



**NATIONAL WHALE & DOLPHIN WATCH
7-15 AUGUST 2010**



National Whale & Dolphin Watch (NWDW) 2010 was the ninth annual event organised by the Sea Watch Foundation (SWF). NWDW aims to raise awareness of the status of UK cetaceans by involving the public in the collection of data from dedicated watches both from land and sea. The event also aims to record a large volume of watch data (effort) that can produce a snapshot of the distribution of cetaceans in British waters.

NWDW was promoted to scientific, media and educational communities in the hope that as many observers as possible would be involved. Manned land watches were organised throughout the country led by experienced cetacean observers. The public were invited to join these watches where there was reading material about UK cetaceans and SWF activities, and to take part in the data collection. A number of boat operators directly took part in the event by collecting data and involving their passengers. Several other cetacean organisations also participated. In addition, interested members of the public were trained to perform their own cetacean watches and to send in the data to SWF.

Data were collected in the form of timed effort watches both from land and sea, and casual sightings were also recorded. Sightings were submitted to SWF by posting in effort and sightings forms, by email and telephone or by using the online sightings form available at <http://www.seawatchfoundation.org.uk>.

RESULTS

Effort

87 manned land watches at 44 sites were performed throughout the country, which were advertised to the public. In addition, 16 commercial operators directly took part in NWDW by collecting data and by providing passengers with information on the event and cetaceans. Approximately 448 hours of effort data from land and boat based watches have been collected and submitted so far (as of 22 Sept 2010). Sightings from 107 land based sites were recorded, combining effort based and opportunistic records. 168 positions from vessel based sightings were also recorded. At least 300 people were involved as observers. Table 1 compares the numbers of sightings, individuals and sites of this year's event with previous years.

Table 1: Number of sightings, individuals and sites recorded during all NWDW events to date.

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Dates	27-28 Jul.	30-31 Jul.	21-29 Aug.	13-21 Aug.	12-20 Aug.	23 Jun. - 1 Jul.	21-29 Jun.	18-26 Jul.	7-15 Aug.
No. Sightings	468	399	672	798	594	305	352	446	425
No. Individuals	1996	2106	2538	5383	2107	1346	1945	2137	1888
No. manned sites	219	200	74	91	100	100	60	45	87

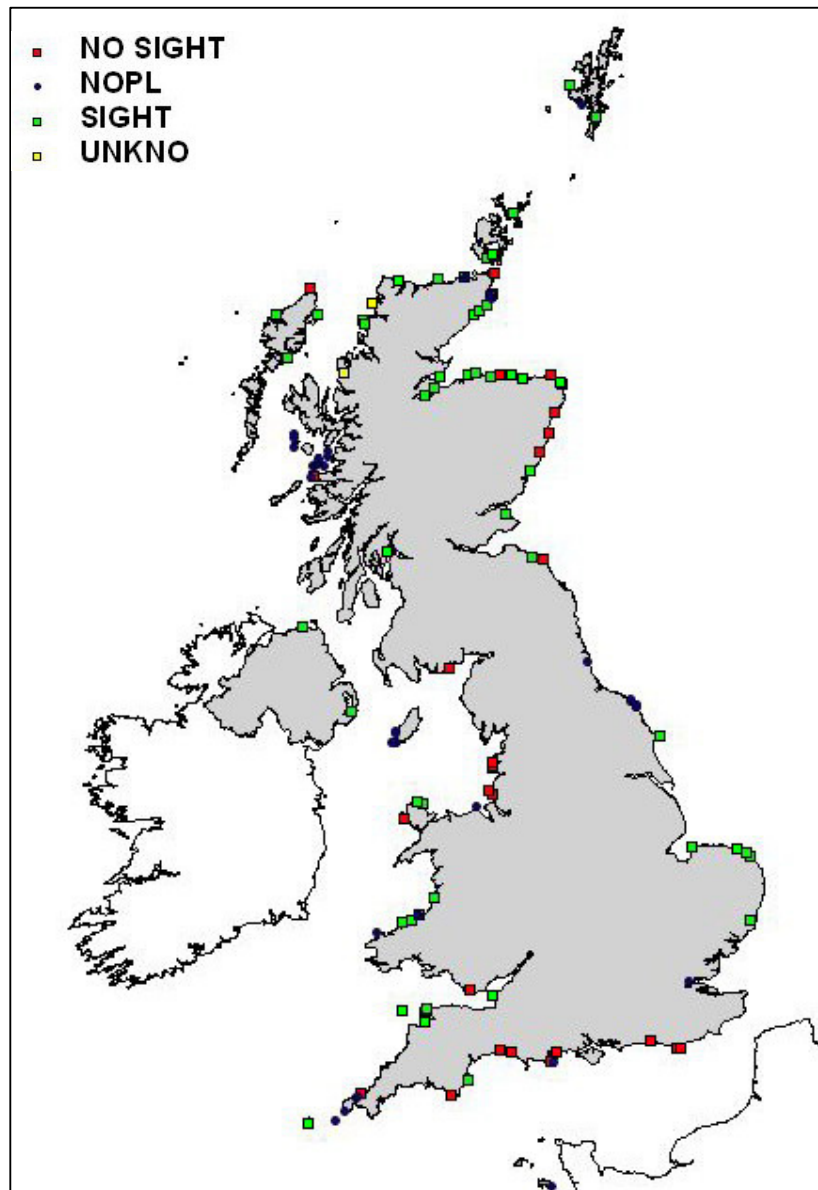


Figure 1: Land based sites that were monitored during NWDW 2010 (NO SIGHT- watch sites with no sightings; SIGHT- sites that land based sightings were recorded. UNKNO- sites for which results have not yet been received. NOPL- sightings that were reported from an unknown platform).

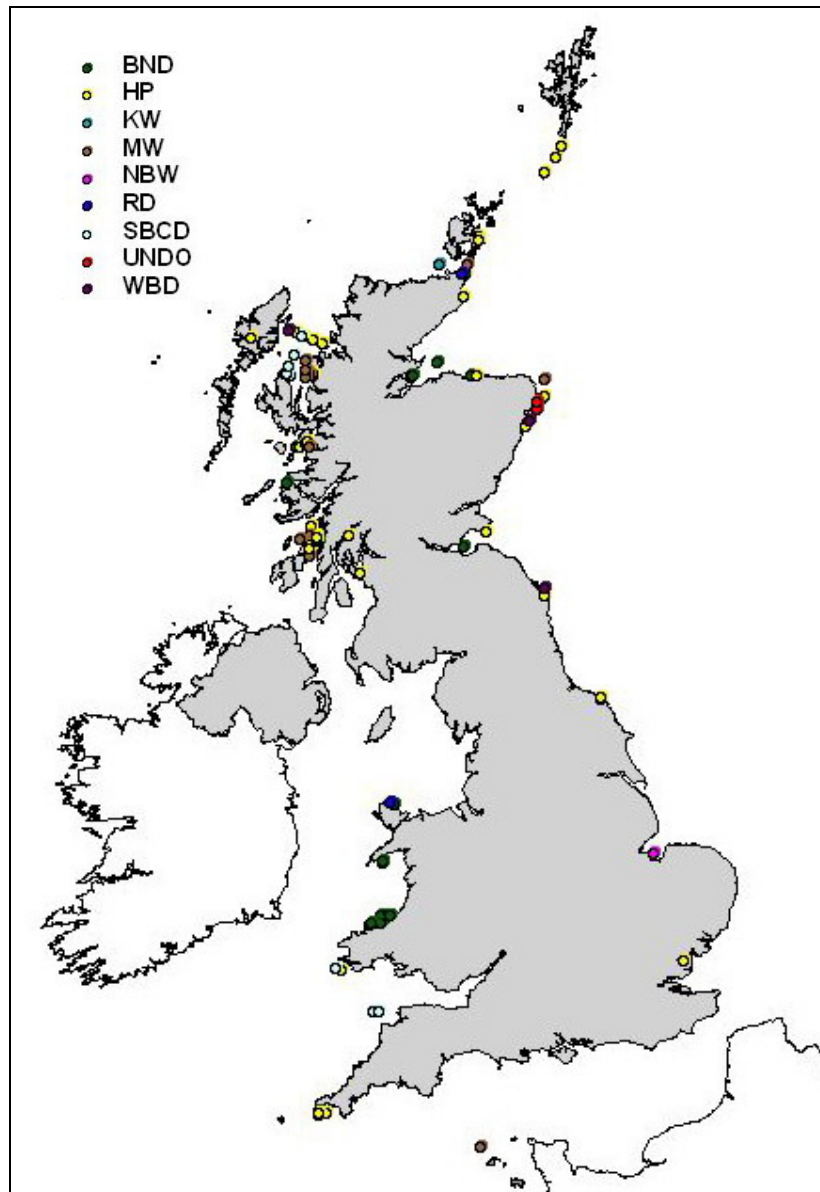


Figure 2: Vessel-based sightings recorded during NWDW 2010

Weather

Sightings frequency depends on the weather conditions and tends to be higher in calm seas and when visibility is good. NWDW 2010 experienced mixed weather, with most regions experiencing strong winds and rainfall at some stage during the event. For further details on the weather conditions, see Appendix 2.

Sightings

At the time of writing, 425 sightings have been reported during the nine day event (Figures 3, 5). These records consisted of eight species totalling 1888 individual cetaceans (Figure 4). Since NWDW 2008, bottlenose dolphins have been the most recorded species. However, this year the most common species reported was the harbour porpoise with 193 sightings, followed by the bottlenose dolphin with 142 reports. Sightings of other species were recorded in much lower numbers. The minke whale was the third most commonly reported species with 47 sightings. In past NWDW events, these three species also received the highest numbers of reports. Most observations are close to shore, so it is likely that this is one major reason for the high number of sightings of those three species, which are all often found in inshore waters. Other species spotted during NWDW 2010 included the short-beaked common dolphin, Risso's dolphin, killer whale, white-beaked dolphin and northern bottlenose whale. There were several reports of unidentified dolphins or cetaceans (Figure 3).

No. sightings

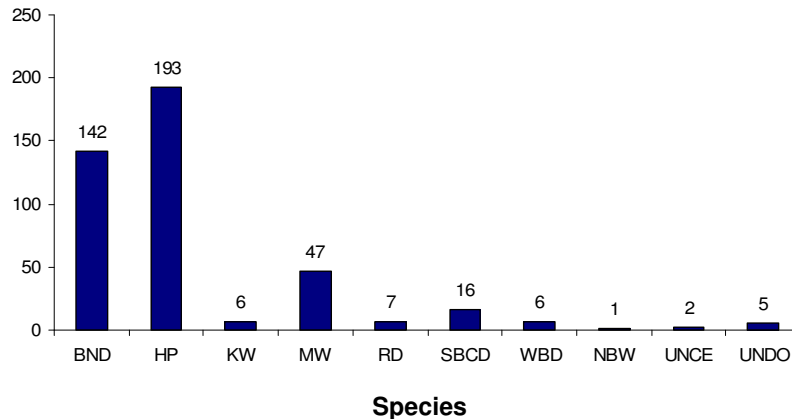


Figure 3: Number of sightings of each species recorded during NWDW 2010.

No. individuals

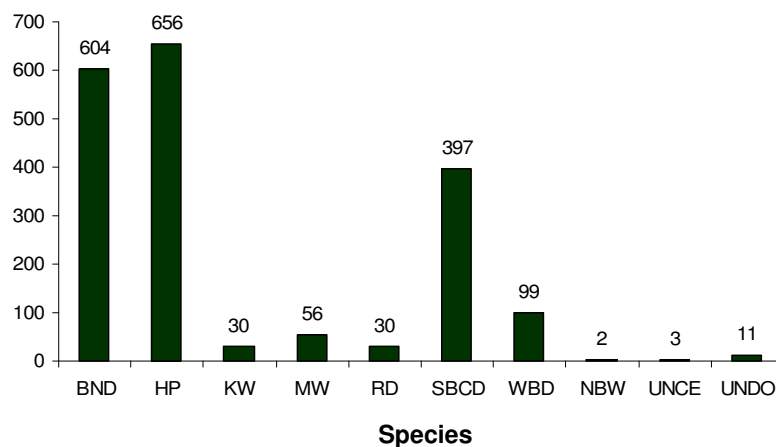


Figure 4: Number of individual cetaceans recorded per species during NWDW 2010.

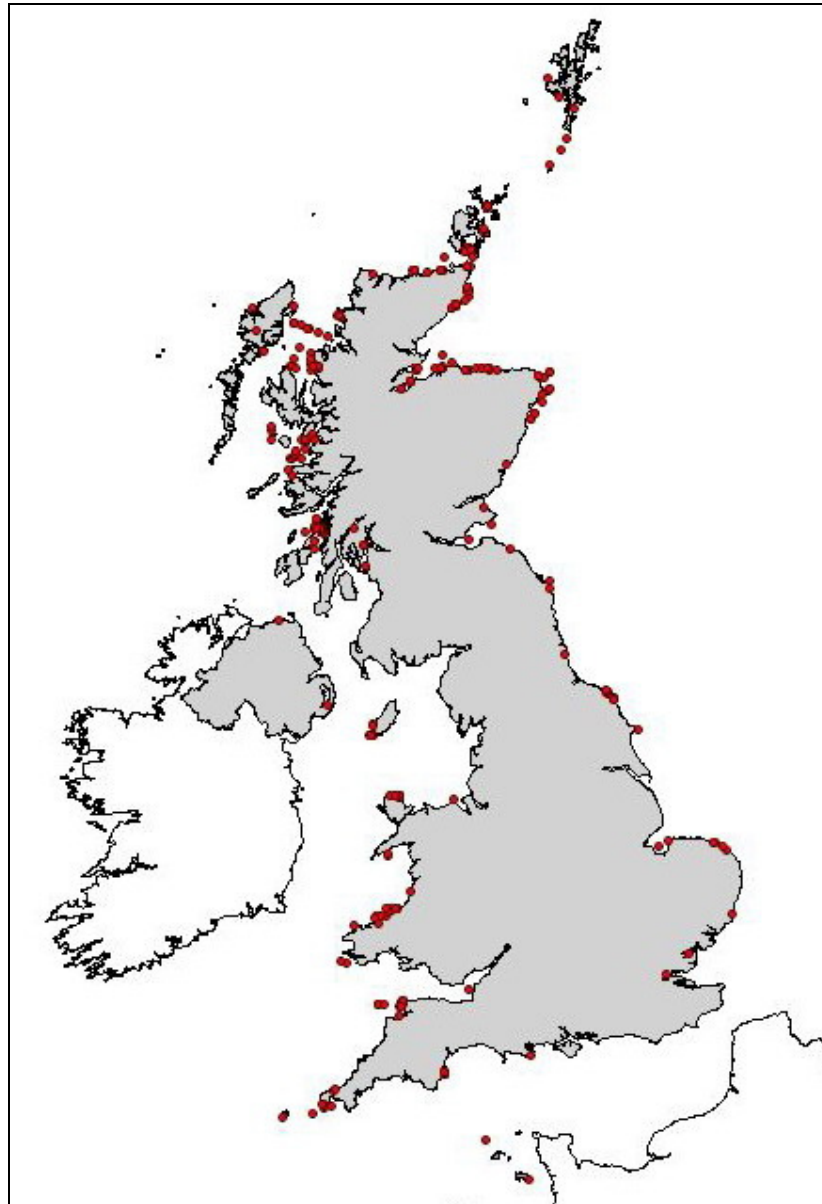


Figure 5: Distribution of all sightings reported during NWDW 2010

As expected, harbour porpoise sightings were well distributed around the British coastline (Figure 6). High numbers of sightings of the species were recorded off the Orkney Isles, Caithness, Argyll and Bute, North Anglesey, North Devon and South Devon.

Numbers of sightings of bottlenose dolphins were high once again this year, and hotspots for this species included the Moray Firth and Cardigan Bay (Figure 7). Both these areas have semi-resident populations of bottlenose dolphins and have Special Areas of Conservation (SAC) designated for the species. In Scotland, these animals were also spotted around the Hebrides, Argyll and Bute, Aberdeenshire, Fife and the Firth of Forth. At the opposite end of the country, sightings of bottlenose dolphin occurred off Jersey, Cornwall and Dorset. The species was also recorded off North

Anglesey and, interestingly, four bottlenose dolphins were seen in the Dee estuary. The location of this sighting is highly unusual for the species. One month earlier, 30 bottlenose dolphins were seen from this site, which we believe provides the most easterly record for the species in the Irish Sea. There have been a number of records of this species on the North Wales coastline in recent years, with large groups being recorded particularly in the winter months. However, to our knowledge there have been no reports of this species so far east before.

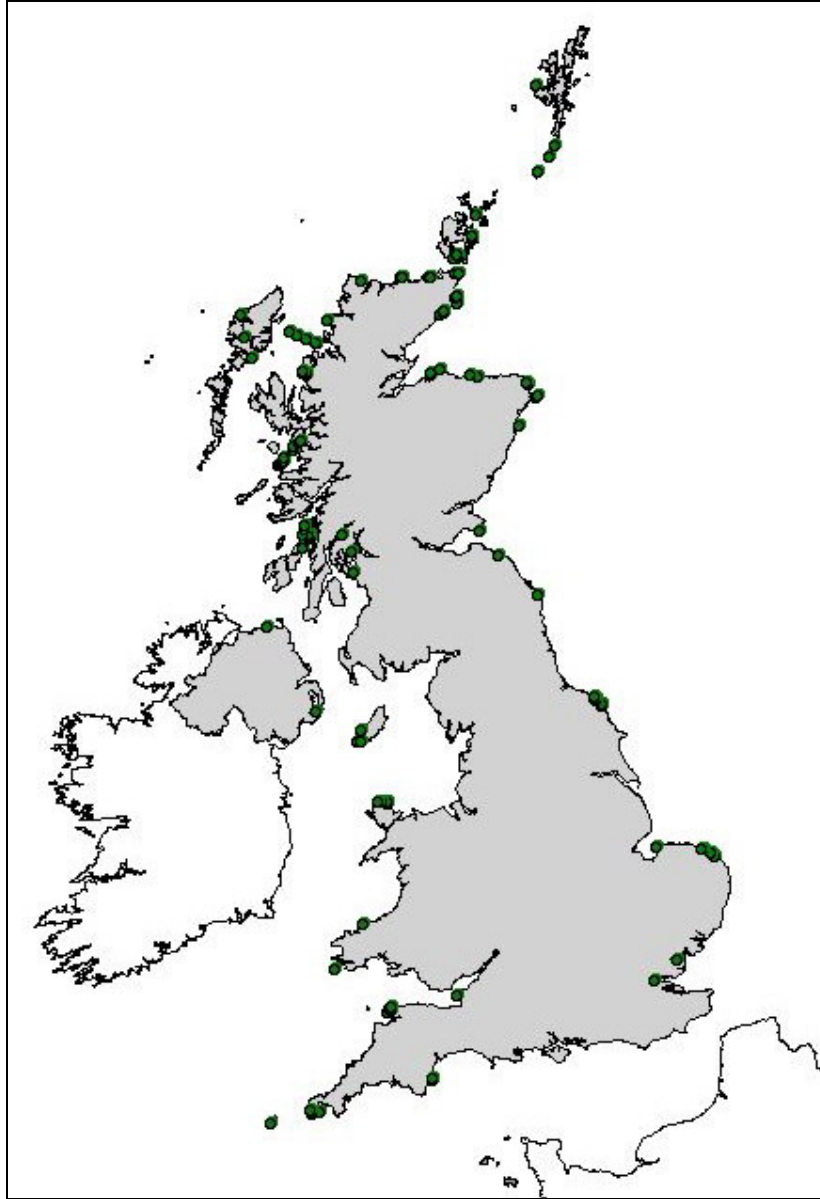


Figure 6: Distribution of harbour porpoise sightings reported during NWDW 2010

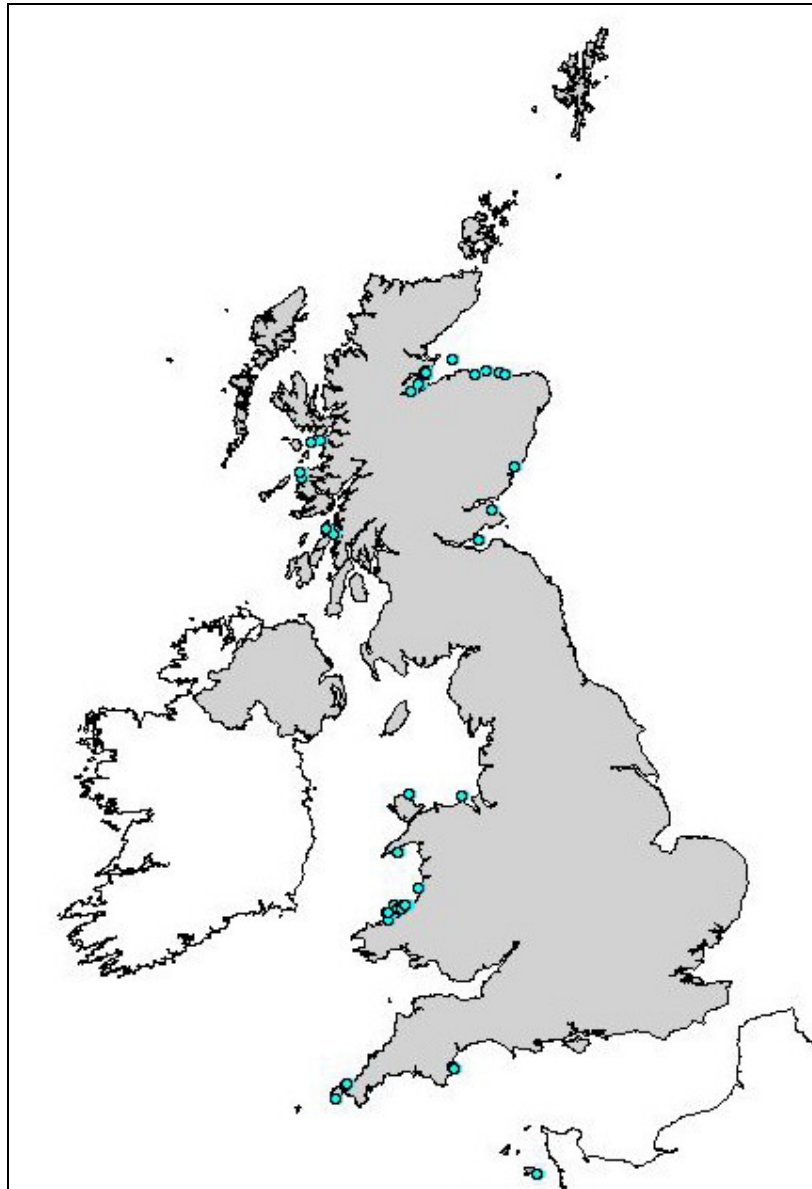


Figure 7: Distribution of bottlenose dolphin sightings reported during NWDW 2010

Sightings of minke whales were most common in Scotland (Figure 8). The species was seen regularly in the Hebrides and North West Scotland, Caithness and Orkney. Sightings were also recorded off Shetland, Aberdeenshire, North Yorkshire, Isle of Man and north-west of Guernsey.

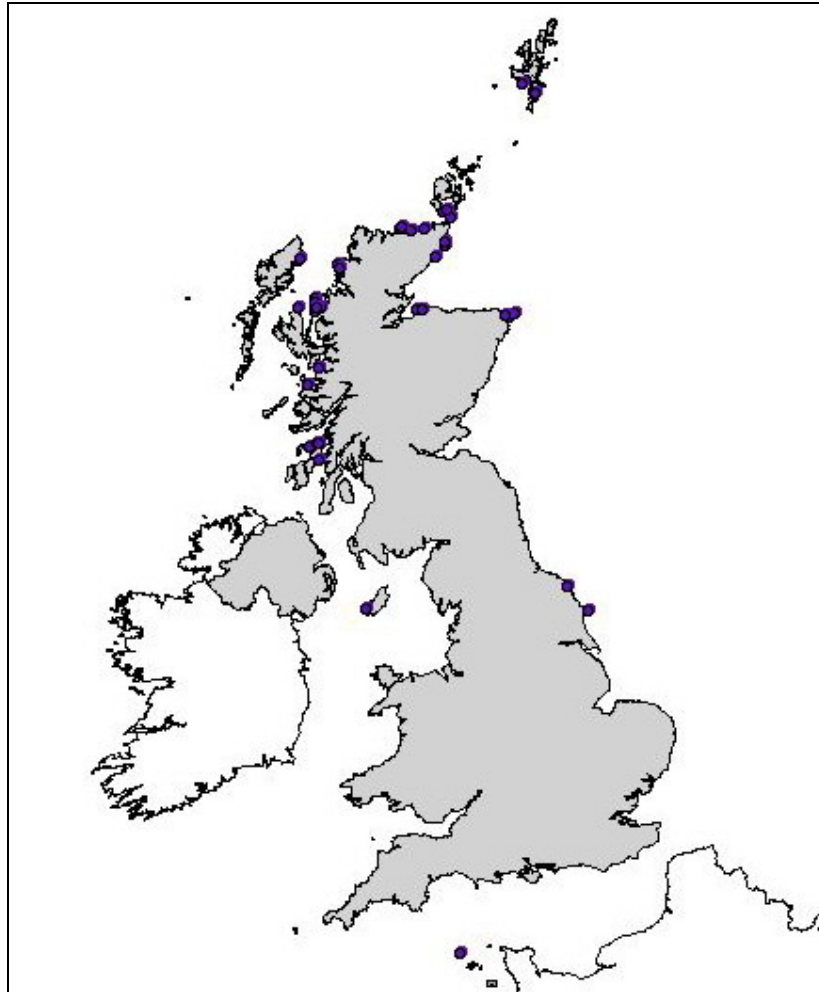


Figure 8: Distribution of minke whale sightings reported during NWDW 2010

The remaining species reported during NWDW 2010 are shown in Figure 9. White-beaked dolphins were recorded on six occasions. These animals are the most abundant dolphin species in the North Sea occurring widely over the continental shelf although favouring slightly deeper waters, and so tend to be reported less frequently than others such as the bottlenose dolphin. However, this summer has been notable as high numbers of inshore sightings consisting of large groups have been reported in the past few months, including during NWDW. Sightings were recorded off Aberdeen, North West Scotland, the Farne Islands, and Co. Durham at Whitburn.

Another characteristically offshore species, the short-beaked common dolphin, was seen on a number of occasions in North West Scotland and in North Devon, particularly off Lundy Island. There was also a report off the Hebridean Isle of Coll and in Pembrokeshire. Despite the relatively low number of sightings of this species,

the total number of animals was high at 397 individuals. Common dolphins are known to form very large groups, sometimes into the thousands. During this event, group sizes in North Devon reached up to 30 animals on a few occasions. In North West Scotland, there were several sightings of large groups including three encounters of approximately 60 individuals.

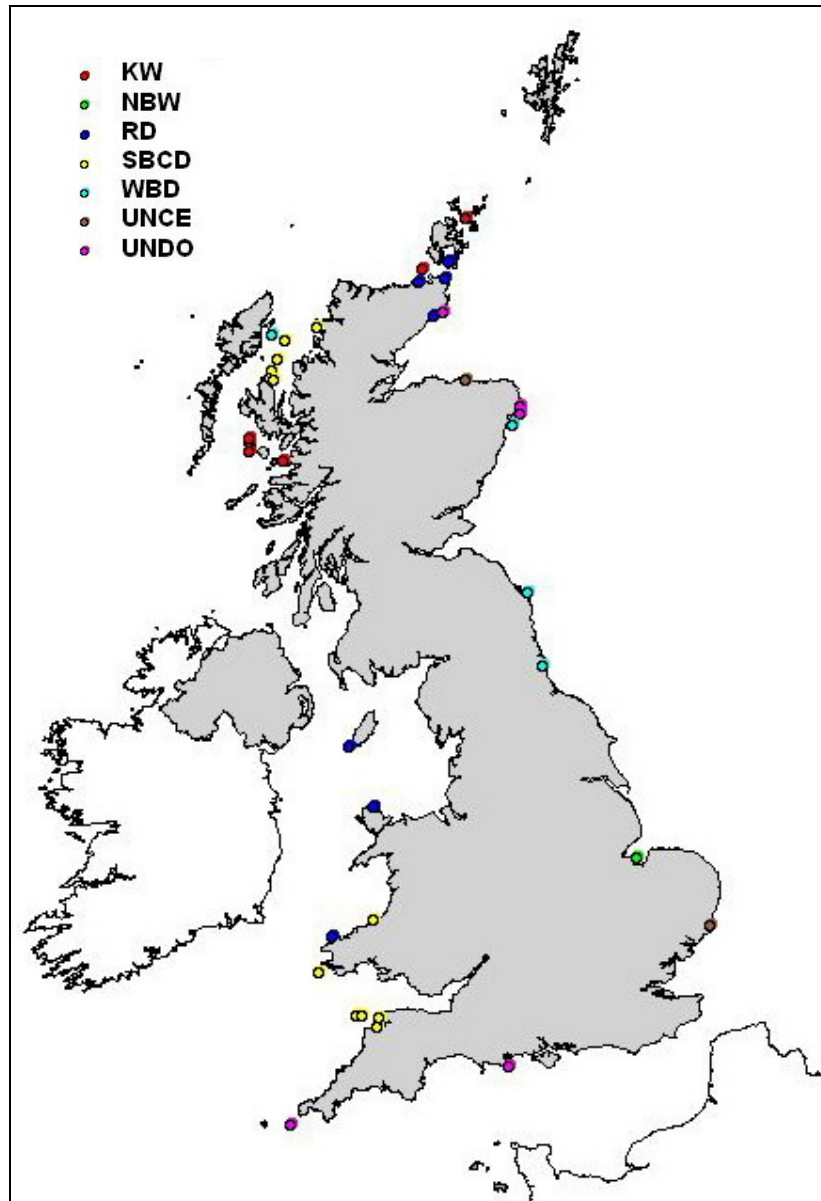


Figure 9: Distribution of the remaining species reported during NWDW 2010 (RD- Risso's dolphin; SBCD- Short-beaked common dolphin; WBD- White-beaked dolphin; NBW- Northern Bottlenose Whale; UNDO- Unknown dolphin species; UNCE- Unknown cetacean species)

There were six killer whale reports during NWDW 2010, all in Scotland. Sightings were recorded off the Inner Hebrides, in the Pentland Firth, and off Orkney where a large pod of 19 animals were reported.

The remaining dolphin species recorded, the Risso's dolphin, was sighted off Caithness, South Ronaldsay in Orkney, Isle of Man, Anglesey and Pembrokeshire.

Just one whale species in addition to minke whales was seen during NWDW and it was an unusual one. Two northern bottlenose whales were seen in the Wash, Norfolk. These beaked whales are a deepwater species, normally living in canyons off the continental shelf in the North Atlantic. It is possible that these animals became disorientated and get lost on their migration route to the North Atlantic from Scandinavian waters, or follow prey into unfamiliar shallow waters. A handful of sightings of this species occur in British waters each year. Sadly, a sighting of these whales in inshore waters does not normally bode well and the animals usually strand since they are in an unfamiliar habitat. However, fortunately, there have been no strandings reports to date of these particular individuals.

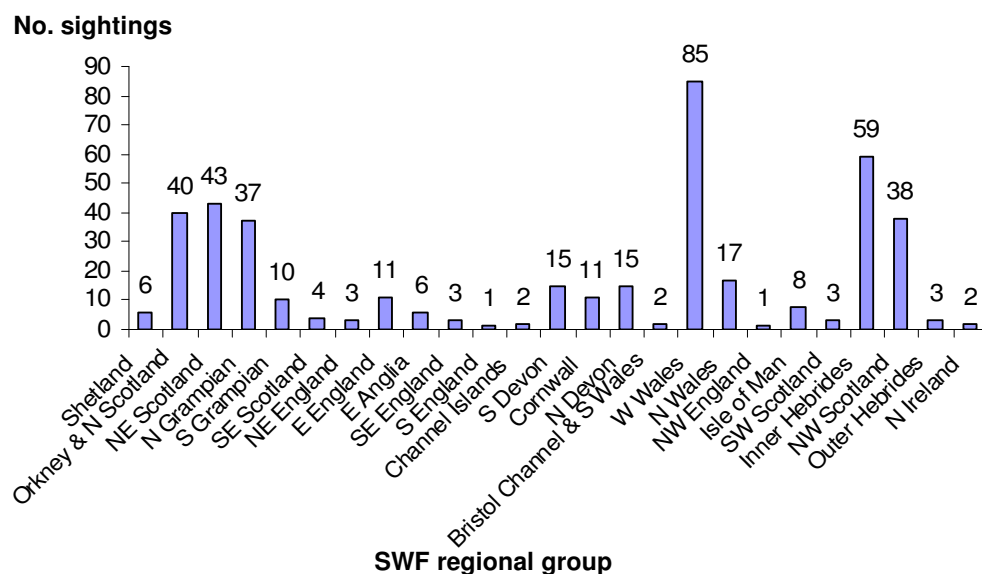


Figure 10: Numbers of sightings (effort based and opportunistic) recorded per SWF regional group (see Appendix 1) during NWDW 2010.

Figure 10 shows the number of sightings recorded per SWF regional group (see Appendix 1). The region that recorded the most sightings was West Wales with 85 reports. The Inner Hebrides had the second highest result with 59 records. A number of Scottish regions closely followed, including Orkney and North Scotland, North East Scotland, North West Scotland and North Grampian. Every region received sightings despite some regions yielding few encounters.

The species diversity was relatively well matched to the frequency of sightings with North West Scotland recording five species and the remaining top regions observing four species (Figure 11).

Sighting hotspots included:

- Gulf of Corryvreckan, Inner Hebrides
- Mwnt, Ceredigion
- New Quay, Ceredigion
- Point Lynas, North Anglesey
- Spey Bay, Moray Firth
- Strathy Point, North Sutherland
- Swiney Hill, Lybster, Caithness
- The Great Race, west of the Isle of Scarba
- Berry Head, South Devon

No. species

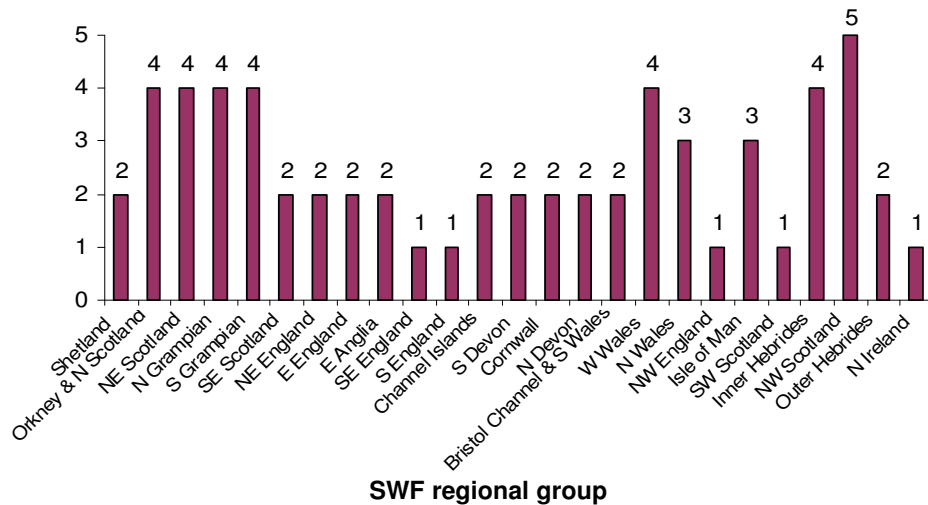


Figure 11: Number of species reported per SWF regional group during NWDW 2010.

Since some regions completed more hours of effort than others, this has been taken into consideration when assessing the frequency of sightings between regions. Figure 12 compares the number of hours of dedicated watches with the number of sightings recorded from these watches. For some regions, there were very few sightings compared to number of hours observing. The sightings frequency of regions is shown in Figure 13. The region that exhibited the highest frequency was in fact North Wales with 1.3 sightings reported per hour. This was followed by Orkney, North Scotland, and North East Scotland with around one sighting per hour. West Wales recorded 0.6 sightings per hour.

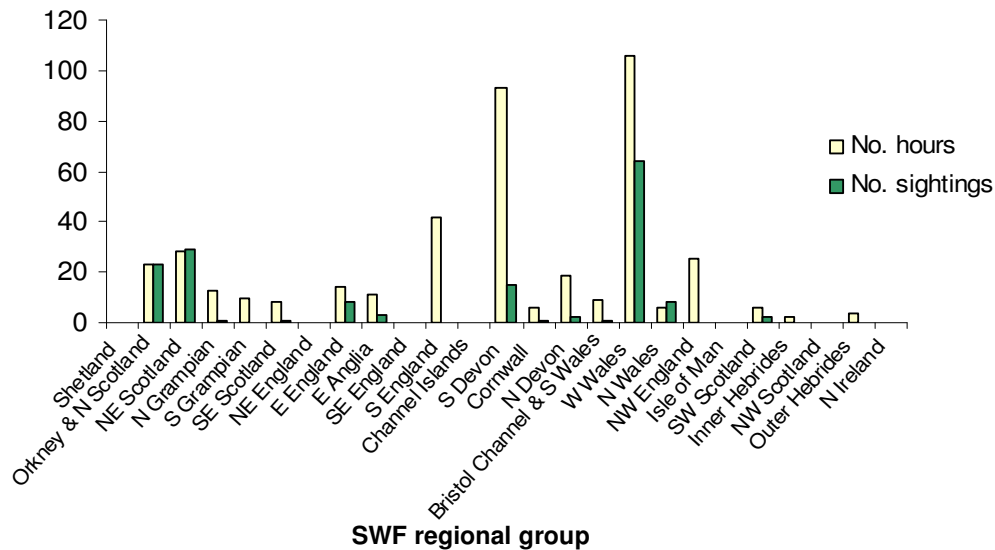


Figure 12: Number of hours of effort based watches and the number of sightings yielded from effort watches per SWF regional group.

Sightings per hour

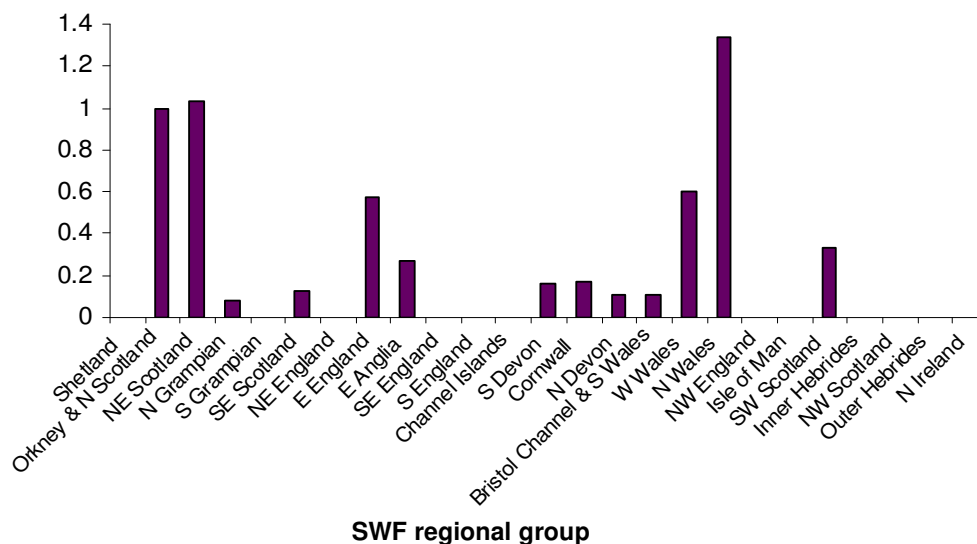


Figure 13: Number of sightings recorded per hour during effort based watches.

There were a number of regions that despite many hours of observing received few sightings, such as Southern England and North West England. These regions are known to host a few cetacean species but frequency in these areas is relatively low compared to some other regions in the UK. However, there were some regions that we would expect to see higher sightings frequencies, such as North Grampian for example, where 13 hours were spent observing in cetacean hotspots but resulted in just one sighting. The same is true for South Grampian which received no effort based sightings during the ten hours spent observing. It is not known with certainty why some regions have received fewer sightings from watches than expected, but it

may be partially explained by the mixed weather conditions prevailing during part of the NWDW week. Some watches were performed in Beaufort Sea state three or more, reducing the likelihood of spotting animals.

Acknowledgements

SWF would like to thank our sponsor BG Group for making NWDW possible once again. The work undertaken by SWF and NWDW could also not exist without the help of volunteers. Thank you to everyone that took part in and supported us in this event: Regional Coordinators, volunteer observers, Cardigan Bay volunteers, the media, Wendy Nekar, Julie Albray and every person that reported a sighting or performed watch.

It is not too late to send in sightings or effort data from NWDW 2010 as these records will be included in future analysis. If you have anything to report, send it to Gemma Veneruso at sightings@seawatchfoundation.org.uk or the SWF office at Paragon House, Wellington Place, New Quay, Ceredigion SA45 9NR.

GEMMA VENERUSO
Sightings Officer, SWF

Appendices

Appendix 1: Geographical definitions of SWF regional groups

Shetland

Orkney & North Scotland: Cape Wrath-Duncansby Head

North East Scotland: Duncansby Head-Kessock/Inverness

North Grampian: Kessock-Peterhead

South Grampian: Peterhead-Arbroath

South East Scotland: Arbroath-Berwick upon Tweed

North East England: Berwick upon Tweed-Tees mouth

Eastern England: Tees mouth-Nene River mouth

East Anglia: Nene River mouth-Yare River mouth

South East England: Yare River mouth-Dungeness

Southern England: Dungeness-Lyme Regis

Channel Islands

South Devon: Lyme Regis-Plymouth

Cornwall: Plymouth-Bude

North Devon: Bude-Watchet

Bristol Channel & South Wales: Watchet-Milford Haven

West Wales: Milford Haven-Dovey Estuary

North Wales: Dovey Estuary-Dee Estuary

North West England: Dee Estuary-Solway Firth

Isle of Man

South West Scotland: Solway Firth-Mallaig

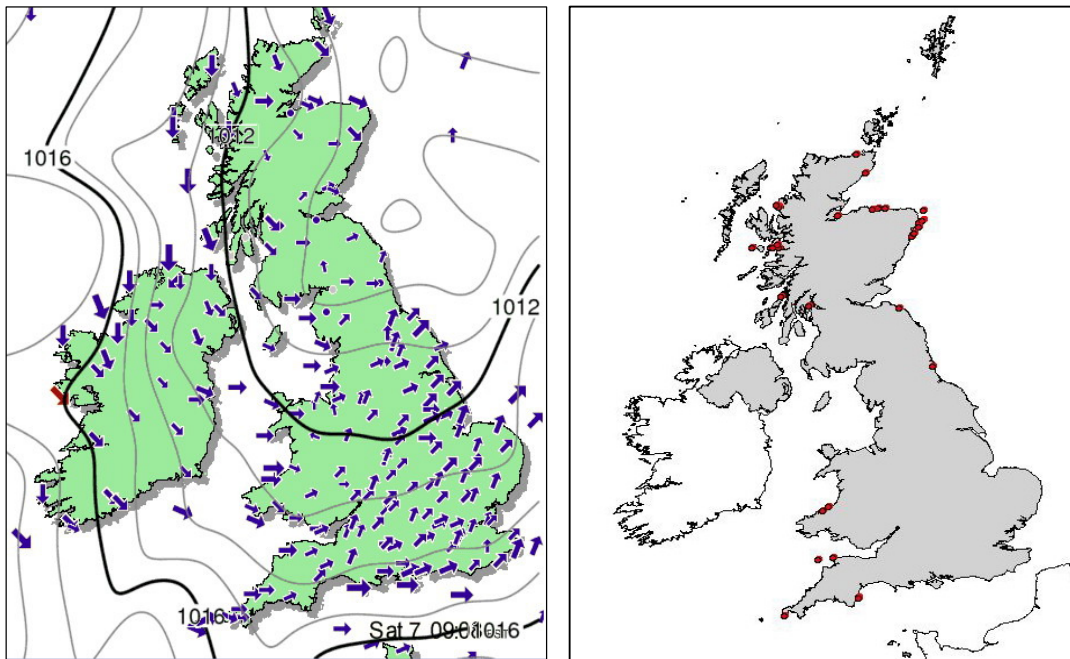
Inner Hebrides

North West Scotland: Mallaig-Cape Wrath

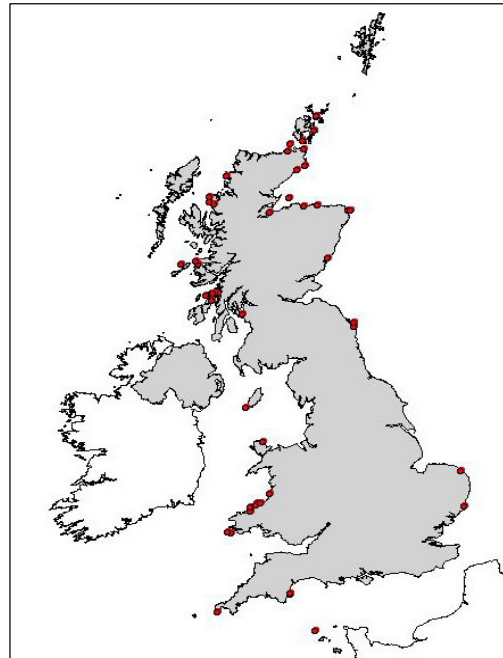
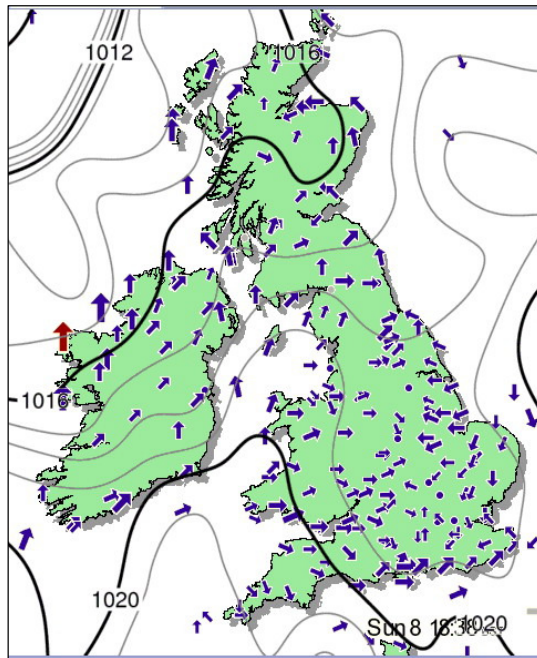
Outer Hebrides: Western Isles

Northern Ireland

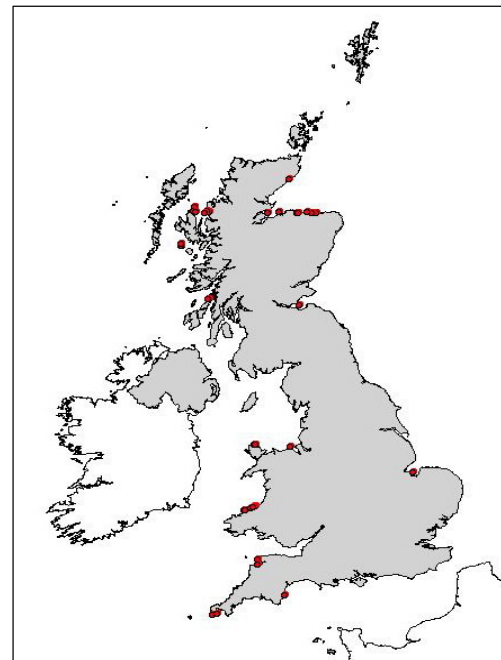
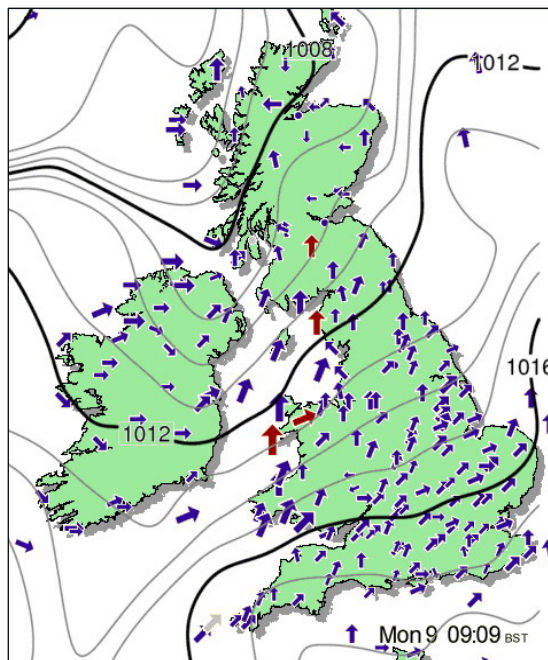
Appendix 2: Summary of weather reports for each day of NWDW 2010. Maps on the left illustrate wind strength (size of arrow) and direction and pressure. Maps on the right show the distribution of sightings reported on each day. Text following each pair of maps describes the remaining weather details. Reports were taken from <http://www.xcweather.co.uk> and <http://www.metoffice.gov.uk/>.



7th August: During the day, the showers across northern and western parts of England slowly worked their way eastwards and southwards becoming heavy across northern and eastern England with thunder storms followed by sunny spells in East Anglia. Despite heavy rain in the morning, much of western Scotland and Northern Ireland enjoyed plenty of sunshine. Westerly winds on west coast of England and south westerly winds across the whole of south east England. Strong southerly winds in Northern Ireland and North Eastern Scotland.

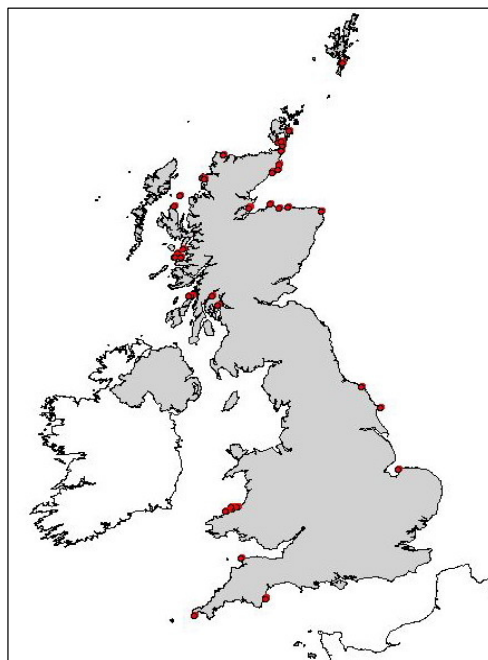
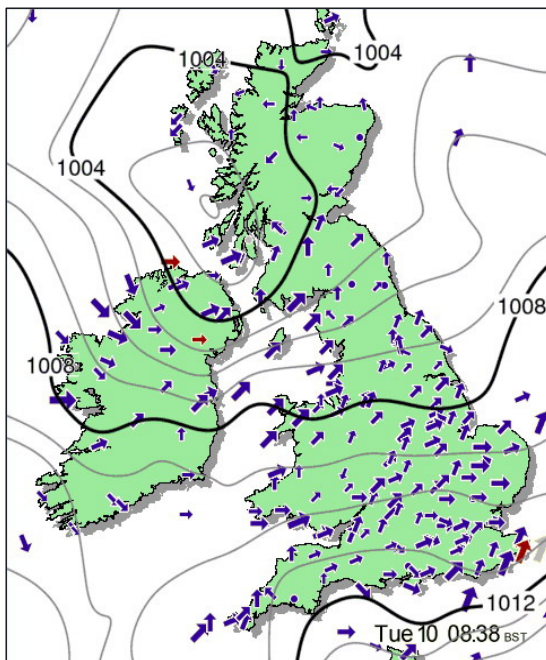


8th August: Central Scotland, west Wales and Northern Ireland saw a few patches of fog and mist. Light rain across North East England in the morning. It turned out to be a dry day for most of the UK, with some warm sunny spells developing. Strong southerlies in Northern Ireland and North East of Scotland. Westerly's on southern coast of England. Onshore westerly's for west coast.

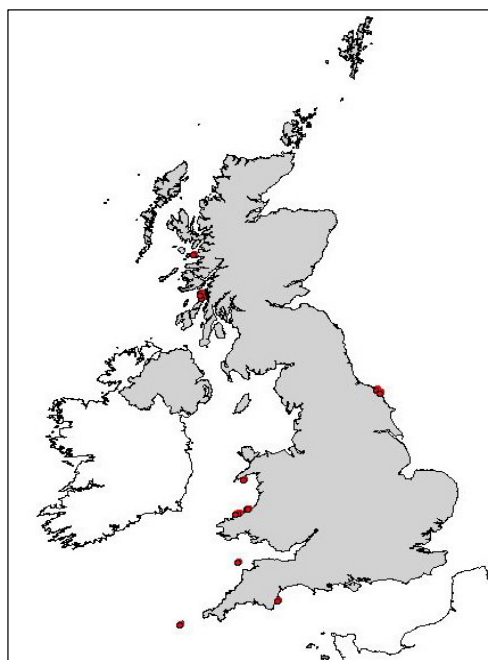
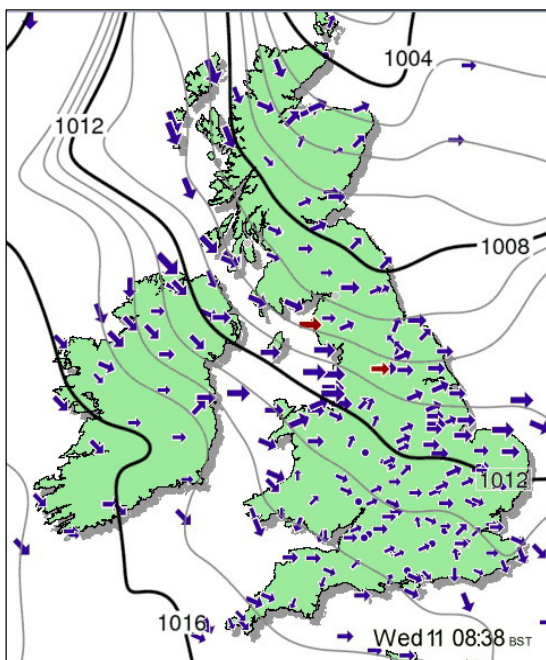


9th August: Rain across most of the UK with heavy rain in Northern Ireland and Scotland. Eastern parts of England stayed dry for much of the day with pleasantly warm sunny spells. However, occasional outbreaks of rain fell during the evening, leaving only the far southeast of England dry with a little

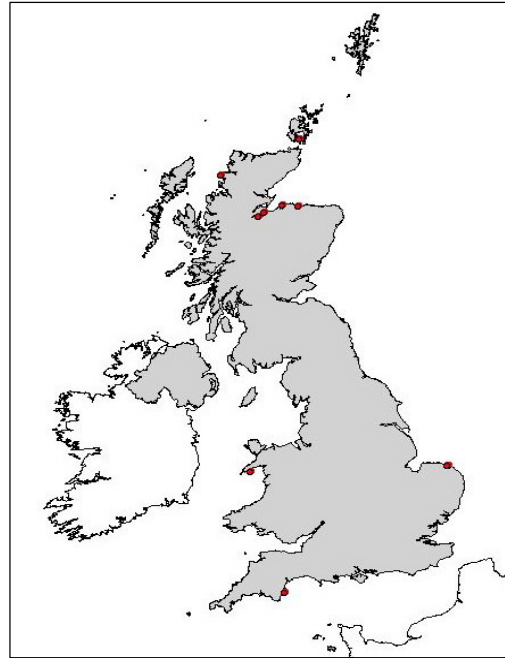
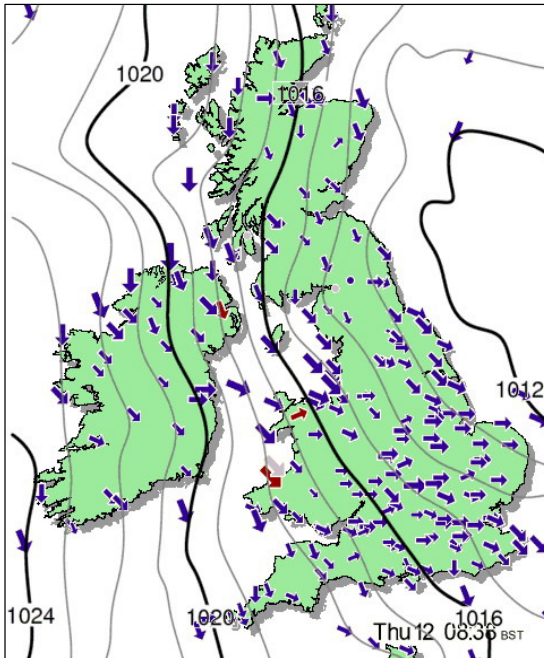
evening sunshine. Westerly winds in Northern Ireland. Predominantly south-westerly winds for the rest of the country.



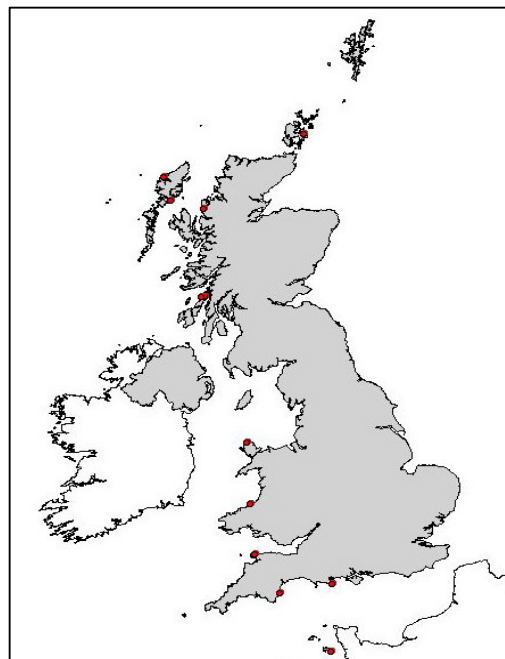
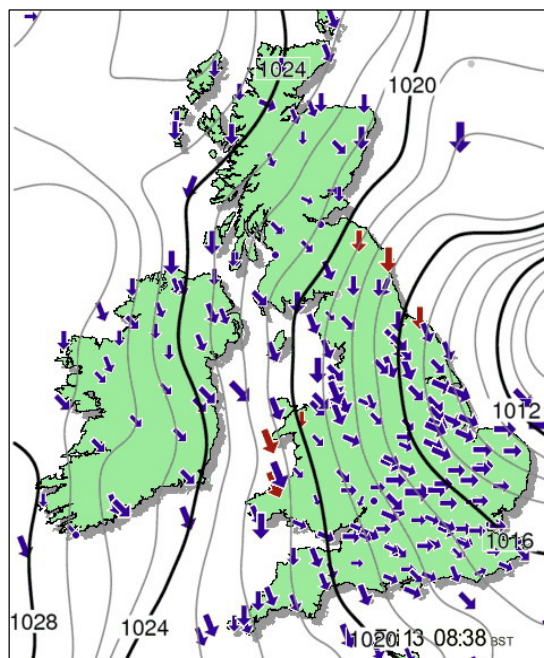
10th August: Rain across the UK, heavy in Scotland, Northern Ireland and Northern England with thunder storms on East coast. During the day, south-western parts of the UK became dry but light rain continued in the south-east right through the afternoon and into the evening. Strong south-westerly winds occurred on the South West and South East of England. This was also true for North West England. Strong North-Westerly blowing off Northern Ireland.



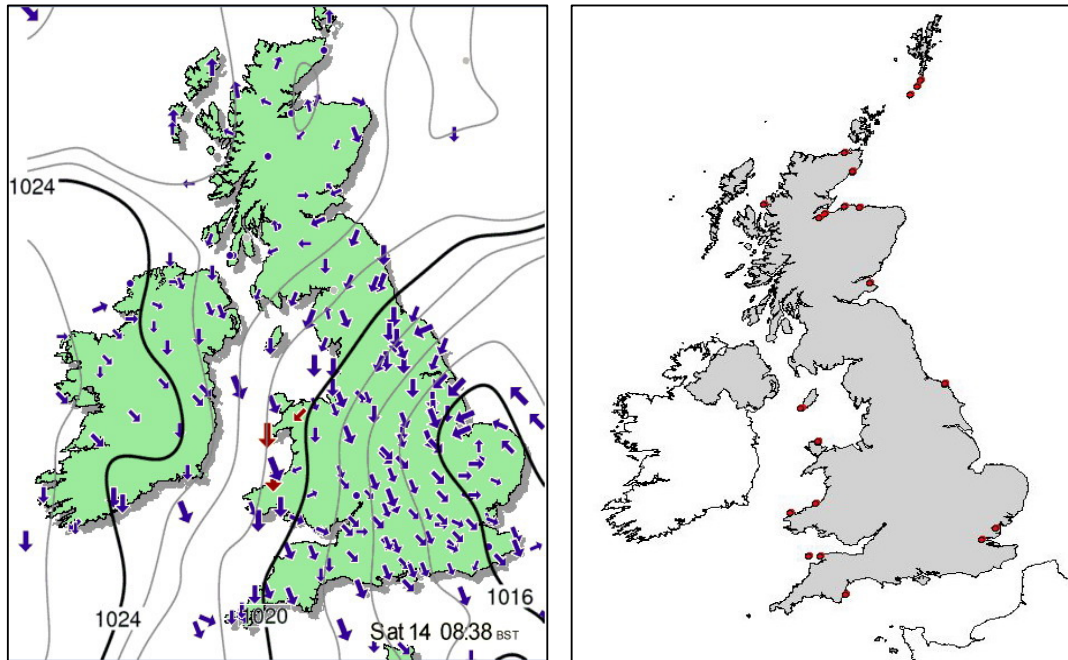
11th August: Showers in Scotland, Northern Ireland, North England and Wales which turned thundery in South East Scotland and North East England. Southern England and Wales had a generally pleasant day with scattered cloud and sunny intervals, although a few sharp showers did break out along the south coast of England in the afternoon. Westerly winds occurred for most of England and were particularly strong in the West of the country. Strong south-westerly winds recorded in Northern Ireland and North West Scotland.



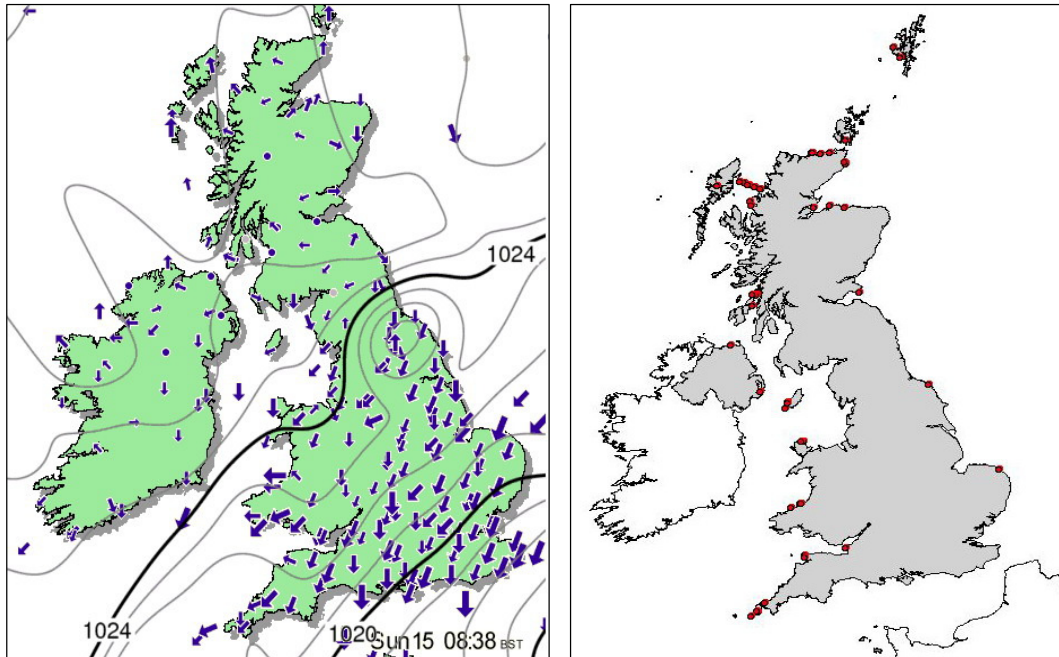
12th August: Low pressure in the North Sea brought unsettled weather to eastern and central parts of the UK. Showers and longer spells of rain affected Scotland, Northern Ireland and Northern and Eastern England in the morning, becoming more widespread and extending into Southern and South East England during the day. Some of the showers became very heavy with thunder across central, northern and Eastern England and South East Scotland. Strong winds over most of the UK. North-westerly winds dominant for Northern Ireland, Wales and west coast of England. Westerly winds for East of England.



13th August: Most places stayed dry into the morning with some sunny spells. North East and Eastern counties of England had heavy and thundery showers during the day. The showers and outbreaks of rain spread into central, southern and some western areas during the morning and afternoon with thunderstorms, particularly in South East England and East Anglia. Strong winds throughout the UK. North-westerly wind present off Northern and mid England and Wales. Strong northerly winds seen in Scotland, Northern Ireland and North East England.



14th August: Heavy showers and rain continued in England and Wales in the morning, with the heaviest rain in the West Midlands. Other parts of England and Wales became dry with some sunshine for the rest of the day. Scotland and Northern Ireland had a drier day, with many places seeing a fair amount of sunshine towards the end of the afternoon. Winds decreased for parts of the country but still strong winds in Wales and Eastern England.



15th August: Settled conditions on Sunday, with most places staying dry and sunny for much of the day. Low cloud and mist in Eastern and North East England for much of the morning. However, for most of the UK it was a dry, sunny morning and these conditions continued into the afternoon and evening. Strong north-easterly winds on the South, South East and South West coasts of England. Strong easterly winds in Wales. Wind died down elsewhere.