dolphin	10:52	10:52	2	3			600	8				51.53541667	-5.165283333
08/06/2008	Cartlett lady	Harbour porpoise	11:54	11:54	3	3		s	50	2	2	0	0	51.34766667	-5.227666667
08/06/2008	Cartlett lady	Common dolphin	12:57	12:57	4	3			100	4				51.36156667	-4.989333333
08/06/2008	Cartlett lady	Common dolphin	13:07	13:07	4	3			800	150			20	51.36561667	-5.021866667
08/06/2008	Cartlett lady	Harbour porpoise	15:01	15:01	1	3			50	3	3	0	0	51.6255	-5.153
08/06/2008	Cartlett lady	Harbour porpoise	15:11	15:11	1	3			50	15	14	0	1	51.63966667	-5.145166667
21/09/2008	Cartlett lady	Common dolphin	09:31	09:31	2	2		s	100	7	4	0	3	51.62366667	-5.171333333
21/09/2008	Cartlett lady	Common dolphin	10:00	10:00	2	2		s		50				51.60416667	-5.211166667
21/09/2008	Cartlett lady	Common dolphin	10:59	10:59	3	2		p		20	8	8	4	51.6185	-5.395333333
21/09/2008	Cartlett lady	Common dolphin	11:16	11:16	3	2		p		9	4	4	1	51.659833333	-5.449166667
21/09/2008	Cartlett lady	Common dolphin	12:31	12:31	2	2				10	5	3	2	51.76466667	-5.631166667
21/09/2008	Cartlett lady	Common dolphin	12:39	12:39	2	2				10	5	3	2	51.768	-5.652833333
21/09/2008	Cartlett lady	Common dolphin	13:06	13:06	2	2				10				51.78216667	-5.734833333
21/09/2008	Cartlett lady	Common dolphin	13:57	13:57	2	2				10	3	5	2	51.725	-5.691666667
21/09/2008	Cartlett lady	Common dolphin	14:17	14:17	2	3		s	30	3	3	0	0	51.6935	-5.619833333
21/09/2008	Cartlett lady	Minke whale	14:35	14:35	2	3		s	50	2	2	0	0	51.673333333	-5.526333333
21/09/2008	Cartlett lady	Common dolphin	14:55	14:55	1	3		s	50	20	6	10	4	51.67816667	-5.424666667
21/09/2008	Cartlett lady	Common dolphin	15:04	15:04	1	3			100	40	20	17	3	51.679333333	-5.413
12/10/2008	Cartlett lady	Seal	09:21	09:21	3	3		p	1	1				51.66566667	-5.14
12/10/2008	Cartlett lady	Common dolphin	10:07	10:07	2	1		p	1	7	4	3	0	51.66206667	-5.24725
12/10/2008	Cartlett lady	Common dolphin	11:05	11:05	2	1			50	200			60	51.5207	-5.264716667
12/10/2008	Cartlett lady	Common dolphin	11:43	11:43	2	3			1	45			15	51.5318	-5.221383333
12/10/2008	Cartlett lady	Common dolphin	12:13	12:13	3	3			1	4	3	0	1	51.5313	-5.138616667



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
12/10/2008	Cartlett lady	Common dolphin	12:18	12:18	3	3		p	20	6				51.52243333	-5.134116667
12/10/2008	Cartlett lady	Common dolphin	12:18	12:18	3	3		s	20	10	5	0	5	51.52243333	-5.134116667
12/10/2008	Cartlett lady	Common dolphin	12:32	12:32	3	3			50	2				51.50956667	-5.108333333
12/10/2008	Cartlett lady	Common dolphin	12:34		3	3				20				51.50866667	-5.105416667
12/10/2008	Cartlett lady	Common dolphin	12:48		2	3				2				51.5031	-5.07175
12/10/2008	Cartlett lady	Common dolphin	12:49		2	3				3				51.50303333	-5.069066667
12/10/2008	Cartlett lady	Common dolphin	12:51		2	3				20			5	51.50268333	-5.06135
12/10/2008	Cartlett lady	Common dolphin	13:09		2	3				20			6	51.48675	-5.02295
12/10/2008	Cartlett lady	Common dolphin	13:14		2	3				50			10	51.4803	-5.01505
12/10/2008	Cartlett lady	Common dolphin	13:15		2	3				30			8	51.48013333	-5.1108
12/10/2008	Cartlett lady	Common dolphin	13:29		2	3				20			8	51.47363333	-4.971383333
12/10/2008	Cartlett lady	Common dolphin	13:35	13:35	2	3				30				51.46578333	-4.956
12/10/2008	Cartlett lady	Common dolphin	13:38		2	3				10	5	0	5	51.46623333	-4.947216667
12/10/2008	Cartlett lady	Common dolphin	14:11		2	3				10				51.49748333	-4.888533333
12/10/2008	Cartlett lady	Harbour porpoise	14:36		2	3		p	50	1				51.58968333	-4.947033333
12/10/2008	Cartlett lady	Seal	14:52		2	3				1				51.66305	-5.124616667
28/07/2009	Cartlett lady	Common dolphin	11:05	11:18	3	3		s	200	20				51.57016667	-5.472333333
28/07/2009	Cartlett lady	Common dolphin	11:19	11:26	3	3				30				51.54883333	-5.480666667
28/07/2009	Cartlett lady	Common dolphin	11:29	11:33	3	3				10				51.55533333	-5.491333333
28/07/2009	Cartlett lady	Common dolphin	12:13	12:52	4	3		s		150	90	30	30	51.674	-5.6645
02/08/2009	Cartlett lady	Common dolphin	07:16		2	3		p	200	4	4	0	0	51.65016667	-5.18
02/08/2009	Cartlett lady	Common dolphin	07:23		2	3			uts	6	4	1	1	51.64366667	-5.186333333
02/08/2009	Cartlett lady	Common dolphin	07:39		3	3		s	uts	4	4	0	0	51.62616667	-5.222166667
02/08/2009	Cartlett lady	Common dolphin	07:50		3	3			uts	30	25	5	0	51.62666667	-5.23
02/08/2009	Cartlett lady	Common dolphin	08:00		3	3		s	uts	8	8	0	0	51.633	-5.2425
02/08/2009	Cartlett lady	Common dolphin	08:14		3	3		s	uts	20				51.64	-5.304833333
02/08/2009	Cartlett lady	Common dolphin	09:57		3	3		p	uts	5	3	1	1	51.63016667	-5.3995
02/08/2009	Cartlett lady	Harbour porpoise	10:06		5	3			uts	1	1	0	0	51.713	-5.502333333
02/08/2009	Cartlett lady	Harbour porpoise	10:31		3	3			250	10				51.77166667	-5.563333333
27/09/2009	Cartlett lady	Harbour porpoise	10:23		1	3		p	200	3	3	0	0	51.91916667	-5.329666667
27/09/2009	Cartlett lady	Common dolphin	10:43		1	3		p	300	10	10	0	0	51.94516667	-5.379166667
27/09/2009	Cartlett lady	Risso's dolphin	10:50	10:54	1	3			300	10	8	0	2	51.94733333	-5.415
27/09/2009	Cartlett lady	Harbour porpoise	10:55		2	3		s	100	1	1	0	0	51.9505	-5.418333333
27/09/2009	Cartlett lady	Risso's dolphin	10:56	11:57	2	3			100	25	18	4	3	51.9505	-5.418333333
27/09/2009	Cartlett lady	Harbour porpoise	11:14		1	3			200	1	1	0	0	51.95966667	-5.407
27/09/2009	Cartlett lady	Harbour porpoise	12:56		1	3		s	200	1	1	0	0	52.10716667	-5.428833333
27/09/2009	Cartlett lady	Harbour porpoise	12:59		1	3		p	300	2	2	0	0	52.095	-5.431666667



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
27/09/2009	Cartlett lady	Harbour porpoise	13:37		1	3		s	200	3	3	0	0	51.96633333	-5.422166667
27/09/2009	Cartlett lady	Common dolphin	13:36	13:40	0	3			0	18			3	51.96666667	-5.4145
27/09/2009	Cartlett lady	Common dolphin	13:38	13:43	0	3				15			3	51.968	-5.4115
27/09/2009	Cartlett lady	Common dolphin	13:46	13:49	0	3		p	200	20			2	51.98183333	-5.399166667
27/09/2009	Cartlett lady	Common dolphin	13:52	13:56	0	3				20			6	51.97133333	-5.41333333
27/09/2009	Cartlett lady	Common dolphin	13:58	14:05	0	3				35	27	5	3	51.964	-5.421166667
27/09/2009	Cartlett lady	Unidentified species	14:10		1	3			400	1	1	0	0	51.9295	-5.4185
27/09/2009	Cartlett lady	Harbour porpoise	14:13		1	3		s	300	1	1	0	0	51.91833333	-5.410166667
27/09/2009	Cartlett lady	Harbour porpoise	14:18		1	3		s	200	3	3	0	0	51.90383333	-5.394666667
27/09/2009	Cartlett lady	Harbour porpoise	14:21		1	3		s	200	10	10	0	0	51.903	-5.399
27/09/2009	Cartlett lady	Harbour porpoise	14:29		1	3		s	300	6	5	0	1	51.89683333	-5.4095
27/09/2009	Cartlett lady	Harbour porpoise	14:30		1	3		s	300	5	5	0	0	51.89616667	-5.410833333
27/09/2009	Cartlett lady	Harbour porpoise	14:36		1	3		s	400	3	3	0	0	51.88033333	-5.414333333
27/09/2009	Cartlett lady	Harbour porpoise	15:12		2	3			100	1	1	0	0	51.84333333	-5.440833333
27/09/2009	Cartlett lady	Common dolphin	16:18	16:26	2	3		p	0	18	18	0	0	51.67433333	-5.275833333
17/10/2009	Cartlett lady	Common dolphin	09:25		2	3		s	500	2				51.65033333	-5.139166667
17/10/2009	Cartlett lady	Harbour porpoise	09:45		2	3		s	200	1				51.57783333	-5.147
17/10/2009	Cartlett lady	Common dolphin	10:14	10:33	2	3		s	0	180	100	60	20	51.496	-5.066
17/10/2009	Cartlett lady	Common dolphin	10:30	10:43	2	3		s	0	18	10	6	2	51.49183333	-5.052666667
17/10/2009	Cartlett lady	Common dolphin	10:45	10:58	2	3			0	150	80	50	20	51.48583333	-5.0235
17/10/2009	Cartlett lady	Common dolphin	10:52	10:58	2	3			500	60	40	15	5	51.48383333	-5.013166667
17/10/2009	Cartlett lady	Common dolphin	11:02	11:23	2	3				180	110	50	20	51.47483333	-5.000333333
17/10/2009	Cartlett lady	Common dolphin	11:18	11:27	2	3				160	90	50	20	51.4585	-4.9555
17/10/2009	Cartlett lady	Common dolphin	11:25	11:33	2	3		s	0	50	40	8	2	51.45033333	-4.940333333
17/10/2009	Cartlett lady	Common dolphin	11:35	11:53	2	3		s	0	120	80	30	10	51.434	-4.934
17/10/2009	Cartlett lady	Common dolphin	11:48	11:53	2	3		s	0	50	50	0	0	51.43066667	-4.946833333
17/10/2009	Cartlett lady	Common dolphin	11:48	12:03	2	3		p	400	40				51.431	-4.9465
17/10/2009	Cartlett lady	Common dolphin	11:55	11:59	2	3			200	40	30	10	0	51.42683333	-4.936833333
17/10/2009	Cartlett lady	Common dolphin	12:01	12:33	2	3		s	0	3	3	0	0	51.418	-4.923166667
17/10/2009	Cartlett lady	Common dolphin	12:18	12:33	2	3		s	uts	8	8	0	0	51.43066667	-4.889166667
17/10/2009	Cartlett lady	Common dolphin	12:40	12:44	2	3			uts	25	20	5	0	51.45033333	-4.834666667
17/10/2009	Cartlett lady	Common dolphin	12:45	12:56	2	3		s	uts	12	6	5	1	51.44933333	-4.826166667
17/10/2009	Cartlett lady	Common dolphin	12:50	12:50	2	3		s	600					51.44083333	-4.820833333
17/10/2009	Cartlett lady	Common dolphin	12:58	13:03	2	3			500	30	29	0	1	51.44116667	-4.825
17/10/2009	Cartlett lady	Common dolphin	13:15	13:16	2	3			200	1	1	0	0	51.48133333	-4.840333333
17/10/2009	Cartlett lady	Common dolphin	13:32	13:32	2	3		s	uts	15	10	5	0	51.51233333	-4.871833333
17/10/2009	Cartlett lady	Common dolphin	13:38	13:41	2	3			uts	7	7	0	0	51.51966667	-4.8675
17/10/2009	Cartlett lady	Common dolphin	13:42	13:48	2	3		s	uts	25	15	4	6	51.52583333	-4.8695



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
17/10/2009	Cartlett lady	Common dolphin	13:45	13:48	2	3			uts	10	4	2	4	51.53033333	-4.867833333
17/10/2009	Cartlett lady	Harbour porpoise	14:05	14:05	2	3		s	500	1	1	0	0	51.553	-4.9375
06/06/2010	Cartlett lady	Common dolphin	11:00	11:06	2	3				100				51.705	-5.690833333
06/06/2010	Cartlett lady	Common dolphin	11:14		2	3								51.71316667	-5.701666667
06/06/2010	Cartlett lady	Common dolphin	11:25		2	3								51.721	-5.725166667
06/06/2010	Cartlett lady	Common dolphin	11:34		2	3				200				51.73366667	-5.734833333
06/06/2010	Cartlett lady	Common dolphin	11:39		2	3		p		20				51.74216667	-5.730333333
06/06/2010	Cartlett lady	Common dolphin	11:42		2	3				100				51.7465	-5.720333333
06/06/2010	Cartlett lady	Common dolphin	11:59		2	3								51.77183333	-5.663666667
06/06/2010	Cartlett lady	Harbour porpoise	13:00		2	3				1	1	0	0	51.89233333	-5.420833333
16/06/2010	Cartlett lady	Harbour porpoise	15:40		2	3		p	200	1	1	0	0	51.7215	-5.397666667
16/06/2010	Cartlett lady	Harbour porpoise	15:53		2	3		p	100	1	1	0	0	51.70666667	-5.472833333
16/06/2010	Cartlett lady	Common dolphin	17:03		2	3		p	uts	12	6	6	0	51.71716667	-5.7085
16/06/2010	Cartlett lady	Common dolphin	18:11		1	3				25	24	0	1	51.76716667	-5.541333333
16/06/2010	Cartlett lady	Harbour porpoise	19:21		2	3		s	200	2	2	0	0	51.674	-5.1935
20/06/2010	Cartlett lady	Common dolphin	11:30	11:46	2	3			uts	20	20	0	0	51.72716667	-5.764166667
20/06/2010	Cartlett lady	Common dolphin	11:53		2	3			uts	10	10	0	0	51.72416667	-5.740666667
20/06/2010	Cartlett lady	Common dolphin	12:04		2	3			uts	8	8	0	0	51.72916667	-5.727666667
20/06/2010	Cartlett lady	Common dolphin	12:53		2	3			50	5	4	0	1	51.6805	-5.769
20/06/2010	Cartlett lady	Common dolphin	13:08		2	3		s	100	8	8	0	0	51.68583333	-5.7705
20/06/2010	Cartlett lady	Common dolphin	13:16		2	3		s	50	6	6	0	0	51.67833333	-5.7725
20/06/2010	Cartlett lady	Common dolphin	13:33		2	3			uts	24	21	1	2	51.6765	-5.763666667
20/06/2010	Cartlett lady	Common dolphin	14:00		2	3			uts	62	40	20	2	51.6275	-5.744833333
20/06/2010	Cartlett lady	Common dolphin	15:07		2	3			uts	40	30	10	0	51.344	-5.688666667
20/06/2010	Cartlett lady	Common dolphin	15:25		2	3			uts	8	8	0	0	51.47383333	-5.673166667
17/10/2010	Cartlett lady	Common dolphin	09:31		2	3				1	1	0	0	51.5815	-5.2175
17/10/2010	Cartlett lady	Common dolphin	09:40		2	3		s	uts	35				51.5645	-5.233333333
17/10/2010	Cartlett lady	Common dolphin	10:12		2	3			uts	10				51.53733333	-5.316833333
17/10/2010	Cartlett lady	Common dolphin	10:25		2	3		s	300	5				51.53566667	-5.342
17/10/2010	Cartlett lady	Common dolphin	10:59		2	3			uts	35	32	0	3	51.57066667	-5.414333333
17/10/2010	Cartlett lady	Harbour porpoise	11:06		2	3		s	300	2				51.5865	-5.42
17/10/2010	Cartlett lady	Common dolphin	11:25		2	3			uts	1				51.64483333	-5.442
17/10/2010	Cartlett lady	Harbour porpoise	11:44		2	3		p	50	6				51.68716667	-5.460666667
17/10/2010	Cartlett lady	Harbour porpoise	13:52		2	3		p	400	2				51.874	-5.325
17/10/2010	Cartlett lady	Harbour porpoise	15:13		2	3			10	1				51.67533333	-5.2505
29/05/2014	Cartlett lady	Basking shark	17:11		3	3		s	30	1				51.5369	-5.4112
12/06/2014	Cartlett lady	Common dolphin	13:28		2	3			uts	3	2	0	1	51.4902	-5.3493



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
12/06/2014	Cartlett lady	Common dolphin	13:32		2	3			uts	3	3	0	0	51.4843	-5.3474
12/06/2014	Cartlett lady	Common dolphin	13:48		2	3			uts	8	6	2	0	51.4668	-5.3177
12/06/2014	Cartlett lady	Common dolphin	14:06		1	3			uts	20	10	5	5	51.4301	-5.2979
12/06/2014	Cartlett lady	Minke whale	14:37		0	3			300	1	1	0	0	51.3917	-5.2888
12/06/2014	Cartlett lady	Common dolphin	14:56		0	3			uts	30				51.3919	-5.2981
12/06/2014	Cartlett lady	Common dolphin	15:13		0	3			uts	15				51.4123	-5.2913
12/06/2014	Cartlett lady	Common dolphin	15:39		0	3			uts	12				51.4875	-5.2833
12/06/2014	Cartlett lady	Common dolphin	15:41		0	3			uts	8				51.4954	-5.2807
12/06/2014	Cartlett lady	Dolphin sp.	16:06		1	3		p	600	4				51.5702	-5.2629
12/06/2014	Cartlett lady	Common dolphin	16:33		1	3		s	50	5	5	0	0	51.6488	-5.2809
17/07/2014	Cartlett lady	Common dolphin	12:54		2	3			uts	20				51.5583	-5.3701
17/07/2014	Cartlett lady	Common dolphin	12:58		2	3			uts	6	6	0	0	51.5608	-5.3425
17/07/2014	Cartlett lady	Harbour porpoise	16:01		2	3			30	1	1	0	0	51.6858	-5.2939
17/07/2014	Cartlett lady	Risso's dolphin	16:11		2	3			50	10				51.6633	-5.288
17/07/2014	Cartlett lady	Harbour porpoise	17:07		0	3			60	2	1	0	1	51.6292	-5.1686
04/09/2014	Cartlett lady	Common dolphin	10:33		3	3			uts	20	17	1	2	51.5941	-5.2711
04/09/2014	Cartlett lady	Common dolphin	12:02		4	3			200	5	5	0	0	51.6335	-5.5734
04/09/2014	Cartlett lady	Risso's dolphin	12:36		2	3			100	2	2	0	0	51.6841	-5.6817
04/09/2014	Cartlett lady	Common dolphin	12:50		2	3			uts	35				51.6839	-5.6711
04/09/2014	Cartlett lady	Common dolphin	13:04		3	3			uts	6	6	0	0	51.6979	-5.6928
04/09/2014	Cartlett lady	Common dolphin	13:33		3	3			uts	100				51.7252	-5.7548
04/09/2014	Cartlett lady	Sunfish	14:28		2	3			3	1	1	0	0	51.758	-5.5657
04/09/2014	Cartlett lady	Common dolphin	14:48		2	3			uts	8				51.779	-5.5706
04/09/2014	Cartlett lady	Harbour porpoise	15:24		3	3		s	200	2	1	0	1	51.7371	-5.451
04/09/2014	Cartlett lady	Common dolphin	15:48		2	3			uts	35				51.7152	-5.3502
04/09/2014	Cartlett lady	Common dolphin	16:26		3	3			uts	3	2	0	1	51.6708	-5.1893
28/09/2014	Cartlett lady	Harbour porpoise	08:52		0	3		p	200	1	1	0	0	51.641	-5.1018
28/09/2014	Cartlett lady	Harbour porpoise	09:12		0	3		p		1				51.6002	-4.9935
28/09/2014	Cartlett lady	Harbour porpoise	09:18		0	3				2				51.578	-4.9757
28/09/2014	Cartlett lady	Harbour porpoise	09:29		0	3		s	100	2				51.5347	-4.9419
28/09/2014	Cartlett lady	Dolphin sp.	09:43		0	3			100	5				51.4767	-4.9096
28/09/2014	Cartlett lady	Common dolphin	09:48		0	3		p	200	1				51.4752	-4.9024
28/09/2014	Cartlett lady	Common dolphin	10:06		0	3		p	200	3				51.4402	-4.8715
28/09/2014	Cartlett lady	Common dolphin	10:17		0	3		s	300	3				51.4309	-4.8424
28/09/2014	Cartlett lady	Common dolphin	10:21		0	3		s	700	20				51.4251	-4.8461
28/09/2014	Cartlett lady	Harbour porpoise	10:50		0	3		s	100	2				51.3474	-4.8527
28/09/2014	Cartlett lady	Common dolphin	11:30		0	3				100				51.2307	-4.7063



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
28/09/2014	Cartlett lady	Common dolphin	12:39		1	3			50	20	10	0	10	51.1912	-4.7393
28/09/2014	Cartlett lady	Harbour porpoise	12:57		1	3		p	50	2	2	0	0	51.2003	-4.8183
28/09/2014	Cartlett lady	Harbour porpoise	13:01		1	3			50	2	2	0	0	51.2053	-4.8459
28/09/2014	Cartlett lady	Common dolphin	13:15		1	3				150				51.226	-4.9354
28/09/2014	Cartlett lady	Common dolphin	13:45		1	3		p	100	50				51.2599	-5.0389
28/09/2014	Cartlett lady	Common dolphin	13:50		1	3			500	60				51.2582	-5.0703
28/09/2014	Cartlett lady	Common dolphin	14:04		1	3			100	2				51.2795	-5.1103
28/09/2014	Cartlett lady	Common dolphin	14:30		1	3			800	213				51.3506	-5.1266
28/09/2014	Cartlett lady	Common dolphin	14:42		1	3		s	100	20				51.3609	-5.1463
28/09/2014	Cartlett lady	Common dolphin	14:45		1	3		s	500	40				51.3674	-5.1507
28/09/2014	Cartlett lady	Common dolphin	14:48		1	3			1000	100				51.3743	-5.1533
28/09/2014	Cartlett lady	Common dolphin	14:56		1	3		p	300	70				51.3846	-5.1356
28/09/2014	Cartlett lady	Common dolphin	15:03		1	3		p	1100	30				51.3971	-5.1374
28/09/2014	Cartlett lady	Common dolphin	15:05		2	3			300	10				51.4062	-5.1449
28/09/2014	Cartlett lady	Common dolphin	15:14		2	3			10	50				51.4331	-5.1529
28/09/2014	Cartlett lady	Common dolphin	15:18		3	3			20	30				51.4456	-5.1516
28/09/2014	Cartlett lady	Common dolphin	15:20		2	3				80				51.451	-5.1562
28/09/2014	Cartlett lady	Common dolphin	15:32		2	3				30				51.4905	-5.1573
28/09/2014	Cartlett lady	Harbour porpoise	15:32		2	3			20	3	2	0	1	51.4905	-5.1573
28/09/2014	Cartlett lady	Common dolphin	15:41		3	3			3	3				51.5021	-5.1522
28/09/2014	Cartlett lady	Common dolphin	15:48		3	3				30				51.5242	-5.1467
02/10/2014	Cartlett lady	Common dolphin	10:22		3	3			uts	28				51.5873	-5.1579
02/10/2014	Cartlett lady	Common dolphin	10:38		3	3			uts	600				51.5401	-5.1554
02/10/2014	Cartlett lady	Common dolphin	11:18		3	3		p	30	4	3	1	0	51.5211	-5.2463
02/10/2014	Cartlett lady	Common dolphin	11:20		3	3			uts	300				51.5144	-5.2544
02/10/2014	Cartlett lady	Common dolphin	12:12		2	3			uts	30				51.4659	-5.3146
02/10/2014	Cartlett lady	Common dolphin	12:28		2	3			uts	6				51.4708	-5.387
02/10/2014	Cartlett lady	Common dolphin	12:35		2	3			uts	18				51.4783	-5.4055
02/10/2014	Cartlett lady	Common dolphin	12:42		2	3		s	200	20				51.4841	-5.4287
02/10/2014	Cartlett lady	Common dolphin	12:47		2	3			uts	15				51.496	-5.4439
02/10/2014	Cartlett lady	Common dolphin	12:51		2	3			uts	25				51.5017	-5.4546
02/10/2014	Cartlett lady	Common dolphin	12:58		2	3			uts	3	3	0	0	51.5077	-5.477
02/10/2014	Cartlett lady	Common dolphin	14:00		3	3		p	400	10	10	0	0	51.6001	-5.4644
02/10/2014	Cartlett lady	Common dolphin	14:08		3	3			uts	8				51.6221	-5.4265
02/10/2014	Cartlett lady	Common dolphin	14:12		3	3		s	300	10				51.6344	-5.4022
02/07/2015	Cartlett lady	Common dolphin	11:10		2	3			uts	21	20	0	1	51.6268	-5.5009
02/07/2015	Cartlett lady	Common dolphin	11:18		2	3			uts	30	30	0	0	51.6253	-5.5031



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
02/07/2015	Cartlett lady	Common dolphin	12:30		2	3			uts	23	20	2	1	51.7106	-5.7114
02/07/2015	Cartlett lady	Harbour porpoise	13:18		2	3		s	100	1	1	0	0	51.7355	-5.5146
30/08/2015	Cartlett lady	Common dolphin	11:53		2	3		p	250	4	3	0	1	51.63575	-5.506333333
30/08/2015	Cartlett lady	Common dolphin	11:56		2	3			200	3	3	0	0	51.64375	-5.508666667
30/08/2015	Cartlett lady	Common dolphin	12:06		2	3		p	150	4	4	0	0	51.64181667	-5.555033333
30/08/2015	Cartlett lady	Common dolphin	12:34		1	3		p	150	3	3	0	0	51.64786667	-5.700916667
30/08/2015	Cartlett lady	Common dolphin	12:44		1	3		s	150	2	2	0	0	51.63108333	-5.75105
30/08/2015	Cartlett lady	Common dolphin	12:58		1	3		p	400					51.6063	-5.755233333
30/08/2015	Cartlett lady	Common dolphin	13:07		1	3		p	150	3	3	0	0	51.60048333	-5.750066667
30/08/2015	Cartlett lady	Common dolphin	13:08		1	3		s	300	5	5	0	0	51.60003333	-5.747283333
30/08/2015	Cartlett lady	Common dolphin	13:17		1	3		s	150	17	15	2	0	51.58561667	-5.75055
30/08/2015	Cartlett lady	Common dolphin	14:01		1	3		p	1	4	4	0	0	51.52883333	-5.85485
30/08/2015	Cartlett lady	Common dolphin	14:04		1	3		s	100	5	5	0	0	51.5323	-5.856083333
30/08/2015	Cartlett lady	Common dolphin	14:15		1	3		p	150	3	3	0	0	51.5272	-5.82905
30/08/2015	Cartlett lady	Common dolphin	14:17		1	3			150	1	1	0	0	51.5269	-5.821066667
30/08/2015	Cartlett lady	Common dolphin	14:23		2	3		p	50	8	8	0	0	51.52595	-5.787883333
30/08/2015	Cartlett lady	Common dolphin	14:25		2	3		p	200	2	2	0	0	51.52806667	-5.775316667
30/08/2015	Cartlett lady	Common dolphin	14:35		2	3		s	250	5	5	0	0	51.53078333	-5.7269
30/08/2015	Cartlett lady	Blue shark	14:41		2	3		p	100	1				51.5306	-5.718083333
30/08/2015	Cartlett lady	Common dolphin	14:44		2	3		p	100	6	4	0	2	51.53111667	-5.714133333
30/08/2015	Cartlett lady	Common dolphin	14:58		2	3		p	200	20	15	0	5	51.53756667	-5.658683333
30/08/2015	Cartlett lady	Common dolphin	15:19		2	3			300	12	10	0	2	51.54525	-5.569466667
30/08/2015	Cartlett lady	Common dolphin	15:29		2	3		s	150	10	7	0	3	51.53921667	-5.532616667
30/08/2015	Cartlett lady	Common dolphin	15:31		2	3			50	12	9	0	3	51.54006667	-5.52505
30/08/2015	Cartlett lady	Common dolphin	15:34		2	3		s	150	8	6	0	2	51.5412	-5.516066667
30/08/2015	Cartlett lady	Common dolphin	15:35		2	3			50	10	8	0	2	51.54218333	-5.509266667
30/08/2015	Cartlett lady	Common dolphin	15:40		2	3		s	150	3	3	0	0	51.54488333	-5.492683333
30/08/2015	Cartlett lady	Common dolphin	16:04		1	3		s	300	15				51.60048333	-5.331783333
30/08/2015	Cartlett lady	Harbour porpoise	16:20		1	3		s	300	1	1	0	0	51.60966667	-5.28665
30/08/2015	Cartlett lady	Harbour porpoise	16:25		1	3		p	200	2	2	0	0	51.62123333	-5.26165
06/09/2015	Cartlett lady	Common dolphin	11:00		2	3		s	30	1				51.6315	-5.13733
06/09/2015	Cartlett lady	Common dolphin	11:10		2	3		p	40	1	1	0	0	51.5965	-5.1381
06/09/2015	Cartlett lady	Common dolphin	11:15		2	3		p	40	4	2	2	0	51.5583	-5.1401
06/09/2015	Cartlett lady	Common dolphin	11:25		2	3		p	10	10	5	0	5	51.541	-5.132
06/09/2015	Cartlett lady	Common dolphin	11:30		2	3		p	5	1	1	0	0	51.5362	-5.1295
06/09/2015	Cartlett lady	Common dolphin	11:30		2	3		p	80	2	2	0	0	51.5336	-5.1293
06/09/2015	Cartlett lady	Common dolphin	11:30		2	3		p	5	1	1	0	0	51.5312	-5.1282
06/09/2015	Cartlett lady	Common dolphin	11:30		2	3		p	5	9	4	3	2	51.5281	-5.1262
06/09/2015	Cartlett lady	Common dolphin	11:40		2	3		s	60	1	1	0	0	51.5125	-5.1217



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
08/10/2015	Cartlett lady	Common dolphin	10:49		3	3			uts	10	6	2	2	51.5587	-5.3152
08/10/2015	Cartlett lady	Common dolphin	11:04		2	3			uts	10				51.562	-5.3453
08/10/2015	Cartlett lady	Common dolphin	11:17		3	3			uts	35				51.5558	-5.3487
08/10/2015	Cartlett lady	Common dolphin	11:44		2	3			uts	4				51.5454	-5.3932
08/10/2015	Cartlett lady	Common dolphin	11:49		2	3			uts	500	400	50	50	51.55058	-5.4002
08/10/2015	Cartlett lady	Common dolphin	12:16		2	3			uts	5	5	0	0	51.5741	-5.3941
08/10/2015	Cartlett lady	Common dolphin	12:43		2	3			uts	8				51.6608	-5.43883
08/10/2015	Cartlett lady	Harbour porpoise	14:09		3	3			60	1	1	0	0	51.8044	-5.4432
08/10/2015	Cartlett lady	Harbour porpoise	14:40		2	3			100	1	1	0	0	51.75003	-5.31948
08/10/2015	Cartlett lady	Harbour porpoise	14:42		2	3			200	3	2	0	1	51.7486	-5.3173
08/10/2015	Cartlett lady	Harbour porpoise	14:50		1	3			100	8	8	0	0	51.7542	-5.3132
08/10/2015	Cartlett lady	Harbour porpoise	14:58		2	3			150	6	6	0	0	51.7494	-5.292
02/06/2006	Celtic wildcat	Common dolphin	11:18	11:27	1	3				6				51.69601667	-5.61225
02/06/2006	Celtic wildcat	Common dolphin	11:28	11:32	1	3				9	6	2	1	51.70866667	-5.645333333
02/06/2006	Celtic wildcat	Harbour porpoise	12:07	12:07	1	3				2				51.7072	-5.7596
02/06/2006	Celtic wildcat	Grey seal	12:23	12:23	1	3				1				51.67741667	-5.78665
02/06/2006	Celtic wildcat	Harbour porpoise	12:39	12:39	2	3				2				51.65355	-5.819583333
02/06/2006	Celtic wildcat	Grey seal	13:53	13:53	2	3				1				51.55216667	-5.873333333
02/06/2006	Celtic wildcat	Sunfish	15:06	15:09	2	3				2				51.51271667	-5.822333333
02/06/2006	Celtic wildcat	Jellyfish	15:31	15:32	2	3				4				51.54043333	-5.8386
02/06/2006	Celtic wildcat	Common dolphin	15:47	15:58	2	3				1				51.51761667	-5.776833333
02/06/2006	Celtic wildcat	Common dolphin	16:01	16:19	2	3				30	23	4	3	51.52761667	-5.75
02/06/2006	Celtic wildcat	Common dolphin	16:21	16:28	2	3				30	23	4	3	51.55583333	-5.733666667
06/04/2007	Celtic wildcat	Harbour porpoise	10:40		1	3		s	200	1	1	0	0	51.65783333	-5.235
06/04/2007	Celtic wildcat	Common dolphin	12:44		2	1		s	uts	6	2	4	0	51.5085	-5.965833333
06/04/2007	Celtic wildcat	Harbour porpoise	16:14		1	3		s	300	4	4	0	0	51.72533333	-5.32
08/08/2007	Celtic wildcat	Common dolphin	09:18		1	3			uts	7	7	0	0	51.54266667	-5.159333333
08/08/2007	Celtic wildcat	Common dolphin	09:30		1	3		p	500	2	2	0	0	51.53428333	-5.152166667
08/08/2007	Celtic wildcat	Harbour porpoise	09:34		1	3			400	2	2	0	0	51.52566667	-5.155166667
08/08/2007	Celtic wildcat	Harbour porpoise	09:46		1	3			200	2	2	0	0	51.49483333	-5.163333333
08/08/2007	Celtic wildcat	Harbour porpoise	09:48		1	3		p	400	1	1	0	0	51.49	-5.164666667
08/08/2007	Celtic wildcat	Harbour porpoise	09:51		1	3		p	800	3	3	0	0	51.48216667	-5.164333333
08/08/2007	Celtic wildcat	Common dolphin	10:45		1	3		p		2				51.414	-5.165166667
08/08/2007	Celtic wildcat	Harbour porpoise	10:48		1	3		s	250	1	1	0	0	51.40766667	-5.155
08/08/2007	Celtic wildcat	Harbour porpoise	10:48		1	3		p		2	2	0	0	51.40766667	-5.155
08/08/2007	Celtic wildcat	Harbour porpoise	11:29		1	3		s	300	1	1	0	0	51.38733333	-5.135333333
08/08/2007	Celtic wildcat	Harbour porpoise	11:56		1	3		s	300	2	2	0	0	51.42583333	-5.046666667



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
08/08/2007	Celtic wildcat	Harbour porpoise	11:57		1	3		s	400	2	2	0	0	51.42816667	-5.0415
08/08/2007	Celtic wildcat	Common dolphin	12:15		1	3		p	uts	40	25	0	15	51.45433333	-4.979166667
08/08/2007	Celtic wildcat	Harbour porpoise	12:51		1	3		p	400	2	2	0	0	51.48583333	-4.915166667
08/08/2007	Celtic wildcat	Common dolphin	14:10		1	3			200	3	3	0	0	51.57333333	-4.8725
24/08/2007	Celtic wildcat	Common dolphin	10:36		2	3				3				51.52733333	-5.062666667
24/08/2007	Celtic wildcat	Common dolphin	12:40		3			p	100	45	18	25	2	51.46	-4.751333333
24/08/2007	Celtic wildcat	Common dolphin	15:07		3	3			50	1				51.5665	-4.952
24/08/2007	Celtic wildcat	Sunfish	15:12		3	3				1				51.54316667	-4.9635
24/08/2007	Celtic wildcat	Harbour porpoise	15:29		3	3				1				51.5305	-4.985666667
24/08/2007	Celtic wildcat	Harbour porpoise	15:40		3	3				2				51.51616667	-5.025666667
27/08/2007	Celtic wildcat	Harbour porpoise	10:10		3	3				1				51.69333333	-5.354333333
27/08/2007	Celtic wildcat	Common dolphin	11:00		3	3				25	14	5	6	51.72116667	-5.584833333
27/08/2007	Celtic wildcat	Sunfish	13:07		3	3				1				51.52716667	-5.907166667
27/08/2007	Celtic wildcat	Sunfish	14:08		4	3				1				51.5315	-5.849666667
27/08/2007	Celtic wildcat	Fin whale	14:55		4	3				1				51.57433333	-5.7765
27/08/2007	Celtic wildcat	Common dolphin	15:40		4	5				2				51.641	-5.735833333
27/08/2007	Celtic wildcat	Common dolphin	16:10		4	3				2				51.69416667	-5.68
27/08/2007	Celtic wildcat	Harbour porpoise	16:19		4	3				2				51.702	-5.674666667
09/04/2008	Celtic wildcat	Harbour porpoise	11:59		2	3		s	60	2	2	0	0	51.4495	-4.9035
09/04/2008	Celtic wildcat	Harbour porpoise	12:20		2	3		s	65	1	1	0	0	51.44033333	-4.867166667
28/07/2008	Celtic wildcat	Harbour porpoise	09:33		2	3		p	uts	1				51.7335	-5.470166667
28/07/2008	Celtic wildcat	Common dolphin	10:24		2	3			uts	12	9	0	3	51.72216667	-5.686
28/07/2008	Celtic wildcat	Common dolphin	11:28		3	3			uts	500				51.64516667	-5.812333333
28/07/2008	Celtic wildcat	Common dolphin	12:35		2	3			uts	45				51.5955	-5.8575
28/07/2008	Celtic wildcat	Harbour porpoise	13:06		3	2		p	60	1				51.53566667	-5.809666667
28/07/2008	Celtic wildcat	Common dolphin	14:44		3	3		p	uts	6				51.621	-5.5025
28/07/2008	Celtic wildcat	Common dolphin	15:23		2	3				25	24	0	1	51.63616667	-5.394
19/08/2008	Celtic wildcat	Grey seal	09:44		2	3		s	100	1	1	0	0	51.51416667	-5.141166667
19/08/2008	Celtic wildcat	Common dolphin	10:02		2	3		s	uts	7	2	5	0	51.49183333	-5.137333333
19/08/2008	Celtic wildcat	Common dolphin	10:14		2	3		s	uts	8	3	3	2	51.47466667	-5.154333333
19/08/2008	Celtic wildcat	Common dolphin	11:01		2	3		p	200	6				51.42066667	-5.109666667
19/08/2008	Celtic wildcat	Common dolphin	11:41		2	3		s	200	3	3	0	0	51.36566667	-5.043666667
19/08/2008	Celtic wildcat	Common dolphin	11:46		2	3		p	uts	25	16	5	4	51.35733333	-5.038666667
19/08/2008	Celtic wildcat	Sunfish	12:25		2	3			uts	1				51.36933333	-4.996666667
19/09/2008	Celtic wildcat	Common dolphin	12:57		2	3			300	40	20	15	5	51.38266667	-4.952833333
19/09/2008	Celtic wildcat	Common dolphin	13:26		2	3				15	4	5	6	51.39383333	-4.931166667
19/09/2008	Celtic wildcat	Common dolphin	13:31		2	3				15	10	5	0	51.39033333	-4.923

Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
19/09/2008	Celtic wildcat	Common dolphin	14:30		2	3		s	100	2	2	0	0	51.419	-4.771333333
19/09/2008	Celtic wildcat	Grey seal	14:55		2	3		s	100	1				51.49666667	-4.761333333
19/09/2008	Celtic wildcat	Harbour porpoise	15:36		2	3			200	3	2	0	1	51.54533333	-4.9295
19/09/2008	Celtic wildcat	Harbour porpoise	15:44		2	3		p	100	2	1	0	1	51.55516667	-4.943333333
25/09/2008	Celtic wildcat	Harbour porpoise	09:06		2	3		p	75	1	1	0	0	51.63183333	-5.317333333
25/09/2008	Celtic wildcat	Common dolphin	09:25		2	3			uts	50	35	10	5	51.62633333	-5.409666667
25/09/2008	Celtic wildcat	Common dolphin	09:52		3	3			400	20	20	0	0	51.61116667	-5.496166667
25/09/2008	Celtic wildcat	Common dolphin	10:19		3	3			uts	45				51.589	-5.559
25/09/2008	Celtic wildcat	Common dolphin	10:32		2	3			uts	50	30	15	5	51.57866667	-5.5535
25/09/2008	Celtic wildcat	Common dolphin	10:43		2	3			50	12	9	2	1	51.569	-5.587333333
25/09/2008	Celtic wildcat	Common dolphin	11:13		2	3			uts	40	28	10	2	51.56	-5.690833333
25/09/2008	Celtic wildcat	Harbour porpoise	12:41		2	3		s		1	1	0	0	51.71983333	-5.6975
25/09/2008	Celtic wildcat	Harbour porpoise	13:54		1	3			200	1	1	0	0	51.73366667	-5.534833333
25/09/2008	Celtic wildcat	Harbour porpoise	14:33		0	3			70	1	1	0	0	51.72533333	-5.459
25/09/2008	Celtic wildcat	Harbour porpoise	14:37		1	3		p	80	1	1	0	0	51.72483333	-5.4485
19/04/2009	Celtic wildcat	Common dolphin	10:28		4	3			uts	20	18	0	2	51.5855	-5.585
06/07/2009	Celtic wildcat	Harbour porpoise	10:10		2	3			50	1	1	0	0	51.702	-5.441166667
06/07/2009	Celtic wildcat	Common dolphin	11:29		2	3		s	uts	8	7	1	0	51.71183333	-5.608166667
06/07/2009	Celtic wildcat	Common dolphin	12:01		2	3				30	30	0	0	51.728	-5.692166667
06/07/2009	Celtic wildcat	Common dolphin	12:19		2	3				15	15	0	0	51.7115	-5.732166667
06/07/2009	Celtic wildcat	Common dolphin	12:27		2	3			uts	2	2	0	0	51.7075	-5.744333333
06/07/2009	Celtic wildcat	Common dolphin	12:28		2	3			uts	20	20	0	0	51.7075	-5.744333333
06/07/2009	Celtic wildcat	Common dolphin	13:02		2	3				6	6	0	0	51.64083333	-5.798833333
06/07/2009	Celtic wildcat	Fin whale	13:48		2	3			800	3	3	0	0	51.61016667	-5.785333333
16/07/2009	Celtic wildcat	Harbour porpoise	10:36	10:38	2	3		s	100	12	12	0	0	51.72166667	-5.466166667
16/07/2009	Celtic wildcat	Common dolphin	11:10	11:20	2	3			0	40	25	10	5	51.7465	-5.508333333
16/07/2009	Celtic wildcat	Common dolphin	11:30	11:32	2	3		p	0	2	2	0	0	51.743	-5.564833333
16/07/2009	Celtic wildcat	Moon jellyfish	11:42		1	3		s		1				51.742	-5.5975
16/07/2009	Celtic wildcat	Common dolphin	11:48	11:52	1	3		s	0	50	47	0	3	51.74066667	-5.623666667
16/07/2009	Celtic wildcat	Harbour porpoise	14:50		2	3		p	50	6	5	0	1	51.73833333	-5.258833333
13/08/2009	Celtic wildcat	Harbour porpoise	09:30		3	3		p	200	1	1	0	0	51.68783333	-5.344666667
13/08/2009	Celtic wildcat	Harbour porpoise	11:18		2	3		p	200	1	1	0	0	51.72233333	-5.681166667
13/08/2009	Celtic wildcat	Common dolphin	11:28		2	3		s	100	15	15	0	0	51.72516667	-5.710666667
13/08/2009	Celtic wildcat	Common dolphin	11:46		2	3		p	200	3	3	0	0	51.70783333	-5.762166667
13/08/2009	Celtic wildcat	Common dolphin	12:15	12:28	2	3			uts	50	50	0	0	51.70716667	-5.852
13/08/2009	Celtic wildcat	Common dolphin	12:39	13:01	2	3		s	uts	50	50	0	0	51.68333333	-5.814666667
13/08/2009	Celtic wildcat	Common dolphin	13:07	13:10	2	3			uts	10	9	1	0	51.659	-5.8145



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
13/08/2009	Celtic wildcat	Common dolphin	13:16		2	3			uts	15				51.63633333	-5.7905
13/08/2009	Celtic wildcat	Common dolphin	14:47		2	3		s	uts	12	12	0	0	51.61366667	-5.866833333
13/08/2009	Celtic wildcat	Fin whale	14:50	14:55	2	3			200	3	3	0	0	51.598	-5.866333333
13/08/2009	Celtic wildcat	Fin whale	15:00	15:30	2	3			100	3	3	0	0	51.5845	-5.8355
13/08/2009	Celtic wildcat	Common dolphin	15:00	15:33	2	3		p	uts	80	80	0	0	51.5845	-5.8355
13/08/2009	Celtic wildcat	Common dolphin	15:51	15:51	2	3		s	300	14	14	0	0	51.597	-5.719333333
13/08/2009	Celtic wildcat	Common dolphin	15:59	15:59	2	3			uts	6	6	0	0	51.60266667	-5.663666667
13/08/2009	Celtic wildcat	Common dolphin	16:29	16:32	2	3		s	400	20	20	0	0	51.62183333	-5.452333333
19/09/2009	Celtic wildcat	Common dolphin	12:35		2	3		s	5	10	8	2	0	51.4425	-5.082333333
19/09/2009	Celtic wildcat	Common dolphin	12:45		2	3			1	1	1	0	0	51.4095	-5.078666667
19/09/2009	Celtic wildcat	Common dolphin	12:50		2	3			1	25	21	4	0	51.39233333	-5.086333333
19/09/2009	Celtic wildcat	Common dolphin	13:20		2	3			1	6	6	0	0	51.36916667	-5.079833333
19/09/2009	Celtic wildcat	Common dolphin	13:35		2	3			20	12	11	1	0	51.37716667	-4.988666667
19/09/2009	Celtic wildcat	Common dolphin	14:05		2	3			5	5	4	1	0	51.38	-4.840333333
19/09/2009	Celtic wildcat	Common dolphin	14:20		2	3			5	12	12	0	0	51.36583333	-4.7685
19/09/2009	Celtic wildcat	Common dolphin	14:30		2	3			1	15	12	3	0	51.42283333	-4.763166667
19/09/2009	Celtic wildcat	Common dolphin	14:55		2	3		s	100	4	4	0	0	51.46033333	-4.791333333
19/09/2009	Celtic wildcat	Common dolphin	16:40		2	3		p	2	2	1	0	1	51.4795	-4.953
19/09/2009	Celtic wildcat	Common dolphin	16:55		2	3			2	12	8	4	0	51.48833333	-4.976666667
19/09/2009	Celtic wildcat	Common dolphin	17:15		2	3			3	6	6	0	0	51.52466667	-5.026833333
19/09/2009	Celtic wildcat	Common dolphin	17:25		2	3		s	5	12	9	3	0	51.539	-5.042333333
23/09/2009	Celtic wildcat	Harbour porpoise	09:28		2	3		p	300	1	1	0	0	51.63966667	-5.26
23/09/2009	Celtic wildcat	Harbour porpoise	09:37		2	3		p	400	1	1	0	0	51.6225	-5.309166667
23/09/2009	Celtic wildcat	Common dolphin	09:45	09:48	2	3		s	0	20	20	0	0	51.61866667	-5.354333333
23/09/2009	Celtic wildcat	Common dolphin	09:55	10:00	2	3		s	0	30	15	0	15	51.6185	-5.399
23/09/2009	Celtic wildcat	Common dolphin	10:11	10:16	2	3			0	12	8	0	4	51.628	-5.4595
23/09/2009	Celtic wildcat	Common dolphin	10:50	11:00	3	3			0	35	30	0	5	51.572	-5.643166667
23/09/2009	Celtic wildcat	Minke whale	12:35		2	3		s	300	2	2	0	0	51.5435	-5.4705
23/09/2009	Celtic wildcat	Common dolphin	12:56	12:58	2	3		s	50	25	20	0	5	51.54983333	-5.467833333
23/09/2009	Celtic wildcat	Common dolphin	13:12	13:36	2	3			0	20				51.57016667	-5.462166667
23/09/2009	Celtic wildcat	Common dolphin	13:36	13:37	2	3		p	0	12	12	0	0	51.59266667	-5.447333333
23/09/2009	Celtic wildcat	Common dolphin	13:49	13:51	2	3		p	100	12	10	0	2	51.59866667	-5.424333333
23/09/2009	Celtic wildcat	Common dolphin	14:08	14:50	2	3		p	0	15				51.59866667	-5.397
22/07/2010	Celtic wildcat	Common dolphin	10:00		3	3			uts	3	3	0	0	51.691	-5.416333333
22/07/2010	Celtic wildcat	Common dolphin	11:02		4	3		s	uts	10				51.75816667	-5.56
22/07/2010	Celtic wildcat	Common dolphin	13:00		5	3			uts	9				51.56	-5.516666667
02/09/2010	Celtic wildcat	Common dolphin	09:00		3	1		s	0	3	3	0	0	51.67333333	-5.2
02/09/2010	Celtic wildcat	Common dolphin	09:40		3	1		s	0	12	8	4	0	51.6895	-5.338333333

Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
02/09/2010	Celtic wildcat	Common dolphin	10:55		3	1		s	0	20	15	5	0	51.713	-5.6125
02/09/2010	Celtic wildcat	Common dolphin	12:05		3	1		s	100	15	10	5	0	51.66283333	-5.73633333
02/09/2010	Celtic wildcat	Common dolphin	12:15		3	1			0	6	4	2	0	51.65683333	-5.748166667
02/09/2010	Celtic wildcat	Common dolphin	12:26		3	1		s	200	3	3	0	0	51.63616667	-5.762333333
02/09/2010	Celtic wildcat	Common dolphin	13:45		3	1		p	0	6	4	0	2	51.542	-5.617833333
02/09/2010	Celtic wildcat	Common dolphin	13:48		3	1		s	100	6	6	0	0	51.54266667	-5.599166667
02/09/2010	Celtic wildcat	Common dolphin	14:35		3	1		s	0	4	4	0	0	51.62766667	-5.391333333
26/04/2011	Celtic wildcat	Harbour porpoise	09:53		1	3		s	100	5	5	0	0	51.85783333	-5.324166667
26/04/2011	Celtic wildcat	Harbour porpoise	10:41		1	3		p	50	1	1	0	0	51.89633333	-5.393333333
26/04/2011	Celtic wildcat	Unidentified species	10:59		2	3		p	100	1	1	0	0	51.86283333	-5.443
26/04/2011	Celtic wildcat	Unidentified species	11:02		2	3		p	100	1	1	0	0	51.8545	-5.453
26/04/2011	Celtic wildcat	Common dolphin	12:20		2	3			uts	25	20	0	5	51.71166667	-5.732333333
21/07/2011	Celtic wildcat	Risso's dolphin	12:07		3	3			100	6				51.71916667	-5.483166667
21/07/2011	Celtic wildcat	Common dolphin	12:54		3	3		s	uts	22	20	0	2	51.6555	-5.501666667
26/07/2012	Celtic wildcat	Harbour porpoise	09:29		2	3		s	50	5	4	0	1	51.72466667	-5.2975
26/07/2012	Celtic wildcat	Harbour porpoise	10:16		3	3		p	150	1	1	0	0	51.74483333	-5.467333333
26/07/2012	Celtic wildcat	Risso's dolphin	10:54		2	3		p	10	3				51.7465	-5.536666667
26/07/2012	Celtic wildcat	Harbour porpoise	11:52		3	3		p		1	1	0	0	51.72633333	-5.671166667
26/07/2012	Celtic wildcat	Common dolphin	12:07		3	3			0	8	6	0	2	51.73533333	-5.731833333
26/07/2012	Celtic wildcat	Harbour porpoise	12:44		3	3		s	5	3	2	0	1	51.86733333	-5.785666667
26/07/2012	Celtic wildcat	Common dolphin	13:12		3	3			0	25	23	0	2	51.6805	-5.768
26/07/2012	Celtic wildcat	Common dolphin	13:15		2	3			0	12	10	0	2	51.68433333	-5.743
26/07/2012	Celtic wildcat	Common dolphin	13:45		3	3			0	3	3	0	0	51.67583333	-5.6695
26/07/2012	Celtic wildcat	Common dolphin	14:15		3	3				8				51.6575	-5.595833333
10/08/2012	Celtic wildcat	Harbour porpoise	08:50		1	3		s		3				51.67183333	-5.177666667
10/08/2012	Celtic wildcat	Common dolphin	09:36		3	3		p		40	33		7	51.57266667	-5.410666667
10/08/2012	Celtic wildcat	Common dolphin	10:07		2	3				20	16	0	4	51.52583333	-5.577333333
10/08/2012	Celtic wildcat	Common dolphin	10:54		2	3				50				51.47366667	-5.733833333
10/08/2012	Celtic wildcat	Minke whale	11:55		2	3				1				51.50433333	-5.918166667
10/08/2012	Celtic wildcat	Common dolphin	12:21		3	3				3				51.55433333	-5.946666667
10/08/2012	Celtic wildcat	Shark	12:43		3	3				1				51.59566667	-5.937166667
10/08/2012	Celtic wildcat	Common dolphin	13:27		3	3				6				51.67316667	-5.753166667
10/08/2012	Celtic wildcat	Sunfish	13:52		2	3				1				51.71633333	-5.6675
10/08/2012	Celtic wildcat	Harbour porpoise	14:06		1	3				1				51.67716667	-5.186666667
07/09/2012	Celtic wildcat	Common dolphin	10:45		4	3			5	5	5	0	0	51.645	-5.809833333
07/09/2012	Celtic wildcat	Common dolphin	14:30		3	3			2	50	30	20	0	51.46583333	-5.485666667
07/09/2012	Celtic wildcat	Common dolphin	14:45		3	3			2	20	20	0	0	51.47266667	-5.451666667
07/09/2012	Celtic wildcat	Common dolphin	14:55		2	3			2	20	10	10	0	51.48183333	-5.412333333



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
07/09/2012	Celtic wildcat	Common dolphin	15:05		2	3			2	4	4	0	0	51.5	-5.354166667
07/09/2012	Celtic wildcat	Common dolphin	15:20		2	3			2	10	5	5	0	51.506333333	-5.329666667
07/09/2012	Celtic wildcat	Common dolphin	15:30		2	3			2	4	4	0	0	51.511666667	-5.304666667
29/06/2013	Celtic wildcat	Harbour porpoise	09:54		2	3		p	150	2	2	0	0	51.7249	-5.3013
29/06/2013	Celtic wildcat	Harbour porpoise	10:08		2	3		s	400	2	2	0	0	51.7333	-5.3769
29/06/2013	Celtic wildcat	Common dolphin	13:29		3	3			uts	4	4	0	0	51.68501	-5.6261
11/07/2013	Celtic wildcat	Harbour porpoise	09:47		2	3		s	50	10	5	5	0	51.725	-5.3
11/07/2013	Celtic wildcat	Harbour porpoise	10:20		2	3			50	4	4	0	0	51.738	-5.4686
11/07/2013	Celtic wildcat	Common dolphin	14:00		1	3			uts	8	4	4	0	51.4409	-5.6362
11/07/2013	Celtic wildcat	Common dolphin	14:22		1	3			uts	6	6	0	0	51.4271	-5.6134
11/07/2013	Celtic wildcat	Common dolphin	14:35		1	3			uts	4	4	0	0	51.4393	-5.5694
11/07/2013	Celtic wildcat	Minke whale	14:44		1	3			300	1	1	0	0	51.4392	-5.5511
11/07/2013	Celtic wildcat	Common dolphin	14:46		1	3			50	2	2	0	0	51.4385	-5.5506
11/07/2013	Celtic wildcat	Common dolphin	15:14		1	3			uts	1	1	0	0	51.4593	-5.4523
11/07/2013	Celtic wildcat	Minke whale	15:17		1	3			uts	1	1	0	0	51.4637	-5.4487
11/07/2013	Celtic wildcat	Common dolphin	15:36		1	3			uts	200				51.4713	-5.4024
11/07/2013	Celtic wildcat	Common dolphin	15:45		1	3		p	1000	10	10	0	0	51.5007	-5.3602
11/07/2013	Celtic wildcat	Minke whale	15:47		1	3		p	800	2	2	0	0	51.5054	-5.3534
11/07/2013	Celtic wildcat	Common dolphin	15:51		2	3		s	800	6	6	0	0	51.5219	-5.3384
11/07/2013	Celtic wildcat	Common dolphin	15:59		2	3		s	400	20	20	0	0	51.5233	-5.1832
11/07/2013	Celtic wildcat	Common dolphin	16:10		2	3		s	400	5	5	0	0	51.584	-5.2348
20/08/2013	Celtic wildcat	Common dolphin	09:32		3	3			200	7	7	0	0	51.6836	-5.3556
20/08/2013	Celtic wildcat	Common dolphin	11:53		3	3			uts	15				51.3697	-5.4593
20/08/2013	Celtic wildcat	Common dolphin	12:24		4	3			uts	25	25	0	0	51.3307	-5.4821
20/08/2013	Celtic wildcat	Common dolphin	12:31		4	3			uts	12				51.5284	-5.7999
20/08/2013	Celtic wildcat	Common dolphin	12:45		4	3			uts	10	10	0	0	51.4858	-5.7925
20/08/2013	Celtic wildcat	Common dolphin	12:50		4	3			90	8	8	0	0	51.474	-5.7854
20/08/2013	Celtic wildcat	Common dolphin	13:29		4	3			200	8	8	0	0	51.4255	-5.6697
20/08/2013	Celtic wildcat	Common dolphin	13:55		4	3		s	100	2	2	0	0	51.4317	-5.5517
20/08/2013	Celtic wildcat	Common dolphin	15:08		4	3			uts	12				51.5392	-5.2641
20/08/2013	Celtic wildcat	Harbour porpoise	15:29		3	3		p	200	1	1	0	0	51.6075	-5.1949
26/08/2013	Celtic wildcat	Common dolphin	09:18		2	3			uts	15				51.6199	-5.176
26/08/2013	Celtic wildcat	Common dolphin	09:30		2	3			uts	30				51.6101	-5.1521
26/08/2013	Celtic wildcat	Common dolphin	09:48		2	3			uts	8				51.5569	-5.1838
26/08/2013	Celtic wildcat	Common dolphin	09:49		2	3		s	800	12	12	0	0	51.556	-5.1838
26/08/2013	Celtic wildcat	Common dolphin	10:03		2	3			uts	60				51.5383	-5.173
26/08/2013	Celtic wildcat	Common dolphin	10:26		2	3			uts	15				51.541	-5.1855



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
26/08/2013	Celtic wildcat	Common dolphin	10:53		3	3			uts	60				51.4855	-5.2319
26/08/2013	Celtic wildcat	Common dolphin	11:00		3	3			uts	20				51.4733	-5.2459
26/08/2013	Celtic wildcat	Common dolphin	11:40		3	3			uts	12				51.2671	-5.1438
26/08/2013	Celtic wildcat	Common dolphin	11:53		3	3			uts	6				51.2691	-5.111
26/08/2013	Celtic wildcat	Common dolphin	12:02		3	3			uts	2	2	0	0	51.268	-5.093
26/08/2013	Celtic wildcat	Common dolphin	12:09		3	3			uts	4	4	0	0	51.2672	-5.0806
26/08/2013	Celtic wildcat	Common dolphin	12:15		2	3			uts	4	4	0	0	51.2673	-5.0657
26/08/2013	Celtic wildcat	Common dolphin	12:32		2	3			uts	25				51.2786	-5.0311
26/08/2013	Celtic wildcat	Minke whale	12:47		2	3			700	1	1	0	0	51.2789	-5.0372
26/08/2013	Celtic wildcat	Common dolphin	12:47		2	3			1000	7				51.279	-5.037
26/08/2013	Celtic wildcat	Common dolphin	13:00		2	3			uts	12				51.2731	-5.0289
26/08/2013	Celtic wildcat	Common dolphin	13:34		2	3			uts	50				51.2929	-4.5673
26/08/2013	Celtic wildcat	Common dolphin	13:35		2	3			500	80				51.2932	-4.5676
26/08/2013	Celtic wildcat	Minke whale	13:52		2	3			200	1				51.2964	-4.5744
26/08/2013	Celtic wildcat	Common dolphin	14:09		2	3			uts	60				51.2983	-4.5787
26/08/2013	Celtic wildcat	Common dolphin	14:15		2	3			100	10				51.2995	-4.589
26/08/2013	Celtic wildcat	Common dolphin	14:49		2	3			uts	25				51.5225	-5.1026
26/08/2013	Celtic wildcat	Common dolphin	14:52		4	3		s	500	15				51.5311	-5.1104
26/08/2013	Celtic wildcat	Common dolphin	14:54		3	3		p	200	10				51.5353	-5.1159
26/08/2013	Celtic wildcat	Common dolphin	14:59		3	3		p	300	5	5	0	0	51.5442	-5.1294
26/09/2013	Celtic wildcat	Common dolphin	09:27		4	3				12	7	0	5	51.5945	-5.1915
26/09/2013	Celtic wildcat	Harbour porpoise	15:08		4	3		p	150	4	3	0	1	51.7415	-5.2787
23/06/2015	Celtic wildcat	Harbour porpoise	06:54		1	3		p	300	2	1	0	1	51.6905	-5.136
23/06/2015	Celtic wildcat	Common dolphin	08:16		0	3			uts	15				51.5045	-5.6131
23/06/2015	Celtic wildcat	Common dolphin	08:48		1	3			uts	10	10	0	0	51.4751	-5.8216
23/06/2015	Celtic wildcat	Common dolphin	08:55		1	3			uts	3	3	0	0	51.47423	-5.83862
23/06/2015	Celtic wildcat	Common dolphin	08:57		1	3		p	800	10				51.472	-5.85639
23/06/2015	Celtic wildcat	Common dolphin	09:09		0	3			uts	3	3	0	0	51.46509	-5.91061
23/06/2015	Celtic wildcat	Common dolphin	09:43		0	3			1000	10				51.46807	-5.90557
23/06/2015	Celtic wildcat	Common dolphin	09:43		0	3		p	200	15	15	0	0	51.46807	-5.90557
23/06/2015	Celtic wildcat	Common dolphin	10:22		0	3		p	300	10	10	0	0	51.46807	-5.90557
23/06/2015	Celtic wildcat	Common dolphin	11:23		1	3		s	100	8				51.46807	-5.90557
23/06/2015	Celtic wildcat	Common dolphin	11:39		1	3		p	400	10				51.46807	-5.90557
23/06/2015	Celtic wildcat	Common dolphin	13:03		1	3			800	45				51.46807	-5.90557
23/06/2015	Celtic wildcat	Common dolphin	14:28		1	3			uts	25				51.51928	-5.82398
23/06/2015	Celtic wildcat	Common dolphin	15:17		1	3			uts	6	5	0	1	51.53418	-5.75728
23/06/2015	Celtic wildcat	Minke whale	15:28		1	3		s	500	1				51.5433	-5.70568



Date	Boat name	Species	Start time	End time	Sea state	Visibility	Ref No	Angle	Distance	Total numb.	adult	juvenile	calf	Final lat	Final long
23/06/2015	Celtic wildcat	Minke whale	15:54		1	3		s	800	1	1	0	0	51.54737	-5.64371
23/06/2015	Celtic wildcat	Common dolphin	16:17		1	3			uts	20	17	2	1	51.56184	-5.54826
23/06/2015	Celtic wildcat	Common dolphin	16:18		1	3		s	300	20				51.56184	-5.54826
23/06/2015	Celtic wildcat	Common dolphin	16:21		1	3			300	5				51.56641	-5.52139
23/06/2015	Celtic wildcat	Common dolphin	16:25		1	3		s	300	20				51.57125	-5.49533
23/06/2015	Celtic wildcat	Common dolphin	16:32		1	3			uts	120				51.5843	-5.44327
23/06/2015	Celtic wildcat	Minke whale	16:43		1	3		p	800	1				51.606	-5.3672
23/06/2015	Celtic wildcat	Harbour porpoise	17:15		0	3		p	150	2	1	0	1	51.68185	-5.40885



MARINE ENERGY WALES

MARINE ENERGY TEST AREA (META)

Environmental Impact Assessment: Appendices

Appendix 9.2. - UK Cetacean and basking shark
distribution

EOR0730

Marine Energy Test Area

Rev: 02

May 29, 2019

Document Status					
Version	Date	Authored by	Reviewed by	Approved by	Review date
Rev01	03/03/19	LB	RDS	RDS	04/03/19
Rev02	08/05/19	LB	RDS	RDS	08/05/19

Approval for issue		
Jessica Hooper		2019-05-29

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Prepared by:

RPS Energy Ltd.

Prepared for:

Marine Energy Wales

A.9.2.1 UK Basking shark distribution

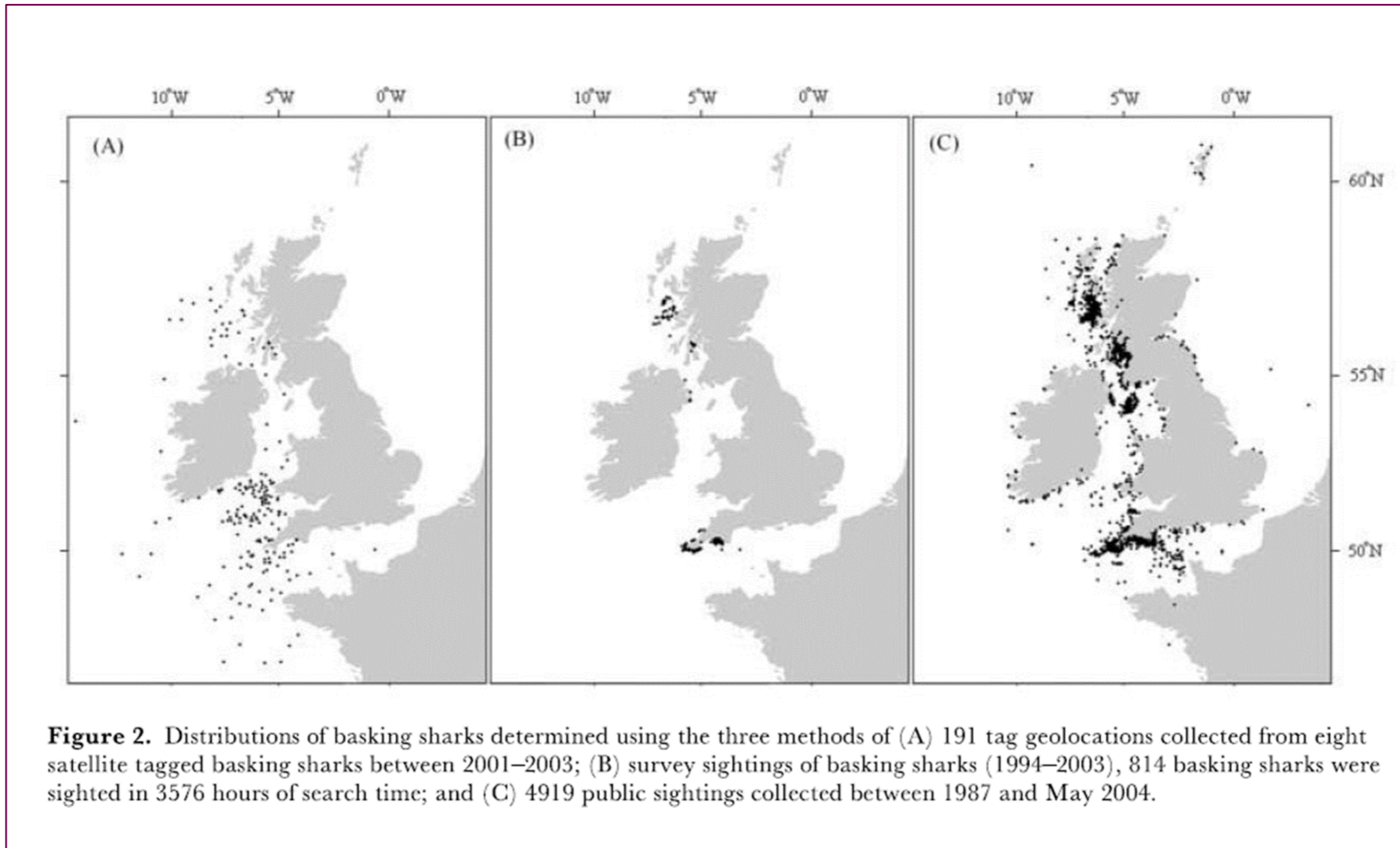


Figure 9.2.1: UK basking shark distribution based on three methods of (A) 191 tag geolocations collected from eight satellite tagged basking sharks 2001-2003; (B) survey sightings of basking sharks (1994-2003); and (C) 4919 public sightings 1987-2004 (Southall *et al.*, 2005)

A.9.2.2. UK Cetacean distribution

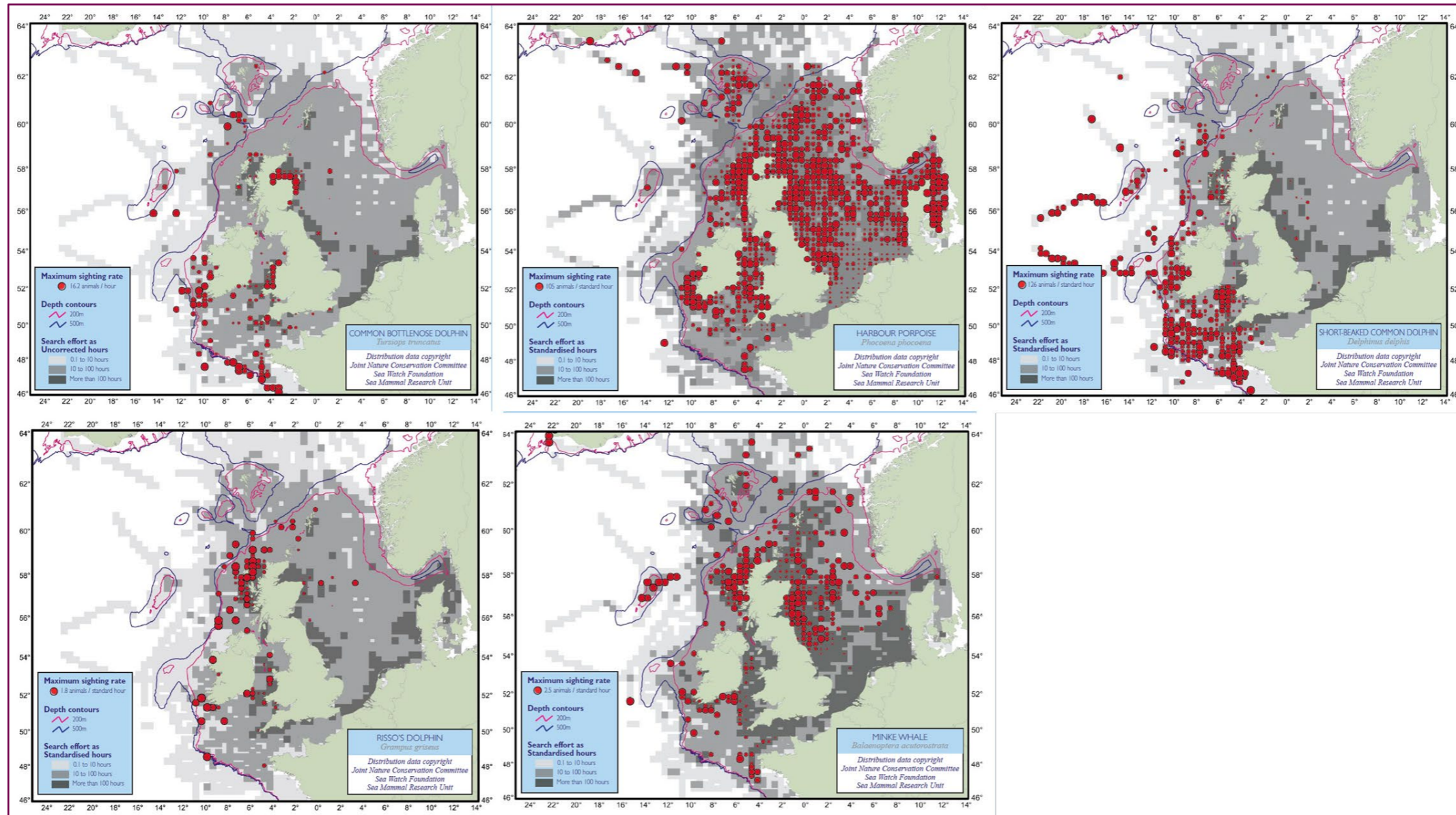


Figure 9.2.2: UK Cetacean distribution based on survey effort for the SCANS III survey (Hammond, 2017).