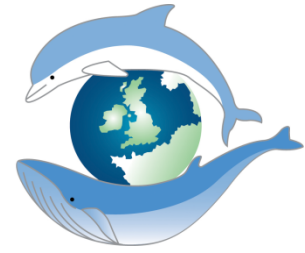


sea watch FOUNDATION



National Whale and Dolphin Watch 2014 Report

26th July to 3rd August 2014



National Whale & Dolphin Watch 2014**Facts and Figures**

- Over 900 hours of observation at over 100 landwatch sites and onboard 13 vessels
- 1150 sightings reported
- 5426 individual animals
- 11 species recorded
- At least 154 dedicated observers and at least 600 participants
- Memorable sightings include... Groups of 100 short-beaked common dolphins off Pembrokeshire and the Isle of Skye, twelve killer whales off the Shetland Isles, five long-finned pilot whales off Glamorgan and a pygmy sperm whale off the Cornish coast.

INTRODUCTION

National Whale and Dolphin Watch (NWDW) is an annual event organised by the Sea Watch Foundation during which members of the public are invited to join organised cetacean watches around the UK. The event aims to raise the profile of British cetaceans while collecting a large amount of data over a concentrated period of time.

NWDW 2014 was successful in achieving both those goals. High levels of public engagement were attained through a combination of excellent media coverage in the run-up to the event; the organisation of a series of training courses and effective collaboration with other organisations (WiSe network, Wildlife Trusts, local Environmental Records Centres and other cetacean charities). A specific mention should be made of the Big Watch Weekend which was organised as part of NWDW 2014 by ORCA and ERIC North-East (Environmental Records and Information Centre North-East) who were particularly successful in harnessing public interest (which is reflected in the data collection) for the second year running. Data collection was just as fruitful over the full nine day period with a significant increase in the volume of data received in 2014 compared to previous years.

Pictured: Risso's dolphin by Paul Turkentine, Public Land Watch by Kathy James, Common Dolphins by Paul Turkentine, Tourists watching a bottlenose dolphin by A Bay to Remember, Harbour porpoise by AK Wildlife Cruises, Land watch from the Great Orme by Laurence Clark/Castle Vision Photographic, White-beaked dolphin by Karen Munro and Minke whale by AK Wildlife Cruises.

RESULTS

Effort

Thanks to the efforts of 155 dedicated cetacean observers from all over the UK, 927 hours of effort data were collected during the course of the event. Observers (collecting effort-related data) were stationed at 103 land watch sites and on thirteen different vessels around the country (Fig.1). In addition to these, 164 observers reported casual sightings both from land and at sea. It is estimated that in the region of 300 people also took part in observations as attendees of the organised events.

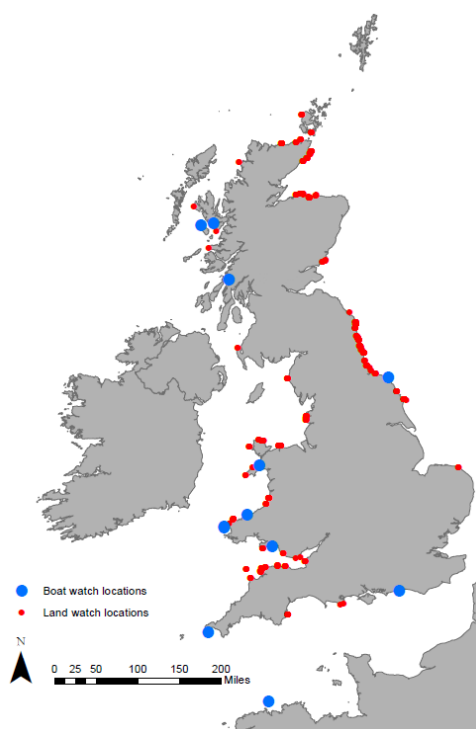


Figure 1. Watch locations for NWDW 2014 (n=116)

The number of watch locations has shown a steady increase since 2011 (48 sites in 2011, 72 sites in 2012, 76 in 2013), with a leap to 116 during the 2014 event. Effort data had previously shown a sharp increase over a three year period but despite a significantly larger number of watch sites, the number of hours of effort data has only increased by 27 hours on last year's event (900 in 2013, 927 in 2014).

This year the volume of effort data recorded in each region varied widely and was strongly linked to observer numbers. Areas with strong regional networks and links with other organisations once again produced the highest levels of effort data collection (Fig 2.).

Despite the large majority of effort data still being collected from land (rather than at sea), the sightings data continue to show a more balanced picture in terms of platform. Just under half of all sightings were reported at sea (42%) (Fig.3) .

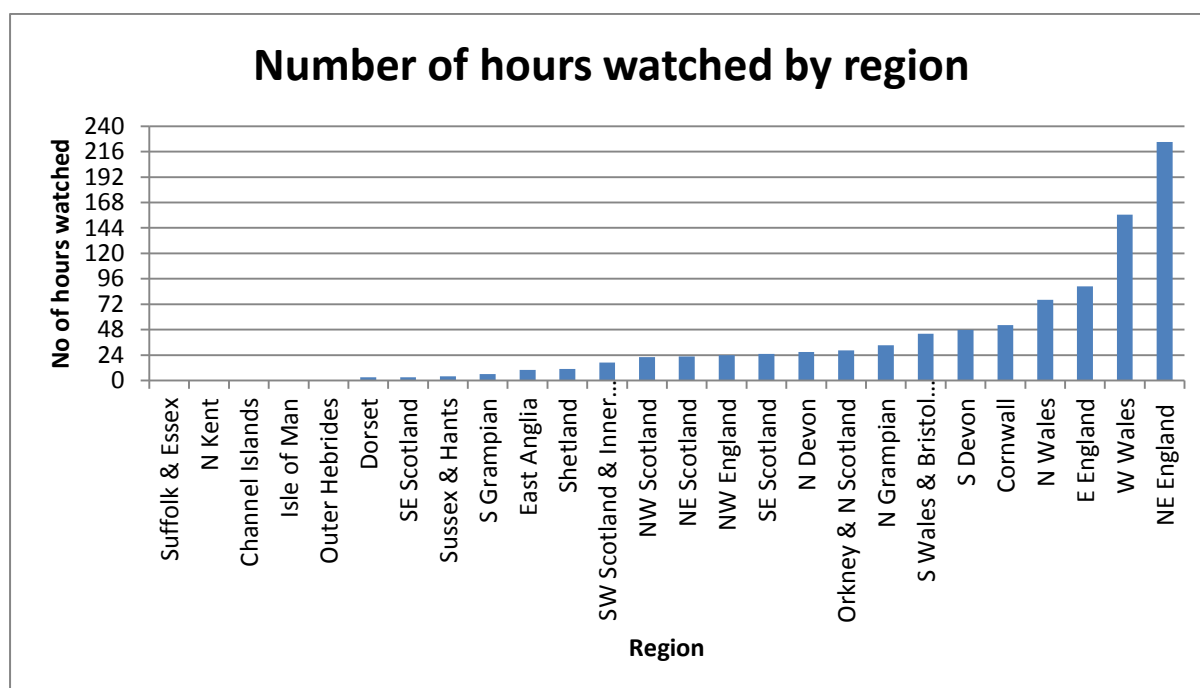


Figure 2. Number of hours of effort-related data collected by region

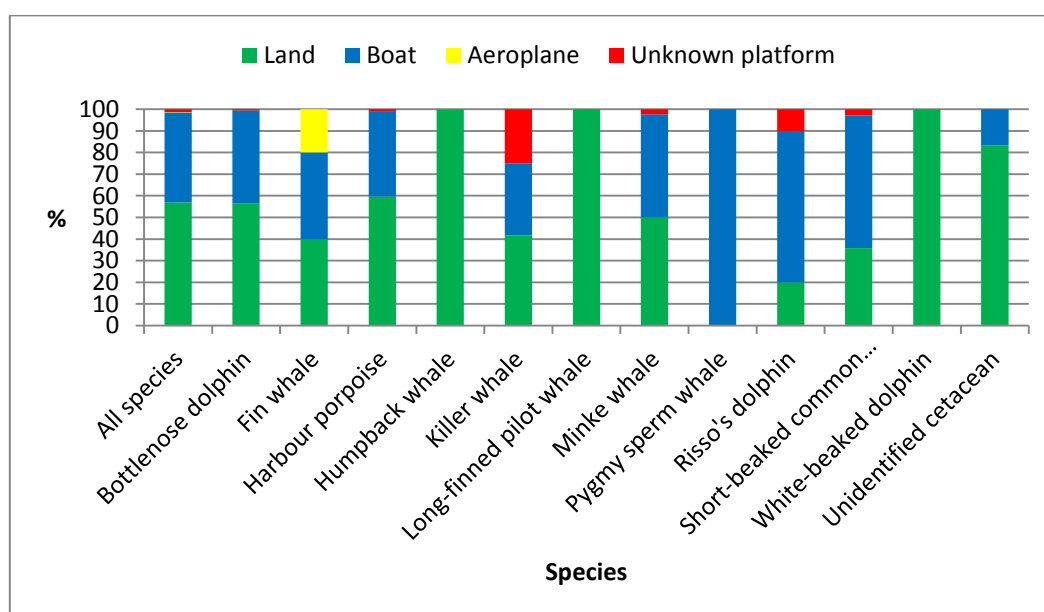


Fig. 3 Proportion of sightings per species reported from land, boats, aeroplane or unknown platforms

Weather

Cetacean data collection is strongly weather dependant. Factors such as sea state, swell height and visibility to the horizon affect how easily animals can be detected during a watch. Heavy rain and wind can even cause watches to be cancelled altogether. For these reasons, every year, we rely heavily on good weather conditions for the success of NWDW. Similarly to 2013, this year's event

was scheduled over nine days in order to increase the chances of coinciding with a favourable weather window. As it happened, the event took place at the end of an above average temperature July and the beginning of an unsettled August. A summary of the weather conditions and sightings by day is provided in Appendices 1 and 2.

Sightings

1150 sightings of cetaceans totalling 5426 individual animals were reported during NWDW 2014 (Fig. 4). This represents a 16% increase in sighting reports by comparison with last year's event. These reports included eleven different species of cetacean which matches the highest species count for the event (last achieved in 2009). The three previous years saw ten species each however, the list of species varied slightly from year to year (cf. NWDW report 2011, NWDW report 2012, NWDW report 2013).

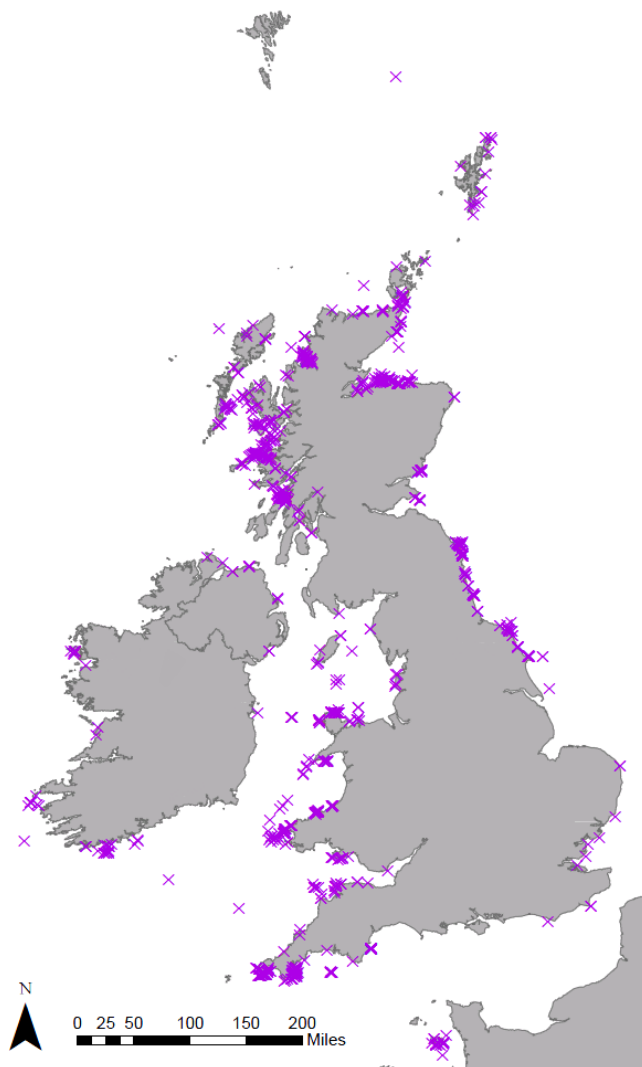


Figure 4. Sightings of cetaceans during NWDW 2014 (n=1150)

The heterogeneous distribution of sightings around the UK's coastline reflects a combination of factors: observer coverage, species distribution and sightability (how easily the cetaceans can be detected). 466 sightings (40.5%) were reported in Scotland; these were closely followed by 396 sightings (34.4%) reported in England. Observers in Wales recorded 218 sightings (18.96%) and 49 sightings (4.3%) were also recorded off Ireland. Finally, the Channel Islands and the Isle of Man reported 15 sightings (1.3%) and 6 sightings (0.52%) respectively (figs 4 & 5).

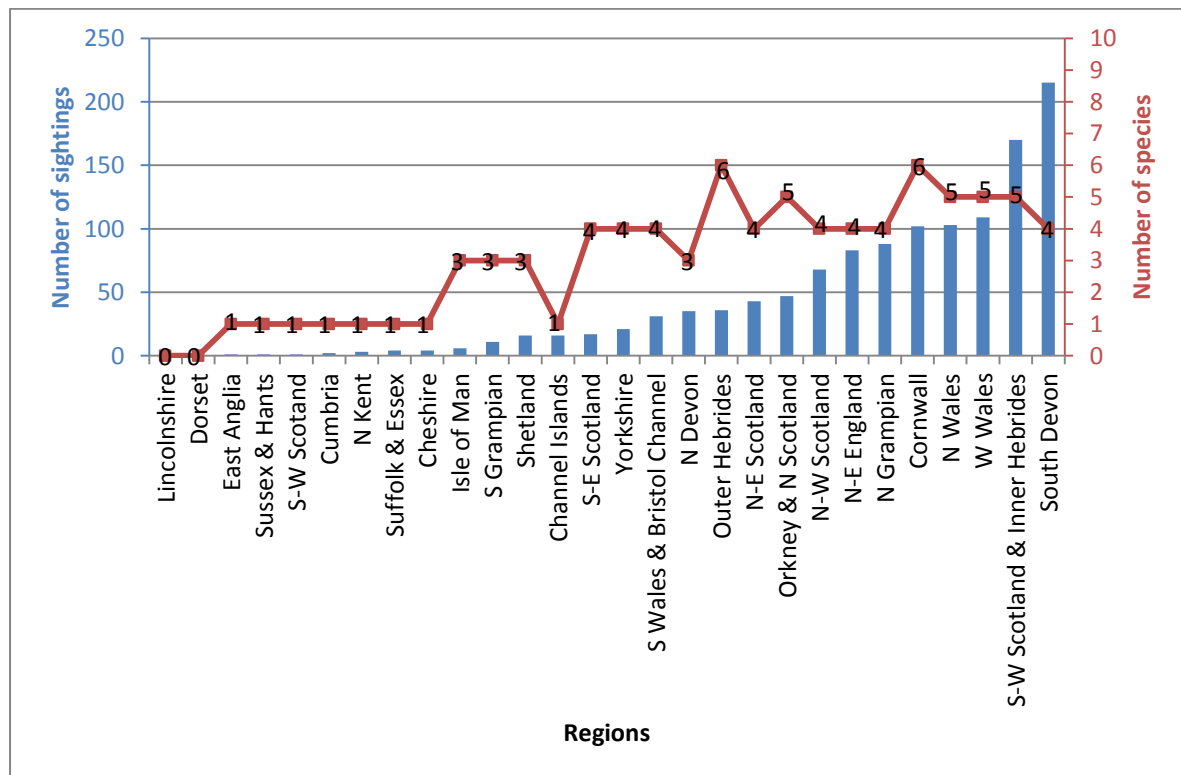


Figure 5. Number of sightings (casual and effort-related) and species per region during NWDW 2014

South Devon (215 sightings), South-West Scotland and the Inner Hebrides (170 sightings), West and North Wales (109 & 103 sightings respectively) and Cornwall (102 sightings) were the most successful regions in terms of the absolute number sightings reported. Cornwall and the Outer Hebrides ranked joint first in terms of species diversity (six species reported) and were followed by Orkney and North Scotland, North and West Wales, South-West Scotland and Inner Hebrides (five species reported).

The Southern and South-eastern coasts of England recorded low numbers of sightings reports. These regions also demonstrated the lowest levels of species diversity (one species where sightings were made). Interestingly, the Isle of Man reported three different species of cetaceans despite only six sightings reports in total.

The ratio of “casual” sightings (without associated effort data) to “effort-related” sightings is similar to that of last year’s event (Fig. 6). Casual sightings account for 69% of all sightings recorded during the event. The effort-related sightings percentage is 31% for 2014, down from 46% in 2013. While percentages of effort-related sightings are down, both effort-related watches and casual reports have increased from the previous year which means the event is continuing to grow.

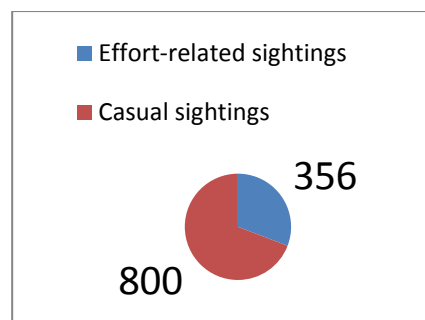


Fig 6. Proportion of effort related sightings (n=356; 31%) and casual sightings (n=800; 69%) recorded during NWDW 2014

Figure 7 places West Wales and North-east England at the top of the list with sighting rates superior to “1” indicating an average of one or more cetaceans seen per hour of watching. Based on this year’s results, the UK’s national average is a sighting rate of 0.48 or one cetacean seen every two hours of watching.

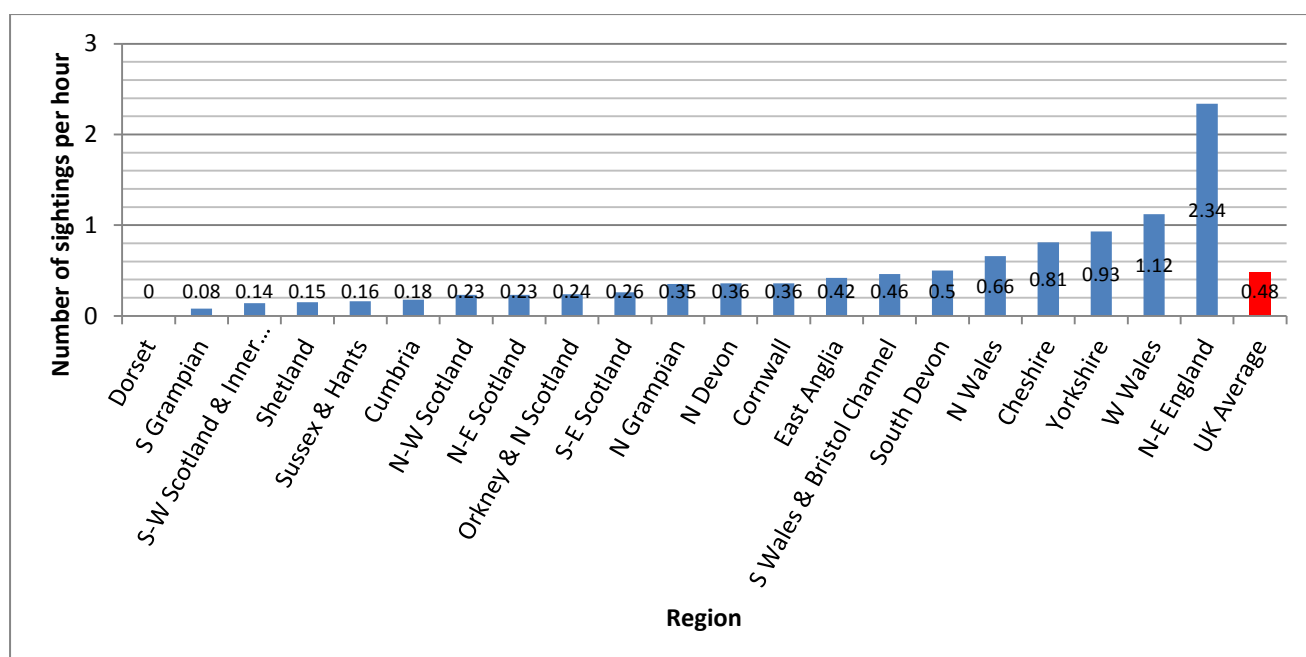


Figure 7. Sighting rate per region during NWDW 2014

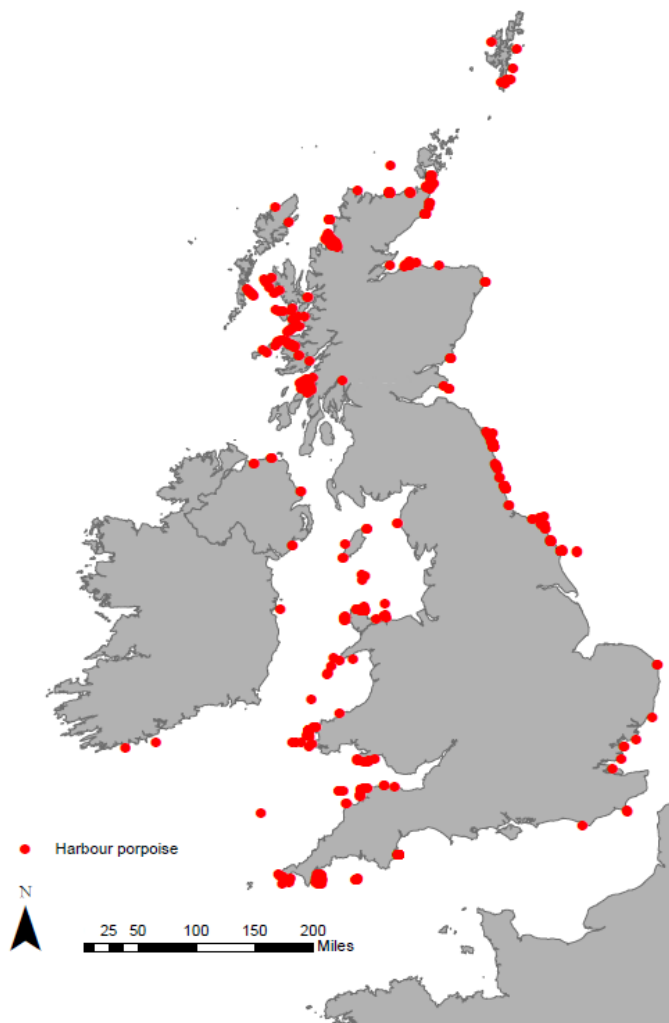


Figure 8. Sightings of harbour porpoise during NWDW 2014 (n=725; 63.05%)

Harbour porpoises are common in most parts of the UK and this was once again reflected by this year's NWDW results. The species was recorded 725 times and made up the greater part of the records for the event (63.05%). As illustrated by Figure 8, sightings were distributed around the whole of the UK coastline and concentrated in areas of high effort such as North-East England, the Inner Hebrides, North and West Wales and Cornwall (Fig. 2). The size of groups of this species varied widely from a single individual to the largest group of 28 animals which was seen off Scarba, Argyll and Bute (Table 1).



Figure 9. Sightings of bottlenose dolphins during NWDW 2014 (n=202; 17.57%)

Once again, bottlenose dolphins were the second most frequently reported species during NWDW with 202 sightings (17.57%). Two large semi-resident populations of bottlenose dolphins can be found in UK waters: one in Cardigan Bay, West Wales; the other in the Moray Firth, North-East Scotland. Animals from both these populations were well recorded during the event as illustrated in Figure 9. In addition, bottlenose dolphins were also recorded off South-east Scotland, North-east England, the Channel Islands, Cornwall, North and South Devon, North Wales, Cheshire, and the west coast of Scotland.

1128 individual bottlenose dolphins were recorded during the event. However, we cannot assume that all of these sightings were of different dolphins, many animals will have been spotted more than once. The joint largest groups were recorded off Jura, West Scotland and off Anstruther, South-east Scotland consisting of 30 animals (Table 1).



Figure 10. Sightings of minke whales during NWDW 2014 (n=88; 7.65%)

The third most frequently reported species, the minke whale, was mainly seen in the northern half of the British Isles with further sightings reported off Cornwall and Southern Ireland (Fig. 10). The joint largest groups of three minke whales were both seen off West Cork, Ireland (Table 1).

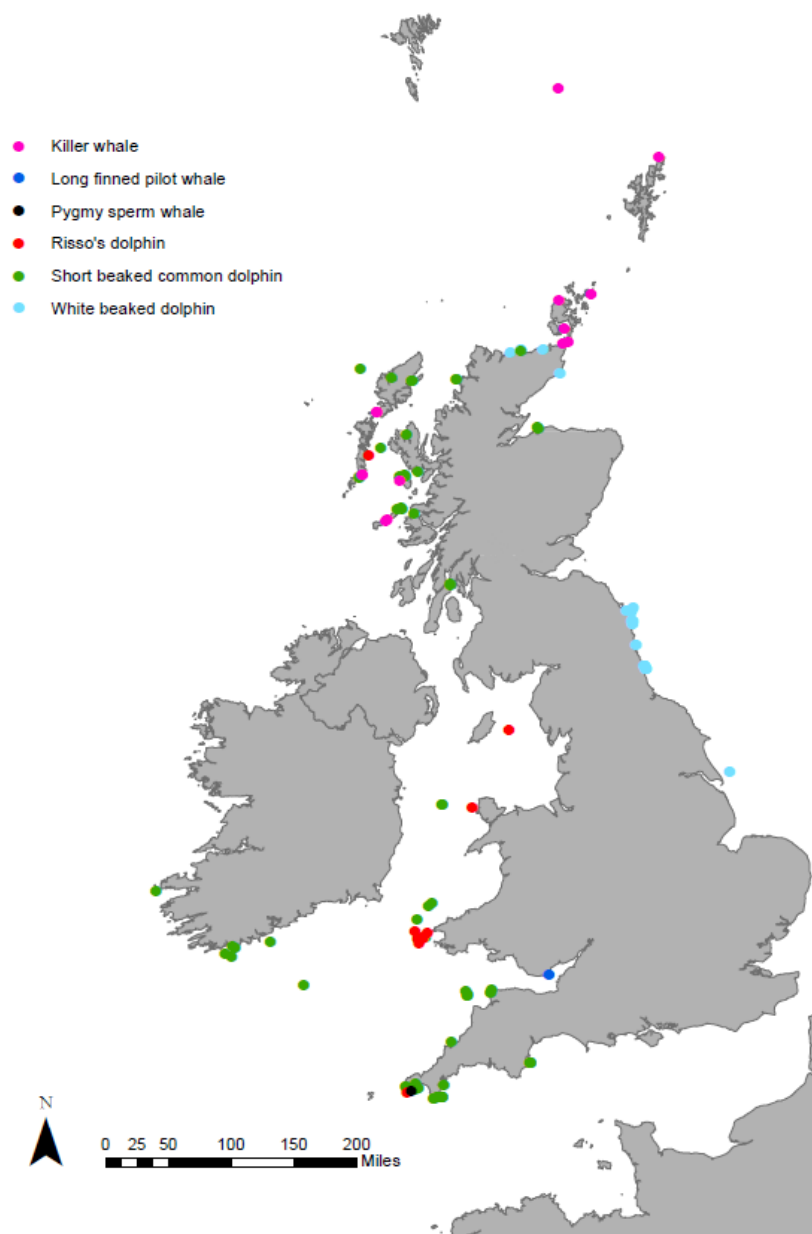


Figure 11. Sightings of killer whale (n=12; 1.04%), long-finned pilot whale (n=1; 0.09%), pygmy sperm whale (n=1; 0.09%), Risso's dolphin (n=10; 0.87%), short-beaked common dolphin (n=67; 5.83%), white-beaked dolphin (n=21; 1.83%) during NWDW 2014

Other species of dolphins were less frequently reported but nevertheless presented very distinct distributions. Killer whales were reported twelve times during the event in the waters surrounding the Shetland and Orkney Isles as well as those surrounding the islands off West Scotland. The largest group consisted of 12 animals seen off Unst, Shetland (Fig. 11; Table 1).

There was an unusual sighting of five long-finned pilot whales off Glamorgan, South Wales. Additionally, a rare but increasingly observed pygmy sperm whale was seen in Mount's Bay, Cornwall.

Risso's dolphins sightings were distributed in waters along the West of England and Wales as well as near to the Isle of Man. Group sized varied with the largest number of animals, twenty, being seen East of South Uist, Scotland (Fig. 11, Table 1).

Common dolphin sightings were demonstrated on the British Isles' West coast predominantly, with aggregations of sightings around Cornwall, South-west Wales and Scotland's West coast. Groups of 100 were seen off Cornwall, Pembrokeshire, the Inner Hebrides and offshore Cork. The largest group (150) was also recorded off Cork, Ireland (Fig. 11, Table 1).

White-beaked dolphins were reported 21 times and were concentrated off the North coast of Scotland and in the North Sea off North-East England with a single sighting off the Yorkshire coast near Spurn. The maximum observed group size for this species was 100 animals which were seen off Thurso in the north of Scotland. Other sightings were of group sizes of 15 animals and smaller (Fig. 11, Table 1).

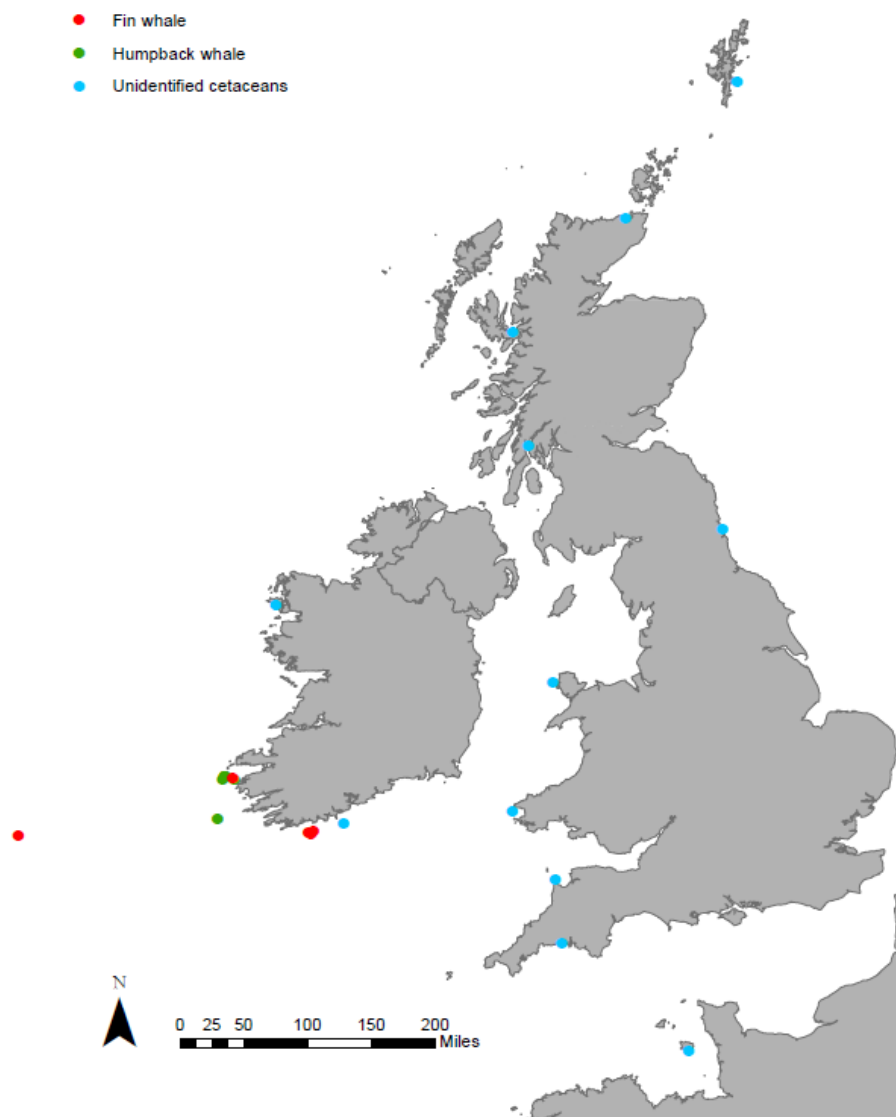


Figure 12. Distribution of fin whales (n=5, 0.43%), humpback whales (n=6; 0.52%) and unidentified cetaceans (n=12; 1.04%) during NWDW 2014

Humpback whales and fin whales were seen off southern Ireland with largest reported group sizes of four and three respectively. There were six reports of humpback whales and five reports of fin whales. There were twelve reports of unidentified cetaceans accounting for 73 animals. These unidentified sightings reports were spread around the UK (Fig. 12, Table 1).

Table 1. Quantitative description of sightings per species during NWDW 2014

Species	No of sightings	%	No of individuals	%	Av group size
Bottlenose dolphin	202	17.57	1128	20.79	5.58
Fin whale	5	0.43	11	0.2	2.20
Harbour porpoise	725	63.04	1958	36.1	2.70
Humpback whale	6	0.52	17	0.31	2.86
Killer whale	12	1.04	54	0.99	4.14
Long-finned pilot whale	1	0.09	5	0.09	5.00
Minke whale	88	7.65	108	1.99	1.22
Pygmy sperm whale	1	0.09	1	0.02	1.00
Risso's dolphin	10	0.87	52	0.96	5.20
Short-beaked common dolphin	67	5.83	1829	33.71	26.91
White-beaked dolphin	21	1.83	190	3.5	9.05
Unidentified cetacean	12	1.04	73	1.34	6.08
Totals	1150	100	5426	100	6.00

ACKNOWLEDGEMENTS

Sea Watch would like to thank the volunteers and regional coordinators who contributed to making this year's event such a success. Thanks also to BG for the continued support of NWDW. Additional thanks to Nicola Maxey of the Met Office for her provision of radar maps for the report and to Alex Harris for his assistance with map-making.

APPENDIX 1.

General overview of the weather by country for the period of NWDW 2014 (Met Office – metoffice.gov.uk)

Temperatures for July were above average across the UK, mainly due to warm days with many days having maximum temperatures above 25 °C, especially in the south-east. However, night-time temperatures were closer to average. There was plenty of warm, dry, sunny weather, but with the warmth leading to thunderstorms and localised downpours at times; the heaviest rain was generally across the south-east and East Anglia.

August was an often unsettled month with some large daily rainfall totals in some areas.

England

The 26th was generally dry and bright with only very isolated showers in the Midlands, but rain spread into the north-west during the evening. A mainly dry and bright day on the 27th but not as warm as of late; isolated afternoon showers broke out in the south-east and the north-west. Heavy thunderstorms in Norfolk and Suffolk early on the 28th saw Santon Downham (Suffolk) recording 51.2 mm, but the showers became lighter during the day and other areas were generally dry and bright. The 29th was mainly dry with sunny spells. The 30th was generally dry and bright but light showers affected the far north in the afternoon. A band of patchy rain spread from the west during the day on the 31st, with a few heavy bursts in the east later.

There were spells of rain or showers for many areas on the 1st with only the southeast escaping mainly dry. A band of heavy showers with isolated thunderstorms spread from the west during the 2nd, clearing eastern areas by late afternoon. The showers were less frequent and more scattered on the 3rd with most in western areas.

Wales

The 26th was mainly dry but isolated showers broke out in central areas in the afternoon and more general rain spread into the north-west in the evening. The 27th was mainly dry and bright, with scattered showers in northern areas, and temperatures closer to average. The 28th was mainly dry and bright, with only a few scattered showers in southern coastal areas. The 29th and 30th were dry with sunny spells but there was more cloud inland. A band of patchy rain spread from the west during the morning of the 31st which cleared during the afternoon.

The 1st was cloudy with periods of rain, heavy at times; 45.6 mm was recorded at Aberporth (Ceredigion). Rain during the morning cleared to leave drier and sunnier conditions on the 2nd. The 3rd was generally dry and sunny with the exception being the far north-west which had some cloud and showers.

Scotland

After a dry start for most on the 26th, an area of heavy rain moved slowly eastwards across the country through the day. Rain for most areas at some point on the 27th but this eventually cleared away southwards in the evening. A mainly dry day on the 28th apart from showers in the west during the evening. The 29th was breezy with some showers, especially in the west. Another fresh day on the 30th with some scattered showers, and then most areas had frequent showers on the 31st.

A showery day for most areas on the 1st with longer periods of rain in the south. Heavy rain in the south west spread north and east through the day on the 2nd. Another wet start in the west on the 3rd as rain spread further north and east and became more showery later in the day.

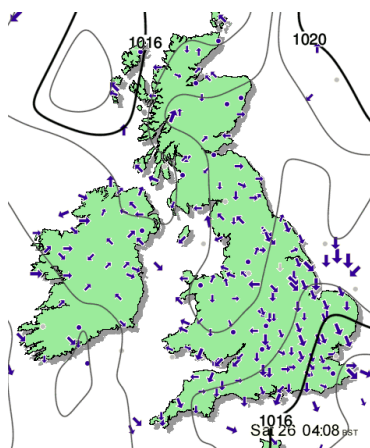
APPENDIX 2 – Weather

General overview of the weather by day during the period of NWDW 2014 using pressure maps from XC Weather (xcweather.co.uk) and radar maps from the Met Office.

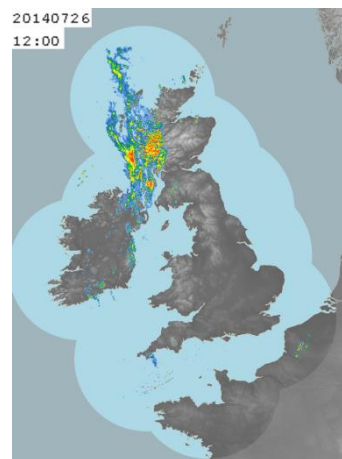
Saturday, 26th July



Cetacean sightings on day 1 of NWDW 2014 (26th July)



Pressure map on day 1 of NWDW 2014 (26th July)

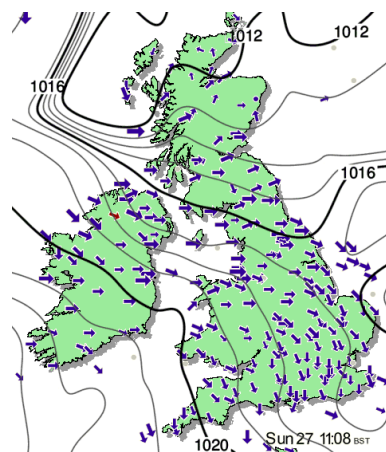


Radar map on day 1 of NWDW 2014 (26th July)

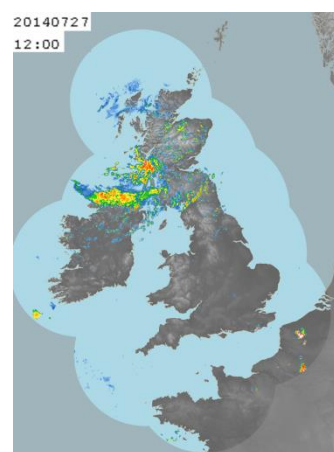
Sunday, 27th July



Cetacean sightings on day 2 of NWDW 2014 (27th July)



Pressure map on day 2 of NWDW 2014 (27th July)

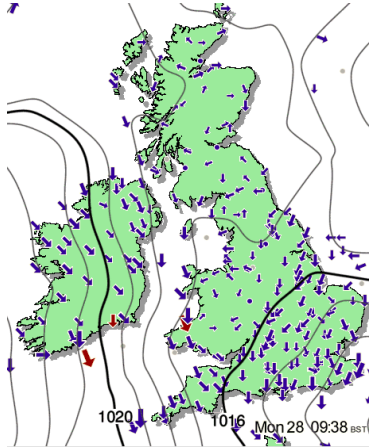


Radar map on day 2 of NWDW 2014 (27th July)

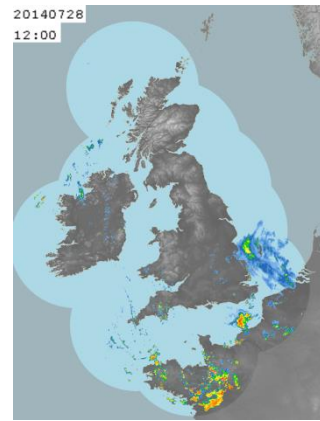
Monday, 28th July



Cetacean sightings on day 3 of NWDW 2014 (28th July)



Pressure map on day 3 of NWDW 2014 (28th July)

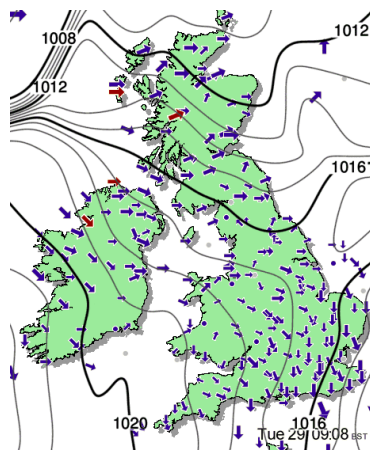


Radar map on day 3 of NWDW 2014 (28th July)

Tuesday, 29th July



Cetacean sightings on day 4 of NWDW 2014 (29th July)



Pressure map on day 4 of NWDW 2014 (29th July)

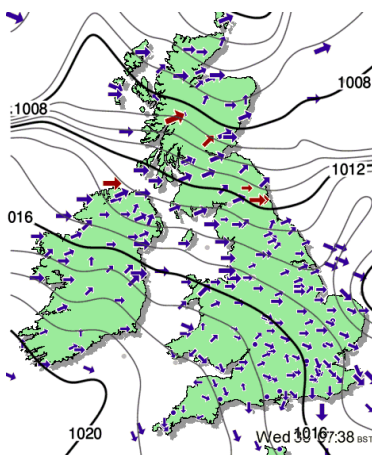


Radar map on day 4 of NWDW 2014 (29th July)

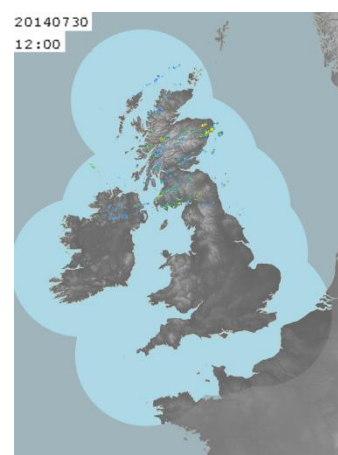
Wednesday, 30th July



Cetacean sightings on day 5 of NWDW 2014 (30th July)



Pressure map on day 5 of NWDW 2014 (30th July)

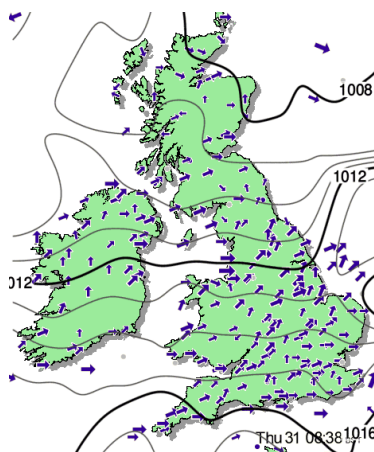


Radar map on day 5 of NWDW 2014 (30th July)

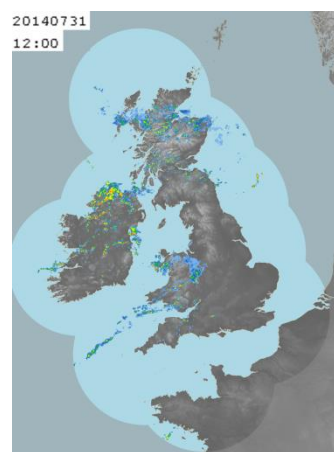
Thursday, 31st July



Cetacean sightings on day 6 of NWDW 2014 (31st July)



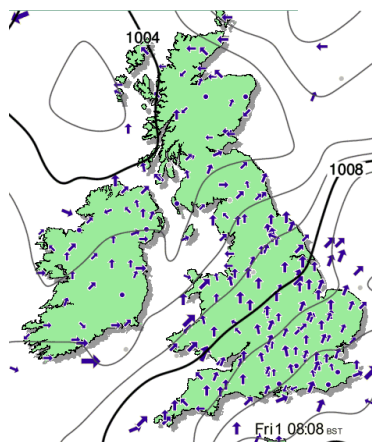
Pressure map on day 6 of NWDW 2014 (31st July)



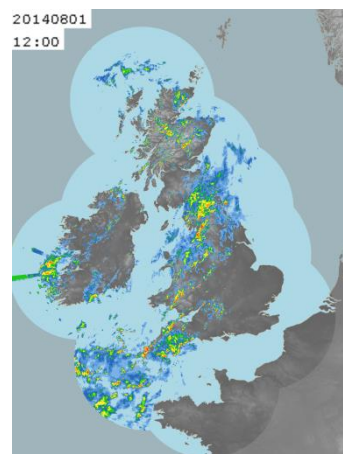
Radar map on day 6 of NWDW 2014 (31st July)

Friday, 1st August

Cetacean sightings on day 7 of NWDW 2014 (1st August)



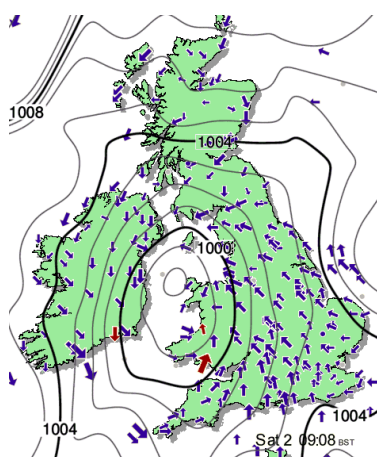
Pressure map on day 7 of NWDW 2014 (1st August)



Radar map on day 7 of NWDW 2014 (1st August)

Saturday, 2nd August

Cetacean sightings on day 8 of NWDW 2014 (2nd August)



Pressure map on day 8 of NWDW 2014 (2nd August)

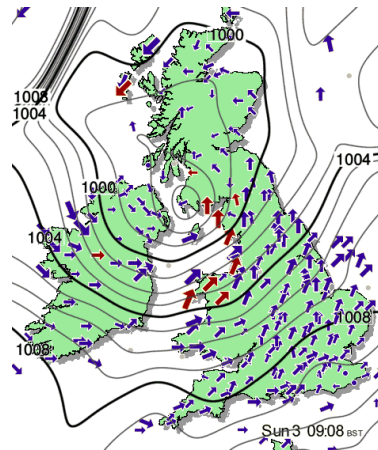


Radar map on day 8 of NWDW 2014 (2nd August)

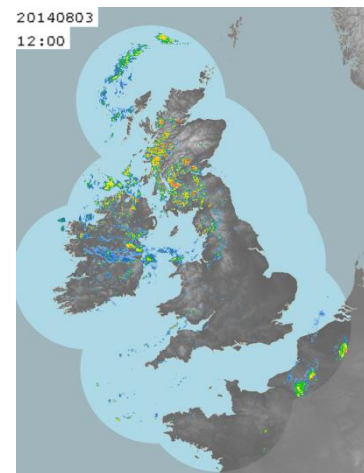
Sunday, 3rd August



Cetacean sightings on day 9 of NWDW 2014 (3rd August)



Pressure map on day 9 of NWDW 2014 (3rd August)



Radar map on day 9 of NWDW 2014 (3rd August)