

10th NATIONAL WHALE AND DOLPHIN WATCH
5th-7th AUGUST 2011



National Whale and Dolphin Watch (NWDW) is a three day event during which the Sea Watch Foundation (SWF) encourages its volunteers, boat operators and members of the general public to conduct boat-based and land-based cetacean watches. Public land-watches are organised around the UK and boat operators are invited to become directly involved by organising watches at sea. The aim of the event is two-fold: 1) it enables the collection of a large quantity of data thus providing a snapshot of cetacean distribution around the British Isles, which can be compared from one year to the next; and 2) it serves as a means to raise public awareness of UK cetaceans and the conservation threats that they face. In the run-up to NWDW, details of organised cetacean watches are published on a dedicated page of the SWF website, and observers are recruited through various media channels (newspaper, radio, television, social networking). The event is an opportunity not only to inform the general public on the threats to cetacean populations in the UK but also to show them ways in which they can directly contribute to monitoring these populations.

This year's event ran from 5th to 7th August 2011 (but for the purpose of this report, data between 5th and 14th August 2011 have been considered). Prior to the start of NWDW, all watch leaders were provided with standard data sheets and protocols for data collection along with SWF flyers and educational materials. Throughout the event and in the weeks that followed, effort-based and casual sightings data collected during the event were submitted to SWF electronically (via email or via the online sightings form <http://www.seawatchfoundation.org.uk/sightingsform.php>), or as hard copies (via the post). The report that follows summarises information received to 1st December. However, there are likely to be some additional records from this period submitted over the winter.

Results

Effort

81 watches at 48 sites (Figure 1) were organised around the UK, and conducted over the course of NWDW (a number of watches were published on the website but cancelled on the day because of bad weather). Seventeen boat operators participated in the event through informing their passengers and collecting effort and sightings data (Figure 2). This resulted in 354 hours of effort data. This number may still increase as, at the time of writing, some effort data have not yet been received. It is estimated that over 400 people participated in the event. In terms of public awareness, this number will be greatly exceeded because of the number of people who were reached through media activities in the run-up to the event.

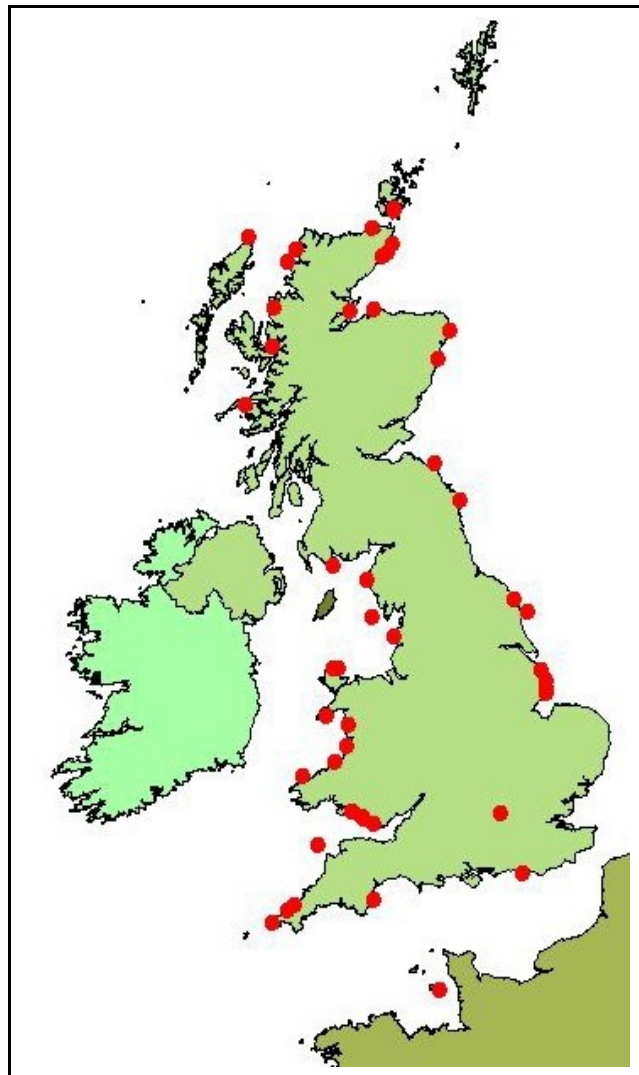


Figure 1. NWDW Watches held around the UK

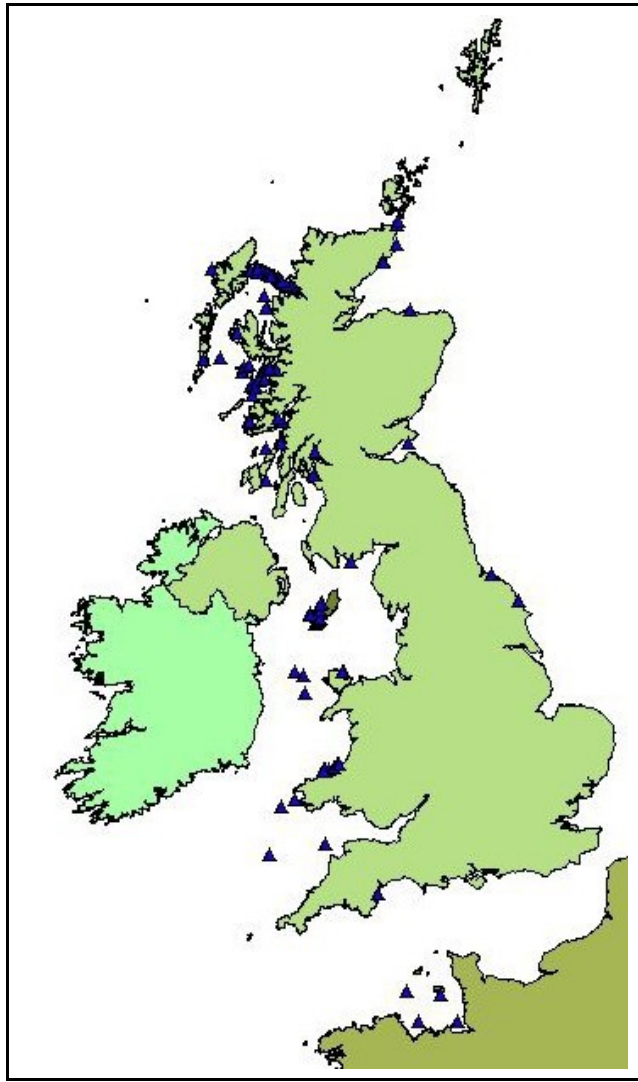


Figure 2. Vessel-based sightings collected during NWDW 2011

Boat and land-based observations produced varying proportions of sightings of each species. For ease of comparison, figure 3 shows these proportions as percentages of sightings from land, boat or unknown platforms for each species. Overall, there were more sightings were recorded from land than from sea.

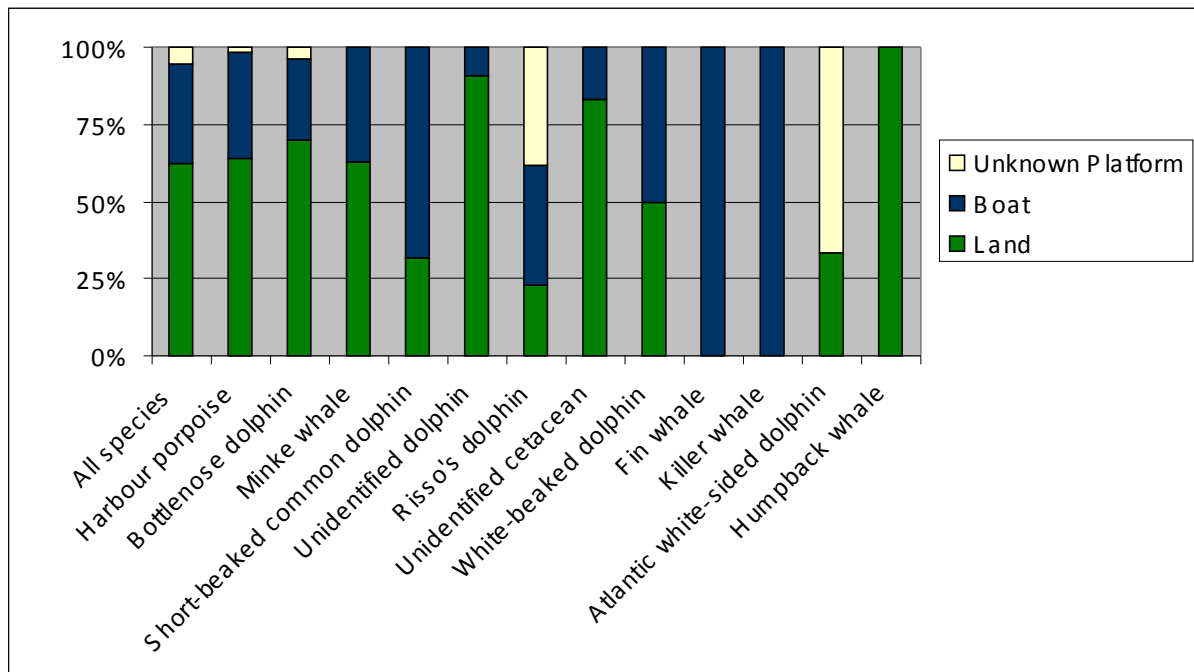


Figure 3. Proportion of sightings by species reported from boat-based watches, land-based watches or unknown platforms

Weather

Every year, the success of NWDW is inextricably linked to the weather. Sea state and swell height factor greatly into how well cetaceans can be detected through visual observations. Not only this, but weather can also cause land-based and boat-based watches to be cancelled altogether. This means that weather not only affects how many hours of effort data are collected during the course of the event but also the cetacean sighting rates.

As frequently has been the case, this year's NWDW had mixed weather, and more detail is provided on this in Appendix 1.

Sightings

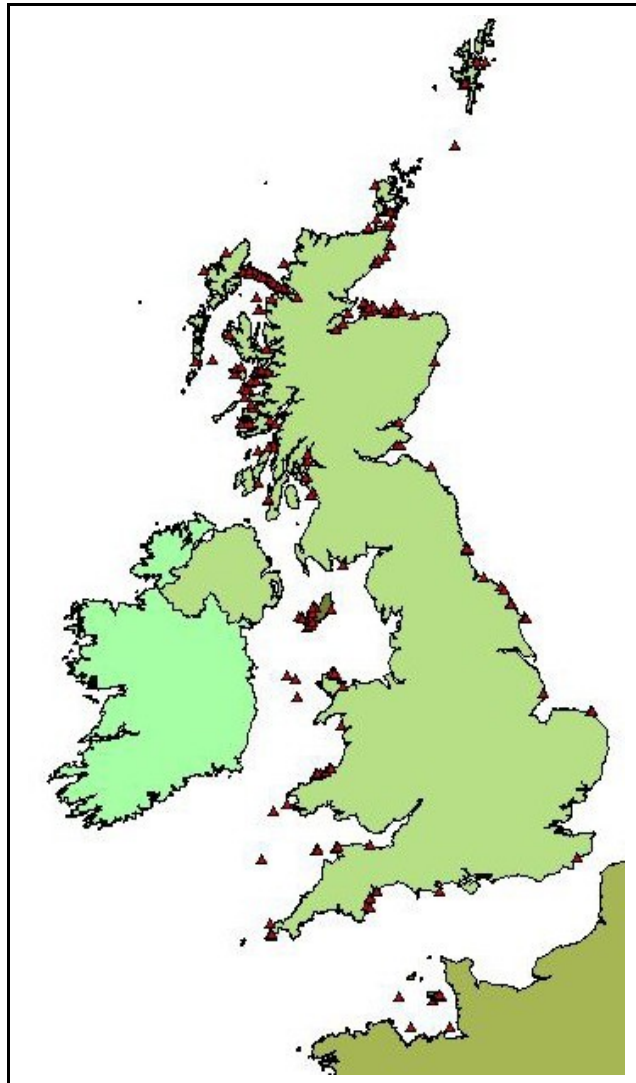


Figure 4. Sightings of cetaceans during NWDW 2011

Over the course of the NWDW weekend and the week that followed, a total of 435 sightings of ten different species of cetacean were reported, comprising a total of 2416 individuals (Table 1). Included in these sightings were a number of reports of unidentified cetacean and dolphin species. These represented occasions when the animals were either too far away or not seen for long enough to be able to determine the species. In rare cases, this could also be attributed to less experienced observers.

Sightings were not evenly distributed around the UK (Figure 4). They were generally concentrated around the Scottish and Welsh coastlines as well as off the south-west and north-east coasts of England (Figure 5). Regions with the highest number of sightings were not necessarily those with the highest diversity of species (Figures 5 & 6). West Wales is a good example of this. This region ranked top in terms of number of sightings (thanks largely to the intensive land-watches conducted by the New Quay SWF volunteers) but these sightings only comprised three species. By contrast, observers in North-east England saw the greatest variety of cetaceans ($n=5$) in only 13 sightings.

Number of sightings

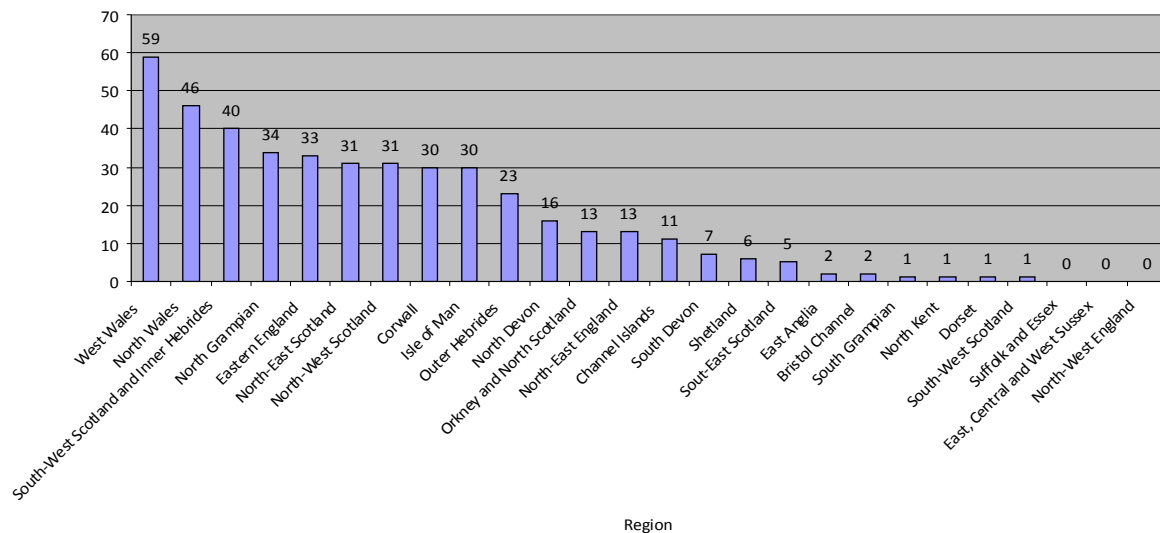


Figure 5. Number of sightings by region during NWDW 2011
(including casual sightings and sightings resulting from effort related watches)

Number of species

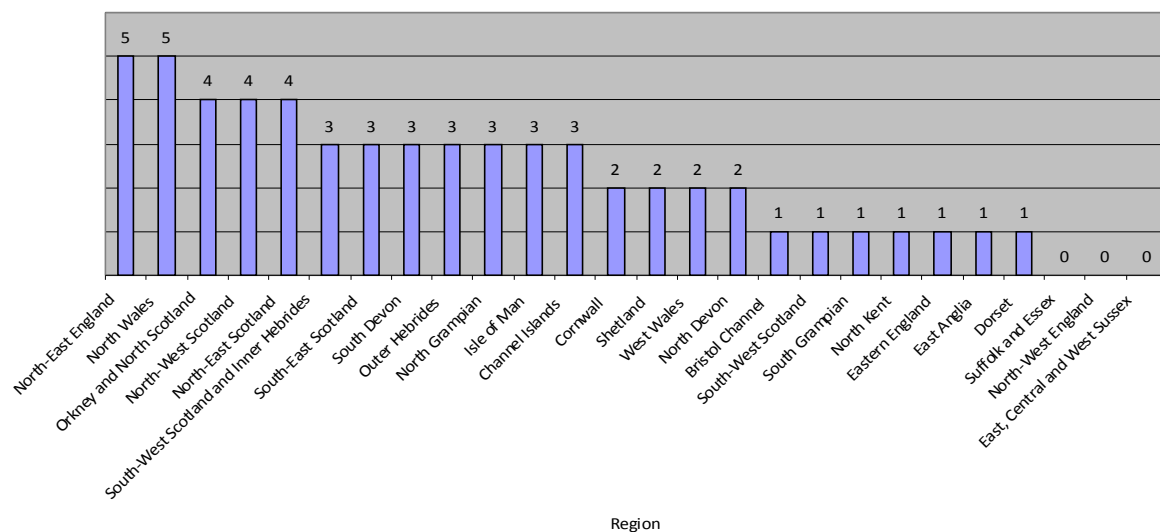


Figure 6. Number of species seen by region during NWDW 2011
(based on casual sightings and sightings resulting from effort related watches)

During NWDW, several effort-related watches were organised around the UK. The intended number of watches varied from one region to the next, with the weather causing a few cancellations. By exclusively considering effort-related sightings (and disregarding casual sightings), it becomes possible to eliminate the element of variable observer coverage, and to compare regions on an equal footing. Figure 7 shows the number of hours of effort conducted by region and the resulting number of sightings. The clearest way to represent this is by calculating the number of sightings per hour of effort, as in Figure 8, which shows that North-West Scotland has the highest number of sightings per hour in the UK.

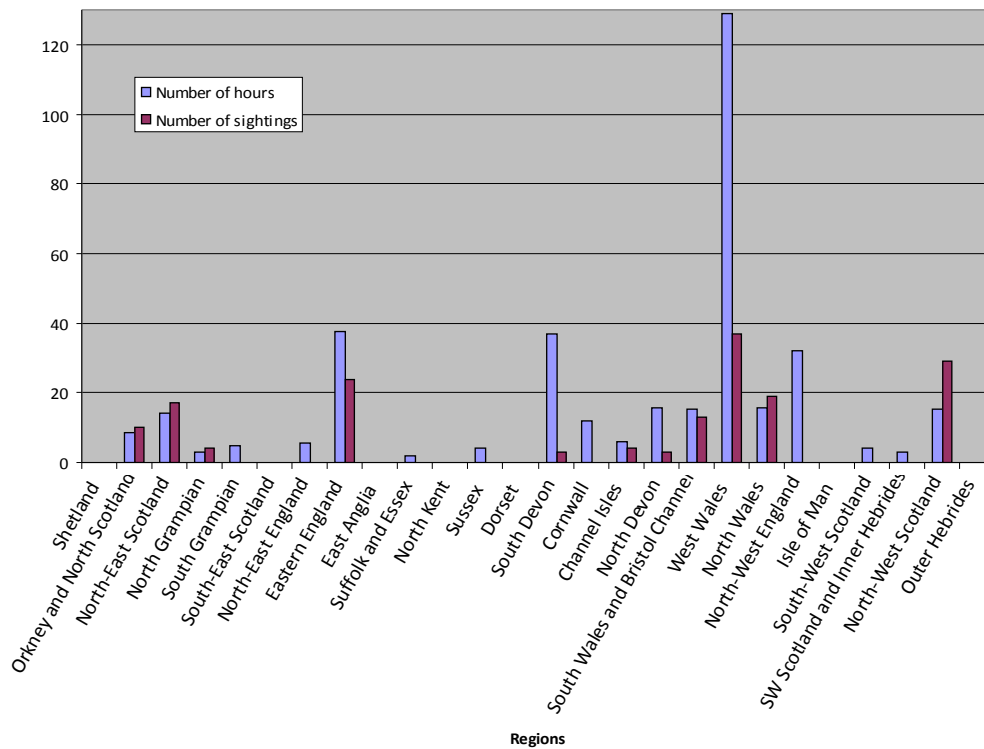


Figure 7. Number of hours of effort-related watches and number of sightings recorded by region during NWDW 2011

Number of sightings per hour

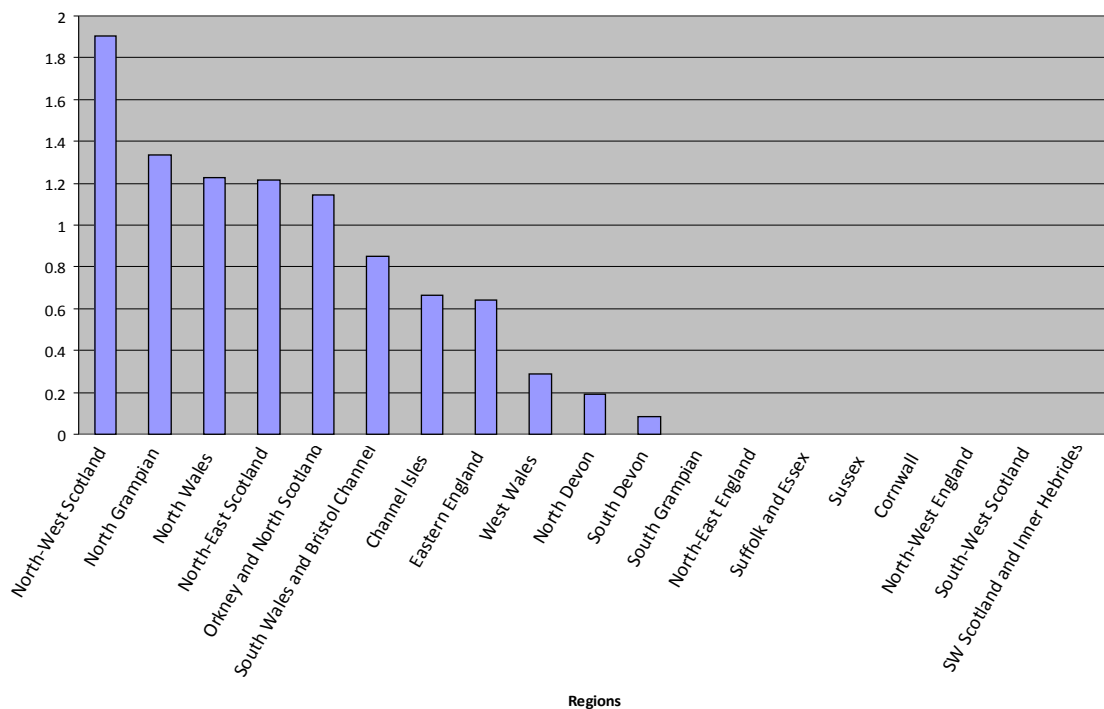


Figure 8. Number of sightings per hour of effort-related watches by region during NWDW 2011

Table 1. Quantitative description of sightings during NWDW per species

Species	Number of sightings	Number of individuals	Average group size	Largest observed group size	Smallest observed group size
Harbour porpoise	235	684	3	15	1
Bottlenose dolphin	109	733	7	44	1
Minke whale	28	40	1	6	1
Short-beaked common dolphin	22	359	16	90	4
Risso's dolphin	13	91	7	12	1
Unidentified dolphin	11	82	7	20	1
Unidentified cetacean	6	25	4	11	1
Killer whale	3	15	5	6	3
Atlantic white-sided dolphin	3	351	117	300	1
White-beaked dolphin	2	33	17	30	3
Humpback whale	2	2	1	1	1
Fin whale	1	1	1	1	1
All species	434	2416	6	300	1

Harbour porpoise and bottlenose dolphin were the two species with by far the most sightings during NWDW, with harbour porpoise coming out on top with 235 sightings (Table 1). Harbour porpoises are widely distributed around the British coast, and in favourable viewing conditions, they are easily spotted from land (Figure 3). This was reflected in widespread sightings around the British coastline (Figure 9). As a direct consequence of this high sightings rate, harbour porpoise also ranked second in the number of individuals counted, beaten only by bottlenose dolphin which had a higher average group size than porpoise. In contrast to harbour porpoise which can be seen all around UK's coastlines, bottlenose dolphins are more patchily distributed, and were recorded in a small number of hotspots (Cardigan Bay, Moray Firth, Aberdeenshire, South Devon, and the Channel Islands) (Figure 10). Bottlenose dolphins were also recorded in the Hebrides, and an early sighting was made off the Isle of Man, where the species is generally seen later in the year. The most surprising sighting was the report of a group of ten bottlenose dolphins from Whitburn Coastal Park in North-east England.

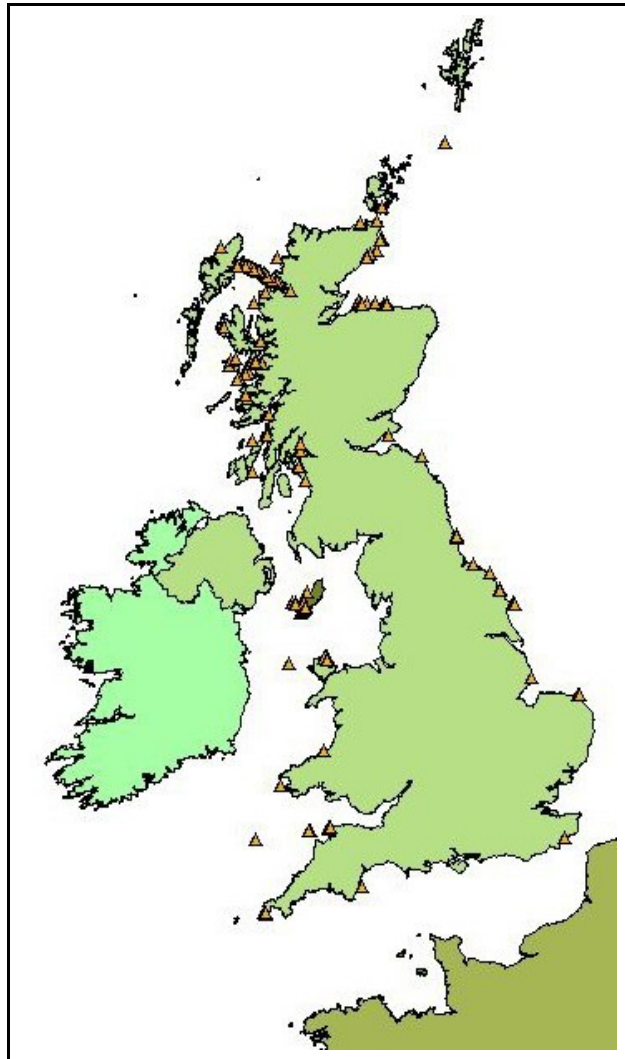


Figure 9. Sightings of harbour porpoise during NWDW 2011

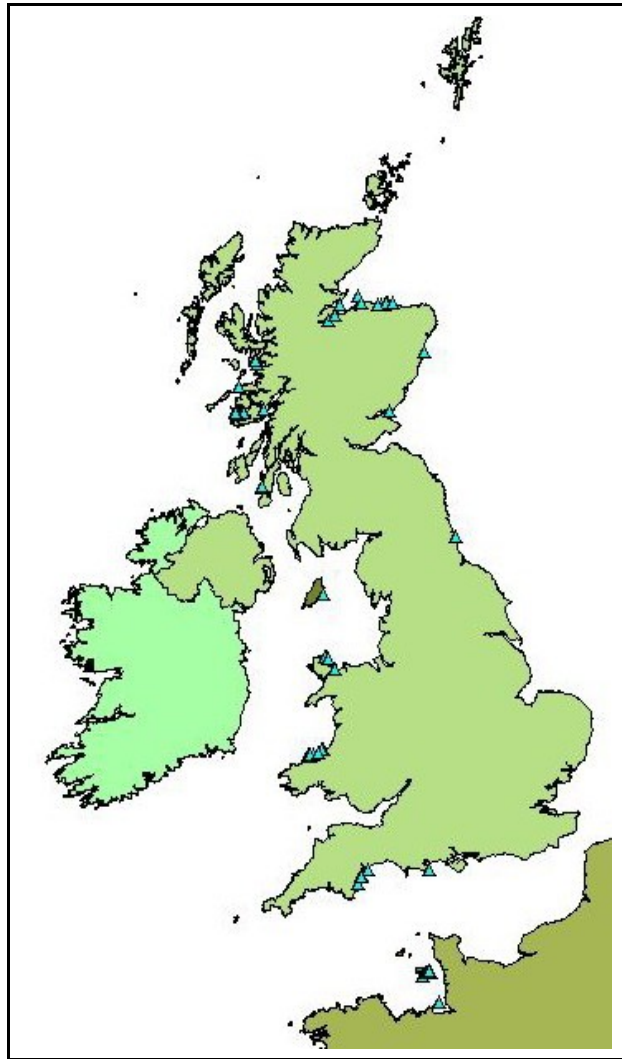


Figure 10. Sightings of bottlenose dolphins during NWDW

Minke whales were seen 28 times, mostly observed as single animals (Table 1). Minkes are commonly seen off the Atlantic seaboard of Europe and the North Sea and are mostly seen in coastal waters from May to October. During NWDW, they were widespread around the Scottish coast (Figure 11).

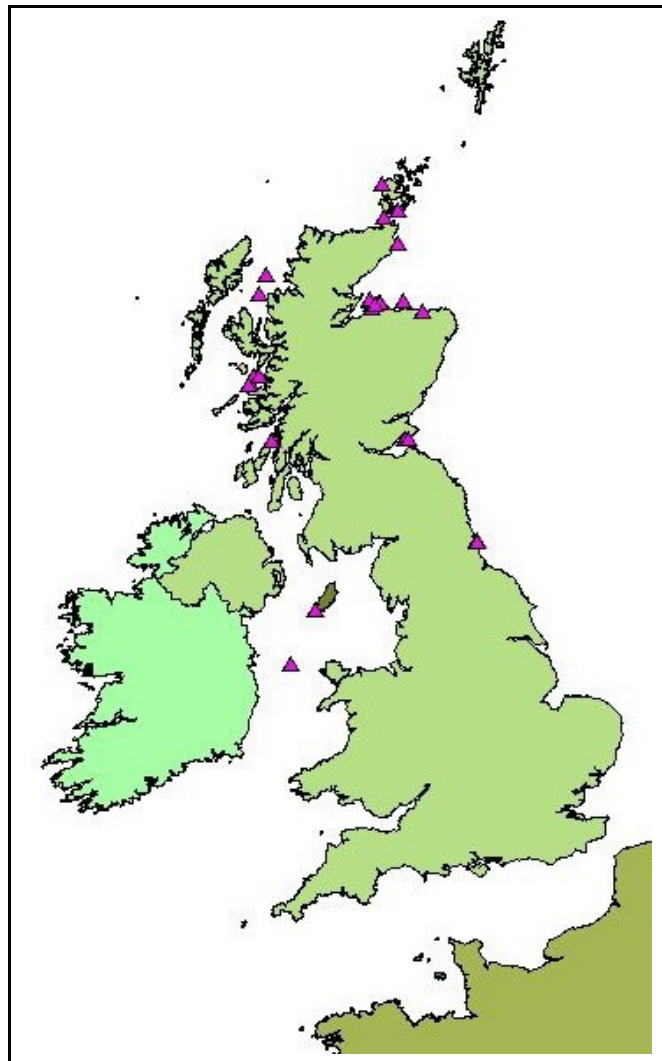


Figure 11. Sightings of minke whale during NWDW 2011

Short-beaked common dolphins were the third most common species with 359 individual animals recorded in only 22 sightings around the UK (Table 1). Records of this species in coastal waters tend to increase during the summer, and they can be seen to congregate in large groups on feeding grounds such as the Celtic Deep. On this occasion, the bulk of common dolphin sightings came from Land's End, Cornwall (Figure 12).

The only other species to have been recorded more than ten times during NWDW is the Risso's dolphin with thirteen sightings, mainly around the Isle of Man where it is regularly seen during the summer (Figure 12).

The north of the British Isles saw killer whales and Atlantic white-sided dolphins three times each. White-sided dolphins had the highest average group size observed during NWDW, despite having only three sightings (Table 1). This species is generally found offshore in deep

Atlantic waters, and NWDW was no exception to this, with sightings exclusively around the Shetland Isles (Figure 12).

White-beaked dolphins were seen just twice during NWDW: once in the North Sea off the east coast of England, and once in Lyme Bay in the south of England. Although this species has a generally northern distribution, there is a small group of seemingly resident animals in Lyme Bay.

Finally, the most unusual species sighted were humpback whale and fin whale. Single humpbacks were spotted twice off Whitburn Coastal Park in North-east England, and there was a possible fin whale sighting off Little Ross Island in South-West Scotland.

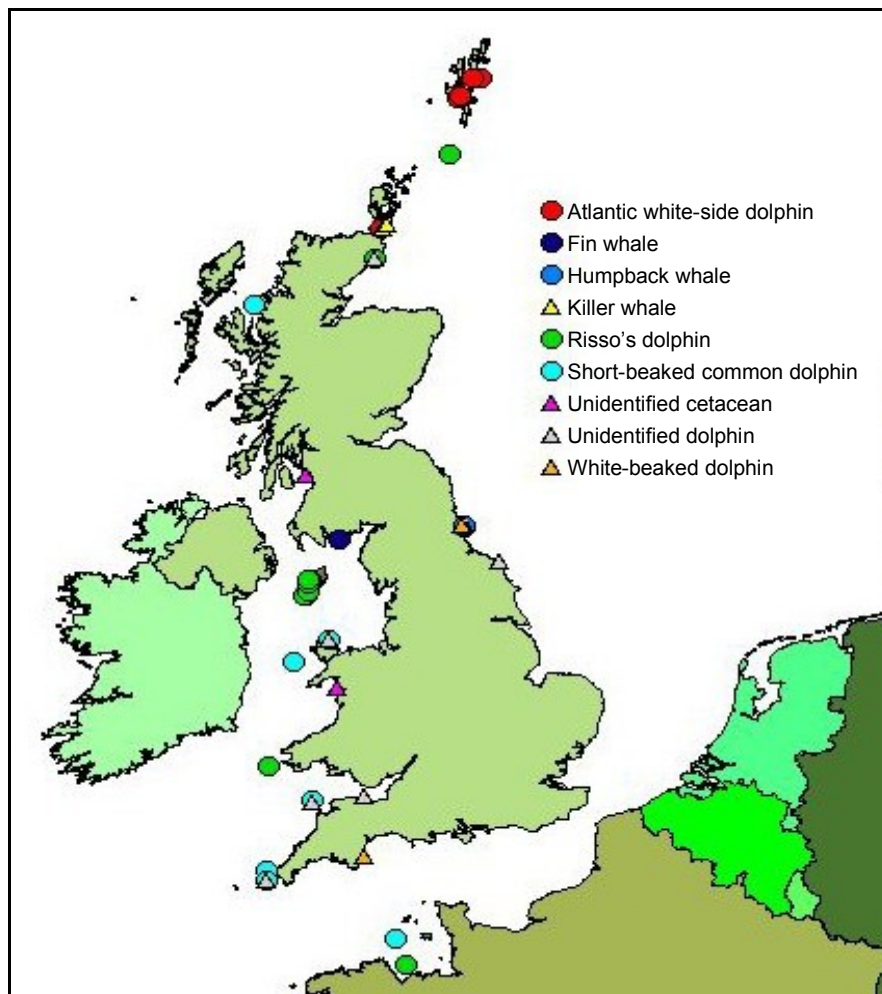


Figure 12. Sightings of white-beaked dolphin, Atlantic white-sided dolphin, short-beaked common dolphin, Risso's dolphin, killer whale, humpback whale, fin whale, and unidentified whale and dolphin species

The highlight of NWDW 2011 has got to be the sightings that occurred off Whitburn Coastal Park during the weekend of the 6th and 7th. Observers from land were treated to the spectacle of minke, humpback, bottlenose dolphins, white-beaked dolphins and harbour porpoise all in one small area. Needless to say that seeing this range of species is also unusual for North-East England, and we are extremely lucky for this to have coincided with NWDW.

Acknowledgements

SWF would like to thank the BG Group for their continued support of NWDW and for making this tenth event possible. Thanks also to all the SWF volunteers around the UK, everyone who organised or attended a watch or reported a sighting, and to Julie Albray and Wendy Nectar for their unyielding determination to promote NWDW.

Danielle Gibas, SWF Sightings Officer



Appendix 1*–Weather conditions during NWDW***General overview of the weather by country for the period of NWDW (Met Office – metoffice.gov.uk)****England**

With weather fronts moving across from the west during the 4th bringing rain, the weather in England was unsettled during NWDW (5th to 7th August). Showers took place over most of England turning heavy, thundery and prolonged at times. There were sunny spells too, with maxima around 23 degrees Celsius across the east on the 5th although temperatures then became closer to normal

Wales

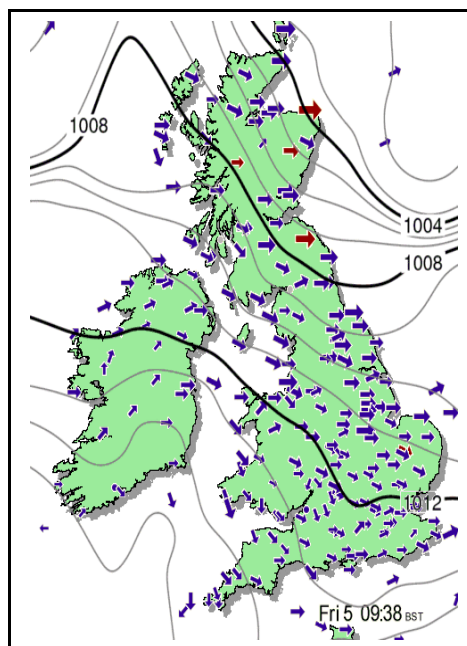
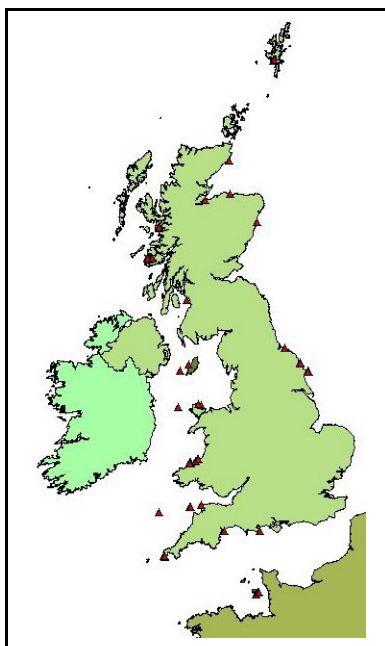
The 5th was mainly dry and fine with sunny spells. The weather on the 6th and 7th was dominated by showers. Scattered showers occurred from the start of the 6th, with a few turning heavier later in the day. These showers died away overnight, allowing a dry start to the 7th before heavy showers spread across much of Wales during the afternoon. They became thundery and locally very heavy.

Scotland

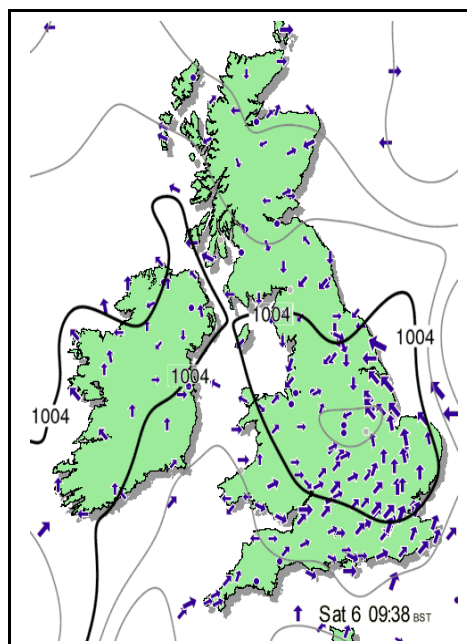
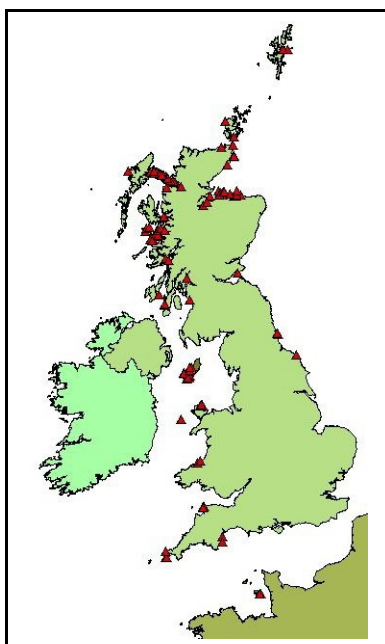
Mainland Scotland was bright with isolated showers on the 5th whereas it rained in Shetland. Bright with a few showers on 6th but rain, occasionally heavy, spread into southern and eastern parts later with 24 hour totals widely in excess of 25mm. Rain for most of the 7th, heavy and prolonged especially across the north and east with 24 hour totals over 20mm including 33.6mm at Lossiemouth (Moray).

The maps on the right are weather maps for each day of NWDW were taken from <http://www.xcweather.co.uk/forecast/> and illustrate wind strength and pressure. The maps on the left summarise sightings around the UK for that day.

5th August 2011



6th August 2011



7th August 2011

