

**National Whale & Dolphin Watch
18-26th July 2009**



The eighth annual National Whale & Dolphin Watch (NWDW) organised by the Sea Watch Foundation occurred between the 18th and 26th July 2009. NWDW aims to increase public awareness by involving the public in data collection. The event also provides a snapshot distribution of UK cetaceans and may help inform scientific debate on changes in the range and distribution of species. 45 land based manned sites were advertised to the public as well as 13 boat operators. However, watches were recorded from 180 locations throughout the UK. To date, 439 sightings of whale, dolphin and porpoise have been reported during the watch, and nine species were seen totalling 2137 individual cetaceans. For the second year running, bottlenose dolphins had the highest number of reports with 191 sightings submitted, totalling 966 individuals. Harbour porpoise sightings were the second highest, followed by minke whales. Bottlenose dolphin sightings were recorded furthest south on the east coast than ever recorded, suggesting a change in range movement. West Wales collected the largest number of sightings, as in previous recent years. However, when land based effort was incorporated, it suggests that the number of sightings per hour is relatively low (0.55) by comparison with some Scottish regions. Northwest Scotland and the Outer Hebrides exhibited the highest land-based sightings rates (1.57) despite the majority of the effort being vessel based. High sightings rates were also observed in north Grampian and Northeast Scotland. Northeast Scotland also reported



the highest diversity, with six species being recorded. This was closely followed by Shetland which had reports of five species during the event. NWDW highlights the importance of maintaining an active sightings network that can provide information on the distribution, habitat requirements and range movements of cetaceans.

Introduction

National Whale & Dolphin Watch (NWDW) is an annual event that has been organised by the Sea Watch Foundation to raise marine environmental awareness, by encouraging the public to be directly involved in the collection of cetacean sightings data. By advertising the event amongst the scientific, educational and media communities, this encourages a large number of observers to conduct watches both at land and sea, resulting in large amount of effort (time spent observing) covering a large proportion of the UK coastline. These data can provide a snapshot of the distribution of cetaceans in the UK and may help inform scientific understanding of changes in the ranges and distribution of cetacean species. Previous NWDW events have resulted in more than 500 sightings of up to 11 species being reported during the nine-day event. NWDW 2009 was the eighth annual event, and ran from the 18th to the 26th July.

Methods

NWDW was heavily advertised via the website, regional coordinators, local and national media, and by distributing flyers and posters. Public watches were manned by experienced observers, who provided information on cetaceans, and organised and advertised these on behalf of SWF. Commercial boat operators, as well as whale/dolphin watch companies, also promoted the event and collected sightings and effort data. Furthermore, the public coming from all backgrounds were encouraged to travel to the coast to perform their own watches or record incidental sightings.

Sightings were reported in a number of ways. The most common method was by using the online reporting form available at www.seawatchfoundation.org.uk. Sightings were also submitted by filling in and sending effort or sightings forms that were downloadable from the website or by reporting sightings by email or telephone.

Results

Winds were high, creating choppy seas for most of the UK at the start of NWDW (Appendix 1). A few days into the event, the winds dropped for northern England, Scotland and Northern Ireland but remained relatively strong for the remainder of the country.

45 land-based sites were manned and advertised to the public, whilst a further 13 commercial boat operators were directly involved in the event. However, watches consisting of both effort-related watches and opportunistic sightings were actually



recorded at 180 locations (Figure 1), and more than 500 observers took part in the event. 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
No. Sightings	468	399	672	798	594	305	352	439
No. Individuals	1996	2106	2538	5383	2107	1346	1945	2137
No. sites	219	200	74	91	100	100	160	180

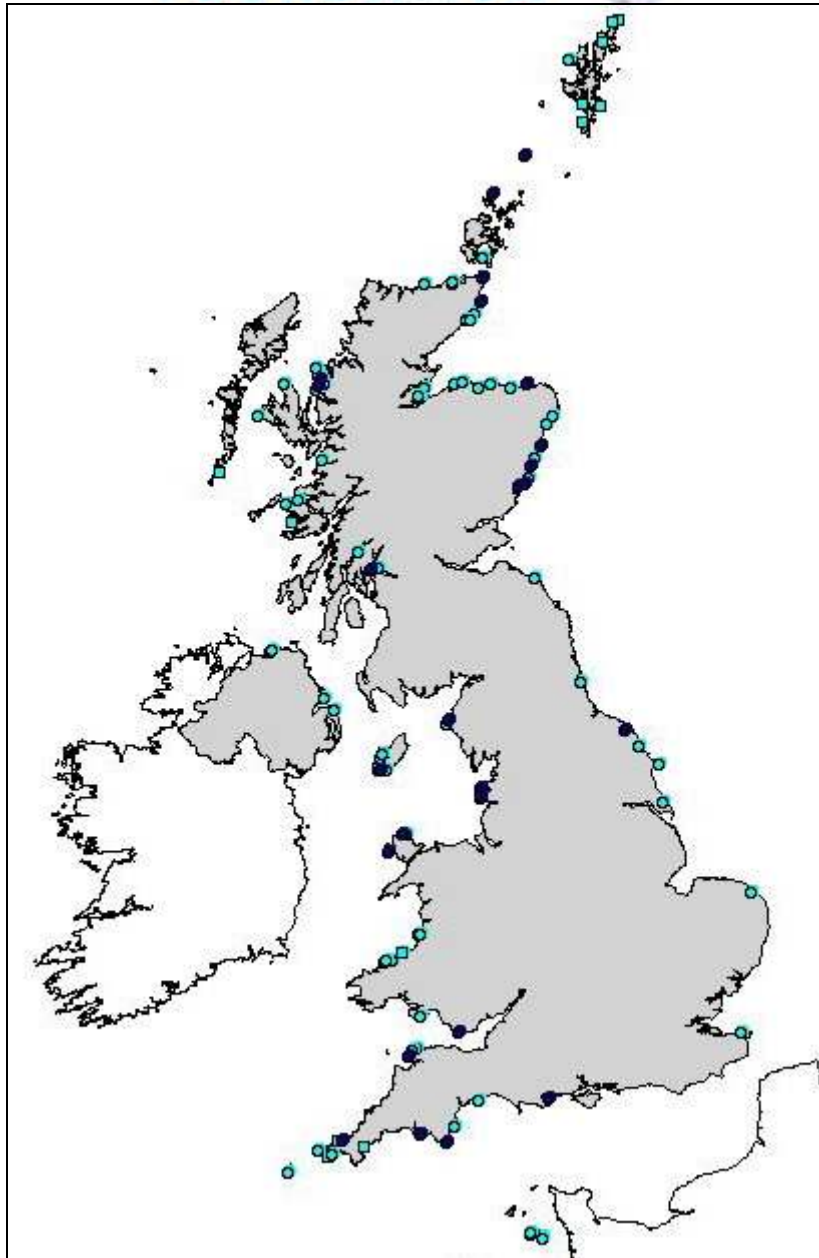


Figure 1A: Land based sites that were monitored during NWDW 2009. Dark blue circles indicate locations with no sightings. Light blue circles indicate sites where land based sightings were recorded. Light blue squares indicate sightings that were reported from an unknown platform.

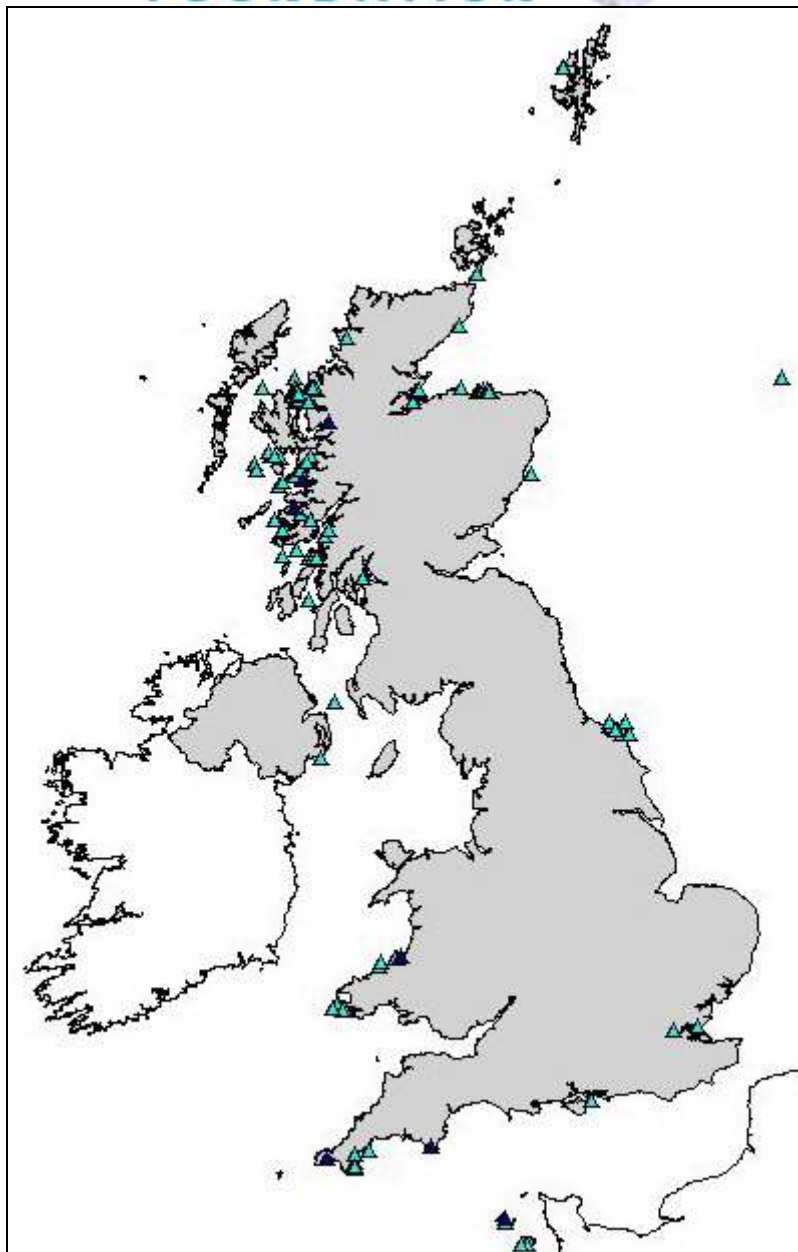


Figure 1B: Offshore sites recorded during NWDW 2009. Dark blue triangles indicate locations where no sightings were recorded. Light blue triangles indicate offshore locations where sightings were reported.

Species data

So far, 439 sightings have been reported during NWDW 2009, totalling 2137 individuals. From these reports, nine species were recorded. The three species that were recorded most were the same as past years: the bottlenose dolphin, harbour porpoise and minke whale. However, for the second time only (as also seen during NWDW 2008), the bottlenose dolphin was the most frequently recorded species with 191 sightings totalling 966 individuals. The second most recorded species was the harbour porpoise with 147 sightings and 387 individuals.

The minke whale was reported on 53 occasions, totalling 69 individuals. Other species included the short-beaked common dolphin, Risso's dolphin, killer whale, white-beaked dolphin, Atlantic white-sided dolphin, and several reports of unidentified dolphins or cetaceans (Figure 3). Bottlenose dolphin reports made up 45% of the total number of individuals spotted during NWDW, with 996 individuals reported. The second most recorded species in terms of number of individuals was the short-beaked common dolphin with 594 individuals (28% of the total number of individuals), although only 14 sightings were reported. The third most common was the harbour porpoise with 387 individuals (18% of the total number of individuals). The other species combined made up the remaining 9% of individuals reported (Figure 4).

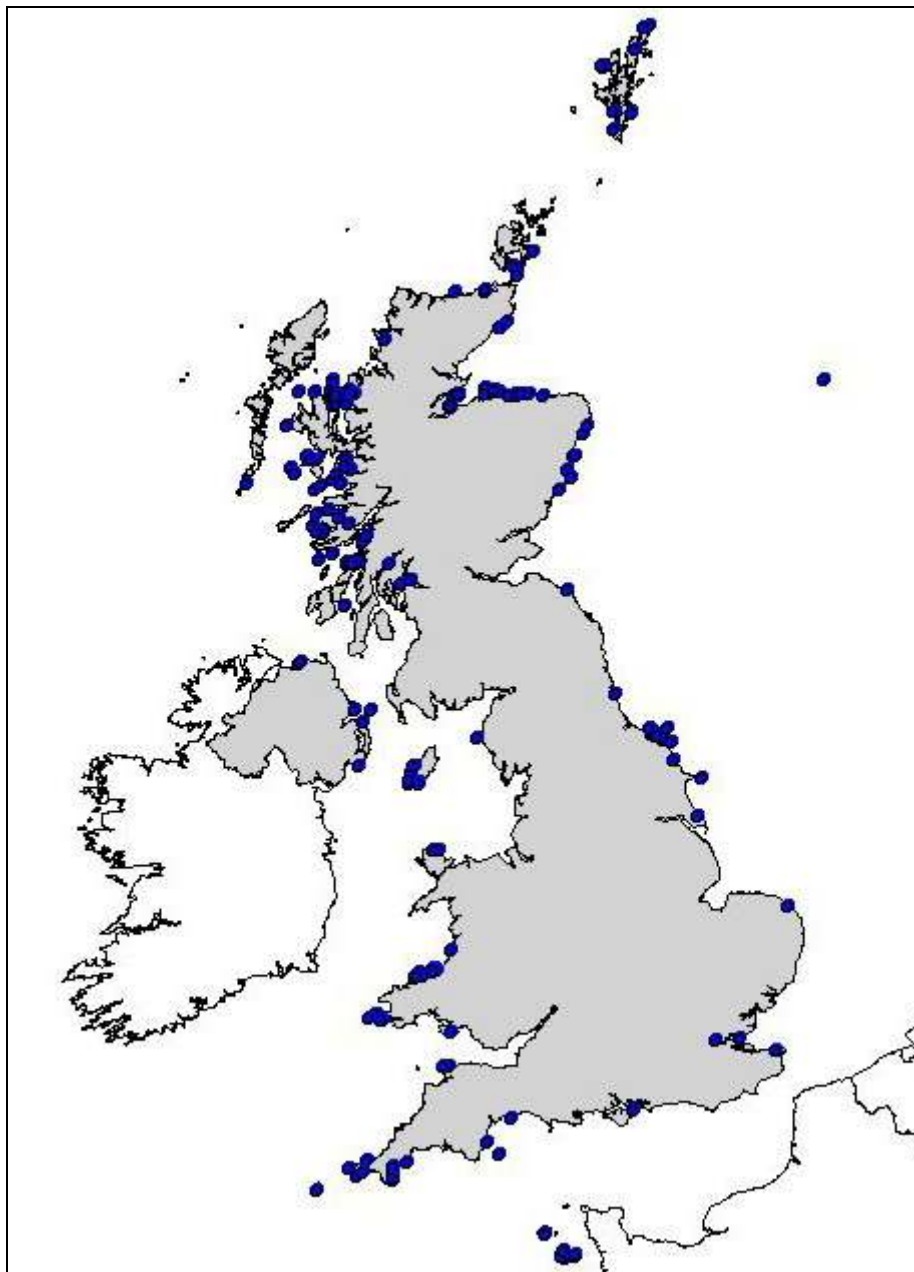


Figure 2: Distribution of all cetacean sightings reported during NWDW 2009

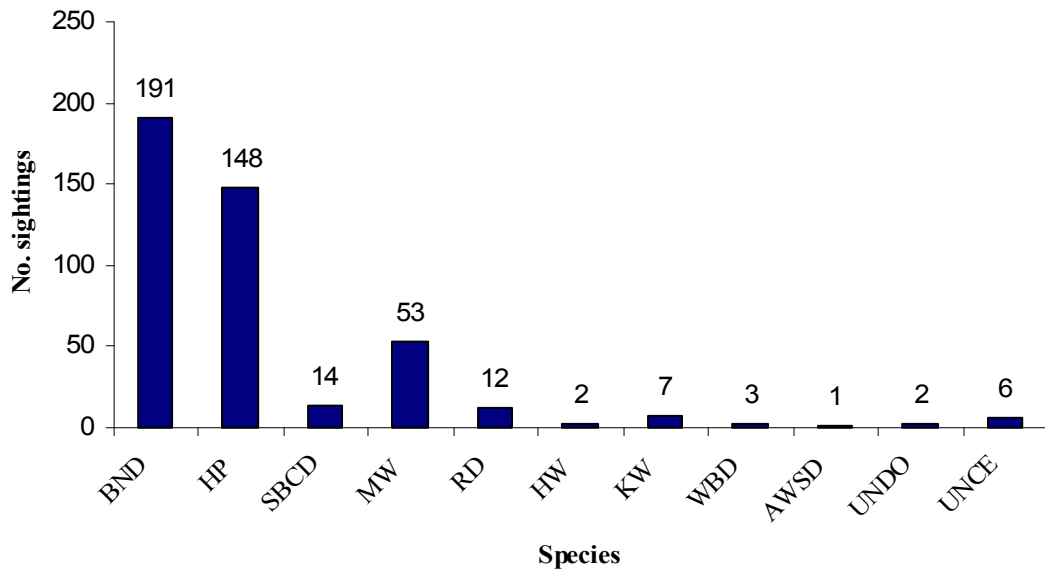


Figure 3: Total number of sightings reported for each species recorded during NWDW (BND-bottlenose dolphin; HP-harbour porpoise; SBCD-short-beaked common dolphin; MW-minke whale; RD-Risso's dolphin; HW-humpback whale; KW-killer whale; WBD-white-beaked dolphin; AWSD-Atlantic white-sided dolphin; UNDO-unidentified dolphin species; UNCE-unidentified cetacean)

No. individuals

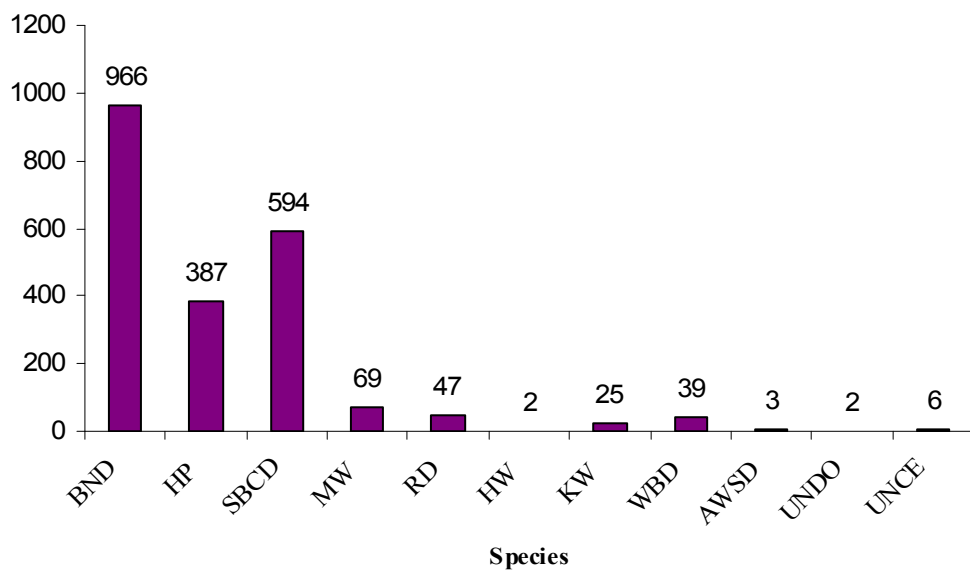


Figure 4: Total number of individuals reported for each species recorded during NWDW 2009. (BND-bottlenose dolphin; HP-harbour porpoise; SBCD-short-beaked common dolphin; MW-minke whale; RD-Risso's dolphin; HW-humpback whale; KW-killer whale; WBD-white-beaked dolphin; AWSD-Atlantic white-sided dolphin; UNDO-unidentified dolphin species; UNCE-unidentified cetacean)

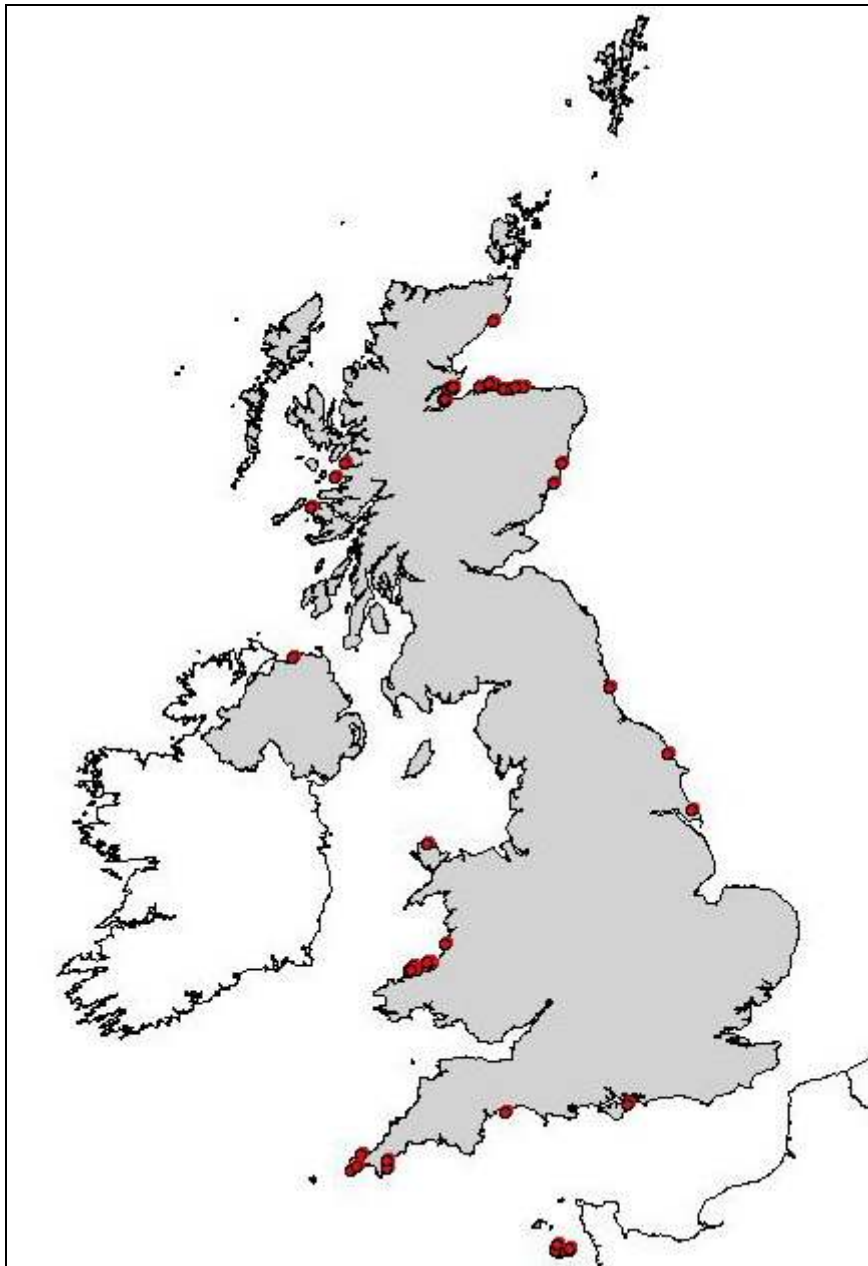


Figure 5: Distribution of bottlenose dolphin sightings reported during NWDW 2009

Figure 5 illustrates the distribution of bottlenose dolphin sightings throughout the UK. High densities of sightings of this species occurred predominantly in two areas; both where resident populations are known to exist. These are the Moray Firth in Northeast Scotland and Cardigan Bay in West Wales, which have both been recognised with Special Areas of Conservation established for the species. This year's event has shown bottlenose dolphin sightings extending southward on the eastern coast of England. This reflects well with what has been observed at other times during the summer of 2009, where bottlenose dolphins have been reported regularly from sites not often visited by this species. Until recently, bottlenose dolphin sightings were generally not reported any further south than Northumberland. However, this year, there have been regular reports of animals much further south including one at

Withernsea Sands (North Humberside) during NWDW, thought to be the most southerly record of the east coast population in recent years. Individuals photographed from Whitby (North Yorks) confirm that at least some of these animals were part of the Moray Firth population, using identification of dorsal fin markings. Cornwall and the Channel Islands were also popular areas for the bottlenose dolphins.

The distribution of harbour porpoise reports is relatively well spread throughout the UK, as in previous years. However, particularly high densities of sightings were recorded off the west coast of Scotland, East Yorkshire and Pembrokeshire (Figure 6). By contrast, minke whale sightings were only recorded in Scotland, with an apparent hotspot in Northwest Scotland (Figure 7).

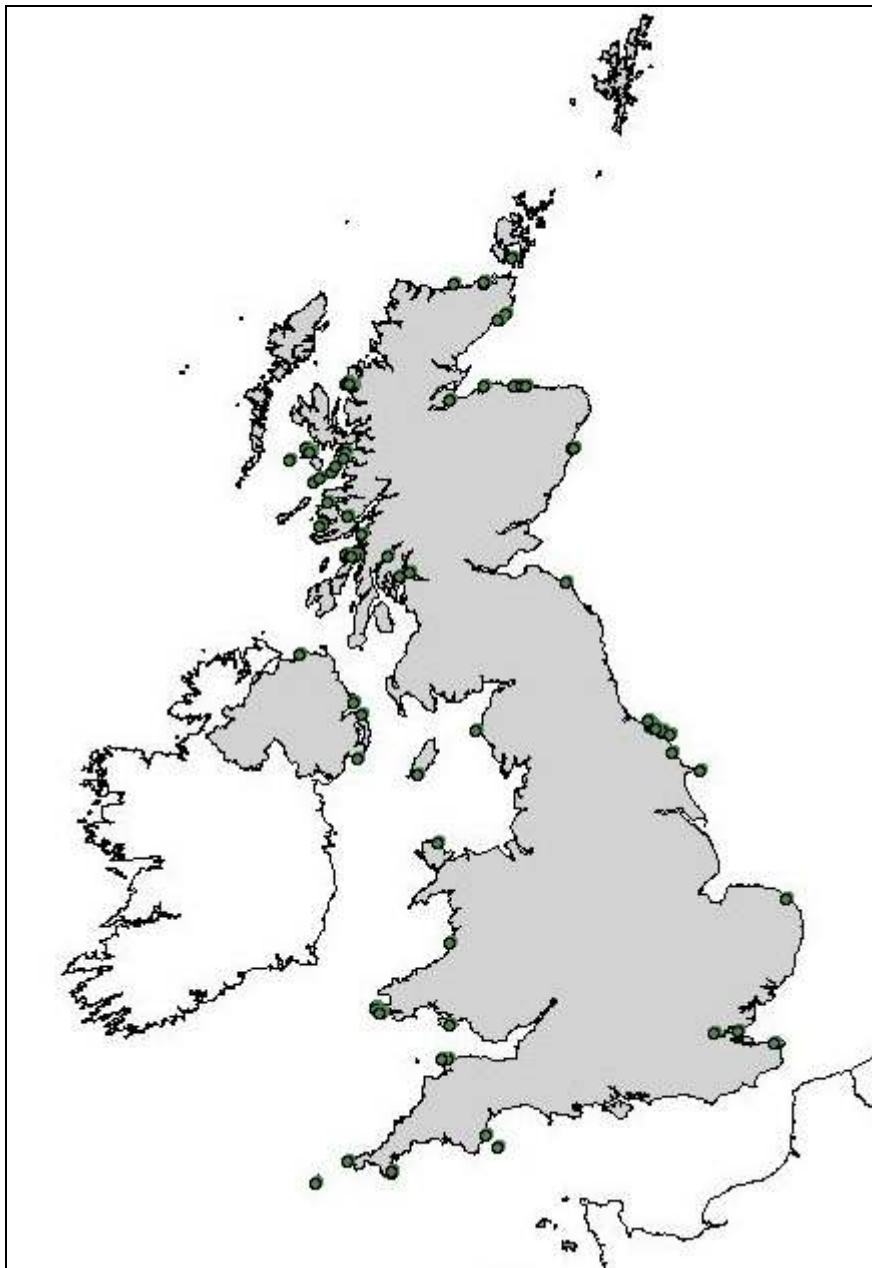


Figure 6: Distribution of harbour porpoise sightings reported during NWDW 2009

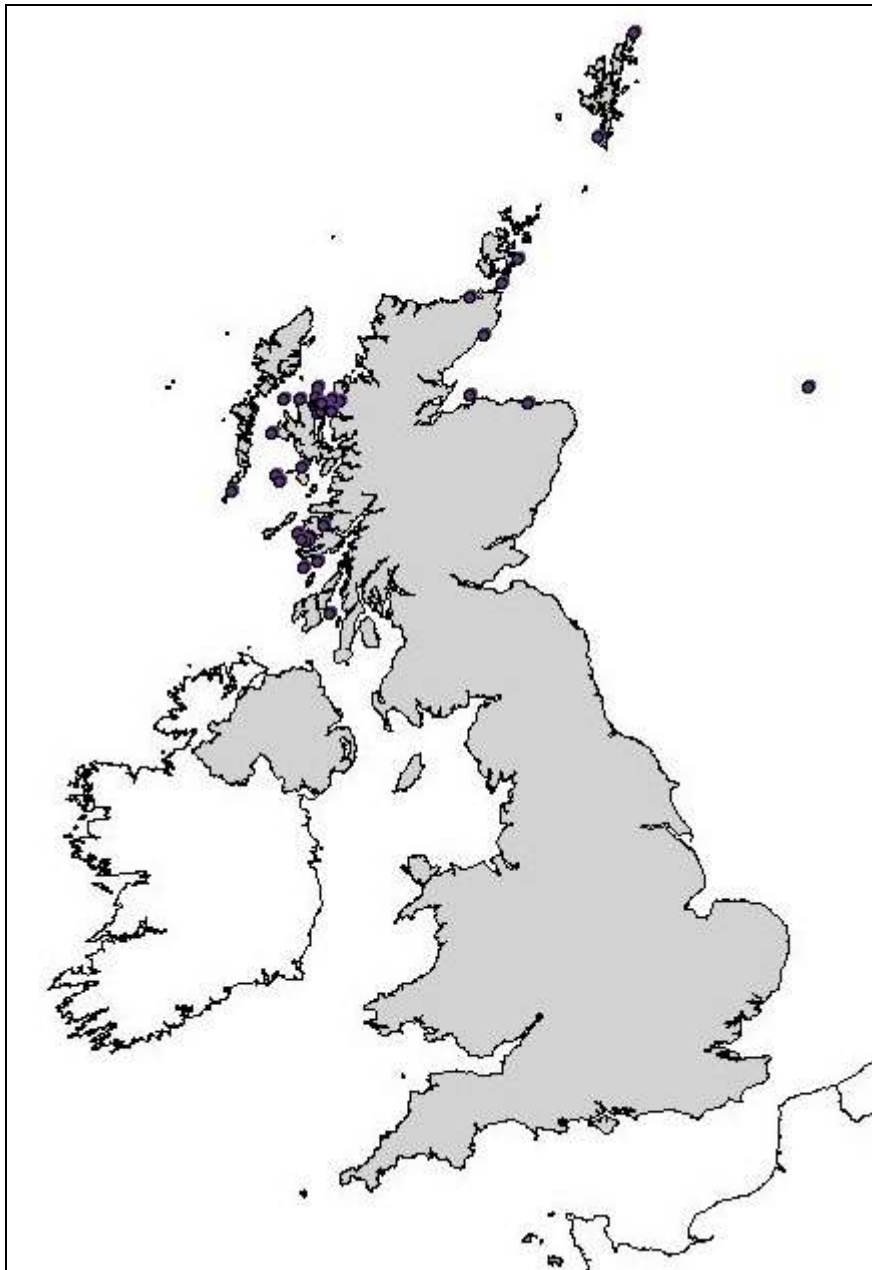


Figure 7: Distribution of minke whale sightings reported during NWDW 2009

The remaining species that were recorded during NWDW 2009 are illustrated in Figure 8. Short-beaked common dolphins were reported at a number of sites throughout the UK, from Northwest Scotland to South Devon. All sightings except one at Swiney Hill, Lybster, were recorded on the west coasts of the British Isles. Concentrations of sightings occurred in Northwest Scotland and Pembrokeshire, and this species often occurred in large group sizes with up to 50 observed regularly in Northwest Scotland and 200 animals off Grassholm Island, Pembrokeshire.

Risso's dolphins were recorded in the north and east of Scotland including Shetland Isles, with a number of sightings also off the Isle of Man. This distribution is similar to that of killer whales reported during the event, which were seen off Shetland, Northwest Scotland and the Isle of Man. The three sightings of white-beaked dolphin all occurred off the south Grampian coastline. A humpback whale was reported off Shetland with another possible report of this species off Swiney Hill, Lybster. One sighting of Atlantic white sided dolphins was reported from Shetland.

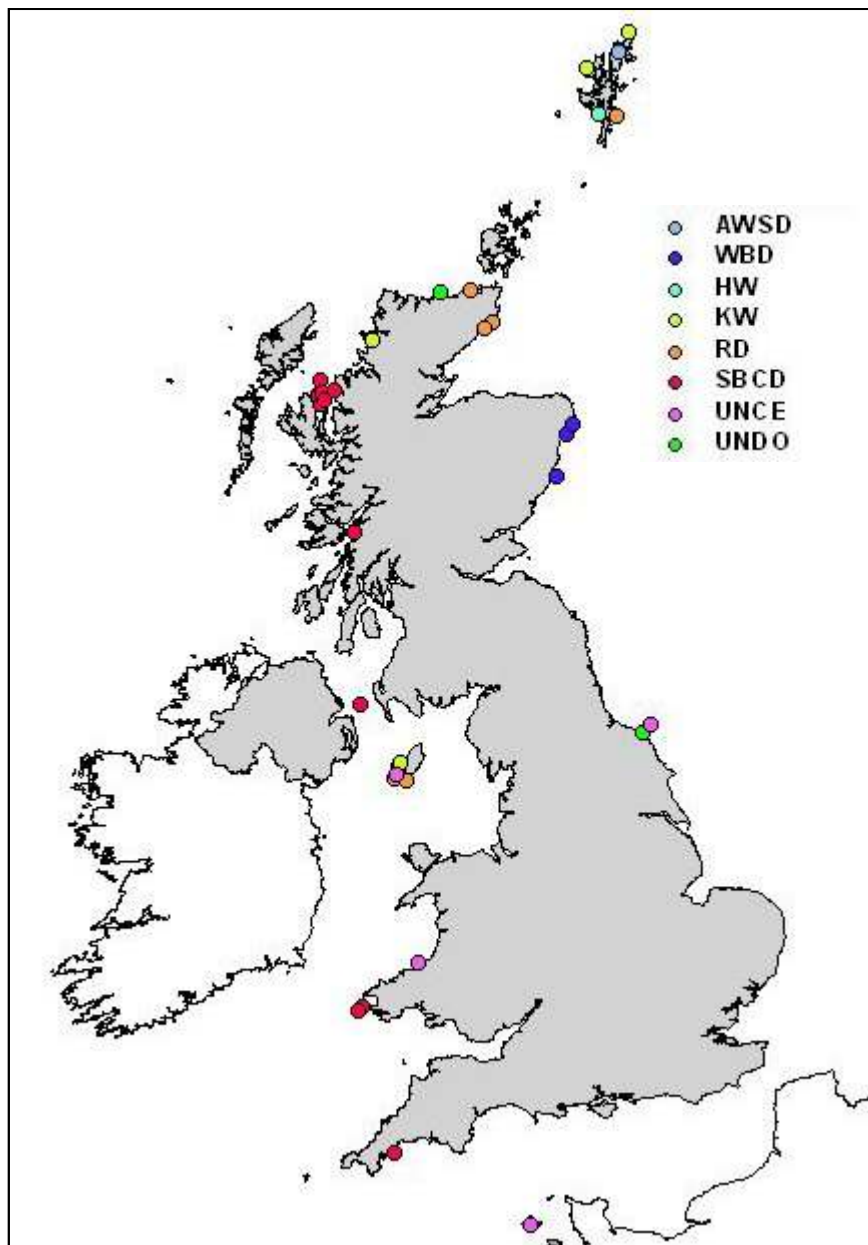


Figure 8: Distribution of remaining species reported during NWDW 2009 (AWSD- Atlantic white sided dolphin, WBD- white beaked dolphin, HW- humpback whale, KW- killer whale, RD- Risso's dolphin, SBCD- short beaked common dolphin, UNCE- unidentified cetacean, UNDO- unidentified dolphin).

Notable sightings included:

- 1 humpback whale - off Scalloway, Shetland
- 8 killer whales - off Eshaness, Shetland
- 40 common dolphins - Swiney Hill, Lybster, Caithness
- 1 possible humpback whale - at Swiney Hill, Lybster, Caithness
- 30 white beaked dolphins - 6 miles off Stonehaven, Aberdeenshire
- 20 bottlenose dolphins - Sunderland harbour, Tyne & Wear
- 11 bottlenose dolphins - at Scarborough, north Yorkshire
- 1 bottlenose dolphin – at Withernsea Sands, north Humberside
- 200 common dolphins - off Grassholm Island, Pembrokeshire
- 1 killer whale - numerous reports throughout the Isle of Man
- 6 reports of Risso’s dolphin - throughout the Isle of Man
- 50 common dolphins - off the Isle of Skye
- 4 killer whales - off the Summer Isles, Ross & Cromarty
- 20 common dolphins – in North Channel, Belfast Lough
- 30 bottlenose dolphins – near Dunluce Castle, Co. Antrim

Regional data

The region that reported the largest numbers of sightings was, as in previous years, West Wales, followed by Northwest Scotland and Northeast Scotland respectively (Figure 9). To correct for variation in effort, the minimum number of hour watching that was known from land- based sites, was recorded for each regional group. The number of land-based sightings was also plotted (Figure 10).

The number of hours spent observing from land was indeed highest in West Wales followed by South Devon. Figure 11 illustrates the number of sightings per hour for regional groups that conducted effort-related land watches. This shows that Northwest Scotland including the Outer Hebrides exhibited the highest sightings rates based on land watches at 1.57 sightings per hour. North Grampian (which included the southern coast of the Moray Firth) had the second highest sighting rate at 1.39 which was closely followed by Northeast Scotland with 1.34 sightings per hour. West Wales had a sightings rate of 0.55. Regions that experienced a low sightings rate despite a high level of effort include Northwest England (0.04) and South Devon (0.07).

Northeast Scotland also reported the highest number of species (6). This was closely followed by Shetland with as many as five species reported in eight sightings (Figure 12).

Key sites that many sightings were reported include:

- Thurso Bay, Caithness (Orkney & N Scotland)
- Swiney Hill, Lybster (NE Scotland)
- Most locations around the Moray Firth (NE Scotland/N Grampian)
- Whitby, Yorkshire (NE England)
- Berryhead, Brixham (S Devon)
- Capstone Point, Ilfracombe (N Devon)
- New Quay, Ceredigion (W Wales)

- Loch Gairloch and its surroundings (NW Scotland & Outer Hebrides)

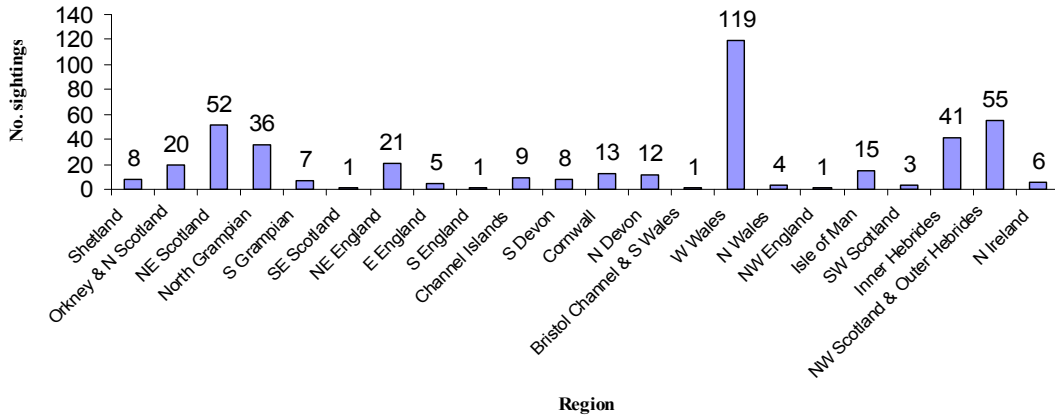


Figure 9: Number of sightings recorded per regional group throughout the UK during NWDW 2009

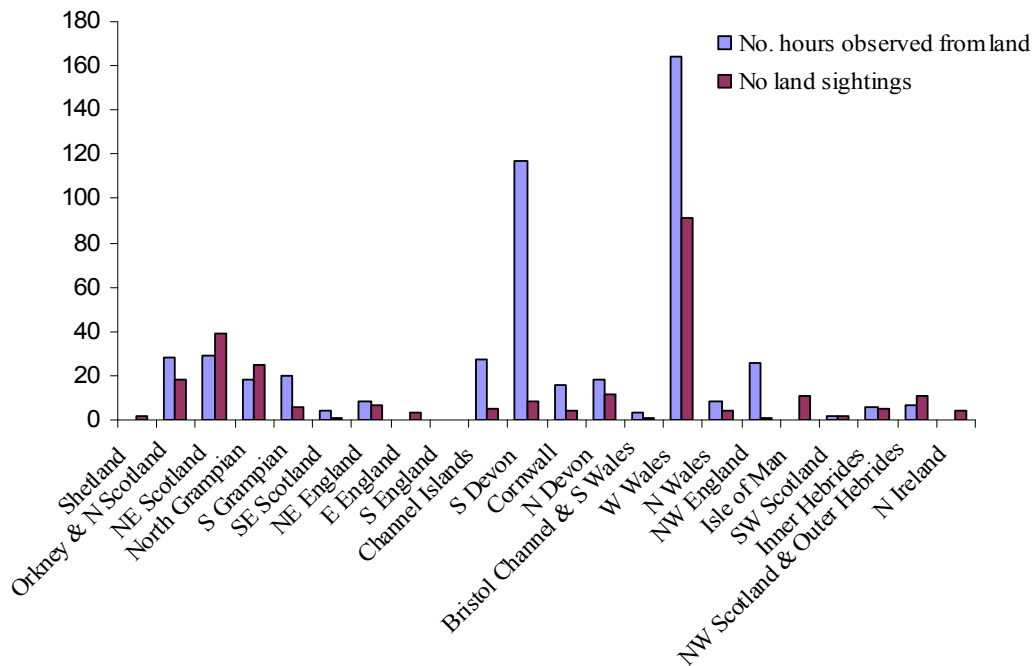


Figure 10: No. of effort related hours observed from land and number of sightings recorded from land per regional group throughout the UK during NWDW 2009

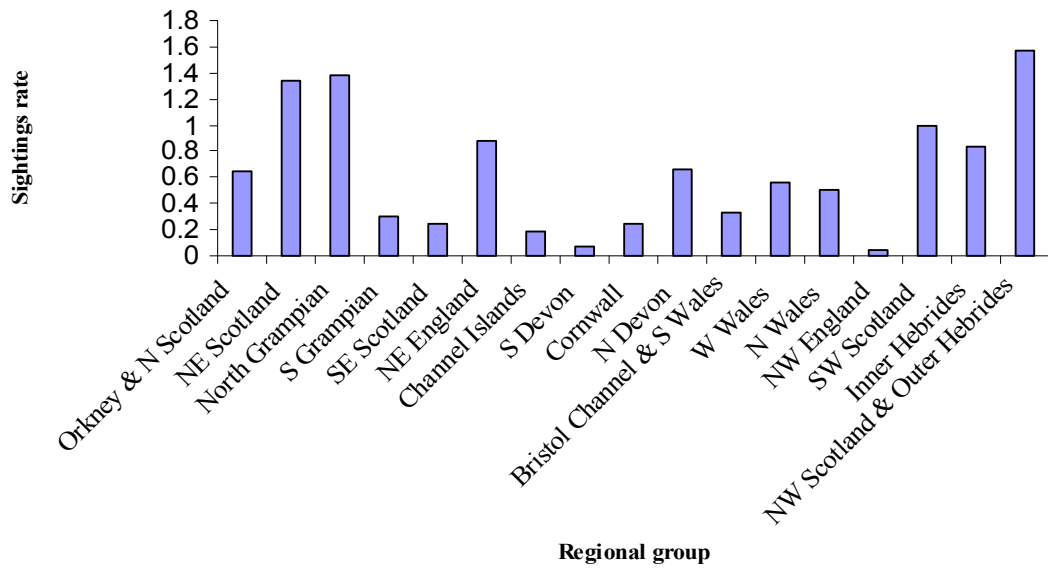


Figure 11: Number of sightings recorded per hour of land based observing for regional groups that performed effort-related land based watches

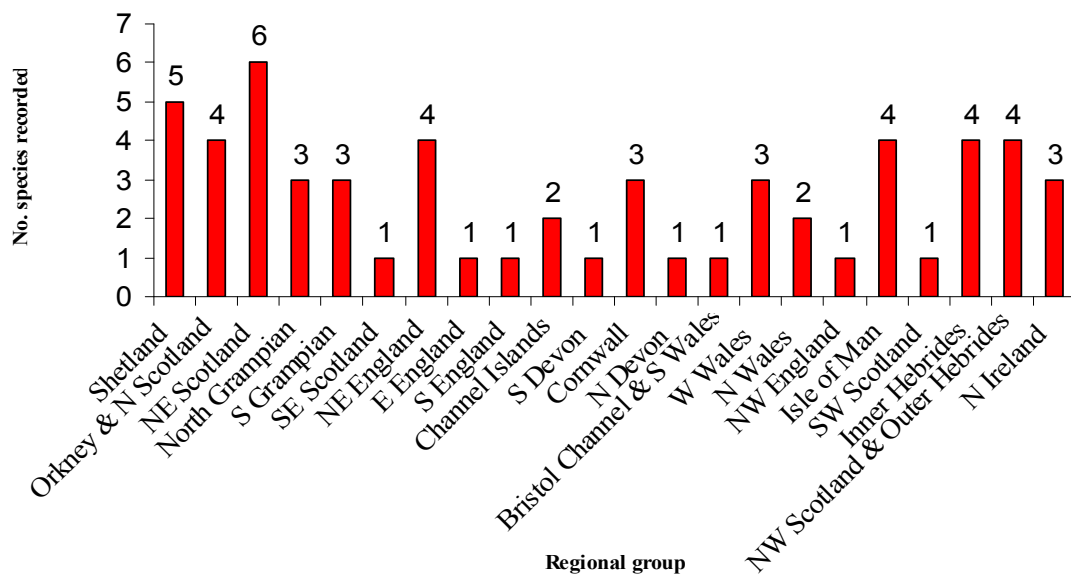


Figure 12: Species diversity per regional group

Conclusions

NWDW was once again a success and illustrated that high diversity of cetaceans inhabit UK waters and can be seen often in high numbers. Sightings have been recorded throughout the country, showing that cetaceans are seen in many more than just one or two hotspots. The highest number of sightings was reported from West Wales. However, the Scottish regions were even more important areas for cetaceans with a higher number of sightings per unit effort, as well as receiving a higher number of species. Northwest and Northeast Scotland, as well as North Grampian, seemed to be particularly important.



NWDW 2008 and 2009 have had more bottlenose dolphin sightings than any other species, which contrasts with earlier years when the harbour porpoise was always the most frequently reported species. This year's event has also highlighted a possible further extension in the range of bottlenose dolphins along the east coast of the UK, with the southernmost record on this coast being reported during NWDW. This event highlights the importance of maintaining an active sightings network which can provide a picture of the distribution, habitat requirements, and range movements of cetaceans.

Acknowledgements

SWF would like to thank our sponsor, BG Group, and everyone that took part in the event. Thanks to regional coordinators for their time and efforts, our regular observers, the media and to every member of the public that was involved.

Gemma Veneruso
Sightings Officer, SWF

APPENDIX 1. WIND CONDITIONS DURING NWDW 2009 – 18-26 July

