

**Results of post mortem examinations on five  
common dolphins (*Delphinus delphis*) from Mayo,  
February 2013**

## **Executive Summary**

[prepared by the Department of Arts, Heritage & the Gaeltacht]

Twenty four species of whale, dolphin and porpoise occur in Irish waters. The Department of Arts, Heritage and the Gaeltacht provides funding to support a National Strandings Scheme for these species in collaboration with the Irish Whale and Dolphin Group. This scheme is designed to monitor and record information concerning the stranding of dead cetaceans on the Irish shore each year.

It is not unusual for strandings of cetaceans to occur along the Irish coast, with typically 100-200 individuals being reported per year. However, at the end of January 2013, over a one week period, 13 common dolphins were found dead along the Mayo coast. The situation was considered sufficiently unusual to warrant further investigation.

The Department of Arts, Heritage and the Gaeltacht commissioned the veterinarian team of cetacean specialists from the Institute of Zoology London (IOZ) to carry out post-mortem examinations [PMEs] on a sample of the animals. On the 5<sup>th</sup> and 6<sup>th</sup> February 2013, with the kind permission of their funding body, the UK Department of the Environment, Food and Rural Affairs, that team performed PMEs on five of the common dolphins at the Department of Agriculture, Food & Marine laboratory in Athlone. This document contains the PME reports prepared by the IOZ team for those five animals.

In all five cases the examined dolphins were found to be in good nutritional condition at death, with no evidence of significant diseases or conditions that might have explained their deaths. However, a number of findings consistent with entanglement in fishing gear were apparent in each animal (e.g. netmarks on fins/flukes and body wall; haemorrhaging in the lungs; evidence of recently ingested prey). Overall, the post-mortem findings in all five animals are thought to be most consistent with bycatch in trawl type fishery gear.

Given the similar findings in all five examined animals (adult males, similar states of decomposition, all stranded in a very short time frame) it is possible that the dolphins were all bycaught around the same time, possibly even in a single haul, given the social nature and likely cooperative feeding strategies in this species.

The results of histopathology tests on tissue samples from the five animals are still pending. The IOZ team do not expect the results of these tests to affect the overall conclusions.

# **CETACEAN POSTMORTEM REPORT # 1**

REFERENCE NUMBER: Cross South 1  
POST MORTEM NUMBER: EXTERNAL  
HISTOLOGY NUMBER:  
SPECIES: Short-beaked common dolphin (*Delphinus delphis*)  
SEX: Male  
DATE FOUND: N/A  
LOCATION FOUND: N/A  
NATIONAL GRID NUMBER:  
DATE OF POSTMORTEM: 06/02/13 (first animal examined on the 6<sup>th</sup>)  
PATHOLOGIST: Rob Deaville, Matt Perkins, Rod Penrose

## **1. BASIC MEASUREMENTS**

FROZEN: No

CARCASS CONDITION: Slight-moderate decomposition

BODY WEIGHT: N/A

LENGTH, GIRTH AND BLUBBER THICKNESS:

-tip upper jaw to tail notch: 216cm  
-girth in front of dorsal fin: 127cm

-blubber thickness in front of dorsal fin:

-dorsal mid-line: 18mm  
-lateral: 15mm  
-ventral mid-line: 15mm

## **2. GROSS POSTMORTEM**

### External examination

Nutritional state: Good. Dorsal fat deposits noted.

Body orifices: Left eye pecked, right eye intact. Blowhole intact.

Ectoparasites: None found.

Fins and flukes: The leading edges of the fins and flukes were all weathered and abraded. Linear impressions/cuts noted on the leading edges of both tail flukes (~1-2mm width), extending over to the ventral aspect in the case of the left tail fluke.

### Integument

Epidermis: Two possible netmarks (~3-5mm width) with braiding impressions were noted on the right side of the dorsal fin, extending to the right side of the body wall and also over the dorsal aspect of the body. Peckmarks were noted on the dorsal aspect of the caudal peduncle. Several sets of healed con-specific rakemarks present on externa. Superficial linear striations noted on the left body wall (possible drag marks), along with abrasions and impression marks on either side of the caudal peduncle, adjacent to the insertion of the tail flukes, made by a strop used to remove the dolphin from the stranding location. Large number of irregularly distributed

linear striations also present on the ventral aspect of the carcass. Numerous sets of linear to curvi-linear rows of punctiform to linear incisions were noted over the left body wall. They ranged from 4-9cm in length, with each incision regularly spaced approx.2-3mm apart. Retrospective discussion led to suggestion that these might have been the result of scad (horse mackerel) lateral scute impressions and/or puncture made whilst the dolphin was caught in trawl gear.

Blubber: A moderate number of white plerocercoid cyst-like structures (probably *Phyllobothrium delphini*) were present within the blubber of the ano-genital region.

Subcutaneous tissue: No abnormalities detected (NAD).

### Musculoskeletal system

Skull: NAD. Tympanic bullae intact and no parasites found within on removal.

Other bones: NAD.

Back muscle mass: NAD. Well developed longissimus dorsii muscles.

Other muscles: NAD.

### Nervous system

Brain: NAD.

Spinal cord: NAD.

Peripheral nerves: NAD.

### Cardiovascular system

Pericardial sac: NAD.

Myocardium: NAD.

Valves: NAD.

Arteries, veins: Moderate amounts of haemorrhage noted in the dorsal thoracic rete (caudal region).

### Respiratory system

Nasal cavity: NAD.

Sinuses: NAD.

Trachea, bronchi: Dry and empty. Light burden of nematode parasites noted (probably *Halocercus delphini*).

Lungs: Mottled pink/red in colour. The right lung was slightly darker red in colour and more congested on cut surfaces than the left lung.

Pleura/pleural cavity: Haemorrhage in the dorsal thoracic rete as described above.

### Alimentary system

Mouth: NAD.

Oesophagus: Two intact recently ingested fish in the base of the oesophagus (possibly mackerel).

Cardiac section stomach: Large number of recently ingested fish present in the lumen, along

with a moderate volume of liquid digesta, bones, otoliths etc. No parasites noted.  
Fundic section stomach: Digesta and bones present.  
Pyloric section stomach: Copious volume of green/brown tinged fluid present in the lumen.  
Duodenum/small intestine: Proximal third contained cream/beige digesta. Distal two thirds empty.  
Large intestine: See above.  
Large intestine: NAD.  
Anus: NAD.  
Liver: NAD. Congested appearance.  
Pancreas: NAD. Autolysed.  
Peritoneum/peritoneal cavity: NAD.

### Urogenital system

Testes: NAD. Sexually mature in appearance.  
Penis: NAD.  
Kidneys: NAD.  
Ureters: NAD.  
Urinary bladder: NAD. Empty.  
Urethra: NAD.

### Lymphatic and endocrine systems

Adrenals: Petechial haemorrhage noted between cortices and medullae of each adrenal gland.  
Thyroid: NAD.  
Spleen: NAD.  
Thymus: Moderately atrophied.  
Lymph nodes: NAD. Chyle noted in the mesenteric system.

## **3. HISTOLOGY**

Pending.

## **4. BACTERIOLOGY**

Lung (swab)- no growth

Kidney (swab)- few colonies, nearly pure isolate

Liver (swab)- few colonies, nearly pure isolate

Brain (swab)- light growth, nearly pure isolate

## **5. MISCELLANEOUS**

## DIAGNOSIS

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

- physical trauma, bycatch

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

- parasitism, bronchi (light)

- parasitism, blubber (moderate)

- thymic atrophy

- adrenal gland haemorrhage

Comments:

This adult male short-beaked common dolphin was in good nutritional condition at death. A number of findings consistent with entanglement in fishing gear (by-catch) were found on postmortem examination. These included several possible netmarks (fins/flukes and right side to dorsal body wall, some with apparent braiding pattern), haemorrhage in the dorsal thoracic rete, possible fish-spine impressions/cuts and evidence of recently ingested prey. The findings were thought to be most consistent with incidental entanglement in trawl type fishing gear. No evidence to support an alternative cause of death was found.

This report is based on gross findings and may be modified after the laboratory findings are known. Laboratory results pending: histology.

Rob Deaville and Paul Jepson  
London, (19/03/13).

## **CETACEAN POSTMORTEM REPORT # 2**

REFERENCE NUMBER: Cross South 2

POST MORTEM NUMBER: EXTERNAL

HISTOLOGY NUMBER:

SPECIES: Short-beaked common dolphin (*Delphinus delphis*)

SEX: Male

DATE FOUND: N/A

LOCATION FOUND: N/A

NATIONAL GRID NUMBER:

DATE OF POSTMORTEM: 06/02/13 (second animal examined on the 6<sup>th</sup>)

PATHOLOGIST: Rob Deaville, Matt Perkins, Rod Penrose

### **1. BASIC MEASUREMENTS**

FROZEN: No

CARCASS CONDITION: Slight-moderate decomposition

BODY WEIGHT: N/A

LENGTH, GIRTH AND BLUBBER THICKNESS:

-tip upper jaw to tail notch: 203cm  
-girth in front of dorsal fin: 121cm

-blubber thickness in front of dorsal fin:

-dorsal mid-line: 18mm  
-lateral: 18mm  
-ventral mid-line: 21mm

### **2. GROSS POSTMORTEM**

#### External examination

Nutritional state: Good.

Body orifices: Left eye intact, right eye pecked open. Blowhole intact.

Ectoparasites: None found.

Fins and flukes: The leading edges of the fins and flukes were all weathered and abraded. The tip of the right tail fluke was cleanly excised. Possible linear impressions were noted on the leading edge of the left pectoral fin adjacent to the insertion into the body wall.

#### Integument

Epidermis: Moderate number of randomly distributed linear striations present on externa (more pronounced on right side- drag marks?). Skin loss on the tip of the maxillae. Bird peckmarks noted on the ventral abdomen.

Blubber: Small focal off-brown lesion noted within blubber layer on ventral body wall (between pectoral fins).

Subcutaneous tissue: No abnormalities detected (NAD).

### Musculoskeletal system

Skull: The mandible was misaligned with the maxillae (mandible displaced to the left by 1-2cm). It was difficult to manipulate this back into position, indicating that it was probably a chronic condition. Corresponding teeth impression marks on inner/outer aspect of maxilla supported this. Tympanic bullae intact and no parasites found within on removal.

Other bones: NAD.

Back muscle mass: NAD. Well developed longissimus dorsii muscles.

Other muscles: Pettichial haemorrhages noted below the left scapula.

### Nervous system

Brain: NAD.

Spinal cord: NAD.

Peripheral nerves: NAD.

### Cardiovascular system

Pericardial sac: NAD.

Myocardium: NAD.

Valves: NAD.

Arteries, veins: Moderate amounts of haemorrhage noted in the dorsal thoracic rete.

### Respiratory system

Nasal cavity: NAD.

Sinuses: NAD.

Trachea, bronchi: Dry and empty. No parasites noted.

Lungs: Diffusely dark red and uniformly congested.

Pleura/pleural cavity: Haemorrhage in the dorsal thoracic rete as described above.

### Alimentary system

Mouth: Several teeth were broken off at the gumline in the rear lower right dental arcade. Corresponding cuts/v-shaped notches were found in the adjacent epidermis on the outer aspect of the mandible (possible netmarks).

Oesophagus: Recently ingested markedly intact mackerel (identifiable patterning still visible on side) present in lumen of oesophagus, oriented head downwards. Bite marks visible on body wall, corresponding to dentition pattern of a common dolphin.

Cardiac section stomach: Large number of recently ingested fish (possibly mackerel) present in the lumen (10-20cm long, all oriented head down into the stomach), along with a moderate volume of liquid digesta, bones, otoliths etc. A volcano like ulcer was noted in the stomach wall along with a light burden of nematode parasites (probably *Anasakis simplex*).

Fundic section stomach: Digesta and bones present, along with several nematode parasites (probably *Anasakis simplex*).

Pyloric section stomach: Copious volume of green/brown tinged fluid present in the lumen.

Duodenum/small intestine: Proximal third contained cream/beige digesta. Distal two thirds



empty.  
Large intestine: See above.  
Anus: NAD.  
Liver: NAD. Congested.  
Pancreas: NAD. Autolysed.  
Peritoneum/peritoneal cavity: NAD.

#### Urogenital system

Testes: NAD. Sexually mature in appearance.  
Penis: NAD.  
Kidneys: NAD.  
Ureters: NAD.  
Urinary bladder: NAD. Empty.  
Urethra: NAD.

#### Lymphatic and endocrine systems

Adrenals: NAD.  
Thyroid: NAD.  
Spleen: NAD.  
Thymus: Atrophied.  
Lymph nodes: NAD. Chyle noted in the mesenteric system

### **3. HISTOLOGY**

Pending.

### **4. BACTERIOLOGY**

Lung (swab)- Moderate mixed predominance. No fungal elements observed.

Kidney (swab)- no growth

Liver (swab)- no growth

Brain (swab)- no growth

### **5. MISCELLANEOUS**

#### **DIAGNOSIS**

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

- physical trauma, bycatch

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

- parasitism, blubber (heavy)
- parasitism, peritoneal cavity (heavy)
- parasitism, cardiac stomach (light)
- parasitism, fundic stomach (light)
- thymic atrophy
- blubber lesion

Comments:

This adult male short-beaked common dolphin was in good nutritional condition at death. A number of findings consistent with entanglement in fishing gear (by-catch) were found on postmortem examination. These included possible netmarks (fins/flukes), excised tip of right tail fluke, haemorrhage in the dorsal thoracic rete and evidence of very recent ingestion of prey. The findings were thought to be most consistent with incidental entanglement in trawl type fishing gear. No evidence to support an alternative cause of death was found.

This report is based on gross findings and may be modified after the laboratory findings are known. Laboratory results pending: histology.

Rob Deaville and Paul Jepson  
London, (19/03/13).

# **CETACEAN POSTMORTEM REPORT # 3**

REFERENCE NUMBER: Keel 1  
POST MORTEM NUMBER: EXTERNAL  
HISTOLOGY NUMBER:  
SPECIES: Short-beaked common dolphin (*Delphinus delphis*)  
SEX: Male  
DATE FOUND: N/A  
LOCATION FOUND: N/A  
NATIONAL GRID NUMBER:  
DATE OF POSTMORTEM: 05/02/13  
PATHOLOGIST: Rob Deaville, Matt Perkins, Rod Penrose

## **1. BASIC MEASUREMENTS**

FROZEN: No  
CARCASS CONDITION: Moderate decomposition  
BODY WEIGHT: N/A  
LENGTH, GIRTH AND BLUBBER THICKNESS:

-tip upper jaw to tail notch: 198cm  
-girth in front of dorsal fin: 115cm  
  
-blubber thickness in front of dorsal fin:  
  
-dorsal mid-line: 18mm  
-lateral: 12mm  
-ventral mid-line: 12mm

## **2. GROSS POSTMORTEM**

### External examination

Nutritional state: Good.

Body orifices: Left eye pecked, right eye present. Blowhole intact.

Ectoparasites: None found.

Fins and flukes: The leading edges of the fins and flukes were all weathered and abraded. The tip of the left pectoral fin had been cleanly excised. Fresh v-shaped cuts/notches were noted at the tips of the trailing edges of both tail flukes.

### Integument

Epidermis: Numerous sets of healed conspecific rakemarks noted on externa. Large number of randomly distributed linear striations present on ventral abdomen. Post-mortem lividity also noted on ventral abdominal region. Tips of the mandible and maxillae weathered and abraded. A small square of skin had been removed from the left side of the body wall, just ventral to the dorsal fin (post-mortem sampling). Two long (~20cm) diagonal curvi-linear impressions were noted on the left side of the body wall, running approximately parallel to each other (possible net impressions). Numerous sets of linear to curvi-linear rows of punctiform to linear incisions

were noted over the externa. They ranged from 4-9cm in length, with each incision regularly spaced approx.2-3mm apart. Retrospective discussion led to suggestion that these might have been the result of scad (horse mackerel) lateral scute impressions and/or puncture made whilst the dolphin was caught in trawl gear.

Blubber: A large number of white plerocercoid cyst-like structures (probably *Phyllobothrium delphini*) were present within the blubber of the ano-genital region.

Subcutaneous tissue: No abnormalities detected (NAD).

### Musculoskeletal system

Skull: NAD. Tympanic bullae intact and no parasites found within on removal.

Other bones: NAD.

Back muscle mass: NAD. Well developed longissimus dorsii muscles.

Other muscles: NAD.

### Nervous system

Brain: NAD.

Spinal cord: NAD.

Peripheral nerves: NAD.

### Cardiovascular system

Pericardial sac: NAD.

Myocardium: NAD.

Valves: NAD.

Arteries, veins: Moderate amounts of haemorrhage noted in the dorsal thoracic rete (more pronounced in left pleural cavity).

### Respiratory system

Nasal cavity: NAD.

Sinuses: NAD.

Trachea, bronchi: Dry and empty. Light burden of nematode parasites noted (probably *Halocercus delphini*).

Lungs: Mottled pink/red in colour. The right lung was slightly darker red in colour and more congested on cut surfaces than the left lung.

Pleura/pleural cavity: Haemorrhage in the dorsal thoracic rete as described above.

### Alimentary system

Mouth: NAD. Teeth all intact and normal in appearance.

Oesophagus: NAD.

Cardiac section stomach: Large number of semi-digested fish present in the lumen (10-20cm long, all oriented head down into the stomach), along with a moderate volume of liquid digesta. A volcano like ulcer was noted at the cranial end of the stomach. No parasites were found.

Fundic section stomach: Digesta and bones present.

Pyloric section stomach: Copious volume of green/brown tinged fluid present in the lumen.  
Duodenum/small intestine: Proximal third contained cream/beige digesta. Distal two thirds empty.

Large intestine: See above.

Anus: NAD.

Liver: NAD.

Pancreas: NAD.

Peritoneum/peritoneal cavity: Moderate number of large and thick-walled subperitoneal (plerocercoid) cysts (probably *Monorygma grimaldii*) were found in the caudal abdomen.

### Urogenital system

Testes: NAD. Sexually mature in appearance.

Penis: NAD.

Kidneys: NAD.

Ureters: NAD.

Urinary bladder: NAD. Empty.

Urethra: NAD.

### Lymphatic and endocrine systems

Adrenals: Petechial haemorrhage noted between cortices and medullae of each adrenal gland.

Thyroid: NAD.

Spleen: NAD.

Thymus: Moderately atrophied.

Lymph nodes: NAD. Chyle noted in the mesenteric system (less than Keem Bay dolphin).

## **3. HISTOLOGY**

Pending.

## **4. BACTERIOLOGY**

Lung (swab)- moderate mixed growth. No fungal elements observed.

Kidney (swab)- no growth

Liver (swab)- Moderate nearly pure isolate

Brain (swab)- no growth

## **5. MISCELLANEOUS**

### **DIAGNOSIS**

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

- physical trauma, bycatch

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

- parasitism, bronchi (light)

- parasitism, blubber (heavy)

- parasitism, peritoneal cavity (moderate)

- thymic atrophy (moderate)

- adrenal haemorrhages

Comments:

This adult male short-beaked common dolphin was in good nutritional condition at death. A number of findings consistent with entanglement in fishing gear (by-catch) were found on postmortem examination. These included several possible netmarks (fins/flukes and left side body wall), extensive haemorrhage in the dorsal thoracic rete, possible fish-spine impressions/cuts and evidence of recently ingested prey. The findings were thought to be most consistent with incidental entanglement in trawl type fishing gear. No evidence to support an alternative cause of death was found.

This report is based on gross findings and may be modified after the laboratory findings are known. Laboratory results pending: histology.

Rob Deaville and Paul Jepson  
London, (19/03/13).

# **CETACEAN POSTMORTEM REPORT # 4**

REFERENCE NUMBER: Keel 2

POST MORTEM NUMBER: EXTERNAL

HISTOLOGY NUMBER:

SPECIES: Short-beaked common dolphin (*Delphinus delphis*)

SEX: Male

DATE FOUND: N/A

LOCATION FOUND: N/A

NATIONAL GRID NUMBER:

DATE OF POSTMORTEM: 05/02/13 (first animal examined on 5<sup>th</sup>)

PATHOLOGIST: Rob Deaville, Matt Perkins, Rod Penrose

## **1. BASIC MEASUREMENTS**

FROZEN: No

CARCASS CONDITION: Moderate decomposition

BODY WEIGHT: N/A

LENGTH, GIRTH AND BLUBBER THICKNESS:

-tip upper jaw to tail notch: 199cm  
-girth in front of dorsal fin: 120cm

-blubber thickness in front of dorsal fin:

-dorsal mid-line: 22mm  
-lateral: 17mm  
-ventral mid-line: 20mm

## **2. GROSS POSTMORTEM**

### External examination

Nutritional state: Good. Dorsal fat deposits noted.

Body orifices: Left eye intact, right eye missing. Blowhole slightly scavenged.

Ectoparasites: None found.

Fins and flukes: The leading edges of the fins and flukes were all weathered and abraded. The tip of the left pectoral fin had been cleanly excised (approx. 5cm missing). Numerous thin cutaneous incisions (~ <1mm) noted on the dorsal aspect of the leading edges of each tail fluke (perpendicular to the leading edge). No corresponding incisions noted on trailing edges.

### Integument

Epidermis: Two thin cutaneous impressions (~1mm width) were noted on the right side of the caudal peduncle. The linear impressions ran from a single point at the base of the keel towards the dorsal aspect of the tail, approximately at 90<sup>0</sup> from each other. Large number of irregularly distributed linear striations present on externa. A small square of skin had been removed from the right side of the body wall, just ventral to the dorsal fin (post-mortem sampling). Some skin loss noted on dorsal keel along with numerous peckmarks on the left body wall. Numerous

healed con-specific rakemarks present on externa.

Blubber: A large number of white plerocercoid cyst-like structures (probably *Phyllobothrium delphini*) were present within the blubber of the ano-genital region.

Subcutaneous tissue: No abnormalities detected (NAD).

### Musculoskeletal system

Skull: The maxilla and mandible were fractured at their tips. Tympanic bullae intact and no parasites found within on removal.

Other bones: NAD.

Back muscle mass: NAD. Well developed longissimus dorsii muscles.

Other muscles: Pettichial haemorrhages noted within the cranial ends of the psoas muscles.

### Nervous system

Brain: NAD.

Spinal cord: NAD.

Peripheral nerves: NAD.

### Cardiovascular system

Pericardial sac: NAD.

Myocardium: NAD. Fatty deposits noted around heart.

Valves: NAD.

Arteries, veins: Very large area of haemorrhage noted in the dorsal thoracic rete (caudal region), extending over the thoracic duct and to the adrenal glands.

### Respiratory system

Nasal cavity: NAD.

Sinuses: NAD.

Trachea, bronchi: Dry and empty. Light burden of nematode parasites noted (probably *Halocercus delphini*).

Lungs: Mottled pink/red in colour. The right lung was slightly darker red in colour and more congested on cut surfaces than the left lung.

Pleura/pleural cavity: Haemorrhage in the dorsal thoracic rete as described above.

### Alimentary system

Mouth: Single tooth missing from the middle of the lower right dental arcade. A deep v-shaped cut in the outer aspect of the mandible was coincident with this lost tooth (possible netmark). Several teeth recently fractured level with the gum line, at the rear of the lower right dental arcade.

Oesophagus: NAD.

Cardiac section stomach: Partially digested small fish (10-15cm, uncertain identity) present in lumen, along with fragments of flesh, traces of fluid digesta and some small beach material.

Fundic section stomach: Empty. Few small nematode parasites in lumen (probably *Anasakis*



*simplex*).

Pyloric section stomach: Moderate volume of green tinged beige fluid in lumen.

Duodenum/small intestine: Large quantity of beige digesta in proximal third of intestine. Distal two thirds empty.

Large intestine: See above.

Anus: NAD.

Liver: NAD. Congested.

Pancreas: NAD. Autolysed.

Peritoneum/peritoneal cavity: Large number of large and thick-walled subperitoneal (plerocercoid) cysts (probably *Monorygma grimaldii*) were found in the caudal abdomen.

### Urogenital system

Testes: NAD. Sexually mature in appearance.

Penis: NAD.

Kidneys: NAD.

Ureters: NAD.

Urinary bladder: NAD. Empty.

Urethra: NAD.

### Lymphatic and endocrine systems

Adrenals: Haemorrhage over capsule of adrenal glands (see above).

Thyroid: NAD.

Spleen: NAD.

Thymus: Moderately atrophied.

Lymph nodes: NAD.

## **3. HISTOLOGY**

Pending.

## **4. BACTERIOLOGY**

Lung (swab)- Moderate mixed predominance *Photobacterium damsela*. No fungal elements observed 5 days.

Kidney (swab)- no growth

Liver (swab)- no growth

Brain (swab)- no growth

## **5. MISCELLANEOUS**

## DIAGNOSIS

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

- physical trauma, bycatch

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

- parasitism, bronchi (light)

- parasitism, peritoneal cavity (heavy)

- parasitism, blubber (heavy)

Comments:

This adult male short-beaked common dolphin was in good nutritional condition at death. A number of findings consistent with entanglement in fishing gear (by-catch) were found on postmortem examination. These included several possible netmarks (fins/flukes, mandible and right side caudal peduncle), recently fractured teeth, excised tip of a pectoral fin, extensive haemorrhage in the dorsal thoracic rete and evidence of recently ingested prey. The findings were thought to be most consistent with incidental entanglement in trawl type fishing gear. No evidence to support an alternative cause of death was found.

This report is based on gross findings and may be modified after the laboratory findings are known. Laboratory results pending: histology.

Rob Deaville and Paul Jepson  
London, (19/03/12).

# **CETACEAN POSTMORTEM REPORT # 5**

REFERENCE NUMBER: Keem Bay  
POST MORTEM NUMBER: EXTERNAL  
HISTOLOGY NUMBER:  
SPECIES: Short-beaked common dolphin (*Delphinus delphis*)  
SEX: Male  
DATE FOUND: N/A  
LOCATION FOUND: N/A  
NATIONAL GRID NUMBER:  
DATE OF POSTMORTEM: 05/02/13 (second animal examined on 5<sup>th</sup>)  
PATHOLOGIST: Rob Deaville, Matt Perkins, Rod Penrose

## **1. BASIC MEASUREMENTS**

FROZEN: No

CARCASS CONDITION: Slight-moderate decomposition

BODY WEIGHT: N/A

LENGTH, GIRTH AND BLUBBER THICKNESS:

-tip upper jaw to tail notch: 217cm  
-girth in front of dorsal fin: 115cm  
-blubber thickness in front of dorsal fin:  
-dorsal mid-line: 20mm  
-lateral: 16mm  
-ventral mid-line: 19mm

## **2. GROSS POSTMORTEM**

### External examination

Nutritional state: Good.

Body orifices: Both eyes present but punctured, blowhole intact.

Ectoparasites: None found.

Fins and flukes: The leading edges of the fins and flukes were all weathered and abraded.

### Integument

Epidermis: Large number of randomly distributed linear striations present on externa. Some minor upper epidermis loss in areas. A single linear impression (approx.1mm width) was noted on the left side of the body wall, running from just below the dorsal fin in a caudal direction to the ventral aspect of the body. Numerous sets of linear to curvi-linear rows of punctiform to linear incisions were noted over the externa. They ranged from 4-9cm in length, with each incision regularly spaced approx.2-3mm apart. Retrospective discussion led to suggestion that these might have been the result of scad (horse mackerel) lateral scute impressions and/or puncture made whilst the dolphin was caught in trawl gear.

Blubber: A large number of white plerocercoid cyst-like structures (probably *Phyllobothrium*

*delphini*) were present within the blubber of the ano-genital region.  
Subcutaneous tissue: No abnormalities detected (NAD).

### Musculoskeletal system

Skull: NAD. Tympanic bullae intact and no parasites found within on removal.  
Other bones: NAD.  
Back muscle mass: NAD. Well developed longissimus dorsii muscles.  
Other muscles: NAD.

### Nervous system

Brain: NAD.  
Spinal cord: NAD.  
Peripheral nerves: NAD.

### Cardiovascular system

Pericardial sac: NAD.  
Myocardium: NAD.  
Valves: NAD.  
Arteries, veins: Slight haemorrhage noted in the dorsal thoracic rete (caudal region).

### Respiratory system

Nasal cavity: NAD.  
Sinuses: NAD.  
Trachea, bronchi: Dry and empty. Moderate burden of nematode parasites noted (probably *Halocercus delphini*).  
Lungs: Mottled pink/red in colour. The right lung was slightly darker red in colour and more congested on cut surfaces than the left lung. Occasional parasitic cysts noted.  
Pleura/pleural cavity: Haemorrhage in the dorsal thoracic rete as described above.

### Alimentary system

Mouth: NAD. Teeth all intact and normal.  
Oesophagus: Traces of digesta present within the lumen of the oesophagus.  
Cardiac section stomach: Large quantity of beige digesta, bones, otoliths and lenses present within the lumen. No parasites noted.  
Fundic section stomach: Beige digesta in lumen. No parasites noted.  
Pyloric section stomach: Beige-green digesta in lumen.  
Duodenum/small intestine: Largely empty.  
Large intestine: Largely empty.  
Anus: NAD.  
Liver: NAD. Congested.  
Pancreas: NAD. Autolysed.  
Peritoneum/peritoneal cavity: Moderate number of large and thick-walled subperitoneal

(plerocercoid) cysts (probably *Monorygma grimaldii*) were found in the caudal abdomen.

### Urogenital system

Testes: NAD. Sexually mature in appearance.

Penis: NAD.

Kidneys: NAD.

Ureters: NAD.

Urinary bladder: NAD. Empty.

Urethra: NAD.

### Lymphatic and endocrine systems

Adrenals: Petrichial haemorrhage noted between cortices and medullae of each adrenal gland.

Thyroid: NAD.

Spleen: NAD.

Thymus: Atrophied.

Lymph nodes: NAD. Large amount of chyle noted in the mesenteric system and thoracic duct.

## **3. HISTOLOGY**

Pending.

## **4. BACTERIOLOGY**

Lung (swab)- Moderate pure isolate - ve rod to coccobacillus sp. CO<sub>2</sub> dependent, oxidase + ve  
-> sent to VLA Weybridge 14/02, results pending. No fungal elements observed 5 days.

Kidney (swab)- no growth

Liver (swab)- no growth

Brain (swab)- few colonies mixed

## **5. MISCELLANEOUS**

### **DIAGNOSIS**

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

- physical trauma, bycatch

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

- parasitism, bronchi (light-moderate)

- parasitism, blubber (moderate)
- parasitism, peritoneal cavity (moderate)
- thymic atrophy

Comments:

This adult male short-beaked common dolphin was in good nutritional condition at death. A number of findings consistent with entanglement in fishing gear (by-catch) were found on postmortem examination. These included a single possible netmark on the body wall, haemorrhage in the dorsal thoracic rete, possible fish-spine impressions/cuts and evidence of recently ingested prey. The findings were thought to be most consistent with incidental entanglement in trawl type fishing gear. No evidence to support an alternative cause of death was found.

This report is based on gross findings and may be modified after the laboratory findings are known. Laboratory results pending: bacteriology (AHVLA Weybridge), histology.

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London, (19/03/12).