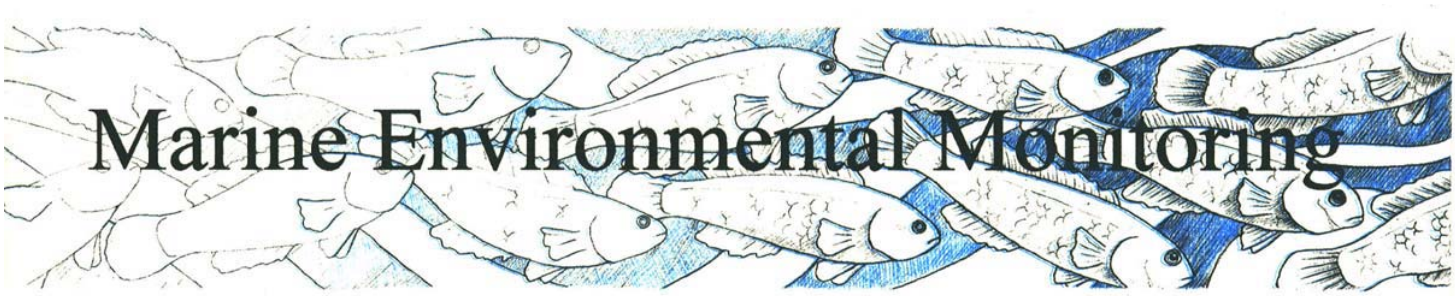

www.strandings.com

UK & Eire Marine Turtle Strandings & Sightings
Annual Report 2001

R.S.Penrose. May 2002

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1. 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). The UK DEFRA contract is held by the Natural History Museum (NHM), with research being co-ordinated in England and Wales by the Institute of Zoology (IOZ) and the Scottish Agricultural College (SAC) in Scotland. A number of other organisations are involved with the collaboration which include Marine Environmental Monitoring (MEM), the Centre for Environmental Fisheries and Aquaculture Science (CEFAS), the University College Cork and the Department of Agriculture for Northern Ireland. *Post-mortem* examinations are carried out by the Department of Veterinary Pathology, University of Liverpool, the Institute of Zoology, London, the Veterinary Investigation centre, Truro and the Scottish Agricultural College, Inverness. In addition to pathological and related investigations, a range of frozen and fixed material, collected *post-mortem*, are currently archived at the Institute of Zoology.
As from 2001, marine turtles have been included within the project and dead carcasses have been routinely collected, wherever possible, for *post-mortem* examination.

Records of sightings and strandings of live and dead marine turtles are kept by the Welsh Strandings Co-ordinator within the "Collaborative UK Marine Mammal & Marine Turtle Strandings Project".

1.1 The UK Marine Turtles Grouped Species Action Plan.

In 1999, English Nature 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 is being implemented by a group of organisations led by joint lead partners the Marine Conservation Society (MCS) and the Herpetological Conservation Trust (HCT). The contact agency is Scottish Natural Heritage (SNH). The Turtle Implementation Group (TIG) consists of the following organisations:-

- **Countryside Council for Wales** The Countryside Council for Wales is the statutory advisor to government on sustaining natural beauty, wildlife and the opportunity for outdoor enjoyment throughout Wales and it's inshore waters. Contact: *Mandy McMath 01248 370444*
- **English Nature** is the Government agency that champions the conservation of wildlife and natural features throughout England. Contact: *Jim Foster 01733 455241*
- **Environment and Heritage Service** is the agency responsible for the implementation of government environmental policy in Northern Ireland. Its aim is "to protect and conserve the natural and man-made environment and to promote its appreciation for the benefit of present and future generations". Contact: *John Milburne 02890 546558*
- **Euroturtle** is an educational website run by *Roger Poland,* Head of Science at an Independent Mixed School in Somerset. He is actively involved in marine turtle conservation and is a trustee and member of the Scientific Committee of MEDASSET (Mediterranean Association to Save Sea Turtles) Contact: 01823 328200
- **Herpetological Conservation Trust** are an authority on reptile and amphibian issues and are Lead Partners or joint Lead Partners for all five of the reptile and amphibian Action Plans within the UK BAP. Contacts: *Tony Gent - 01202 391319*
- The **Marine Conservation Society (MCS)** is the UK Charity dedicated to the protection of the marine environment and its wildlife and is joint Lead Partner of the TIG. Contact: *Peter Richardson 01989 565142/ 566923*
- **Marine Environmental Monitoring (MEM)** is a member of the DEFRA "Collaborative UK Cetacean & Marine Turtle Strandings Project", www.strandings.com. MEM also manages 'TURTLE' a UK & Eire database holding both records of sightings and strandings of marine turtles dating back to 1748. Contact: *Rod Penrose (Reporting telephone No. 01348 875000)*
- **The Marine Turtle Research Group (**www.seaturtle.org/mtrg), University of Wales Swansea carries out research and conservation projects regarding turtles in UK waters, Mediterranean and the British Overseas

Territories including Cayman Islands and Ascension Island. Staff edit the international Marine Turtle Newsletter (www.seaturtle.org/mtn). Contacts: *Dr Brendan Godley & Dr Annette Broderick 01792 205678*

- **Professor John Davenport** is Head of Department of Zoology & Animal Ecology at University College Cork. He has worked on most species of sea turtles since the early 1980s, conducting fundamental studies on their physiology and biomechanics. He is currently linked to turtles conservation programmes in Bermuda and Cephalonia. Contact: *+353 21 490 4051*
- **Scottish Natural Heritage** (SNH) is a government body responsible to the Scottish Executive 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 TIG. Contact: *Dr Martin Gaywood 0131 446 2444*
- **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. Contact: *Mark Nicholso*n, Cornwall Wildlife Trust - 01872 273939

2. MATERIALS AND METHODS

Contact details vary for different parts of the UK and the Turtle Code (Appendix 18) should be consulted for the relevant contacts. In England & Wales a 24 hour Answerphone **(01348 875000)**, 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. (If the stranding is a live stranding then a message on the Answerphone informs the caller to contact the RSPCA immediately. see 2.1).

The following criteria are applied: -

2.1 Live

(Condition code 1) [1]
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 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 manned 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 (Appendix 18) and the Advisory Notes (Appendix 19).

2.2 Dead

(Condition code 2a extremely fresh as if just died) [1]
(Condition code 2b slight decomposition) [1]
Health and safety precautions are followed with the animal only being handled with gloved hands. It is then taken immediately for *post-mortem* examination.

(Condition code 3 moderate decomposition)[1]
Health and safety precautions are followed with the animal only being handled with gloved hands. Preferably it is taken immediately for *post-mortem* examination. Storage at $+4^0$ Celsius is permissible for a maximum of 1 week.

(Condition code 4 advanced decomposition)[1]
(Condition code 5 mummified carcass)[1]
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.

[1] Body condition based on the Institute of Zoology condition code.

All live and dead marine turtles are allocated a "T0000/01" number. "T" designates the animal as a marine turtle, 0000 is the year and /01 is an individual number for each record of the same year. Records of all strandings & sightings in the UK & Eire 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.

3. RESULTS

3.1 Marine Turtles.

Table 1.

2001 Total number of reported Marine Turtles for UK & Eire (live & dead).													
	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	1	2	6	2	0	5	4	1	**21**
Loggerhead turtle *(Caretta caretta)*	0	0	1	0	0	0	0	0	0	0	10	7	**18**
Unidentified	0	0	0	0	0	0	1	0	0	2	0	1	**4**
Total animals	**0**	**0**	**1**	**0**	**1**	**2**	**7**	**2**	**0**	**7**	**14**	**9**	**43**

Table 2.

2001 Number of Live Marine Turtles.													
	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 imbrcata)*	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	2	6	1	0	2	1	0	**12**
Loggerhead turtle *(Caretta caretta)*	0	0	1	0	0	0	0	0	0	0	9	6	**16**
Unidentified	0	0	0	0	0	0	1	0	0	1	0	0	**2**
Total animals	**0**	**0**	**1**	**0**	**0**	**2**	**7**	**1**	**0**	**3**	**10**	**6**	**30**

Table 3.

2001 Number of Dead Marine Turtles.													
	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 imbrcata)*	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	1	0	0	1	0	3	3	1	**9**
Loggerhead turtle *(Caretta caretta)*	0	0	0	0	0	0	0	0	0	0	1	1	**2**
Unidentified	0	0	0	0	0	0	0	0	0	1	0	1	**2**
Total animals	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**4**	**4**	**3**	**13**

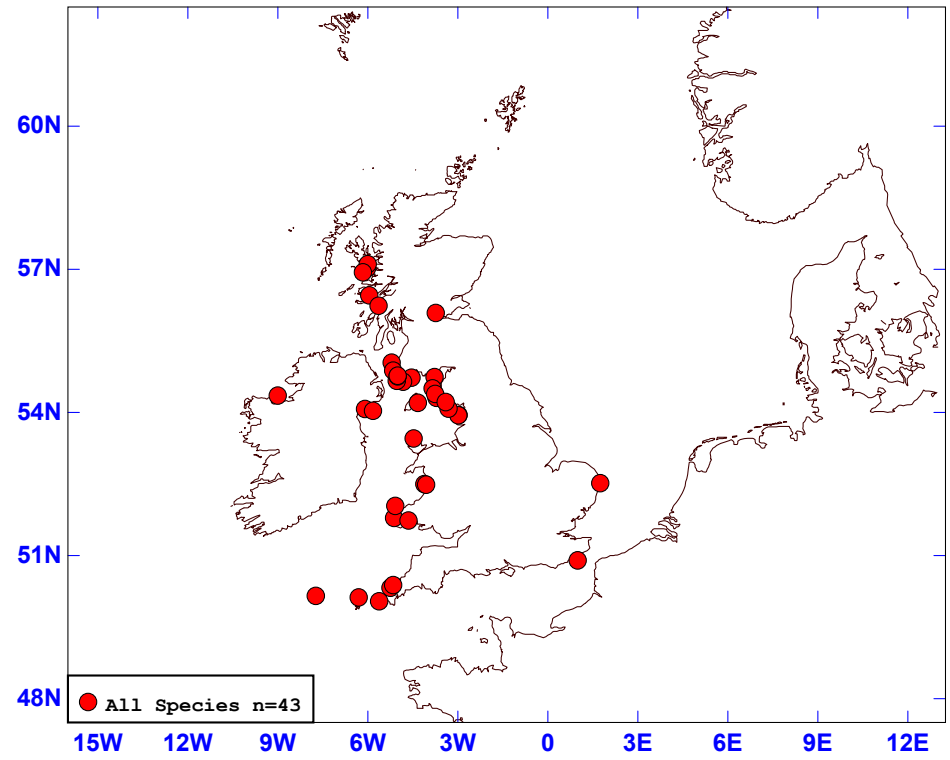


Fig. 1. **All Species Sightings & Strandings 2001.**

3.2 Sightings.

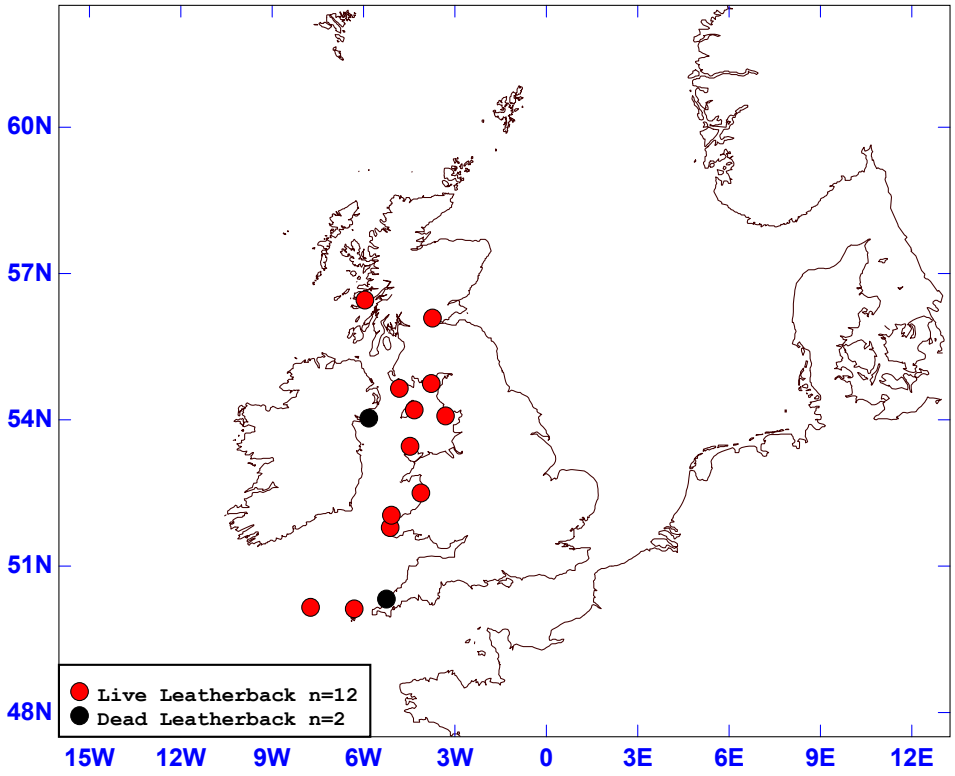


Fig.2. **Leatherback Sightings 2001.**

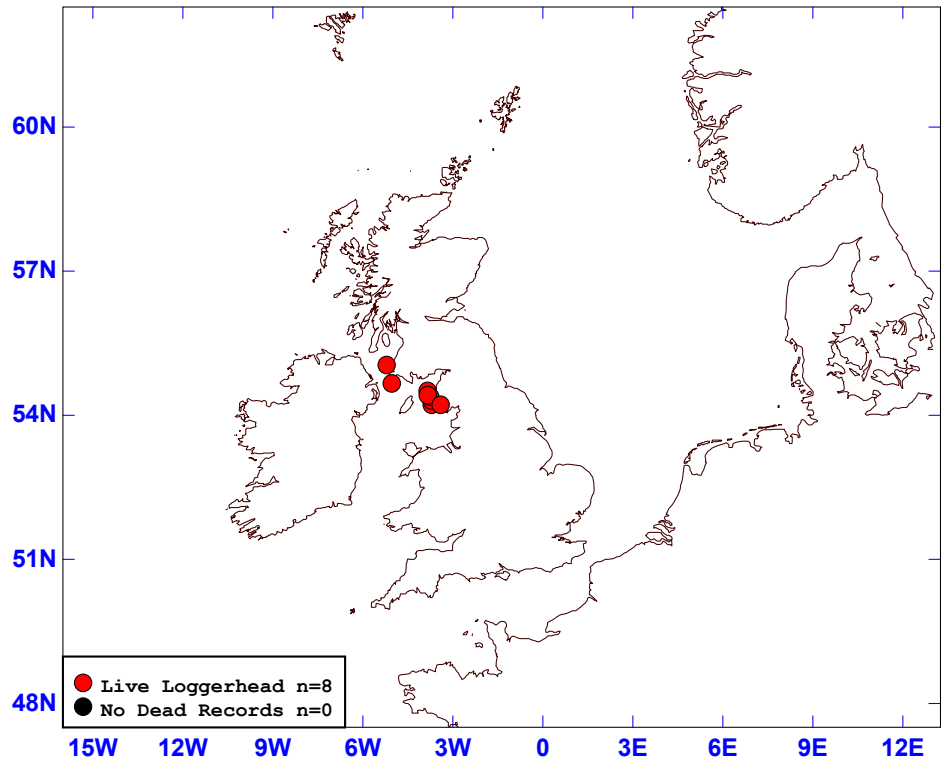


Fig. 3. **Loggerhead Sightings 2001.**

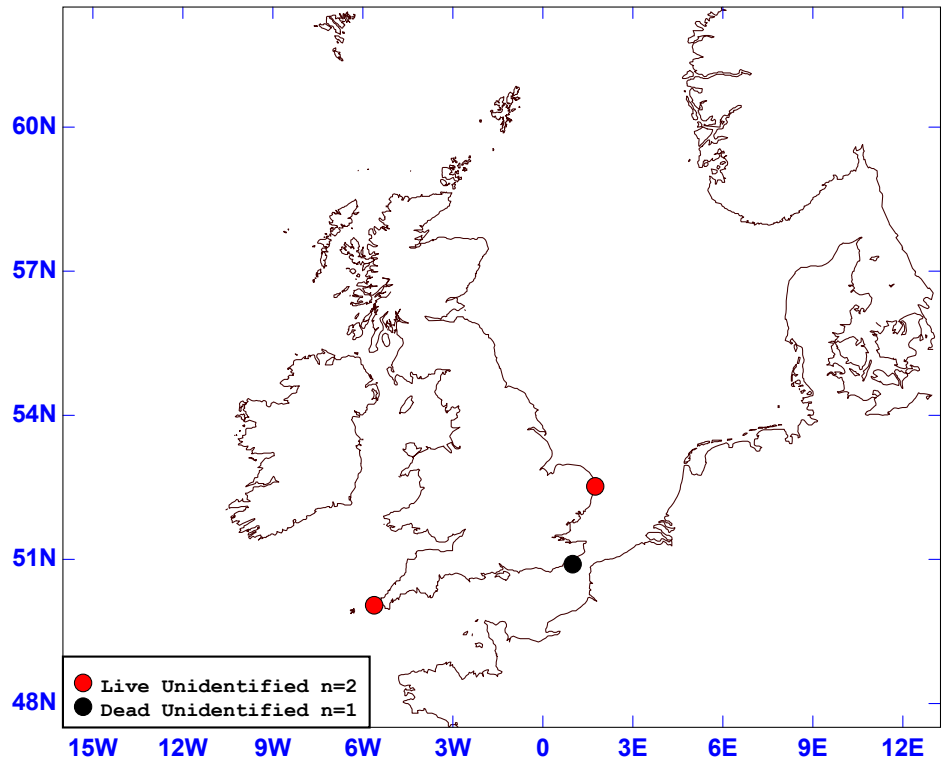


Fig. 4. **Unidentified Sightings 2001.**

3.3 Strandings.

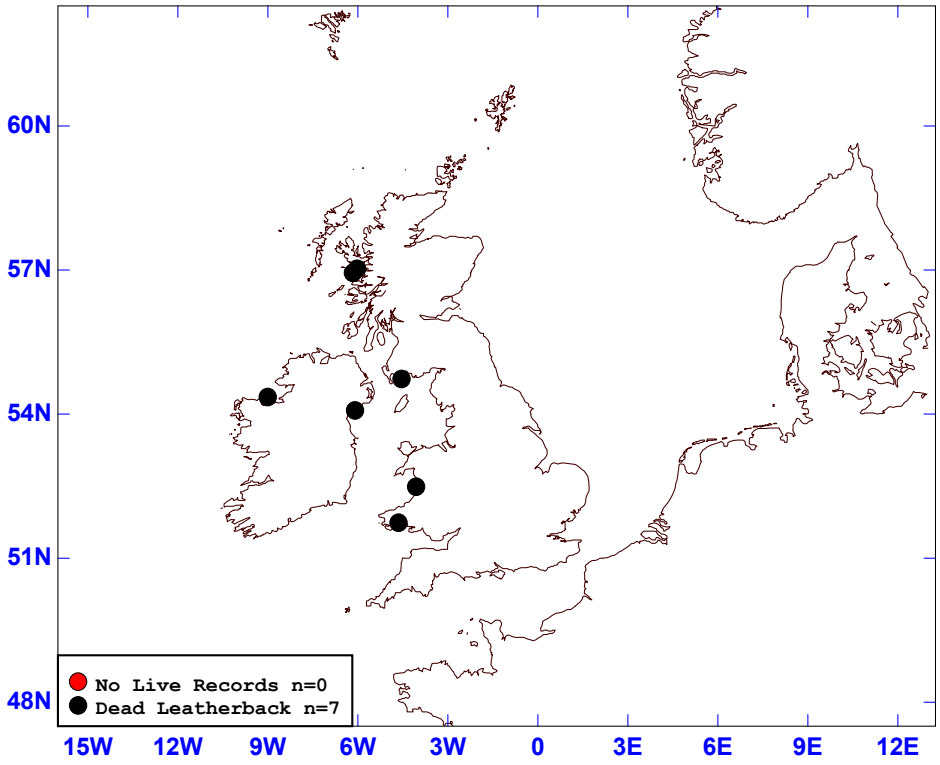


Fig. 5. **Leatherback Strandings 2001.**

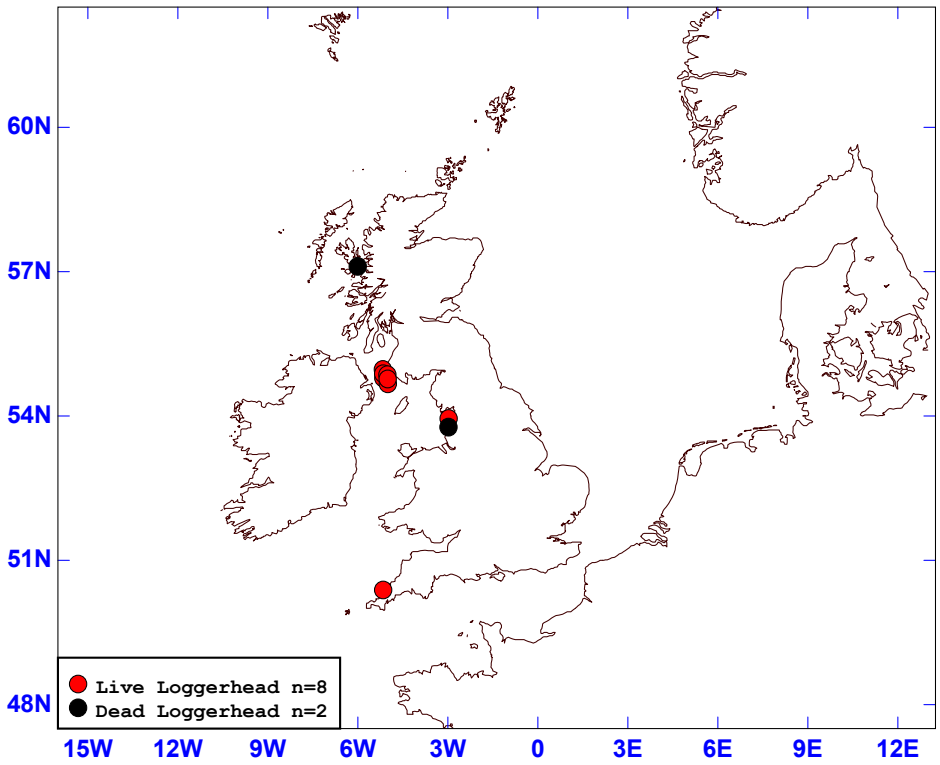


Fig.6. **Loggerhead Strandings 2001.**

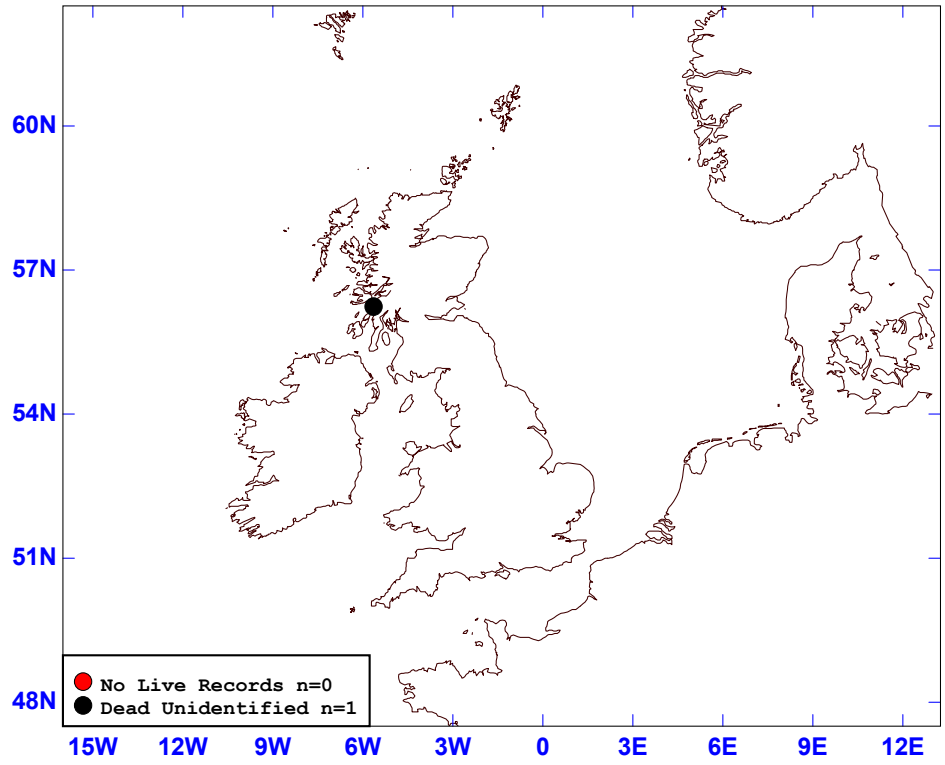


Fig. 7. **Unidentified Strandings 2001.**

The concentrations of Loggerhead sightings in the Solway Firth area (Fig. 3.) are largely due to the survey efforts of the Solway Shark Watch & Sea Mammal Survey.

A total of six live Loggerheads (one group of three, group of two and an individual) were retrospectively reported all stranded on the West side of the Rhinns of Galloway, Scotland on the 29th – 30th November. These animals were returned to the sea by members of the public, the fate of these turtles is unknown but the unidentified turtle stranding in December (Fig. 7) may well be one of this group.

The dead unidentified sighting (Fig. 4.) off Dungerness, was retrieved to land by a fisherman, but together with the dead unidentified stranding (Fig. 7.) at Luing near Oban, both carcasses were withheld from the project and kept as "trophies" (both hardshell species). It is hoped that identification of these carcasses can be achieved in the near future. See 4.5 Legal Ownership of Carcasses.

4. RESEARCH

A visit to the USA was undertaken in March 2001 to gather data on marine turtle identification and anatomy. SeaWorld, Orlando, Mote Marine Laboratory, Sarasota and the Florida Marine Research Institute at Florida Fish & Wildlife Conservation Commission, St Petersburg were visited.

4.1 SeaWorld.

SeaWorld, Orlando was the recipient of the Kemp's ridley turtle T1999/35 that live stranded at Broad Haven, Pembrokeshire, West Wales in November 1999. A dedicated facility has now been built at SeaWorld for the rehabilitation of marine turtles. SeaWorld are happy to receive future live-stranded Kemp's ridley turtles from the UK for rehabilitation and eventual release.

Plate 1. ***Turtle rehabilitation building at SeaWorld, Orlando, Florida.***

Numbers of Loggerhead, Green, Hawksbill and Kemp's ridley turtles were being held, during a large cold-stunned stranding event, which enabled techniques in rehabilitation and feeding to be observed.

.

Plate 2. ***Technique for tube feeding a turtle being shown.***

4.2 Mote Marine Lab.

Identification material was gathered on the four hardshell species Loggerhead, Green, Hawksbill and Kemp's ridley turtles.

4.3 Florida Marine Research Institute.

A large number of turtles were held in cold-storage ready for *post-mortem* examination. These consisted of large Loggerheads, juvenile Kemp's ridleys and juvenile Green turtles in various states of decomposition.
Although comprehensive *post-mortem* examinations were not carried out on these animals useful data was collected on marine turtle anatomy.

Video film was gathered on marine turtles at all three locations covering species identification, techniques in tube feeding and anatomy. This data is to be edited and made available to turtle researchers in the UK.

Useful identification drawings on hardshell turtles were also acquired and these are included in appendix 3 to 15.

4.4 UK *post-mortem* examination protocol.

Following discussions with various UK marine turtle researchers, the Institute of Zoology has agreed a *post-mortem* examination (PME) protocol based on the protocol by Elliott Jacobson at the University of Florida http://www.vetmed.ufl.edu/sacs/wildlife/seaturtletechniques/index.htm
The UK pme protocol is attached as appendix 2.

4.5 Legal Ownership of Carcasses.

All cetaceans in England and Wales that are caught in inshore waters or found stranded on the shores are legally designated "Royal Fish" unless, in some cases, these legal rights have been devolved to the local landowners. The carcass cannot be disposed of without the permission of the Receiver of Wreck and the Natural History Museum has the first claim to the carcass within the Collaborative UK Project. Unfortunately, marine turtles have not been attributed this legal status and the Receiver of Wreck does not need to be informed of stranded turtles. Already in 2001 two hardshell species have not been given to the National Collaborative UK research project as the finders have decided to keep the carcasses as "trophies". The Leatherback turtle T2001/02 (page 14) was very nearly lost to the project as locals wanted to keep the animal for display and a previous Leatherback in Shetland 2000 (before the national project) was withheld from *post-mortem* examination for display on the Island.
It would be advantageous if these marine turtles were designated the same legal status as cetaceans so that these globally "endangered" and "critically endangered" species can be examined within the National Collaborative UK project.

5. SAMPLES.

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

Samples taken from the three Kemp's ridley turtles, investigated at the Veterinary Investigation Centre, Truro in 2000, were collected by the Strandings Co-ordinator and archived at -20^0 C at Llechryd. Some of these samples have been forwarded to CEFAS for analysis.

Samples of skin have continued to be taken by the Strandings Co-ordinator from animals, which would

normally have been disposed of. These samples have been archived at -20^0 C.

6. PUBLICITY.

The Strandings Web-site has been maintained to provide details of both the Collaborative UK & Celtic Strandings Projects. Although this is intended primarily for Wales, key contact details are given for England, Scotland and Ireland. The pages can be viewed at **www.strandings.com** and I would be grateful for any comments on the Web site and any further links to other sites that may be of interest.
It is intended that the "TURTLE" database will be made available on this site once analysis has been completed. Morphometrics for turtles has been added to the site at www.strandings.com/biometrics.html
Posters and leaflets produced to increase awareness of the project have continued to be distributed throughout the coast of Wales. Turtle Codes produced by CCW have also been distributed throughout the Welsh coast which have now been superseded by the new code produced by the TIG. (Appendix 18.).

6.1 Loggerhead turtle T2001/01.

Loggerhead turtle T2001/01 live-stranded at Holywell Bay near New Quay, Cornwall on the 13th March 2001. It was collected by Richard Smith of the Blue Reef Aquarium, New Quay. Richard was keen to attempt rehabilitation so information was faxed to Richard and its temperature was slowly raised at 1.5 ^{0}C /day from approx. 11 ^{0}C to 23 ^{0}C. After the animal had stabilised and been declared fit by local veterinarian Mike King, I started to make arrangements about getting the animal back to warmer climes and arrangements were made to fly the animal to Gran Canaria for release. The animal was flown by a RAF SeaKing helicopter from New Quay to Bristol Airport where it was flown free of charge by Airtours International to Gran Canaria. The event was documented by childrens BBC TV programme "Blue Peter".
The event can be viewed on the attached CD-ROM (Appendix 20).

Plate 3. ***Blue Peter presenter Konnie Huq with Loggerhead turtle "Holly" SW2001/01.***

Plate 4. ***RAF SeaKing Helicopter preparing to fly SW2001/01 to Bristol.***

6.2 Leatherback turtle T2001/02.

Leatherback turtle T2001/02 from St Agnes Head, Cornwall was found dead, entangled in fishing gear, on the 21st May 2001. This animal attracted a lot of media attention and appeared in several national newspapers including the 16th June 2001 edition of the Telegraph colour magazine supplement.

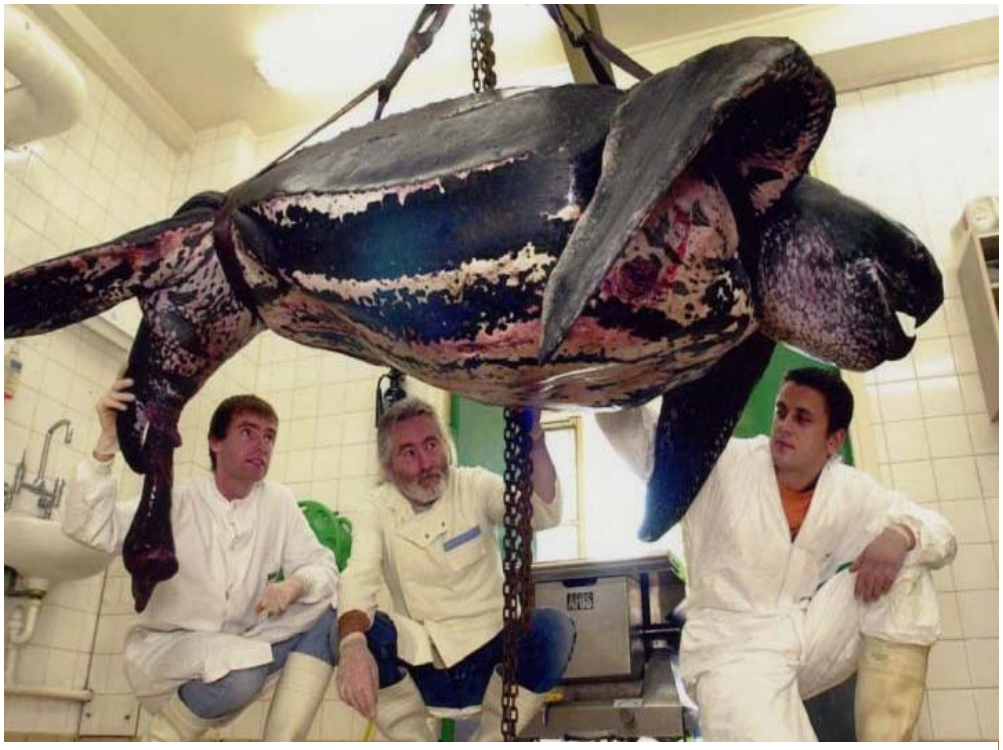


Plate 5. ***The Telegraph colour supplement picture of Leatherback turtle T2001/02 at the Institute of Zoology on the 16th June.***

7. ACKNOWLEDGEMENTS.

Richard Smith at Blue Reef Aquarium, MAFF, Rebecca Terry at Thomas Cook, 203 Sqdn RAF St Mawgam, Airtours International, Anna Jones & Nina Weatherhead, Pascual Calabuig, Andy at Archer Farm for organising and obtaining ice free of charge for packing around the Leatherback T2001/02 during transport, Gerry Jones, Paul Newman, Lin Gander and Jemma Lerwill, for their support with the project and help in retrieving animals.

Robin Pratt for providing support and base of operations at Fishguard

Marydele Donnelly, for permission to re-produce the identification drawings from the IUCN/SSC Marine Turtle Specialist Group "Research and Management Techniques for the Conservation of Sea Turtles".

Michael Frick, for permission to re-produce the identification drawings from the Special Publication No. 4, Savannah Science Museum, "A Guide for the Identification of Stranded Sea Turtles: The Eastern United States and the Gulf of Mexico".

Kimberly Woody, for permission to re-produce the identification sheet from the Nova Scotia Marine Turtle Working Group.

Strandings Network volunteers, too numerous to mention for their help confirming, reporting and securing animals for collection.

8. APPENDICES.

Appendix 1.	2001 Turtle data.
Appendix 2.	UK *post-mortem* examination protocol.
Appendix 3 - 6.	Hardshell identification details from the IUCN/SSC Marine Turtle Specialist Group "Research and Management Techniques for the Conservation of Sea Turtles".
Appendix 7 - 14.	Hardshell identification details from the Special Publication No. 4, Savannah Science Museum, "A Guide for the Identification of Stranded Sea Turtles: The Eastern United States and the Gulf of Mexico".
Appendix 15.	Hardshell identification details from the Nova Scotia Marine Turtle Working Group.
Appendix 16.	Morphometrics.
Appendix 17.	MEM Recording sheet.
Appendix 18.	UK Turtle Code.
Appendix 19.	UK Advisory Note.
Appendix 20.	T2001/01 rehabilitation and repatriation, "Blue Peter" program CD-ROM.

To run the CD-ROM using Microsoft Windows:

- Insert the CD into your CD drive.
- Double click on the "My Computer" icon.
- Double click on the CD drive icon (usually (D:)).
- Double click on the "T2001-01" icon.
- The Windows Media Player should open automatically and run the program.

RECORD No.	ALT NOS	SPECIE	GROUP S	SIGHTI	ALIVE OR	CAPTU	GEAR C	IF FOU	IF FOU	ANAT	DATE	COUNTRY	COUNTY	LOCATION	CO-ORDINANTS
T2001/01		LOG		ST	ALIVE					Y	March 13, 2001	ENGLAND	CORNWALL	HOLYWELL BAY	SW762579
T2001/02		LBT		SEA	DEAD	ENT	11.01		F	Y	May 21, 2001	ENGLAND	CORNWALL	St AGNES HEAD	SW694518
T2001/03		LBT		SEA	ALIVE						June 27, 2001	WALES	CEREDIGION	CARDIGAN BAY	SN566908
T2001/04		LBT		SEA	ALIVE						July 10, 2001	WALES	PEMBROKESHIRE	BROAD HAVEN	SM850141
T2001/05		LBT		SEA	ALIVE						June 20, 2001	ENGLAND	WESTERN ISLES	10 MILES NORTH OF SCILLIES	SV927333
T2001/06		LBT		SEA	ALIVE					Y	July 29, 2001	WALES	ANGLESEY	2.1 MILES OFF CEMAES BAY	SH361978
T2001/07		UNI		SEA	ALIVE						July 28, 2001	ENGLAND	CORNWALL	approx. 0.4 miles off Logans rock.	SW407217
T2001/08		LBT		ST	DEAD				AD	Y	August 19, 2001	WALES	PEMBROKESHIRE	AMROTH	SN176069
T2001/09	REP01/004	LBT		SEA	ALIVE						August 23, 2001	ENGLAND	ISLE OF MAN	East of the Isle of Man near Clay Head.	SC480803
T2001/10		LBT		SEA	ALIVE						October 1, 2001	SCOTLAND	WESTERN ISLES	Off the Isle of Mull	NM567357
T2001/11		LBT		SEA	ALIVE							WALES	PEMBROKESHIRE	Off Srumble Head	SM888420
T2001/12		UNI		SEA	DEAD	ENT	21				October 13, 2001	ENGLAND	KENT	Off Dungerness point.	TR110149
T2001/13		UNI		SEA	ALIVE						October 25, 2001	ENGLAND	SUFFOLK	CORTON	TM548972
T2001/14		LBT		ST	DEAD							EIRE	LOUTH	LOUTH	J2515
T2001/15		LBT		SEA	ALIVE						November 10, 2001	SCOTLAND		Firth of Forth	NS921889
T2001/16		LBT		ST	DEAD						November 8, 2001	EIRE	SLIGO	EASKY	G3545
T2001/17	REP01/005	LBT		ST	DEAD				AD		October 11, 2001	SCOTLAND	DUMFRIES & GALLOWAY	MONREITH	NX365397
T2001/18		LOG		ST	DEAD						November 18, 2001	SCOTLAND	WESTERN ISLES	SLEAT, SKYE	NG579083
T2001/19		LBT		ST	DEAD				AD		November 19, 2001	WALES	CEREDIGION	BORTH	SN606890
T2001/20		LBT		ST	DEAD				AD		November 19, 2001	SCOTLAND	WESTERN ISLES	SLEAT, SKYE	NM560990
T2001/21		LOG		ST	ALIVE						November 29, 2001	ENGLAND	LANCASHIRE	BLACKPOOL, PREESALL BEACH	SD364501
T2001/22		UNI		ST	DEAD				SD		December 17, 2001	SCOTLAND		Luing nr Oban.	NM744103
T2001/23		LBT		ST	DEAD				AD		December 19, 2001	SCOTLAND	WESTERN ISLES	Isle of Eigg. North end of Camas Sgiotaig.	NM471903
T2001/24	REP01/010	LOG		ST	DEAD				SD		December 30, 2001	ENGLAND	LANCASHIRE	Knot end	SD357493
T2001/25		LBT		SEA	DEAD	ENT	11				October 20, 2001	EIRE			SB497662
T2001/26		LOG		ST	ALIVE			R		Y	November 30, 2001	SCOTLAND	DUMFRIES & GALLOWAY	WEST SIDE OF RHINNS OF GALLOWAY	NX070439
T2001/27		LBT		SEA	ALIVE					Y	July 23, 2001	ENGLAND		South Western approaches	RZ882278
T2001/28	REP01/001	LBT		SEA	ALIVE						July 27, 2001	SCOTLAND	DUMFRIES & GALLOWAY	9.7km S/W Balcary Heugh	NX861395
T2001/29	REP01/002	LBT		SEA	ALIVE						July 28, 2001	SCOTLAND	DUMFRIES & GALLOWAY	Off Mull of Galloway	NX182310
T2001/30	REP01/003	LBT		SEA	ALIVE						July 28, 2001	ENGLAND	CUMBRIA	3.7km west of Bigger Bank, Walney Is.	SD146653
T2001/31	REP01/006	LOG		SEA	ALIVE						November 28, 2001	SCOTLAND	SOUTH AYRSHIRE	North West Corsewall point.	NW953764
T2001/32	REP01/007	LOG		SEA	ALIVE						November 28, 2001	SCOTLAND	DUMFRIES & GALLOWAY	Off Crammag Head	NX043336
T2001/33a	REP01/008	LOG	1/3	ST	ALIVE			R			November 29, 2001	SCOTLAND	DUMFRIES & GALLOWAY	KNOCK BAY, RHINNS OF GALLOWAY	NW979577
T2001/33b	REP01/008	LOG	2/3	ST	ALIVE			R			November 29, 2001	SCOTLAND	DUMFRIES & GALLOWAY	KNOCK BAY, RHINNS OF GALLOWAY	NW979577
T2001/33c	REP01/008	LOG	3/3	ST	ALIVE			R			November 29, 2001	SCOTLAND	DUMFRIES & GALLOWAY	KNOCK BAY, RHINNS OF GALLOWAY	NW979577
T2001/34a	REP01/009	LOG	1/2	ST	ALIVE			R		Y	November 30, 2001	SCOTLAND	DUMFRIES & GALLOWAY	ARDWELL BAY, RHINNS OF GALLOWAY	NX070451
T2001/34b	REP01/009	LOG	2/2	ST	ALIVE			R		Y	November 30, 2001	SCOTLAND	DUMFRIES & GALLOWAY	ARDWELL BAY, RHINNS OF GALLOWAY	NX070451
T2001/35a	REP01/011	LOG	1/2	SEA	ALIVE						December 31, 2001	ENGLAND	CUMBRIA		SC890910
T2001/35b	REP01/011	LOG	2/2	SEA	ALIVE						December 31, 2001	ENGLAND	CUMBRIA		SC890910
T2001/36	REP01/012	LOG		SEA	ALIVE						December 31, 2001	ENGLAND	CUMBRIA		NX862004
T2001/37a	REP01/013	LOG	1/2	SEA	ALIVE						December 31, 2001	ENGLAND	CUMBRIA		NX811134
T2001/37b	REP01/013	LOG	2/2	SEA	ALIVE						December 31, 2001	ENGLAND	CUMBRIA		NX811134
T2001/38	REP01/014	LOG		SEA	ALIVE						December 31, 2001	ENGLAND	CUMBRIA	3.2km west of Silecroft.	SD087805

RECORD No.	NOTES	REPORTED BY
T2001/01	Flown back to Gran Canaria for release. Documented by BBC Childrens television "Blue Peter" program.	Richard Smith
T2001/02	Reported by Tricia, Cornwall Wildlife Trust	Tricia
T2001/03	Reported by Mathew Williams, seen with large amounts of jellyfish 2 to 3 miles off Borth.	Mathew Williams
T2001/04	Animal seen swimming in surf by wind surfer approx. 100 metres out from shore 1500 hrs. Animal estimated at 1metre in length.	Martin Prout
T2001/05	Seen from yacht 10 miles north of the Isles of Scilly.	Kate Lock
T2001/06		Tony Jones
T2001/07	Seen from the Scillonian III on return day trip to Penzance. Reported as unidentified small green turtle on UKCetnet Listserv.	James Diamond EN
T2001/08	First seen stranded on Marros beach, Pembrokeshire by John Neary on 16th Aug - retro report.	HTV to Terry Leadbetter
T2001/09	Animal sighted with group of 28 Basking Sharks.	Gavin Sabre MCS (further details to follow).
T2001/10		John Lamont
T2001/11		Mick Baines
T2001/12	FV New Venture fishing for cod.	Alister McDonald, Sea Fisheries Officer
T2001/13	Seen close inshore 11:25 - 13:20 opposite the south dunes of the caravan park. First reported as LBT then on the 30th as pos. LOG	Bartolomew Donato
T2001/14		Dr Emer Rogan
T2001/15	First reported as live stranded LBT. Dr Brendan Godley informed for possible satellite tag animal.	Paul Jepson (via Brian Cowing SSPCA to Bob Reid to Paul Jepson).
T2001/16	Found by surfer on rocks at point, locals indicated that the carcass had been there for a week. Head missing presumed not by decomposition	Simon Dandoe
T2001/17	Reported as 8' long and rotten. Report was 4th Nov. retro report placed stranding as 11th Oct, Mary Lewis	Bob Reid SSC
T2001/18	Taken to SAC Inverness for post-mortem examination.	Bob Reid SSC
T2001/19	Part of decomposed carapace only. Skin taken for dna.	Amos Buick
T2001/20	Reported as 8' long and rotten. Not examined.	Bob Reid SSC
T2001/21	Taken to Weymouth Sealife centre for re-hab.	Sue Ranger
T2001/22	First reported as KR. Hopefully animal will go to SAC Inverness for formal ID and pme.	Murray Roberts via Brendan Godley.
T2001/23	Described as very rotten.	Bob Reid SSC
T2001/24		Mr McNally
T2001/25	Reported tangled in rope linking lobster pots together. 5' 9" long no tags. Location given as 54.01.714N 05.53.419W	Lynne Rendle
T2001/26	Found live-stranded and immediately released back into the sea. (swam off strongly)	Mr A. Machnight
T2001/27	Surfaced within 10 metres of Port side of 16m yacht, breathed and dived again within 40 seconds.	Greer Mac
T2001/28	In Solway Firth, sunny, calm, swimming south.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/29	In Luce Bay, sunny, calm, swimming east.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/30	Sunny, calm, swimming south.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/31	Close to ferry, swimming south.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/32	Close to ferry, swimming north.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/33a	One of three animals live-stranded and were returned to the sea.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/33b	One of three animals live-stranded and were returned to the sea.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/33c	One of three animals live-stranded and were returned to the sea.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/34a	One of two animals live-stranded and were returned to the sea.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/34b	One of two animals live-stranded and were returned to the sea.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/35a	One of two animals sighted. Bright sun, hard frost, mirror calm. Swimming west.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/35b	One of two animals sighted. Bright sun, hard frost, mirror calm. Swimming west.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/36	Bright sun, hard frost, mirror calm. Swimming east.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/37a	One of two animals sighted. Bright sun, hard frost, mirror calm. Swimming south.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/37b	One of two animals sighted. Bright sun, hard frost, mirror calm. Swimming south.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.
T2001/38	Bright sun, hard frost, mirror calm. Swimming north/west.	Norman Hammond, Solway Shark Watch & Sea Mammal Survey.

Appendix 2.

TURTLE POSTMORTEM REPORT

REFERENCE NUMBER: T2001/
POST MORTEM NUMBER:
HISTOLOGY NUMBER:
SPECIES:
SEX:
DATE FOUND:
LOCATION FOUND:
NATIONAL GRID NUMBER:
DATE OF POSTMORTEM: //01
PATHOLOGIST:

1. BASIC MEASUREMENTS

FROZEN (Y/N):
CARCASS CONDITION:
BODY WEIGHT: kg
STANDARD MORPHOMETRICS:

Straight overall length: cm
Straight carapace length: cm
Straight carapace width: cm
Total tail length from plastron: cm
Tail length from cloacal opening to tail tip: cm
Maximum body depth (straight): cm
Flipper tip to flipper tip (straight): cm
Neck circumference: cm
Leading edge of front flipper: cm
Curved overall length: cm
Curved carapace length: cm
Curved paramedial ridge (leatherback only): cm
Curved carapace width: cm
Curved flipper tip to flipper tip over animal: cm
Search for external tags/PIT tags:
Tag details:

2. GROSS POSTMORTEM

External examination

Nutritional state:
Body orifices:
Ectoparasites:
Carapace:
Plastron:

Flippers:
Tail:

Integument

Epidermis:
Lacrimal (salt) glands:

Musculoskeletal system

Skull:
Other bones:
Skeletal muscles:

Nervous system

Brain:
Spinal cord:
Peripheral nerves:

Cardiovascular system

Pericardial sac:
Myocardium:
Valves:
Arteries, veins:

Respiratory system

Nasal cavity:
Sinuses:
Trachea, bronchi:
Lungs:
Pleura/pleural cavity:

Alimentary system

Mouth:
Oesophagus:
Stomach:
Small intestine:
Large intestine:
Liver:
Gall bladder:
Pancreas:
Coelomic cavity:

Appendix 2.

Urogenital system

Gonads:
Oviduct:
Penis:
Cloaca:
Kidneys:
Ureters:
Urinary bladder:
Urethra:

Lymphatic and endocrine systems

Adrenals:
Thyroid:
Parathyroid:
Spleen:
Thymus:

3. HISTOLOGY

4. BACTERIOLOGY

5. MISCELLANEOUS

Direct microscopy (smear preparation)

Small intestine mucosa:

Large intestine mucosa:

DIAGNOSIS

I *Significant diseases or conditions* thought to contribute to the death of the animal

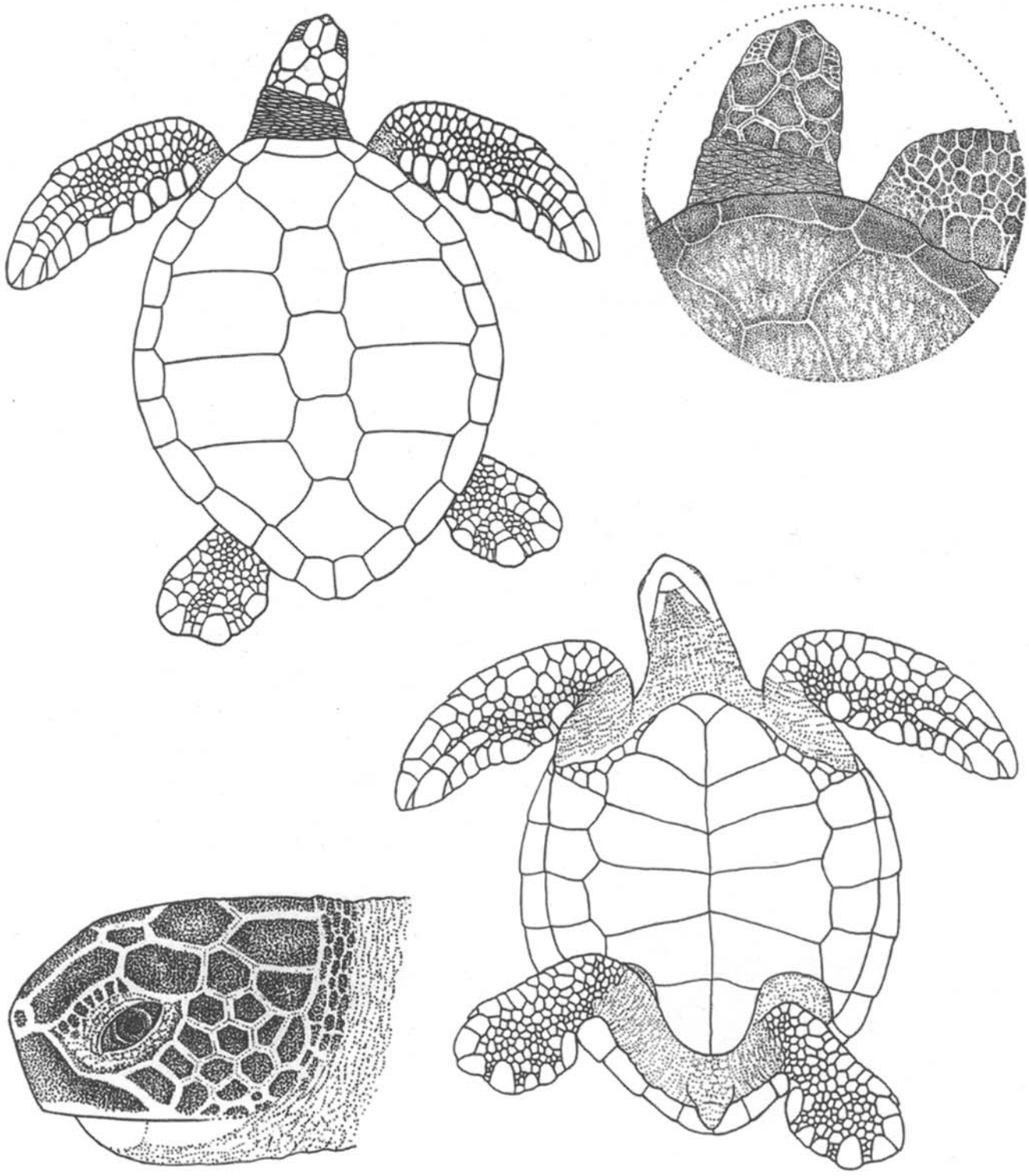
II *Incidental diseases or conditions* not thought to contribute to the death or condition causing it

Comments:

This report is based on gross findings and may be modified after the laboratory findings are

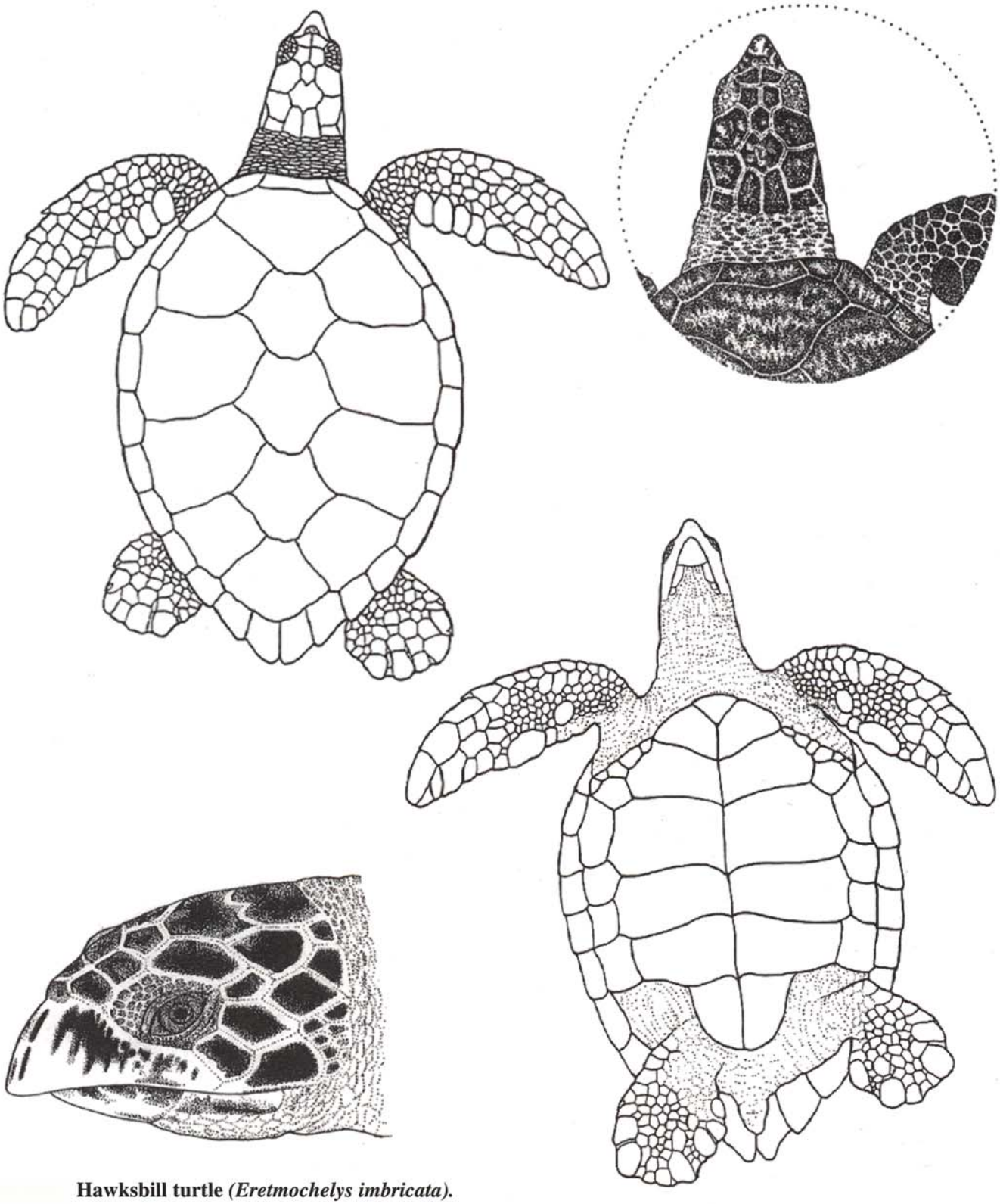
known. Laboratory results pending: virology, parasitology, histology, bacteriology.

Date (//01).



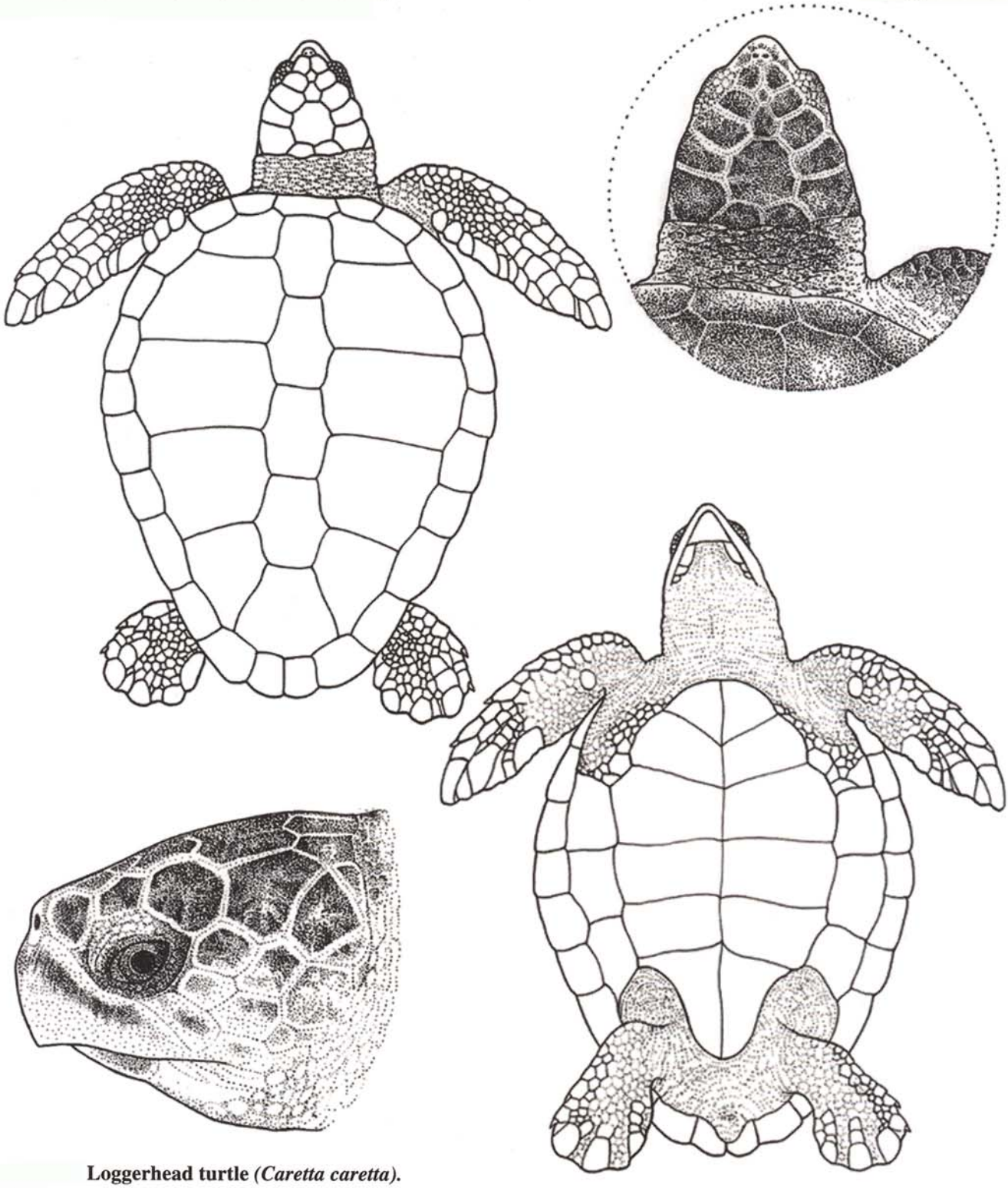
Green turtle *(Chelonia mydas).*

Carapace: broadly oval, margin sometimes scalloped but not serrated, and not incurved above hind limbs; four pairs of costal scutes; straight carapace length (SCL) to about 120 cm. **Head:** anteriorly rounded; width to 15 cm; one pair of prefrontal scales; four pairs of postorbital scales. **Limbs:** single claw on each flipper (rarely, two in some hatchlings). **Coloration:** dorsally black in hatchlings, becoming brown with radiating streaks in immatures, very variable in adults (generally brown, buff, and other earth tones; plain, streaked or spotted); underside white in hatchings, yellowish in adults. **Distribution:** all sub-tropical and tropical seas. **Weight:** to about 230 kg in the Atlantic and western Pacific Oceans, less in the Indian Ocean and the Caribbean.



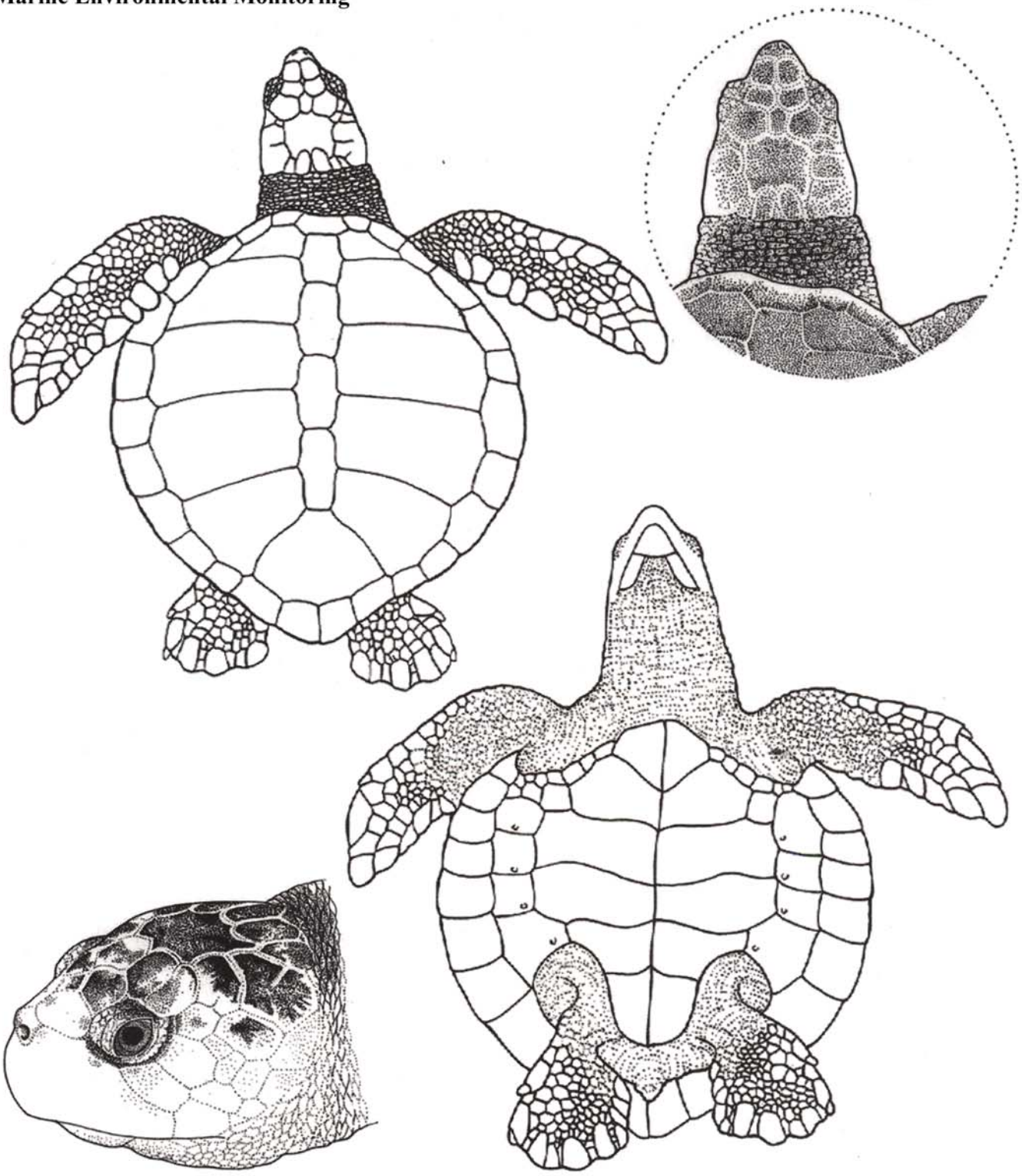
Hawksbill turtle *(Eretmochelys imbricata).*

Carapace: oval, with a strongly serrated posterior margin and thick overlapping (imbricate) scutes (except in hatchlings and some adults); four pairs of costal scutes, each with a slightly "ragged" posterior border; straight carapace length (SCL) to about 90 cm. **Head:** relatively narrow; width to 12 cm; with a straight bird-like beak; two pairs of prefrontal scales. **Limbs:** front flippers are medium length compared to other species; two claws on each flipper. **Coloration:** dorsally brown (dark to light) in hatchlings, often boldly marked with amber and brown variegations in juveniles and younger adults; underside light yellow to white, sometimes with black markings (especially in Pacific specimens). **Plastron:** four pairs inframarginal scutes. **Distribution:** all oceans, tropical waters. **Weight:** to about 80 kg (average about 60 kg).



Loggerhead turtle ***(Caretta caretta).***

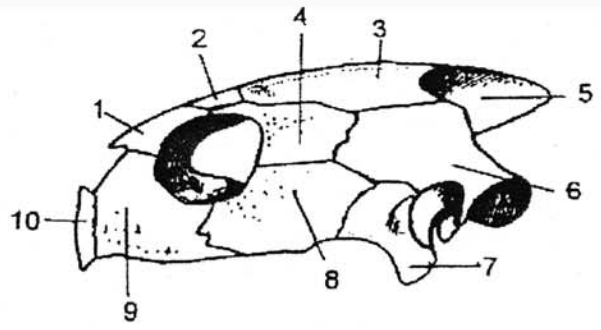
Carapace: moderately broad; lightly serrated posterior margin in immatures; thickened area of the carapace above the base of the tail (at the fifth vertebral) in subadults and adults; five pairs of costal scutes, the first (anterior) pair the smallest; straight carapace length (SCL) to about 105 cm in northwestern Atlantic, smaller in some other areas, the smallest adults being in the Mediterranean (to about 90 cm). **Head:** large and broadly triangular in shape; width to 28 cm; two pairs of prefrontal scales. **Limbs:** front flippers relatively short compared to other species; two claws on each flipper. **Coloration:** dorsally light to dark brown in hatchlings, generally unmarked reddish-brown in subadults and adults; underside brown in hatchlings, yellow to orange in subadults and adults. **Plastron:** three pairs inframarginal scutes. **Distribution:** all oceans, usually temperate waters, sometimes subtropical and tropical. **Weight:** to about 180 kg in the western Atlantic and to about 150 kg in Australia; less than 100 kg in the Mediterranean.



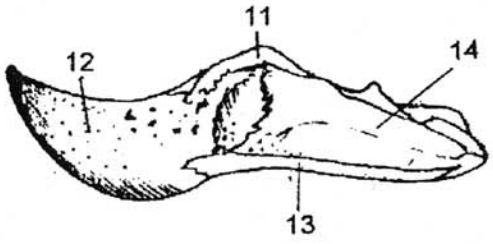
Kemp's Ridley turtle *(Lepidochelys kempii).*

Carapace: relatively short and wide, almost circular (wider in adults than that of *L. olivacea);* modest marginal serration or scalloping; high vertebral projections in juveniles, but carapace smooth and low in adults; carapace scutes slightly overlapping in immatures, and non-overlapping in adults; five pairs of costal scutes; straight carapace length (SCL) to 72 cm. **Head:** relatively large, subtriangular with convex sides; width to 13 cm; two pairs of prefrontal scales. **Limbs:** two claws on each flipper (some adults may lose the secondary claw on the front flippers). **Coloration:** dorsally grey in immatures, light olive-green in adults; underside white in immatures, yellow in adults. **Plastron:** a distinct, small pore near rear margin of each of the four inframarginal scutes. **Distribution:** Gulf of Mexico, eastern USA, occasionally western Europe. **Weight:** typically 35-50 kg.

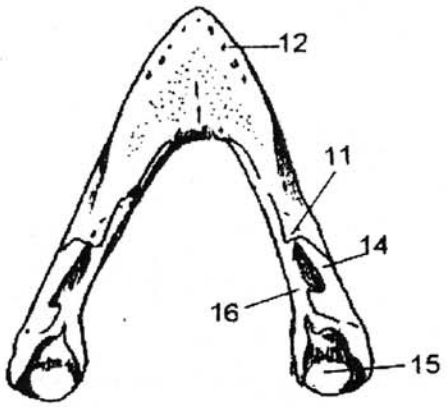
Figure. 1 Schematic skull of a juvenile Loggerhead turtle, (adapted from Romer, 1956).



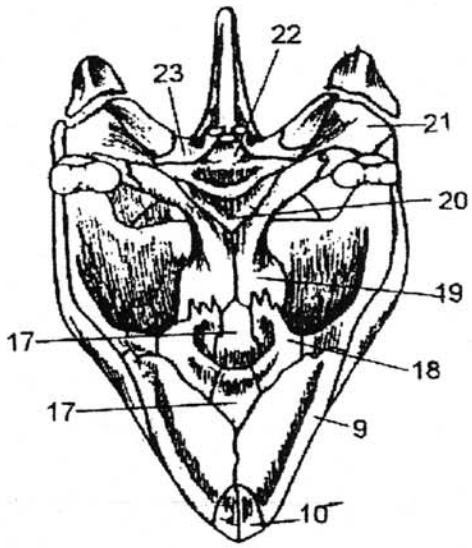
A. Side view of skull



B. Side view of lower jaw



C. Top view of lower jaw

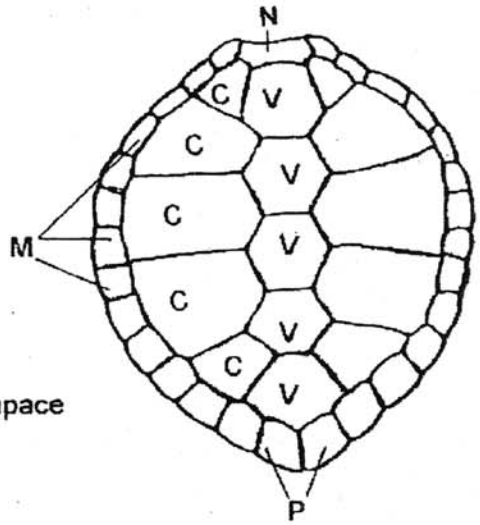


D. Underside view of skull

Bones of the Turtle Skull:

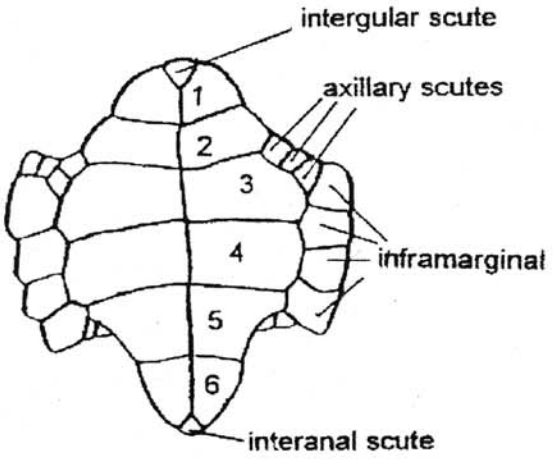
1. prefrontal	9. maxilla	17. vomer
2. frontal	10. premaxilla	18. palatine
3. parietal	11. coronoid	19. pterygoid
4. postorbital	12. dentary	20. basisphenoid
5. supraoccipital	13. angular	21. quadrate
6. squamosal	14. surangular	22. basioccipital
7. quadratojugal	15. articular	23. exoccipital
8. jugal	16. prearticular	

Figure 2. Carapace and plastron scute diagrams for Cheloniidae turtles.



C= costal
M= marginal
V= vertebral
N= nuchal
P= pygal

A. Top view of carapace



1. gular
2. humeral
3. pectoral
4. abdominal
5. femoral
6. anal

B. External view of plastron.

Figure 3. Bones of the Cheloniidae carapace.

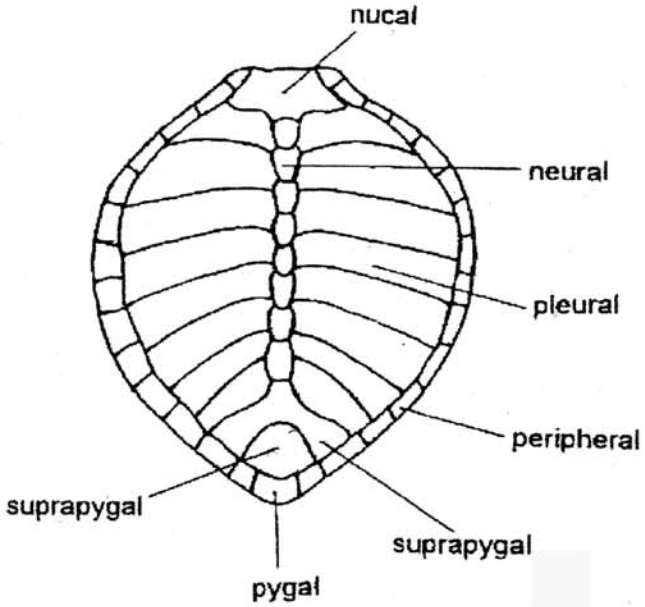


Figure 4. Bone configuration of the Dermochelyidae carapace.

The bones of the Leatherback turtle's shell are arranged in a mosaic pattern consisting of hundreds of small to medium sized bones. A thin dermal layer covers these bones and rib structure lies underneath. This carapacial arrangement allows the Leatherback's shell to "bend" when it dives into deep water because of an increase in bone to cartilage connection, a feature not found in any other sea turtle species.

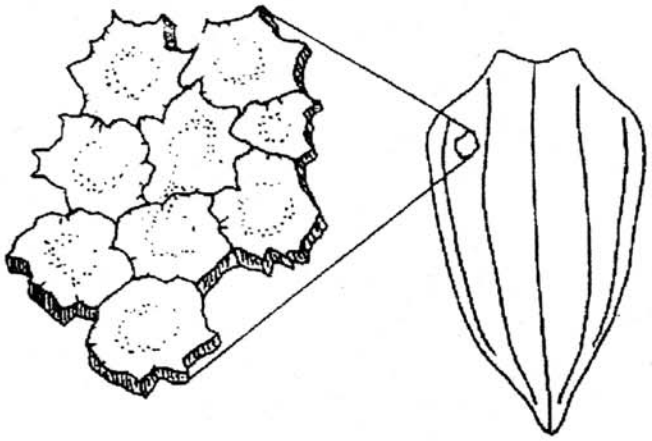
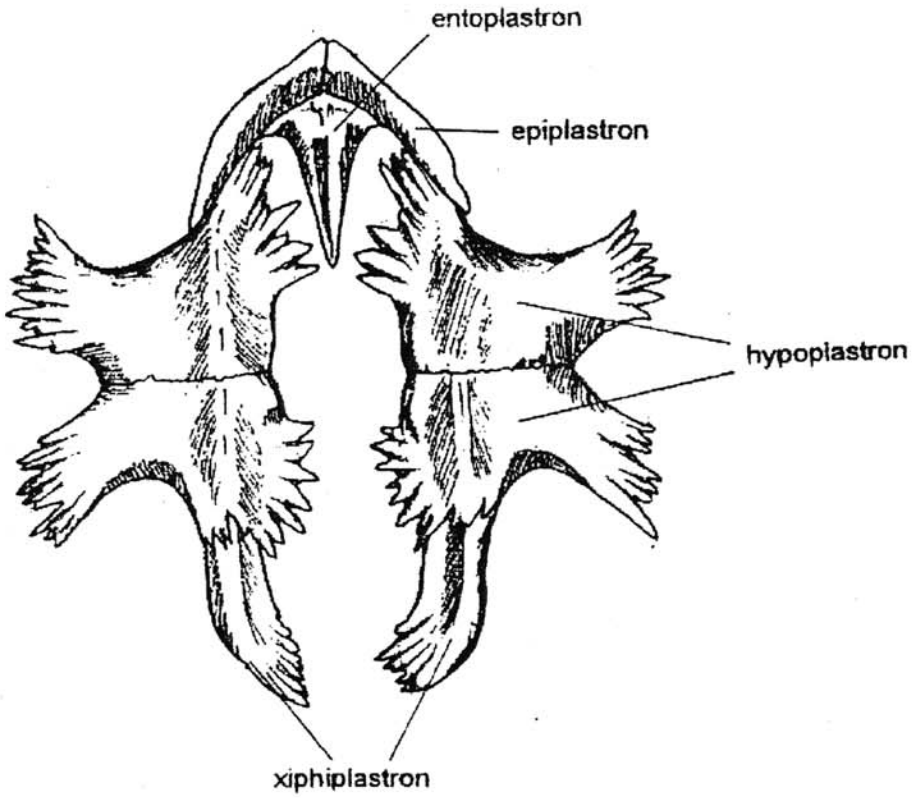


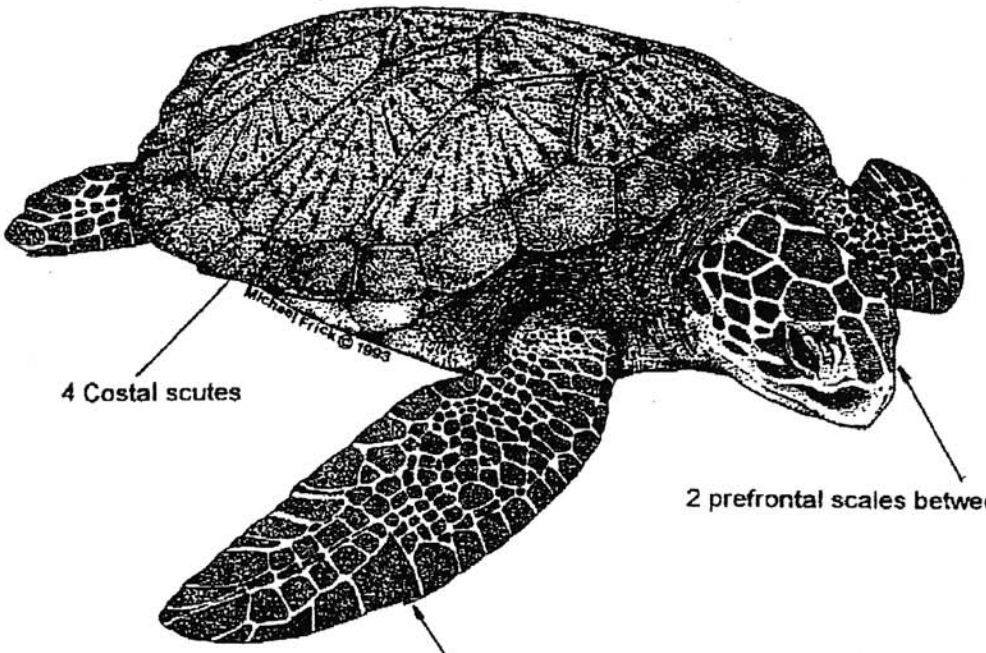
Figure 5. Schematic view of a Cheloniidae turtle plastron.

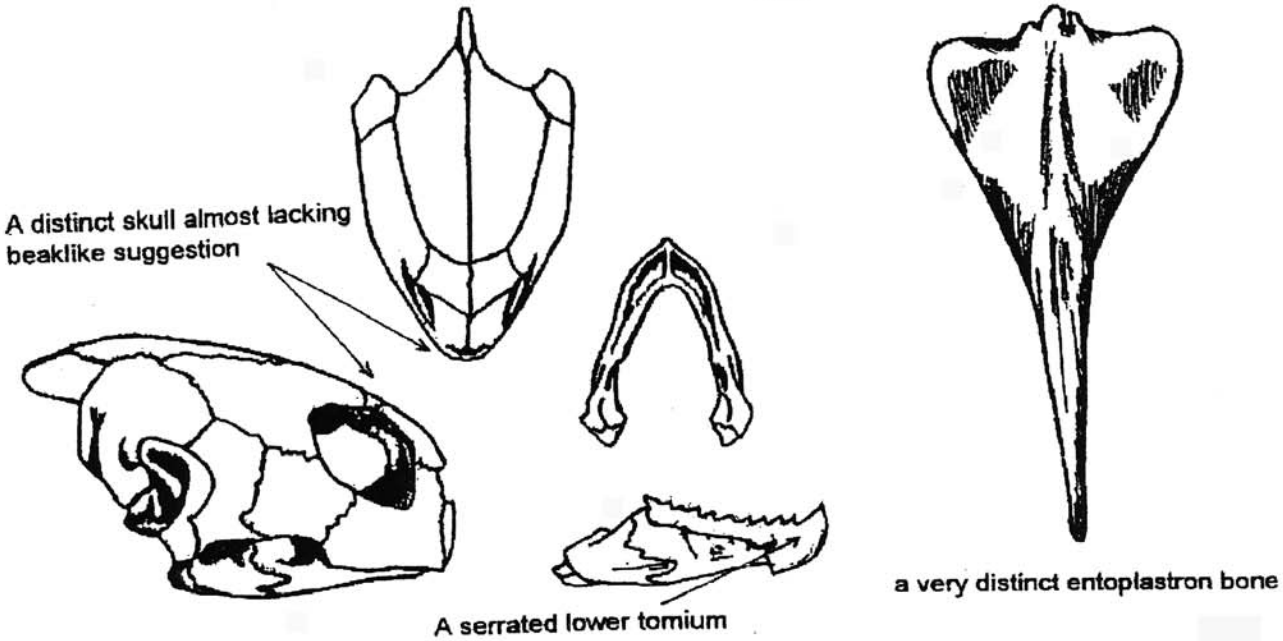


Atlantic Green Turtle

Chelonia m. mydas

Common features of this turtle include:

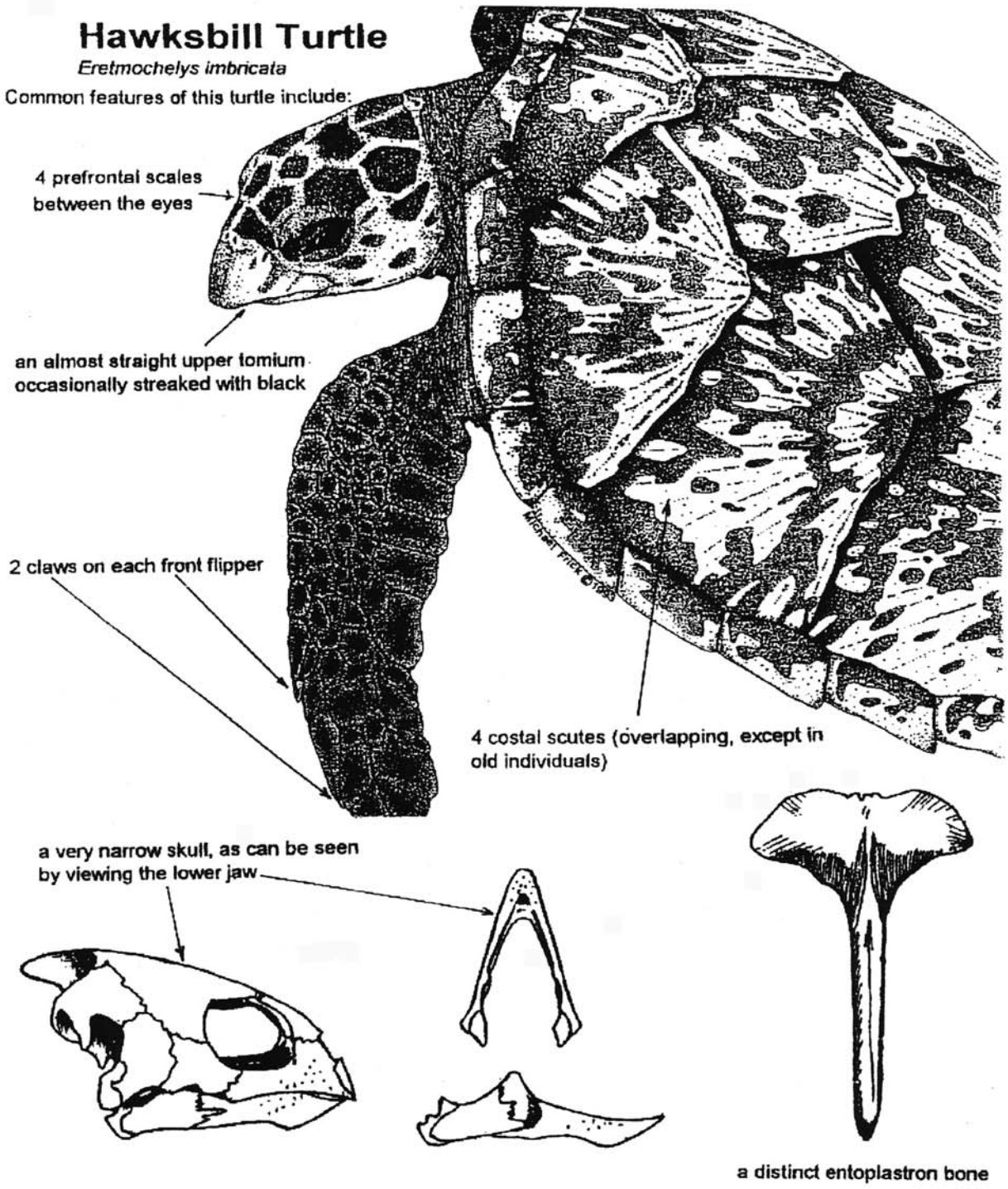


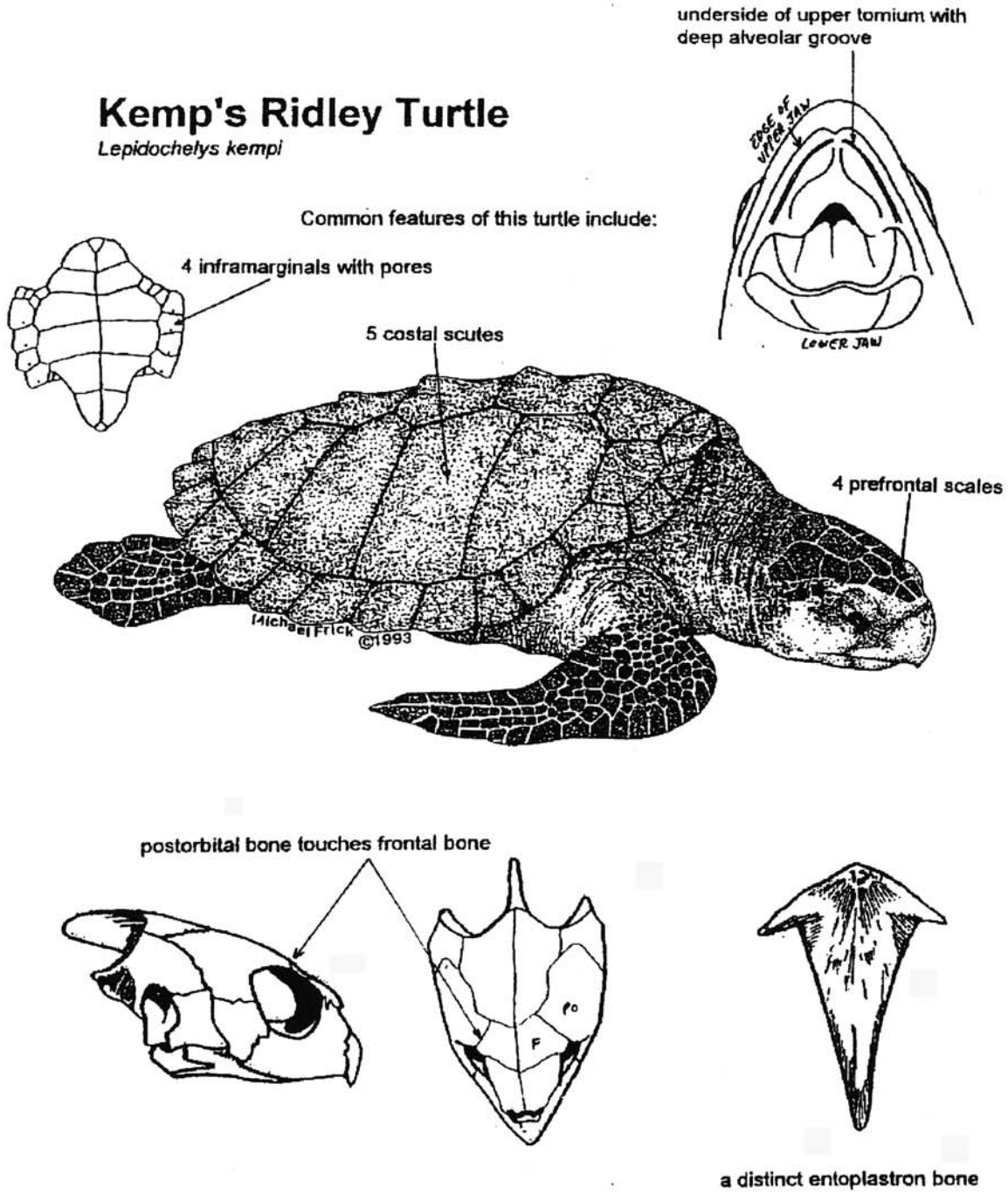


Hawksbill Turtle

Eretmochelys imbricata

Common features of this turtle include:

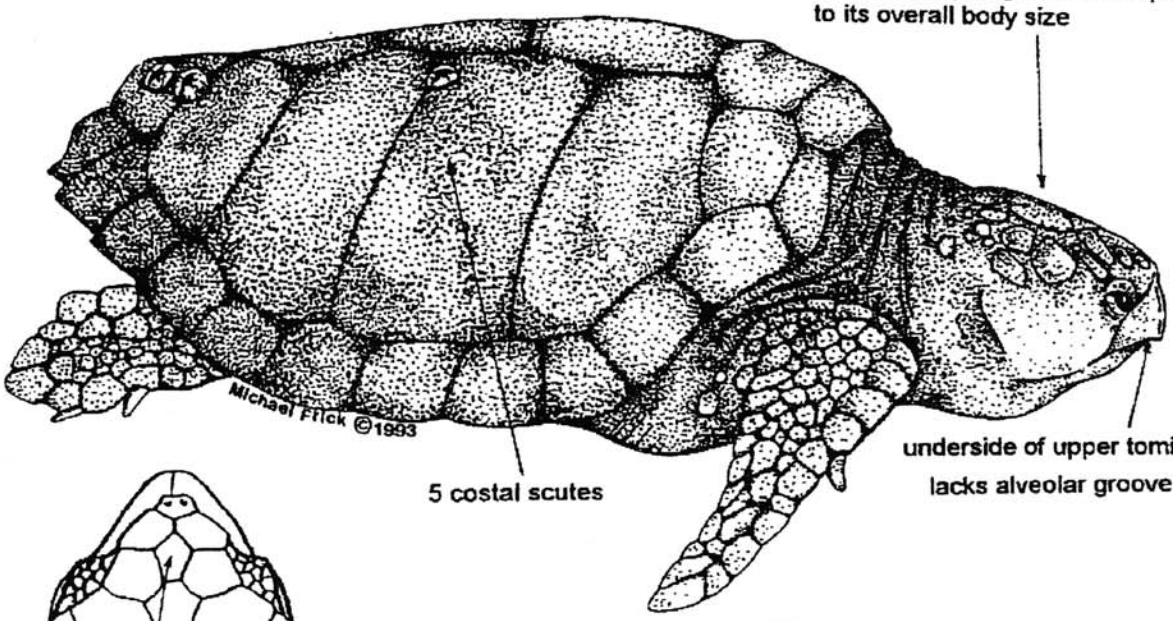


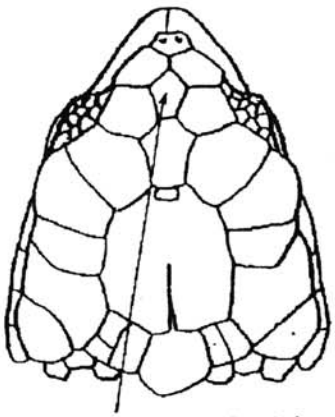

underside of upper tomium with deep alveolar groove
Kemp's Ridley Turtle
Lepidochelys kempi
EDGE OF UPPER JAW
LOWER JAW
Common features of this turtle include:
4 inframarginals with pores
5 costal scutes
4 prefrontal scales
Michael Frick ©1993
postorbital bone touches frontal bone
Po
F
a distinct entoplastron bone

Loggerhead Turtle

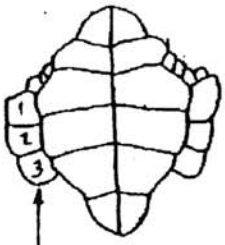
Caretta caretta

Common features of this turtle include:

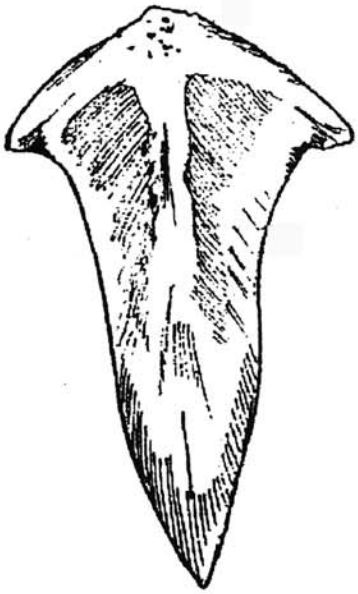




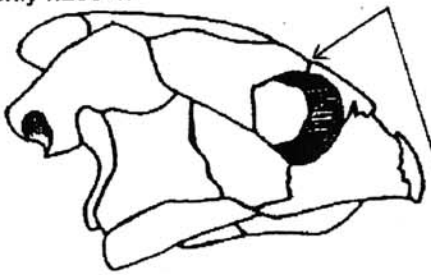
sometimes an extra prefrontal scale is present between the eyes (numbering 4 prefrontal scales plus one inter-prefrontal scale(5 scales total)). Some individuals may only have 4.

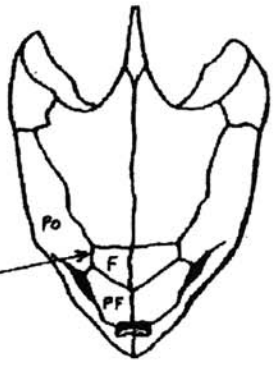


3 inframarginals without pores



a distinct entoplastron bone





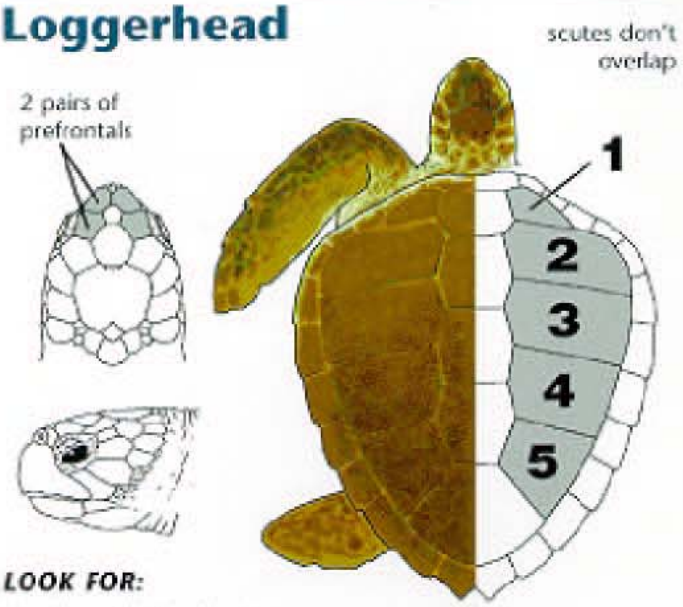
postorbital bone touches prefrontal bone

Hardshell Marine Turtles

large juveniles and young adults

Nova Scotia Marine Turtle Working Group 1-888-729-4667

Loggerhead



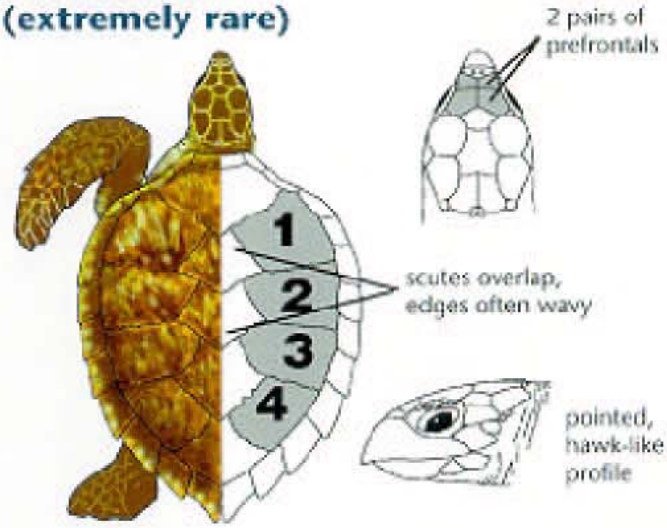
LOOK FOR:

5 **pairs** of lateral scutes
1st pair **less than half as wide as 2nd**

Tapered shell in larger specimens

light to dark brown above (the smaller the lighter), creamy below

Hawkesbill Turtle
(extremely rare)



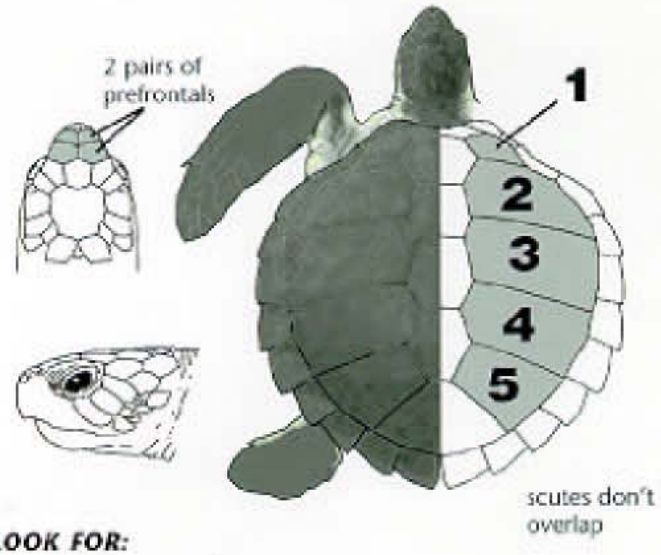
LOOK FOR:

4 pairs of lateral scutes
1st and 2nd pairs **about the same width**

scute edges **overlapping**, often **wavy**

bright orange & brown "tortoiseshell" pattern

Atlantic Ridley

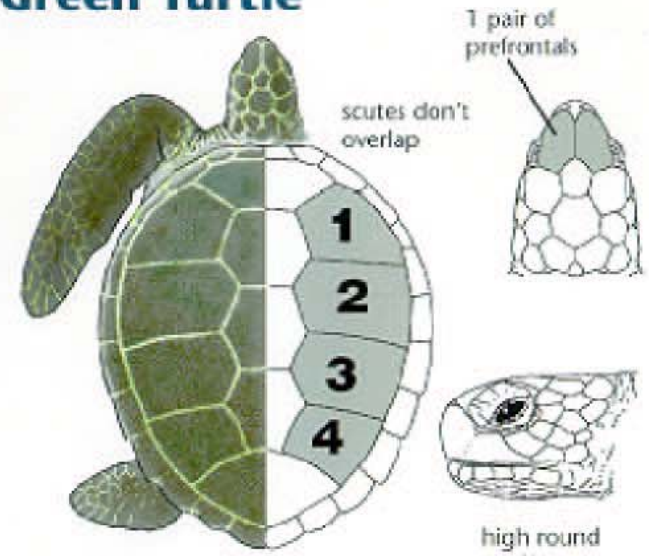


LOOK FOR:

Shell almost circular
5 pairs (rarely 6) of lateral scutes
1st pair **less than half as wide as 2nd**

dark to light grey above (the larger the lighter)
yellowish-white below

Green Turtle



LOOK FOR:

Shell oval

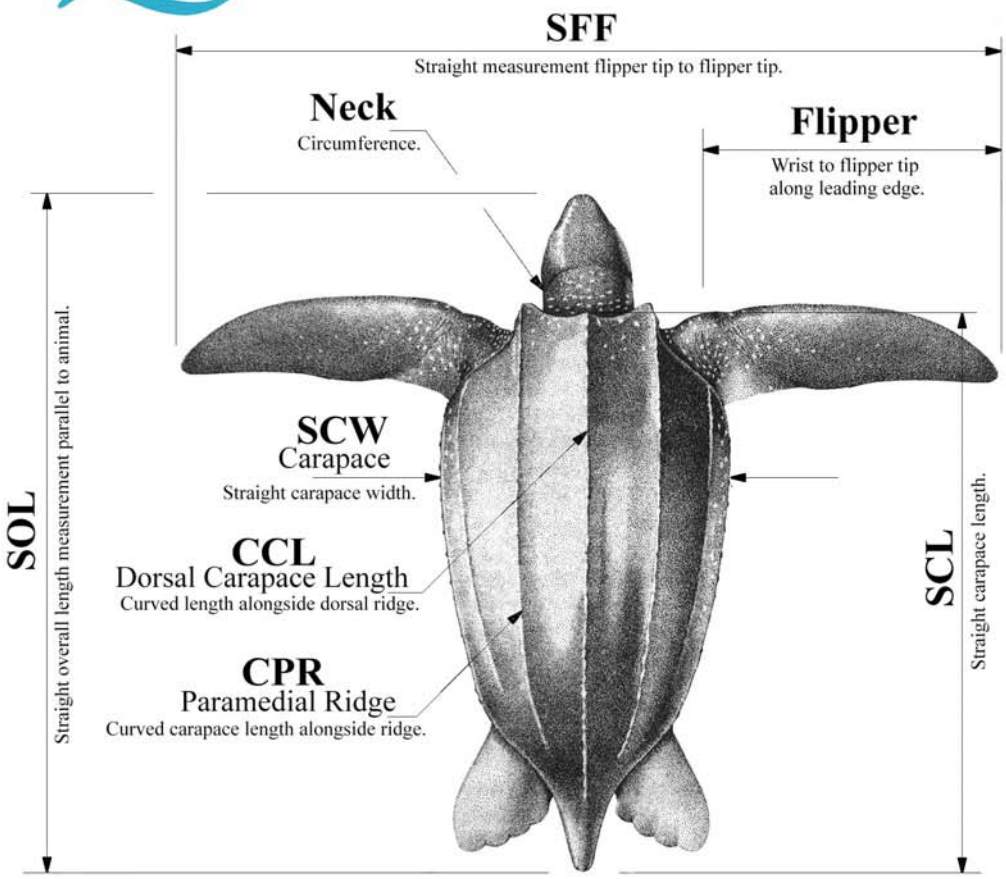
4 pairs of lateral scutes
1st and 2nd pairs **about the same width**

dark grey or greyish green, sometimes mottled
sharp white seams between scutes

Marine Environmental Monitoring

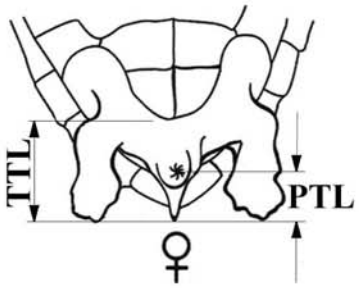
UK & Eire Marine Turtle Morphometrics.

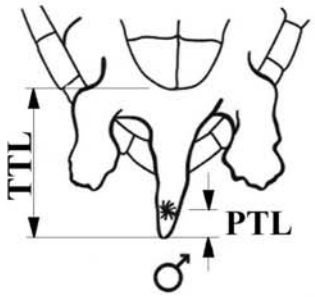
Ver.1.2



Other Measurements Required.

COL	Curved Overall Length.
CFF	Curved Flipper tip to Flipper tip over Animal.
CCW	Curved Carapace Width.
DMAX	Maximum Body Depth. (Straight).
TTL	Total Tail Length from Plastron.
PTL	From Centre of Cloacal Opening to end of Tail.
WEIGHT	In Kilograms.
SEX	If Known.





Marine Environmental Monitoring

UK & Eire Marine Turtle.

Species:	First Found:	Date Reported:	Ref. Number: T 200 /

O.S. Grid Ref:

Reported by:

Tel. No:

Location / Description: (Include closest town).

Condition at site:
- ☐ Live.
- ☐ Extremely fresh.
- ☐ Slight decomposition.
- ☐ Moderate decomposition.
- ☐ Advanced decomposition.
- ☐ Skeletal remains.

Sex:
- ☐ Male.
- ☐ Female.
- ☐ Undetermined.

Stored:
- Yes: ☐
- No: ☐

Stored Location:

Stored Date:

- Frozen: ☐
- Cold Store: ☐
- Fresh: ☐

If access to the Internet is available a chart with help on where to measure can be viewed at { HYPERLINK "http://www.strandings.com/biometrics.html" }

Straight overall length	**SOL**		cm
Straight carapace length	**SCL**		
Straight carapace width	**SCW**		
Total tail length from plastron	**TTL**		
Tail length from cloacal opening to tail tip	**PTL**		
Maximum body depth (straight)	**DMAX**		
Flipper tip to flipper tip (straight)	**SFF**		
Neck circumference	**Neck**		
Leading edge of front flipper	**Flipper**		
Curved overall length	**COL**		
Curved carapace length	**CCL**		
Curved paramedial ridge (leatherback only)	**CPR**		
Curved carapace width	**CCW**		
Curved flipper tip to flipper tip over animal	**CFF**		
Weight	**WEIGHT**		kgs
Search for external tags / PIT tags	**Y/N**		

Tag Details:

www.strandings.com
Marine Environmental Monitoring (Strandings Network)
01348 875000 01239 682405

The United Kingdom 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)
- Conservation (Natural Habitats, &c.) Regulations (1994)*
- Control of Trade in Endangered Species (Enforcement) Regulations (1997)
- Council Regulation (EC) No. 338/97

* transposes EC Habitats Directive 1992 to domestic legislation

PLEASE REPORT ALL ENCOUNTERS

ENGLAND/WALES

ALL RECORDS
Rod Penrose, Marine Environmental Monitoring
01348 875000 (24 hrs)
www.strandings.com

LIVE STRANDINGS/ ENTANGLEMENTS
RSPCA 08705 555999

REPUBLIC OF IRELAND
Prof. John Davenport
00353 (0)21 4904140 (w)
00353 (0)21 4897392 (h)

SCOTLAND

ALL RECORDS
Dr Martin Gaywood, Scottish Natural Heritage 0131 4474784

DEAD STRANDINGS
Bob Reid, Scottish Agricultural College 01463 243030/ 07979245 893

LIVE STRANDINGS/ ENTANGLEMENTS
SSPCA 0131 3390111

N. IRELAND

ALL RECORDS
Lynne Rendle, Ulster Museum & Botanical Gardens 02890 383144

LIVE/DEAD STRANDINGS / ENTANGLEMENTS
Ian Irvine, Portrush Countryside Centre
02870 823600
07770 570350 (24 hrs)

This code is available online at **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
- **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.

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. However, 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

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.

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.

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 and Turtle Strandings Project.

Marine turtles in the UK

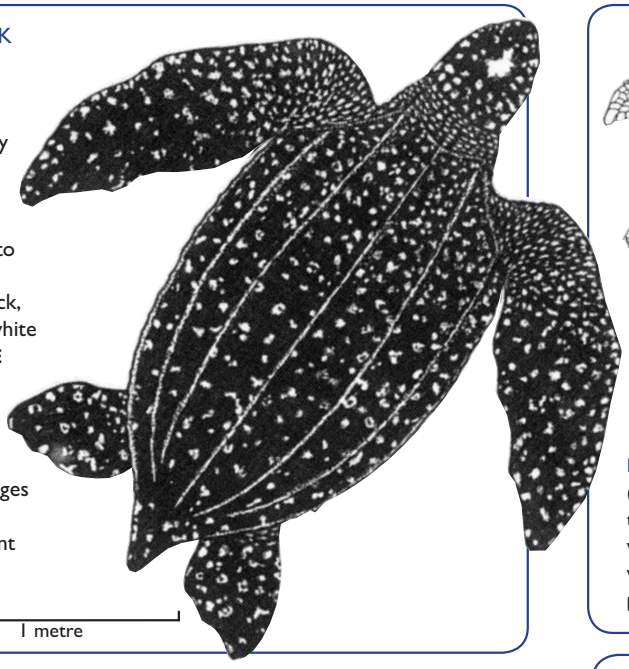
Endorsed by **DEFRA** Department for **Environment, Food & Rural Affairs**

SEAFISH

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 from tropical nesting beaches 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.

LEATHERBACK TURTLE

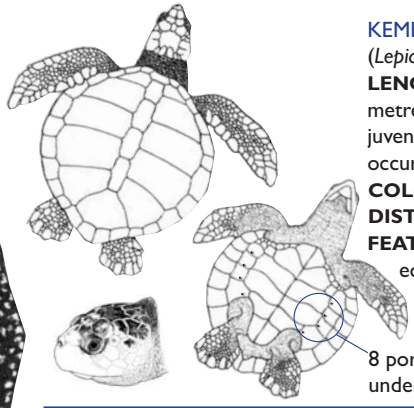
(*Dermochelys coriacea*)
Most frequently recorded species in UK waters
LENGTH: up to 2.91 metres
COLOUR: black, spotted with white
DISTINCTIVE FEATURES: large, up to 916 kg, pronounced longitudinal ridges on shell, which tapers to a blunt spike



SCALE 1 metre

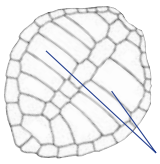
KEMP'S RIDLEY TURTLE

(*Lepidochelys kempii*)
LENGTH: up to 1 metre, but usually juveniles (0.3-0.5 metres) occur in UK waters
COLOUR: grey/olive
DISTINCTIVE FEATURES: shell width equal to or greater than shell length.



8 pores visible on underside (4 either side)

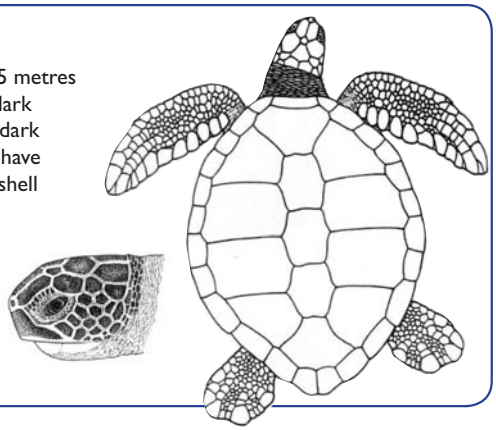
NB: The olive ridley turtle (*Lepidochelys olivacea*) occurs in the Atlantic, but has not been recorded in UK waters to date. Similar to Kemp's ridley with 8 pores on underside, but has 5-9 pairs of costal scales on shell.



costal scales

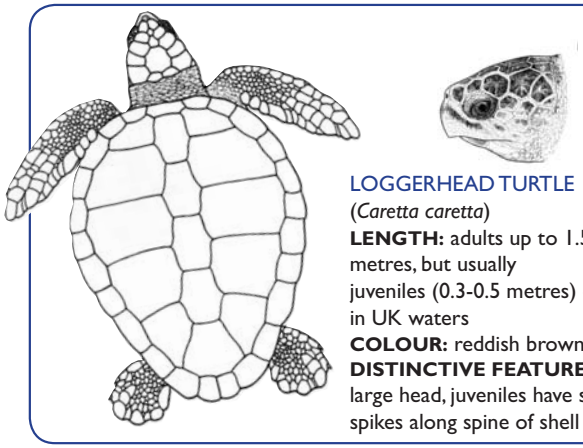
GREEN TURTLE

(*Chelonia mydas*)
LENGTH: up to 1.5 metres
COLOUR: adults dark olive or grey with dark blotches, juveniles have chestnut coloured shell
DISTINCTIVE FEATURES: smooth shell, rounded (not angular) facial profile



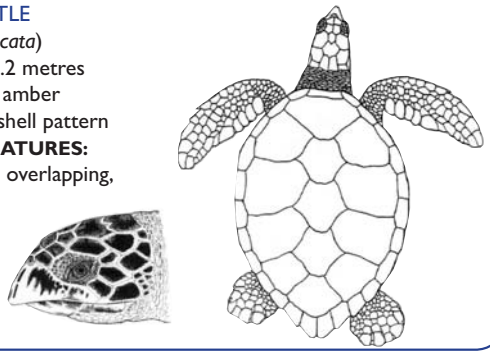
LOGGERHEAD TURTLE

(*Caretta caretta*)
LENGTH: adults up to 1.5 metres, but usually juveniles (0.3-0.5 metres) occur in UK waters
COLOUR: reddish brown
DISTINCTIVE FEATURES: large head, juveniles have small spikes along spine of shell



HAWKSBILL TURTLE

(*Eretmochelys imbricata*)
LENGTH: up to 1.2 metres
COLOUR: brown, amber and black tortoiseshell pattern
DISTINCTIVE FEATURES: central shell scales overlapping, narrow tapered head with bird-like beak



MARINE TURTLES ARE ENDANGERED

In UK waters threats include:

- **Marine litter,** especially plastic, which turtles mistake for jellyfish. Once ingested, plastic can block a turtle's gut leading to starvation
- **Boat collisions.** Turtles often bask and must surface regularly to breathe, leaving them vulnerable to boat strike
- **Entanglement in fishing gear.** Although turtles can dive to great depths, they become stressed and drown when trapped underwater by fishing gear. Fishing gear discarded at sea may also entangle and kill turtles

PLEASE DO NOT DISCARD FISHING GEAR AT SEA

Illustrations are taken, with permission, from: Eckert, K.L., K.A. Bjorndal, F.A. Abreu-Grobois, and M. Donelly (Editors). 1999. *Research and Management Techniques for the Conservation of Sea Turtles.* IUCN/SSC Marine Turtle Specialist Group Publication No. 4.

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