

Marine Environmental Monitoring



Plate 1 Sperm whale

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2023 Welsh Marine Mammal Strandings Report

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1. Executive summary

1.1. Cetaceans

Two hundred and forty-eight cetaceans were reported to Marine Environmental Monitoring (MEM) as part of the Cetacean Strandings Investigation Programme during 2023. This is a 90.77% increase from 2022 and the largest number of cetaceans MEM have had reported in one year in Wales. The harbour porpoise (*Phocoena phocoena*) remains the most reported cetacean (n=124). This was then followed by the Atlantic short beaked common dolphin (*Delphinus delphis*) (n=101). The Atlantic short beaked common dolphin numbers are still trending upwards with an increase of 129.55% from 2022.

During 2023 MEM had seven different species of cetacean reported to MEM compared to four in 2022. Along with the harbour porpoise and the common dolphin MEM also had reported Risso's dolphin (*Grampus griseus*) (n=1), bottlenose dolphin (*Tursiops truncatus*) (n=4), Striped dolphin (*Stenella coeruleoalba*) (N=2), pygmy sperm whale (*Kogia breviceps*) (N=1) and a sperm whale (*Physeter macrocephalus*) (N=2), which is only the second time a sperm whale has been recorded in Wales. There were also fourteen that were indeterminate. This number was made up of seven listed as cetacean, two as dolphin, and five as Short-beaked common dolphin/striped dolphin (indeterminate).

MEM had six cetaceans reported as live stranded during 2023. This number is made up of two harbour porpoise (*Phocoena Phocoena*), two Atlantic short beaked common dolphin (*Delphinus delphis*), one bottlenose dolphin (*Tursiops truncatus*) and the sperm whale (*Physeter macrocephalus*).

Twenty-five cetaceans were collected for examination in 2023 and three were examined in situ. The twenty-five that was collected were made up of twelve harbour porpoises, twelve common dolphins and a Risso dolphin. Those that were examined in situ were made up of one bottlenose dolphin, one pigmy sperm whale, and one sperm whale.

1.2. Seals

Marine Environmental Monitoring have always recorded data on behalf of the Welsh government, but seals weren't included in the CSIP contract. As a result, this meant there wasn't any formal opportunity to collect seals for further examination. In 2022 seals were added to the contract as a pilot scheme. This has carried on into 2023 meaning MEM have now been able to collect a small number of seals for a post-mortem.

In 2023 MEM had one hundred and forty seals reported to MEM. This was a drop of 11.39% from 2022. As with previous year's most of the reported seals are Atlantic grey seal (*Halichoerus grypus*) (n=135). Then harbour seal (*Phoca vitulina*) (n=1). The remaining four were indeterminate.

We collected five grey seals and one common seal for further examination. Out of the five grey seals we collected three were reported as live stranding. Out of those three two died in rehab and one on the beach.

1.3. Marine turtles

In 2023 MEM had two marine turtles reported around the Welsh coast as part of the CSIP project. This was one loggerhead turtle (*Caretta caretta*), and one Kemp's Ridley turtle (*Lepidochelys kempii*). Both were reported as dead stranded and collected for further examination. Further details about these two turtles and others that were reported can be found within the 2023 Turtle annual strandings report ([Annual Reports – Strandings Wales](#))

2. Introduction

In April of 2021 Marine Environmental Monitoring (MEM) was awarded a new ten-year contract as part of the new Cetacean Strandings Investigation Programme (CSIP) contract (ME6042) awarded to the Institute of Zoology (IoZ) / Zoological Society London (ZSL) by the Department for Environment, Food and Rural Affairs (DEFRA). The contract will run April 2021-March 2031. The project is co-funded by the Welsh Government (WG) and DEFRA. MEM is responsible for providing the Welsh arm of the CSIP contract as a sub-contractor (see [Fig 1](#)).

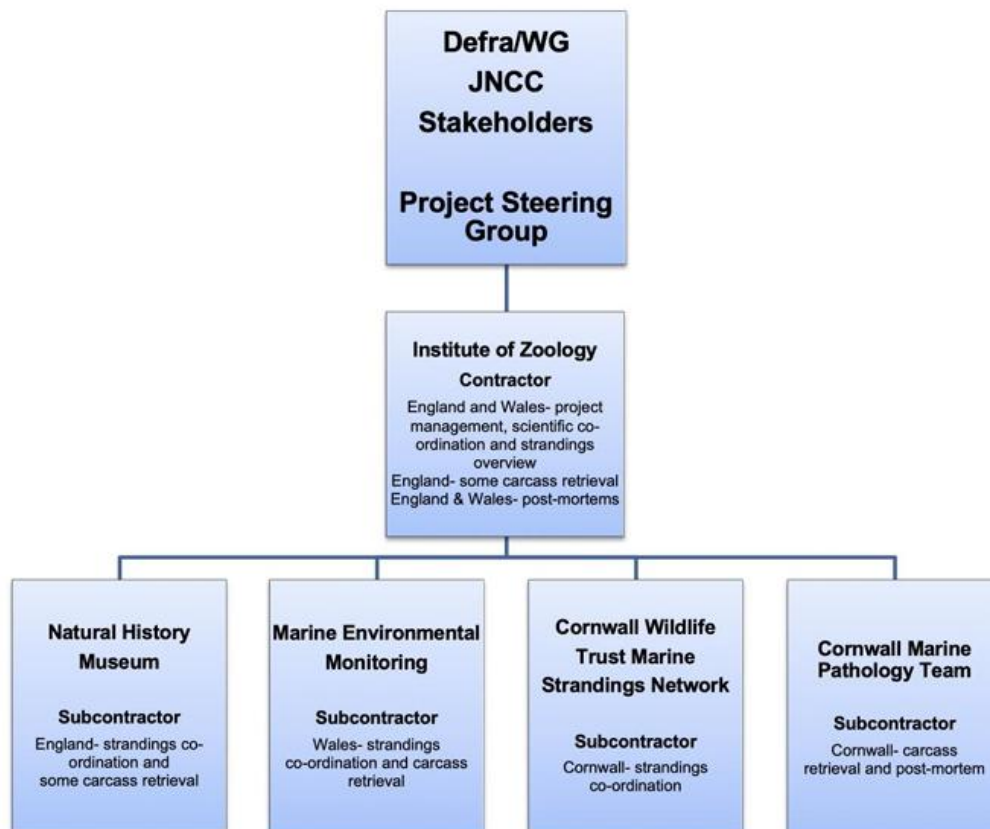


Figure 1 Operational Structure of CSIP

The project objectives under the new contract which Marine Environmental Monitoring have a responsibility for are:

- To collect/collate, analyse and report data on all cetacean strandings around the coast of Wales.
- To provide a subset of the stranded cetaceans in Wales to the project so that post-mortem examinations can be carried out.
- Help maintain the Cetacean Strandings Investigation Programme (CSIP) database, which brings together accurate and geo-referenced data on both strandings and post-mortem examination.
- To establish, improve and maintain relationships with regional volunteer networks, local authorities and other stakeholders who may support the achievement of project objectives within Wales.
- To make information on strandings, unusual occurrences and post-mortem examination results available to the Welsh Government through regular contact.

- To consider innovative ways to support efficiency and capacity of the programme within the project budget, to then present ideas and ways of streamlining the project (e.g. the expansion of the volunteer network, use of a reporting app).
- Maintain the programme of science and academic excellence through collaboration with relevant stakeholders, promotion of the programme and independent publishing.

3. Project approach

3.1. Collection of data.

A single contact number for the whole of the UK has been maintained. The UK number is a free-phone number **0800 652 0333** with a stepped menu system takes the caller through whether the stranding is alive or dead and then directs them to the correct organisation and strandings co-ordinator for the appropriate country.

For Wales the caller is asked to leave a message on the answer phone reporting the animal's species, location, approximate size and state of decomposition. They are also asked to leave contact information. Once the call is finished the strandings co-ordinator automatically receives notification of the report on their mobile phone. The strandings co-ordinator will then either message the caller asking for any photographs and further info or call them for the information.

To help with the identification of the species, sex and state of decomposition all calls are now asked to provide any photographs that they might have of the animal. These photographs are kept and maintained by MEM in a searchable database and can be provided to further help the project.

A network of volunteers has been maintained who can be contacted by the Strandings Co-ordinator to confirm the stranding, assess its condition and collect further data ([see section 15](#))

All data is then entered into the CSIP database.

3.2. Recovery, transportation and storage.

Due to the time it takes to get to parts of the Welsh coastline MEM rely on a network of volunteers to help confirm location, secure the animal for later collection and where appropriate to collect the animal ([section 15](#)). These volunteers are made up of individuals, groups and organisations that have some understanding of cetaceans and marine turtles. Once details of the animal have been confirmed the stranding co-ordinator will look to collect the animal the same day to prevent any further decay or scavenger damage.

MEM have various methods for transporting the animals depending on its size. Smaller cetaceans are transported inside the vehicle either in a specially designed tray or inside cadaver bags to prevent any contamination within the vehicle. Larger cetaceans are transported inside a specially designed trailer that has a stainless-steel base designed to prevent any leakage.

As part of the new contract, it has been agreed that where possible the animals will not be frozen and instead kept fresh. To aid this, one of our chest freezers has been converted into a fridge. This enables us to store the animal for several days before we need to arrange transport

to London Zoo. A further chest freezer is still maintained for any animal that can't be transported in a reasonable time, and to keep any samples in.

Any reported animal that isn't collected as part of the project is then notified to the local council or landowner (when known), so they can arrange safe disposal.

3.3. Engagement and education

Marine Environmental Monitoring will always look to engage with the public and the various groups and organisations that operate around the Welsh coastline to educate them to the work of CSIP. To aid in this we have updated our website www.strandings.com and created a new Facebook page <https://www.facebook.com/Marine.Environmental.Monitoring> to advertise the ongoing work of CSIP and MEM.

MEM will always look to support any request to attend any group meetings to discuss the ongoing work of CSIP and MEM around the Welsh coast. To support this, we have created several presentations along with maintaining other educational material to support learning. We will also look to support other groups and organisations that carry out educational work about our seas around the Welsh coastline, by either providing literature or attending events.

Marine Environmental Monitoring regularly reaches out to the various councils around the Welsh coastline to advise on the project and its progress. Each council is asked to pass any reports of strandings they receive to MEM by either the free phone number 0800 652 0333 or by emailing us at info@strandings.com . Any council within Wales can contact MEM for free advice on cetaceans, seals, marine turtles and shark strandings and their safe disposal.

4. Results and findings

4.1. Overview

During 2023 a total of two hundred and forty-eight cetaceans were reported to MEM along with one hundred and forty seals ([Table 1](#)). Out of the two hundred and forty-eight cetaceans reported MEM were able to identify two hundred thirty-four of them to species. The remaining fourteen MEM were unable to identify the species. This was due to either state of decomposition, or lack of photographs.

There is a small population of harbour seals (common seal) along the north coast of Wales. We also occasionally see harbour seals along the south coast that are believed to have come from Cornwall and Devon coast. Although the numbers are small, MEM will be including them in all reports so to better understand the population within Wales.

MEM had one hundred and forty seals reported to us in 2023([Table 1](#)). Of those one hundred and forty-one, one hundred thirty-five were grey seals and one harbour seals. A further four were unidentifiable due to the state of decomposition or lack of photos.

Table 1 Total reports for 2023

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Bottlnose dolphin					1	1		1	1				4
Harbour porpoise	6	2	6	6	8	16	18	29	8	9	9	7	124
Risso's dolphin										1			1
Common dolphin	23	20	9	9	4	3	9	6	5	3	6	4	101
Common/stripped dolphin (indeterminate)		1	3	1									5
Stripped dolphin (<i>Stenella coeruleoalba</i>)			1				1						2
pygmy sperm whale (<i>Kogia breviceps</i>)											1		1
sperm whale (<i>Physeter macrocephalus</i>)					1								1
Cetacean (indeterminate)	1				3			2			1		7
Dolphin (indeterminate)										2			2
Total cetaceans	30	23	19	16	17	20	28	38	14	15	17	11	248
Harbour seal						1							1
Grey seal	4	4	3	2	4	1	16	11	22	50	14	4	135
Seal (indeterminate)	1		1	1	1								4
Total seals	5	4	4	3	5	2	16	11	22	50	14	4	140
Total animals	35	27	23	19	22	22	44	49	36	65	31	15	388

4.2. Live strandings

Of the two hundred forty-eight cetaceans MEM had reported in 2023, six were listed as live stranding. This was made up of two short beaked common dolphins, one bottlenose dolphin, one sperm whale and two harbour porpoises.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Common dolphin			1								1		2
Bottlenose dolphin					1								1
Sperm whale					1								1
Harbour porpoise			1							1			2
Total live strandings			2		2					1	1		6

Table 2 Live strandings

4.3. Animals sent for post-mortem examination

During 2023, twenty-eight cetaceans were collected for post-mortem examination. This only equates to just over 11% of the total cetaceans reported but is up on the previous year. MEM also sent one harbour seals and five grey seals for post-mortem examination.

Table 3 Animals sent for post-mortem

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Common dolphin	2	2	1	1	1		1		1		3		12
Harbour porpoise			1	2	2	1	2	1	1	1	1		12
Bottlenose dolphin					1								1
Pygme sperm whale											1		1
Risso's dolphin										1			1
Sperm whale					1								1
Grey seal								1	3		1		5
Harbour seal						1							1
Total sent for post-mortem examination		2		3	5	2	3	2			6	0	34

The results for the post-mortem examinations can be found in [section10 \(Table 11\)](#).

6. Mass stranding event

Two stranding events involving two or more animals found in close temporal and spatial proximity (mass stranding events or MSEs) were reported to MEM during 2023. The first was on Blackpill beach, Swansea, on the 14th November 2023 and involved two common dolphins (SW2023/777). Both animals were collected for further examination (see causes of death ([table 11](#))). The second mass stranding event was on the MOD's section of Pembrey beach, Carmarthenshire. This was on the 17th December 2023. This involved three harbour porpoises. Unfortunately, due to state of decomposition none of these animals could be collected for further examination.



Map 1 Mass strandings 2023

7. Summary of strandings

7.1. Bottlenose dolphin (*Tursiops truncatus*)

Although there is a large resident population of bottlenose dolphins off the Welsh coast, strandings of this species are relatively unusual. Bottlenose dolphins in UK waters are large robust animals often measuring over three metres in length, these animals have a substantial mass of muscle. It may be possible, that once dead, these large animals become negatively buoyant only returning to the surface once gasses from decomposition counteract this effect. This may explain why so few bottlenose dolphins are found stranded dead in a fresh condition compared to decomposed carcasses.

Bottlenose dolphins are a feature of the relevant Special Areas of Conservation (SAC's) on the Welsh coast and are a priority species within the CSIP, it is for this reason that any reports of bottlenose dolphins are investigated fully.



Plate 2 Bottlenose dolphin (SW2023/272)

Four bottlenose dolphins were reported in 2023. The first was reported on the 6th May 2023 which was on Ynyslas beach, Ceredigion. This animal live stranded with members of public witnessing it swimming onto the beach. This dolphin was a male at 3.29m in length and was a well know resident in the area with data going back to 1990. both the Sea Watch foundation and Cardigan Bay

Marine Wildlife Centre have photos and records of him in the Cardigan Bay area. During the post-mortem he was found to have several age-related changes including arthritic wear on the pectoral fin joints and loss of many teeth, with significant wear on the small number of remaining teeth. CSIP also found evidence of infection within the lower jaw that may have caused some deformity, and the adrenal glands were polycystic in nature (SW2023/272).

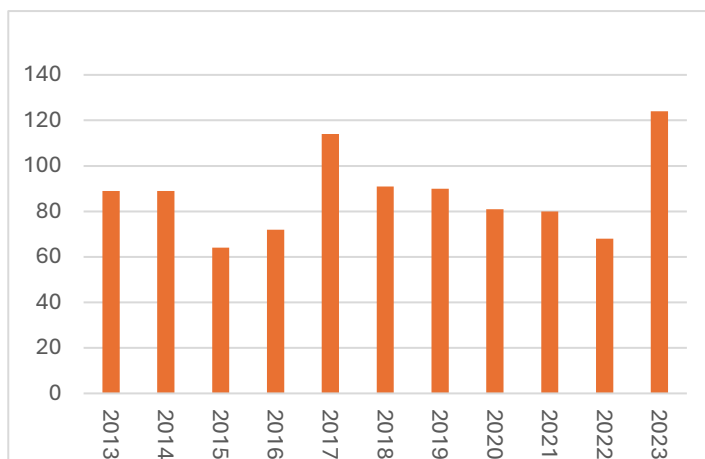


Table 4 10 Year BND data



Map 2 Bottlenose dolphin strandings

The second and third bottlenose dolphin to be reported were found on Harlech beach Gwynedd. The first of these two was a juvenile female at 1.93m in length (SW2023/429), reported on the 30th June 2023. The second was an adult male at 3.45m in length (SW2023/537), this was reported on the 12th August 2023. Unfortunately, both animals were too decomposed for a full examination, but skin, blubber, muscle and teeth samples were taken. The fourth bottlenose was reported on the 12th September 2023 and was found on Cei Bach beach, Ceredigion. This was also an adult male at 3.4m in length. This one was also too decomposed for full examination, but skin blubber muscle and teeth samples were collected.

7.2. Harbour porpoise (*Phocoena phocoena*)



Plate 3 Harbour porpoise (SW2023/134)

The harbour porpoise is one of the most common cetaceans in the waters around the Welsh coastline but faces many challenges and as a result they are consistently the most frequently reported stranded cetacean on the Welsh coast. In 2023 this remained the same with one hundred and twenty-four being reported to MEM. This is a huge increase of over

82% from the previous year ($n=68$) and the largest number of harbour porpoises reported in one year within Wales ([Table 6](#)). Although there is an increase of harbour porpoises killed by bottlenose dolphins, there wasn't anything that would explain the large number of porpoises that were reported in 2023.

Twelve harbour porpoises were collected for further examination in 2023. Out of those that have been examined so far 75% are shown to have been killed by bottlenose dolphins (see [section 9](#) and [section 10](#)). This is a large increase from the previous year which was 50%.

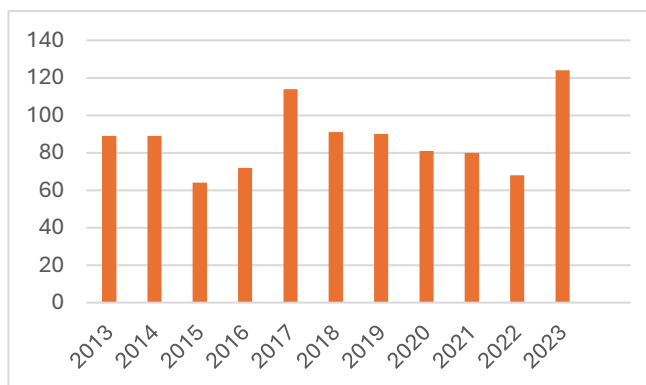
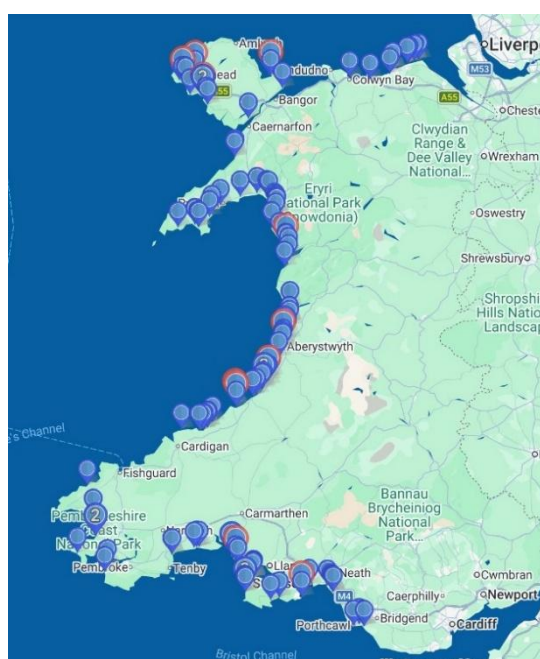


Table 5 10-year data on harbour porpoise strandings



Map 3 Harbour porpoises,

The map shows the distribution of the reported strandings around the Welsh coastline. The red pins shows the distribution of harbour porpoises collected for further examination.

7.3. Short beaked common dolphin (*Delphinus delphis*)

The Short beaked common dolphin has become the second most common cetacean in the waters around the Welsh coast. There has been an upward trend over the last ten years of reports of common dolphins to MEM. If the trend continues it is likely that the short beaked common dolphin will become the most common cetacean around the Welsh coastline in the coming years. In 2023 MEM received one hundred and one reports of the short beaked common dolphin. This is over 129% increase from the previous year (n=44), and around a 55% increase on the highest recorded number which was in 2020 (n=68).

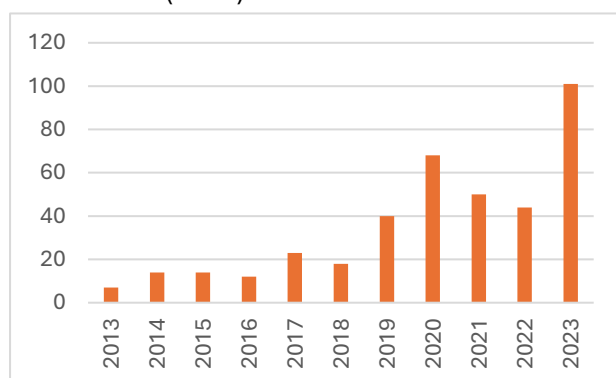


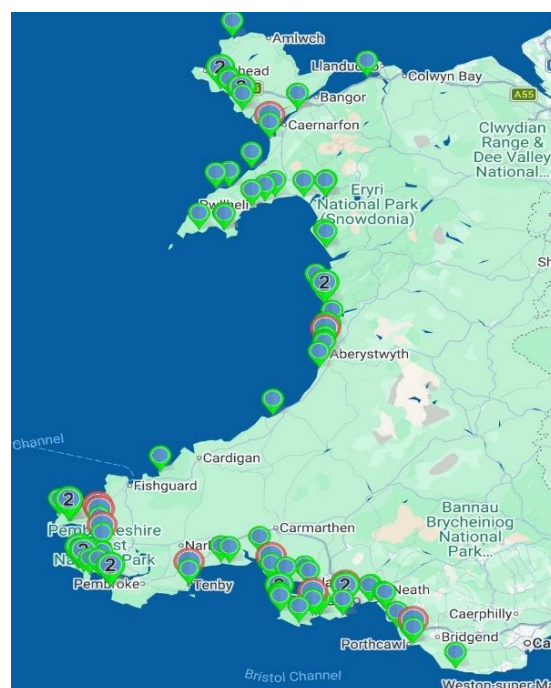
Table 6 10-year data on common dolphin strandings

The map shows the distribution of the reported strandings around the Welsh coastline. The red pins show the distribution of harbour porpoises collected for further examination.



Plate 4 Common dolphin (SW2023/777)

During 2023 MEM collected twelve short beaked common dolphins for further examination. Two of those were from the mass stranding at Blackpill, Carmarthenshire (See section 6) (SW2023/777.1 & SW2023/777.2)



Map 4 Common dolphin strandings.

7.4. Risso's dolphin (*Grampus griseus*)



Plate 5 Risso dolphin (SW2023/660)

There is a family pod of Risso's that can be regularly seen around the Isle of Anglesey and along the North coast of Wales. Occasionally they are seen as far south as Pembrokeshire. For this reason, most years we will see one or two being reported to MEM normally around the Northwest coast of Wales.

In 2023 MEM had one Risso's dolphin reported to MEM. This was reported on the 8th October 2023 and was on Llenbedrog beach, Gwynedd. (See plate 5) (SW2023/660). At just 1.48m this female Risso's was a neonate which you could still see the foetal folds on. This animal was collected for further examination ([see section 10](#)).

7.5. Atlantic grey seal (*Halichoerus grypus*)

There is a large grey seal population that seems to be doing very well in Wales. You can find grey seals on almost the whole coastline. As a result, the numbers of reported grey seal mortality we get reported around the coast each year is the highest of any single species of animal.

In 2023 MEM received one hundred and forty-eight reports of grey seals. This is thirteen less than the previous year ([table 8](#)). MEM are still seeing a high mortality rate during the pupping season which in 2022 ran from September to mid-November. The grey seal population is doing well around the Welsh coast which is resulting in a greater number of pups being born each year resulting in high mortality rates.

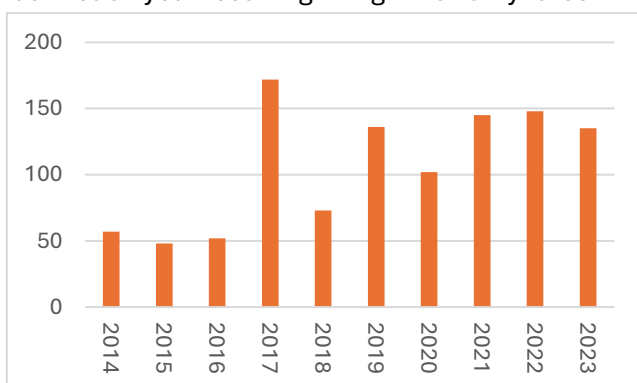


Table 7 10-year data on grey seal strandings



Plate 6 Grey seal pup (SS2023/414).

Each year MEM normally see a huge spike of mortality in seals between September and November due to the grey seals pupping season. During 2023 MEM started to see an increase in reports earlier but September to November remains the peak for reports, with the peak in October (n=50). Many of the stranded grey seals MEM sees reported around this time are

pups. From the beginning of September to end of October forty-three of the reported seals were confirmed as pups.

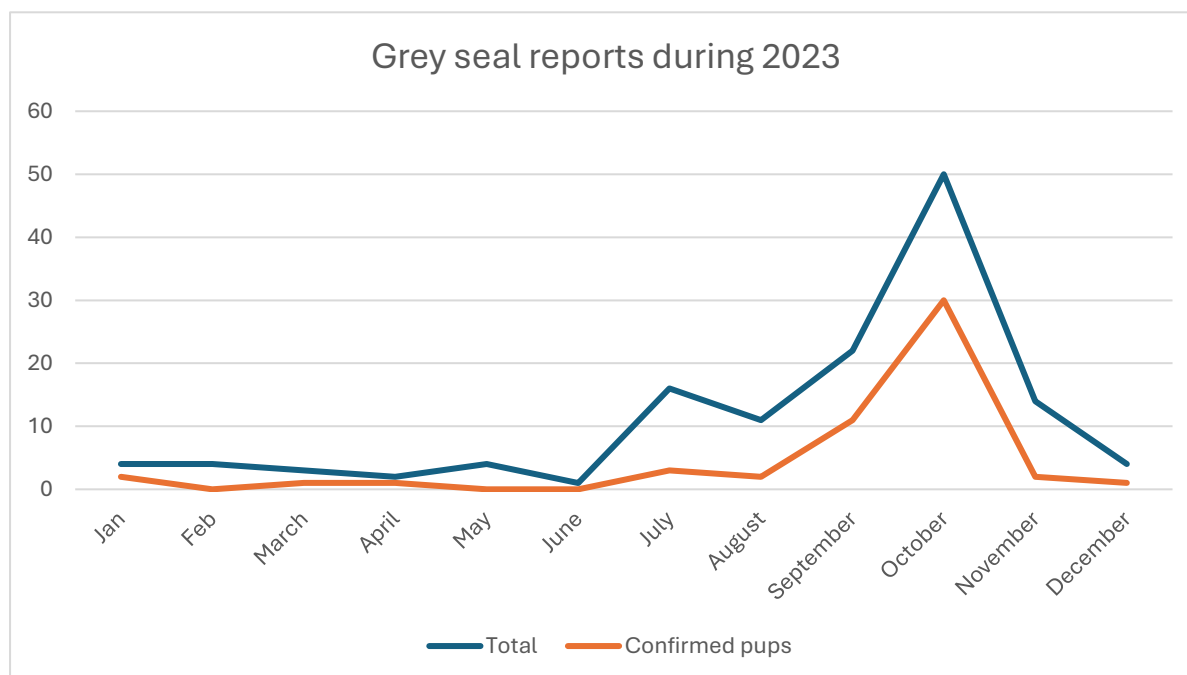
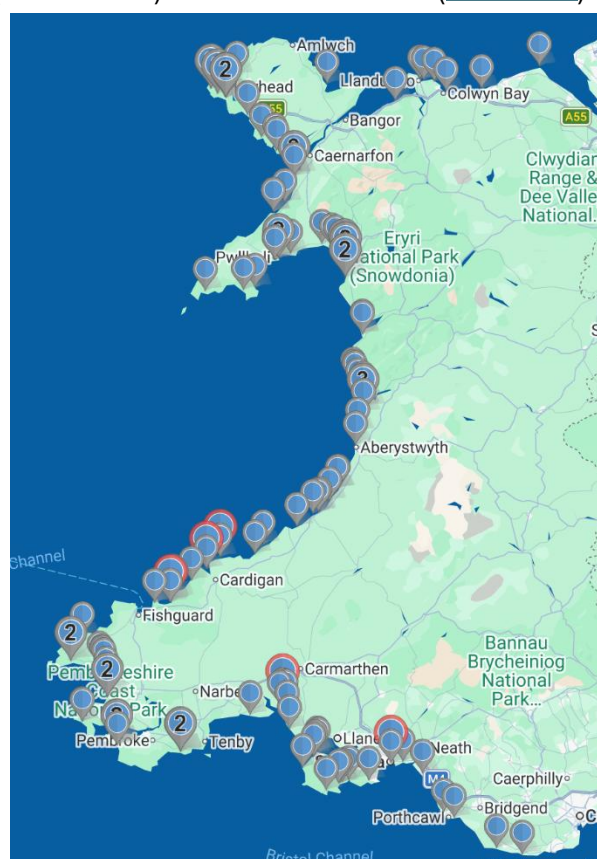


Table 8 Difference between reports of adult and pup grey seals across the year

During 2023 five grey seals were collected for further examination. Out of those five, two died in rehab having been collected off a beach (SS2023/430 & 431). A further one died on the beach whilst being monitored (SS2023/376). See causes of death ([section 10](#)).



Map 5 Grey seal strandings. Red pins collected for PM

7.6. Harbour seal (*Phoca vitulina*)

MEM had one harbour seals (common seal) reported to MEM in 2023. The harbour seal was a male weighing 33.25kg and was found on Talacre beach, Flintshire, north Wales. MEM was able to collect this seal for further examination. See plate 7 ([section 10](#)).



Plate 7 Harbour seal (SS2023/282).

7.7. Marine turtles

Marine Environmental Monitoring is responsible for the management of the British Isles & Republic of Ireland 'TURTLE' Database which keeps records of all marine turtle sightings and strandings. This report only covers those that relate to Wales. The full turtle report can be found by following this link([2023-Turtle-Annual-Strandings-Report.pdf](#)) or by going to either www.strandings.com or www.ukturtles.online.

There were two dead marine turtles reported around the Welsh coast to MEM in 2023 as part of the CSI project. The first was a loggerhead turtle that was found on Tanybwllch beach, Ceredigion on the 13th December (**T2023/02**). The second was one of the world's rarest and smallest marine turtles which is a Kemp's ridley marine turtle (**T2023/03**). This was found on Clynog Fawr beach, Gwynedd on the 28th December. Both turtles were collected for further examination.



Plate 8 Kemp's ridley turtle (T2023/02)

8. Unusual occurrences

8.1. Pygmy sperm whale (*Kogia breviceps*)

On the 14th November, Marine Environmental Monitoring received a call reporting a small whale on the beach at Llantwit Major beach, Vale of Glamorgan. Once MEM received the images, they were able to confirm it was a Pygmy sperm whale. A necropsy was carried out on the Pygmy sperm whale on the beach by the CSIP team. It was found to be an adult female at 2.92m in length. It was pregnant with an almost fully formed foetus. Cause of death has been listed as live stranding (Pending histopathology).



Plate 9 Pygmy sperm whale (SW2023/778)

8.2. Striped dolphin (*Stenella coeruleoalba*)



Plate 10 Striped dolphin (SW2023/132)

The striped dolphin is very similar to the short beaked dolphin to the point that once the animal has started to decompose it normally is impossible to tell them apart from photos alone. Despite their similarities it is rare to get reports of striped dolphins around the Welsh coastline. During 2023 MEM received two reports of striped dolphins being dead stranded on beaches around Wales. The first was on 10th March which was found on Port Eynon beach, Swansea (**SW2023/132**). The second was found on the 14th July on Pembrey beach, Carmarthenshire (**SW203/476**). Unfortunately, due to state of decomposition, they weren't suitable for further investigation.

8.3. Sperm whale (*Physeter macrocephalus*)

On the 8th May MEM received a call from the British Divers Marine Life Rescue (BDMLR) who were attending a report of a live stranding of an adult sperm whale (See plate 11). The animal was seen by a member of public swimming onto Porth Neigwl beach, Gwynedd. Unfortunately, the animal died shortly afterwards. On initial inspection MEM found the whale to be an adult female at 10.8m in length. It was in very poor body condition with the rib cage being visible. A full necropsy was carried out by the CSIP team on the 11th May in situ on the latest sperm whale, which was observed by several different organisations including BDMLR, The Sea Watch foundation and Cardigan Bay Marine Wildlife Centre. The animal had died from starvation/hypothermia (pending histopathology). See [section 10](#) (Cause of death). This is only the second time a sperm whale has been recorded on the Welsh coast. The previous report was in 2019 on the same beach in Gwynedd.



Plate 11 Sperm whale (SW2023/273)

8.4. Grey seal predation of harbour porpoises.

On the 13th March MEM received a report of a harbour porpoise that was on Mumbles beach, Swansea (See plate 12). On collecting the animal, it was found to be a young female at 94cm in length. It had hard swollen lumps around the tailstock, along with other small wounds located over the body.



Plate 12 Porpoise killed by grey seal

During the necropsy it was found that the animal had live stranded and died on the beach. It was also found that the animal had a generalised bacterial infection (*Streptococcus phocae*) and osteomyelitis. This along with the other injuries across the body was all consistent with a grey seal interaction.

It is reasonably well known that that grey seals occasionally will attack and kill harbour porpoises and we have seen at least two other cases that have been investigated within Wales, but this is the first in six years.

9. Bottlenose dolphin kills

At the point of writing this report eight of the twelve porpoises collected in 2023 have been examined. Out of those eight five have been found to be bottlenose dolphin attacks. This is highest number MEM have had in the last ten years (Table 10). This is a good indication that bottlenose dolphin

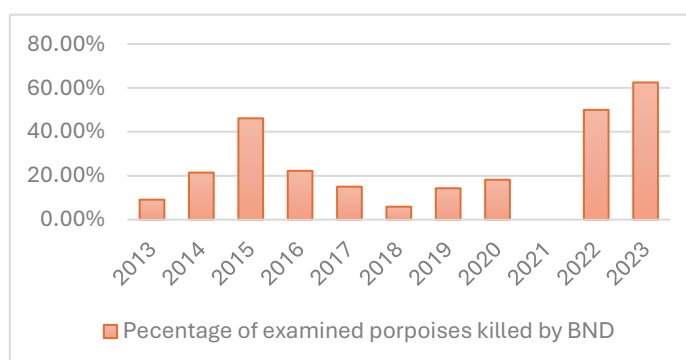


Table 9 10-year data of Porpoises killed by BND

attacks are one of the greatest challengers to porpoises around the Welsh coast. It also must be noted that in 2023 all the current investigated BND kills of porpoises happen on a small section of coast and all the porpoises were male. No other species was shown to have been killed by a bottlenose dolphin around the Welsh coast in 2023.



Map 6 Locations of BND kills 2023

10. Causes of death

Thirty-five animals were collected during 2023 for examination within the project. This number was made up of twenty-seven cetaceans, six seals and two marine turtles

The provisional cause of death is given in the table below.

Reference No	Species (common)	Location	Local Authority	Cause of Death
SW2023/13	Short-beaked common dolphin	Oxwich Beach	Swansea	parasitism gastric and pulmonary
SW2023/32	Short-beaked common dolphin	Broad Haven	Pembrokeshire	pending
SW2023/67	Short-beaked common dolphin	Dinas Dinlle	Gwynedd	starvation/hypothermia (pending histopathology)
SW2023/90	Short-beaked common dolphin	Newgale	Pembrokeshire	physical trauma acute (possible bottlenose dolphin attack)
SW2023/134	Harbour porpoise	Mumbles	Swansea	generalised bacterial infection (<i>Streptococcus phocae</i>) and oestoemyelitis; sequel to likely grey seal bite
SW2023/235	Short-beaked common dolphin	Tywyn Gwynedd	Gwynedd	meningoencephalitis (<i>Brucella ceti</i>) pending histopathology
SW2023/250	Harbour porpoise	Trearddur	Anglesey	Pending
SW2023/248	Short-beaked common dolphin	Pembrey	Carmarthenshire	Pending
SW2023/249	Harbour porpoise	Pembrey	Carmarthenshire	Pending
SW2023/270	Short-beaked common dolphin	Aberystwyth North beach	Ceredigion	pulmonary rupture haemothorax
SW2023/272	Bottlenose dolphin	Ynyslas	Ceredigion	debilitation sequential to osteomyelitis
SW2023/273	Sperm whale	Porth Neigwl	Gwynedd	starvation/hypothermia out of habitat animal
SW2023/281	Harbour porpoise	Llanrhystud Beach	Ceredigion	physical trauma bottlenose dolphin attack
SW2023/293	Harbour porpoise	New Quay	Ceredigion	physical trauma bottlenose dolphin attack
SS2023/282	Common seal	Talacre	Flintshire	not established (pending histopathology)
SW2023/427	Harbour porpoise	Aberystwyth North Beach	Ceredigion	physical trauma bottlenose dolphin attack
SW2023/445	Harbour porpoise	Llannon Beach	Ceredigion	physical trauma bottlenose dolphin attack
SW2023/481	Harbour porpoise	Penial Beach	Anglesey	generalised parasitism (pending histopathology)
SW2023/490	Short-beaked common dolphin	Porthcawl	Bridgend	generalised bacterial infection (pending histopathology)
SS2023/376	Grey seal	Parog Newport	Pembrokeshire	pending
SW2023/544	Harbour porpoise	Barmouth beach	Gwynedd	physical trauma acute
SS2023/414	Grey seal	Mwnt beach	Ceredigion	pending
SW2023/614	Harbour porpoise	New Quay	Ceredigion	physical trauma bottlenose dolphin attack
SW2023/652	Short-beaked common dolphin	Tenby south beach	Pembrokeshire	live stranding pending histopathology
SS2023/430	Grey seal	Swansea marina	Swansea	physical trauma left hind limb and secondary infection (pending histopathology)
SS2023/431	Grey seal	Llansteffan	Carmarthenshire	pending
SW2023/660	Risso's dolphin	Llanbedrog beach	Gwynedd	starvation/hypothermia (pending histopathology)
SW2023/763	Harbour porpoise	Rhosneigr	Anglesey	pending
SW2023/765	Short-beaked common dolphin	Newgale beach	Pembrokeshire	not established pending histopathology
SS2023/593	Grey seal	Popit Sands	Pembrokeshire	pending
SW2023/777.1	Short-beaked common dolphin	Mumbles Blackpill	Swansea	parasitism gastric (heavy) (pending histopathology)
SW2023/777.2	Short-beaked common dolphin	Mumbles Blackpill	Swansea	parasitism gastric (heavy) (pending histopathology)
SW2023/778	Pygmy sperm whale	Llantwit Major beach	Vale of Glamorgan	live stranding (out of habitat animal) pending histopathology
SW2023/862	Harbour porpoise	Llanddona beach	Anglesey	physical trauma bottlenose dolphin attack
T2023/2	Loggerhead turtle	Aberystwyth	Ceredigion	pending
T2023/3	Kemps Ridley turtle	Clynnog Fawr	Gwynedd	pending

Table 10 Causes of death 2023

11. Maps

Marine Environmental Monitoring has invested in mapping software which allows public access to an interactive map. By following the map link below, you can see the locations of all the individual strandings reported to MEM around the Welsh coastline in 2023 and by clicking on the tags see information about each stranding. We have added photos for all animals that were sent for post-mortem examination and other key species like bottlenose dolphins. These images can be viewed by clicking on the tab for the animal.

Map link:

<https://public.maptive.com/maps/dGQNiPjxDGK1OTtntxyonajtlgcQPopm>

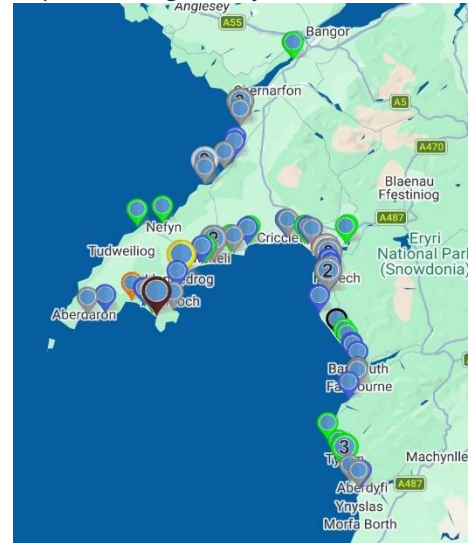
12. Strandings by county

The below set of maps and data show the locations of all the reported 2023 strandings within Wales by county. This information has been included to allow those that manage the beaches around Wales to understand types and numbers that stranded during 2023 so they can better plan for the coming years. The numbers are only the animals that have been reported to MEM and most likely do not represent the total numbers of animals that strand on the coastline each year. If a coastal county isn't included, it is due to there being no reports within 2023. The maps legend can be found at the end of this section ([Fig 2](#)).

12.1. Gwynedd

Gwynedd	Amount
Bottlenose dolphin	2
Harbour porpoise	29
Risso's dolphin	1
Common dolphin	11
Striped dolphin	
Cetacean (indeterminate)	2
Harbour seal	
Grey seal	35
Seal (indeterminate)	
Sperm whale	1
Total	81

Map 7 Strandings in Gwynedd



12.2. Pembrokeshire



Map 8 Strandings in Pembrokeshire

Pembrokeshire	Amount
Bottlenose dolphin	
Harbour porpoise	9
Risso's dolphin	
Common dolphin	28
Striped dolphin	
Cetacean (indeterminate)	6
Harbour seal	
Grey seal	32
Seal (indeterminate)	1
Total	76

12.3. Ceredigion

Ceredigion	Amount
Bottlenose dolphin	2
Harbour porpoise	27
Risso's dolphin	
Common dolphin	11
Striped dolphin	
Cetacean (indeterminate)	
Harbour seal	
Grey seal	19
Seal (indeterminate)	
Total	59



Map 9 Strandings in Ceredigion

12.10. Denbighshire

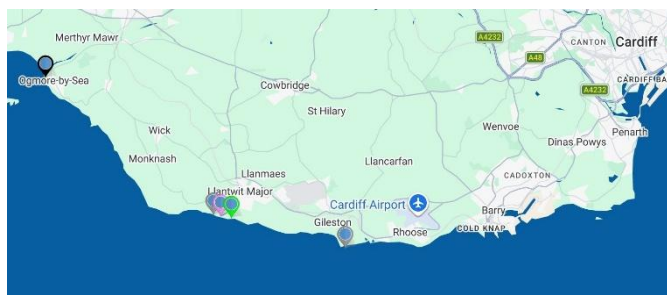


Map 16 Strandings in Denbighshire

Denbighshire	Amount
Bottlenose dolphin	
Harbour porpoise	9
Risso's dolphin	
Common dolphin	
Striped dolphin	
Cetacean (indeterminate)	
Harbour seal	
Grey seal	
Seal (indeterminate)	
Total	9

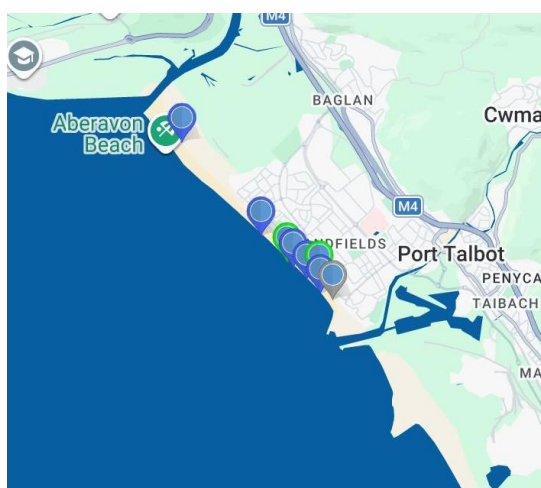
12.11. Vale of Glamorgan

Vale of Glamorgan	Amount
Bottlenose dolphin	
Harbour porpoise	
Risso's dolphin	
Common dolphin	1
Striped dolphin	
Cetacean (indeterminate)	1
Harbour seal	
Grey seal	2
Seal (indeterminate)	
Pygmy Sperm whale	1
Total	5



Map 17 Strandings in Vale of Glamorgan

12.12 Neath Port Talbot



Map 18 Strandings in Neath Port Talbot

Neath Port Talbot	Amount
Bottlenose dolphin	
Harbour porpoise	5
Risso's dolphin	
Common dolphin	2
Striped dolphin	
Cetacean (indeterminate)	
Harbour seal	
Grey seal	1
Seal (indeterminate)	
Total	8

	Bottlenose dolphin
	Cetacean (indeterminat...
	Common seal
	Dolphin (indeterminat...
	Grey seal
	Harbour porpoise
	Pygmy sperm whale
	Risso's dolphin
	Seal (indeterminate s...
	Short-beaked commo...
	Short-beaked commo...
	Sperm whale

Figure 2 Key for maps

13. Public engagement

The new look website seems to encourage greater engagement with the public reporting sightings through the website (www.strandings.com). During 2023 MEM posted articles on our Facebook page <https://www.facebook.com/Marine.Environmental.Monitoring> 18 times. These articles had 312 likes and was shared 575 times. As the year progressed the amount of engagement increased which we hope continues.

With the COVID restrictions being lifted MEM was able to attend and carryout more public engagement talks. The three main ones MEM attended was The North Wales marine conservation conference in May, Several British Diver Marnie Life Rescue (BDMLR) training days throughout the year and carrying out of a necropsy for students at Bangor university in November. As well as these MEM were able to give talks to local community groups.



Plate 14 BDMLR team New Quay (Pic credited to BDMLR)



Plate 13 North Wales Marine Conservation Conference (Pic credited to Gem Simmons)

14. Collaboration work

In 2023 MEM carried on it's working with the Angel shark project to help provide collection and storage of stranded Angel sharks around the Welsh coast we also developed our work with the North Wales Seal Research Organisation (NWSRO). During 2023 MEM were also able to build stronger ties to the British Divers Marine Life Rescue (BDMLR) which resulted in us attending various training sessions including a mass stranding training exercise. MEM have been able to start working more closely with Dr Sarah Perry and the Cardigan Bay Marine Wildlife centre during 2023.

15. Volunteers

Due to the time it can take to get to some of the strandings, and to try and prevent unnecessary journeys, MEM rely on various volunteers located around the Welsh coastline. These volunteers can confirm location and species, secure them to prevent them from being washed away by incoming tides, take measurements and photos, and in some cases collect the animals on behalf of the project.

The volunteers MEM currently has are made up of likeminded individuals who all have an interest in the marine life around Wales. Some are from professional organisations such as the North Wales Wildlife Trust and Natural Resource Wales (NRW), others are members of the public who have an active interest in marine life.

16. List of Scientific names

Common name	Scientific name
Bottlenose dolphin	<i>Tursiops truncatus</i>
Harbour porpoise	<i>Phocoena phocoena</i>
Risso's dolphin	<i>Grampus griseus</i>
Common dolphin	<i>Delphinus delphis</i>
Striped dolphin	<i>Stenella coeruleoalba</i>
Sperm whale	<i>Physeter Macrocephalus</i>
Pygmy Sperm whale	<i>Kogia Breviceps</i>
Harbour seal	<i>Phoca vitulina</i>
Grey seal	<i>Halichoerus grypus</i>
Leatherback turtle	<i>Dermochelys coriacea</i>
Loggerhead turtle	<i>Caretta caretta</i>
Kemp's riddley turtle	<i>Lepidochelys kempii</i>

Table 11 Scientific names

17. Equipment

During 2023 we have maintained the current equipment as well as provided some drag stretchers to our volunteers.

18. Acknowledgements

We wish to acknowledge, the team at NRW including Charles Lindenbaum, Ceri Morris & Holly Self, whose professional help is always appreciated. Ellie West & Keith Hogben of the RSPCA who have supported us during the challenges of dealing with sick and injured animals. Dr Sarah Perry & her team at the Cardigan Bay Marine Wildlife Centre who regularly help identify and secure animals. Gem Simmons of the North Wales Seal Research Organisation whose dedication to the protection of marine wildlife is an inspiration. Nia Haf Jones and Sam at the North Wales Wildlife Trust who despite the weather has also been there to help recover animals and give support to the project. The volunteers and staff with the British Divers Marine Life Rescue who carry out rescues up and down the UK coast. The various councils around the Welsh coast whose teams support the project and pass on reports to us. Milford Haven Coastguard, Holyhead Coastguard plus the many auxiliary coastguards around the coast for their professional support to the project. Lin Gander, Emma Beattie, Terry Leadbetter, Sal Shipley, Madison Bowden Parry for their support with the project and help in retrieving animal. the Strandings Network volunteers within Wales, too numerous to mention for their help confirming, reporting and securing animals for collection. Welsh Government & Defra for providing funds and guidance towards the project. We would also like to say a special thankyou to Rod Penrose for his continued support of the project.