

DIAGNOSTIC CASE REPORT

U. S. GEOLOGICAL SURVEY-BIOLOGICAL RESOURCES DIVISION
NATIONAL WILDLIFE HEALTH CENTER-HONOLULU FIELD STATION
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HONOLULU, HAWAII 96850
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Case Number: 25637

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Species submitted (n):

Turtle: Green (2)
Turtle: Loggerhead (2)
Turtle: Olive Ridley (14)

SPECIMENS SUBMITTED: Carcass-Thawed

These turtles were caught in various regions of the Pacific Ocean as bycatch for longline fisheries. Turtles were submitted for complete necropsy for life history studies and to document cause of death.

Acc	Date_Coll	Animal	Age	Sex	Diagnosis
1	12/08/2018	Turtle: Loggerhead	Adult	Male	Forced submergence
2	12/27/2017	Turtle: Loggerhead	Immature	Male	Forced submergence
3	08/05/2018	Turtle: Green	Subadult	Male	Forced submergence
4	04/16/2018	Turtle: Green	Immature	Female	Forced submergence
5	10/05/2018	Turtle: Olive Ridley	Immature	Male	Forced submergence
6	09/25/2018	Turtle: Olive Ridley	Immature	Female	Forced submergence
7	10/05/2018	Turtle: Olive Ridley	Immature	Male	Forced submergence
8	05/06/2018	Turtle: Olive Ridley	Immature	Female	Forced submergence
9	12/01/2018	Turtle: Olive Ridley	Subadult	Male	Forced submergence
10	08/01/2018	Turtle: Olive Ridley	Adult	Male	Forced submergence
11	10/14/2018	Turtle: Olive Ridley	Subadult	Male	Forced submergence
12	02/09/2018	Turtle: Olive Ridley	Subadult	Female	Forced submergence
13	01/26/2018	Turtle: Olive Ridley	Adult	Female	Forced submergence
14	01/03/2018	Turtle: Olive Ridley	Subadult	Female	Forced submergence
15	02/21/2018	Turtle: Olive Ridley	Adult	Female	Forced submergence
16	08/02/2018	Turtle: Olive Ridley	Adult	Male	Forced submergence
17	07/25/2018	Turtle: Olive Ridley	Adult	Male	Forced submergence
18	10/12/2018	Turtle: Olive Ridley	Subadult	Female	Forced submergence

Comments: 6 of 18 animals had visible hooks in esophagus or mouth, 13 of 18 had evidence of fish bait in stomach and four turtles had incidental inflammatory lesions of the skin, kidney, intestines.

Management: Please refer to NOAA recommendations on mitigation of sea turtle bycatch.

Report Date (mm/dd/yyyy): 9/24/2019

Necropsy report: Enclosed

Copies of this report sent to:



If you have questions regarding this case, contact Thierry M. Work MS, DVM, MPVM at 808-792-9520. Include above Case Number. Diagnostic findings may not be used for publication without the pathologist's knowledge and consent.

NOTE: Information in this report supersedes any information from previous reports regarding this case .

**NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT**

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 1
Date Collected: 12/08/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Excellent) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)

TAG TYPE: () TAG NO.: ()

SPECIES: (Turtle: Loggerhead) AGE: (Adult) SEX: (Male)

MORPHOMETRICS: Weight carcass (57.7 kg), Straight carapace length (72.9 cm).

COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)

HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (26.951111°N, -158.201111°W) on 8 December 2018. Stranding information - LL6535, Set 15. NIST samples were collected.

External/Internal

EXTERNAL:

INTERNAL: There is a hook embedded in the proximal esophagus. Two bait fish are found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.

HISTO: Lung (A); Kidney (B); Spleen, Liver (C); Skeletal muscle, Heart (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Small amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)

N A T I O N A L W I L D L I F E H E A L T H C E N T E R
N E C R O P S Y R E P O R T

Submitter Name:

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National Oceanic and Atmospheric
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1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 2
Date Collected: 12/27/2017
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Good) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Loggerhead) AGE: (Immature) SEX: (Male)
MORPHOMETRICS: Weight carcass (13.2 kg), Straight carapace length (43.8 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (33.302222°N, -147.185556°W) on 27 December 2017. Stranding information - LL6216, Set 04. NIST samples were collected.

External/Internal

EXTERNAL: There are large numbers of barnacles digging into the flesh of both front flippers near the carpal joints with associated scar tissue.

INTERNAL: There is a 2 mm granular granuloma in the small intestine.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.
HISTO: Lung (A); Spleen, Kidney (B); Liver, Abscess (C); Skeletal muscle, Heart (D); Skin (E); Skin (F).

Laboratory Results

HISTOPATHOLOGY

Skin: There is a diffuse area of ulceration characterized by masses of eosinophilic debris mixed with strands of wispy pale purple material effacing epidermis and extending into underlying dermis. Within another section, within the dermis is a large cavity lined by necrotizing squamous epithelium containing a large metazoan with segmented appendages.

Abscess: Consists of a core of eosinophilic material mixed with deposits of light purple wispy material with rare round to ovoid large (>100 um) basophilic structure with a clear capsule.

Spleen: Multiple variably sized pleomorphic cavities filled with homogenous pink material are scattered throughout.

Lung: Moderate amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

All other Organs: No remarkable lesions are seen.

COMMENTS:Gross and microscopic findings along with history pointed to forced submergence as cause of death. The presence of skin inflammation and necrosis associated with barnacles was an incidental finding.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	(FY2220)	(

Diagnostic findings may not be published without the knowledge and consent of the pathologist. Milt Code: (Drowned)

N A T I O N A L W I L D L I F E H E A L T H C E N T E R
N E C R O P S Y R E P O R T

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
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1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 3
Date Collected: 08/05/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Good) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Green) AGE: (Subadult) SEX: (Male)
MORPHOMETRICS: Weight carcass (44.2 kg), Straight carapace length (68.1 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (12.350278°N, -164.701389°W) on 5 August 2018. Stranding information - LL6442, Set 05. NIST samples were collected.

External/Internal

EXTERNAL:

INTERNAL: The gallbladder appears large.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.
HISTO: Lung (A); Heart, Liver, Spleen (B); Kidney, Heart (C); Skin, Intestine small (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Small amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)
Diagnosis Topog Morpho Etiol Funct Dis Link
1. Forced submergence () () () (FY2220) () ()
Diagnostic findings may not be published without the knowledge and consent of the pathologist. Milt Code: (Drowned)

N A T I O N A L W I L D L I F E H E A L T H C E N T E R
N E C R O P S Y R E P O R T

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
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1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 4
Date Collected: 04/16/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Good) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Green) AGE: (Immature) SEX: (Female)
MORPHOMETRICS: Weight carcass (9.3 kg), Straight carapace length (39.9 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (27.551389°N, -147.485833°W) on 16 April 2018. Stranding information - LL6334, Set 06. NIST samples were collected.

External/Internal

EXTERNAL: There is a small hole in the ventral right front flipper.
INTERNAL: Gooseneck barnacles are found in the stomach.
PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.
HISTO: Kidney (A); Spleen, Liver (B); Heart (C).

Laboratory Results

HISTOPATHOLOGY
All organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)
Diagnosis Topog Morpho Etiol Funct Dis Link
1. Forced submergence () () () (FY2220) () () ()
Diagnostic findings may not be published without the knowledge and consent of the pathologist.
Milt Code: (Drowned)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
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1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 5
Date Collected: 10/05/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Fair) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Immature) SEX: (Male)
MORPHOMETRICS: Weight carcass (6.3 kg), Straight carapace length (35.8 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (5.334444°N, -153.585556°W) on 5 October 2018. Stranding information - LL6494, Set 06. NIST samples were collected.

External/Internal

EXTERNAL: There is a small hole in the ventral mandible skin.
INTERNAL: One bait is found in the esophagus.
PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.
HISTO: Lung (A); Kidney (B); Liver (C); Heart (D).

Laboratory Results

HISTOPATHOLOGY

Liver: A large cavity filled with blood is present.
Lung: Small amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.
All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	()

Diagnostic findings may not be published without the knowledge and consent of the

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pathologist.

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Milt Code: (Drowned)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

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National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 6
Date Collected: 09/25/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Fair) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Immature) SEX: (Female)
MORPHOMETRICS: Weight carcass (11.2 kg), Straight carapace length (43.7 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (17.202500°N, -161.184722°W) on 25 September 2018. Stranding information - LL6486, Set 12. NIST samples were collected.

External/Internal

EXTERNAL: There is a hook with bait embedded in the mouth behind the right mandible.
INTERNAL: There is submandibular hemorrhage and edema. One bait is found in the esophagus.
PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.
HISTO: Lung (A); Kidney (B); Heart (C); Liver (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Small amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	()

Diagnostc findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 7
Date Collected: 10/05/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Fair) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Immature) SEX: (Male)
MORPHOMETRICS: Weight carcass (5.4 kg), Straight carapace length (33.7 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (5.333611°N, -153.883611°W) on 5 October 2018. Stranding information - LL6494, Set 5. NIST samples were collected.

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.
HISTO: Lung (A); Kidney (B); Heart (C); Spleen (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Large amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)

**NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT**

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 8
Date Collected: 05/06/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Fair) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Immature) SEX: (Female)
MORPHOMETRICS: Weight carcass (14.9 kg), Straight carapace length (48.2 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (22.70000°N, -151.802500°W) on 6 May 2018. Stranding information - LL6343, Set 14. NIST samples were collected.

External/Internal

EXTERNAL:

INTERNAL: There is bruising in the left neck at the thoracic inlet. The hook is sitting in the mouth. One bait is found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.
HISTO: Lung (A); Kidney (B); Spleen, Liver (C); Heart (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Small amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

Liver: Several large cavities some with blood cells in them efface parenchyma.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	() () () (FY2220) () ()

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Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)

N A T I O N A L W I L D L I F E H E A L T H C E N T E R
N E C R O P S Y R E P O R T

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
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1845 Wasp Blvd Bldg 176
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United States

Case: 25637
Accession: 9
Date Collected: 12/01/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Good) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Subadult) SEX: (Male)
MORPHOMETRICS: Weight carcass (26.3 kg), Straight carapace length (56.6 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (30.167500°N, -161.200833°W) on 1 December 2018. Stranding information - LL6544, Set 11.

External/Internal

EXTERNAL: There is a small laceration below the left eye.
INTERNAL: There is bleeding around the kidneys. One bait is found in the esophagus.
PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.
HISTO: Lung (A); Kidney (B); Spleen, Liver (C); Heart (D).

Laboratory Results

HISTOPATHOLOGY

Liver: Several large cavities some with blood cells in them efface parenchyma.
Lung: Moderate amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.
All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	()

Diagnostic findings may not be published without the knowledge and consent of the

25637-9
pathologist.

Page 2 of 2
Milt Code: (Drowned)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

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1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 10
Date Collected: 08/01/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Good) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Adult) SEX: (Male)
MORPHOMETRICS: Weight carcass (25.8 kg), Straight carapace length (58.8 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (13.701389°N, -165.568056°W) on 1 August 2018. Stranding information - LL6442, Set 03.

External/Internal

EXTERNAL: The penis is prolapsed.

INTERNAL:

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.

HISTO: Lung (A); Kidney (B); Spleen, Liver (C); Heart (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Large amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)

N A T I O N A L W I L D L I F E H E A L T H C E N T E R
N E C R O P S Y R E P O R T

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
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1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 11
Date Collected: 10/14/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Good) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Subadult) SEX: (Male)
MORPHOMETRICS: Weight carcass (24.7 kg), Straight carapace length (57.3 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (21.802222°N, -154.501389°W) on 14 October 2018. Stranding information - LL6500, Set 05.

External/Internal

EXTERNAL: There is a laceration on the right canthus. The penis is prolapsed.

INTERNAL: The right humerus is broken (post mortem). The bladder lumen is filled with fibrin and scar tissue. There is one bait fish in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.

HISTO: Lung (A); Heart, Kidney (B); Liver, Spleen (C); Heart, Bladder urinary (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Small amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

Liver: Several small variably shaped cavities some with blood cells in them efface parenchyma.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death. The scarring in urinary bladder was an incidental finding the cause of which was undetermined.

Final Diagnosis (in order of importance)

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Diagnosis	Topog	Morpho	Etiol	Func	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)

**NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT**

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 12
Date Collected: 02/09/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Good) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Subadult) SEX: (Female)
MORPHOMETRICS: Weight carcass (28.4 kg), Straight carapace length (56.1 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (17.03333°N, -153.852222°W) on 9 February 2018. Stranding information - LL6270, Set 03.

External/Internal

EXTERNAL:

INTERNAL: The oviduct is tortuous. There is one bait in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.
HISTO: Kidney (A); Spleen, Liver (B); Heart (C).

Laboratory Results

HISTOPATHOLOGY

All organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 13
Date Collected: 01/26/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Good) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Adult) SEX: (Female)
MORPHOMETRICS: Weight carcass (30.8 kg), Straight carapace length (62.1 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (25.6000°N, -161.519167°W) on 26 January 2018. Stranding information - LL6255, Set 06.

External/Internal

EXTERNAL:

INTERNAL: The hook is embedded in the proximal esophagus. There is perirenal hemorrhage. There is one bait in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.

HISTO: Lung (A); Kidney (B); Spleen, Liver (C); Heart (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Small amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)

**NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT**

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 14
Date Collected: 01/03/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Poor) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Subadult) SEX: (Female)
MORPHOMETRICS: Weight carcass (27.5 kg), Straight carapace length (57.2 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (24.200833°N, -157.21889°W) on 3 January 2018. Stranding information - LL6231, Set 05.

External/Internal

EXTERNAL:

INTERNAL: The left kidney is fibrotic. The oviduct is tortuous. There is one bait in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.

HISTO: Lung (A); Kidney (B); Liver (C); Spleen, Heart (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Small amounts of pink homogenous material mixed with sloughing edicular cells are within small airways. Within adjacent connective tissue is a large granuloma comprising a core of pink material surrounded by giant cells.

Kidney: Multiple small granulomas are within a of connective tissue adjacent to kidney.

Liver: Several small variably shaped cavities some with blood cells in them efface parenchyma.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced

submergence as cause of death. This animal also had kidney lesions suggestive of Salmonellosis.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	(AW)

Diagnostic findings may not be published without the knowledge and consent of the pathologist. Milt Code: (Drowned)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 15
Date Collected: 02/21/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Fair) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Adult) SEX: (Female)
MORPHOMETRICS: Weight carcass (28.9 kg), Straight carapace length (60.5 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (16.75000°N, -164.168889°W) on 21 February 2018. Stranding information - LL6280, Set 07.

External/Internal

EXTERNAL:

INTERNAL: Two bait are found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.

HISTO: Lung (A); Kidney (B); Spleen, Liver (C); Heart (D).

Laboratory Results

HISTOPATHOLOGY

Kidney: Numerous variably sized granulomas are scattered among proximal tubules and connective tissues.

Liver: Several medium to large variably shaped cavities some with blood cells in them efface parenchyma.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link	
1. Forced submergence	()	()	(FY2220)	()

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Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 16
Date Collected: 08/02/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Good) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Adult) SEX: (Male)
MORPHOMETRICS: Weight carcass (27.5 kg), Straight carapace length (60 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (27.251389°N, -139.634722°W) on 2 August 2018. Stranding information - LL6425, Set 09.

External/Internal

EXTERNAL:

INTERNAL: The hook is caudal to the glottis. There is perirenal hemorrhage. One bait is found in the stomach.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.

HISTO: Lung (A); Kidney (B); Spleen, Liver (C); Heart (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Large amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	()	()	()	(FY2220)	()	()

Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)

N A T I O N A L W I L D L I F E H E A L T H C E N T E R
N E C R O P S Y R E P O R T

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 17
Date Collected: 07/25/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Good) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Adult) SEX: (Male)
MORPHOMETRICS: Weight carcass (25.9 kg), Straight carapace length (59.2 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (16.651944°N, -164.468889°W) on 25 July 2018. Stranding information - LL6436, Set 07.

External/Internal

EXTERNAL:

INTERNAL: The hook is loose in the mouth caudal to the tongue. One bait is found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.
HISTO: Lung (A); Kidney (B); Liver (C); Heart (D).

Laboratory Results

HISTOPATHOLOGY

Lung: Small amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

Liver: Several medium to large variably shaped cavities some with blood cells in them efface parenchyma.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)
Diagnosis Topog Morpho Etiol Funct Dis Link

1. Forced submergence () () () (FY2220) () ()
Diagnostic findings may not be published without the knowledge and consent of the
pathologist. Milt Code: (Drowned)

NATIONAL WILDLIFE HEALTH CENTER
NECROPSY REPORT

Submitter Name:

Dr. Todd Jones
National Oceanic and Atmospheric
Administration
1845 Wasp Blvd Bldg 176
Honolulu, Hawaii 96818
United States

Case: 25637
Accession: 18
Date Collected: 10/12/2018
Date Examined: 3/7/2019
Prosector: T. M. Work
Pathologist: T. M. Work

Signalment-Morphometrics-History

CONDITION: (Excellent) POSTMORTEM: (Good) EUTHANASIA: (Not euthanized)
TAG TYPE: () TAG NO.: ()
SPECIES: (Turtle: Olive Ridley) AGE: (Subadult) SEX: (Female)
MORPHOMETRICS: Weight carcass (26 kg), Straight carapace length (56.2 cm).
COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North Pacific) COUNTRY: (United States)
HISTORY: This turtle was hooked during a longline fishing expedition in the North Pacific (22.118056°N, -154.351667°W) on 12 October 2018. Stranding information - LL6500, Set 03.

External/Internal

EXTERNAL:

INTERNAL: One bait is found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

Samples

SECIMENS RECEIVED: Carcass-Thawed.

HISTO: Lung (A); Liver, Kidney (B); Kidney (C).

Laboratory Results

HISTOPATHOLOGY

Lung: Moderate amounts of pink homogenous material mixed with sloughing edicular cells are within small airways.

Kidney: Several medium to large variably shaped cavities some with blood cells in them efface parenchyma.

All other Organs: No remarkable lesions are seen.

COMMENTS: Gross and microscopic findings along with history pointed to forced submergence as cause of death.

Final Diagnosis (in order of importance)

Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link	
1. Forced submergence	()	()	(FY2220)	()

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Diagnostic findings may not be published without the knowledge and consent of the pathologist.

Milt Code: (Drowned)