

MARINE MAMMALS STRANDED ON THE NORTH AND NORTHWEST SPAIN IN 1994

LEN. DE LA LOPEZ (2), O. CENDREDO (3), C. PEREZ (4)

Instituto Español de Oceanografía, C/Almirante 1532 26280 Vigo, Spain, (2) Instituto de Oceanografía, C/Almirante 1532 26280 Vigo, Spain, (3) Instituto de Oceanografía, C/Almirante 1532 26280 Vigo, Spain, (4) Departamento de Biología, Universidad de Córdoba, 1401 Córdoba, Spain

METHODS

The presence of marine mammals along the coast are first reported by members of the public, fishermen or members of different institutions (Guardia Civil, Protección Civil, Red Cross, etc.). In most cases, the specimens are subsequently inspected by experienced persons belonging to scientific institutions or naturalists groups. The data are forwarded to regional repository centres. The information is checked and compiled annually to produce an integrated list of events for this part of the Spanish coast.

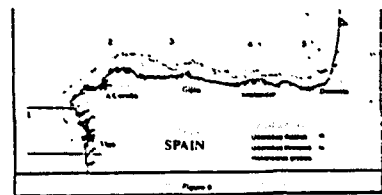
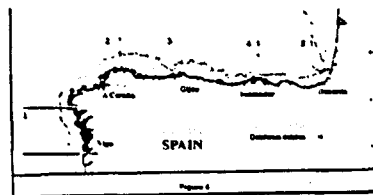
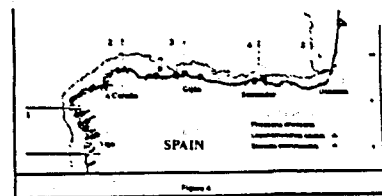
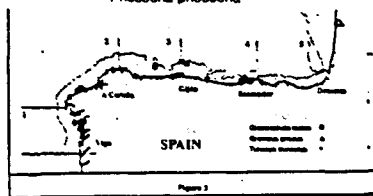
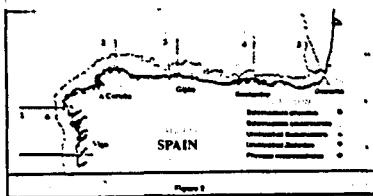
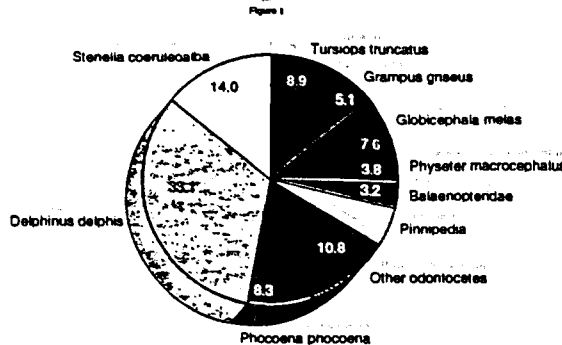
As far as possible, the location, date, species, total length and sex of each animal observed are registered and morphological measurements, photos, samples of different tissues and photographs are also taken.

The area covered along the northern and northwestern coasts of the Iberian Peninsula, stretches some 2,750 km, from the Sidasos river (French border) to the Miño Estuary (Portuguese border).

RESULTS

During 1994, the presence of marine mammals were reported on 157 occasions. Solitary animals were involved in all cases.

The composition of the strandings is given in Figure 1. Observed specimens belong to 10 species of cetaceans and 1 of pinnipeds. Other individuals whose identification to the specific level was not possible, were allocated to several wider taxonomic categories. The common dolphin (*Delphinus delphis*), the striped dolphin (*Stenella coeruleoalba*), the bottlenose dolphin (*Tursiops truncatus*), the harbour porpoise (*Phocoena phocoena*) and the pilot whale (*Globicephala melas*) are the most frequent species and altogether constitute the 71.8% of the strandings. As in previous years, common dolphin was the more frequent species (33.1%), although its relative frequency was lower in 1994. The four other species have also been recorded as the most frequent every year since 1980, with variations in their relative importance from year to year. Among the less common species, the relatively high presence of the big cetaceans (rorquals and sperm whales) and the observation of one white-sided dolphin (*Lagenorhynchus acutus*) during 1994 are particularly notable.



	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
<i>Delphinus phocaenoides</i>										1			1
<i>Delphinus nasutus</i>									1				1
Unidentified <i>Delphinus</i>								1	2				3
<i>Unistinctus Ziphioides</i>													1
<i>Physeter macrocephalus</i>				1		1				1	2	1	6
<i>Balaenoptera</i>			2	2	1		1		1		3	2	13
<i>Phocoena phocaenoides</i>				1	2	1	2				2	2	12
<i>Grampus griseus</i>			2	1	4				1		1	2	8
<i>Tursiops truncatus</i>			1	1		4	2	1	2		1	2	14
<i>Lagenorhynchus acutus</i>					1								1
<i>Balaenocetor</i>			3	5	6	3	2	2			1		22
<i>Delphinus delphis</i>		3	5	7	12	5	1	3	1	4	4	5	52
Unidentified <i>Delphinus</i>		2	2	2		2	1	1	3	1	1		15
Unidentified <i>porpoise</i>		2				1							3
<i>Hydrobatus grypus</i>		2		1						1			5
TOTAL	10	15	20	27	12	11	9	11	9	16	9		157

The distribution of the strandings along the coasts shows a typical pattern, with sector 1 accounting for nearly half of the strandings (48.4%) and the minor proportion of observations (3.8%) coming from sector 5. (See Figures 2 to 6). In spite of the use of a common procedure to document the strandings in the whole region, this geographical distribution might be influenced by the variable accessibility of the coasts and by the level of public collaboration in the reporting of the strandings.

Only the common and the striped dolphin are present in the five sectors. Bottlenose dolphin and harbour porpoise are absent from the eastern sectors (inner Bay of Biscay), while pilot whale numbers increase towards the east until sector 4.

Animals appear on the coast all year round although they tend to be more frequent in the period February-April and less abundant in the period July-October. (Table 1). This is similar to the seasonality found in the last years.

Most of the species show a coincident trend in the seasonality of the strandings. The months with the maximum representation of species were March and November, while the minimum was found in January.

The majority of the animals were found dead on the shores, but in some cases the dead specimens were found drifting. Others were incidentally caught in fishing gears and carried to the harbours. Some were found alive in the shore and taken successfully to the sea or sent to rehabilitation centres, while the rest died later.

In some cases the presence of external damage and traumas are pointed out as possible causes of death. In the pictures there are three examples of this. Specimen 13 shows clean cuts in the tail stock that could be a sign of a previous entanglement in a net. Specimen 67 has multiple injuries probably caused by shark bites. Specimen 133 presents shot wounds in the dorsal part of the body.

There are also photos of two unusual strandings. Specimen number 1 is a young fin whale and number 50 is a white-sided dolphin. Information about every individual stranding can be obtained from the list of events located under the poster.



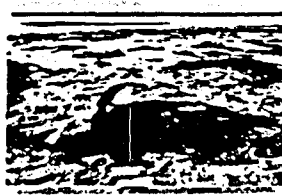
N.1. Fin whale, 580 cm, male. (CEMMA)



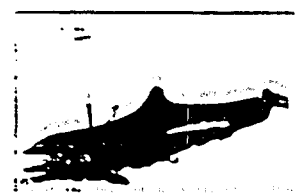
N.13. Harbour porpoise, 150 cm, male. (ICG)



N.67. Striped dolphin, 142 cm, male. (ICG)



N.133. Common dolphin, 180 cm, male. (CEMMA)



N.50. White-sided dolphin, 240 cm, male (SGHN)

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MYSTICETES

Balaenoptera physalus

N	Date	Length	Sex	Situation	Observer	Comments
1	28.10	580	M	42°33'10"N 8°59'00"W	CPXG	Stranded alive, died later

Balaenoptera acutorostrata

N	Date	Length	Sex	Situation	Observer	Comments
2	06-08	850		43°34'00"N 5°22'00"W	PEREZ, C. (UO)	Found dead drifting. Estimated total length

Unidentified *Balaenopteridae*

N	Date	Length	Sex	Situation	Observer	Comments
3	07.06	500*		43°15'50"N 8°57'40"W	MASCATO, M. (CEMMA)	
4	19.08	1200		43°34'20"N 7°14'45"W	CPXG	
5	24.08		M	42°44'00"N 9°49'00"W	VARELA, P.	

ODONTOCETES

Unidentified *Ziphiidae*

N	Date	Length	Sex	Situation	Observer	Comments
6	08.04	550	F	43°25'50"N 4°02'00"W	GARCÍA-CASTRILLO (MMC)	Decad carcasse

Physeter macrocephalus

N	Date	Length	Sex	Situation	Observer	Comments
7	18.04	1400	M	43°24'00"N 3°18'30"W	GARCIA-CASTRILLO (MMC)	Body fragmented in two parts
8	03.09	700*		43°13'00"N 9°01'10"W	BARREIRO, A. (CEMMA)	Anterior portion
9	14.06	1090	M	43°33'30"N 8°15'40"W	DIAZ, J.I. (SGHN)	
10	20.10			43° 25'50"N 4 02'00"W	GARCIA-CASTRILLO (MMC)	Only part of the skull
11	22.10			43°25'10"N 8°12'50"W	COFRADIA DE ARES	Only head and some bones
12	18.11	380*		42°34'20"N 9°02'50"W	MASCATO, A. (CEMMA)	Tail stock absent

Phocoena phocoena

N	Date	Length	Sex	Situation	Observer	Comments
13	03.02	150	M	42°09'02"N 8°49'06"W	LENS, S. (IEO)	
14	13.02	166	F	42°45'40"N 9°04'10"W	ARMANDO (C.P. LOURO)	With milk
15	13.03	107*		42°27'25"N 8°53'00"W	BENAVENTE, P. (CES)	Tail stock absent
16	28.03	106	M	42°20'10"N 8°46'00"W	FOLGAR, A. (ERVA)	Turnups predation
17	23.04	200	F	42°07'20"N 8°50'50"W	FOLGAR, A. (ERVA)	
18	24.04	145		43°33'00"N 8°12'50"W	DIAZ, J.I. (SGHN)	
19	12.07	150	M	42°11'30"N 8°48'40"W	LENS, S. (IEO)	
20	07.09	146	M	42°23'40"N 8°50'45"W	MARTINEZ, E. (CES)	Possible incidental catch
21	06.11	191	F	42°49'30"N 9°06'30"W	BARREIRO, A. (CEMMA)	Foetus of 41 cm
22	07.11	150	F	42°31'10"N 9°02'10"W	PEREZ, M. (CEMMA)	
23	20.11	183	F	42°55'10"N 9°15'40"W	MASCATO, M. (CEMMA)	
24	07.12	150	F	42°27'25"N 8°55'00"W	FDEZ. DE LA CIGONA (AGCE)	
25	16.12	202	F	42°00'10"N 8°52'30"W	ANABAM	Foetus of 66 cm

Globicephala melas

N	Date	Length	Sex	Situation	Observer	Comments
26	20.03	300		43°33'00"N 6°06'00"W	PEREZ, C. (UO)	Fins absent. Estimated total length
27	06.04	425	F	43°35'00"N 5°55'00"W	PEREZ, C. (UO)	
28	08.04	385	F	43°26'55"N 3°58'50"W	GARCIA-CASTRILLO (MMC)	Teeth and fins absent
29	20.04	300		43°26'53"N 3°58'35"W	GARCIA-CASTRILLO (MMC)	Found dead drifting
30	28.04	244	F	43°47'00"N 6°58'00"W	PEREZ, C. (UO)	Estimated total length
31	10.05	345	M	43°18'50"N 8°52'20"W	MASCATO, M. (CEMMA)	
32	13.06	586		42°07'00"N 8°53'00"W	FOLGAR, A. (ERVA)	
33	17.06	450	F	43°26'20"N 4°04'32"W	GARCIA-CASTRILLO (MMC)	
34	14.11	470	M	43°26'58"N 3°56'35"W	GARCIA-CASTRILLO (MMC)	
35	23.11	228		43°13'50"N 8°57'00"W	MASCATO, M. (CEMMA)	Plastic in the stomach
36	14.12	412	F	43°52'04"N 5°50'51"W	PEREZ, C. (UO)	Incidentally caught in a pelagic trawl
37	14.12	280	F	43°49'00"N 5°42'00"W	PEREZ, C. (UO)	Incidentally caught in a longline

Grampus griseus

N	Date	Length	Sex	Situation	Observer	Comments
38	07.02	230*		41°54'47"N 8°52'46"W	ANABAM	Tail stock absent
39	18.02	203*	M	42°28'45"N 8°55'30"W	BENAVENTE, P. (CES)	Tail stock absent
40	13.03	190*	M	42°27'15"N 8°55'50"W	BENAVENTE, P. (CES)	Tail stock absent
41	03.08			42°27'25"N 8°52'55"W	BENAVENTE, P. (CES)	Young specimen
42	22.10	250		43°32'45"N 5°03'20"W	GARCIA-CASTRILLO (MMC)	Estimated total length
43	01.11	255*	M	42°31'40"N 8°52'10"W	CRISTORO, J.	Tail stock absent
44	06.11	315		43°08'00"N 9°11'50"W	MASCATO, M. (CEMMA)	
45	20.12	305	F	43°17'40"N 8°44'40"W	IGLESIAS, V.	

Tursiops truncatus

N	Date	Length	Sex	Situation	Observer	Comments
46	28.02			43°34'00"N 7°13'00"W	DIAZ, J.L. (SGHN)	
47	23.03	222		42°23'55"N 8°51'00"W	BENAVENTE, P. (CES)	Estimated total length
48	05.06	338	F	43°22'00"N 8°23'00"W	ESMORIS, D. (CRFS)	
49	18.06			42°46'00"N 9°07'00"W	GODAY, L.	
50	21.06	279	F	43°45'00"N 6°38'00"W	PEREZ, C. (UO)	Found dead drifting. Shark bites
51	23.06	206*	M	42°55'45"N 9°11'10"W	MASCATO, M. (CEMMA)	Only skull and parts of the skull
52	05.07	268	F	42°34'40"N 8°49'00"W	VALEIRAS, J. (CEMMA)	Net in the mouth
53	08.07	140	F	42°35'40"N 8°47'00"W	REL, J.L. (SGHN)	
54	29.08	300		42°56'50"N 9°11'30"W	BARREIRO, A. (CEMMA)	Rescued. Estimated total length
55	09.09	200*	M	42°34'40"N 9°03'20"W	ESMORIS, D. (CEMMA)	Tail stock absent
56	25.09	284	M	42°46'00"N 8°56'40"W	BARREIRO, A. (CEMMA)	
57	20.11	200*	M	42°19'40"N 8°49'30"W	LOPEZ, A. (CEMMA)	Only posterior part
58	19.12		F	42°24'00"N 8°48'20"W	CITXG	Dead. Stranded alive previously
59	24.12	317	M	43°35'00"N 5°58'00"W	PEREZ, C. (UO)	

Lagenorhynchus acutus

N	Date	Length	Sex	Situation	Observer	Comments
60	12.04	240	M	43°37'00"N 8°10'00"W	DIAZ, J.L. (SGHN)	

Stenella coeruleoalba

N	Date	Length	Sex	Situation	Observer	Comments
61	09.02	189	M	42°27'15"N 8°55'50"W	MEIS, R. (CES)	
62	13.02	193*	F	42°55'05"N 9°15'45"W	LAGO, M. (CEMMA)	Broken beak
63	12.02	222	M	43°27'35"N 3°47'15"W	GARCIA-CASTRILLO (MMC)	Found alive, died 2 days later
64	05.03			42°28'40"N 8°55'15"W	DOMINGUEZ, M. (CES)	Only skull found
65	13.03	188		42°45'20"N 9°06'10"W	DIAZ, J.I. (SGHN)	
66	17.03	162	F	42°17'10"N 8°38'00"W	FOLGAR, A. (ERVA)	
67	22.03	162	M	42°17'00"N 8°44'00"W	LENS, S. (IEO)	Shark bites
68	23.03	180		43°33'00"N 5°25'00"W	PEREZ, C. (UO)	Rescued. Estimated total length
69	02.04	147	M	43°34'00"N 6°10'00"W	PEREZ, C. (UO)	
70	02.04	159*	F	42°34'00"N 9°02'00"W	PEREZ, M. (CEMMA)	Broken beak
71	02.04	175	M	42°45'25"N 9°06'35"W	VAZQUEZ M. R. (CEMMA)	
72	13.04	140	M	43°20'40"N 8°40'21"W	ESMORIS, D. (CEMMA)	
73	30.04	179	M	43°34'00"N 6°10'00"W	PEREZ, C. (UO)	
74	30.04	200	M	43°33'00"N 6°46'00"W	PEREZ, C. (UO)	Estimated total length
75	09.05	232	M	43°43'00"N 6°38'00"W	PEREZ, C. (UO)	Incidentally caught in a gillnet
76	22.05	228	M	43°34'00"N 6°57'00"W	PEREZ, C. (UO)	
77	29.05	204		43°11'20"N 9°03'10"W	LOPEZ, A. (CEMMA)	Possible incidental catch
78	12.06	205	M	43°28'20"N 3°30'50"W	GARCIA-CASTRILLO (MMC)	
79	13.06	190	M	43°38'00"N 5°53'00"W	PEREZ, C. (UO)	Estimated total length
80	14.07	180		43°17'35"N 8°43'15"W	VIU, C. (LVDG)	Rescued, mouth injury. Estimated length
81	17.07	208	M	43°34'00"N 6°47'00"W	PEREZ, C. (UO)	Stranded alive, died later
82	19.11	114		42°59'52"N 9°15'26"W	MASCATO, M. (CEMMA)	

Delphinus delphis

N	Date	Length	Sex	Situation	Observer	Comments
83	01.01	128*	F	42°31'00"N 9°01'30"W	BARREIRO, A. (CEMMA)	Possible incidental catch
84	30.01	203	F	43°25'00"N 4°45'00"W	PEREZ, C. (UO)	Broken beak
85	30.01			42°35'04"N 9°04'45"W	OUIJO, X.M.	Anterior portion. Possible incidental catch
86	14.02	165	M	42°04'30"N 8°53'40"W	PEREZ, X. (ERVA)	
87	18.02	136*	M	42°23'40"N 8°46'40"W	BENAVENTE, P. (CES)	Tail stock absent
88	20.02	142*	M	42°54'50"N 9°09'15"W	DACOSTA, M. (CEMMA)	Beak absent
89	26.02	150	F	43°34'00"N 6°10'00"W	PEREZ, C. (UO)	Part of the skull absent. Estimated length
90	27.02	165	M	43°34'30"N 7°10'00"W	DIAZ, J.I. (SGHN)	
91	06.03	197	M	42°35'04"N 9°04'45"W	MASCATO, M. (CEMMA)	Possible incidental catch
92	15.03	177	F	43°33'30"N 8°15'40"W	DIAZ, J.I. (SGHN)	
93	18.03	105	F	43°27'52"N 3°47'55"W	GARCIA-CASTRILLO (MMC)	Dead. Alive for a few days in the Bay. Shark bites
94	20.03	197	M	43°20'00"N 8°50'10"W	LOPEZ, A. (CEMMA)	
95	22.03	187	F	43°08'00"N 9°11'50"W	LOURENZO, F.	Estimated total length
96	27.03	173	M	43°35'00"N 5°58'00"W	PEREZ, C. (UO)	
97	31.03	168	M	42°15'50"N 8°46'20"W	FOLGAR, A. (ERVA)	
98	01.04	153	M	42°27'10"N 8°52'40"W	BENAVENTE, P. (CES)	Possible incidental catch
99	05.04	138	F	42°21'10"N 8°57'00"W	BESADA, I. (CES)	
100	08.04	175	F	43°33'30"N 8°15'40"W	DIAZ, J.I. (SGHN)	
101	10.04	195	M	42°48'20"N 9°07'00"W	LOPEZ, A. (CEMMA)	Broken beak. Possible incidental catch
102	17.04	175*	M	42°41'40"N 9°01'40"W	PEREZ, M. (CEMMA)	
103	23.04	162	F	42°31'00"N 9°00'20"W	MASCATO, M. (CEMMA)	
104	24.04	163	F	42°15'30"N 8°50'00"W	CURRAS, A.	
105	24.04	162		42°16'20"N 8°51'40"W	CURRAS, A.	
106	24.04	160*		42°15'10"N 8°52'00"W	CURRAS, A.	
107	24.04	170	M	42°11'50"N 8°47'40"W	FOLGAR, A. (ERVA)	
108	28.04	175	F	42°15'40"N 8°48'40"W	FOLGAR, A. (ERVA)	
109	29.04	212	M	43°24'56"N 3°25'15"W	GARCIA-CASTRILLO (MMC)	
110	10.05	132	M	42°03'10"N 8°53'10"W	LUCIARTES (ERVA)	Tail stock absent. Possible incidental catch
111	10.05	171*	M	42°34'00"N 9°02'00"W	BARREIRO, A. (CEMMA)	
112	12.05	168*	M	42°58'20"N 9°15'40"W	LOPEZ, A. (CEMMA)	
113	14.05	138*		42°23'50"N 8°47'00"W	SABARIS, E. (CES)	
114	21.05	224	M	42°15'40"N 8°50'50"W	FOLGAR, A. (ERVA)	
115	23.06	221	M	42°56'00"N 9°10'10"W	MASCATO, M. (CEMMA)	
116	01.07			43°21'40"N 8°29'05"W	GOMEZ, I.	
117	22.07	202	F	43°25'00"N 4°45'00"W	PEREZ, C. (UO)	Foetus of 84 cm
118	23.07			42°02'30"N 8°52'50"W	ANABAM	
119	22.08	167		43°37'00"N 8°10'00"W	DIAZ, J.I. (SGHN)	
120	11.09	160	M	42°15'00"N 8°47'40"W	CHAPELA, A. (CEMMA)	
121	14.09	195	M	43°39'30"N 7°21'20"W	FONTELA, R. (COTURNIX)	
122	18.09	176	M	42°54'40"N 9°16'25"W	MASCATO, M. (CEMMA)	Possible incidental catch
123	19.09	160*	M	42°28'20"N 3°56'05"W	BENAVENTE, P. (CES)	Tail stock absent. Possible incidental catch
124	01.10			42°00'00"N 8°53'00"W	ANABAM	Only some bones found
125	09.10	183	F	42°59'40"N 9°15'30"W	MASCATO, M. (CEMMA)	Estimated total length
126	20.10	187	M	43°25'35"N 3°47'30"W	GARCIA-CASTRILLO (MMC)	

Delphinus delphis

N	Date	Length	Sex	Situation	Observer	Comments
127	23.10	185		42°27'25"N 8°55'10"W	BENAVENTE, P. (CES)	Tail stock absent
128	05.11	230	M	42°23'45"N 8°50'45"W	BENAVENTE, P. (CES)	
129	06.11			43°08'00"N 9°11'50"W	MASCATO, M. (CEMMA)	Skull of 41 cm
130	08.11	203	M	43°16'00"N 9°11'50"W	SALETA, A.	Possible incidental catch
131	08.11	170	M	42°47'40"N 8°56'40"W	BARREIRO, A. (CEMMA)	
132	20.11	159	M	42°09'02"N 8°49'06"W	LENS, S. (IEO)	
133	08.12	180	M	42°31'30"N 9°00'50"W	PARADA, A.	Shot wounds
134	16.12	146	M	43°33'23"N 8°18'30"W	DIAZ, J. I. (SGHN)	

Unidentified delphinidae

N	Date	Length	Sex	Situation	Observer	Comments
135	12.01	200		43°33'30"N 7°10'30"W	FONTELA, R. (COTURNIX)	Small cetacean. Estimated length
136	27.01		F	42°26'20"N 8°52'15"W	BENAVENTE, P. (CES)	Small cetacean
137	07.02			42°20'00"N 8°48'00"W	LENS, S. (IEO)	Small cetacean
138	12.02	134*	M	43°19'40"N 8°49'30"W	DACOSTA, M. (CEMMA)	Posterior portion only. Adult. Small cetacean
139	05.03			42°27'50"N 8°54'40"W	BENAVENTE, P. (CES)	Small cetacean
140	13.03			42°45'20"N 9°06'10"W	DIAZ, J. I. (SGHN)	Small cetacean
141	01.05	100		43°18'30"N 8°38'20"W	PRESS	Small cetacean. Estimated length
142	08.05	115		42°06'00"N 8°53'00"W	LUCIARTES, C. (ERVA)	Small cetacean
143	21.07	150		42°54'30"N 9°15'40"W	JACOBO (CEM)	Small cetacean. Rescued. Estimated length
144	15.08	150		43°40'00"N 8°03'00"W	ALLEGUE, I. (SGHN)	
145	01.09		M	43°22'00"N 8°23'00"W	LOPEZ, M. (CEMMA)	Probably Tursiops
146	10.09	178	M	42°33'00"N 9°01'50"W	ESMORIS, D. (CEMMA)	Small cetacean. Estimated length
147	25.09	400*		43°23'00"N 8°18'00"W	SOS-GALICIA	
148	23.10			42°14'30"N 8°56'30"W	VARELA, X.M. (CPC)	Rest s of a big cetacean
149	10.11	300*		43°29'00"N 8°19'00"W	DIAZ, J. I. (SGHN)	Rests of a big cetacean

PINNIPEDS*Unidentified pinnipedia*

N	Date	Length	Sex	Situation	Observer	Comments
150	30.05	112		42°14'00"N 8°43'00"W	FOLGAR, A. (ERVA)	Catched and released alive
151	12.01	100*		43°40'50"N 7°35'50"W	FONTELA, R. (COTURNIX)	Found alive, died 23.02
152	24.01	100*		43°21'30"N 8°50'10"W	GARCIA, M.	Probably grey seal

Halichoerus grypus

N	Date	Length	Sex	Situation	Observer	Comments
153	01.01		M	43°18'30"N 2°23'00"W	TORRE, G. (ZNT)	Young found alive, sent to CRMM (France)
154	05.01		M	43°17'20"N 2°10'00"W	TORRE, G. (ZNT)	Young found alive, died the same day
155	11.01	110	M	43°23'30"N 4°17'50"W	GARCIA-CASTRILLO, (MMC)	Found alive, disappeared three days later
156	22.03			43°19'00"N 2°00'00"W	TORRE, G. (ZNT)	Found alive with traumat. sent to CRMM
157	26.08	150	M	43°38'00"N 5°45'00"W	PEREZ, C. (UO)	Observed in different locations. Estim. length

* = Measurement of incomplete animal

ACGE: Asociación Galega para a Cultura y Ecología
ALBATROS: Asociación Naturalista ALBATROS
ANABAM: Asociación Naturalista Baixo Miño.
BIOTOPO: Asociación Naturalista BIOTOPO
CEMMA: Coordinadora para o estudio dos mamíferos mariños.
CENAR: Asociación Naturalista CENAR
CES: Colectivo Ecoloxista do Salmés
COTURNIX: Asociación Naturalista COTURNIX
CPC: Colexio Público de Cabanas.
CRFS: Centro de Recuperación de Fauna Salvaxe.
CPXG: Consellería de Pesca da Xunta de Galicia
CZCS: Centro Zonal de Coordinación e Salvamento Marítimo
ERVA: Asociación Naturalista ERVA
IEO: Instituto Español de Oceanografía.
IIM: Instituto de Investigacións Mariñas.
LVDG: LA VOZ DE GALICIA (Delegación de Carballo)
SGHN: Sociedade Galega de Historia Natural
US: Universidade de Santiago
ZNT: Zumaia Natur Taldea