

# sea watch FOUNDATION



## National Whale and Dolphin Watch 2012 Report

27<sup>th</sup>-29<sup>th</sup> July 2012

### INTRODUCTION

Over the past decade, National Whale and Dolphin Watch (NWDW) has proved to be a great opportunity to demonstrate the diversity and sheer quantity of cetaceans to be found in British waters. This year's eleventh event was no different to previous years. Over the three days (27<sup>th</sup>-29<sup>th</sup> July), voluntary observers took to the shores of the UK and watched for cetaceans. Boat-based and land-based watches were organised by Sea Watch Foundation Regional Coordinators, Regular Observers and Recommended Boat Operators. Members of the public were invited to attend one of these organised watches, or to participate by submitting their "casual" cetacean sightings or setting up a timed watch of their own with the support of Sea Watch staff.

#### NWDW 2012 Statistics

**107** watches  
**435** hours of effort  
**533** sightings  
**10** species

The yearly NWDW event is not only a chance to engage with members of the public and to involve them in the monitoring and conservation of cetaceans but it also enables Sea Watch staff and volunteers to work collaboratively with other conservation bodies. We'd like to extend our thanks to the Wildlife Trust in particular who were very active across various parts of the UK during the event.

This report is a summary of data collected during NWDW 2012 (27<sup>th</sup>-29<sup>th</sup> July 2012) and submitted to Sea Watch prior to the 1<sup>st</sup> December 2012. For the purpose of the report, sightings data dating up to the 5<sup>th</sup> August 2012 has also been included in analyses.



## RESULTS

### Effort

Cetacean data was collected from 72 watch locations during 107 watches held between the 27<sup>th</sup> and the 29<sup>th</sup> July 2012 (fig.1). This resulted in 435 hours and 15 minutes of effort being recorded demonstrating a marked increase in comparison to NWDW 2011 (48 sites, 81 watches, 354 hours of effort in 2011). Boat operators around the country participated in the event by recording sightings (fig. 2) and effort data, and providing passengers with information on the NWDW and the Sea Watch Foundation. It should be noted that sightings and effort data will continue to be submitted in the coming weeks which will inflate figures further.

In addition to watch leaders, an estimated 500 people will have come into direct contact with the NWDW event. Media coverage in the run-up to the event and word of mouth will have considerably contributed to public awareness and this is illustrated by an increase in sighting reports and hits on the website in the months directly preceding and following the event.



Figure 1. Watch locations during NWDW 2012 (n=72)



Fig 2. Vessel-based sightings recorded during NWDW 2012 (n=167)

Observations were recorded from various platforms (Fig. 3). Sightings were most frequently recorded from land (64%) whilst boat-based sightings made up just under of third of all recordings (31%). The remaining sightings were either reported without the platform being specified (4.69%) or from a rig (0.18%). It should be noted that there is a slight decrease in the number of sightings recorded at sea in comparison to NWDW 2011 (35% of boat-based watches in 2011). This could be explained by the increase in the number of land-based watches in 2012 but is an issue that should be addressed for NWDW 2013 in order to ensure that offshore species are included in NWDW observations in the future.

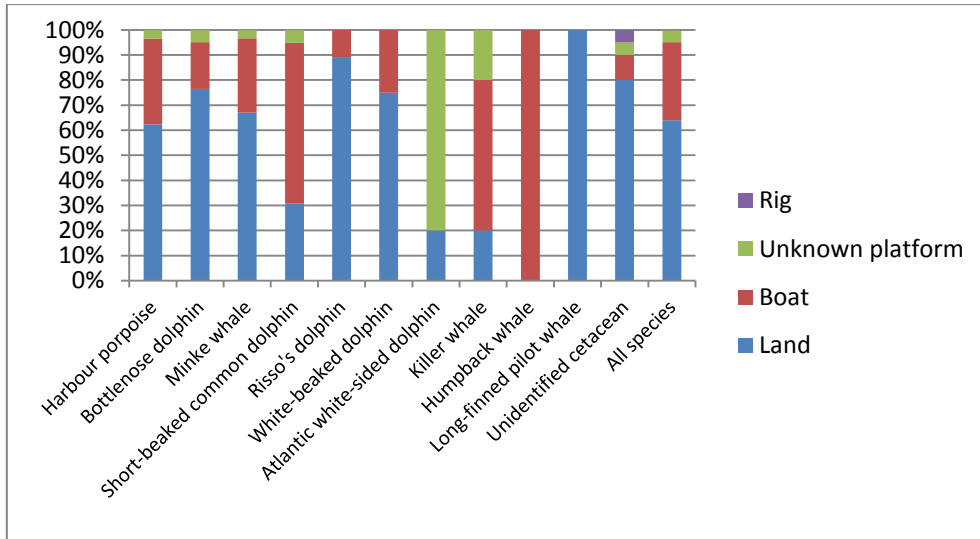


Figure 3. Proportion of sightings by species reported from boat-based watches, land-based watches, rigs or unknown platforms

**Weather**

When considering the results of an event such as NWDW, it is imperative that the weather should be taken into account. The success of watches, and indeed whether or not they actually take place, depends almost entirely on the elements. As every year, some planned watches had to be cancelled because of high winds or rain. These adverse weather conditions will have also had a negative impact on casual sightings which is why a summary of weather has been provided in Appendices 1 and 2.



## Sightings



Figure 4. Sightings of cetaceans during NWDW 2012 (n=533)

A total of 533 reports including ten different species and 3891 individual animals were made around the coast of the UK during the weekend of the 27<sup>th</sup>-29<sup>th</sup> July 2012 and the week that followed (Table 1, fig. 4). Although the number of species recorded is the same as during NWDW 2011, there was a marked increase in the total number of sightings which rose by 18%.

As illustrated in figure 5, the sightings recorded during NWDW 2012 were not evenly spread around the coast of the UK. Scotland was witness to the majority of cetacean sightings (62.6%) followed by England (23.4%), Wales (9.9%) and finally the Isle of Man (3.0%) and the Channel Isles (0.9%). When considering these figures, one should bear in mind variables such as the size of the country under scrutiny and heterogeneity in the deployment effort around the UK before coming to any conclusion on what these figures indicate in terms of cetacean occurrence. In order to eliminate any bias caused by a variation in effort intensity, sightings rates have been calculated (fig. 9) and will be discussed below.

In addition to recording the highest number of sightings, Scottish observers also identified the highest number of species. Eight species were recorded in Orkney and North Scotland, six in North-East Scotland, five in the Hebrides and Shetland, four in North-West Scotland and three in South-West Scotland despite only four sightings being recorded in this region. On the other end of the spectrum, West Wales and Cornwall displayed low species diversity (two species recorded) despite relatively high numbers of sightings (36 and 35 respectively) (fig. 6). Another noteworthy result from NWDW 2012 is that sightings were recorded from every single region in the UK. (fig. 5)

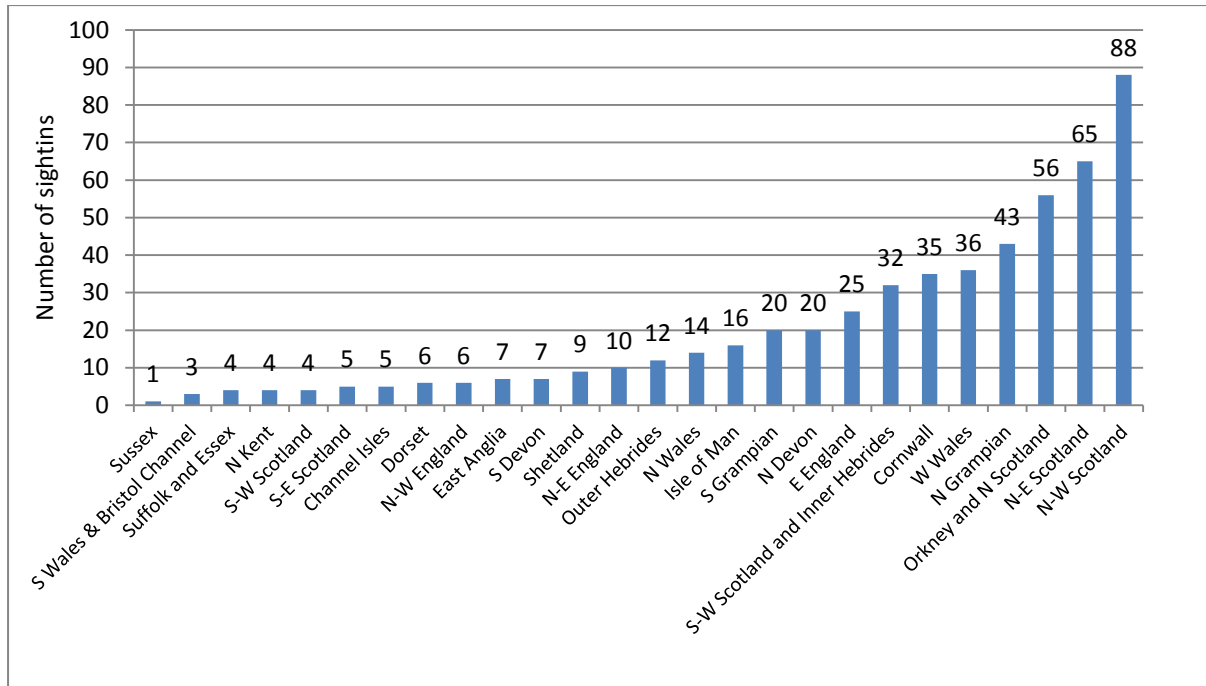


Figure 5. Number of sightings by region during NWDW 2012 (total number of sightings =533)

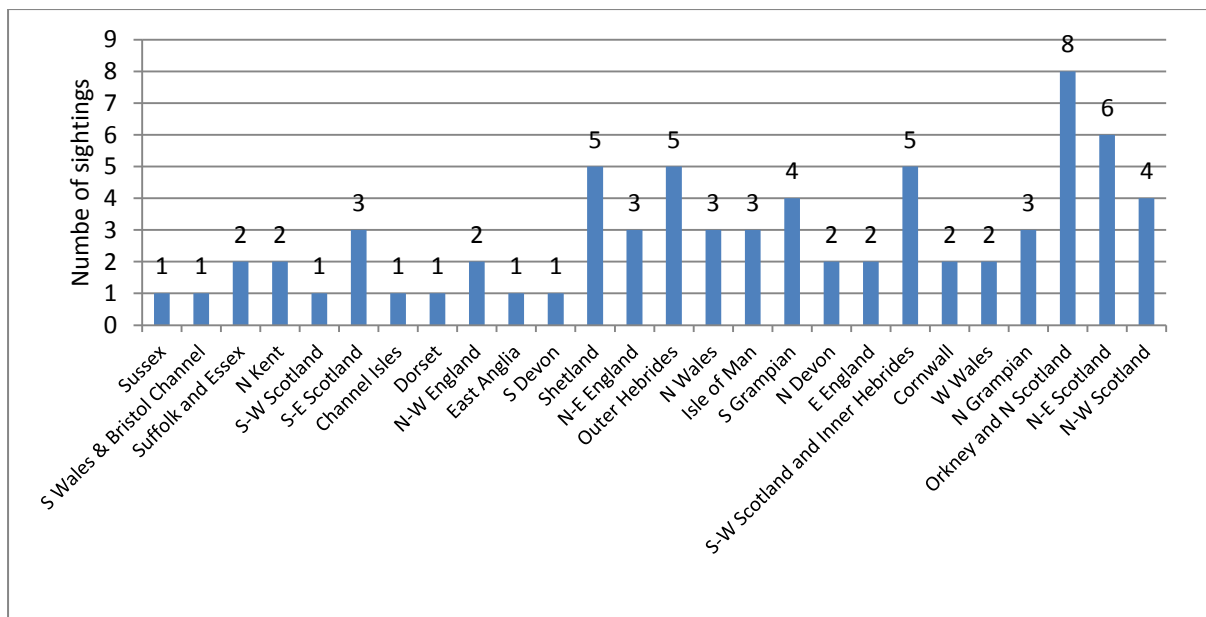
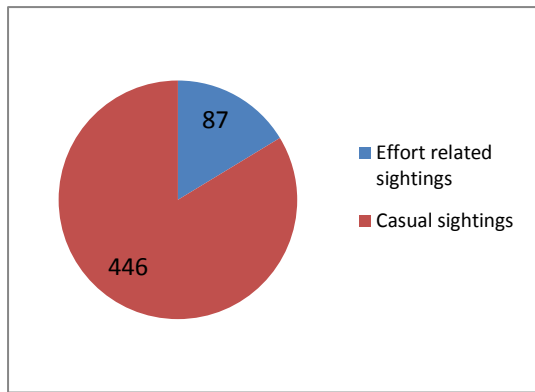


Figure 6. Number of species seen by region during NWDW 2012 (total number of species=10)



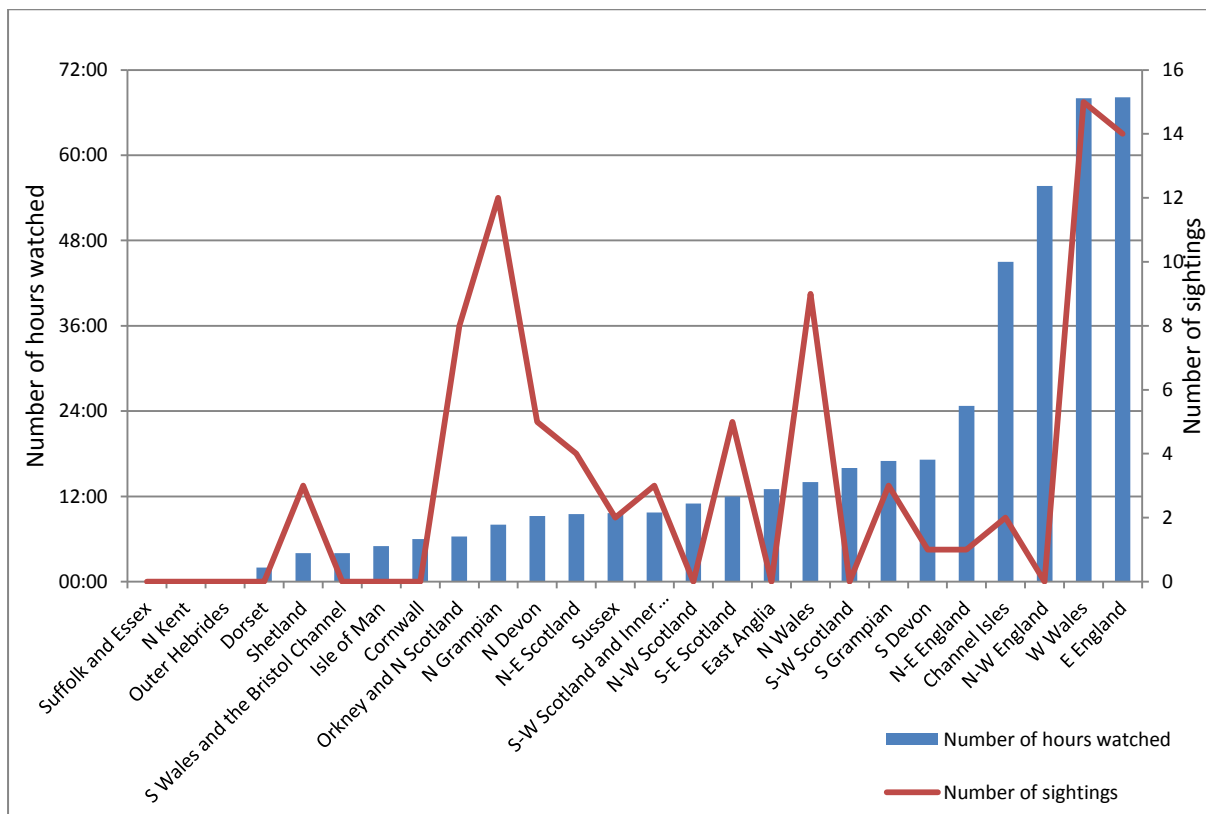


**Figure 7.** Proportion of effort related sightings (n=87, 16.3%) and casual sightings (n=446, 87%,)

The majority of sightings reported during NWDW 2012 can be designated as “casual” sightings (i.e. one-off sightings reported without any effort data) (fig.5). These casual sightings provide an excellent indication of cetacean distribution and are invaluable to our understanding of their use of the marine habitat but cannot be used as an indication of occurrence. This information must be deduced from the effort-related sightings which offer further insight into the frequency with which animals were seen in the form of sightings rates (i.e. the number of cetacean seen per hour of watching).

NWDW 2012 sightings rates maintain Scotland as a firm leader in terms of cetacean observations. North Scotland and Orkney, and North Grampian both boast a sighting rate over “1” which indicates that on average, one cetacean was seen per hour of watching (fig. 9).

In contrast, and despite contributing a commendable number of hours of watching (55 hours), observers in North-West England didn’t record a single sighting. Other areas where no effort related sightings were reported (i.e. sightings recorded during a timed watch) include Dorset, South-West Wales and the Bristol Channel, Isle of Man, Cornwall, North-West Scotland, East Anglia, SW-Scotland (fig. 8, fig. 9).



**Figure 8.** Number of hours of effort and effort-related sightings recorded by region during NWDW 2012

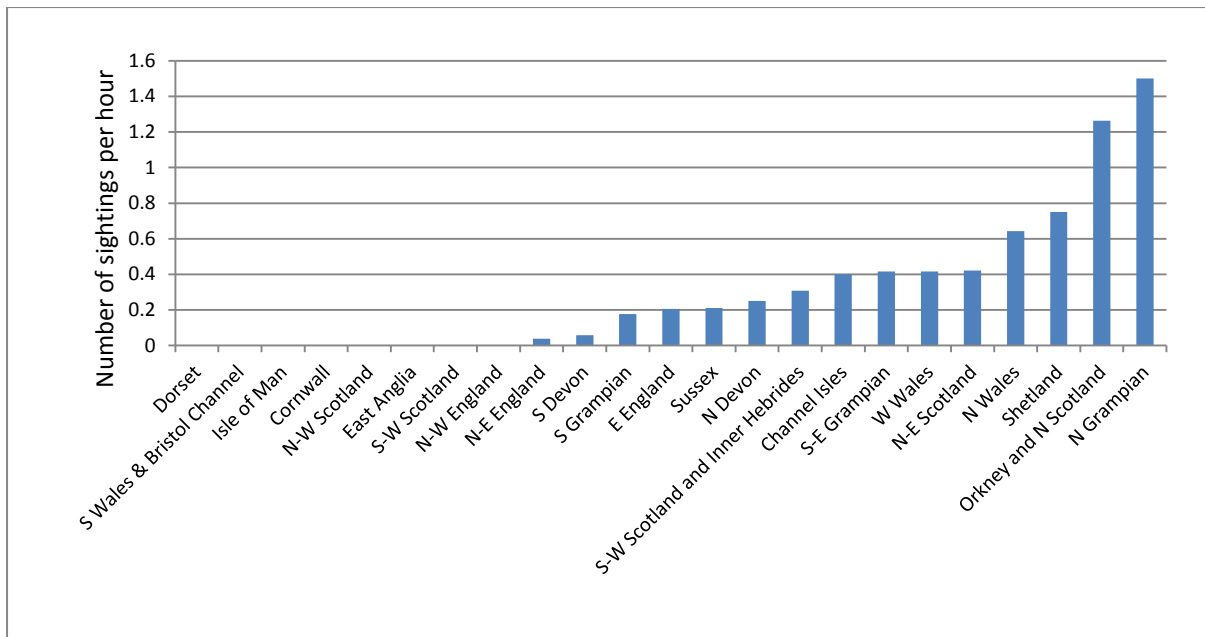


Figure 9. Sightings rates by region during NWDW 2012

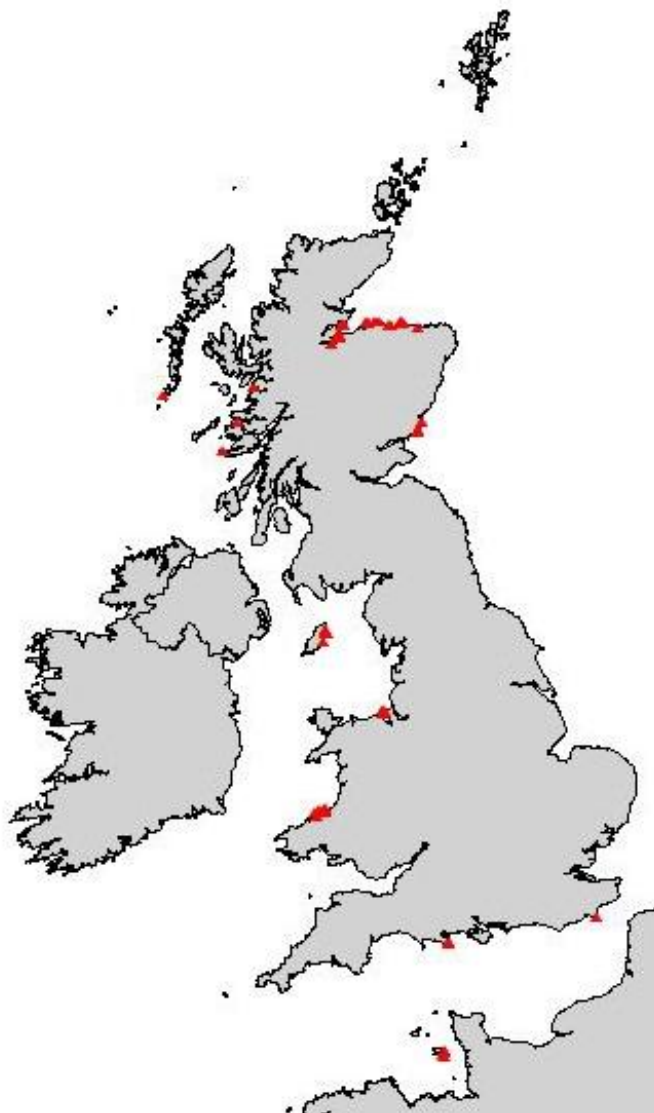


Figure 10. Sightings of harbour porpoise during NWDW 2012 (n=255, 48% of all sightings during event)

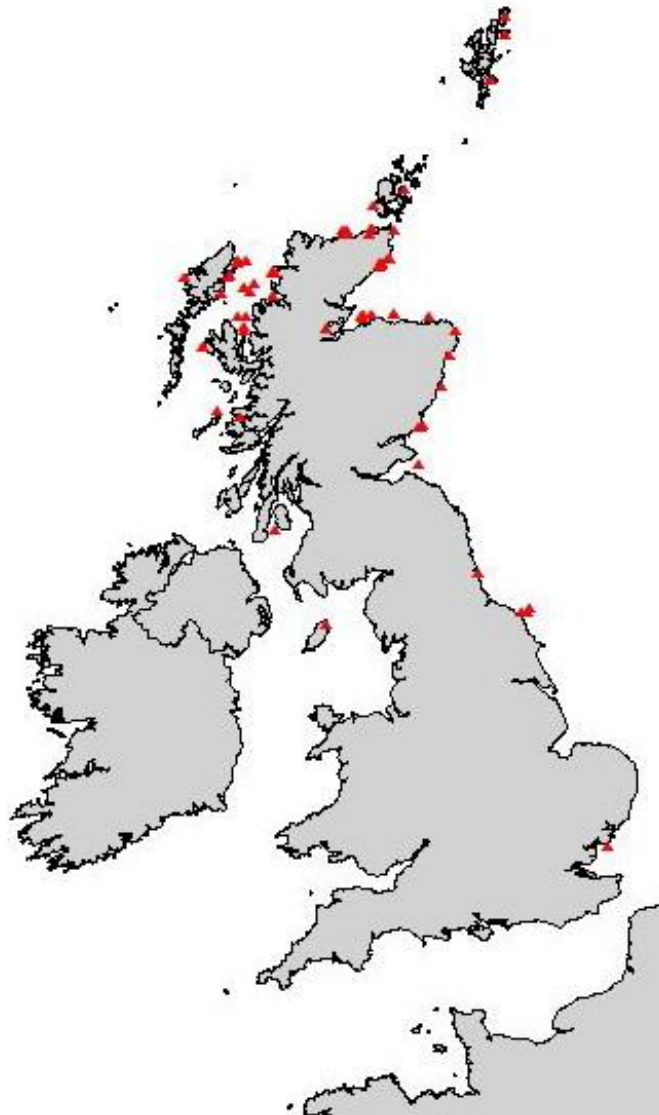


The UK's smallest cetacean proved to be the most frequently sighted during NWDW. Harbour porpoise were reported 255 times during the event and the week that followed (48% of all NWDW sightings) (table 1.). Sightings were fairly well distributed around the UK coastline with the exception of the south coast of England from Dorset to East Sussex, Cheshire and Lancashire, and Northumberland. Group sizes varied widely from single individuals to a large group of 40 individuals which was observed off the coast of Cornwall in Mounts Bay (fig. 10).

Bottlenose dolphins were seen 102 times during NWDW (19 % of all NWDW sightings) reaching a total of 794 individuals (table 1.). The distribution of these sightings provides a perfect illustration of the existence of bottlenose dolphin "hotspots" around the British Coastline (West Wales, Dorset, Aberdeen, Moray Firth, Hebrides) (fig. 11). Exceptionally, bottlenose dolphins were reported off Dungeness, Kent on 30<sup>th</sup> July (1 animal) and off Hilbre Island, Merseyside on 1<sup>st</sup> August (20 animals). The largest two groups of bottlenose dolphins were spotted in Manx waters in Laxey Bay and Ramsey bay and contained 40 individuals .

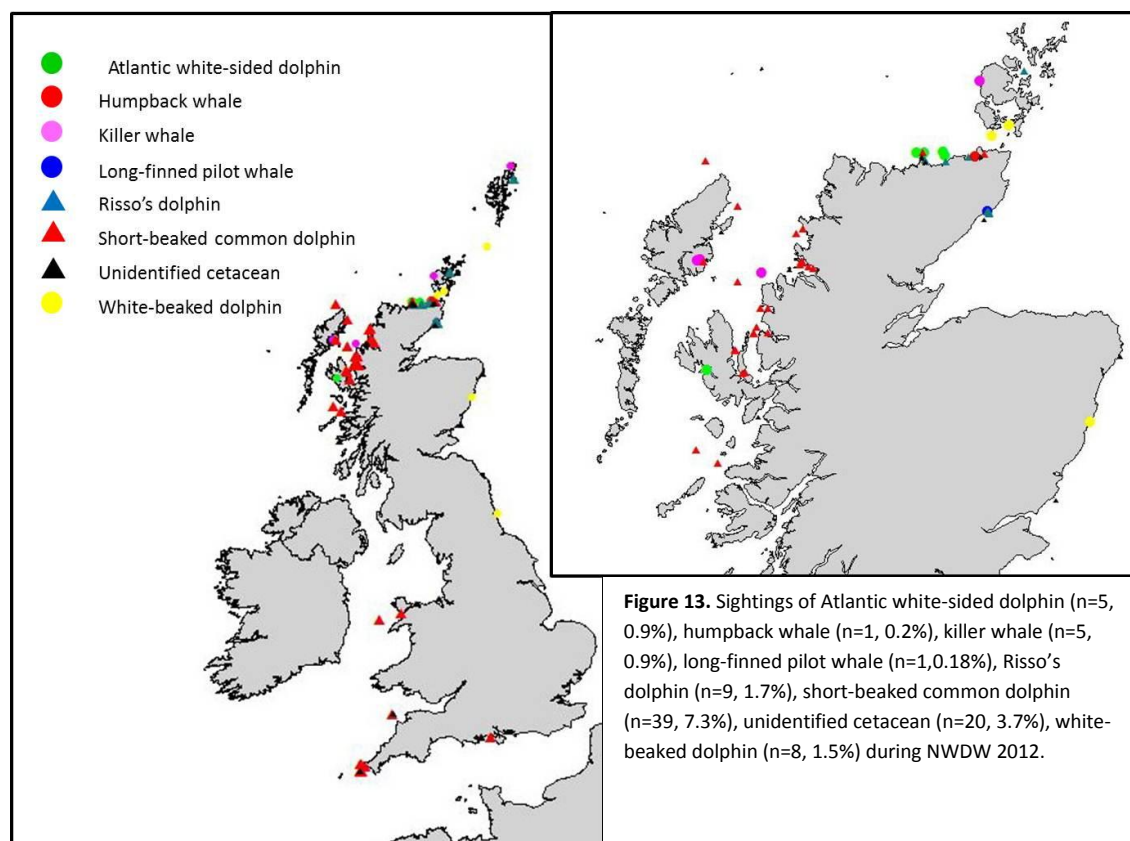


**Figure 11.** Sightings of bottlenose dolphins during NWDW 2012 (n=102, 19% of sightings during event)



**Figure 12.** Sightings of minke whales during NWDW 2012 (n=88, 16.5% of sightings during event)

Minke whales were reported 88 times (16.5% of all NWDW sightings) either as single animals or in groups of up to four animals resulting in a total 117 individuals being recorded (table 1). Sightings were concentrated on the northern part of the British Isles (fig. 12). Three minke whales recorded in Ramsey Bay, Isle of Man constitute the southern-most report of this species for the NWDW 2012 event with the exception of a “possible” sighting of a single whale reported by off Clacton-on-Sea, Essex.



Short-beaked common dolphins were observed 39 times during NWDW (7.31% of all NWDW sightings) and this was the species which reached the highest total number of individuals (1698) as well as the highest average group size (43.54). Common dolphins were most frequently observed in the Hebrides and off North-West Scotland. They were also seen off North Scotland, North Wales and Cornwall which is where the largest group of 150 animals was reported, off Porthcurno. There was also an unusual “possible” sighting off four common dolphins off Milford-on-Sea, Hampshire. (table 1, figure 13)

Risso's dolphins were seen nine times (1.68% of all NWDW sightings). All of these sightings took place off Shetland and the Scottish coast. White-beaked dolphins were spotted eight times: once off Fair Isle, four times off Scotland and three times off Whitburn Coastal Park, South Tyneside. Despite these two delphinid species presenting similar numbers of sightings, group sizes varied significantly resulting in 22 individual Risso's dolphins being recorded in contrast with 98 white-beaked dolphins.

Atlantic white-sided dolphins and killer whales were both reported five times (0.93% of all NWDW sightings) in Scottish waters off the North and North-West coast of the country. (table 1, figure 13)

Finally, a single pilot whale was reported off Lybster, Caithness on 29<sup>th</sup> July and a single humpback whale was spotted off the south end of Hoy, Orkney on 1<sup>st</sup> August. (table 1, figure 13)

Species	Number of sightings	Number of individuals	Average group size	Largest group size	Smallest group size
Harbour porpoise	255	947	3.71	40	1
Bottlenose dolphin	102	794	7.78	40	1
Minke whale	88	117	1.33	4	1
Short beaked common dolphin	39	1698	43.54	150	4
Risso's dolphin	9	22	2.44	7	1
White-beaked dolphin	8	98	12.25	30	2
Atlantic white-sided dolphin	5	38	7.60	12	2
Killer whale	5	12	2.40	3	1
Humpback whale	1	1	1.00	1	1
Long-finned pilot whale	1	1	1.00	1	1
Unidentified cetacean	20	163	8.15	30	1

Table 1. Quantitative description of sightings during NWDW per species

## ACKNOWLEDGEMENTS

SWF would like to thank the BG Group for their continued support of NWDW. Thanks also to all the SWF volunteers and regional coordinators around the UK, everyone who organised or attended a watch or reported a sighting, and to Wendy Nekar, SWF Press Officer for her work in the run-up and during the event.

### NWDW 2012 highlights

- 1 pilot whale off Lybster, Caithness
- 1 humpback whale off Orkney
- 40 harbour porpoise in Mounts Bay, Cornwall
- 40 bottlenose dolphin Ramsey Bay, Isle of Man
- 150 common dolphins off Porthcurno, Cornwall



## Appendix 1- Weather

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

July was a wet month, with many parts of England, North Wales and eastern Scotland having over twice their average rainfall. Only the far north-west of Scotland and west of Northern Ireland were drier than normal. Almost all areas were duller than usual, particularly Scotland where it was one of the dullest Julys on record.

### **ENGLAND**

There was overnight cloud, mist and fog at times but this cleared to allow some hot and humid conditions to develop in the days preceding the start of the Olympic Games on 27th. Temperatures rose steadily through this period with maxima over 25 °C widely across England each day from 23rd to 26th. The warmest day of the year so far was 25th when 30.7 °C was recorded at St James's Park (London). A cold front began to edge southwards over northern England from 25th bringing an end to the fine, dry spell with all parts feeling much fresher by 28th.

The month ended with low pressure once more. Some cool days and nights with daytime maxima around 20 °C and night time minima widely below 8 °C. Sunshine and showers were widespread with thunder and hail reported.

### **WALES**

Rainfall throughout July was generally close to or somewhat above normal but parts of the north recorded more than twice the average amount. Sunshine amounts approached normal across the south but were well below normal in the north.

A more unsettled pattern, as low pressure returned. Once again, heavy, thundery showers affected many parts of Wales but there were also some dry, sunny periods. Day time temperatures returned to near normal or somewhat below.

### **SCOTLAND**

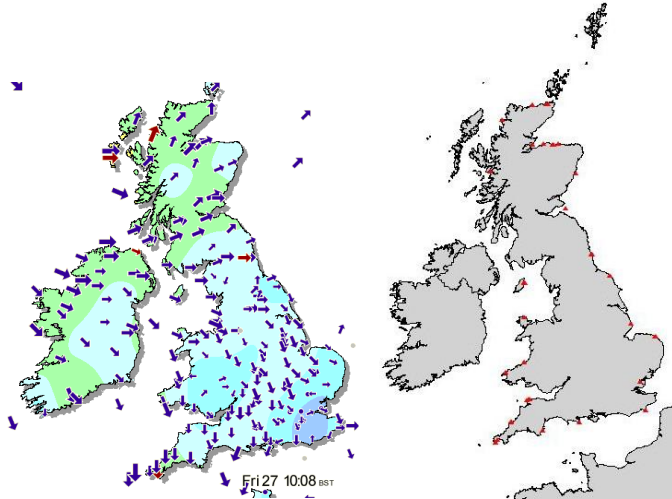
It was much wetter than normal across eastern and southern Scotland, with over twice the normal amount in the Lothians, Fife and the eastern Borders where it was one of the wettest Julys on record. In contrast, the Western and Northern Isles and the far north were somewhat drier than normal. Sunshine was limited especially across the eastern half of Scotland where, provisionally, it was the third dullest July on record.

From 27th to 30th there was a return to frequent and at times heavy showers for most areas with thunder on 29th for parts of Fife and the Lothians. A dry and bright start on 31st but rain spread from the south-west during the late afternoon and evening.

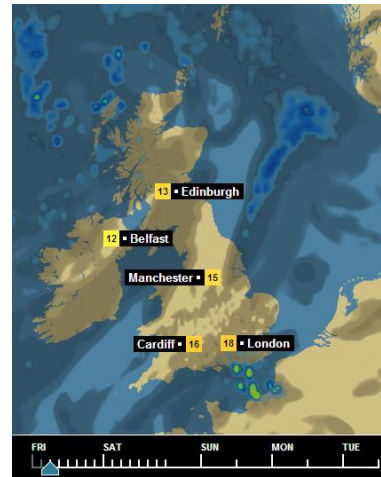
**Appendix 2- Weather**

General overview of the weather by day for the period of NWDW using maps pressure maps from XC weather (<http://www.xcweather.co.uk/>) and rain maps from the Met Office ([metoffice.gov.uk](http://metoffice.gov.uk)).

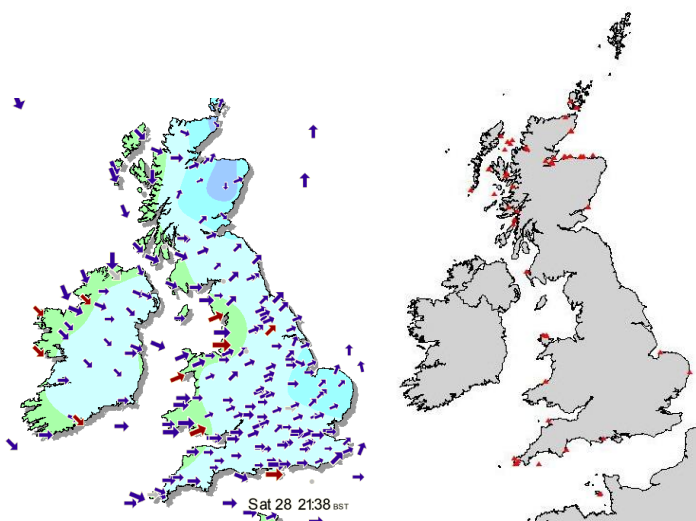
Friday, 27<sup>th</sup> July 2012



Cetacean sightings on 27th July 2012



Saturday, 28<sup>th</sup> October 2012

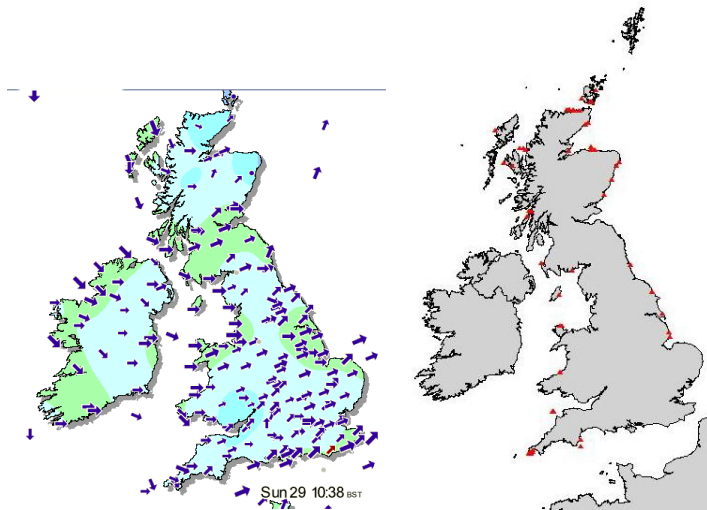


Cetacean sightings on 28th July 2012





Sunday, 29<sup>th</sup> July 2012



Cetacean sightings on 29th July 2012

