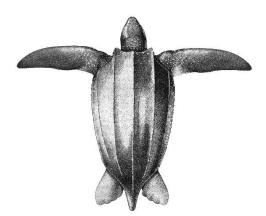


www.strandings.com

British Isles & Republic of Ireland Marine Turtle Strandings & Sightings Annual Report 2016

R.S.Penrose & L.R.Gander. March 2017





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1. SUMMARY

A total of 33 marine turtles were reported to TURTLE during 2016: Three Kemp's ridley turtles, 16 loggerhead turtles. 10 leatherback turtles, 2 green turtles, 1 Olive ridley turtle and 1 unidentified to species.

Live Stranded

Four loggerhead turtles and 1 Olive ridley live stranded and were taken for rehabilitation. The 4 loggerhead turtles recovered and were released in 2016. The Olive ridley turtle is still in rehab.

Live sightings

Seven leatherback turtles and 1 unconfirmed to species.

Dead Strandings

Three leatherback turtles stranded dead: 1 in England; 1 in Scotland; 1 in Republic of Ireland. Three Kemp's ridley turtles stranded dead: 2 in Wales; 1 in Republic of Ireland. Twelve loggerhead turtles stranded dead: 1 in the Republic of Ireland; 8 in England; 3 in the Isle of Man.

Two Green turtles stranded dead in Wales.

Post mortem and samples

Five loggerhead turtles, 1 Kemp's ridley, 1 Leatherback and 1 Green turtle have received a post mortem examination at CSIP/ZSL and CSIP/SMASS Inverness.

Data Sharing

2016 TURTLE database will be uploaded to the new NBN Atlas in 2017.

TURTLE records totals

The current total of 2754 is broken down thus:

1327 Republic of Ireland; 655 England; 396 Scotland; 271 Wales; 40 Northern Ireland; 35 Isle of Man; 17 Channel Islands; 13 Offshore.

2. INTRODUCTION

In 1990, the 'Collaborative UK Marine Mammal Strandings Project' was initiated and part-funded by the UK Department of the Environment (now Defra). The project involves detailed pathological and other investigations of stranded marine mammal carcasses (mostly cetacean) from UK waters. It forms part of the Department's international obligations towards conservation agreements, including the 'Agreement on the conservation of Small Cetaceans of the Baltic and North Seas' (ASCOBANS). Detailed pathological investigations of stranded marine turtles were included in 2001 and the systematic recording and occasional examination of stranded basking sharks began in 2007. The project is now named the 'Cetacean Strandings Investigation Programme' (CSIP, www.ukstrandings.org) (see Figure 1.).

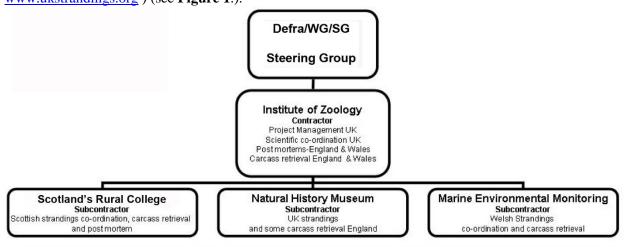


Figure 1. Current Technical Co-ordination of the Cetacean Strandings Investigation Programme (CSIP).

2.1 The UK Turtle Implementation Group.

In 1999, English Nature, now Natural England, published the UK Marine Turtles Grouped Species Action Plan (SAP) on behalf of the UK Biodiversity Group. The SAP is part of the UK Biodiversity Action Plan and aims to enhance marine turtle conservation in UK waters and in the UK Overseas Territories as well as raise awareness and knowledge of their occurrence, legal protection and measures to enhance conservation amongst marine users and the general public. The SAP was implemented by a group of organisations led by joint lead partners the Marine Conservation Society (MCS) and the Amphibian & Reptile Conservation Trust¹ (ARC). The contact agency is Scottish Natural Heritage (SNH). The Turtle Implementation Group (TIG) consists of the following organisations:-

- Amphibian & Reptile Conservation Trust¹ is an authority on reptile and amphibian issues and was the Lead Partners or joint Lead Partners for all five of the reptile and amphibian Action Plans within the UK BAP www.arc-trust.org Contact: *Tony Gent*, 01202 391319
- The **Department of Environment, Food and Agriculture (DEFA)** is the Isle of Man Government's department responsible for species protection and site designation under the Manx Wildlife Act 1990. The Department is also the key Isle of Man contact for strandings and sightings of sea turtles. Contact: *Dr Fiona Gell, 01624* 685837 www.gov.im/defa The Manx Wildlife Trust also record strandings on behalf of DEFA. Contact Dr Lara Howe on 01624 844432.
- The **Department of Agriculture, Environment, and Rural Affairs (DAERA) Marine & Fisheries Division** is responsible for protecting the marine environment while maximising the sustainable use of its resources, now and for future generations.

Contact: Gary Burrows, 028 7082 3600. gary.burrows@daera-ni.gov.uk

• Joint Nature Conservation Committee (JNCC) is the public body that advises the UK Government and devolved administrations on UK-wide and international nature conservation. Contact: *Kelly Macleod*, 01224 266584

¹ Formally Herpetological Conservation Trust (HCT).

- Marine Conservation Society (MCS) is the UK charity dedicated to the protection of the marine environment and its wildlife. MCS was the joint Lead Partner of the Marine Turtles Grouped Species Action Plan and coordinates the TIG. <u>www.mcsuk.org</u> Contact: *Sue Ranger or Peter Richardson*, 01989 566017
- Marine Environmental Monitoring (MEM) is a member of the Defra "UK Cetacean Strandings Investigation Programme", www.strandings.com www.ukstrandings.org MEM also manages 'TURTLE' the British Isles & Republic of Ireland database holding both records of sightings and strandings of marine turtles dating back to 1748. Contact: *Rod Penrose, (Reporting telephone No. 01239 683033)* rodpenrose@strandings.com
- Marine Turtle Research Group is based at the University of Exeter, Cornwall Campus and carries out fundamental and applied research on marine turtles in British waters, the Mediterranean, West Africa and throughout the UK Overseas Territories. Contacts: *Prof Brendan Godley & Dr Annette Broderick 01326 371 861*.
- **MEDASSET**, founded in 1988, is an international environmental NGO registered as a charity and private company in the UK and as a Non Profit Organisation in Greece, working for the conservation of sea turtles and their habitats throughout the Mediterranean, through scientific research, environmental education, political lobbying and awareness-raising. Contact: *Lily Venizelos*, + 30 210 3613572 medasset@medasset.org
- National Parks and Wildlife Service (NPWS), part of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, provides the legislative and policy framework for the conservation of nature and biodiversity in the Republic of Ireland. It also oversees its implementation, based on good science, with particular emphasis on the protection of habitats and species, through the designation and conservation of sites under EU Directives and national legislation. Contact: Dr Ferdia Marnell, +3531 8883290.
- Natural England (NE) is the Government agency that champions the conservation of wildlife and natural features throughout England.
 Contact: Paul Edgar, 0300 060 1324 Paul.Edgar@naturalengland.org.uk or Gillian Benson, 02080 261060

Contact: Paul Edgar, 0300 060 1324 Paul.Edgar@naturalengland.org.uk or Gillian Benson, 02080 261060 Gillian.Benson@naturalengland.org.uk

• Natural Resources Wales (NRW) Natural Resources Wales is the largest Welsh Government Sponsored Body. Formed in April 2013, it took over the functions of the Countryside Council for Wales, Forestry Commission Wales and the Environment Agency in Wales, as well as certain Welsh Government functions. Its purpose is to pursue sustainable management of natural resources in all of its work. This means looking after air, land, water, wildlife, plants and soil to improve Wales' well-being, and provide a better future for everyone.

Contact: Dr Tom Stringell, 03000 654912 Tom.Stringell@cyfoethnaturiolcymru.gov.uk or Ceri Morris, 03000 654913 Ceri.Morris@cyfoethnaturiolcymru.gov.uk

- Queen's University Belfast: Dr Jonathan Houghton works on the foraging ecology and migratory behaviour of marine turtles with a particular focus on the predator prey interactions of leatherback turtles and gelatinous zooplankton (jellyfish). Contact: Dr Jonathan Houghton, 028 90972297 j.houghton@qub.ac.uk
- Scottish Natural Heritage (SNH) is a government body responsible to the Scottish Government and Scottish Parliament. SNH promotes the care, improvement, responsible enjoyment, understanding, appreciation and sustainable use of Scotland's natural heritage. SNH is the contact government point for the Marine Turtles Grouped Species Action Plan. Contact: *Dr Flora Kent*, 01224 266522.
- The Wildlife Trusts is a partnership of 47 Wildlife Trusts, across the UK, caring for more than 2,400 nature reserves. It campaigns for the protection of wildlife and invests in the future by helping people of all ages to gain a greater appreciation and understanding of nature. The Wildlife Trusts Basking Shark Project contributes at sea survey data, from the west coast of Britain on an annual basis.

Contact: Dr Nick Tregenza, 01736 711783.

University College Cork Professor John Davenport is Emeritus Professor of Zoology. He has worked on most species of sea turtles, but especially leatherbacks, since the early 1980s, conducting fundamental studies on their physiology and biomechanics. He is currently linked to turtle conservation in Bermuda, and conducts turtle research with colleagues in Nova Scotia, France and Hawaii.
 Contact: Professor John Davenport, +44 (0)1392 926233 or Dr Tom Doyle +353 (0) 21 4703119.

<u>3. MATERIALS AND METHODS</u>

Contact details vary for different parts of the British Isles & Republic of Ireland and the Turtle Code (Appendix 2.) should be consulted for the relevant contacts.

In **England & Wales** a 24 hour answer phone **01239 683033**, is interrogated at regular intervals. A message requests callers to leave details of the stranding or sighting and location, along with their name and contact phone number, so they may be reached if confirmation of details are required. A dedicated email address to receive digital photographs has been created <u>info@strandings.com</u>

For **Scotland** all records should be reported to Scottish Natural Heritage Marine Monitoring Team on **01463 725009** with dead strandings being reported to the Scotland's Rural College (SRUC) **01463 243030.** Live strandings and entanglements should be reported to the SSPCA on **03000 999 999**.

For **Northern Ireland** all records of live or dead turtles should be reported to the Portrush Coastal Zone (DAERA) on **028 7082 3600**.

In the **Republic of Ireland** all records should be reported to Dr Tom Doyle, School of Natural Sciences (Zoology) Room 219, Ryan Institute, National University of Ireland Galway 00353 (0) 91 493744 (Direct) 00353 (0) 87 1354938 (24hrs). Sightings & strandings can also be reported online in the Republic of Ireland at <u>www.turtle.ie</u>

UK turtle sightings and strandings can also be reported using the UK Turtle Code online at <u>www.euroturtle.org/turtlecode</u>

On the Isle of Man all marine animal strandings should be reported to DEFA on 01624 685835 or directly to Dr Fiona Gell 07624 473753.

The following criteria are applied: -

3.1 Live Animals

(Condition code 1)²

In 1994 the Marine Animal Rescue Coalition (MARC) was formed. This consists of all the major animal welfare and conservation bodies involved with marine mammals/turtles in the UK. It has been agreed that in the case of a live-stranding the first point of call would be the RSPCA (England & Wales), SSPCA (Scotland) as they support a <u>manned</u> 24-hour emergency phone. The RSPCA/SSPCA would then contact the relevant organisations, Marine Environmental Monitoring etc. Contacts and advice can be found in the UK Turtle Code at <u>www.strandings.com/Turtlepage.html</u>

3.2 Dead Animals

(Condition code 2a extremely fresh as if just died)²

(Condition code 2b slight decomposition)²

(Condition code 3 moderate decomposition)²

Health and safety precautions are followed with the animal being handled only with gloved hands. Preferably it is then taken immediately for *post-mortem* examination, but due to funding cuts in 2006 freezing is now an option until transport becomes available.

(Condition code 4 advanced decomposition)²

(Condition code 5 mummified carcass)²

Species identified, basic measurements taken together with skin for DNA. Health and safety precautions being observed. Local Authorities then contacted for safe disposal of remains.

All live and dead marine turtles are allocated a "T0000/001" number. "T" designates the animal as a marine turtle, 0000 is the year and /001 is an individual number for each record of the same year. Records of all strandings & sightings in the British Isles & Republic of Ireland are kept by the Strandings Co-ordinator. Copies of *post-mortem* examination reports are sent from the Strandings Co-ordinator to the finder and others associated with the relevant stranding.

² Body conditions based on Kuiken, T. and Garcia Hartmann, M (1991) Proceedings of the European Cetacean Society workshop on cetacean pathology: dissection techniques and tissue sampling. ECS newsletter 17, Special issue: 39pp

<u>4. RESULTS</u>

The following three tables include marine turtle 'sightings' and 'strandings' reported through 2016.

Table 1.

2016 Total number of reported marine t	urtle	s fo	r the	Bri	tish	Isles	8 &	RoI.	(live	& ¢	lead)	•	
Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Green turtle (Chelonia mydas)	1	0	1	0	0	0	0	0	0	0	0	0	2
Hawksbill turtle (Eretmochelys imbricata)	0	0	0	0	0	0	0	0	0	0	0	0	0
Kemp's ridley turtle (Lepidochelys kempii)	2	1	0	0	0	0	0	0	0	0	0	0	3
Leatherback turtle (Dermochelys coriacea)	3	0	0	0	0	1	1	3	2	0	0	0	10
Loggerhead turtle (Caretta caretta)	12	2	2	0	0	0	0	0	0	0	0	0	16
Olive ridley turtle (Lepidochelys olivacea)	0	0	0	0	0	0	0	0	0	0	1	0	1
Unidentified	0	0	0	0	0	0	1	0	0	0	0	0	1
Total animals	18	3	3	0	0	1	2	3	2	0	1	0	33

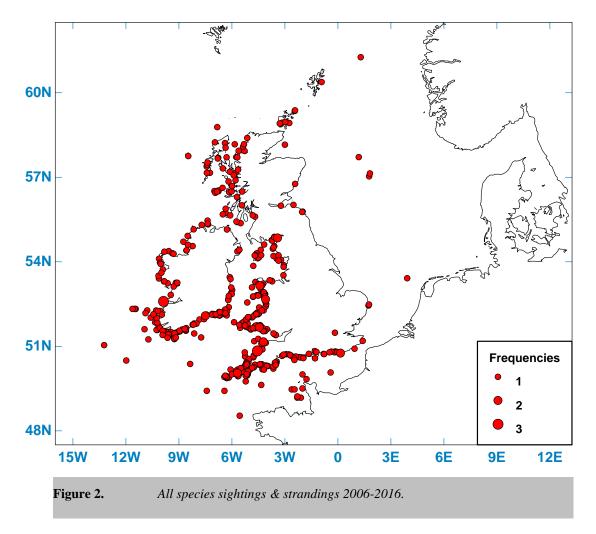
Table 2.

2016 Number of live marine turtles.													
Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Green turtle (Chelonia mydas)	0	0	0	0	0	0	0	0	0	0	0	0	0
Hawksbill turtle (Eretmochelys imbricata)	0	0	0	0	0	0	0	0	0	0	0	0	0
Kemp's ridley turtle (Lepidochelys kempii)	0	0	0	0	0	0	0	0	0	0	0	0	0
Leatherback turtle (Dermochelys coriacea)	0	0	0	0	0	1	1	3	2	0	0	0	7
Loggerhead turtle (Caretta caretta)	3	0	1	0	0	0	0	0	0	0	0	0	4
Olive ridley turtle (Lepidochelys olivacea)	0	0	0	0	0	0	0	0	0	0	1	0	1
Unidentified	0	0	0	0	0	0	1	0	0	0	0	0	1
Total animals	3	0	1	0	0	1	2	3	2	0	1	0	13

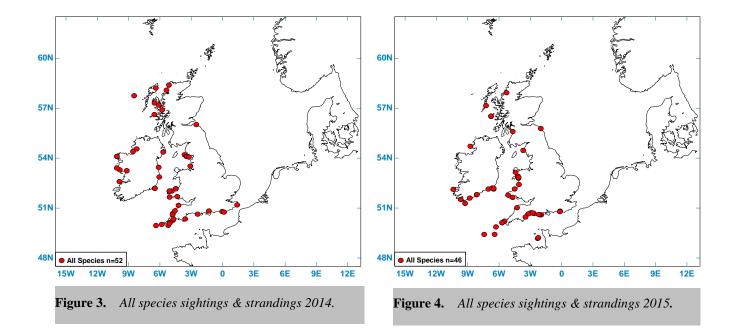
Table 3.

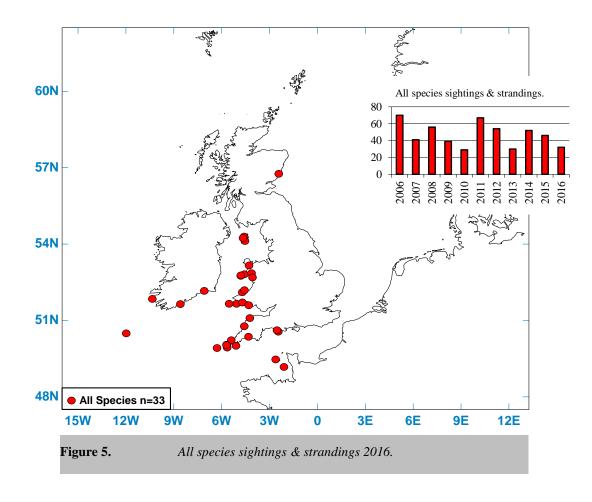
2016 Number of dead marine turtles.													
Species	Jan	Feb	Mar	Apı	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Green turtle (Chelonia mydas)	1	0	1	0	0	0	0	0	0	0	0	0	2
Hawksbill turtle (Eretmochelys imbricata)	0	0	0	0	0	0	0	0	0	0	0	0	0
Kemp's ridley turtle (Lepidochelys kempii)	2	1	0	0	0	0	0	0	0	0	0	0	3
Leatherback turtle (Dermochelys coriacea)	3	0	0	0	0	0	0	0	0	0	0	0	3
Loggerhead turtle (Caretta caretta)	9	2	1	0	0	0	0	0	0	0	0	0	12
Olive ridley turtle (Lepidochelys olivacea)	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
Total animals	15	3	2	0	0	0	0	0	0	0	0	0	20

The general geographical distribution of each species, strandings and sightings, are plotted on the following maps. Although the maps are generated directly from the data stored, they should be regarded as showing distribution of animals rather than giving absolute counts. While the co-ordinate system and the mapping software can theoretically differentiate between points as close as 1 metre apart, even with separations of 100 metres at the scale at which these maps are presented, some symbols may appear to overlap completely.

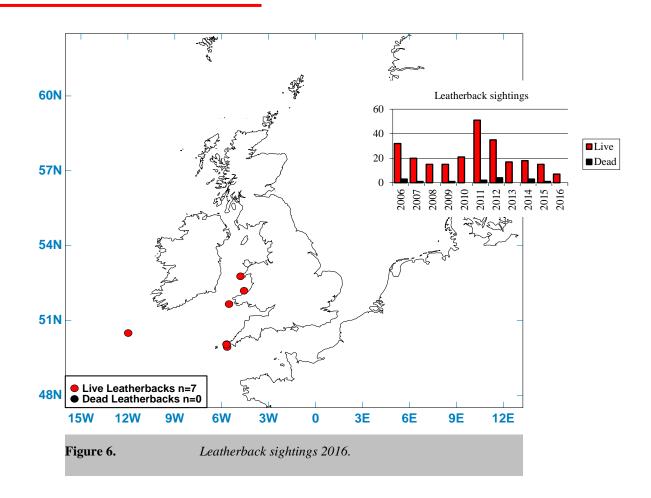


All species, sightings & strandings over the eleven year period 2006-2016 have been plotted in Figure 2.

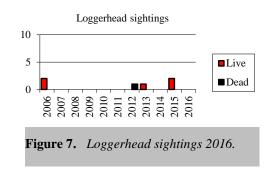


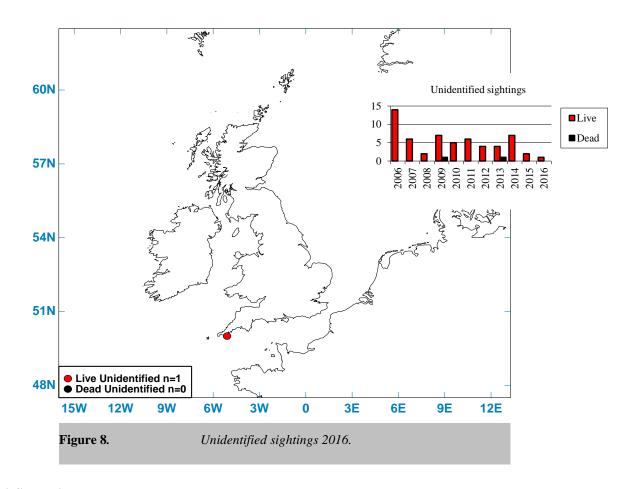


4.1 Sightings.

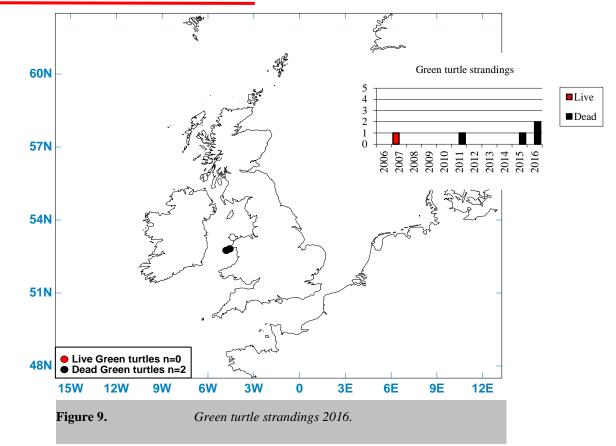


No live or dead loggerhead turtle sightings were reported during 2016. However, sightings of both live and dead loggerhead turtles have been recorded in recent years as shown in **Figure 7**.

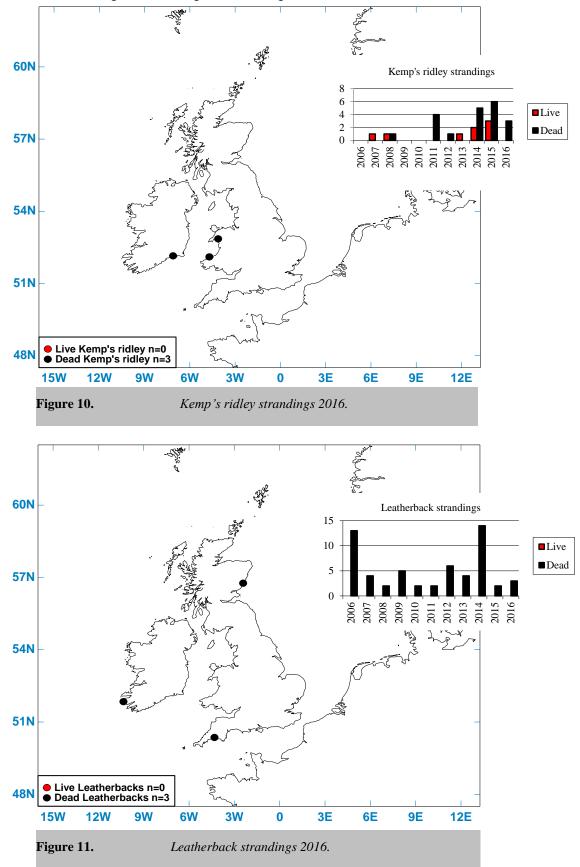


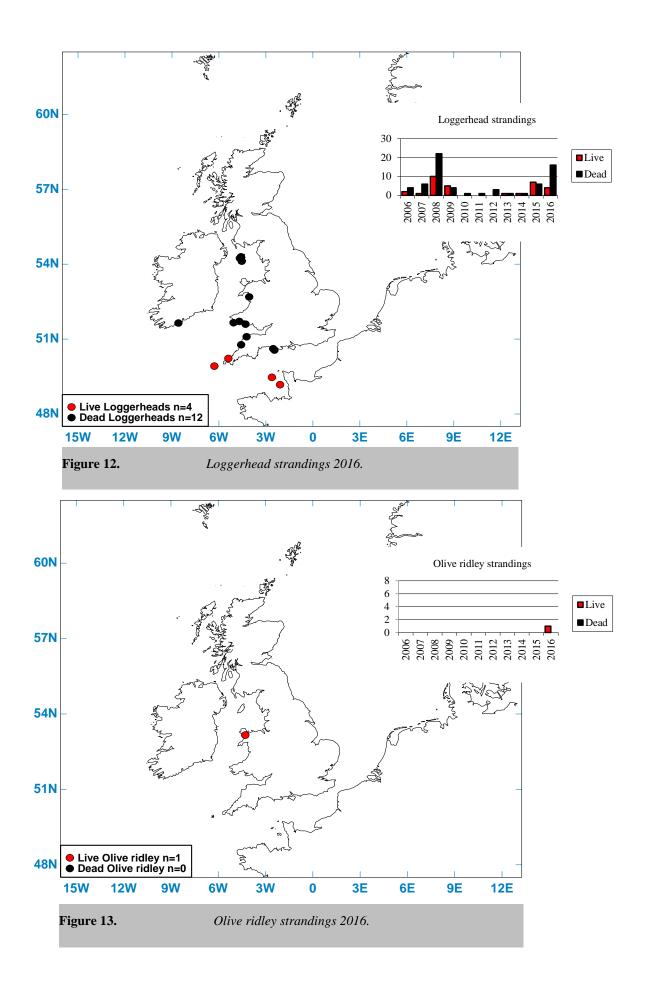


4.2 Strandings.

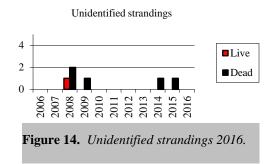


No live or dead **hawksbill turtle** strandings were reported during 2016. There have been no records of hawksbill turtle strandings in the database. One sighting record exists off Cork Harbour in February 1983 when one was caught in a herring net and brought ashore alive.



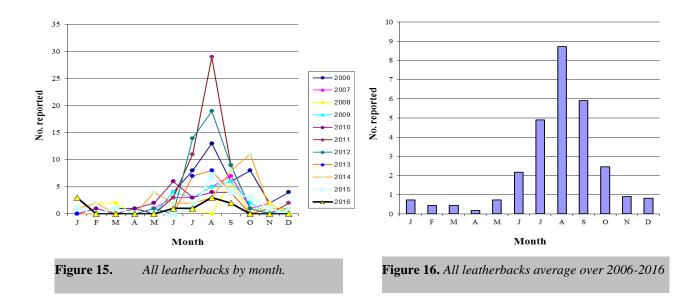


No live or dead unidentified turtle strandings were reported during 2016. However, strandings of both live and dead unidentified turtles have been recorded in recent years as shown in **Figure 14**.



All leatherback strandings and sightings, both dead and alive have been plotted by month for the period 2006 - 2016 (n=325) shown in **Figure 15**. The average figure was taken over 2006-2016 and plotted in **Figure 16**. The graph clearly shows the increase in numbers through the summer months and gives a good indication on when to expect leatherbacks around the British Isles & Republic of Ireland coast.

The records for the hard-shell species are more sporadic. Of the hard-shell species the most numerous recorded turtle over the 2006 - 2016 period is the loggerhead (n=97). The data for this species are plotted in **Figure 17** and **Figure 18**.



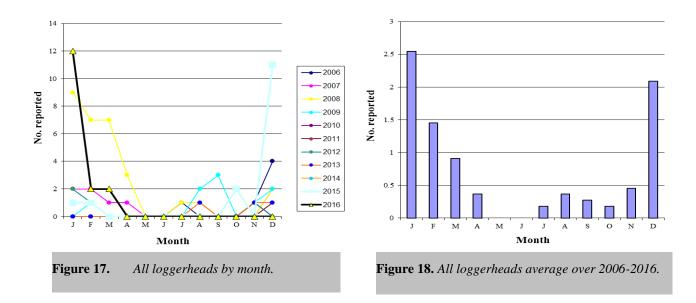


Table 4.

Country	All Species							
	2016	1748 - 2016						
Rep. of Ireland	4	1327						
England	11	655						
Scotland	1	396						
Wales	12	271						
N. Ireland	0	40						
Isle of Man	3	35						
Channel Islands	2	17						
Offshore	0	13						
Fotal	33	2754						

The 'Offshore' row in **Table 4**. includes records of turtles where it is difficult to attribute a county ie, animal far from shore or nearer to Europe than UK.

Countries are listed in **Table 4.** by descending order of total number of records shown in the year 1748 - 2016 column.

Table 5.

	1996 - 2006 2006 - 2016													
Country														
	GT		HB		K	R	LBT		LOG		OR		UNI	
England	2	0	0	0	6	11	183	99	18	30	0	0	48	38
Scotland	2	1	0	0	3	5	108	41	26	13	0	0	14	9
Rep. of Ireland	0	1	0	0	0	3	237	99	18	27	0	0	18	10
Wales	0	3	0	0	2	10	76	71	4	21	0	1	9	6
Channel Islands	1	0	0	0	0	1	0	2	1	2	0	0	2	0
N. Ireland	0	0	0	0	0	0	13	3	0	0	0	0	2	1
Isle of Man	0	0	0	0	0	0	13	6	0	3	0	0	5	1
Offshore	0	0	0	0	0	0	5	4	0	1	0	0	0	1
Total	5	5	0	0	11	30	635	325	67	97	0	1	98	66

GT = Green turtle, HB = Hawksbill turtle, KR = Kemp's ridley turtle, LBT = Leatherback turtle, LOG = Loggerhead turtle, OR = Olive ridley turtle, UNI = Unidentified turtle.

Table 6.

Species	TOTAL
Green turtle (Chelonia mydas)	13
Hawksbill turtle (Eretmochelys imbricata)	1
Kemp's ridley turtle (Lepidochelys kempii)	65
Leatherback turtle (Dermochelys coriacea)	2034
Loggerhead turtle (Caretta caretta)	254
Olive ridley turtle (Lepidochelys olivacea)	1
Unidentified	384
Total animals	2752

The total records held in TURTLE are 2769 (end of 2016). However, some records with inadequate year data have been excluded in this report and show as a discrepancy compared to previous years in some totals presented in Table 6.

A breakdown of records for each country is shown in **Table 4.** However, the eleven year comparison, 1996-2006 / 2006-2016 shown in **Table 5**, shows a marked decline in leatherback turtles recorded for the Republic of Ireland, the high numbers in 1996-2006 are a result of the concerted efforts of Gabriel King in investigating and collecting historical records around the Irish coast.

5. MATTERS ARISING.

T2015/045 (named Una) was a loggerhead turtle found stranded alive at near Clonakilty, Cork, Ireland on 22nd December 2015 and was taken to Dingle Aquarium. The turtle was released with the aid of the Irish Navy in May 2016. (See 6.2 Repatriation).

T2015/046 (named Eva) was a loggerhead turtle found stranded alive at Ballyteigue Burrows, Wexford, Ireland on 22nd December 2015 and was taken to Galway Atlantaquaria. The turtle was released with the aid of the Irish Navy in September 2016. (See 6.2 Repatriation).

5.1 Retrospective Reports.

Only one retrospective report was received during 2016.

T1958/05 was a hard-shell species found alive at sea entangled in lobster pot line between Conningmore Rocks and The Great Saltee, Wexford, Republic of Ireland. The turtle was landed, the fate of the turtle is not known.

6. LIVE STRANDING EVENTS 2016.

There were 5 live-strandings of marine turtles reported in 2016.

T2016/001 Loggerhead turtle found stranded alive at Gwithian, Cornwall, on 6th January 2016.
T2016/004 Loggerhead turtle found stranded alive at St Clements beach, Jersey, Channel Islands on 10th January 2016.
T2016/008 Loggerhead turtle found stranded alive at Hugh Town, St May's, Isles of Scilly on 17th January 2016.

T2016/021 Loggerhead turtle found stranded alive at Vazon Bay, Guernsey, Channel Islands on 2nd March 2016.

T2016/030 Olive ridley turtle found stranded alive at Tan-Y-Foel beach, Menai Strait, Anglesey on 12th November 2016.

6.1 Rehabilitation

Of the five live strandings listed above all were recovered for rehabilitation.

T2016/01 (named Tallulah) was a loggerhead turtle found stranded alive at Gwithian, Cornwall on 6th January 2016 with a mass of goose barnacles attached to the rear of the animal. The animal was recovered by David Fenwick Snr and taken to Blue Reef Aquarium, Newquay. The turtle responded well to treatment and was soon fit to be released. Later released with the help of the Irish Navy (see 6.2 Repatriation).

T2016/04 (named Terri) was a loggerhead turtle found live stranded at St Clements beach, Jersey, Channel Islands on 10th January 2016. The turtle had part of the front right flipper missing. The animal was recovered to New Era Vets and later moved to a local fish company to assist with the warming-up



Loggerhead turtle T2016/01.

Plate 1.

Photo by: David Fenwick Snr.

process. It was later flown to Gran Canaria to continue its rehab and eventually released in March

2016 after being PIT tagged. The turtle was transported to Gran Canaria from Jersey in Bruce Dickinsons Iron Maiden private jet. (see 6.2 Repatriation).

T2016/08 (named Sapphire) was a loggerhead turtle found live stranded at Hugh Town, St May's, Isles of Scilly on 17th January 2016. The turtle was flown to the mainland for rehabilitation free of charge by SKYBUS, unfortunately Blue Reef Aquarium were unable to take the animal due to capacity being taken up by T2016/01. The animal was transported via a relay set up by BDMLR to Weymouth Sea Life Centre. It was flown to Gran Canaria for release in December 2016.

T2016/021 (named Olivia) was a Loggerhead turtle found stranded alive at Vazon Bay, Guernsey, Channel Islands on 2nd March 2016. The turtle was recovered by the Guernsey Society for Prevention of Cruelty to Animals (GSPCA) and later flown to Gran Canaria to continue the rehab process and eventual release in September 2016.

T2016/030 (named Menai) was an Olive ridley turtle found stranded alive at Tan-Y-Foel beach, Menai Strait, Anglesey, North Wales on 12th November 2016. This is the first record of this species in UK waters.

The turtle is currently undergoing rehab at Anglesey Sea Zoo where it's been found it has a positive buoyancy problem.

6.2 Repatriation.

All the live-strandings in 2016, bar T2016/030 (Menai), plus two from 2015 were successfully released in 2016. (T2016/030 Menai is still undergoing rehabilitation due to a positive buoyancy problem).

T2015/045 Una, together with **T2016/01** Tallulah, were released with the help of the Irish Navy in May 2016.

T2016/01 Tallulah, was relayed from Blue Reef Aquarium Cornwall with the help from BDMLR, to Bristol and then to Fishguard in Pembrokeshire where she was transported on the Fishguard – Rosslare ferry to Ireland free of charge by Stena Line. She was met at Rosslare by Louise Overy from Dingle Aquarium who held Tallulah together with Una in Dingle Aquarium until the LE Roisin, an Irish Navy Patrol vessel set sail. LE Roisin was on-route to the Mediterranean on a humanitarian mission and kindly agreed to release both turtles into the Atlantic as far south as they could before turning into the Mediterranean.



Plate 2. Una and Tallulah being released by the Irish Navy.

http://www.rte.ie/news/2016/0505/786465-rescued-turtles/

T2015/046 Eva, followed shortly afterwards on the Irish Patrol vessel LE Samual Beckett that was also departing for the Mediterranean on a humanitarian search and rescue mission.

http://coastmonkey.ie/news/eva-theturtle-on-the-way-home/

We are incredibly grateful to the Irish Navy for their assistance with these releases.



Plate 3. Eva being released off Portugal by the Irish Navy.

All other turtles were flown to Gran Canaria for release.

It's preferred to get the turtles further south for release like Gran Canaria but in recent years its becoming increasingly difficult to find aircraft that fly direct from the UK to Gran Canaria with heated cargo holds.

T2016/04 Terri, was flown from Jersey, Channel Islands to Gran Canaria following a campaign on Jersey to raise funds for the flight. The aircraft finally used was owned by heavy metal band Iron Maiden's front man Bruce Dickenson. The event was documented by Mike Dilger for the BBC One Show.



Plate 4.

Terri being loaded into Iron Maidens jet.

http://www.bbc.co.uk/programmes/p03nq02f

7. BYCATCH.

Only one turtle was reported as being by-caught during 2016.

T2016/025 was a live leatherback turtle found entangled in pot-rope by a pleasure trip boat near Porthcurno, Cornwall on 17th July 2016. Crew helped untangle the turtle and it swam free.

8. SAMPLES & POST-MORTEM EXAMINATIONS.

The normal procedure for the taking of samples is from fresh animals that have been taken for *post-mortem* examination within the CSIP or the Irish Strandings project.

Ten marine turtles were found stranded dead on the UK or Irish coast in 2016 and were in a suitable condition and recovered for post-mortem examination. Of these ten, the following eight animals underwent examination in 2016.

T2016/02 was a 179cm SOL (straight overall length) male leatherback turtle found dead at St Cyrus NNR, Aberdeenshire on the 8th January 2016. The carcass was recovered to the Scottish Marine Animal Stranding Scheme at Inverness where it underwent a full post-mortem examination. There were indications of previous, chronic entanglement on the pectoral fins, but no recent rope marks and no indication of other significant trauma. The cause of death was given as probable hypothermia pending histology.

T2016/06 was a 45cm SOL (straight overall length) female Kemp's ridley turtle found dead at Poppit sands, Pembrokeshire on the 15th January 2016. The carcass was recovered to



Plate 5. T2016/02 Leatherback turtle at St Cyrus NNR. Photo by: Simon Ritchie

ZSL, London where it underwent a full post-mortem examination. The turtle had a satellite tag glued to the carapace and a PIT tag scan revealed a tag embedded in the left shoulder, number 250229600066360. The turtle was judged to be in moderate nutritional condition at death and had relatively reasonable fat deposits. The findings were considered to be consistent with 'cold stunning' as the turtle entered colder waters around the UK. Further details can be found below in 10. UNUSUAL OCCURENCES.

T2016/09 was a 23.5cm SOL (straight overall length) juvenile loggerhead turtle found dead at Saunton Sands, Devon on the 18th January 2016 (sex could not be ascertained). This turtle was in poor nutritional condition with sunken eyes and minimal fat deposits. A small amount of seaweed was found in the stomach and no evidence of plastics. Bacteriology showed nothing significant. Cause of death was given as; cold-stunned.

T2016/10 was a 31cm SOL (straight overall length) juvenile female loggerhead turtle found dead at Chesil beach, Dorset on the 29th January 2016. This turtle was in poor nutritional condition with sunken eyes and minimal fat deposits. There was no evidence of plastics in the stomach. Bacteriology showed nothing significant.

Cause of death was given as; cold-stunned.

T2016/11 was a 41.5cm SOL (straight overall length) juvenile green turtle (probable male) found dead at Hell's Mouth, Gwynedd on the 30th January 2016. No evidence of recent feeding. Turbid contents and fibrinous material in the coelomic cavity may indicate infectious process. Cause of death was given as; cold-stunned.

T2016/12 was a 32.5cm SOL (straight overall length) juvenile loggerhead turtle (probable female) found dead at Freshwater West, Pembrokeshire on the 30th January 2016. Poor nutritional condition, hypostasis in lungs indicate live stranding. Some gelatinous material and a couple of amphipods in the stomach, but nothing to indicate recent feeding.

Cause of death was given as; possible generalised bacterial infection (Pseudomonas alcaligenes).

T2016/13 was a 26cm SOL (straight overall length) juvenile female loggerhead turtle found dead at Chesil beach, Dorset on the 31st January 2016. The turtle was in poor nutritional condition (marked soft tissue loss behind head, sunken eyes, and minimal fat deposits). No gross pathology noted, no plastics in stomach. Bacteriology pending.

Cause of death was given as; cold-stunned.

T2016/18 was a 41.5cm SOL (straight overall length) juvenile female loggerhead turtle found dead at Fairbourne, Gwynedd on the 10th February 2016. This turtle was in good-moderate nutritional condition. Hypostasis in lungs and liver indicates possible live stranding. No significant gross pathology noted, no plastics in stomach. One or two parasites in coelomic cavity. Bacteriology-nothing significant.

Cause of death was given as; cold-stunned.

9. DATA SHARING.

Data is currently being migrated from the NBN Gateway to NBN Atlas and it is hoped this will be completed sometime in 2017. The full TURTLE database will be uploaded to the NBN Atlas once this migration has completed.

10. UNUSUAL OCCURENCES.

T2016/06 In October 2015 I received an email from La Rochelle Aquarium in France informing me of a Kemp's ridley turtle they had released that summer.

It was originally found stranded alive on 11th February 2014 then released by the CESTM off La Rochelle coast on 17th August 2015, equipped with a satellite tag.

The turtle had been making its way north into the Celtic Sea/Bristol Channel area where the signal had stopped.

I contacted colleagues in the southwest in the remote chance the turtle may have been sighted, caught or stranded.

Incredibly, much later, I received a report of a stranded dead turtle on my



Plate 6.

T2016/06 sat-tagged Kemp's ridley.

local beach, Poppit sands in west Wales on 15th January 2016 several months after the report of the ceased transmission. This turtle turned out to be the same animal!

The carcass was recovered for a full post-mortem examination within the CSIP.

T2016/30 was an olive ridley turtle found live-stranded in the Menai Straits, Anglesey, North Wales on 12th November 2016.

This is the first record of this species in UK or RoI waters. The turtle had virtually stranded on Anglesey Sea Zoo's doorstep and was luckily immediately retrieved for rehab. It soon became apparent the turtle had a positive buoyancy problem floating very high in the water and struggling to dive. A CT scan was arranged with the Royal Veterinary College (RVC) London where it was found a lesion in the left lung was allowing air to escape into the coelomic cavity, it is hoped this will heal over time but may possibly negate any immediate transportation by aircraft due to fluctuations in atmospheric pressures



Plate 7.

T2016/30 being prepared for her CT scan.

that may act on internal trapped pockets of air.

<u>11. PUBLICITY.</u>

The Strandings Web-site has been maintained to provide details of the CSIP. Although this is intended primarily for Wales, key contact details are given for England, Scotland and Ireland. The pages can be viewed at <u>www.strandings.com/</u>

Annual reports and other turtle related publications are available at <u>www.strandings.com/</u> Posters and leaflets produced to increase awareness of the project have continued to be distributed.

Marine turtle records are posted on the National Biodiversity Network (NBN) Gateway, however, data is currently being migrated from the NBN Gateway to NBN Atlas and it is hoped this will be completed sometime in 2017.

<u>12. ACKNOWLEDGEMENTS.</u>

Marine Environmental Monitoring wishes to acknowledge the following;

Cornwall Wildlife Trust, Marine Conservation Society, Dr Tom Doyle, David Waines, Rhodri Dafydd, Steve Trewhella, SKYBUS, Stena Line Ferries, the Irish Navy, Una Mullins, Dave Jarvis, Jeff Taylor, Dave McBride, John Bird, Kim Dewsbury, Angela Stuckey, Sharon Morris, Louise Overy, Merryll Palfreman, Carl Milne, Joanne Casserly, Fiona Smith, Steve Matchett, Rita Gately, Amanda Smith, David Fenwick Snr, Frankie Hobro, Michael Kinnen, and John Knight.

Natural England, National Parks & Wildlife Service and the Welsh Government for financial support towards the British Isles & Republic of Ireland TURTLE database.

13. APPENDICES.

- Appendix 1. 2016 TURTLE data.
- Appendix 2. UK Turtle Code.
- Appendix 3. Morphometrics.

RecordKey	eciesCo	ghtStra	AliveDea	EndDate	Country	County	Location	Notes
T2016/001	LOG	ST	ALIVE	06/01/2016	ENGLAND	CORNWALL	Gwithian	Taken to Blue Reef Aquarium, Newquay. Transferred to Ireland and relesed via Irish Navy off Portugal
T2016/002	LBT	ST	DEAD	08/01/2016	SCOTLAND	ABERDEENSHIRE	East Coast. St Cyrus NNR	SD. Collected by CSIP
T2016/003	LOG	ST	DEAD	06/01/2016	ISLE OF MAN	ISLE OF MAN	Port Soderick	Decomposed measured.
T2016/004	LOG	ST	ALIVE	10/01/2016	CHANNEL ISLANDS	JERSEY	St Clements beach	Held at New Era surgery with vet Amanda Smith. Moved to fish company to start the warming-up process. Transported to the Canary Islands for further rehab and release.
T2016/005	LBT	ST	DEAD	09/01/2016	ENGLAND	CORNWALL	Portwrinkle harbour	
T2016/006	KR	ST	DEAD	15/01/2016	WALES	PEMBROKESHIRE	Poppit Beach	Sat-tagged, PIT tag number 250229600066360
T2016/007	LOG	ST	DEAD	16/01/2016	ENGLAND	CORNWALL	Millook, Bude	Removed for disposal.
T2016/008	LOG	ST	ALIVE	17/01/2016	ENGLAND	ISLES OF SCILLY	Hugh Town	Flown to mainland and relayed to Weymouth Sea Life Centre (Dave Jarvis). Blue Reef unavailable due to having T2016/001. Releasd Gran Canaria 21st Dec 2016.
T2016/009	LOG	ST	DEAD	18/01/2016	ENGLAND	DEVON	Saunton Sands	Stored frozen at Argyll Veterinary Clinic awaiting collection.
T2016/010	LOG	ST	DEAD	29/01/2016	ENGLAND	DORSET	Chesil beach	Retreived by Weymouth Sea Life Centre, awaiting collection.
T2016/011	GT	ST	DEAD	30/01/2016	WALES	GWYNEDD	Hells Mouth	Recovered by Mrs Kim Dewsbury to her home. Collected by MEM.
T2016/012	LOG	ST	DEAD	30/01/2016	WALES	PEMBROKESHIRE	Freshwater West	Retreived by John Bird, Collected by MEM.
T2016/013	LOG	ST	DEAD	31/01/2016	ENGLAND	DORSET	Chesil beach	Thought to be alive, taken to Bristol Aquarium. Found to be dead, stored frozen for collection.
T2016/014	LOG	ST	DEAD	09/01/2016	EIRE	CORK	Garrettstown Beach, Cork	in UCC awaiting collection by NUIG
T2016/015	KR	ST	DEAD	10/01/2016	EIRE	WATERFORD	Tramore Beach	NUIG freezer
T2016/016	LBT	ST	DEAD	14/01/2016	EIRE	KERRY	St Finans Bay, between Portmagee and Ballinskelligs	
T2016/017	KR	ST	DEAD	03/02/2016	WALES	GWYNEDD	Harlech	Damaged Shell only, found behind sand dunes.
T2016/018	LOG	ST	DEAD	10/02/2016	WALES	GWYNEDD	Fairbourne	
T2016/019	LOG	ST	DEAD	16/02/2016	WALES	PEMBROKESHIRE	Saundersfoot	Finder left carcass at site. Finder asked to recover the turtle but nothing found next day.
T2016/020	LOG	ST	DEAD	02/03/2016	WALES	SWANSEA	Llangennith	Finders recovered turtle to St James Vet Group in Swansea.
T2016/021	LOG	ST	ALIVE	02/03/2016	CHANNEL ISLANDS	GUERNSEY	Vazon Bay	Recovered by GSPCA to Animal Shelter.
T2016/022	GT	ST	DEAD	19/03/2016	WALES	GWYNEDD	Bardsey Island	not recovered
T2016/023	UNI	SEA	ALIVE	21/07/2016	ENGLAND	CORNWALL	half mile off Black Head east Lizard	seen from 30-40ft but not confident with identification
T2016/024	LBT	SEA	ALIVE	14/08/2016	WALES	PEMBROKESHIRE	between Grassholm and Smalls	Seen from wheelhousebig LBT surfaced for breath and dived.
T2016/025	LBT	SEA	ALIVE	17/07/2016	ENGLAND	CORNWALL	near Porth Curno	Mermaid pleasure trip found it caught in potrope. Helped untangle it and set it free. Approx 6ft, Article on Pirate FM News.
T2016/026	LBT	SEA	ALIVE	07/06/2016	WALES	CEREDIGION	7681 metres off Llangrannog	Seen from boat at approx 150 metres.breathed three times before diving.
T2016/027	LBT	SEA	ALIVE	26/08/2016	ENGLAND	CORNWALL	off Land's End	Seen from boat at approx 20 metres
T2016/028	LBT	SEA	ALIVE	27/08/2016	ENGLAND	CORNWALL	1000m SW off coast headland near Gwennap Head, Senner	observed from land at 1000m. Observed breathing on two occasions and presumed swimming in easterly direction.
T2016/029	LBT	SEA	ALIVE	12/09/2016	WALES	GWYNEDD	120metres west from headland , Aberdaron.	Seen for 10 mins by diver/snorkler. Appeared to be eating something.
T2016/030	OR	ST	ALIVE	12/11/2016	WALES	ANGLESEY	MENAI STRAIT Tan-Y-Foel beach	Recovered to Anglesey Sea Zoo for rehab.
T2016/031	LOG	ST	DEAD	23/01/2016	ISLE OF MAN	ISLE OF MAN	White Strand beach	
T2016/032	LOG	ST	DEAD	24/01/2016	ISLE OF MAN	ISLE OF MAN	North of Kirk Michael beach	Fresh photo taken. No further info
T2016/033	LBT	SEA	ALIVE	19/09/2016	EIRE	OFFSHORE	Spotted 270km off Mizen Head in the Porcupine Seabight.	

The United Kingdom and Republic of Ireland Turtle Code

Advice for sea users on how to deal with marine turtle encounters

As a sea user, you can help in the effort to protect endangered marine turtles by providing information about your encounters with these spectacular creatures in UK waters.

MARINE TURTLES ARE LEGALLY PROTECTED

There is no offence if turtles are caught accidentally in fishing gear. Nor is it an offence to help turtles if entangled or stranded, or temporarily to hold dead turtles for later examination by experts.

However, marine turtles are protected in Britain. This means that:

- turtles may not be deliberately killed or caught
- live turtles may not be landed unless for the purpose of tending them or enabling their subsequent release
- dead turtles or shells obtained from turtles in UK waters may not be possessed unless the animal was lawfully acquired
- turtles and their derivatives may not be sold or offered for sale without UK government permission, unless they are antiques acquired before 1st June 1947 (with documented proof)
- turtles and their derivatives may not be imported or exported without UK government permission.

The following legislation pertains to marine turtles:

- Wildlife and Countryside Act 1981 (as amended), in England and Wales.
- Conservation of Habitats and Species Regulations 2010, in England and Wales.
- Conservation (Natural Habitats, &c.) Regulations 1994 as amended, in Scotland.
- Conservation (Natural Habitats etc.) (Amendment) Regulations (Northern Ireland) 2007.
- Control of Trade in Endangered Species (Enforcement) Regulations (1997) *as amended*, in the UK.
- Customs and Excise Management Act 1979.
 Isle of Man Wildlife Act 1990.

WHAT TO DO IF YOU FIND A SICK OR ENTANGLED TURTLE

Immediately report the turtle to the relevant contact. Marine turtles will drown if trapped underwater, but prompt action can save them. A turtle that is entangled or trapped is likely to be stressed. Large turtles deliver a serious bite and a blow from a flipper can be painful, so be careful. Due to possible health risks involved in handling turtles, always wear rubber gloves.

TURTLES ENTANGLED AT SEA

Approach calmly and cautiously and ensure first of all that the turtle's head is above water so that it can breathe if it is alive.

ALIVE: AVOID TOWING TURTLES TO SHORE. They should be disentangled and released at sea whenever possible.

If alert & active

- Do not use a gaff to pull the turtle alongside and do not haul leatherbacks aboard.
- Avoid pulling hard on the turtle's flippers as they may dislocate or break.
- Carefully disentangle the turtle, making sure that as much net and line as possible has been removed before the animal is released.
- Make sure that the vessel is stopped and out of gear before carefully sliding the turtle back into the water.
- Ensure that the turtle is clear of the vessel before moving away.

ONLY if disentanglement at sea is impossible should the turtle be brought ashore.

Tow leatherbacks very slowly and make sure the animal's head is above water so that it can breathe. Release leatherbacks in shallow water, not on land. Other species should be retained and reported.

If traumatised/inactive (no or slight movement, limbs flexible and limp, no decomposition)

Severely traumatised hard-shelled turtles can be saved if they are small enough to fit on your boat.

- Wrap the turtle in a towel soaked in seawater. Do not cover the nostrils.
- Place the animal in a sheltered and secure place on its belly. To drain the lungs, raise the back end of the shell so the turtle is resting at approximately 30°. Keep it in this position until you return to shore.
- Leatherbacks should **not** be hauled aboard. If inactive, they can be towed to shore very slowly, ensuring they are able to breathe at all times.

DEAD: There may be serious health risks involved in handling dead turtles. Inexperienced individuals are advised not to touch them. Where possible, record the details listed above and, only if the specimen is fresh, bring it back to shore and place in cold storage. Always wear rubber gloves when handling turtles.

PLEASE REPORT ALL TURTLE ENCOUNTERS

ENGLAND/WALES

ALL RECORDS Rod Penrose, Marine Environmental Monitoring 01239 683033 (24hrs) www.strandings.com

LIVE STRANDINGS/ ENTANGLEMENTS RSPCA 0300 1234999 BDMLR 01825 765546

ISLE OF MAN

Dr Fiona Gell DEFA - Isle of Man Government 01624 685835 (main) Marine Operations Centre 01624 686628 (24hrs) ALL RECORDS Marine Monitoring Officer, Scottish Natural Heritage 01463 725009

DEAD STRANDINGS Nick Davison, Scotland's Rural College (SRUC) 01463 243030 07979 245893 strandings@sruc.ac.uk

LIVE STRANDINGS/ ENTANGLEMENTS SSPCA 03000 999999 ALL RECORDS Portrush Coastal Zone (DAERA) 028 7082 3600

NORTHERN IRELAND

REPUBLIC OF

ALL RECORDS Dr Tom Doyle School of Natural Science (Zoology), Room 219, Ryan Institute, National University of Ireland Galway 00353 (0) 91 493744 (Direct) 00353 (0) 87 1354938 (24hrs)

Report online at: www.euroturtle.org/turtlecode & www.mcsuk.org

RECORD THE FOLLOWING DETAILS

All information is valuable, but the following details are particularly useful:

- A description of the turtle (alive or dead), identification of species (at least to leatherback/ hard-shelled level) and overall straight length. Note any damage (e.g. cuts, scars) and **take photographs** when possible.
- Location (longitude & latitude/ OS grid reference), date and time of sighting.
- **Other observations**, such as turtle's behaviour, whether caught in fishing gear (including exact nature of entanglement, gear involved) etc.
- **Presence of tags**. Many conservation projects place plastic or metal tags on turtles' flippers, which display identification numbers and a return address. Record any tag details if this can be done without causing disturbance to the turtle.

Please report all dead turtles, even if they have to be discarded at sea. Records from diaries or logbooks, however old, are also of interest.

TURTLES STRANDED ON LAND

Leatherback turtles

Leatherbacks found stranded on beaches are usually very weak, dead or dying, but might still be saved.

If apparently uninjured:

- Carefully drag the turtle back to the sea and release it (enlist the help of several people and pull the shell rather than the flippers).
- Do not drag the animal over rocks, as this will cause severe damage.
- If stranded on rocks, it may be better to wait for the incoming tide to provide some buoyancy before dragging the turtle back to sea.

Other species (hard-shelled)

Loggerhead, Kemp's ridley, green and hawksbill turtles encountered on UK shores are usually cold stunned juveniles and should not be placed back in the sea.

- Wrap the turtle in a towel soaked in seawater, do not cover the nostrils
- Place the animal in a sheltered and secure place on its belly. If inactive, raise the back end of the shell so the turtle is resting at approximately 30° to drain the lungs. Report the turtle as soon as possible.

Dead turtles of all species are valuable for research and should be reported as soon as possible. Fresh specimens should be preserved in a cold store where possible. These animals will undergo a full post-mortem examination within the DEFRA-funded UK Cetacean Strandings Investigation Project (CSIP).

For copies of this code and information about turtles in UK waters, contact MCS on 01989 566017 or info@mcsuk.org

SCOTLAND ALL RECORDS



Marine Turtles in the UK and Republic of Ireland

Of the world's seven marine turtle species, five have been recorded in UK waters. They are the leatherback, loggerhead, Kemp's ridley, green and hawksbill turtles. The leatherback, the largest marine turtle, is the species most frequently recorded in UK waters. Leatherbacks have a flexible, leathery shell and are unique among reptiles in that they are able to metabolically raise their body temperature above that of their immediate environment, allowing them to survive in colder waters. Each summer leatherbacks migrate to UK waters where they feed on jellyfish. The other four species have hard shells and are less frequently encountered in UK waters, where they usually occur as stray juveniles carried by currents from warmer seas.

