

Annual Report 2014

1 January to 31 December 2014
for Marine Scotland, Scottish Government

M159/14 Humpback whale, Fishnish, Mull, June 2014

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Section 1: Executive Summary

From the 1st January to 31st December 2014, 504 reports comprising 528 marine animals were reported to the Scottish Marine Animal Stranding Scheme (SMASS); 302 seals, 219 cetaceans, 1 basking shark and 6 marine turtles. Of these, 72 cases (13.6%), 41 cetaceans, 29 seals and 2 turtles were necropsied to establish a cause of death. A further 42 (7.9%) animals comprising 35 cetaceans and 7 seals were sampled by trained volunteers. In the cases not necropsied, advanced autolysis or logistics were the most common reasons precluding further examination. There was a significant increase in the number of seals reported compared to the previous year, in specific seals from Orkney. Possibly due to increased reporting after a visit and talk by SMASS. There were three mass stranding events (MSE): Fourteen common dolphins (*Delphinus delphis*) in July, two Northern bottlenose whales at the beginning of September and two, possibly three white beaked dolphins (*Lagenorhynchus albirostris*) at the end of the same month. There was one cow and calf pair stranding in September involving Sowerby's beaked whales (*Mesoplodon bidens*) and two unusual mortality events (UME) in November involving grey and harbour seals, and December and January (2015) involving Cuvier's beaked whales (*Ziphius cavirostris*). Seals with spiral "corkscrew" lesions continue to be reported with 34 cases, mainly from the Fife and Tay region, but also from Highland (Cromarty, Moray and Beaully Firths), Orkney, and Dumfries and Galloway during this period. Towards the end of the year evidence emerged that at least in some cases these lesions may be due to predation by adult grey seals rather than an anthropogenic cause. Several strandings attracted significant media attention; a solitary male sperm whale that stranded in the firth of Forth in early January, a humpback whale in Mull in June, the mass stranding of common dolphins in Mull, the single stranding of a killer whale on the western isles in July, and the leatherback turtle strandings in October.

1.1 Project overview

The principal requirement of this project is to provide a co-ordinated approach to surveillance of marine species (e.g. cetacean & seal) strandings and to investigate major causes of death of stranded marine mammals in Scotland. Details about the Scottish Scheme can be found at strandings.org

This work builds on the work undertaken in Scotland by the UK Cetacean Strandings Investigation Programme (CSIP). Detailed information about the CSIP, including access to stranding records, can be found at ukstrandings.org

1.2 Details of work

- To continue to collate, analyse and report data for all cetacean, seal, basking shark and marine turtle strandings across the Scottish coast. This will include determination of cause of death and surveillance of the incidence of disease.
- To undertake approximately 70 post mortems on cetaceans and seals stranded around the Scottish coast (approx 20-30 cetaceans and 40-50 seals). A wide geographical spread of post mortems should be achieved unless specified otherwise.

- To provide an overall Scottish sample of both species of seal, including areas of harbour seal decline, to determine cause of death and any potential contributing factors.
- To investigate specific cases of strandings/causes of death as requested by Scottish Government.
- To provide scientific advice to the Scottish Government as necessary about major causes of death in stranded marine mammals, including any trends or unusual trends.
- To develop a database that brings together data on both strandings and post mortems for seals. All cetacean data should be fed into the database for the “UK Cetacean Strandings Investigation Programme”.
- Contribute to the production of strandings training material and workshop events and raise awareness through publicity.
- Standardise the current protocols for necropsies where appropriate
- Review options for specimen storage facility, with a focus on reducing storage demand and consider publicising tissue bank facility.
- Review any papers compiled using samples or data provided from the scheme as a means of quality control.

Section 2: Strandings

2.1 Strandings overview

Between 1st January and 31st December 2014, 528 marine animals were reported to the Scottish Marine Animal Stranding Scheme; 302 seals, 219 cetaceans, one basking shark and six marine turtles. Of these, 72 cases (13.6%), comprising 41 cetaceans, 29 seals and two turtles were necropsied to establish a cause of death. A further 42 (7.9%) animals comprising 35 cetaceans and seven seals were sampled by trained volunteers. In the cases not necropsied, advanced autolysis or logistics were the most common reasons precluding further examination. Figure 1 shows the Scottish strandings since 2005 and shows 2014 had a higher number reported than all the previous years for which the 10 year mean was 357 animals. Figure 2 shows the breakdown strandings by class for 2014.

There was a 158% increase in the number of seals reported this year. This is possibly due to the increase in reporting in the last quarter from Orkney after a SMASS talk to the Orkney Field Club in Kirkwall and a poster campaign, see section 12.8. Figure 3 shows the stranding by month since 2011.

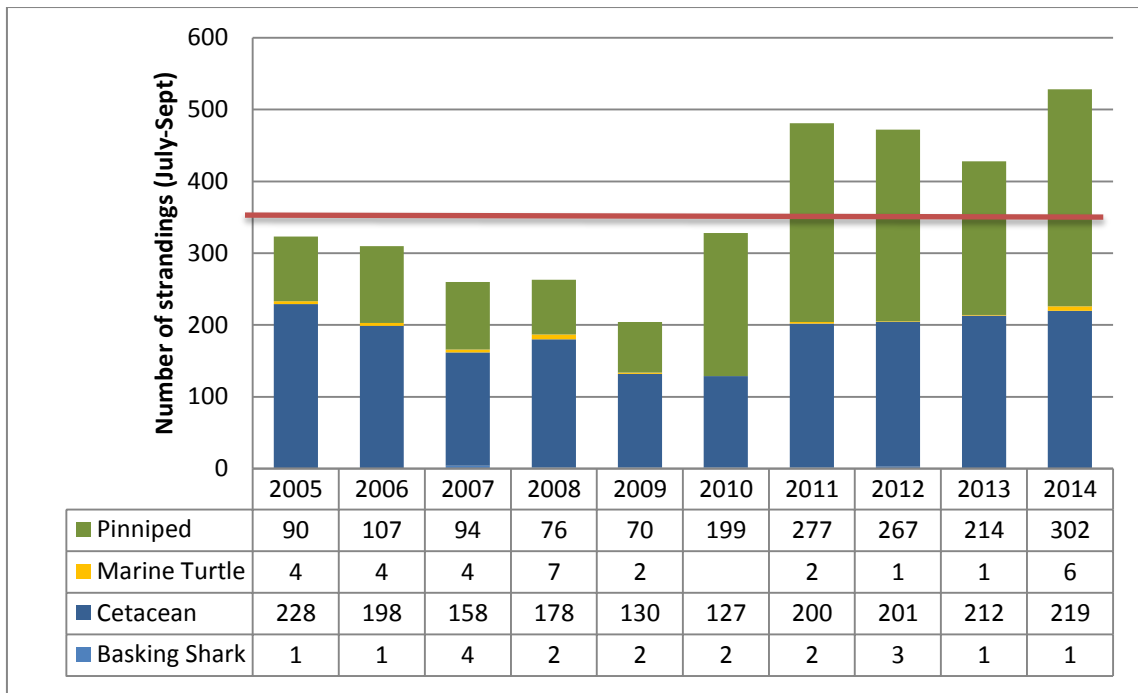


Figure 1: Strandings reported 2005-2014. Red line shows 10 year mean

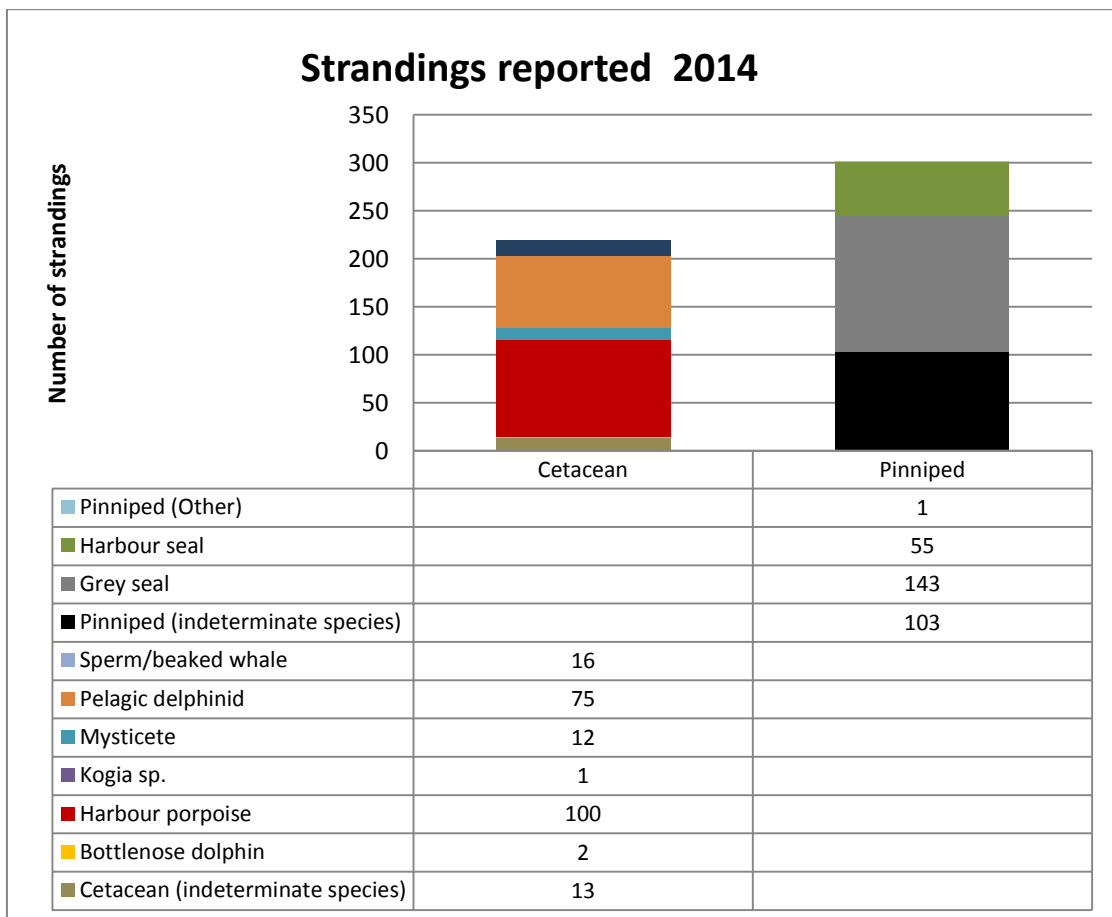


Figure 2: Species reported, by class

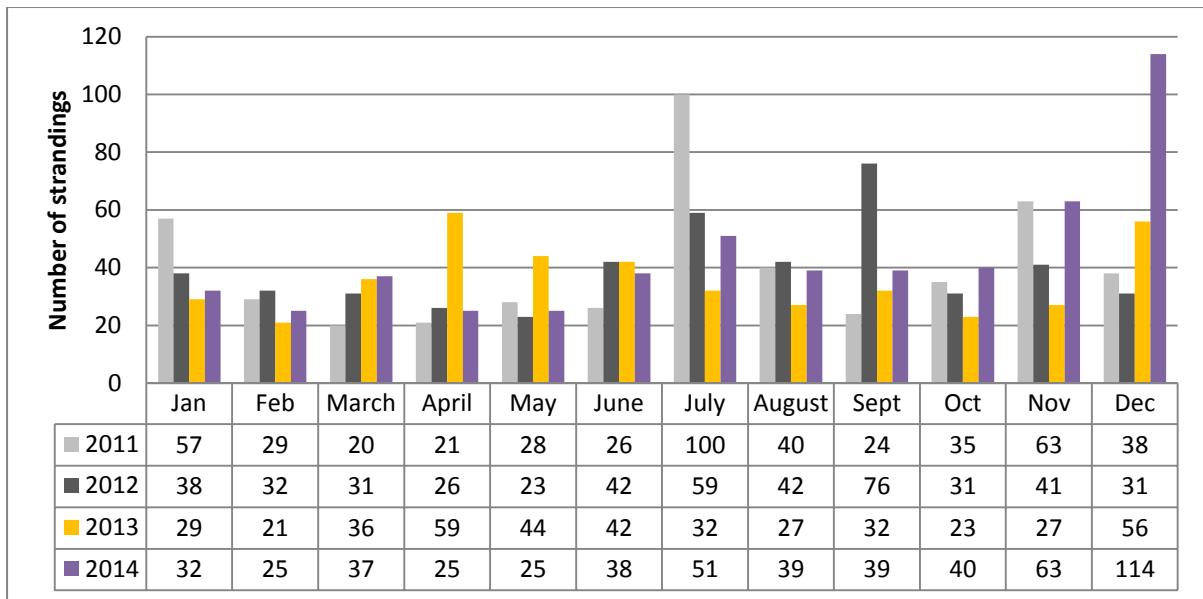


Figure 3: All strandings, by month

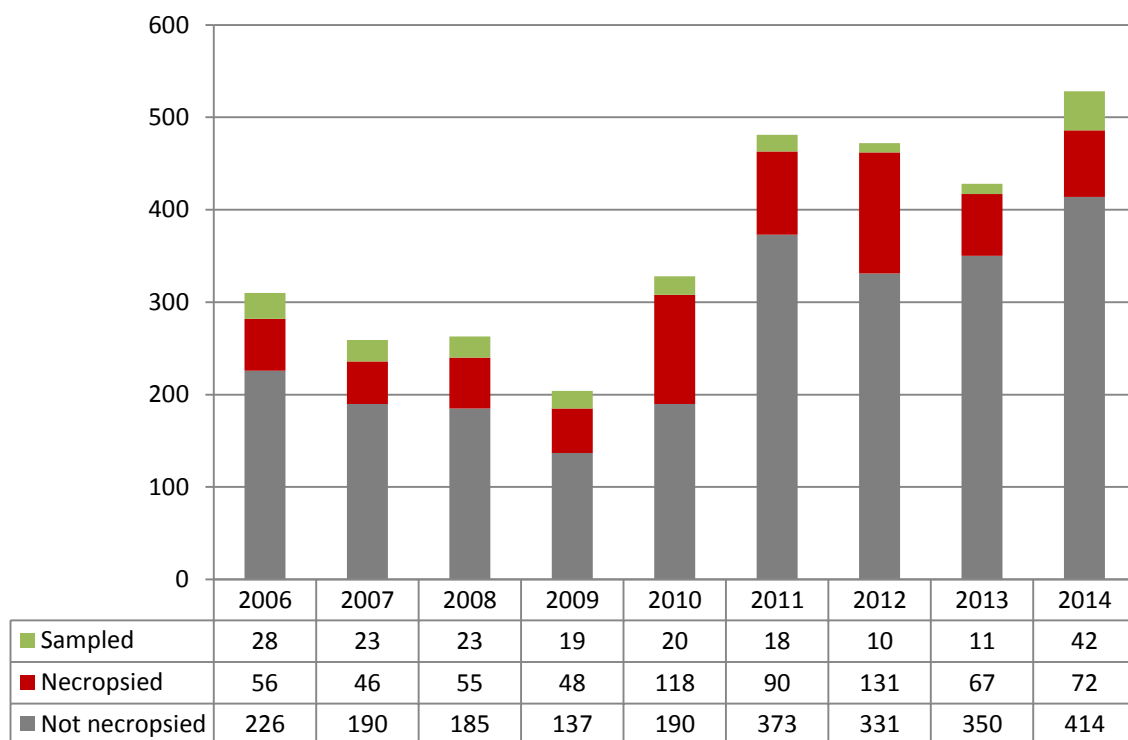


Figure 4: Cases necropsied 2006-2014 True = Necropsied; False= Not Necropsied

Figure 4 shows the number of cases necropsied during 2014. The 72 cases is slightly higher than the nine year mean of 70 cases. The specific reason why cases were not collected is given in Table 1 (cetaceans) and Table 2 (pinnipeds) however poor animal condition was the most common reason cases were not suitable for necropsy.

2.1 *Spatial maps of strandings*

There were cases reported in all coastal regions with a bias towards eastern Scotland. As in previous years, notable clusters are present around Fife, the Forth, Tay and Moray firths and the Uists. There is improving, but still less than optimal surveillance and animal recovery in island communities such as the Western isles and Shetland. Given the known high population of seals in Orkney and Shetland, there was likely a paucity of strandings data from this region. A programme of talks and publicity to raise awareness has been ongoing since early 2013 to improve strandings reporting in these areas. This has resulted in an increase in reports from Orkney. Recovery of animals or data from animals stranded in the west of Scotland was largely constrained by logistical difficulties or poor information about the stranding, whereas the cluster of not recovered animals from the eastern coast from Fife to Aberdeen is due to animal condition rather than capacity for recovery. Continued hugely valued assistance from SMRU and SNH in Shetland has enabled many animals suitable for necropsy to be recovered, or stranding morphometrics to be recorded. Figure 9 to Figure 12 show the spatial distribution of strandings for the period Jan-Dec 2014, arranged by species class. Figure 6 shows the spatial arrangement of animals recovered for necropsy. Figure 5 is a density map showing areas, in red, of high stranding reports. A density plot is a surface calculated from individual stranding points using a kernel function to fit a smoothly tapered surface, and is a way of visualising areas of high stranding density.

Strandings 2014
Sampled or necropsied cases

- Cetacean, Sampled
- Cetacean, Necropsied
- Marine Turtle, Necropsied
- ▲ Pinniped, Necropsied
- ▲ Pinniped, Sampled

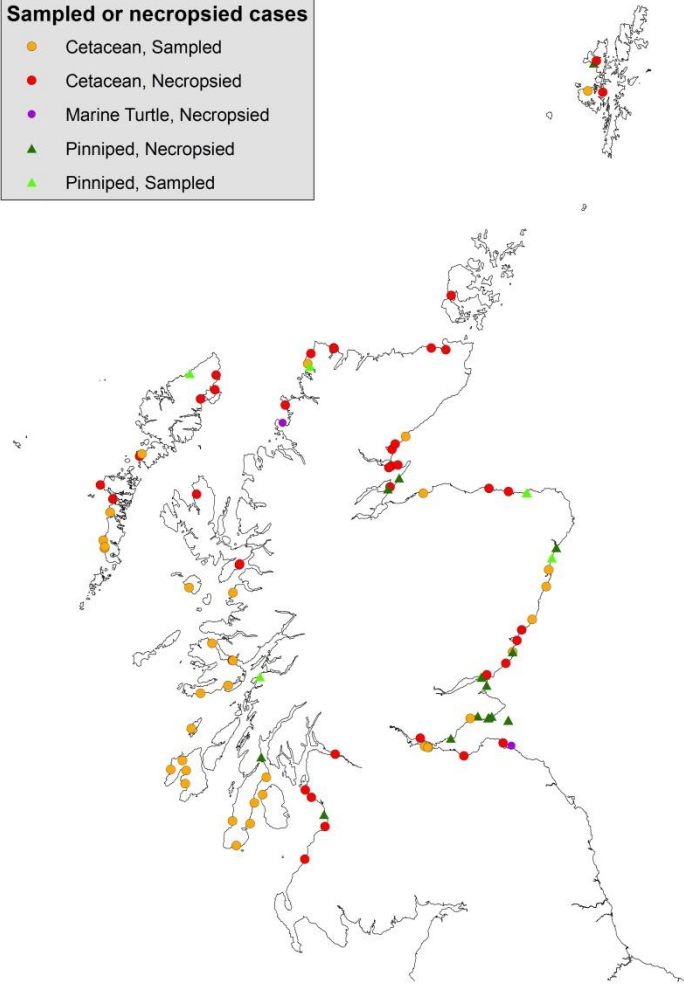


Figure 6: Strandings necropsied or sampled

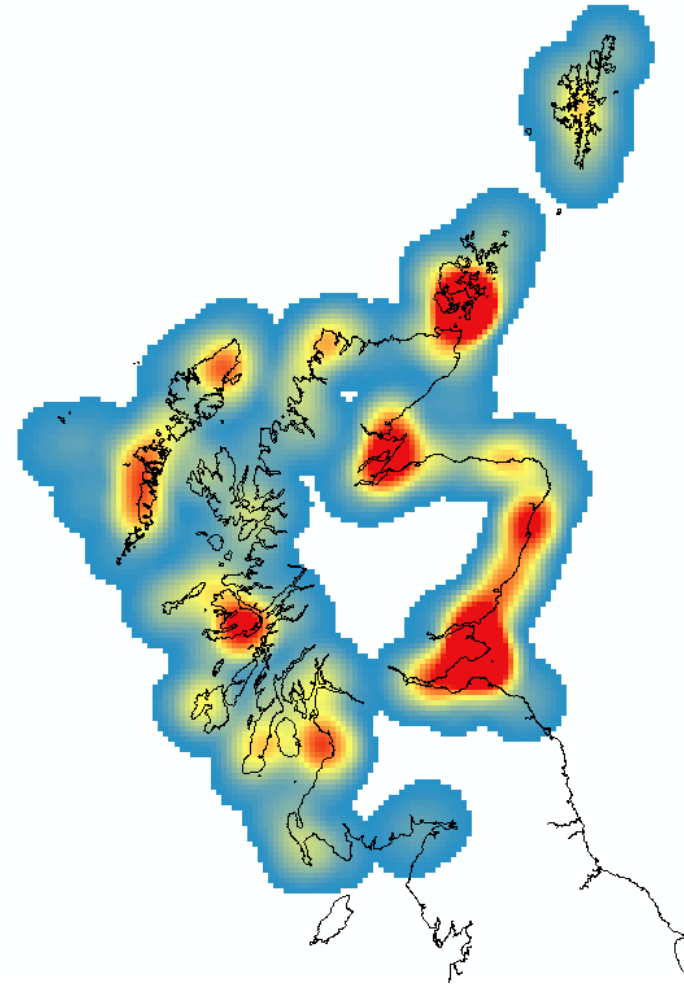


Figure 5: Kernel density plot of all strandings 2014. Blue=low, red=high

2.2 Pinniped strandings

Three hundred and two pinnipeds were reported to SMASS in 2014; 143 grey seals (*Halichoerus grypus*), 55 harbour seals (*Phoca vitulina*), one hooded seal (*Cystophora cristata*) and 103 pinnipeds were too autolysed or data deficient for accurate speciation, Figure 8. Of those reported, a large proportion (88.8%) was not recovered for post-mortem. This is again lower than previous years and due to a variety of reasons (listed in Table 3) but the main constraint was poor information attainable about the case. This precluded the animal recovery in a time window where post mortem examination was worthwhile. There were seven (2.3%) animals sampled by volunteers, Figure 7.

This report does not include cases reported as shot under seal management licences. Information regarding these cases is available from Marine Scotland or online at:

<http://www.scotland.gov.uk/topics/marine/licensing/seallicensing>.

Twenty-nine (9.6%) were recovered for necropsy; three are still frozen pending examination. Physical trauma was the most common finding in pinnipeds. One animal was found to have a generalized bacterial infection, see section 7.

Spiral Trauma Cases

Fourteen (12 grey and two harbour seals) were found to be definite or possible spiral trauma cases, ie 'corkscrew' or 'spiral' seals. An additional 13 cases (eight grey, three harbour, one hooded and one unidentified species of seal) were diagnosed from photographs or assessments made on the beach. More detail can be found on these in Section 6.

Other Trauma Cases

Six animals were either reported to us as being shot or diagnosed as such at necropsy. They consisted of three harbour seals (*Phoca vitulina*) and three grey seals (*Halichoerus grypus*). Five of these animals were examined at necropsy.

Two female grey seals and one harbour seal were from Argyll and Bute. They were found together and were part of UME (Unusual Mortality Event) in an area where a management license was in operation, see section 8.

The other grey seal (another female) from Angus was possibly shot through the right eye; however, the level of autolysis precludes definite diagnosis.

A harbour seal recovered for necropsy was from Shetland and is currently subject to an investigation into unlicensed shooting.

A harbour seal from Orkney, was taken by the tide before it could be recovered although; a photograph of the animal's head would suggest that it had been shot.

Marine Scotland subsequently confirmed there were seal management licences in place for Argyll and Bute region, but not for the harbour seal in Shetland. The Orkney and Angus cases were not confirmed as shot.

The number of cases suitable for necropsy is more than 2013 but less than 2012. There was a 158% increase in the number of seals reported this year. This is possibly due to the increase in reporting in the last quarter from Orkney after a SMASS talk to the Orkney Field Club in Kirkwall and a poster campaign, see section 12.8.

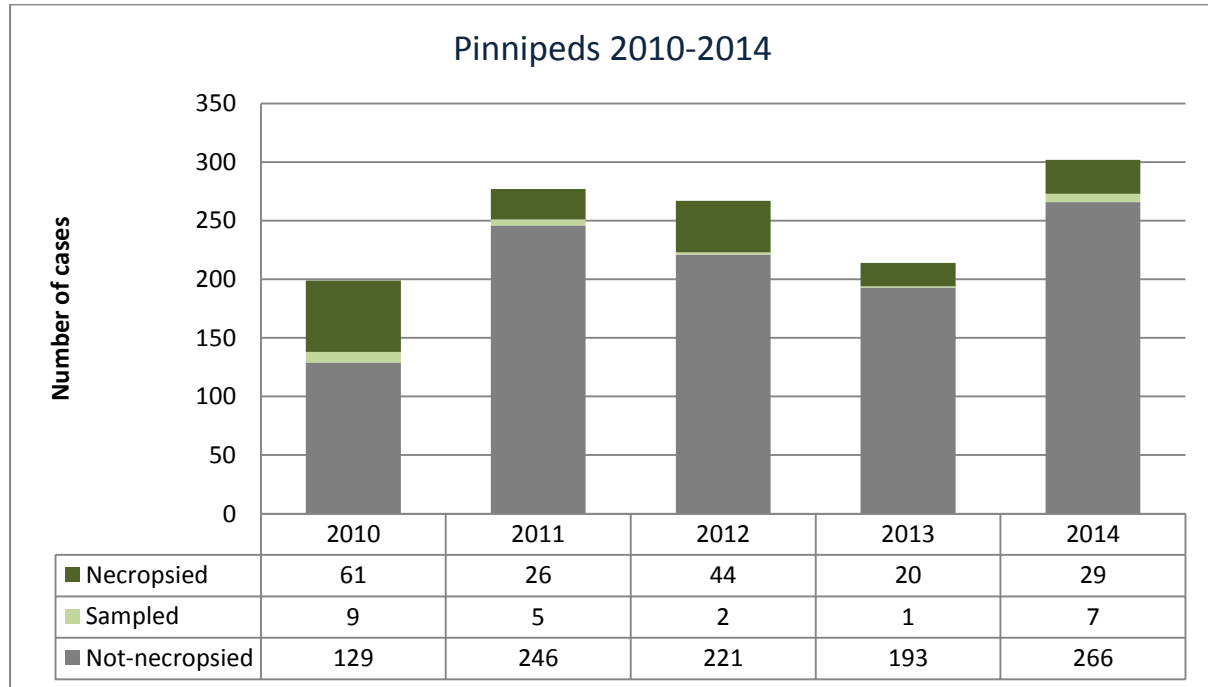


Figure 7: Pinniped strandings 2010-2014, all species

2.3 Pinniped age structure

Table 1 below shows the age structure of pinnipeds reported to SMASS for a 5 year period Jan 2010 to Dec 2014. Figure 13 graphs the structure for 2014 only.

Between 2010 and 2014, there were 1256 strandings, of which the age could not reliably be established in 81% of cases. Of those where the age could be determined, 58% were juveniles or younger and 42% therefore adults or sub-adults. By species, adults made up 35% of grey seals and 44% of harbour seal strandings.

In 2014 this pattern was largely the same with 71% of the 301 reported strandings of unknown age. Of those where the age could be determined, 63% were juveniles or younger and 37% therefore adults or sub-adults. By species, adults made up 30% of grey seals and 81% of harbour seal strandings. There were however only 11 harbour seals reported with known age in 2014, Figure 13.

Table 1: Age structure of pinniped strandings 2010-14

	Neonate	Pup	Juvenile	Sub-adult	Adult	Unknown	Grand Total
Harbour seal (Common seal)	2	8	40	3	42	157	252
Grey seal	4	20	63	3	50	425	565
Bearded seal			1				1
Hooded seal			1			2	3
Seal (indeterminate species)		1	1			436	438
Grand Total	6	29	106	6	92	1020	1259

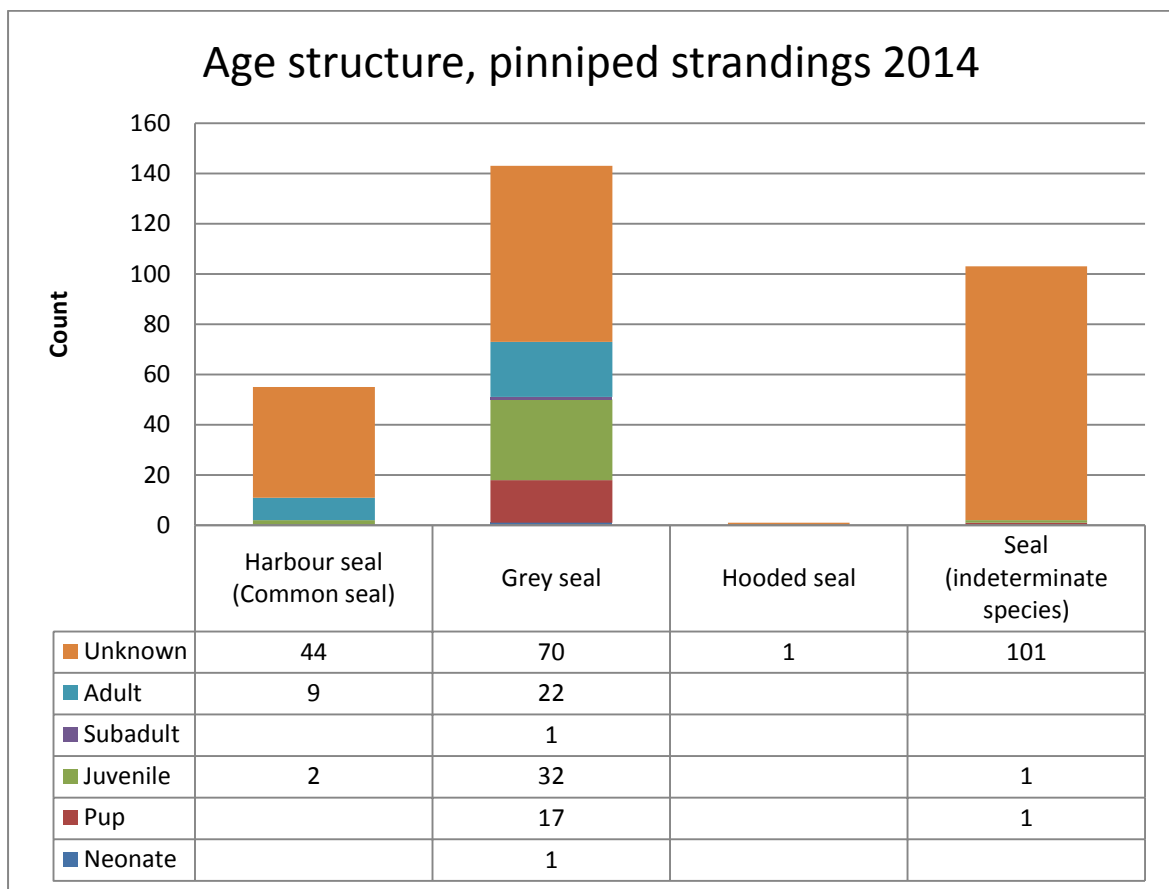


Figure 8:- Age structure of pinniped strandings 2014

Seals 2014

Species

- *Cystophora cristata*
- *Halichoerus grypus*
- *Phoca vitulina*
- Pinniped (indeterminate species)

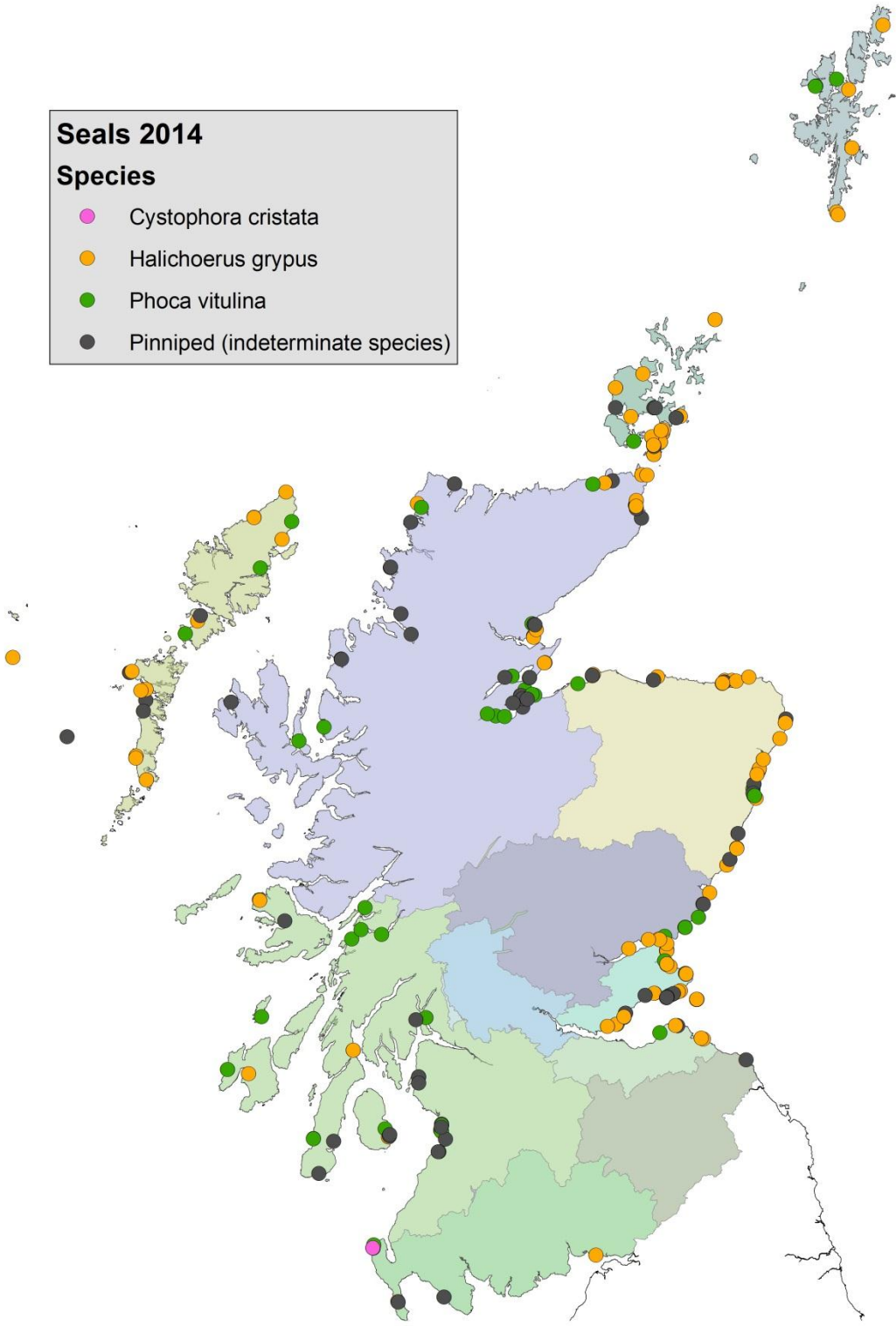


Figure 9: Pinniped strandings 2014

2.4 Cetacean strandings

Two hundred and nineteen cetaceans of 17 different species were reported to SMASS in 2014; the majority of these were harbour porpoise (n=100, 45.6%). Short-beaked common dolphins (n=31, 14.1%) were the next most commonly reported, the majority of these were part of a mass stranding event (MSE) on Mull (see section 4). White-beaked dolphins and long-finned pilot whales (both n=14, 6.3%) were the next most commonly reported. Minke whale (n=11, 5%) and Humpback whale (n=1) were the only species of mysticete reported during this period. Only 16 (7.3%) animals were reported that could not be identified, this is an improvement on previous years and is due to increased use of mobile phone images in submissions and the gratefully received assistance from the taxonomy department at the National Museum of Scotland. Of the remaining 11 species all of which were single figure strandings, Cuviers beaked whale (n=6, 2.7%) and sperm whale (n=6, 2.7%) were the most common. The remaining species were in descending order: Atlantic white-sided dolphin (n=5, 2.2%), striped dolphin (n=4, 1.8%), bottlenose dolphin (n=3, 1.3%), Risso's dolphin (n=2, 0.9%), Northern bottlenose whale (n=2, 0.9%), killer whale (n=1, 0.4%) and pygmy sperm whale (n=1, 0.4%). Of the 219 animals, 41 (18.7%) cases were necropsied. 2013 and 2014 saw a slight decrease in numbers compared to 2011 and 2012 (Figure 10), however these years saw several mass stranding events. Of those animals that weren't necropsied 35 (19.7%) were sampled by volunteers, a significant increase compared to all previous years. Figure 10 shows the distribution (excluding harbour porpoise) of cetaceans and basking sharks for 2014.

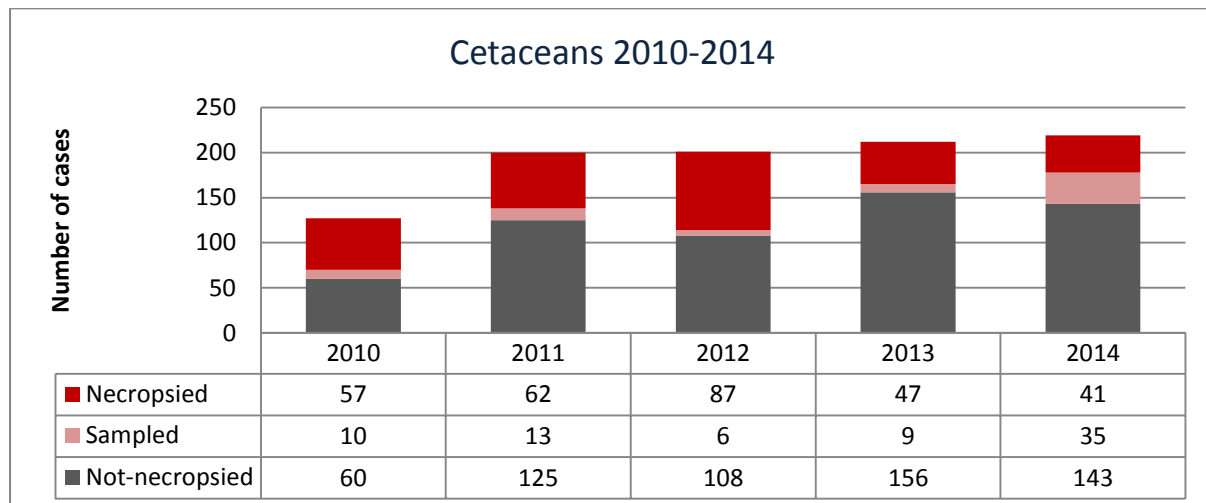


Figure 10: Cetacean strandings 2010-2014, all species

The most common cause of death for harbour porpoises was bottlenose dolphin attack (46.6%). As in previous years, the most common cause of death for other cetaceans was live stranding, 46.1%. This is defined as morbidity and eventual mortality as a result of the cascade of physical processes invoked by becoming stranded. This diagnosis is attributed to cases where there is good clinical or pathological evidence of live stranding and no other cause can be identified which would otherwise explain the stranding, for example trauma, poor body condition or concurrent infectious disease. Also of note is the prevalence of meningoencephalitis identified in pelagic delphinids, in some cases attributed to *Brucella* infection. It appears meningoencephalitis attributable to *Brucella* infection is overrepresented in this group of cetaceans. Figure 11 shows the cetacean species (excluding

harbour porpoise) found stranded around Scottish coasts in 2014. Species classes are also shown. Table 2 shows the cause of death of all cetaceans necropsied in 2014.

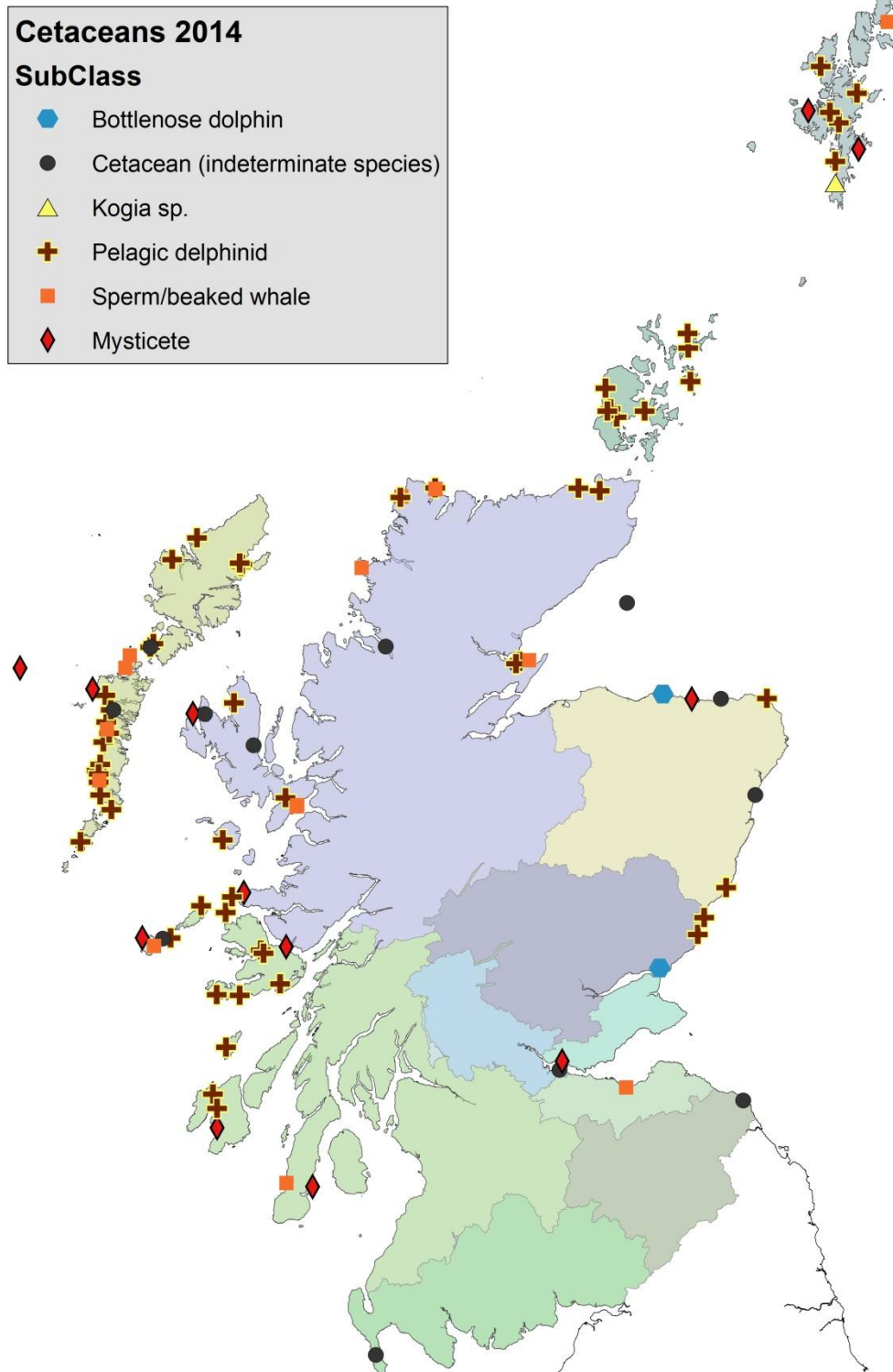


Figure 11: All cetacean strandings excluding harbour porpoise 2014

2.5 Harbour porpoise strandings 2014

The 2013 200% rise in harbour porpoise strandings was not repeated in 2014 though with 100 reports they did account for nearly half (45.6%) of the cetacean strandings. Figure 13 shows the harbour porpoise strandings data by month and region. Figure 12 shows the spatial distribution of cases. As in previous years, the age make up of harbour porpoise strandings differs depending on time of year with more juveniles and sub-adults stranding between January and June, possibly as a consequence of loss of condition through the winter months. Neonates only occur between June and September, obviously coinciding with the calving season. Adults strand regularly throughout the year with the highest numbers occurring in June and July. The majority are females and this may be attributable to extra stress during the calving season. Fewer animals are reported in the last three months of the year.

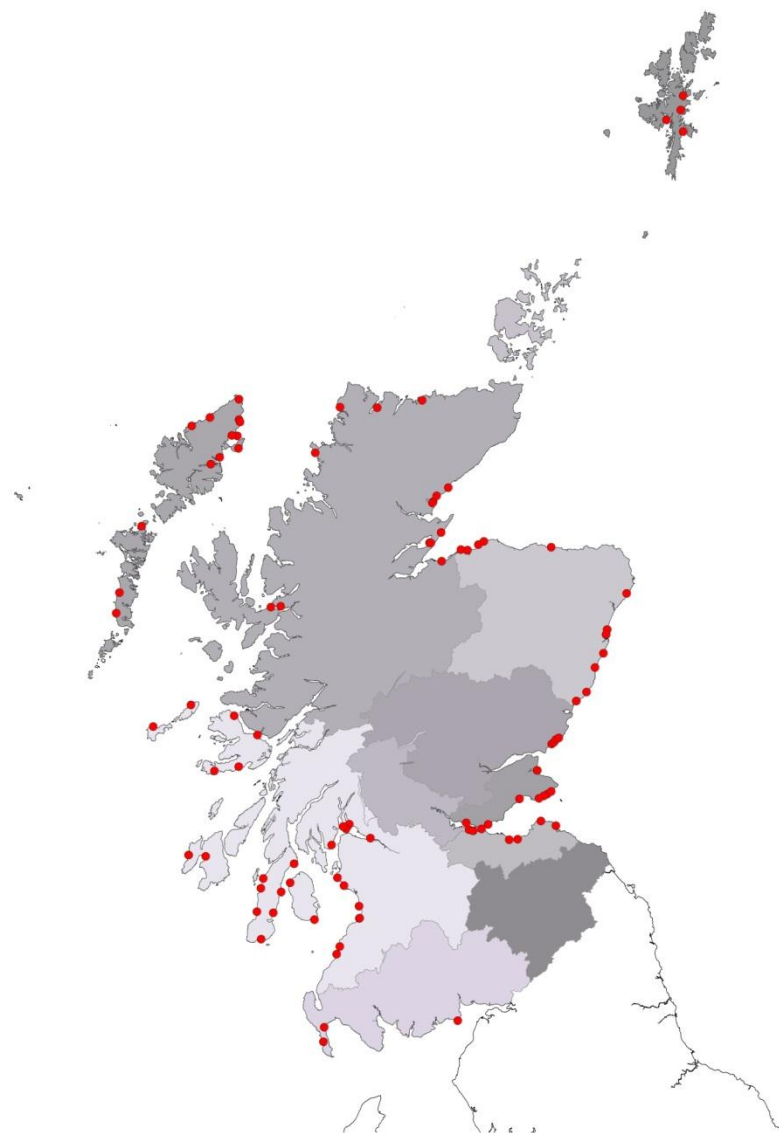


Figure 12: Harbour porpoise strandings 2014

Harbour porpoise strandings

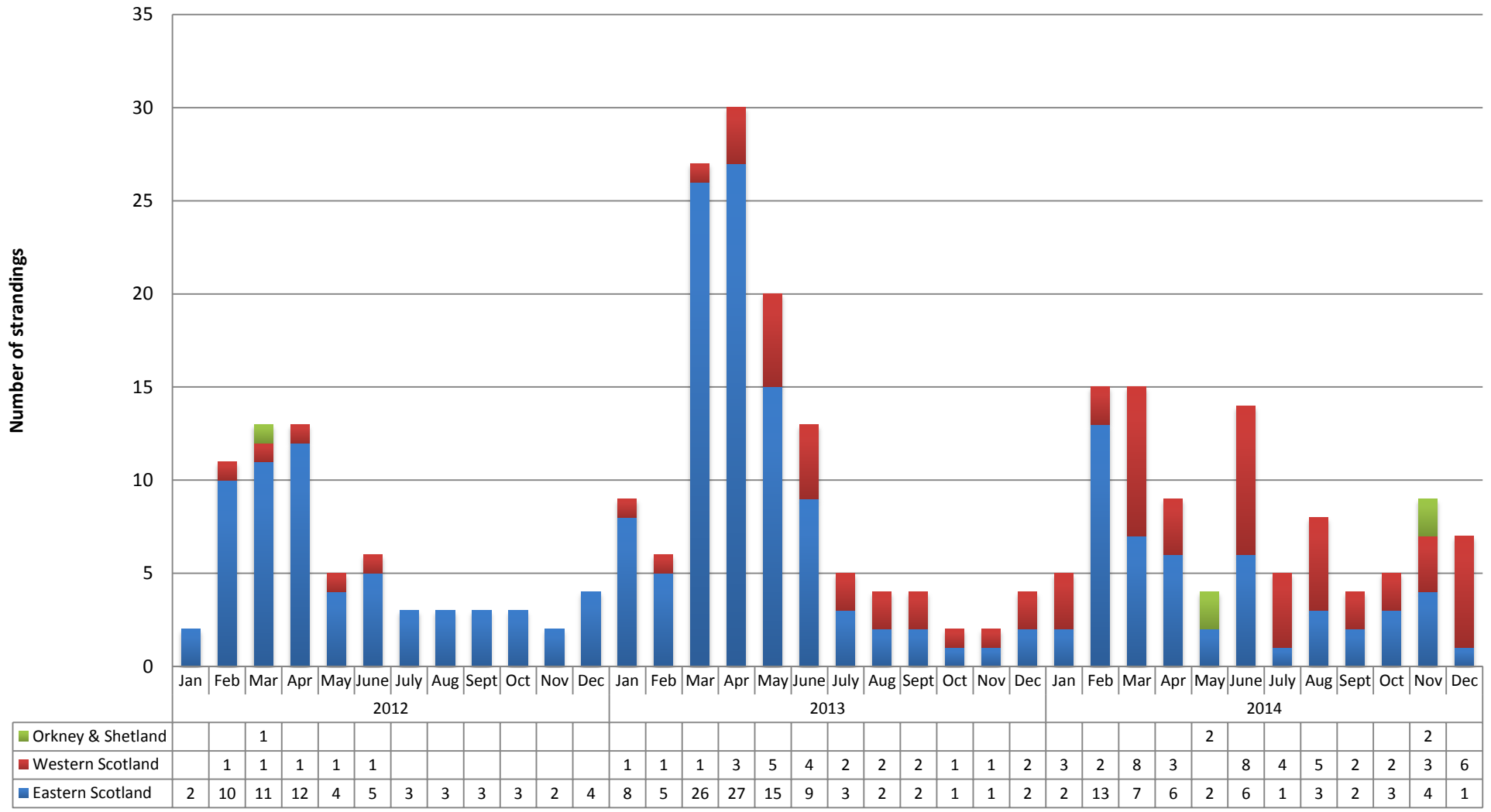


Figure 13: Monthly harbour porpoise strandings, by region

Section 3: Cause of death/findings summary tables

Table 2: Cause of death/findings for cetaceans reported 2014

				Mysticete		Pelagic delphinid								Sperm/beaked whale				Ind. sp			Total		
	Bottlenose dolphin	Harbour porpoise	Pygmy sperm whale	Minke whale	Humpback whale	Long-finned pilot whale	Short-beaked common dolphin	Striped dolphin	White-beaked dolphin	Atlantic white-sided dolphin	Risso's dolphin	Beluga whale	Dolphin (ind species)	Killer whale	Sowerby's beaked whale	Sperm whale	Cuvier's beaked whale	Northern bottlenose whale	Cetacean (ind species)	Mysticete (ind species)	Common/striped dolphin (ind species)		
Necropsied	2	15		3	1	1	3		7		1			1	2	2	1	2					41
Dystocia/Stillborn		1																					1
Generalised bacterial Infection											1												1
Generalised chronic debilitation	1	1		1																			3
Live stranding		1		2		1	1		3						2	1	1	1					13
Maternal separation/starvation		1																					1
Not Established	1																	1					2
Other		1																					1
Pending histopathology		1					1		3					1		1							7
Physical Trauma: Bottlenose Dolphin Attack		6																					6
Physical Trauma: Bycatch		1																					1
Physical Trauma: Entanglement		1			1																		2
Physical Trauma: Other		1																					1
Physical Trauma: Storm exposure							1																1
Pneumonia: Bacterial									1														1
Not necropsied		68	1	5		9	25	3	7	2	1		3		4	2		11	1	1		143	
Live Stranding: Successful Refloat		1				1	14	1	1	1													19
Not Examined: Advanced autolysis		23	1	2		3	5		2	1	1				2	2				1	1		44
Not Examined: At Sea				1			1						1					1					4

				Mysticete	Pelagic delphinid									Sperm/beaked whale				Ind. sp			Total		
	Bottlenose dolphin	Harbour porpoise	Pygmy sperm whale	Minke whale	Humpback whale	Long-finned pilot whale	Short-beaked common dolphin	Striped dolphin	White-beaked dolphin	Atlantic white-sided dolphin	Risso's dolphin	Beluga whale	Dolphin (ind species)	Killer whale	Sowerby's beaked whale	Sperm whale	Cuvier's beaked whale	Northern bottlenose whale	Cetacean (ind species)	Mysticete (ind species)	Common/striped dolphin (ind species)		
Not Examined: Carcase Incomplete/Scavenger Damage		15																	2				17
Not Examined: Carcase Not found		4							1														5
Not Examined: Carcase Unrecoverable							1																1
Not Examined: Delay in reporting		1					2																3
Not Examined: Insufficient Data		3						1											4				8
Not Examined: Morphometrics taken		10		1		5	2		3				1			2			3				27
Not Examined: Not priority		5																					5
Not Examined: Other reason								1															1
Not Examined: Removed by Council		1																					1
Not Examined: Removed by Tide		3											1						1				5
Physical Trauma: Bottlenose Dolphin Attack:- diagnosable by photographs		2																					2
Physical Trauma: Entanglement (known), diagnosable by photographs				1																			1
Sampled		17		3		4	3	1		3		1				3							35
Live Stranding						1	2																3
Not Examined: Samples Taken		17		3		3	1	1		3		1				3							32
Grand Total	2	100	1	11	1	14	31	4	14	5	2	1	3	1	2	6	6	2	11	1	1	219	

Table 3: Cause of death/findings for pinnipeds, marine turtles and basking shark reported 2014

	Pinniped				Marine turtle		Basking shark	Total
	Grey seal	Harbour Seal (Common Seal)	Seal (ind species)	Hooded seal	Leatherback turtle	Kemps Ridley turtle		
Necropsied	23	6			2			31
Generalised Bacterial Infection	1							1
Not established	2							2
Pending necropsy or histopathology	4	2						6
Physical Trauma: Entanglement (known)					2			2
Physical Trauma: Possible spiral "Corkscrew" lesions	4							4
Physical Trauma: Shot	3	2						5
Physical Trauma: Shot (known)	1							1
Physical Trauma: Spiral "Corkscrew" lesions	8	2						10
Not necropsied	115	47	103	1	3	1	1	271
Maternal Separation	1							1
Not Examined: Advanced autolysis	34	24	25		2	1		86
Not Examined: At sea	2				1			3
Not Examined: Carcase incomplete/Scavenger damage	8	2	5				1	16
Not Examined: Carcase Not found		1	3					4
Not Examined: Carcase unrecoverable	1	1						2
Not Examined: Delay in reporting	8	2	22					32
Not Examined: Insufficient data	12	4	41					57
Not Examined: Morphometrics taken	5	6	1					12
Not Examined: Not priority	27	1						28
Not Examined: Removed by council	2		4					6
Not Examined: Removed by tide	6	2	1					9
Not Examined: Taken to rehabilitation		1						1

	Pinniped				Marine turtle		Basking shark	Total
	Grey seal	Harbour Seal (Common Seal)	Seal (ind species)	Hooded seal	Leatherback turtle	Kemps Ridley turtle		
Physical Trauma: Possible spiral "Corkscrew" lesions	4	2	1	1				8
Physical Trauma: Shot (known)	1							1
Physical Trauma: Spiral "Corkscrew" lesions	4	1						5
Sampled	5	2						7
Not Examined: Samples Taken	5	2						7
Grand Total	143	55	103	1	5	1	1	309

Section 4: Mass stranding events (MSE's) and unusual mortality events (UME's)

4.1 *Mass stranding events (MSE's) multiple strandings and unusual mortality events*

Note: A mass stranding event (MSE) is defined as two or more animals that are not a cow/calf pair. We also had a cow calf pair strand this year see 4.5.

4.2 *M201.1-M201.14/14 – Common dolphin (*Delphinus delphis*)*

On Thursday 24th of July we had reports from the HWDT and then from local police that there was a MSE happening at Laggan Sands, Loch Buie, on Mull. This is a remote area of coastline with poor mobile reception and it was initially unclear what species or how many animals were involved. Volunteers trained in sample collection from HWDT drove to the site to assess the situation. They found that there had been 14 common dolphins stranded on the sands, one of which had a piece of packing strap loosely around its pectoral fin. Twelve of these animals, including the one with the packing strap (which had been removed), had been re-floated by members of the public. Two animals both adult males died at the scene. There were also a number of common dolphins in the loch that didn't strand. By the time volunteers from HWDT arrived only the two dead animals were left. It was late afternoon by the time HWDT were able to relay this information to SMASS so the decision was taken not to attempt to necropsy the two that died. This was for several reasons. The stranding was in a remote location on Mull and access to the carcasses was restricted with no feasible option for removing them for chilling. Due to high ambient temperatures, by the time SMASS pathologists would have made it to the site post mortem autolysis would most likely have been advanced. Additionally, as only two of the 14 animals died it was possible that examining them would be insufficient to establish the cause of the MSE. However HWDT sampled both the dead animals on our behalf and collected a full set of morphometrics.



Figure 14: M201/14 Common dolphin (*Delphinus delphis*) MSE. Photo © HWDT



Figure 15: M201/14 Common dolphin (*Delphinus delphis*) MSE refloat. Photo © Simon Lane.

4.3 M246.1/14 & M246.2/14 – Northern bottlenose whale (*Hyperoodon ampullatus*)

Two juvenile Northern bottlenose whales were found dead stranded in a shallow bay near the Isle of Ornsay, Skye. Severe autolysis hampered diagnostic investigation in the first animal. There was weak evidence for live stranding from the lung asymmetry. The presence of ingesta indicated good historic foraging but none close to death. The scrap of plastic sheeting found in its oesophagus may have been ingested whilst the animal was foraging for squid. The second animal was significantly less autolysed than the first animal. There was convincing evidence from the lung asymmetry, tail fluke injury and tailstock abrasions that the animal had live stranded. Similar to the first animal there was no evidence of recent feeding. However the presence of numerous squid beaks and good body condition suggest adequate feeding over recent weeks. The liver catabolism may also support a diagnosis of anorexia, likely due to poor foraging in local waters as evidenced by the presence of a sea cucumber found in the cardiac section of the stomach. No underlying infectious process was evident from gross pathology. Bacteriology did not reveal any significant isolates in either animal. Autolysis was too extensive in the first animal for meaningful histopathological examination. Histopathology on the second animal showed lesions consistent with the live-stranding process, however an underlying cause for the stranding was not evident from the tests undertaken.



Figure 16: M202/14 Northern Bottlenose whale (*Hyperoodon ampullatus*) MSE.

4.4 M278.1-& M278.2/14 – White beaked dolphin (*Lagenorhynchus albirostris*)

Two white-beaked dolphins live stranded at Balnakeil beach Durness on the 26th of September. One animal refloated itself without assistance the other was refloated by members of the public. Unfortunately only the latter animal was photographed. There were also unconfirmed reports of a third animal seen in the surf later the same day. On Saturday the 27th a sub-adult female WBD, possibly one of the animals found live stranded the previous day, was found live stranded on the same beach. However as there are no photos available of this animal taken on Friday it is also possible it may be a different animal. The decision to euthanise the animal was taken and it was shot with a high velocity rifle. It was in fresh condition at examination and showed lung asymmetry consistent with live stranding. It had not recently fed, was in moderate to thin body condition and exhibited some renal petechiation possibly due to the previous stranding. There was no obvious disease process evident; however complete brain and ear assessment was obviously compromised by ballistic trauma. Parasitism was notably absent or very low burden. The bacteriology on this animal would suggest a possible septicaemia due to a *Streptococcus* sp. and histopathology is awaited further investigate this case. This highlights the need for rescuers to take photographs of all animals that are refloated so they can be identified if they re-strand at a later date.



Figure 17: M278.1/14 White beaked dolphin (*Lagenorhynchus albirostris*) the animal that live stranded and was refloated by members of the public.



Figure 18: M278.2/14

White beaked dolphin (*Lagenorhynchus albirostris*) this animal is clearly not the animal pictured left so may be the second animal from the 26th or possibly a new animal.

4.5 M282.1-& M282.2/14 – Sowerby's beaked whale (*Mesoplodon bidens*)

Two Sowerby's beaked whales live stranded at Balnakeil beach Durness on the 30th of September. This was the same beach as the WBD MSE M278/14 four days previously. They were an adult female and a male calf they are thought to be a cow/calf pair. The female Sowerby's beaked whale live stranded in shallow water possibly following a neonate, assumed to be its calf that stranded at the same time. The asymmetry seen in the lungs was consistent with the animal live stranding. There was evidence of the animal having fed, but no recent feeding and the cardiac stomach contained only otoliths. The liver was moderately fatty but generalised autolysis complicated this picture. There were no notable emboli in the organs or mesenteric vasculature. The ears were not examined due to autolysis, and no underlying traumatic or infectious reason for the live stranding was evident. Bacteriology on both animals proved unremarkable.

The adult animal was lactating and the neonate found stranded with the adult was assumed to be its calf. Foetal folds were still visible and there was some turbid liquid, possibly milk in the stomach, but no other digesta. The other organs were moderately autolysed but pathologically unremarkable. It is plausible that one of the pair became stranded in the shallow beach and the other followed, however an underlying reason was not evident from the tests undertaken.



Figure 19: M282.1/14 & M282.2/14 Sowerby's beaked whale (*Mesoplodon bidens*) cow and calf pair.

Due to the presence of two multiple stranding events on the same beach within a few days of each other, concern was raised as to a common cause, in particular likely anthropogenic factors. Given the history of mass strandings in this region associated with underwater noise (2011 long finned pilot whale MSE), a request was made to both the Ministry of Defence (MOD) and DECC requesting activity logs for the period between 22nd September and 1st October 2014.

4.6 *Balnakeil bay activity summary*

Data provided by Rod Jones, Senior Maritime Environmental Protection Adviser

"We had completed a comprehensive sweep of MOD activity since 22 Sep and found very little going on and even less that might appear relevant to the MSE in Balnakeil Bay.

In summary:

- *There had been no MOD vessel within 100 miles in the week preceding the strandings.*
- *No low level rotary wing activity, including SAR at sea or along coasts.*
- *Last military activity on Cape Wrath Range or Garvie Island was 1 Sep 14.*
- *No in water explosive work although some was undertaken inland on Skye and Shetland.*
- *The only mine countermeasures activity was in Ettrick Bay (Bute)*

- *Exercise Joint Warrior has not yet begun.*
- *There was some diving and ROV activity in the Sound of Raasay but this was on 30 Sep.*
- *A foreign SM is currently en route to Faslane but this did not enter UK areas until 0700 on 1 Oct.”*

Data provided by Kevin.OCarroll, DECC

“We have checked our files and have no record of seismic survey or other noise-generating oil and gas activity North of the Scottish Mainland in proximity of Durness in September. I am attaching a spreadsheet showing the seismic surveys that have been consented in the relevant area. There are a number, which might have impacted, but following checks with the operator, they were not carried out at the relevant time:

1. Line 5 - GS/94/0 - Western Geco was completed on 22/08/14 2. Line 14 - GS/134/0 - Raven Navigator was completed on 14/08/14 3. Line 15 - GS/139/0 - TGS-NOPEC was cancelled.

This would mean that any surveys that were conducted in September would have been to the West of Shetland, some distance from Durness.”

Given this information, and the absence of any pathological indication of recent acoustic trauma, there was no evidence to suggest an anthropogenic acoustic cause to these stranding events.

4.7 Cuvier’s beaked whale (*Ziphius cavirostris*) UME

During December 2014 and early January 2015 five Cuvier’s beaked whales stranded in an advanced state of autolysis along the western coasts of Scotland: Two on the Western Isles (Benbecula and South Uist), one on Tiree, one at Westpoint Kintyre and one on Mull. The last animal although reported to us at the beginning of January 2015 was reported to HWDT in December 2014. During this same period, an additional nine Cuvier’s beaked whales stranded on the western seaboard of Ireland (Figure 20). It was not possible to determine the cause of death for any of the Cuvier’s beaked whale carcasses that stranded in Ireland or Scotland from December 2014 to January 2015. This was due to a lack of a post-mortem scheme in Ireland, and the advanced state of decomposition of those carcasses that stranded in Scotland. The processes of decomposition were so advanced that both gross and histopathological interpretation would have been at best inconclusive. It is well documented that Cuvier’s beaked whales are one of the most sensitive species to acoustic disturbance. There are many case studies from the Atlantic and Pacific Oceans and Mediterranean Sea where mass-strandings of this species were linked to exercises using military sonar. Stranded whales that are detected and reported represent a small proportion of those that actually die at sea. A carcass has to make landfall, be discovered and finally be reported in order to be registered as a stranding. The likelihood of this occurring is low, particularly along the Irish and Scottish western seaboard where the coastline is long and remote.

Nonetheless the strandings along the Atlantic seaboard are without question unusual in terms of absolute numbers and this incident merits careful consideration. In the absence of

any pathological information to potentially rule in or out other factors, investigating any potential anthropogenic causal factor, e.g. underwater noise, would have to be done a priori. The wide spatial distribution of cases in various stages of autolysis makes it likely impossible to accurately identify a common point of origin in either time or space. To account for all the potential areas where the mortalities could have originated we would therefore require data-logs of noise generating activities over a significant area of ocean and over a number of weeks. This is likely to involve both military and civilian activities and acquiring this data could be difficult, given, for example the potential role of foreign vessels which the MOD has no jurisdiction to report. Finally, there is no baseline data for noise and therefore to attribute any activity as being causal to this stranding we would need to be able to demonstrate that the activity in question, e.g. use of high levels of sonar deployed to find submarines, was significantly unusual in terms of duration, frequency, power or location, that it would be plausible for it to have caused injury or death.

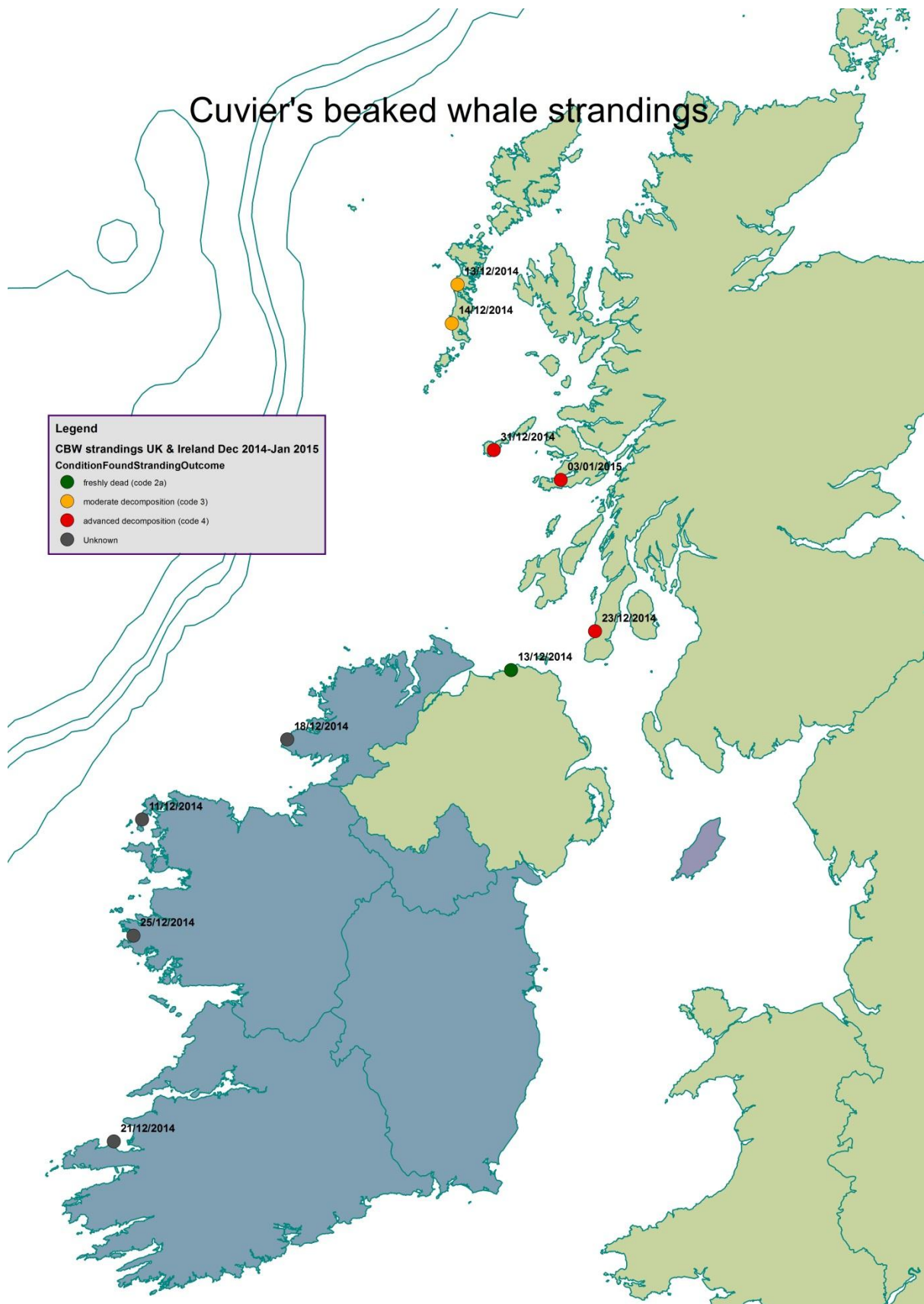


Figure 20: Map showing the distribution of the Cuvier's beaked whale strandings from December 2014 to January 2015

Section 5: Notable single cetacean strandings

5.1 M11/14 – Sperm whale (*Physeter macrocephalus*)

This sub-adult male sperm whale was reported dead stranded in left lateral recumbency on Joppa beach, Edinburgh at dawn on the 11th January 2014. Photographs appeared to show significant amounts of blood from the mouth and bruising around the throat grooves and ventral midline. Due to the logistics of recovery and disposal, the carcass was towed back to sea on the midday tide the following day and taken to Burntisland port, from where it was recovered from the water by crane and placed in a closed-sided vehicle for transport to landfill. A necropsy was undertaken on Monday 13th at the Viridor landfill site at Dunbar. The carcass was at least 54 hours dead at the point of necropsy and significant skin sloughing and bubbling was underway. There were identifiable conspecific rake marks over the head, but no indication of anthropogenic trauma. There was some external trauma but it appeared attributable to the stranding process, ventral bruising and trauma to the head and mouth would be consistent with live stranding. The tongue appeared to be lacerated, possibly due to teeth damage during stranding. Due to the logistical issues of necropsy and the size of the animal, samples were taken from the abdominal cavity and through the diaphragm into the thorax. Tissues were in a moderate to advanced state of autolysis, with loss of structure to the liver and kidney and significant gas autolysis of the musculature and serosal layers of intestine. The stomach contained over 1kg of squid beaks, on average 3-4cm long, but no evidence of recent ingesta. Stomach and intestines contained bile-stained mucus with no significant chyme or digestive fluid, indicating the animal had not fed for several hours, possibly days prior to stranding. It is probably this animal live stranded and this led to its death. Bacteriological was not undertaken and histological sampling was limited due to the autolytic nature of the carcass; teeth and squid beaks and toxicological and DNA samples have however been collected for subsequent analysis.



Figure 21: M11/14 sperm whale on route to landfill site.



Figure 22: M11/14 sperm whale necropsy on landfill site.

5.2 M110/14 – Beluga whale (*Delphinapterus leucas*)

On the 5th May a much decomposed unidentified odontocete cetacean was found at Lunan Bay in Angus, south of Montrose on the east coast. This was formally identified using the skull morphometrics at the National Museum of Scotland as a beluga. Unfortunately the carcass was significantly scavenged and autolysed so it was not possible to establish a cause of death. However, teeth and skin were collected, potentially allowing for the age and sex of the animal to be established. This was an unusual case; prior to this the last recorded beluga strandings occurred in October 1932 and three in 1949. Belugas are considered a vagrant in UK waters, where sightings are very rare. There have been 12 confirmed observations in the last 50 years, ten of which have been since 1987. These have all been in Scotland or northeast England, the last seven all being from Shetland or the Highland Region. Discovery of this stranding and the rapid identification and removal of samples was a good example of the benefits of digital and social media in reporting cases.



Figure 23: M117/14 Beluga whale skull found at Lunan bay (left) compared to Beluga whale specimen held at the National Museum of Scotland (right) © National Museum of Scotland.

5.3 M117/14 – Minke whale (*Balaenoptera acutorostrata*)

This sub adult male minke whale was seen alive in shallow water on Gearraidh (Balranald), west side of North Uist. It died in the surf around 8am on the 16/05 and was necropsied 24 hours later. There was evidence of extensive, but superficial, excoriations and mild

subcuticular bruising, consistent with a live stranding on sandy beach with rock reefs. The lungs contained a significant volume of fluid, most likely aspirated seawater and the proximal cause of death can confidently be attributed to drowning in the surf line. The animal was in moderate body condition and showed no clear indication of debilitation or trauma. There was no evidence of recent feeding however many small otoliths were noted in the gastric folds. There was extensive intestinal pathology throughout the small and large intestine, with hyperaemia and congestion of the abdominal vasculature and petechial to ecchymotic haemorrhages on both the serosal and mucosal intestinal surfaces. This appeared acute in nature and there was no significant lymphatic enlargement. In addition, there was no indication of extensive catabolism from the liver. The heart showed an excess of pericardial fluid. The inspissated spleen and pancreatic abscesses may be from larval migrans, or indicative of a general bacterial infection. Screening for clostridial toxins proved negative. It is possible the intestinal derangement caused significant discomfort (i.e. colic) which may have predisposed to live stranding. Histology showed severe, sub-acute, focally extensive lymphocytic meningitis with extension into the dorsal medulla. The samples of brain tissue were small, the severity of the meningitis was such that this would have been clinically significant and was probably the ultimate cause of death. Without the whole brain (for obvious logistical reasons) it was not possible to undertake complete lesion profiling. However, these lesions are identical to those associated with neuro-brucellosis in many cetacean species but could also be in response to other intra-cellular pathogens. Further examination of this case by special stains showed the cytoplasmic granules in the hepatocytes of the liver to stain extensively and positively with Perl's Prussian blue indicating large amounts of iron present. This may be due to breakdown of blood products suggesting some form of haemorrhagic disease which supported the findings of intestinal haemorrhages.



Figure 24: M117/14 Minke whale, most likely live stranded due to bacterial meningitis

5.4 M146/14 – White beaked dolphin (*Lagenorhynchus albirostris*)

This aged adult male white beaked dolphin was found dead stranded on Dunnet bay beach. Necropsy revealed severe right sided bacteria pleuritis, pneumonia and fluid accumulation within the right pleural cavity. This was the most plausible reason for the death of the animal. The left lung and pleural cavity appeared unaffected and a traumatic or neoplastic cause is being considered given the pronounced asymmetry of the pathology. The animal was in moderate body condition and infection was likely acute (7-14 days) due to absence of remodelling or cardiac changes. There was no evidence of recent feeding. Bacteriological examination of lung, pericardium, pulmonary associated lymph node and chest fluid resulted in the isolation of a mixture of *Streptococcus dysgalactiae equisimilis*, *Photobacterium damsela* and *Edwardsiella hoshinae*. *Streptococcus dysgalactiae equisimilis* is recognised as a cause of pleuropulmonary infections and pharyngitis in humans and animals. Histology revealed a moderate, sub-acute, focally extensive suppurative broncho-pneumonia. Moderate, sub-acute to chronic, focally extensive suppurative epicarditis with fibrosis. Severe, acute, generalised systemic congestion. Moderate, sub-acute to chronic, generalised glomerular nephrosis with a small amount of tubular involvement. Moderate, sub-acute to chronic, generalised adrenal hyperplasia (cortical and medullary). Moderate, per-acute, focal adreno-medullary haemorrhage. These findings are consistent with a severe bacterial infection, in one lung which has spread by extension to involve the heart which would have severely compromised the animal's ability to function.



Figure 25: M146/14 white beaked dolphin, stranded due to severe multisystem bacterial infection

5.5 M159/14 – Humpback whale (*Megaptera novaeangliae*)

A juvenile male humpback was found in a very fresh condition trapped beneath the lower mesh of a salmon pen in Fishnish, Isle of Mull. It showed evidence of acute anoxic drowning in an otherwise clinically unremarkable case. The lungs and bronchi were bilaterally congested and fluid-filled, heavy and with no asymmetry. The stomach lining was very pale and this lack of pigment and absence of contents suggest little previous solid food ingestion. The stomach, however, contained a large amount of fluid, likely seawater. There was little developed keratinised epithelium in the cardiac stomach, consistent with a pre- or peri-weaning diet. Additionally, the muscles were pale, with little myoglobin pigment evident. These findings are consistent with a weaning, maternally-attached animal which underwent an acute death. The lack of inflammatory lesions, parasitism, or other signs of disease plus the general state of the lungs found on histology are all supportive of death by drowning. The observed pathology and stranding history would be consistent with the animal becoming entrapped beneath the salmon pen and subsequently drowning. The pen structure has a mesh base with 8 x 300kg weights for ballast and the animal was observed in the middle of one pen having lifted the base to the surface. Humpback juveniles are known to be very inquisitive and it could be speculated that the animal may have either been attracted to the salmon pen structure or the fish within them, but became trapped underneath and subsequently drowned.



Figure 26: M159/14 juvenile humpback whale being recovered for necropsy at deep water dock



Figure 27: Array of salmon pen similar to the set where the whale was entangled

5.6 M202/14 – Killer whale (*Orcinus orca*)

A sub-adult killer whale was found dead stranded on Baleshare Beach, North Uist on the 28th of July. Necropsy examination was undertaken on site an estimated 48-72 hours post mortem. The animal was in thin bodily condition and the blubber had a relatively 'dry' appearance, perhaps suggesting scant easily mobilised lipid. The teeth were asymmetrically worn, and this perhaps suggests this particular animal is from the 'Type 1' population which mainly suction feed on mackerel and herring. (A good synopsis of killer whale ecotypes is given in Foote et al; Molecular Ecology (2009) 18, 5207–5217). No obvious traumatic or infectious processes were seen, although visceral organs were moderately autolysed. The brain was also autolysed but appeared more fluid than expected given the degree of decomposition. The cardiac stomach contained nematodes and some plastic/marine debris but no evidence of recent feeding. There was no evidence to suggest the debris was impacted or causing a problem for the animal. Mild asymmetry of the lungs may be indicative of agonal live stranding or peri-mortem congestion, however the lungs were otherwise grossly unremarkable. Debilitation and a lack of recent feeding may account for the death of the animal in this case, with the mouth ulceration suggesting some form of immune-compromise could also be a factor. Bacteriological examination of lung, liver, kidney, spleen, brain and CSF resulted in a mixed growth of haemolytic and non-haemolytic *Edwardsiella tarda*. These isolates are most probably post mortem invaders. There have only been twenty-four reported strandings of this species since 1992 this includes 11 individuals that were part of a MSE and were refloated on Unst, Shetland in December 1994. Of the remaining 13 animals only 6 (including this one) have been examined at post mortem. Histology showed all tissues to be in an advanced state of autolysis however a

moderate to severe, chronic, mural lympho-plasmacytic pneumonia was present and although this could be a response to pulmonary parasitism the possibility of a viral infection cannot be ruled out. Diagnosis awaits results of further ancillary tests, including morbillivirus and toxicology.



Figure 28: M202/14 Killer whale (*Orcinus orca*).

5.7 M205/14 – Short beaked common dolphin (*Delphinus delphis*)

On the 31st of July a juvenile female common dolphin was seen alive swimming erratically with an adult conspecific in Stornoway harbour. It died soon after live stranding and was frozen with 24 hours. It was in very poor body condition with a thin blubber layer and there was no evidence of recent feeding. There was a moderate nematode burden in lungs particularly in the terminal bronchi and cysts suggestive of *Pholeter gastrophilus* present in the pyloric stomach. There was an excess of cerebral-spinal fluid (CSF) present and the brain had a distinctly “wet” appearance. All other systems appeared unremarkable. Histopathology showed moderate, sub-acute, generalised lymphocytic meningitis. This along with the isolation of *Brucella ceti* from the cerebrospinal fluid confirms neuro-brucellosis. This is only the third confirmed case in this species.



Figure 29: M205/14 Juvenile common dolphin (*Delphinus delphis*), live stranded most probably due to *Brucella meningioencephalitis*

5.8 M251/14 – Minke whale (*Balaenoptera acutorostrata*)

This adult female minke whale was found stranded at Whitehills Aberdeenshire. Initial reports were of it being alive but an SSPCA officer confirmed the animal as dead when they attended. The animal was in very good bodily condition with good blubber thickness and muscle mass. There were numerous excoriations to the ventral abdomen extending caudally from around the navel to the tailstock and fluke and cranially to a swelling in the throat. This swelling extended from the pharyngeal region to the thoracic inlet area. Upon incision this swelling was shown to be a very large abscess approximately 1 metre in length and full of watery yellow fluid and necrotic material. The associated retropharyngeal lymph nodes were fibrous and contained caseous yellow lesions 1mm to 3cm in diameter. There was no obvious associated foreign body or trauma associated with this. The animal was pregnant with a 133cm long female foetus present in the left horn of the uterus. The stomachs were empty apart from a moderate nematode burden and watery fluid. The liver was moderately autolysed and had a rounded swollen appearance. There were areas of fibrosis and numerous large (6cm) *Brachycladium goliath* flukes present within the bile ducts. There was a large amount of pericardial fat present something we've not seen in any cetacean before. The heart appeared normal. The lungs were not examined in detail however the right lung did appear hyper inflated.

The excoriations, haemorrhage within the blubber and preservation of the carcass would suggest the animal had live stranded at some point. There was no evidence of recent feeding. The presence of the very large pharyngeal abscess is significant and may have hampered recent foraging by making swallowing difficult. Cultures from the abscess fluid produced a pure growth of *Brucella ceti*.



Figure 30: M251/14 Minke whale (*Balaenoptera acutorostrata*) showing fluid draining from large abscess after incision.

5.9 M316/14 – long-finned pilot whale (*Globicephala melas*)

This sub-adult long-finned pilot whale was found live stranded on mudflats and died before rescue could be attempted. Lung asymmetry, congestion, blood pooling in liver and significant and extensive bruising on the flank indicate a prolonged and possibly multiple live stranding processes. The myoglobulinuria also suggests this. The occipital joint was fused over the right condyle with green, caseous and necrotic material within eroded and softened bone. The brain was autolysed but appeared abnormal around the brainstem. A section of cervical vertebrae was taken to assess the degree of invasion into the bone. Cultures of the CSF produced a mixed growth including *Edwardsiella hoshinae* and *Brucella ceti* and a pure growth of *Brucella ceti* from the necrotic material from the atlanto-occipital joint. The *B.ceti* isolate is significant and points towards a *Brucella* associated arthritis and meningoencephalitis. If histology confirms this it will be only the second time this condition has been recorded in this species.



Figure 30: M316/14 long-finned pilot whale (*Globicephala melas*)

5.10 M434/14 – sperm whale (*Physeter macrocephalus*)

This adult male sperm whale was found dead stranded on a shallow sand beach off the MOD Tain bombing range. There was an area of tissue missing from the right dorsal musculature sagittal and caudal to the dorsal fin, extending 3 – 4 meters along the flank. Visceral tissues including intestines appeared to have been ejected from this defect. A significant amount of white yellow waxy turbid material was evident around the lesion. The nature of this material is not clear, possibly solidified lipid or pus. Sampling the abdominal organs was not rewarding due to autolysis and difficulty accessing them without any mechanical assistance. The suspected source of the tissue defect are rupture following autolysis and gas build up either I) at an area of weakness due to abscessation, or II) at a region of weakness due to trauma (e.g. boat strike). At 1435cm this animal is the longest of this species necropsied by the SMASS team.



Figure 31: M434/14 sperm whale (*Physeter macrocephalus*)

Section 6: Spiral trauma seal cases

Thirty three seals were reported as having trauma consistent with spiral injuries. These cases were mainly reported from Fife and the Tay areas, however there where an increased number being reported from other areas particularly Orkney, Highland (Moray, Beaully and Cromarty Firths). We also had our first report of this condition in a hooded seal (*Cystophora cristata*) from Dumfries and Galloway.

In December evidence emerged that this phenomenon may in some cases be caused by predation by adult grey seals. This evidence was in the form of video footage of an adult male grey seal actively predated upon grey seal weaners on the Isle of May. The resulting lesions produced by these attacks were consistent with those animals found dead with spiral (corkscrew) lesions. The impact of this means that at least in some of the seals found around our coast with “corkscrew” lesions may be due to predation by grey seals rather than an anthropogenic cause as previously thought.

<http://www.smru.st-and.ac.uk/documents/2162.pdf>

<http://news.scotland.gov.uk/News/Research-into-seal-deaths-1597.aspx>



A single animal is thought to be responsible for deaths of 14 grey seal pups on the Isle of May between the 28th of November and the 9th of December before leaving the island and heading across the North Sea to a set of sandbanks and small islands off the coast of Sylt, Germany. This area holds an established grey seal breeding site and several harbour seal haul outs. The seals present location is 800km from the Isle of May breeding site but only 40km from Helgoland, Denmark where an adult grey seal was observed killing and eating harbour seals during the summers of 2013 and 2014.

Figure 32:- M414/14 grey seal (*Halichoerus grypus*) weaner killed and partially eaten by adult male grey seal.

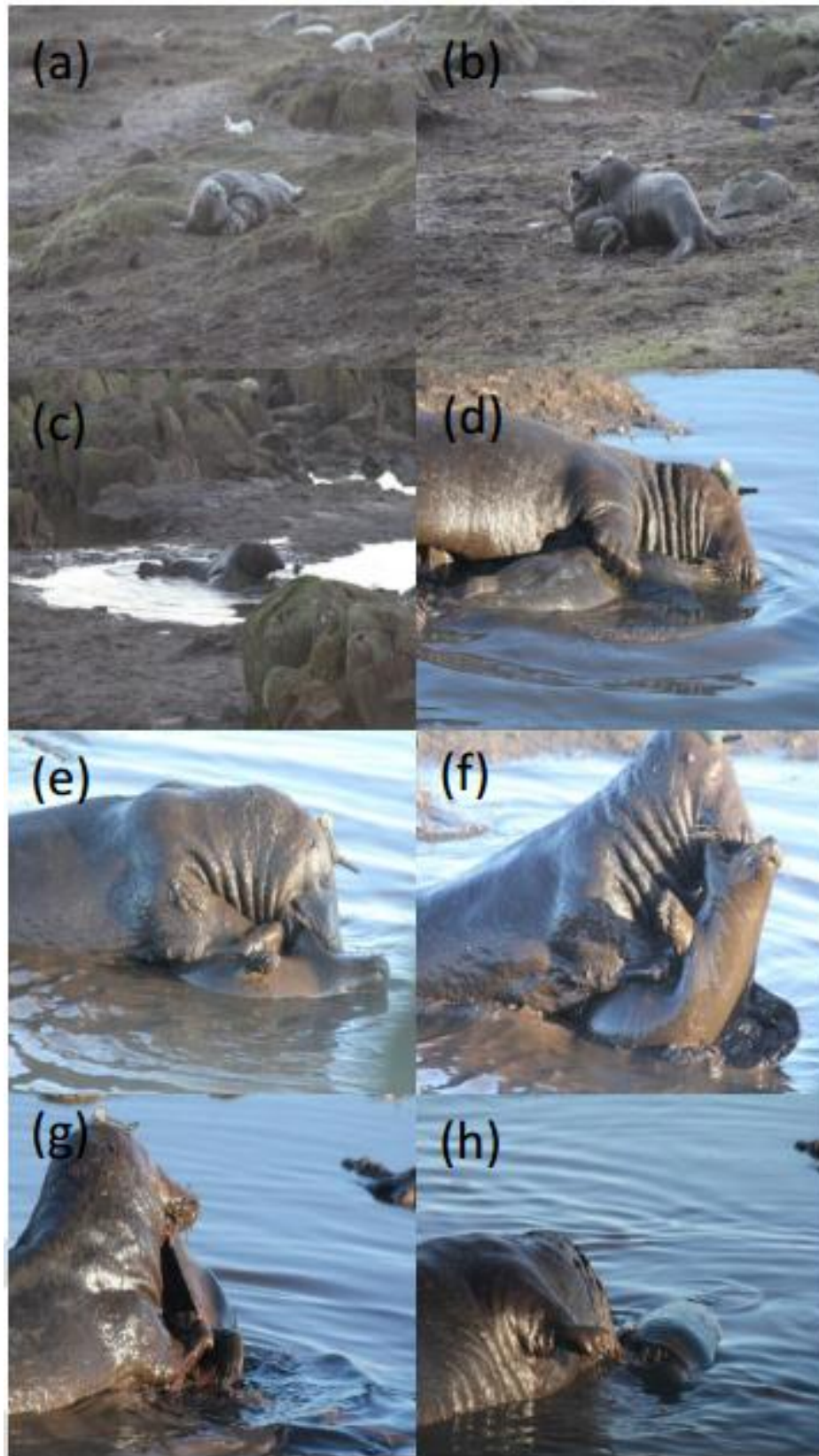


Figure 33: Photos from SMRU report showing adult male (a) capturing a weaned pup (b) lifting and dragging the seal towards a freshwater pool (c) and (d) forcing it under water to subdue it, (e) clamping its jaw around the scruff of the pups neck whilst locking its fore-flippers around its mid section, (f) pulling upwards with its jaw whilst pushing downwards with its fore-flippers (g) tearing flesh from the carcass which now displays an open wound (h) resting after feeding on the pup which now displays a spiral or “corkscrew laceration.

6.1 2014 spiral trauma cases

Table 4: Scoring of suspected spiral trauma cases

SMASS ID	Species (common)	Date	GR100km	Sex	Would lesions fit with the archetypal 'corkscrew'/spiralled seal pattern?	Likelihood of Grey seal Predation
M2/14	Seal (indeterminate species)	01/01/2014	NH	U	Possible	Unknown
M19.2/14	Grey seal	22/01/2014	NO	F	Unlikely	Possible
M23/14	Grey seal	24/01/2014	NO	M	Unlikely	Possible
M3/14	Harbour Seal (Common Seal)	04/01/2014	NH	U	Unlikely	Possible
M128/14	Grey seal	27/05/2014	NO	F	Definite	Likely
M148/14	Harbour Seal (Common Seal)	17/06/2014	NH	F	Definite	Possible
M153/14	Harbour Seal (Common Seal)	20/06/2014	NH	U	Possible	Possible
M182/14	Harbour Seal (Common Seal)	27/06/2014	NH	U	Definite	Possible
M185/14	Harbour Seal (Common Seal)	13/07/2014	NH	F	Likely	Possible
M180/14	Grey seal	08/07/2014	NO	M	Possible	Possible
M186/14	Harbour Seal (Common Seal)	15/07/2014	NO	M	Definite	Likely
M187/14	Grey seal	12/07/2014	NO	F	Unlikely	Possible
M249/14	Harbour Seal (Common Seal)	05/09/2014	NH	U	Definite	Likely
M310/14	Harbour Seal (Common Seal)	21/10/2014	NO	M	Possible	Possible
M252/14	Seal (indeterminate species)	08/09/2014	NH	U	Unlikely	Unknown
M320/14	Hooded seal	25/10/2014	NW	U	Possible	Possible
M382/14	Grey seal	01/12/2014	ND	U	Definite	Possible
M409/14	Grey seal	03/12/2014	NT	F	Unlikely	Possible
M410/14	Grey seal	03/12/2014	NT	F	Definite	Likely

M411/14	Grey seal	03/12/2014	NT	M	Definite	Likely
M412/14	Grey seal	03/12/2014	NT	M	Unlikely	Possible
M413/14	Grey seal	03/12/2014	NT	F	Possible	Definite
M414/14	Grey seal	03/12/2014	NT	F	Unlikely	Definite
M415/14	Grey seal	03/12/2014	NT	F	Unlikely	Definite
M416/14	Grey seal	04/12/2014	NT	M	Possible	Definite
M417/14	Grey seal	05/12/2014	NT	M	Possible	Definite
M373/14	Grey seal	24/11/2014	NT	M	Likely	Likely
M439/14	Grey seal	18/12/2014	ND	U	Unlikely	Possible
M443/14	Grey seal	18/12/2014	ND	U	Unlikely	Possible
M387/14	Grey seal	02/12/2014	NT	M	Likely	Definite
M431/14	Grey seal	07/12/2014	NT	U	Likely	Definite
M432/14	Grey seal	08/12/2014	NT	U	Likely	Likely
M433/14	Grey seal	09/12/2014	NT	U	Likely	Likely

Table 5: Relationship between the likelihood of spiral trauma and grey seal attack

Score		Likelihood of grey seal predation				Grand Total
		Definite	Likely	Possible	Unknown	
Would lesions fit with the archetypal 'corkscrew'/spiralled seal pattern?	Definite	0	5	3	0	8
	Likely	2	3	1	0	6
	Possible	3	0	4	1	8
	Unlikely	2	0	8	1	11
Grand Total		7	8	16	2	33

Table 4 shows the details for all pinniped cases considered to be potential spiral trauma cases. The final two columns display an adjectival description of a) how likely it is that the case matches the archetypal spiral 'corkscrew' lesion and b) given the recent new evidence, how likely is it that the lesions could be due to grey seal predation.

Table 5 summarised these adjectival ratings. It can be seen that there are no cases which scored as 'definite' for both grey seal attack and spiral trauma cases. Nonetheless 10/33 cases (30%) scored as either 'definite' or 'likely' as being both grey seal attack and spiral lesions. In contrast, 10/33 cases were also 'possible', 'likely' or 'definite' grey seal predation cases which scored as 'unlikely' to have been identified as a spiral seal case. This shows that the cases known to be grey seal attack do not necessarily match the archetypal corkscrew lesion pattern but exhibit very similar attributes.

Further analysis is underway but this initial work highlights that it should now be considered a distinct possibility that the spiral or corkscrew pattern of lesions are, for a significant number of cases, attributable to grey seal predation and not, as previously considered, collision with ducted boat propellers.

Section 7: Other single pinniped strandings

7.1 M383/14 – grey seal (*Halichoerus grypus*)

This sub adult female grey seal was found alive but moribund on Forvie Nature Reserve. The animal died before it could be euthanased. There was a severe bilateral purulent pneumonia, with turbid fluid filling both pleural cavities. There was evidence of systematic bacteraemia from vascular changes in the mesentery and elevated CSF volume. This appears to be reasonably acute however and the underlying cause is not apparent but lung parasite burden was low. Cultures from all tissues samples produced pure and profuse growths of *Pseudomonas aeruginosa*. This would appear to be a case of severe pneumonia and septicaemia due to *Pseudomonas aeruginosa*.



Figure 34: M383/14 grey seal (*Halichoerus grypus*).

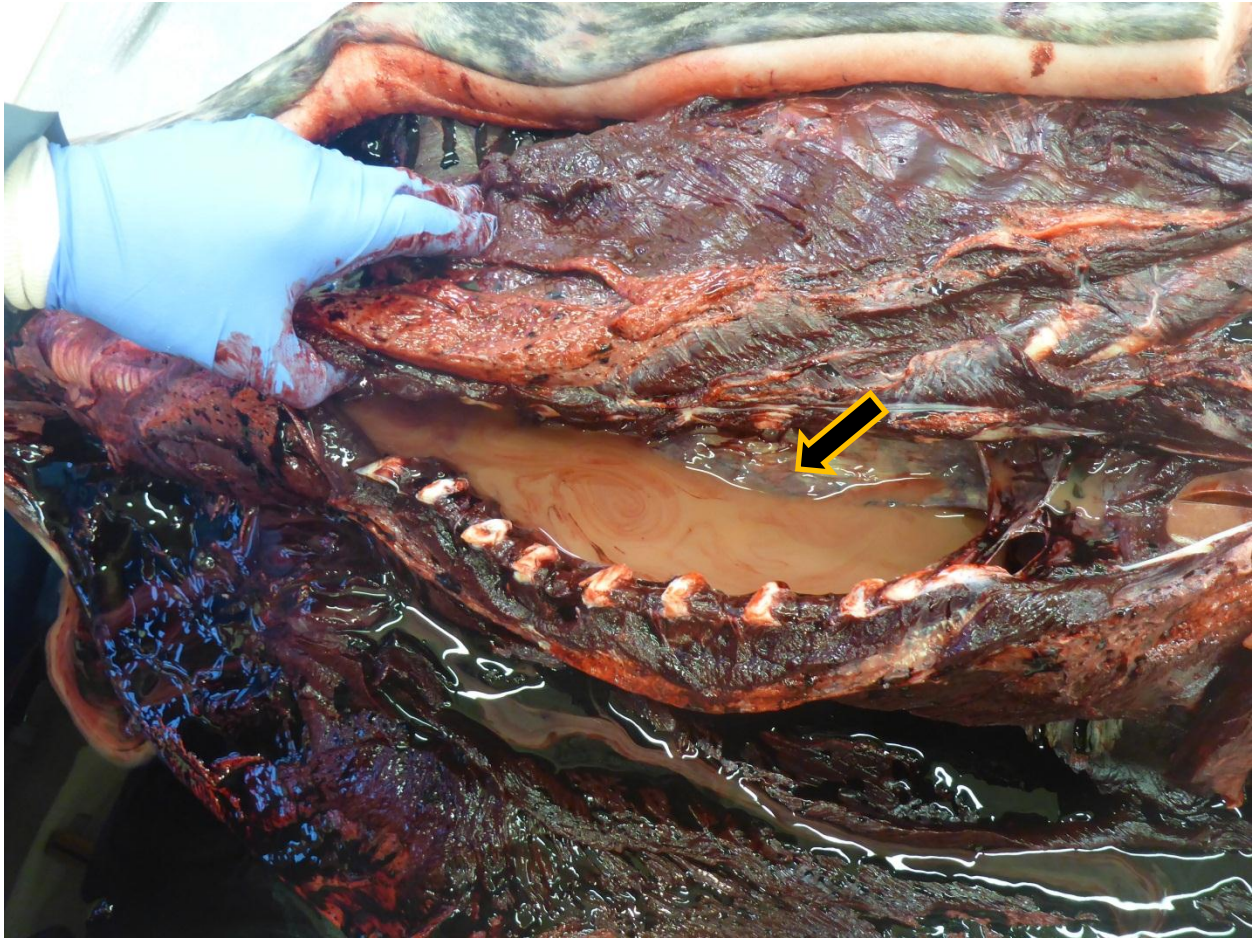


Figure 35: M383/14 grey seal (*Halichoerus grypus*) showing fluid filled pleural cavity (arrow). *Pseudomonas aeruginosa* was isolated from all tissues sampled.

Section 8: Seal unusual mortality event (UME)

8.1 M378/14- harbour seal (*Phoca vitulina*), M384/14 & M385/14 – grey seal (*Halichoerus grypus*)

On the 29th of November a cluster of three adult seals (1 common and 2 grey) were found freshly dead on a private beach in Argyll and Bute. The owner reported them to us and was concerned that they may have been poisoned. The animals were necropsied on site and all three had injuries to the head consistent with being shot. Two animals had a significant amount of pink digesta in the stomach, most plausibly salmonid fish. Marine Scotland subsequently confirmed there were seal management licences in place for that region.

Section 9: Basking shark & marine turtle

9.1 Basking sharks

There was only one reported basking shark (*Cetorhinus maximus*) stranding in 2014 (M448/14) on the 21st December at Barvas on the Isle of Lewis. Only the remains of the head were present, which was identified by the National Museum of Scotland.

9.2 Marine turtles

There were six marine turtle strandings reported in 2014, five leatherback turtles (*Dermochelys coriacea*) one in May and the rest in October, of which two were necropsied (see below). There was one Kemp's Ridley turtle (*Lepidochelys kempii*) reported from Tarbet in Northwest Highland; however it was too decomposed for collection and examination.

9.3 M300/14 Leatherback turtle (*Dermochelys coriacea*)

This male Leatherback was reported in found entangled in creel ropes in deep waters (55 metres), and brought ashore in Lochinver. It was in good condition, with evidence of recent feeding. Several hundred small copepods (shrimp) were present in the chyme, possibly themselves prey of jellyfish which had subsequently been eaten by the leatherback. The lungs were very congested with foam present in bronchi and a wet appearance to air sacs. Bacteriology did not reveal any significant isolates. There was no notable parasite burden and no indication of plastic ingesta in GIT, nor ulceration or trauma from foreign body ingestion. The bruising around the axilla, excoriations/rope imprints to the carapace and the lung pathology confirms drowning as a result of entanglement.



Figure 36: M300/14 leatherback turtle (*Dermochelys coriacea*).

9.4 M311/14 Leatherback turtle (*Dermochelys coriacea*)

This adult leatherback turtle was found entangled in creel ropes of Dunbar East Scotland. Bruising and excoriations around the right flipper, head and flank are consistent with antemortem rope entanglement. This was supported by the wet and congested appearance of the lungs indicating immersion drowning. The stomach contained some gelatinous protein material suspected to be part of a recently ingested jellyfish. The small intestine also contained some gelatinous fluid and several copepods and larger crustacea whose exoskeleton appeared not to be as rapidly digested as the jellyfish. This suggested recent successful feeding. A length of polypropylene twine ~30cm long was recovered from the stomach. This did not appear to have caused any serosal damage and was considered to be an incidental finding. Bacteriology on all tissues cultured proved sterile. Note: dissection of the urogenital tract showed multiple globular structures consistent with ovaries; however a small 15cm structure likely to be a vestigial penis was also seen. Histopathology is awaited to confirm if this is a female or intersex.



Figure 37: M311/14 leatherback turtle (*Dermochelys coriacea*).

Section 10: Bacteriology

10.1 *Brucella* sp.

In 2014, *Brucella ceti* was recovered from 4 cetaceans: 1 minke, 1 short-beaked common dolphin 1 harbour porpoise and 1 long-finned pilot whale. This is the same number of isolations as 2013. However the minke whale isolation is significant as this represents only the second time this organism has been isolated from this species, and the first with any associated with

pathology. *Brucella* sp., has been isolated from a minke whale in Scotland previously but this was before the two marine species were confirmed as two new species. The previous Scottish isolate of *Brucella* sp. from this species is actually *B. pinnipedialis*. There were no isolations of *Brucella pinnipedialis*. There have been no isolations from new species so the total species from which *Brucella* has been recovered still remains at nine.

10.2 *Salmonella* sp.

The only *Salmonella* isolation during 2014 belonged to the monophasic group B *Salmonella* which is host-adapted to harbour porpoises but seldom associated with disease. It was only recovered from one animal. This is lower than the number of isolations last year.

10.3 *Marine vibrios*

Photobacterium damsela was isolated on eight occasions during this year from two harbour porpoises, a white beaked dolphin, a Risso's dolphin and from two Northern bottlenose whales and two Sowerby's beaked whales involved in the MSE's. It is an opportunistic pathogen but was thought not to be significant in either of these cases.

A *Photobacterium* sp. (not *damsela*) was isolated from all tissues sampled in a leatherback turtle.

Vibrio alginolyticus was isolated from the lung, liver, pancreas, and intestine of a minke whale, the significance of this isolate is at present uncertain.

10.1 *Yersinia* sp.

Yersinia enterocolitica was isolated in mixed culture from the lung of a common dolphin. This organism is a recognised zoonosis and capable of enteric or generalised infections in farm animals. It has been isolated from both cetaceans and pinnipeds in Scotland. The significance of the isolate in this case is uncertain.

10.2 *Fungal infections*

Aspergillus fumigatus was isolated twice from harbour porpoises from a pulmonary abscess in one animal and the lung abscess in another. The significance of this in the former however is uncertain as the animal generally appeared in good condition. However the isolate was consistent with a severe mycotic infection which has established in the lung in the latter, possibly secondary to fractured ribs, which has then spread to the brain with fatal consequences.

10.3 *Pasteurellaceae*

Pasteurellaceae that could not be identified as any of the species known to infect cetaceans was recovered from a purulent lung abscess in a harbour porpoise.

Actinobacillus delphinicola was recovered once from the spleen of a Sowerby's beaked whale.

Haemophilus sp was isolated from the peritoneal fluid of a Risso's dolphin.

10.1 *Granulicatella balaenopterae*

Granulicatella balaenopterae, a Gram positive cocci whose major habitat appears to be minke whales, was recovered from the all tissues sampled in a one minke whale and the liver and kidney in another. The significance of this organism is unknown.

10.2 *Streptococcus* sp

Streptococcus dysgalactiae complex was isolated from the brain and CSF of a white-beaked dolphin. The significance of this isolate is at present uncertain.

Streptococcus dysgalactiae equisimilis was isolated from the lung, pericardium, pulmonary associated lymph node and chest fluid of a white beaked dolphin with lateral pneumonia and pleurisy, see section 4.4 above. This is recognised as a cause of pleuropulmonary infection and pharyngitis in humans and animals.

An α -haemolytic *Streptococcus* sp, with a profile not seen before in marine mammals, was isolated in mixed culture from the lung, spleen, kidney and cerebral spinal fluid (CSF) of a live stranded white beaked dolphin. The significance of this is uncertain.

Streptococcus uberis was isolated from lungs, the liver, kidney and brain/CSF of a humpback whale. Although not significant in this particular case we believe this is the first time this species has been isolated from a cetacean.

Section 11: Parasitology

11.1 Trematodes

Brachycladium goliath a large liver fluke was found in a minke whale, this was confirmed by the Natural History Museum London. This is an uncommon finding and something we have not seen before. This species of fluke has been occasionally recorded from minke and other baleen whales in the Atlantic and Pacific.

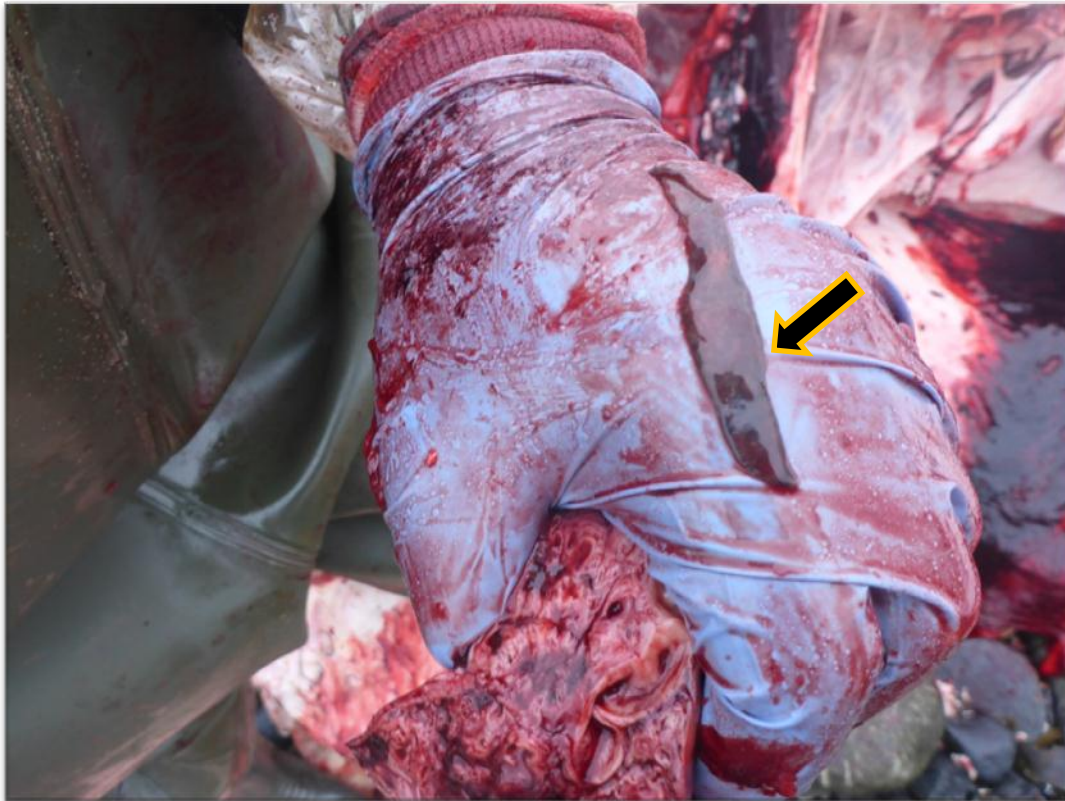


Figure 38: *Brachycladium goliath* a large liver fluke was found in minke whale

Section 12: Outputs

12.1 Overview

In 2014 Staff at the Scottish Marine Animal Strandings Scheme generated a total of eight peer reviewed papers, six conference presentations, and four conference posters. Andrew was one of the supervisors for Mariel ten Doeschate's MSC masters project entitled "Seasonal patterns in strandings and occurrence of harbour porpoises along the east coast of Scotland".

12.2 Publications

- **Davison, N.J.**, Barnett, J.E.F., Stubberfield, E.J., Whatmore, A.M, Koylass, M., Deaville, R Perkins M. and Jepson P.D. *Helicobacter cetorum* infection in a striped dolphin (*Stenella coeruleoalba*) an Atlantic white-sided dolphin (*Lagenorhynchus acutus*) and two short-

beaked common dolphins (*Delphinus delphis*) from the southwest coast of England. Journal of Wildlife Disease DOI: 10.7589/2013-02-047.

- Jennifer A. Learmonth, Sinead Murphy, Patricia L. Luque, **Robert J. Reid, I. Anthony P. Patterson, Andrew Brownlow, Harry M. Ross, Jason P. Barley**, M. Begoña Santos, Graham J. Pierce. Life history of harbor porpoises (*Phocoena phocoena*) in Scottish (UK) waters. Marine Mammal Science DOI: 10.1111/mms.12130
- C.E. van Elk, M.W.G. van de Bilt, T. Jauniaux, S. Hiemstra, P.R.W.A. van Run, **G. Foster**, A.D.M.E. Oosterhaus and T. Kuiken. Is dolphin morbillivirus virulent for white beaked dolphins (*Lagenorhynchus albirostris*)? 2014 Veterinary Pathology 51(6) 1174-1182
- Brombach, Christoph-Cornelius, Zuzana Gajdosechova, Bin Chen, **Andrew Brownlow**, Warren T. Corns, Jörg Feldmann, and Eva M. Krupp. 2014. "Direct Online HPLC-CV-AFS Method for Traces of Methylmercury without Derivatisation: A Matrix-Independent Method for Urine, Sediment and Biological Tissue Samples." Analytical and Bioanalytical Chemistry 407: 973–981.
-
- Fernández, Ruth, Graham J. Pierce, Colin D. MacLeod, **Andrew Brownlow**, Robert J. Reid, Emer Rogan, Marian Addink, Robert Deaville, Paul D. Jepson, and M. Begoña Santos. 2014. "Strandings of Northern Bottlenose Whales, *Hyperoodon Ampullatus*, in the North-East Atlantic: Seasonality and Diet." Journal of the Marine Biological Association of the United Kingdom 94 (6): 1–8.
- Fraga-Manteiga, Eduardo, Darren J. Shaw, Sophie Dennison, **Andrew Brownlow**, and Tobias Schwarz. 2014. "An Optimized Computed Tomography Protocol for Metallic Gunshot Head Trauma in a Seal Model." Veterinary Radiology and Ultrasound 55 (4): 393–398.
- Learmonth, Jennifer A, Sinead Murphy, Patricia L Luque, **Robert J Reid, I Anthony P Patterson, Andrew Brownlow, Harry M Ross, Jason P Barley**, M Begoña Santos, and Graham J Pierce. 2014. "Life History of Harbor Porpoises (*Phocoena Phocoena*) in Scottish (UK) Waters." Marine Mammal Science (April 1): n/a–n/a.
- Louis, Marie, Amélia Viricel, Tamara Lucas, Hélène Peltier, Eric Alfonsi, Simon Berrow, **Andrew Brownlow**, et al. 2014. "Habitat-Driven Population Structure of Bottlenose Dolphins, *Tursiops truncatus*, in the North-East Atlantic." Molecular Ecology: n/a–n/a.

12.3 Conference presentations

- **Andrew Brownlow, Nick Davison**, Rob Deaville, Paul Jepson. Whale meet again; Protocols for future mass stranding events in the UK. Talk at the European Cetacean Society Annual Conference, workshops, Liege, Belgium 05/04/2014-10/04/2014
- **Geoff Foster**. Oceans of Brucella. Talk at the European Cetacean Society Annual Conference, workshops, Liege, Belgium 05/04/2014-10/04/2014.

- Johanna L. Baily, Guillaume Méric, **Geoff Foster**, Sion Bayliss, Ben Pascoe, Eleanor Watson, Simon Moss, Jane Mikhail, Kim Willoughby, Romain Pizzi, David GE Smith, Robert Goldstone, Ailsa Hall, Samuel K. Sheppard and Mark P. Dagleish. Evidence of land-sea transfer of a zoonotic human pathogen, *Campylobacter* spp., to a wildlife marine sentinel species, the grey seal (*Halichoerus grypus*) Talk at the European Cetacean Society Annual Conference, Liege, Belgium 05/04/2014-10/04/2014.
- **Andrew Brownlow**. What can we learn from looking for and retrieving beach-cast carcasses. EIMR (the Environmental Interactions of Marine Renewable Energy Technologies) in Stornoway 02/05/2014
- **Andrew Brownlow**, Johanna Baily, Mark Dagleish , Rob Deaville, **Geoff Foster**, Silje-Kirstin Jensen, Eva Krupp, Robin Law, Stephen Marsh, Rod Penrose, Matt Perkins, Fiona Read, Paul Jepson. What can we gain from examining stranded marine animals as a method for assessing the impact of underwater noise? the AECC (All Energy) Xodus Group/SMRU Underwater Noise Workshop) Aberdeen 20/05/14
- **Geoffrey Foster**, Johanna Bailey, Adrian Whatmore, **Andrew Brownlow**, Mark P. Dagleish, Mark Koylass, Rob Deaville, Lorraine L. Perrett, , Emma Stubberfield, Robert J. Reid and **Nicholas J Davison**. First isolations of *Brucella ceti* from long-finned pilot whales (*Globicephala melas*) and a Sowerby's beaked whale (*Mesoplodon bidens*). Presentation Brucellosis International Research Conference 2014 9th -12th September.

12.4 Conference posters

- **Nick Davison, Andrew Brownlow**, Mark P. Dagleish, **Barry McGovern**, Lorraine L. Perrett, Emma-Jane Dale, Mark Koylass, Rob Deaville, Rod Penrose, Matthew Perkins and **Geoffrey Foster**. The First Report of the Isolation of *Brucella ceti* in long-finned pilot whales (*Globicephala melas*). The European Cetacean Society Annual Conference, Liege, Belgium 7th-9th April 2014
- Norbert van de Velde, Brecht Devleesschauwer, Stéphane Decraeye, Lineke Begeman, Lonneke IJsseldijk, Sjoukje Hiemstra, **Andrew Brownlow, Nicholas Davison**, Jooske IJzer, Mardik Leopold, Thierry Jauniaux, Ursula Siebert, Pierre Dorny.
Is a terrestrial cat-parasite really reaching marine mammals?
Toxoplasma Poster presentation: European Cetacean Society Annual Conference in Liege Belgium 7th-9th April 2014
- Mattiucci S., Cipriani P., 2, Paoletti M., Marcer F., Frantzis A., **Brownlow A., Davison N., McGovern B.**, Webb S.C., Dougnac C., Nascetti G.
Molecular identification of *Anisakis* spp. (*Nematoda: Anisakidae*) in stranded cetaceans from the Mediterranean Sea, NE Atlantic Ocean and SE-SW Pacific waters, with insights into the host-parasite co-phylogenetic aspects.
Poster presentation: SOIPA 2014 (Italian Parasitology Society) 24-27th June 2014 Rome , Italy.

- **Geoffrey Foster**, Johanna Bailey, **Andrew Brownlow**, Mark P. Dagleish, Mark Koylass, Lorraine L. Perrett, Claire Dawson, Emma Stubberfield, Ingebjorg Nymo, **Barry McGovern** and Adrian Whatmore. The first report of the isolation of *Brucella pinnipedialis* from a bearded seal (*Erignathus barbatus*).
Poster presentation: Brucellosis International Research Conference 2014 9th -12th September

12.5 Other

13-15th October Andrew and Mariel collaborated with SMRU on collision trials at Ardesier which contributed to two draft reports to SNH and Marine Scotland.

1. Collision Risk and Impact Study: Field tests of turbine blade-seal carcass collisions.
2. Data based estimates of collision risk: an example based on harbour seal tracking data around a proposed tidal turbine array in the Pentland Firth.

12.6 Media

The stranding of a juvenile male sperm whale on Joppa beach in Edinburgh caused quite a storm of media interest and photos of the animal being taken to landfill in a truck went around the world.

Unfortunately the media initially talked to NGO volunteers who speculated the animal had been struck by a boat. We found no evidence for this at necropsy but despite talking to the press after the event, nearly all of the links below still refer to the animal as having been a victim of shipstrike.

- <http://www.telegraph.co.uk/news/newstoppers/howaboutthat/10575347/Sperm-whale-washed-up-on-Edinburgh-beach-taken-by-lorry-to-landfill.html>
- <http://www.dailymail.co.uk/news/article-2539867/Sperm-whale-pictured-transported-lorry-landfill-site-washed-Scottish-beach.html>
- <http://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-25703059>
- <http://www.scotsman.com/news/environment/dead-sperm-whale-washes-up-on-edinburgh-beach-1-3264734>
- <http://metro.co.uk/2014/01/11/dead-sperm-whale-washes-up-on-an-edinburgh-beach-4259061/>
- <http://www.mirror.co.uk/news/uk-news/joppa-whale-dead-whale-washes-3010366>
- <http://www.independent.co.uk/news/uk/home-news/edinburgh-sperm-whale-is-taken-to-landfill-9061091.html>
- <http://www.thecourier.co.uk/news/scotland/boat-may-have-killed-sperm-whale-found-at-portobello-1.175700>
- <http://www.heraldscotland.com/news/home-news/sperm-whale-washed-up-on-to-portobello-beach-taken-to-landfill.23190371>
- <http://www.heraldscotland.com/news/environment/experts-probe-death-of-sperm-whale-washed-up-on-edinburgh-beach.138944439>
- <http://www.itv.com/news/2014-01-15/beached-sperm-whale-transported-in-truck-to-landfill-site/>
- <http://www.theguardian.com/world/picture/2014/jan/13/eyewitness-joppa-edinburgh>
- <http://www.dailyrecord.co.uk/news/scottish-news/carcass-washed-up-sperm-whale-3014117>

4th of March there were several sensationalised and inaccurate reports the media about a bottlenose dolphin attack that was photographed by Caroline Weir a week after she collected a couple of dead porpoises for us which showed evidence of bottlenose dolphin attack. Media

interested was sparked after we posted both the photos of the attack and the dead porpoises on our Facebook page.

- <http://www.dailymail.co.uk/news/article-2572968/Pictured-Horrific-moment-bottlenose-dolphins-attack-kill-two-porpoises-FUN-cat-mouse-game.html>
- http://www.huffingtonpost.co.uk/2014/03/05/dolphins-kill-porpoises-pictures_n_4903116.html
- <http://www.telegraph.co.uk/news/newsttopics/howaboutthat/10676073/Dolphins-kill-two-porpoises-in-game-of-cat-and-mouse.html>

On the 05/05/2014 a much decomposed unidentified odontocete cetacean was found at Lunan Bay in Angus, south of Montrose on the east coast. This was formally identified at the National Museum of Scotland using the skull this week as a beluga. This was picked up by the media and some odd ball blogs.

- <http://us.whales.org/blog/nicolahodgins/2014/05/rare-beluga-skull-found-on-scottish-beach>
- <http://www.seawatchfoundation.org.uk/beluga-whales-in-the-uk-seriously/>
- <http://www.scotsman.com/news/national-museums-boon-after-beluga-whale-discovery-1-3430277>
- <http://www.thecourier.co.uk/news/local/angus-the-mearns/angus-arctic-whale-could-plug-200-year-research-gap-1.400324>
- http://thecelestialconvergence.blogspot.co.uk/2014/06/disaster-precursors-latest-incidents-of_3.html

On the 25/06/2014 a humpback whale was discovered dead under salmon pens at a fish farm near Fishnish on the Isle of Mull. The recovery and subsequent necropsy by SMASS was widely picked up by the local and national media.

- <http://www.bbc.co.uk/news/uk-scotland-glasgow-west-28158748>
- <http://news.stv.tv/highlands-islands/281500-carcass-of-seven-ton-young-humpback-whale-found-beached-on-mull/>
- <https://www.pressandjournal.co.uk/fp/news/islands/270445/scotlands-first-humpback-whale-post-mortem-after-mull-stranding/>
- <http://www.islandnewsandadvertiser.co.uk/2014/06/mull-humpback-whale-post-mortem-results/>
- <http://www.digitaljournal.com/news/environment/first-full-humpback-whale-post-mortem-performed-in-scotland/article/388031>
- http://www.sruc.ac.uk/news/article/898/humpback_whale_post_mortem_suggests_entanglement_in_salmon_farm

After the discovery of two dead and very autolysed seals at Rosemarkie on the Black Isle on the 29/06/2014 the local press ran a couple of articles on the “mystery”. Both animals were autolysed, one actually skeletal remains; they had obviously been dead for some time and washed up over a period of a several days. Neither were suitable candidates for necropsy however and there was no sign of anthropogenic trauma.

- <https://www.pressandjournal.co.uk/fp/news/news-comment/271812/fears-dead-seals/>
- <https://www.pressandjournal.co.uk/fp/news/highlands/271449/seals-found-dead-on-black-isle-beach/>
- <http://www.ross-shirejournal.co.uk/News/Mystery-over-seal-bodies-at-Black-Isle-beauty-spot-02072014.htm>

On the 24/07/14 HDWT reported to us an ongoing mass stranding event (MSE) in Mull. Due to the remote location it was several hours before we knew which species and how many were involved. There were 14 common dolphins that stranded on the beach and all but two were refloated by holiday makers on the beach. The two that died were adult males and were sampled by Staff from HDWT before being buried on site by the land owner.

- <http://www.express.co.uk/news/uk/497089/VIDEO-Family-rescue-dolphins>
- <http://www.dailymail.co.uk/travel/article-2719795/Holidaying-family-use-luggage-straps-save-19-stranded-dolphins-got-stuck-chasing-mackerel-Scottish-coast.html>
- <http://www.nottinghampost.com/Trapped-dolphins-rescued-family/story-22218029-detail/story.html>
- <http://www.telegraph.co.uk/news/uknews/scotland/11022286/Family-on-holiday-saves-stranded-dolphins-with-the-help-of-luggage-straps.html>
- <http://www.scotlandnow.dailyrecord.co.uk/news/pictures-grandad-saves-pod-dolphins-4025337>

On the 28/07/14 We had a report of a dead killer whale on Baleshare beach , North Uist, once the species was confirmed, Andrew and Nick accompanied by Alicia Coupe attended and performed a necropsy on site. This generated quite a bit of media interest.

- <http://www.mirror.co.uk/news/uk-news/killer-whale-washes-up-uk-3935680>
- <http://news.stv.tv/highlands-islands/284392-orca-expert-inquiry-after-killer-whale-washes-up-on-north-uist-beach/>
- <http://www.islandnewsandadvertiser.co.uk/2014/07/stranded-killer-whale-post-mortem-takes-place-on-baleshare-beach-north-uist/>
- <http://www.news-cloud.co.uk/StvNews/2014/07/30/InvestigationAfterKillerWhaleWashesUpOnNorthUistBeach.html>
- <http://uk.whales.org/news/2014/07/dead-orca-washes-up-on-scottish-beach>
- <http://www.hebrides-news.com/killer-whale-ashore-in-north-uist-30714.html>
- <http://www.tumblr.com/search/baleshare>

On the 07/09/2014 we had a report of a live stranded minke whale at Whitehills, Aberdeenshire. The animal was attended by a SSPCA officer who reported it as dead. Nick assisted by staff from WDC and CRRU attended the animal on the following Monday and performed a Necropsy. The animal was a pregnant female which had a very large fluid filled abscess in the retropharyngeal region. A pure growth of *Brucella ceti* was isolated from this site.

- <https://www.pressandjournal.co.uk/tag/whitehills/>
- <http://uk.whales.org/blog/katehannigan/2014/09/sad-day-on-beach>
- <http://whalesandmarinefauna.wordpress.com/2014/09/08/operation-under-way-to-remove-beached-whale-at-whitehills-scotland-uk/>

A spate of leatherback turtle strandings (4 in total) including 2 that were necropsied created quite a bit of media interest. The two that were necropsied had died due to entanglement in creel ropes.

- <http://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-29786330>
- <http://www.bbc.co.uk/news/uk-scotland-29801261>
- <http://www.scotsman.com/news/odd/mystery-over-scotland-s-dead-leatherback-turtles-1-3585328>
- <https://www.pressandjournal.co.uk/fp/news/islands/western-isles/378382/three-giant-turtles-found-dead-scottish-coast/>
- <http://www.heraldscotland.com/news/home-news/mystery-as-dead-leatherback-turtles-found-off-scottish-coast.25716581>
- <http://www.scotlandnow.dailyrecord.co.uk/news/pictures-rare-6ft-leatherback-turtle-4521180>
- <http://www.telegraph.co.uk/news/earth/wildlife/11191449/Mystery-over-deaths-of-giant-turtles-off-Scotland.html>
- <http://news.stv.tv/highlands-islands/296654-giant-leatherback-turtles-found-dead-on-western-scottish-beaches/>
- <http://www.deadlinenews.co.uk/2014/10/14/leatherback-turtle-may-have-been-killed-by-creel-ropes/>
- <http://www.eastlothiancourier.com/news/roundup/articles/2014/10/31/514286-giant-turtle-dies-off-dunbar-coast/>

The unusual mortality event involving Cuviers beaked whales stranding along the west coast of Scotland and Ireland in December created quite a bit of media interest.

- <http://www.telegraph.co.uk/news/earth/wildlife/11395236/Hunt-for-Russian-sub-may-have-caused-spate-of-whale-and-dolphin-deaths.html>
- <http://www.scotsman.com/news/environment/spate-of-beaked-whale-deaths-puzzle-scots-experts-1-3652758>
- <http://www.thebigwobble.org/2015/01/spate-of-beaked-whale-deaths-puzzle.html>
- http://www.whaledolphintrust.co.uk/news_article.asp?news_id=411
- <http://www.sott.net/article/291010-Spate-of-deep-sea-beaked-whale-deaths-puzzle-experts-in-Scotland>
- <https://neptune911.wordpress.com/2015/01/08/marine-experts-baffled-by-cuviers-beaked-whale-deaths/>

12.7 Conferences/meetings

- 27/01/14 Andrew attended the MSFD workshop in London.

- 28/01/14 Andrew and Nick attended MeyGen Workshop on the Pentland Frith and Orkney under water turbine installation at the SNH Offices Battleby Perth.
- 20/02/14 Andrew and Nick were presented to HRH The Princess Royal at the Moredun Institute in Edinburgh where she was given a brief overview of the Stranding Project.



Figure 39:: The SMASS team meeting HRH the Princess Royal at the Moredun Institute. © Kevin McCollum and the Moredun Institute.

- 04/04/2014 Andrew attended a meeting at SAMS to discuss SAMS role in the stranding scheme and the possibility of designing a smart phone app for the scheme.
- 05/04/2014-10/04/2014 Andrew, Geoff and Nick attended the European Cetacean Society Annual Conference in Liege Belgium. Nick presented a poster on the first report of *Brucella Ceti* in long-finned pilot whales (*Globicephala melas*). Geoff gave a talk at the workshops on marine mammal Brucella entitled “Oceans of Brucella”. Andrew gave a talk at the workshops entitled “Whale meet again; Protocols for future mass stranding events in the UK.
- 02/05/2015 Andrew gave an invited talk at the EIMR (the Environmental Interactions of Marine Renewable Energy Technologies) in Stornoway entitled “what can we learn from looking for and retrieving beach-cast carcasses”.
- 08/05/14 Andrew and Nick attended the Sharing Good Practice event ‘Citizen Science ‘at the SNH Offices Battleby Perth.

- 20/05/14 Andrew gave an invited talk at the workshops of the AECC (All Energy) Xodus Group/SMRU Underwater Noise Workshop) called; what can we gain from examining stranded marine animals as a method for assessing the impact of underwater noise?
- 05/06/2014 Andrew attended a meeting with SAMS and HWDT at SAMS to discuss volunteer involvement in the stranding scheme.
- 12/06/1014 Andrew attended (via teleconference) the GB Wildlife disease partnership.
- 17/07/14 Andrew attended a meeting at the Boyd Orr Institute, Glasgow to discuss Spatial Ecology collaboration with SMASS.
- 25/07/14 Nick and Andrew gave a necropsy demonstration on a porpoise as part of the workshop programme for the European Wildlife Disease Association Conference. Royal (Dick)Edinburgh Veterinary School.
- 25/07/14-29/07/14 Andrew attended the European Wildlife Disease Association Conference. Royal (Dick) Edinburgh Veterinary School.
- 10/09/14/-12/09/14 Geoff gave a talk at the Brucellosis 2014 conference in Berlin entitled “. First isolations of *Brucella ceti* from long-finned pilot whales (*Globicephala melas*) and a Sowerby’s beaked whale (*Mesoplodon bidens*)”. Presentation Brucellosis International Research Conference 2014 9th -12th September
- 20/10/14 Andrew was an invited participant at the oiled wildlife preparedness workshop at the AECC in Aberdeen.
- 20/10/14 Mariel gave a talk entitled “Cetacean strandings and monitoring” to the annual Fulmar workshop at IMARES, Texel, Netherlands.
- 19/11/14 Andrew was an invited speaker at the oil and gas UK environmental seminar at the AECC Aberdeen. He gave a talk entitled “Marine strandings as a tool for environmental monitoring”
- 20/11/14 Andrew, Nick and Mariel met with Dr Eva Krupp, Dr Graham Pierce and Fiona Read to discuss ongoing and future collaborations.

12.8 *Volunteers, necropsy demonstrations and outreach*

- 05/03/14 Necropsy demonstration for SAC (SRUC) Aberdeen campus MSC students at Inverness
- 06/03/14 Necropsy demonstration for Aberdeen University master students at Inverness.
- 14/03/14 Stranding Volunteers training course on data collection and sampling at Inverness.



Figure 40: Stranding Volunteers training day 14/03/14.

- 27/03/14 Stranding Volunteers training course on data collection and sampling at Inverness.



Figure 41: Stranding Volunteers training day 27/03/14.

- 02/06/14-04/06/2014 Andrew gave a stranding volunteers training course on data collection and sampling for Volunteers, SNH and Scottish Wildlife Rangers on Eigg, Muck & Rum on Eigg and Rum.
- 18/06/2014 Andrew gave an invited talk on the Joppa sperm whale and the stranding scheme to the Portabello Amenity Society in Edinburgh.
- 14/07/14-18/07/14 Olivia Casely a work experience student from Cornwall spent a week with the SMASS team.

- 25/07/14 Nick and Andrew gave a necropsy demonstration on a porpoise as part of the workshop programme for the European Wildlife Disease Association Conference. Royal (Dick) Edinburgh Veterinary School.



Figure 42: Necropsy demonstration Royal (Dick) Veterinary School 25/07/14.

- 31/07/14 Talk by Andrew and a stranding volunteers training course on data collection and sampling for volunteers at SAMS.



Figure 43: SAMS Stranding Volunteers training day 31/07/14.

- 14/08/14 Stranding volunteers training course on data collection and sampling for volunteers at Inverness.
- 25/09/2014 a stranding volunteer training day was held at Inverness for staff from SNH and the John Muir Trust.



Figure 44: SNH & John Muir Trust Stranding Volunteers training day 25/09/14.

- 30/09/14 in collaboration with WDC Andrew gave a talk at the Seadrift Centre Dunnet bay on the Stranding scheme to a group of potential volunteers.
- 01/10/14 Andrew and Nick gave a talk to the Orkney Field Club in collaboration with WDC in order to improve reporting of strandings from Orkney
- 31/10/14 Necropsy Demonstration for SMRU marine mammal science master's student
- 18/11/14 Necropsy Demonstration for SAMS Ecosystem- based management of marine systems master's students.



Figure 45: Necropsy Demonstration for SAMS Ecosystem- based management of marine systems master’s students 18/11/14.

12.9 Website and digital media

Facebook and Twitter pages were set up in October 2012. We post regular stranding reports, selected photos and requests for information on strandings on both. The initial feedback has been good and at the end of January 2014 Facebook has over 1800 likes and Twitter has 281 followers. Both have proved a valuable resource for the reporting of strandings to the scheme.

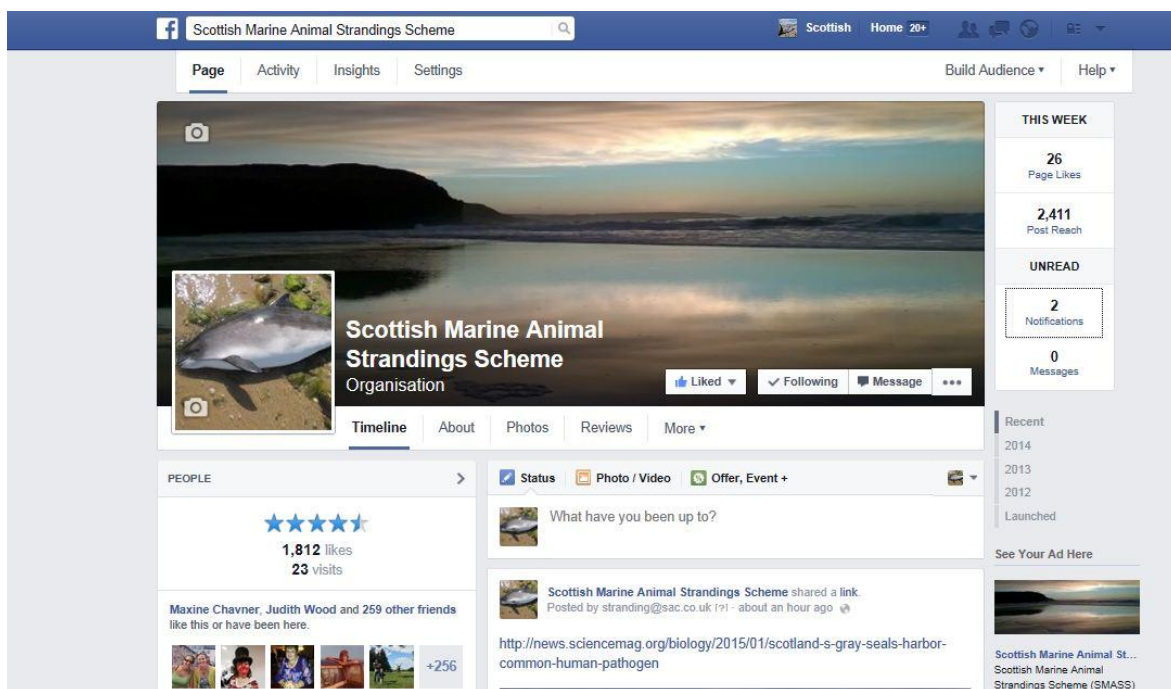


Figure 46: Facebook front page, Jan 2015.

12.10 *Data and sample requests*

These are either part of on-going collaborations or one off requests for data and or samples.

12.10.1 Samples sent

- 20/01/14 Kieran Tierney PhD student at the Scottish Universities Environmental Research Centre (SUERC) & The Scottish Association for Marine Science (SAMS) Muscle samples from west coast animals to test for the Transportation and Bioaccumulation of Sellafield-derived radiocarbon (¹⁴C) in the Marine Environment: Analysing ¹⁴C in Marine Mammals.
- 04/06/14 Sinead Murphy Marie Curie Research Fellow, Institute of Zoology. Common dolphin blubber samples for Cetacean-Stressor project.
- 16/06/14 Chris Riggs Undergraduate summer project University of Aberdeen. Liver samples from harbour porpoise for Mercury levels.
- 27/06/2014 Dr Eva Krupp University of Aberdeen Liver and Kidney from white beaked dolphin for Daguerrotype photo of a cetacean using mercury extracted from the tissues.
- 09/09/2014 Eileen Harris Senior Curator Parasites & Vectors Division Department of Life Sciences Natural History Museum Cromwell Road London Brachycladium goliath fluke for molecular work on digeneans.
- 14/11/14 Frozen Skin Muscle and blubber samples to Jo Kershaw at SMRU for toxicology work.
- 14/11/14 Faeces and urine to Ailsa Hall SMRU for ongoing algal toxin work.
- 20/11/14 frozen tissue samples to Dr Eva Krupp Aberdeen University for toxicology work
- 20/11/14 fixed teeth and gonads to Dr Graham Pierce and Fiona Read Aberdeen University for live history work.
- 04/12/14 Fixed Skin Muscle and blubber samples to Jo Kershaw at SMRU for toxicology work.

12.10.2 Data sent

- 22/01/2014 Silje-Kirsten Jensen "SMRU" Location, species, date and sex of M195/13 M196/13 M198/13
- 25/02/2014 Katie Sculthorpe Herriot-Watt university Porpoise morphometrics 2009-2013
- 25/02/2014 Nienke Van Geel SAMS West coast BND data and photos.

- 24/04/2014 Chiara Giulia Bertulli, PhD student, University of Iceland data on white beaked dolphins from Scotland for project on body colouration patterns in white-beaked dolphins.
- 09/06/2014 Sinead Murphy Marie Curie Research Fellow, Institute of Zoology. Data on the reproductive status on female porpoises from Scotland.
- 08/07/2014 Milaja Nykanen, PhD Candidate School of BEES University College Cork Ireland, data on skin samples of bottlenose dolphin held for potential mitogenome work.
- 20/10/14 data on morphometrics of Northern bottlenose whales M246.1/14 & M246.2/14 and two Sowerby's beaked whales M282.1/14 & M282.2/14. Lucia Martina Martin Lopez SMRU
- 23/10/14 Information on recent leatherback strandings to Callum Duncan Scottish Conservation Manager Marine Conservation Society.
- 17/11/14 Data on entanglement and bycatch cases for ghost gear study to Dr Conor Ryan HWDT.
- 18/11/14 Data on recent porpoise and seal strandings from the west coast for possible future studies on Radiocarbon to Kieran Tierney, Scottish Universities Environmental Research Centre (SUERC) & The Scottish Association for Marine Science (SAMS).
- 03/12/214 data on Turtle stranding to Dr Christopher J. McInerny Reader, College of Medicine Veterinary and Life Sciences Davidson Building University of Glasgow for a chapter in a book on Amphibians and Reptiles of Scotland.
- 04/12/14 data on measurements of bottlenose dolphins from 2011 and 2014 to Research Fellow Lighthouse Field Station University of Aberdeen Cromarty

12.11 *Collaborators*

- Dr Mark Dagleish & Johanna Baily Moredun Research Institute, Pentlands Science Park, Bush Loan, Penicuik, Midlothian, EH26 0PZ, Scotland. Histopathological studies on cetacean tissues from Scottish cetaceans.
- Dr Andrew Kitchener, Royal Museum of Scotland, Edinburgh, Scotland. Recording all marine mammal stranding events in Scotland. Marine mammal skulls and scapulae are sent to Dr Kitchener for marine mammal morphometric studies.
- Joanna Kershaw, SMRU. Harbour porpoise and large cetacean blubber samples.
- Michael Bedington, SAMS. Strandings location details for tidal drift modelling.
- Silje-Kristin Jensen/Ailsa Hall SMRU. Biotoxin screening for levels of domoic acid
- Dr Eva Krupp, Aberdeen University. Metal residue analysis of tissues collected at necropsy

- Dr Barbara Cheney, Aberdeen University. Bottlenose dolphin necropsy details for comparison with photo-id catalogue.
- Dr. Graham Pierce, University of Aberdeen, Oceanlab, Main Street, Newburgh, Aberdeenshire, Scotland, AB41 6AA, UK Collaboration on life history, dietary and toxicological studies of harbour porpoises and other cetaceans stranded in Scotland.
- Prof. Paul Thompson, University of Aberdeen, School of Biological Science, Lighthouse Field Station, George Street, Cromarty, Ross-shire IV11 8YJ. Collaboration on biological and genetic studies of harbour porpoises and bottlenose dolphins.
- Dr. Paolo Cipriani Department of Public Health and Infectious Diseases, Section of Parasitology, Sapienza - University of Rome", P.le Aldo Moro, 5, 00185 Rome – Italy Characterisation of parasites of the genus *Anisakis* from *Physeter macrocephalus* (and other pelagic cetaceans)
- Prof. Christina Fossi university of Siena Via Banchi di Sotto, 55, 4, 53100 Siena SI, Italy Samples sent for comparison of microplastics and pollutants in baleen whales in the Mediterranean and NE Atlantic.
- Roger Ayling, BAC5 Mycoplasma dept, Animal and Plant Health Agency, New Haw, Addlestone, Surrey, KT15 3NB. Identification of *Mycoplasma sp.* isolates from marine mammals
- Lorraine Perrett, BAC3 Brucella Reference Laboratory, Animal and Plant Health Agency, New Haw, Addlestone, Surrey, KT15 3NB. Serological studies to assess exposure to *Brucella spp.* and typing of *Brucella* isolates.
- Dr. Maria Morell, Laboratori d'Aplicacions Bioacústiques. Examination of ear bones using scanning and transmission electron microscopy for indirect quantification of hearing ability in mass stranded pilot whale.
- Erasmus Medical Centre, Rotterdam, the Netherlands – bacteriological culture of samples collected following necropsy of marine mammals.
- James Barnett, CSIP stranding work, SW England– bacteriological culture of samples collected following necropsy of marine mammals. Following the loss of marine mammal bacteriology experience in APHA, SMASS now undertake bacteriology from most strandings necropsied in SW England.
- Scottish Salmonella Reference Laboratory – perform typing of *Salmonella* isolates
- Lesley Hoyles, Department of Food and Nutritional Sciences, University of Reading, Whiteknights, Reading – performs sequencing of bacterial isolates.
- Lilian Lieber University of Aberdeen, Skin & muscle from Basking sharks for DNA analysis.
- Sinead Murphy Marie Curie Research Fellow, Institute of Zoology. Reproductive failure in UK harbour porpoises and common dolphin blubber samples for Cetacean-Stressor project.
- Norbert Van De Velde University of Ghent, Toxoplasma studies.
- Milaja Nykanen, PhD Candidate School of BEES University College Cork Ireland. bottlenose dolphin mitogenome work.
- Dr Conor Ryan HWDT. Ghost gear study.
- Chiara Giulia Bertulli, PhD student, University of Iceland. Project on body colouration patterns in white-beaked dolphins.

- Kieran Tierney, Scottish Universities Environmental Research Centre (SUERC) & the Scottish Association for Marine Science (SAMS). Transportation and Bioaccumulation of Sellafield-derived radiocarbon (¹⁴C) in the Marine Environment: Analysing ¹⁴C in Marine Mammals.
- Rob Harris SMRU, Analysis stomach contents seal management cases.

Section 13: Volunteers

By the end of December 2014 SMASS has a total of 51 trained stranding volunteers with at least one volunteer on North, South, East and West coasts. There are two volunteers on Shetland and Eigg. There are also three volunteers on Mull (all HWDT staff). A number of SAMS students and staff have also been trained providing coverage in the Oban and Argyll areas. We have good coverage in the Forth of the Firth area and around the Aberdeenshire and Tayside coasts this is complimented by staff from SMRU. We have a trained volunteer on Kintyre who has proved invaluable to us by attending and sampling strandings along the entire Kintyre peninsula. There is a trained volunteer in Stornoway who able to cover both Lewis and Harris.

Additionally to the trained volunteers we have a small number of individuals who have for several years been prepared to visit and sample stranded animals. One on Lewis, two on South Uist, one on Islay and one in Angus.

There are still some gaps in the coverage most notably Orkney and the North coast, Skye and the surrounding coast and South Ayrshire and Dumfries and Galloway. We hope to have Orkney covered by running courses in the January or February 2015. Hesselhead Wildlife Rescue Trust is able to recover animals from the Ayrshire coast and we hope to train staff from there in 2015.

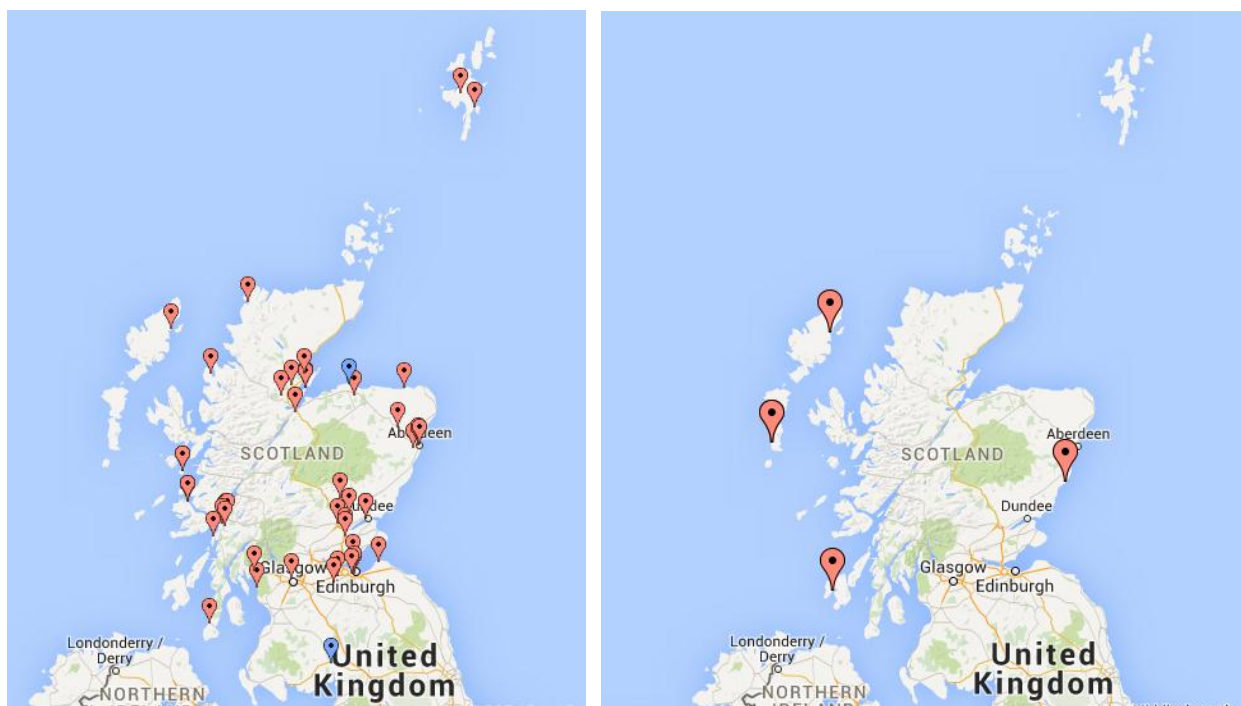


Figure 47: Map of recently stranding volunteers left and original samplers right

Section 14: Staff

SMASS is based at the SRUC Wildlife Unit, Inverness and currently has three members of staff. Andrew Brownlow is the veterinary pathologist and has managed the project since 2009. Nick Davison is the stranding coordinator who joined the team in October 2012. Mariel ten Doeschate joined as a part time marine strandings administration assistant in September replacing Alicia Coupe who filled the same role between June and August. During her time with us she became a much valued member of the team and we wish her well in her future endeavours.

Section 15: Acknowledgments

The successful operation of a strandings project over a coastline the length of Scotland's is only possible with assistance from a large number of individuals and organisations in the identification, recovery, storage and transport of stranded animals. We are immensely grateful to all who helped us out in 2014, however particular thanks are due to the staff and students of the Sea Mammal Research Unit, Karen Hall and the Scottish Natural Heritage team on Shetland, the National Museum of Scotland, the SSPCA, British Divers Marine Life Rescue medics, staff at the CRRU in Gardenstown, Ross Flett, Chris Booth, Jenni Kakkonen, Penny Martin of the Orkney Field club, the Hebridean Whale and Dolphin Trust, Hessilhead Wildlife Rescue Trust and Whale and Dolphin Conservation (WDC).

We are also grateful to all our trained stranding volunteers who have ventured out in all weathers to collect photographs, data and samples from some fairly decomposed animals. Particular thanks to Karl Hurd (BDMLR), Corinne Gordon (BDMLR), Conor Ryan (HWDT), Stewart Burns (BDMLR), Don O'Driscoll, Sue Edwards, and Sorcha Cantwell (BDMLR).

Appendix 1: Strandings 2014

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M01/14	Halichoerus grypus	Grey seal	01/01/2014	East Lothian	U	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M02/14	Pinniped (ind. species)	Seal (ind. species)	01/01/2014	Highland	U	Not Examined: Carcase Not found
Pinniped	M200/14	Pinniped (ind. species)	Seal (ind. species)	01/01/2014	Highland	U	Not Examined: Delay in reporting
Cetacean	M21/14	Globicephala melas	Long-finned pilot whale	02/01/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Pinniped	M05/14	Phoca vitulina	Harbour Seal (Common Seal)	03/01/2014	South Ayrshire	M	Pending
Pinniped	M03/14	Phoca vitulina	Harbour Seal (Common Seal)	04/01/2014	Highland	U	Not Examined: Removed by Tide
Pinniped	M04/14	Phoca vitulina	Harbour Seal (Common Seal)	06/01/2014	Shetland	F	Physical Trauma: Shot
Pinniped	M06/14	Halichoerus grypus	Grey seal	06/01/2014	Shetland	U	Not Examined: Insufficient Data
Pinniped	M07/14	Halichoerus grypus	Grey seal	07/01/2014	Aberdeenshire	M	Not Examined: At Sea
Pinniped	M10/14	Phoca vitulina	Harbour Seal (Common Seal)	07/01/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Pinniped	M08/14	Phoca vitulina	Harbour Seal (Common Seal)	07/01/2014	Orkney	U	Not Examined: Advanced autolysis
Pinniped	M09/14	Phoca vitulina	Harbour Seal (Common Seal)	07/01/2014	Orkney	U	Not Examined: Advanced autolysis
Cetacean	M376/14	Delphinus delphis	Short-beaked common dolphin	10/01/2014	Orkney	U	Not Examined: Delay in Reporting
Cetacean	M12/14	Phocoena phocoena	Harbour porpoise	11/01/2014	Argyll and Bute	U	Not Examined: Morphometrics taken
Cetacean	M11/14	Physeter macrocephalus	Sperm whale	11/01/2014	City of Edinburgh	M	Live Stranding
Pinniped	M13/14	Phoca vitulina	Harbour Seal (Common Seal)	14/01/2014	Moray	U	Not Examined: Morphometrics taken
Cetacean	M14/14	Phocoena phocoena	Harbour porpoise	15/01/2014	Argyll and Bute	U	Not Examined: Morphometrics taken
Pinniped	M15/14	Phoca vitulina	Harbour Seal (Common Seal)	17/01/2014	City of Dundee	U	Not Examined: Morphometrics taken
Cetacean	M16/14	Phocoena phocoena	Harbour porpoise	20/01/2014	Angus	U	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M17/14	Phoca vitulina	Harbour Seal (Common Seal)	21/01/2014	Fife	U	Not Examined: Morphometrics taken
Pinniped	M19.2/14	Halichoerus grypus	Grey seal	22/01/2014	Fife	F	Not Established

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M19.1/14	Halichoerus grypus	Grey seal	22/01/2014	Fife	U	Not Examined: Not priority
Pinniped	M18/14	Phoca vitulina	Harbour Seal (Common Seal)	22/01/2014	South Ayrshire	U	Not Examined: Advanced autolysis
Pinniped	M22/14	Halichoerus grypus	Grey seal	23/01/2014	Dumfries and Galloway	U	Not Examined: Morphometrics taken
Pinniped	M20/14	Halichoerus grypus	Grey seal	23/01/2014	Orkney	U	Not Examined: Insufficient Data
Pinniped	M23/14	Halichoerus grypus	Grey seal	24/01/2014	Fife	M	Not Established
Cetacean	M25/14	Phocoena phocoena	Harbour porpoise	26/01/2014	Highland	M	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M24/14	Phocoena phocoena	Harbour porpoise	26/01/2014	North Ayrshire	U	Not Examined: Removed by Tide
Pinniped	M71/14	Phoca vitulina	Harbour Seal (Common Seal)	30/01/2014	Orkney	U	Not Examined: Morphometrics taken
Pinniped	M72/14	Phoca vitulina	Harbour Seal (Common Seal)	30/01/2014	Orkney	U	Not Examined: Delay in reporting
Pinniped	M73/14	Pinniped (ind. species)	Seal (ind. species)	30/01/2014	Orkney	U	Not Examined: Delay in reporting
Pinniped	M26/14	Phoca vitulina	Harbour Seal (Common Seal)	31/01/2014	Fife	F	Pending
Cetacean	M29/14	Phocoena phocoena	Harbour porpoise	01/02/2014	Angus	F	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M27/14	Phocoena phocoena	Harbour porpoise	02/02/2014	Highland	M	Physical Trauma: Other
Pinniped	M30/14	Halichoerus grypus	Grey seal	02/02/2014	Shetland	U	Not Examined: Advanced autolysis
Cetacean	M28/14	Phocoena phocoena	Harbour porpoise	03/02/2014	Highland	M	Physical Trauma: Bottlenose Dolphin Attack
Cetacean	M31/14	Phocoena phocoena	Harbour porpoise	06/02/2014	Angus	U	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M32/14	Delphinus delphis	Short-beaked common dolphin	06/02/2014	Highland	U	Not Examined: Samples Taken
Pinniped	M37/14	Halichoerus grypus	Grey seal	07/02/2014	Moray	U	Not Examined: Delay in reporting
Cetacean	M33/14	Phocoena phocoena	Harbour porpoise	10/02/2014	Fife	U	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M34/14	Phocoena phocoena	Harbour porpoise	10/02/2014	Fife	U	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M36/14	Delphinus delphis	Short-beaked common dolphin	11/02/2014	Highland	F	Live Stranding
Pinniped	M35/14	Halichoerus grypus	Grey seal	11/02/2014	Highland	U	Not Examined: Carcase Incomplete/Scavenger Damage

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Cetacean	M38.2/14	Phocoena phocoena	Harbour porpoise	16/02/2014	Aberdeenshire	M	Physical Trauma: Bottlenose Dolphin Attack
Cetacean	M38.1/14	Phocoena phocoena	Harbour porpoise	16/02/2014	Aberdeenshire	M	Physical Trauma: Bottlenose Dolphin Attack
Cetacean	M39/14	Phocoena phocoena	Harbour porpoise	16/02/2014	Dumfries and Galloway	U	Not Examined: Removed by Council
Cetacean	M41/14	Globicephala melas	Long-finned pilot whale	16/02/2014	Western Isles	F	Not Examined: Samples Taken
Cetacean	M40/14	Phocoena phocoena	Harbour porpoise	17/02/2014	Angus	M	Physical Trauma: Entanglement
Cetacean	M42/14	Phocoena phocoena	Harbour porpoise	19/02/2014	Highland	M	Not Examined: Morphometrics taken
Cetacean	M43/14	Phocoena phocoena	Harbour porpoise	19/02/2014	Moray	F	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M45/14	Pinniped (ind. species)	Seal (ind. species)	20/02/2014	Argyll and Bute	U	Not Examined: Insufficient Data
Cetacean	M44/14	Phocoena phocoena	Harbour porpoise	20/02/2014	Fife	F	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M49/14	Halichoerus grypus	Grey seal	21/02/2014	Moray	U	Not Examined: Not priority
Pinniped	M46/14	Pinniped (ind. species)	Seal (ind. species)	21/02/2014	South Ayrshire	U	Not Examined: Insufficient Data
Pinniped	M47/14	Halichoerus grypus	Grey seal	23/02/2014	Western Isles	M	Not Examined: Samples Taken
Cetacean	M48/14	Phocoena phocoena	Harbour porpoise	24/02/2014	Argyll and Bute	M	Physical Trauma: Bottlenose Dolphin Attack
Cetacean	M50/14	Phocoena phocoena	Harbour porpoise	28/02/2014	Aberdeenshire	U	Physical Trauma: Bottlenose Dolphin Attack
Cetacean	M51/14	Delphinus delphis	Short-beaked common dolphin	02/03/2014	Western Isles	U	Not Examined: Morphometrics taken
Cetacean	M52/14	Phocoena phocoena	Harbour porpoise	02/03/2014	Western Isles	M	Not Examined: Not priority
Cetacean	M375/14	Delphinus delphis	Short-beaked common dolphin	04/03/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M53/14	Halichoerus grypus	Grey seal	05/03/2014	Shetland	U	Physical Trauma: Shot (known)
Cetacean	M60/14	Lagenorhynchus acutus	Atlantic white-sided dolphin	07/03/2014	Aberdeenshire	M	Not Examined: Samples Taken
Cetacean	M63/14	Globicephala melas	Long-finned pilot whale	08/03/2014	Western Isles	F	Not Examined: Samples Taken
Cetacean	M54/14	Phocoena phocoena	Harbour porpoise	09/03/2014	Argyll and Bute	M	Not Examined: Advanced autolysis
Pinniped	M56.1/14	Pinniped (ind. species)	Seal (ind. species)	09/03/2014	Argyll and Bute	U	Not Examined: Insufficient Data

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Cetacean	M62/14	Phocoena phocoena	Harbour porpoise	09/03/2014	Argyll and Bute	U	Not Examined: Morphometrics taken
Cetacean	M55/14	Phocoena phocoena	Harbour porpoise	09/03/2014	North Ayrshire	M	Physical Trauma: Bycatch
Cetacean	M59/14	Phocoena phocoena	Harbour porpoise	10/03/2014	Aberdeenshire	U	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M56.2/14	Phoca vitulina	Harbour Seal (Common Seal)	10/03/2014	Argyll and Bute	U	Not Examined: Insufficient Data
Cetacean	M58/14	Phocoena phocoena	Harbour porpoise	10/03/2014	Moray	U	Not Examined: Morphometrics taken
Cetacean	M57/14.1	Physeter macrocephalus	Sperm whale	10/03/2014	Shetland	M	Not Examined: Morphometrics taken
Cetacean	M57/14.2	Physeter macrocephalus	Sperm whale	10/03/2014	Shetland	M	Not Examined: Morphometrics taken
Pinniped	M61/14	Phoca vitulina	Harbour Seal (Common Seal)	10/03/2014	Western Isles	U	Not Examined: Advanced autolysis
Cetacean	M64/14	Physeter macrocephalus	Sperm whale	18/03/2014	Highland	M	Not Examined: Advanced autolysis
Pinniped	M65.1/14	Pinniped (ind. species)	Seal (ind. species)	19/03/2014	Dumfries and Galloway	U	Not Examined: Insufficient Data
Pinniped	M65.2/14	Pinniped (ind. species)	Seal (ind. species)	19/03/2014	Dumfries and Galloway	U	Not Examined: Insufficient Data
Pinniped	M66/14	Pinniped (ind. species)	Seal (ind. species)	19/03/2014	Western Isles	U	Not Examined: Carcase Not found
Cetacean	M67/14	Globicephala melas	Long-finned pilot whale	21/03/2014	Western Isles	M	Not Examined: Morphometrics taken
Cetacean	M69/14	Phocoena phocoena	Harbour porpoise	22/03/2014	City of Aberdeen	F	Not Examined: Samples Taken
Cetacean	M70/14	Lagenorhynchus albirostris	White-beaked dolphin	22/03/2014	Highland	F	Pending
Cetacean	M68/14	Phocoena phocoena	Harbour porpoise	22/03/2014	South Ayrshire	F	Live Stranding
Cetacean	M74/14	Phocoena phocoena	Harbour porpoise	23/03/2014	Fife	F	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M77/14	Halichoerus grypus	Grey seal	27/03/2014	Argyll and Bute	U	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M91/14	Phocoena phocoena	Harbour porpoise	27/03/2014	Fife	U	Not Examined: Delay in reporting
Pinniped	M76/14	Phoca vitulina	Harbour Seal (Common Seal)	27/03/2014	Highland	U	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M75.1/14	Lagenorhynchus albirostris	White-beaked dolphin	27/03/2014	Orkney	U	Not Examined: Morphometrics taken

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Cetacean	M75.2/14	Lagenorhynchus albirostris	White-beaked dolphin	27/03/2014	Orkney	U	Not Examined: Morphometrics taken
Cetacean	M75.3/14	Lagenorhynchus albirostris	White-beaked dolphin	27/03/2014	Orkney	U	Not Examined: Morphometrics taken
Cetacean	M80/14	Phocoena phocoena	Harbour porpoise	30/03/2014	Argyll and Bute	U	Not Examined: Morphometrics taken
Cetacean	M79.1/14	Phocoena phocoena	Harbour porpoise	30/03/2014	City of Aberdeen	U	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M79.2/14	Phocoena phocoena	Harbour porpoise	30/03/2014	City of Aberdeen	U	Not Examined: Advanced autolysis
Cetacean	M78/14	Phocoena phocoena	Harbour porpoise	30/03/2014	South Ayrshire	U	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M81/14	Phocoena phocoena	Harbour porpoise	31/03/2014	Argyll and Bute	M	Not Examined: Samples Taken
Cetacean	M82/14	Globicephala melas	Long-finned pilot whale	31/03/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Cetacean	M83/14	Ziphius cavirostris	Cuvier's beaked whale	02/04/2014	Highland	M	Live Stranding
Cetacean	M84/14	Phocoena phocoena	Harbour porpoise	03/04/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Cetacean	M85/14	Phocoena phocoena	Harbour porpoise	03/04/2014	City of Edinburgh	M	Not Examined: Samples Taken
Pinniped	M86/14	Phoca vitulina	Harbour Seal (Common Seal)	04/04/2014	South Ayrshire	U	Not Examined: Morphometrics taken
Cetacean	M87/14	Phocoena phocoena	Harbour porpoise	06/04/2014	Argyll and Bute	F	Not Examined: Samples Taken
Cetacean	M92/14	Phocoena phocoena	Harbour porpoise	07/04/2014	Dumfries and Galloway	U	Not Examined: Advanced autolysis
Pinniped	M88/14	Pinniped (ind. species)	Seal (ind. species)	07/04/2014	Highland	U	Not Examined: Insufficient Data
Pinniped	M89/14	Phoca vitulina	Harbour Seal (Common Seal)	07/04/2014	Highland	U	Not Examined: Advanced autolysis
Cetacean	M90/14	Phocoena phocoena	Harbour porpoise	08/04/2014	Falkirk	F	Not Examined: Samples Taken
Cetacean	M93/14	Delphinus delphis	Short-beaked common dolphin	13/04/2014	Argyll and Bute	U	Not Examined: Carcase Unrecoverable
Pinniped	M97/14	Halichoerus grypus	Grey seal	14/04/2014	Aberdeenshire	U	Not Examined: Removed by Tide
Cetacean	M94/14	Globicephala melas	Long-finned pilot whale	14/04/2014	Highland	M	Not Examined: Morphometrics taken
Cetacean	M95/14	Phocoena phocoena	Harbour porpoise	15/04/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Cetacean	M96/14	Globicephala melas	Long-finned pilot whale	16/04/2014	Western Isles	U	Not Examined: Morphometrics taken

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Cetacean	M99/14	Odontocete (ind. species)	Dolphin (ind. species)	18/04/2014	Argyll and Bute	U	Not Examined: At Sea
Cetacean	M98/14	Cetacean (ind. species)	Cetacean (ind. species)	18/04/2014	Falkirk	U	Not Examined: Insufficient Data
Pinniped	M105/14	Halichoerus grypus	Grey seal	20/04/2014	Aberdeenshire	U	Not Examined: At Sea
Cetacean	M102/14	Phocoena phocoena	Harbour porpoise	22/04/2014	City of Edinburgh	U	Not Examined: Advanced autolysis
Cetacean	M100/14	Phocoena phocoena	Harbour porpoise	22/04/2014	Fife	U	Not Examined: Advanced autolysis
Pinniped	M101.1/14	Pinniped (ind. species)	Seal (ind. species)	22/04/2014	South Ayrshire	U	Not Examined: Insufficient Data
Pinniped	M101.2/14	Pinniped (ind. species)	Seal (ind. species)	22/04/2014	South Ayrshire	U	Not Examined: Insufficient Data
Pinniped	M104/14	Halichoerus grypus	Grey seal	25/04/2014	East Lothian	U	Not Examined: Morphometrics taken
Pinniped	M106/14	Phoca vitulina	Harbour Seal (Common Seal)	27/04/2014	North Ayrshire	U	Not Examined: Morphometrics taken
Cetacean	M103/14	Phocoena phocoena	Harbour porpoise	27/04/2014	West Lothian	M	Not Examined: Samples Taken
Cetacean	M107/14	Globicephala melas	Long-finned pilot whale	30/04/2014	Western Isles	U	Not Examined: Morphometrics taken
Pinniped	M111/14	Halichoerus grypus	Grey seal	02/05/2014	North Ayrshire	U	Not Examined: Insufficient Data
Pinniped	M112/14	Pinniped (ind. species)	Seal (ind. species)	02/05/2014	North Ayrshire	U	Not Examined: Insufficient Data
Pinniped	M113/14	Pinniped (ind. species)	Seal (ind. species)	02/05/2014	North Ayrshire	U	Not Examined: Insufficient Data
Pinniped	M108/14	Halichoerus grypus	Grey seal	03/05/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Cetacean	M110/14	Delphinapterus leucas	Beluga whale	05/05/2014	Angus	U	Not Examined: Samples Taken
Cetacean	M109/14	Phocoena phocoena	Harbour porpoise	05/05/2014	Moray	F	Not Examined: Samples Taken
Cetacean	M114/14	Cetacean (ind. species)	Cetacean (ind. species)	12/05/2014	Aberdeenshire	U	Not Examined: Morphometrics taken
Marine Turtle	M196/14	Dermochelys coriacea	Leatherback turtle	12/05/2014	Highland	U	Not Examined: Advanced autolysis
Cetacean	M115/14	Phocoena phocoena	Harbour porpoise	12/05/2014	Shetland	U	Not Examined: Advanced autolysis
Cetacean	M116/14	Phocoena phocoena	Harbour porpoise	12/05/2014	Shetland	U	Not Examined: Advanced autolysis
Pinniped	M118/14	Phoca vitulina	Harbour Seal (Common Seal)	16/05/2014	North Ayrshire	U	Not Examined: Advanced autolysis

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M119/14	Pinniped (ind. species)	Seal (ind. species)	16/05/2014	North Ayrshire	U	Not Examined: Insufficient Data
Cetacean	M117/14	Balaenoptera acutorostrata	Minke whale	16/05/2014	Western Isles	M	Live Stranding
Cetacean	M120/14	Cetacean (ind. species)	Dolphin (ind. species)	18/05/2014	Western Isles	U	Not Examined: Morphometrics taken
Cetacean	M121/14	Globicephala melas	Long-finned pilot whale	18/05/2014	Western Isles	F	Not Examined: Morphometrics taken
Cetacean	M122/14	Balaenoptera acutorostrata	Minke whale	20/05/2014	Argyll and Bute	F	Not Examined: Samples Taken
Pinniped	M123/14	Pinniped (ind. species)	Seal (ind. species)	21/05/2014	City of Dundee	U	Not Examined: Advanced autolysis
Pinniped	M124/14	Halichoerus grypus	Grey seal	25/05/2014	City of Aberdeen	U	Not Examined: Advanced autolysis
Cetacean	M125/14	Phocoena phocoena	Harbour porpoise	25/05/2014	Fife	U	Not Examined: Samples Taken
Pinniped	M126/14	Pinniped (ind. species)	Seal (ind. species)	25/05/2014	Highland	U	Not Examined: Insufficient Data
Pinniped	M128/14	Halichoerus grypus	Grey seal	27/05/2014	Fife	F	Physical Trauma: Possible spiral "Corkscrew" lesions
Pinniped	M127/14	Halichoerus grypus	Grey seal	27/05/2014	Orkney	U	Not Examined: Morphometrics taken
Pinniped	M129/14	Halichoerus grypus	Grey seal	28/05/2014	Angus	U	Not Examined: Advanced autolysis
Pinniped	M130/14	Pinniped (ind. species)	Seal (ind. species)	30/05/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Pinniped	M135/14	Pinniped (ind. species)	Seal (ind. species)	30/05/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Cetacean	M131/14	Lagenorhynchus albirostris	White-beaked dolphin	02/06/2014	Western Isles	F	Live Stranding
Cetacean	M133/14	Phocoena phocoena	Harbour porpoise	04/06/2014	Highland	M	Not Examined: Samples Taken
Cetacean	M134/14	Phocoena phocoena	Harbour porpoise	04/06/2014	West Dunbartonshire	F	Dystocia/Stillborn
Cetacean	M132/14	Phocoena phocoena	Harbour porpoise	05/06/2014	Highland	U	Not Examined: Morphometrics taken
Pinniped	M136/14	Halichoerus grypus	Grey seal	07/06/2014	Western Isles	U	Not Examined: Morphometrics taken
Cetacean	M137/14	Cetacean (ind. species)	Cetacean (ind. species)	09/06/2014	Highland	U	Not Examined: Morphometrics taken
Cetacean	M138/14	Phocoena phocoena	Harbour porpoise	10/06/2014	Highland	U	Not Examined: Advanced autolysis

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Cetacean	M139/14	Phocoena phocoena	Harbour porpoise	11/06/2014	Argyll and Bute	M	Not Examined: Samples Taken
Pinniped	M140/14	Halichoerus grypus	Grey seal	12/06/2014	Highland	F	Physical Trauma: Shot (known)
Cetacean	M141/14	Phocoena phocoena	Harbour porpoise	13/06/2014	Aberdeenshire	M	Not Examined: Morphometrics taken
Cetacean	M143/14	Cetacean (ind. species)	Cetacean (ind. species)	15/06/2014	Highland	U	Not Examined: Morphometrics taken
Cetacean	M142/14	Phocoena phocoena	Harbour porpoise	15/06/2014	Western Isles	U	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M146/14	Lagenorhynchus albirostris	White-beaked dolphin	16/06/2014	Highland	M	Pneumonia: Bacterial
Pinniped	M145/14	Pinniped (ind. species)	Seal (ind. species)	16/06/2014	South Ayrshire	U	Not Examined: Advanced autolysis
Cetacean	M147/14	Phocoena phocoena	Harbour porpoise	16/06/2014	Western Isles	M	Others: Genralised debilitaion
Cetacean	M144/14	Lagenorhynchus acutus	Atlantic white-sided dolphin	16/06/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M148/14	Phoca vitulina	Harbour Seal (Common Seal)	17/06/2014	Highland	F	Not Examined: Advanced autolysis
Cetacean	M149/14	Phocoena phocoena	Harbour porpoise	17/06/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M154/14	Halichoerus grypus	Grey seal	19/06/2014	Western Isles	U	Not Examined: Morphometrics taken
Cetacean	M167/14	Globicephala melas	Long-finned pilot whale	19/06/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M152/14	Halichoerus grypus	Grey seal	20/06/2014	Fife	F	Not Examined: Advanced autolysis
Pinniped	M153/14	Phoca vitulina	Harbour Seal (Common Seal)	20/06/2014	Highland	U	Not Examined: Carcase unrecoverable
Cetacean	M150/14	Phocoena phocoena	Harbour porpoise	20/06/2014	Highland	M	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M151/14	Lagenorhynchus acutus	Atlantic white-sided dolphin	20/06/2014	Western Isles	F	Not Examined: Samples Taken
Cetacean	M155/14	Phocoena phocoena	Harbour porpoise	21/06/2014	Western Isles	U	Not Examined: Morphometrics taken
Pinniped	M156/14	Halichoerus grypus	Grey seal	23/06/2014	City of Dundee	F	Not Examined: Samples Taken
Cetacean	M158/14	Phocoena phocoena	Harbour porpoise	24/06/2014	Highland	F	Physical Trauma: Bottlenose Dolphin Attack
Cetacean	M157/14	Phocoena phocoena	Harbour porpoise	24/06/2014	South Ayrshire	F	Other
Cetacean	M159/14	Megaptera novaeangliae	Humpback whale	25/06/2014	Argyll and Bute	M	Physical Trauma: Entanglement

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M182/14	Phoca vitulina	Harbour Seal (Common Seal)	27/06/2014	Highland	U	Physical Trauma: Spiral "Corkscrew" lesions
Pinniped	M163/14	Pinniped (ind. species)	Seal (ind. species)	28/06/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Pinniped	M160/14	Pinniped (ind. species)	Seal (ind. species)	29/06/2014	Fife	U	Not Examined: Advanced autolysis
Pinniped	M162/14	Halichoerus grypus	Grey seal	29/06/2014	Fife	F	Not Examined: Advanced autolysis
Pinniped	M164/14	Pinniped (ind. species)	Seal (ind. species)	29/06/2014	Highland	U	Not Examined: Insufficient Data
Cetacean	M175/14	Phocoena phocoena	Harbour porpoise	30/06/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Pinniped	M165/14	Pinniped (ind. species)	Seal (ind. species)	30/06/2014	Highland	U	Not Examined: Advanced autolysis
Pinniped	M166/14	Pinniped (ind. species)	Seal (ind. species)	30/06/2014	Highland	U	Not Examined: Advanced autolysis
Cetacean	M161/14	Cetacean (ind. species)	Cetacean (ind. species)	30/06/2014	Scottish Borders	U	Not Examined: Insufficient Data
Pinniped	M170/14	Halichoerus grypus	Grey seal	01/07/2014	Angus	F	Physical Trauma: Shot
Pinniped	M168/14	Pinniped (ind. species)	Seal (ind. species)	01/07/2014	Highland	U	Not Examined: Insufficient Data
Cetacean	M169/14	Phocoena phocoena	Harbour porpoise	01/07/2014	Highland	U	Not Examined: Advanced autolysis
Pinniped	M171/14	Pinniped (ind. species)	Seal (ind. species)	02/07/2014	East Lothian	U	Not Examined: Insufficient Data
Pinniped	M172/14	Pinniped (ind. species)	Seal (ind. species)	02/07/2014	Fife	U	Not Examined: Morphometrics taken
Pinniped	M174/14	Phoca vitulina	Harbour Seal (Common Seal)	03/07/2014	Highland	U	Not Examined: taken to rehab
Cetacean	M173/14	Phocoena phocoena	Harbour porpoise	03/07/2014	South Ayrshire	U	Not Examined: Not priority
Pinniped	M176/14	Halichoerus grypus	Grey seal	04/07/2014	Highland	U	Not Examined: Removed by Tide
Pinniped	M177/14	Halichoerus grypus	Grey seal	05/07/2014	Aberdeenshire	F	Not Examined: Not priority
Pinniped	M178/14	Phoca vitulina	Harbour Seal (Common Seal)	05/07/2014	Highland	U	Not Examined: Not priority
Pinniped	M179/14	Pinniped (ind. species)	Seal (ind. species)	08/07/2014	Angus	U	Not Examined: Advanced autolysis
Pinniped	M180/14	Halichoerus grypus	Grey seal	08/07/2014	Fife	M	Physical Trauma: Possible spiral "Corkscrew" lesions

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M214/14	Halichoerus grypus	Grey seal	08/07/2014	Shetland	U	Not Examined: Advanced autolysis
Cetacean	M181/14	Cetacean (ind. species)	Cetacean (ind. species)	09/07/2014	Aberdeenshire	U	Not Examined: Insufficient Data
Pinniped	M183/14	Pinniped (ind. species)	Seal (ind. species)	10/07/2014	Highland	U	Not Examined: Insufficient Data
Pinniped	M184/14	Pinniped (ind. species)	Seal (ind. species)	10/07/2014	Highland	U	Not Examined: Insufficient Data
Pinniped	M187/14	Halichoerus grypus	Grey seal	12/07/2014	Fife	F	Physical Trauma: Spiral "Corkscrew" lesions
Pinniped	M185/14	Phoca vitulina	Harbour Seal (Common Seal)	13/07/2014	Highland	F	Physical Trauma: Possible spiral "Corkscrew" lesions
Pinniped	M186/14	Phoca vitulina	Harbour Seal (Common Seal)	15/07/2014	Angus	M	Physical Trauma: Spiral "Corkscrew" lesions
Cetacean	M189/14	Phocoena phocoena	Harbour porpoise	17/07/2014	Argyll and Bute	U	Not Examined: Not priority
Cetacean	M190/14	Phocoena phocoena	Harbour porpoise	17/07/2014	Argyll and Bute	U	Not Examined: Not priority
Pinniped	M188/14	Pinniped (ind. species)	Seal (ind. species)	17/07/2014	Highland	U	Not Examined: Removed by Council
Pinniped	M192/14	Pinniped (ind. species)	Seal (ind. species)	19/07/2014	Highland	U	Not Examined: Insufficient Data
Cetacean	M191/14	Phocoena phocoena	Harbour porpoise	20/07/2014	North Ayrshire	U	Maternal separation/starvation
Cetacean	M193/14	Tursiops truncatus	Bottlenose dolphin	21/07/2014	Moray	F	Generalised chronic debilitation
Cetacean	M194/14	Stenella coeruleoalba	Striped dolphin	22/07/2014	Argyll and Bute	F	Not Examined: Samples Taken
Pinniped	M195/14	Halichoerus grypus	Grey seal	23/07/2014	Fife	U	Not Examined: Advanced autolysis
Pinniped	M197/14	Pinniped (ind. species)	Seal (ind. species)	23/07/2014	Highland	U	Not Examined: Advanced autolysis
Pinniped	M198/14	Pinniped (ind. species)	Seal (ind. species)	23/07/2014	Highland	U	Not Examined: Advanced autolysis
Cetacean	M201/14.1	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	M	Live Stranding
Cetacean	M201/14.10	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M201/14.11	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Cetacean	M201/14.12	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M201/14.13	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M201/14.14	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M201/14.2	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	M	Live Stranding
Cetacean	M201/14.3	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M201/14.4	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M201/14.5	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M201/14.6	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M201/14.7	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M201/14.8	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M201/14.9	Delphinus delphis	Short-beaked common dolphin	24/07/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Cetacean	M199/14	Cetacean (ind. species)	Dolphin (ind. species)	24/07/2014	Western Isles	U	Not Examined: Removed by Tide
Cetacean	M202/14	Orcinus orca	Killer whale	28/07/2014	Western Isles	M	Pending
Pinniped	M203/14	Halichoerus grypus	Grey seal	29/07/2014	Highland	U	Not Examined: Removed by Council
Pinniped	M213/14	Phoca vitulina	Harbour Seal (Common Seal)	29/07/2014	Highland	U	Not Examined: Advanced autolysis
Cetacean	M244/14	Ziphius cavirostris	Cuvier's beaked whale	29/07/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M204/14	Halichoerus grypus	Grey seal	30/07/2014	Fife	F	Not Examined: Not priority
Pinniped	M239/14	Phoca vitulina	Harbour Seal (Common Seal)	31/07/2014	Argyll and Bute	U	Not Examined: Delay in Reporting
Cetacean	M205/14	Delphinus delphis	Short-beaked common dolphin	31/07/2014	Western Isles	F	Infectious Disease: Meningoencephalitis
Cetacean	M208/14	Globicephala melas	Long-finned pilot whale	01/08/2014	Argyll and Bute	M	Not Examined: Samples Taken
Pinniped	M211/14	Phoca vitulina	Harbour Seal (Common Seal)	01/08/2014	Argyll and Bute	M	Not Examined: Samples Taken

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Cetacean	M206/14	Lagenorhynchus albirostris	White-beaked dolphin	02/08/2014	Highland	U	Infectious Disease: Pnuemonia parasitic
Pinniped	M231/14	Pinniped (ind. species)	Seal (ind. species)	02/08/2014	Highland	U	Not Examined: Advanced autolysis
Cetacean	M207/14	Phocoena phocoena	Harbour porpoise	04/08/2014	Fife	U	Not Examined: Advanced autolysis
Pinniped	M212/14	Phoca vitulina	Harbour Seal (Common Seal)	04/08/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M210/14	Halichoerus grypus	Grey seal	05/08/2014	Highland	F	Not Examined: Insufficient Data
Cetacean	M209/14	Balaenoptera acutorostrata	Minke whale	05/08/2014	Shetland	U	Not Examined: Samples Taken
Cetacean	M215/14	Phocoena phocoena	Harbour porpoise	08/08/2014	Grampian	U	Not Examined: Removed by Tide
Pinniped	M238/14	Phoca vitulina	Harbour Seal (Common Seal)	10/08/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Pinniped	M217/14	Pinniped (ind. species)	Seal (ind. species)	11/08/2014	Aberdeenshire	U	Not Examined: Insufficient Data
Pinniped	M219/14	Phoca vitulina	Harbour Seal (Common Seal)	11/08/2014	Argyll and Bute	U	Not Examined: Insufficient Data
Pinniped	M216/14	Halichoerus grypus	Grey seal	11/08/2014	Moray	U	Not Examined: Carcase Unrecoverable
Cetacean	M218/14	Phocoena phocoena	Harbour porpoise	11/08/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M222/14	Phoca vitulina	Harbour Seal (Common Seal)	13/08/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Pinniped	M220/14	Pinniped (ind. species)	Seal (ind. species)	13/08/2014	Scottish Borders		Not Examined: Insufficient Data
Pinniped	M221/14	Halichoerus grypus	Grey seal	14/08/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Pinniped	M226/14	Phoca vitulina	Harbour Seal (Common Seal)	14/08/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Cetacean	M227/14	Phocoena phocoena	Harbour porpoise	14/08/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Pinniped	M225/14	Phoca vitulina	Harbour Seal (Common Seal)	15/08/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Pinniped	M224/14	Phoca vitulina	Harbour Seal (Common Seal)	15/08/2014	City of Aberdeen	U	Not Examined: Removed by Tide
Pinniped	M223/14	Phoca vitulina	Harbour Seal (Common Seal)	15/08/2014	South Ayrshire	U	Not Examined: Advanced autolysis
Pinniped	M230/14	Phoca vitulina	Harbour Seal (Common Seal)	16/08/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Cetacean	M232/14	Balaenoptera acutorostrata	Minke whale	16/08/2014	Highland	U	Not Examined: Advanced autolysis

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M233/14	Pinniped (ind. species)	Seal (ind. species)	16/08/2014	Moray	U	Not Examined: Advanced autolysis
Cetacean	M228/14	Phocoena phocoena	Harbour porpoise	17/08/2014	Western Isles	U	Live Stranding: Successful Refloat
Cetacean	M236/14	Balaenoptera acutorostrata	Minke whale	18/08/2014	Shetland	F	Physical Trauma: Entanglement (known)
Pinniped	M229/14	Pinniped (ind. species)	Seal (ind. species)	18/08/2014	Western Isles	U	Not Examined: Advanced autolysis
Cetacean	M235/14	Phocoena phocoena	Harbour porpoise	19/08/2014	East Lothian	U	Not Examined: Carcase Not Found
Pinniped	M234/14	Halichoerus grypus	Grey seal	19/08/2014	Highland	U	Not Examined: Advanced autolysis
Cetacean	M240/14	Phocoena phocoena	Harbour porpoise	20/08/2014	Argyll and Bute	F	Not Examined: Samples Taken
Cetacean	M237/14	Phocoena phocoena	Harbour porpoise	20/08/2014	North Ayrshire	M	Not Examined: Samples Taken
Cetacean	M242/14	Balaenoptera acutorostrata	Minke whale	21/08/2014	Argyll and Bute	F	Not Examined: Advanced autolysis
Pinniped	M241/14	Pinniped (ind. species)	Seal (ind. species)	21/08/2014	Western Isles	U	Not Examined: Advanced autolysis
Cetacean	M243/14	Physeter macrocephalus	Sperm whale	25/08/2014	Western Isles	M	Not Examined: Advanced autolysis
Pinniped	M245/14	Halichoerus grypus	Grey seal	28/08/2014	Aberdeenshire	M	Not Examined: Samples Taken
Cetacean	M246.1/14	Hyperoodon ampullatus	Northern bottlenose whale	29/08/2014	Highland	F	Not Established
Cetacean	M246.2/14	Hyperoodon ampullatus	Northern bottlenose whale	29/08/2014	Highland	U	Live Stranding
Pinniped	M247/14	Halichoerus grypus	Grey seal	31/08/2014	Aberdeenshire	F	Not Examined: Samples Taken
Pinniped	M248/14	Pinniped (ind. species)	Seal (ind. species)	01/09/2014	South Ayrshire	U	Not Examined: Carcase Not Found
Pinniped	M250/14	Halichoerus grypus	Grey seal	05/09/2014	Aberdeenshire	F	Not Examined: Carcase Incomplete/Scavenger damage
Pinniped	M249/14	Phoca vitulina	Harbour Seal (Common Seal)	05/09/2014	Highland	U	Physical Trauma: Spiral "Corkscrew" lesions
Cetacean	M251/14	Balaenoptera acutorostrata	Minke whale	07/09/2014	Aberdeenshire	F	Live Stranding
Cetacean	M254/14	Lagenorhynchus albirostris	White-beaked dolphin	07/09/2014	Aberdeenshire	U	Not Examined: Carcase Not Found
Pinniped	M252/14	Pinniped (ind. species)	Seal (ind. species)	08/09/2014	Highland	U	Not Examined: Advanced autolysis

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
		species)					
Pinniped	M253/14	<i>Phoca vitulina</i>	Harbour Seal (Common Seal)	09/09/2014	Angus	U	Not Examined: Advanced autolysis
Pinniped	M255/14	Pinniped (ind. species)	Seal (ind. species)	09/09/2014	Moray	U	Not Examined: Insufficient Data
Pinniped	M258/14	<i>Halichoerus grypus</i>	Grey seal	10/09/2014	Aberdeenshire	U	Not Examined: Carcase Incomplete/Scavenger damage
Pinniped	M256/14	Pinniped (ind. species)	Seal (ind. species)	10/09/2014	Highland	U	Not Examined: Advanced autolysis
Pinniped	M257/14	Pinniped (ind. species)	Seal (ind. species)	10/09/2014	Highland	U	Not Examined: Removed by Council
Cetacean	M259/14	<i>Delphinus delphis</i>	Short-beaked common dolphin	10/09/2014	Highland	U	Not Examined: At Sea
Cetacean	M260/14	<i>Delphinus delphis</i>	Short-beaked common dolphin	13/09/2014	Western Isles	U	Live Stranding: Successful Refloat
Cetacean	M262/14	<i>Tursiops truncatus</i>	Bottlenose dolphin	15/09/2014	Angus	M	Not Established
Pinniped	M261/14	Pinniped (ind. species)	Seal (ind. species)	15/09/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Cetacean	M286/14	<i>Grampus griseus</i>	Risso's dolphin	15/09/2014	Orkney	U	Not Examined: Advanced autolysis
Cetacean	M263/14	Cetacean (ind. species)	Cetacean (ind. species)	16/09/2014	Highland	U	Not Examined: At Sea
Cetacean	M265/14	Cetacean (ind. species)	Cetacean (ind. species)	16/09/2014	Highland	U	Not Examined: Removed by Tide
Cetacean	M264/14	<i>Phocoena phocoena</i>	Harbour porpoise	17/09/2014	Fife	U	Not Examined: Advanced autolysis
Pinniped	M266/14	<i>Halichoerus grypus</i>	Grey seal	17/09/2014	Highland	U	Not Examined: Not Priority
Cetacean	M267/14	<i>Lagenorhynchus acutus</i>	Atlantic white-sided dolphin	17/09/2014	Shetland	U	Live Stranding: Successful Refloat
Cetacean	M268/14	<i>Phocoena phocoena</i>	Harbour porpoise	19/09/2014	Argyll and Bute	F	Not Examined: Samples Taken
Pinniped	M269/14	Pinniped (ind. species)	Seal (ind. species)	19/09/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M270/14	<i>Halichoerus grypus</i>	Grey seal	21/09/2014	Fife	U	Not Examined: Removed by Tide
Pinniped	M271/14	<i>Halichoerus grypus</i>	Grey seal	22/09/2014	City of Dundee	M	Pending
Pinniped	M272/14	<i>Halichoerus grypus</i>	Grey seal	22/09/2014	Grampian	F	Not Examined: Samples Taken
Pinniped	M273/14	Pinniped (ind. species)	Seal (ind. species)	23/09/2014	Grampian	U	Not Examined: Advanced autolysis

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
		species)					
Pinniped	M274/14	Phoca vitulina	Harbour Seal (Common Seal)	23/09/2014	Western Isles	U	Not Examined: Advanced autolysis
Cetacean	M275/14	Phocoena phocoena	Harbour porpoise	24/09/2014	Western Isles	F	Not Examined: Advanced autolysis
Cetacean	M276/14	Globicephala melas	Long-finned pilot whale	25/09/2014	Shetland	F	Live Stranding: Successful Refloat
Pinniped	M277/14	Phoca vitulina	Harbour Seal (Common Seal)	25/09/2014	Shetland	U	Not Examined: Carcase Incomplete/Scavenger damage
Cetacean	M278.2/14	Lagenorhynchus albirostris	White-beaked dolphin	26/09/2014	Highland	F	Live Stranding
Cetacean	M278.1/14	Lagenorhynchus albirostris	White-beaked dolphin	26/09/2014	Highland	U	Live Stranding: Successful Refloat
Pinniped	M281/14	Halichoerus grypus	Grey seal	27/09/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Cetacean	M279/14	Phocoena phocoena	Harbour porpoise	27/09/2014	Highland	F	Not Examined: Samples Taken
Pinniped	M280/14	Halichoerus grypus	Grey seal	27/09/2014	Highland	F	Not Examined: Carcase Incomplete/Scavenger damage
Pinniped	M290/14	Halichoerus grypus	Grey seal	28/09/2014	Western Isles	U	Not Examined: Advanced autolysis
Cetacean	M282.1/14	Mesoplodon bidens	Sowerby's beaked whale	30/09/2014	Highland	F	Live Stranding
Cetacean	M282.2/14	Mesoplodon bidens	Sowerby's beaked whale	30/09/2014	Highland	M	Live Stranding
Cetacean	M283/14	Globicephala melas	Long-finned pilot whale	01/10/2014	Strathclyde	M	Live Stranding
Cetacean	M284/14	Phocoena phocoena	Harbour porpoise	02/10/2014	Dumfries and Galloway	U	Not Examined: Not Priority
Cetacean	M292/14	Cetacean (ind. species)	Cetacean (ind. species)	02/10/2014	Western Isles	U	Not Examined: Carcase Incomplete/Scavenger damage
Cetacean	M291/14	Grampus griseus	Risso's dolphin	03/10/2014	Shetland	F	Generalised Bacterial Infection
Pinniped	M287/14	Pinniped (ind. species)	Seal (ind. species)	04/10/2014	Aberdeenshire	U	Not Examined: Insufficient Data
Marine Turtle	M288/14	Dermochelys coriacea	Leatherback turtle	04/10/2014	Highland	U	Not Examined: Advanced autolysis
Pinniped	M289/14	Phoca vitulina	Harbour Seal (Common Seal)	06/10/2014	East Lothian	U	Not Examined: Advanced autolysis
Pinniped	M294/14	Pinniped (ind. species)	Seal (ind. species)	06/10/2014	Fife	U	Not Examined: Insufficient Data

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M295/14	Pinniped (ind. species)	Seal (ind. species)	06/10/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M293/14	Phoca vitulina	Harbour Seal (Common Seal)	06/10/2014	Orkney	U	Not Examined: Carcase Not Found
Cetacean	M298/14	Delphinus delphis	Short-beaked common dolphin	07/10/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Cetacean	M297/14	Balaenoptera acutorostrata	Minke whale	07/10/2014	Fife	M	Generalised chronic debilitation
Pinniped	M296/14	Pinniped (ind. species)	Seal (ind. species)	07/10/2014	North Ayrshire	U	Not Examined: Advanced autolysis
Cetacean	M301/14	Balaenoptera acutorostrata	Minke whale	08/10/2014	Argyll and Bute	U	Not Examined: Samples Taken
Pinniped	M299/14	Pinniped (ind. species)	Seal (ind. species)	08/10/2014	Highland	U	Not Examined: Advanced autolysis
Marine Turtle	M300/14	Dermochelys coriacea	Leatherback turtle	08/10/2014	Highland	U	Physical Trauma: Entanglement (known)
Pinniped	M302/14	Halichoerus grypus	Grey seal	10/10/2014	City of Aberdeen	U	Not Examined: Advanced autolysis
Marine Turtle	M305/14	Dermochelys coriacea	Leatherback turtle	11/10/2014	Argyll and Bute	U	Not Examined: At Sea
Cetacean	M304/14	Balaenoptera acutorostrata	Minke whale	11/10/2014	Highland	M	Not Examined: Morphometrics taken
Cetacean	M303/14	Lagenorhynchus albirostris	White-beaked dolphin	11/10/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M313/14	Halichoerus grypus	Grey seal	12/10/2014	Aberdeenshire	U	Not Examined: Insufficient Data
Pinniped	M306/14	Halichoerus grypus	Grey seal	12/10/2014	Western Isles	U	Not Examined: Not Priority
Cetacean	M369/14	Balaenoptera acutorostrata	Minke whale	12/10/2014	Western Isles	U	Not Examined: At Sea
Cetacean	M309/14	Lagenorhynchus albirostris	White-beaked dolphin	15/10/2014	Angus	M	Live Stranding
Cetacean	M307/14	Phocoena phocoena	Harbour porpoise	15/10/2014	East Lothian	M	Physical Trauma: Bottlenose Dolphin Attack
Cetacean	M308/14	Phocoena phocoena	Harbour porpoise	15/10/2014	Western Isles	U	Not Examined: Insufficient Data
Cetacean	M477/14	Delphinus delphis	Short-beaked common dolphin	20/10/2014	Orkney	U	Live Stranding: Successful Refloat
Pinniped	M310/14	Phoca vitulina	Harbour Seal (Common Seal)	21/10/2014	Fife	M	Physical Trauma: Possible spiral "Corkscrew" lesions
Cetacean	M312/14	Phocoena phocoena	Harbour porpoise	21/10/2014	Fife	U	Not Examined: Advanced autolysis

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M314/14	Pinniped (ind. species)	Seal (ind. species)	22/10/2014	Dumfries and Galloway	U	Physical Trauma: Possible spiral "Corkscrew" lesions
Marine Turtle	M311/14	Dermochelys coriacea	Leatherback turtle	23/10/2014	East Lothian	U	Physical Trauma: Entanglement (known)
Pinniped	M320/14	Cystophora cristata	Hooded seal	25/10/2014	Dumfries and Galloway	U	Physical Trauma: Possible spiral "Corkscrew" lesions
Cetacean	M316/14	Globicephala melas	Long-finned pilot whale	25/10/2014	Highland	M	Live Stranding
Pinniped	M315/14	Pinniped (ind. species)	Seal (ind. species)	26/10/2014	City of Aberdeen	U	Not Examined: Carcase Incomplete/Scavenger damage
Pinniped	M317/14	Halichoerus grypus	Grey seal	27/10/2014	Highland	U	Not Examined: Removed by Council
Pinniped	M318/14	Pinniped (ind. species)	Seal (ind. species)	27/10/2014	Highland	U	Not Examined: Removed by Council
Cetacean	M319/14	Phocoena phocoena	Harbour porpoise	27/10/2014	Highland	M	Generalised chronic debilitation
Pinniped	M325/14	Pinniped (ind. species)	Seal (ind. species)	27/10/2014	Highland	U	Not Examined: Insufficient Data
Pinniped	M322/14	Halichoerus grypus	Grey seal	28/10/2014	Argyll and Bute	U	Not Examined: Insufficient Data
Cetacean	M321/14	Delphinus delphis	Short-beaked common dolphin	29/10/2014	Orkney	U	Not Examined: Advanced autolysis
Cetacean	M330/14	Stenella coeruleoalba	Striped dolphin	02/11/2014	Argyll and Bute	U	Live Stranding: Successful Refloat
Pinniped	M323/14	Halichoerus grypus	Grey seal	02/11/2014	Highland	F	Not Examined: Advanced autolysis
Pinniped	M324/14	Halichoerus grypus	Grey seal	02/11/2014	Western Isles	U	Not Examined: Not Priority
Pinniped	M327/14	Halichoerus grypus	Grey seal	02/11/2014	Orkney	U	Not Examined: Not Priority
Pinniped	M328/14	Halichoerus grypus	Grey seal	02/11/2014	Orkney	U	Not Examined: Not Priority
Pinniped	M329/14	Halichoerus grypus	Grey seal	02/11/2014	Orkney	U	Not Examined: Not Priority
Pinniped	M326/14	Halichoerus grypus	Grey seal	03/11/2014	Fife	F	Not Examined: Removed by Tide
Pinniped	M331/14	Halichoerus grypus	Grey seal	05/11/2014	East Lothian	F	Not Examined: Not Priority
Pinniped	M332/14	Halichoerus grypus	Grey seal	05/11/2014	East Lothian	U	Not Examined: Removed by Tide
Pinniped	M333/14	Pinniped (ind. species)	Seal (ind. species)	08/11/2014	Fife	U	Not Examined: Removed by Tide
Pinniped	M342/14	Halichoerus grypus	Grey seal	09/11/2014	Orkney	U	Not Examined: Not Priority

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M334/14	Halichoerus grypus	Grey seal	11/11/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Cetacean	M335/14	Cetacean (ind. species)	Cetacean (ind. species)	11/11/2014	Dumfries and Galloway	U	Not Examined: Insufficient Data
Pinniped	M336/14	Pinniped (ind. species)	Seal (ind. species)	11/11/2014	Dumfries and Galloway	U	Not Examined: Insufficient Data
Pinniped	M338/14	Halichoerus grypus	Grey seal	12/11/2014	Dumfries and Galloway	U	Not Examined: Advanced autolysis
Pinniped	M337/14	Halichoerus grypus	Grey seal	12/11/2014	Western Isles	U	Not Examined: Insufficient Data
Pinniped	M339/14	Halichoerus grypus	Grey seal	13/11/2014	Fife	M	Pending
Pinniped	M340/14	Halichoerus grypus	Grey seal	13/11/2014	Fife	U	Pending
Pinniped	M341/14	Halichoerus grypus	Grey seal	13/11/2014	Fife	U	Not Examined: Advanced autolysis
Pinniped	M343/14	Halichoerus grypus	Grey seal	13/11/2014	Orkney	U	Not Examined: Advanced autolysis
Pinniped	M345/14	Halichoerus grypus	Grey seal	14/11/2014	Fife	U	Not Examined: Not Priority
Pinniped	M346/14	Halichoerus grypus	Grey seal	14/11/2014	Fife	U	Not Examined: Advanced autolysis
Pinniped	M347/14	Pinniped (ind. species)	Seal (ind. species)	14/11/2014	Fife	U	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M344/14	Phocoena phocoena	Harbour porpoise	14/11/2014	Western Isles	U	Not Examined: Removed by Tide
Pinniped	M349/14	Halichoerus grypus	Grey seal	16/11/2014	City of Dundee	U	Not Examined: Not Priority
Pinniped	M348/14	Halichoerus grypus	Grey seal	16/11/2014	Fife	U	Not Examined: Not Priority
Pinniped	M351/14	Pinniped (ind. species)	Seal (ind. species)	18/11/2014	City of Aberdeen	U	Not Examined: Removed by Council
Pinniped	M350/14	Halichoerus grypus	Grey seal	18/11/2014	Fife	M	Not Examined: Advanced autolysis
Pinniped	M352/14	Halichoerus grypus	Grey seal	18/11/2014	Fife	U	Maternal Separation
Pinniped	M354/14	Halichoerus grypus	Grey seal	19/11/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Pinniped	M353/14	Halichoerus grypus	Grey seal	19/11/2014	Fife	U	Not Examined: Removed by Tide
Cetacean	M356/14	Phocoena phocoena	Harbour porpoise	20/11/2014	Argyll and Bute	M	Not Examined: Morphometrics taken
Cetacean	M355/14	Phocoena phocoena	Harbour porpoise	20/11/2014	Western Isles	M	Physical Trauma: Bottlenose Dolphin Attack

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M357/14	Halichoerus grypus	Grey seal	20/11/2014	Orkney	M	Not Examined: Not Priority
Pinniped	M359/14	Halichoerus grypus	Grey seal	21/11/2014	Angus	U	Not Examined: Not Priority
Pinniped	M360/14	Pinniped (ind. species)	Seal (ind. species)	21/11/2014	Angus	U	Not Examined: Insufficient Data
Pinniped	M361/14	Halichoerus grypus	Grey seal	21/11/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M362/14	Halichoerus grypus	Grey seal	21/11/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M358/14	Phoca vitulina	Harbour Seal (Common Seal)	21/11/2014	Shetland	F	Not Examined: Advanced autolysis
Pinniped	M367/14	Halichoerus grypus	Grey seal	22/11/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M363/14	Halichoerus grypus	Grey seal	23/11/2014	Fife	U	Not Examined: Not Priority
Pinniped	M365/14	Pinniped (ind. species)	Seal (ind. species)	23/11/2014	Highland	U	Not Examined: Advanced autolysis
Cetacean	M366/14	Phocoena phocoena	Harbour porpoise	23/11/2014	Highland	M	Not Examined: Advanced autolysis
Pinniped	M470/14	Pinniped (ind. species)	Seal (ind. species)	23/11/2014	Highland	U	Not Examined: insufficient data
Cetacean	M364/14	Stenella coeruleoalba	Striped dolphin	24/11/2014	Shetland	U	Not Examined: Insufficient Data
Pinniped	M368/14	Halichoerus grypus	Grey seal	24/11/2014	Shetland	M	Not Examined: Advanced autolysis
Pinniped	M370/14	Halichoerus grypus	Grey seal	25/11/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M371/14	Halichoerus grypus	Grey seal	25/11/2014	Orkney	M	Not Examined: Advanced autolysis
Pinniped	M372/14	Pinniped (ind. species)	Seal (ind. species)	26/11/2014	Argyll and Bute	U	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M386/14	Phoca vitulina	Harbour Seal (Common Seal)	26/11/2014	City of Aberdeen	U	Not Examined: Advanced autolysis
Cetacean	M374/14	Delphinus delphis	Short-beaked common dolphin	26/11/2014	Western Isles	M	Not Examined: Advanced autolysis
Pinniped	M388/14	Pinniped (ind. species)	Seal (ind. species)	27/11/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M373/14	Halichoerus grypus	Grey seal	28/11/2014	Fife	M	Physical Trauma: Spiral "corkscrew" lesions
Cetacean	M377/14	Mysticete (ind. species)	Mysticete (ind. species)	28/11/2014	Highland	U	Not Examined: Advanced autolysis
Pinniped	M378/14	Phoca vitulina	Harbour Seal (Common Seal)	29/11/2014	Argyll and Bute	U	Physical Trauma: Shot

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M384/14	Halichoerus grypus	Grey seal	29/11/2014	Argyll and Bute	U	Physical Trauma: Shot
Pinniped	M385/14	Halichoerus grypus	Grey seal	29/11/2014	Argyll and Bute	U	Physical Trauma: Shot
Cetacean	M380/14	Phocoena phocoena	Harbour porpoise	30/11/2014	Aberdeenshire	M	Not Examined: Samples Taken
Cetacean	M381/14	Phocoena phocoena	Harbour porpoise	30/11/2014	City of Aberdeen	F	Not Examined: Carcase Incomplete/Scavenger Damage
Cetacean	M379/14	Phocoena phocoena	Harbour porpoise	30/11/2014	Moray	F	Not Examined: Advanced autolysis
Cetacean	M399/14	Phocoena phocoena	Harbour porpoise	30/11/2014	Shetland	M	Not Examined: Advanced autolysis
Cetacean	M400/14	Phocoena phocoena	Harbour porpoise	30/11/2014	Shetland	U	Not Examined: Insufficient Data
Pinniped	M382/14	Halichoerus grypus	Grey seal	30/11/2014	Orkney	U	Physical Trauma: Possible spiral "Corkscrew" lesions
Pinniped	M389/14	Pinniped (ind. species)	Seal (ind. species)	01/12/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M383/14	Halichoerus grypus	Grey seal	01/12/2014	Grampian	F	Generalised Bacterial Infection
Cetacean	M390/14	Phocoena phocoena	Harbour porpoise	01/12/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M391/14	Halichoerus grypus	Grey seal	01/12/2014	Western Isles	U	Not Examined: Not Priority
Pinniped	M392/14	Halichoerus grypus	Grey seal	01/12/2014	Western Isles	U	Not Examined: Insufficient Data
Pinniped	M387/14	Halichoerus grypus	Grey seal	02/12/2014	Fife	M	Physical Trauma: Possible spiral "Corkscrew" lesions
Pinniped	M409/14	Halichoerus grypus	Grey seal	03/12/2014	Fife	F	Physical Trauma: Possible spiral "Corkscrew" lesions
Pinniped	M410/14	Halichoerus grypus	Grey seal	03/12/2014	Fife	F	Physical Trauma: Possible spiral "Corkscrew" lesions
Pinniped	M411/14	Halichoerus grypus	Grey seal	03/12/2014	Fife	M	Physical Trauma: Spiral "corkscrew" lesions
Pinniped	M412/14	Halichoerus grypus	Grey seal	03/12/2014	Fife	M	Physical Trauma: Spiral "corkscrew" lesions
Pinniped	M413/14	Halichoerus grypus	Grey seal	03/12/2014	Fife	F	Physical Trauma: Spiral "corkscrew" lesions
Pinniped	M414/14	Halichoerus grypus	Grey seal	03/12/2014	Fife	F	Physical Trauma: Spiral "corkscrew" lesions
Pinniped	M415/14	Halichoerus grypus	Grey seal	03/12/2014	Fife	F	Physical Trauma: Spiral "corkscrew" lesions

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M393/14	Halichoerus grypus	Grey seal	03/12/2014	Orkney	U	Not Examined: Advanced autolysis
Pinniped	M394/14	Halichoerus grypus	Grey seal	03/12/2014	Orkney	U	Not Examined: Advanced autolysis
Pinniped	M397/14	Halichoerus grypus	Grey seal	04/12/2014	Orkney	U	Not Examined: Not Priority
Pinniped	M396/14	Phoca vitulina	Harbour Seal (Common Seal)	04/12/2014	Angus	U	Not Examined: Advanced autolysis
Pinniped	M416/14	Halichoerus grypus	Grey seal	04/12/2014	Fife	M	Physical Trauma: Spiral "corkscrew" lesions
Cetacean	M395/14	Lagenorhynchus albirostris	White-beaked dolphin	04/12/2014	Shetland	F	Pending
Cetacean	M398/14	Phocoena phocoena	Harbour porpoise	04/12/2014	Western Isles	U	Not Examined: Carcase Not Found
Pinniped	M417/14	Halichoerus grypus	Grey seal	05/12/2014	Fife	M	Physical Trauma: Spiral "corkscrew" lesions
Cetacean	M401/14	Cetacean (ind. species)	Cetacean (ind. species)	05/12/2014	Western Isles	U	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M404/14	Halichoerus grypus	Grey seal	07/12/2014	Orkney	U	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M405/14	Halichoerus grypus	Grey seal	07/12/2014	Orkney	M	Not Examined: Not Priority
Pinniped	M431/14	Halichoerus grypus	Grey seal	07/12/2014	Fife	U	Physical Trauma: Spiral "corkscrew" lesions
Pinniped	M402/14	Halichoerus grypus	Grey seal	07/12/2014	Highland	U	Not Examined: Advanced autolysis
Pinniped	M403/14	Pinniped (ind. species)	Seal (ind. species)	07/12/2014	Highland	U	Not Examined: Insufficient Data
Pinniped	M406/14	Halichoerus grypus	Grey seal	08/12/2014	Orkney	M	Not Examined: Not Priority
Pinniped	M408/14	Phoca vitulina	Harbour Seal (Common Seal)	08/12/2014	Dumfries and Galloway	U	Not Examined: Advanced autolysis
Pinniped	M432/14	Halichoerus grypus	Grey seal	08/12/2014	Fife	U	Physical Trauma: Spiral "corkscrew" lesions
Pinniped	M407/14	Halichoerus grypus	Grey seal	08/12/2014	Western Isles	M	Not Examined: Advanced autolysis
Pinniped	M433/14	Halichoerus grypus	Grey seal	09/12/2014	Fife	U	Physical Trauma: Spiral "corkscrew" lesions
Cetacean	M420/14	Lagenorhynchus albirostris	White-beaked dolphin	11/12/2014	Orkney	M	Not Examined: Advanced autolysis
Cetacean	M421/14	Delphinus delphis	Short-beaked common dolphin	11/12/2014	Orkney	F	Physical Trauma: Storm exposure

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Cetacean	M419/14	Stenella coeruleoalba	Striped dolphin	11/12/2014	Western Isles	F	Not Examined: Other
Pinniped	M422/14	Halichoerus grypus	Grey seal	13/12/2014	Orkney	U	Not Examined: Not Priority
Pinniped	M423/14	Halichoerus grypus	Grey seal	13/12/2014	Orkney	U	Not Examined: Not Priority
Pinniped	M424/14	Halichoerus grypus	Grey seal	13/12/2014	Orkney	U	Not Examined: Not Priority
Pinniped	M426/14	Phoca vitulina	Harbour Seal (Common Seal)	13/12/2014	Highland	U	Not Examined: Insufficient Data
Cetacean	M425/14	Ziphius cavirostris	Cuvier's beaked whale	13/12/2014	Western Isles	F	Not Examined: Samples Taken
Cetacean	M427/14	Ziphius cavirostris	Cuvier's beaked whale	14/12/2014	Western Isles	F	Not Examined: Samples Taken
Cetacean	M429/14	Delphinus delphis	Short-beaked common dolphin	15/12/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Pinniped	M428/14	Pinniped (ind. species)	Seal (ind. species)	15/12/2014	North Ayrshire	U	Not Examined: Advanced autolysis
Pinniped	M418/14	Pinniped (ind. species)	Seal (ind. species)	15/12/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M430/14	Pinniped (ind. species)	Seal (ind. species)	15/12/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M437/14	Halichoerus grypus	Grey seal	15/12/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M438/14	Halichoerus grypus	Grey seal	15/12/2014	Western Isles	U	Not Examined: Not Priority
Cetacean	M434/14	Physeter macrocephalus	Sperm whale	17/12/2014	Highland	M	Physical trauma: Ship strike
Cetacean	M435/14	Kogia breviceps	Pygmy sperm whale	17/12/2014	Shetland	U	Not Examined: Advanced autolysis
Pinniped	M439/14	Halichoerus grypus	Grey seal	18/12/2014	Orkney	U	Physical Trauma: Possible spiral "Corkscrew" lesions
Pinniped	M440/14	Halichoerus grypus	Grey seal	18/12/2014	Orkney	U	Not Examined: Advanced autolysis
Pinniped	M441/14	Halichoerus grypus	Grey seal	18/12/2014	Orkney	U	Not Examined: Not Priority
Pinniped	M444/14	Halichoerus grypus	Grey seal	18/12/2014	Aberdeenshire	U	Pending
Cetacean	M447/14	Delphinus delphis	Short-beaked common dolphin	18/12/2014	Argyll and Bute	M	Not Examined: Morphometrics taken
Cetacean	M456/14	Phocoena phocoena	Harbour porpoise	18/12/2014	Argyll and Bute	U	Not Examined: Insufficient Data
Pinniped	M436/14	Pinniped (ind. species)	Seal (ind. species)	18/12/2014	Fife	U	Not Examined: Insufficient Data

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M442/14	Halichoerus grypus	Grey seal	18/12/2014	Orkney	U	Not Examined: Advanced autolysis
Pinniped	M443/14	Halichoerus grypus	Grey seal	18/12/2014	Orkney	U	Physical Trauma: Possible spiral "Corkscrew" lesions
Cetacean	M445/14	Phocoena phocoena	Harbour porpoise	20/12/2014	South Ayrshire	U	Not Examined: Carcase Not Found
Pinniped	M472/14	Pinniped (ind. species)	Seal (ind. species)	20/12/2014	Highland	U	Not Examined: Carcase Incomplete/Scavenger damage
Pinniped	M473/14	Pinniped (ind. species)	Seal (ind. species)	20/12/2014	Highland	U	Not Examined: Carcase Incomplete/Scavenger damage
Basking Shark	M448/14	Cetorhinus maximus	Basking shark	21/12/2014	Western Isles	U	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M446/14	Halichoerus grypus	Grey seal	22/12/2014	Highland	U	Not Examined: Advanced autolysis
Cetacean	M449/14	Ziphius cavirostris	Cuvier's beaked whale	23/12/2014	Argyll and Bute	M	Not Examined: Samples Taken
Cetacean	M457/14	Odontocete (ind. species)	Short-beaked common dolphin/striped dolphin (ind. species)	23/12/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Marine Turtle	M463/14	Lepidochelys kempii	Kemps Ridley turtle	24/12/2014	Highland	U	Not Examined: Advanced autolysis
Pinniped	M464/14	Pinniped (ind. species)	Seal (ind. species)	24/12/2014	Highland	U	Not Examined: Insufficient Data
Pinniped	M465/14	Pinniped (ind. species)	Seal (ind. species)	24/12/2014	Highland	U	Not Examined: Insufficient Data
Pinniped	M466/14	Pinniped (ind. species)	Seal (ind. species)	24/12/2014	Highland	U	Not Examined: Insufficient Data
Pinniped	M467/14	Pinniped (ind. species)	Seal (ind. species)	24/12/2014	Highland	U	Not Examined: Insufficient Data
Pinniped	M474/14	Phoca vitulina	Harbour Seal (Common Seal)	24/12/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Pinniped	M475/14	Phoca vitulina	Harbour Seal (Common Seal)	24/12/2014	Argyll and Bute	U	Not Examined: Insufficient Data
Pinniped	M476/14	Halichoerus grypus	Grey seal	24/12/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Pinniped	M452/14	Pinniped (ind. species)	Seal (ind. species)	25/12/2014	Aberdeenshire	U	Not Examined: Insufficient Data
Cetacean	M462/14	Lagenorhynchus acutus	Atlantic white-sided dolphin	25/12/2014	Highland	F	Not Examined: Samples Taken
Cetacean	M450/14	Phocoena phocoena	Harbour porpoise	26/12/2014	Argyll and Bute	U	Not Examined: Samples Taken

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M471/14	<i>Phoca vitulina</i>	Harbour Seal (Common Seal)	27/12/2014	Highland	U	Not Examined: Samples Taken
Pinniped	M478/14	Pinniped (ind. species)	Seal (ind. species)	27/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M479/14	<i>Halichoerus grypus</i>	Grey seal	27/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M481/14	Pinniped (ind. species)	Seal (ind. species)	27/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M480/14	Pinniped (ind. species)	Seal (ind. species)	27/12/2014	Orkney	U	Not Examined: Delay in Reporting
Cetacean	M451/14	<i>Phocoena phocoena</i>	Harbour porpoise	28/12/2014	Argyll and Bute	F	Not Examined: Samples Taken
Pinniped	M454/14	Pinniped (ind. species)	Seal (ind. species)	28/12/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M453/14	<i>Halichoerus grypus</i>	Grey seal	28/12/2014	Western Isles	U	Not Examined: Advanced autolysis
Pinniped	M482/14	Pinniped (ind. species)	Seal (ind. species)	28/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M483/14	Pinniped (ind. species)	Seal (ind. species)	28/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M455/14	<i>Halichoerus grypus</i>	Grey seal	29/12/2014	Orkney	U	Not Examined: Carcase Incomplete/Scavenger Damage
Pinniped	M458/14	<i>Halichoerus grypus</i>	Grey seal	29/12/2014	Aberdeenshire	U	Not Examined: Advanced autolysis
Cetacean	M468/14	<i>Phocoena phocoena</i>	Harbour porpoise	29/12/2014	East Lothian	U	Not Examined: Carcase Not Found
Cetacean	M469/14	<i>Delphinus delphis</i>	Short-beaked common dolphin	29/12/2014	Highland	U	Not Examined: Advanced autolysis
Pinniped	M484/14	<i>Halichoerus grypus</i>	Grey seal	29/12/2014	Orkney	U	Not Examined: Delay in Reporting
Cetacean	M461/14	<i>Ziphius cavirostris</i>	Cuvier's beaked whale	31/12/2014	Argyll and Bute	U	Not Examined: Advanced autolysis
Pinniped	M459/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M460/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Fife	U	Not Examined: Insufficient Data
Pinniped	M485/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M486/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M487/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting

Class	Ref	Species (scientific)	Species (common)	Date Found	Local Authority	Sex	Findings summary
Pinniped	M488/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M489/14	Halichoerus grypus	Grey seal	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M490/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M491/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M492/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M493/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M494/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M495/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M496/14	Halichoerus grypus	Grey seal	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M497/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M498/14	Halichoerus grypus	Grey seal	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M499/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M500/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M501/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M502/14	Halichoerus grypus	Grey seal	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M503/14	Pinniped (ind. species)	Seal (ind. species)	31/12/2014	Orkney	U	Not Examined: Delay in Reporting
Pinniped	M504/14	Halichoerus grypus	Grey seal	31/12/2014	Orkney	U	Not Examined: Delay in Reporting