# **DIAGNOSTIC CASE REPORT**

U. S. GEOLOGICAL SURVEY-BIOLOGICAL RESOURCES DIVISION NATIONAL WILDLIFE HEALTH CENTER-HONOLULU FIELD STATION P. O. BOX 50167, 300 ALA MOANA BLVD., Rm. 8-132 HONOLULU, HAWAII 96850 Tel: 808-792-9520, Fax: 792-9596, Email: thierry\_work@usgs.gov

# Case Number: 25851

## Submitter Name:

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

## Species submitted (n):

Turtle: Green (4) Turtle: Hawksbill (2) Turtle: Leatherback (1) Turtle: Olive Ridley (11)

# SPECIMENS SUBMITTED: Carcass-Thawed

These longline turtles originated from the north and south Pacific as bycatch and were collected between April 2018 and February 2020.

Acc	Date_Coll	Animal	Animal		Sex	TagNo	Diagnosis	
1	9/8/2018	Turtle:	Olive Ridle	Adult	Male	AS0231set1	Forced submergenc	
2	8/14/2018	Turtle:	Olive Ridle	Subadult	Male	AS0230set2	Forced submergenc	
3	12/5/2019	Turtle:	Olive Ridle	Subadult	Female	LL6932set7	Forced submergenc	
4	7/17/2019	Turtle:	Olive Ridle	Subadult	Male	LL6800set1	Forced submergenc	
5	9/2/2019	Turtle:	Olive Ridle	Subadult	Male	LL6843set1	Forced submergenc	
6	2/10/2020	Turtle:	Olive Ridle	Adult	Male	LL6989set1	Forced submergenc	
7	8/21/2019	Turtle:	Olive Ridle	Immature	Female	LL6826set9	Forced submergenc	
8	7/31/2019	Turtle:	Olive Ridle	Adult	Female	LL6802set1	Forced submergenc	
9	10/20/2019	Turtle:	Olive Ridle	Adult	Female	LL6883set8	Forced submergenc	
10	9/16/2019	Turtle:	Olive Ridle	Immature	Male	LL6853set7	Forced submergenc	
11	5/7/2019	Turtle:	Green	Immature	Male	AS0239set3	Forced submergenc	
12	8/8/2019	Turtle:	Olive Ridle	Subadult	Female	LL6811set1	Forced submergenc	
13	4/23/2018	Turtle:	Green	Immature	Male	AS0226set2	Forced submergenc	
14	5/24/2018	Turtle:	Hawksbill	Immature	Male	AS0228set2	Forced submergenc	
15	6/5/2018	Turtle:	Hawksbill	Immature	Female	AS0228set3	Forced submergenc	
16	8/4/2019	Turtle:	Green	Immature	Female		Forced submergenc	
17	4/29/2019	Turtle:	Green	Immature	Unknown		Forced submergenc	
18	2/27/2019	Turtle:	Leatherback	Immature	Female	AS0237set2	Forced submergenc	

Comments: Nine turtles from the North Pacific (all olive ridleys) and 9 from the South Pacific (4 greens, 2 hawksbills, 1 leatherback, and 2 olive ridleys) were necropsied. Longline bait was seen in the esophagus of 7 of 11 (64%) olive ridleys, 3 of 4 greens (75%) and 1 of 2 hawksbills (50%). Females comprised 1 of 4 (25%) greens, 1 of 2 (50%) hawksbills, and 5 of 11 (45%) olive ridleys. One green (25%) was in good body condition with the remainder in fair to poor body condition. Both hawksbills were in poor body condition. The leatherback was in good body condition. Eight (72%) olive ridleys were in good to excellent body condition with the remainder in fair or poor body condition. One olive ridley was hooked in the right front flipper with the remainder hooked in the mouth. The leatherback was hooked in the right shoulder. Hawksbills were hooked in the left front flipper or mouth. Two greens were hooked in the mouth, one in the left and one on the right front flipper. The most significant histology findings regardless of species were varying degrees of fluid and cell accumulation in collapsed airways and cavities (air bubbles) of varying sizes in solid organs (liver, kidney, spleen). Unlike earlier necropsies, no evidence kidney inflammation associated with Salmonella in olive ridleys.

Management: Please see NOAA guidelines for mitigation of longline bycatch.

Report Date (mm/dd/yyyy): 9/27/2022 Necropy 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 .

# Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 1 Date Collected: 9/8/2018 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION:(Good)POSTMORTEM:(Good)EUTHANASIA:(Not euthanized)TAG TYPE:(Reference Number) TAG NO.:(AS0231set16)SPECIES:(Turtle: Olive Ridley)AGE:(Adult)SEX:(Male)MORPHOMETRICS: Weight carcass (22.7 kg), Straight carapace length (60 cm).COLLECTION-SITE:(Open Ocean-South Pacific) AREA:(South Pacific) STATE:(South<br/>Pacific) COUNTRY:(United States)HISTORY: This turtle was hooked during a longline fishing expedition in the South<br/>Pacific (-15.3900°S, -170.0583°W) on 8 September 2018. Stranding information -<br/>AS0231, Set 16. NIST samples were collected.

#### External/Internal

EXTERNAL:

INTERNAL: One bait is found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are partially filled with homogenous pink material.

All other Organs: No remarkable lesions are seen.

# COMMENTS:None

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

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 2 Date Collected: 8/14/2018 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION:(Good)POSTMORTEM:(Good)EUTHANASIA:(Not euthanized)TAG TYPE:(Reference Number) TAG NO.:(AS0230set25)SPECIES:(Turtle: Olive Ridley)AGE:(Subadult)SEX:(Male)MORPHOMETRICS: Weight carcass (18.7 kg), Straight carapace length (52.3 cm).COLLECTION-SITE:(Open Ocean-South Pacific) AREA:(South Pacific) STATE:(South<br/>Pacific) COUNTRY:(United States)HISTORY: This turtle was hooked during a longline fishing expedition in the South<br/>Pacific (-15.9233°S, -171.1183°W) on 14 August 2018. Stranding information -<br/>AS0230, Set 25. NIST samples were collected.

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

Laboratory Results

HISTOPATHOLOGY

Lung: Small airways contain large amounts of pink material and smaller amounts of sloughed cells.

All other Organs: No remarkable lesions are seen.

COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopogMorphoEtiolFunctDisLink1. Forced submergence()()()(FY2220)()()(Diagnostic findings may not be published without the knowledge and consent of the<br/>pathologist.Milt Code: (Drowned)

# Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 3 Date Collected: 12/5/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Good)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number) TAG NO.: (LL6932set7)SPECIES: (Turtle: Olive Ridley)AGE: (Subadult)SEX: (Female)MORPHOMETRICS: Weight carcass (21.1 kg), Straight carapace length (57 cm).COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North<br/>Pacific) COUNTRY: (United States)HISTORY: This turtle was hooked during a longline fishing expedition in the North<br/>Pacific (23.8633°N, -151.3650°W) on 5 December 2019. Stranding information -<br/>LL6932, Set 7. NIST samples were collected.

## External/Internal

EXTERNAL:

INTERNAL: Two bait are found in the esophagus and stomach.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

### Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are partially filled with homogenous pink material.

Liver: Multiple variably sized cavities.

Kidney: Multiple variably sized cavities.

All other Organs: No remarkable lesions are seen.

Final Diagnosis (in order of	importance)					
Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	(	) (	) (	)(FY2220	) (	)()

25851-3 Page 2 of 2 Diagnostic findings may not be published without the knowledge and consent of the pathologist. Milt Code: (Drowned)

### Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 4 Date Collected: 7/17/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Excellent)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number) TAG NO.: (LL6800set1)SPECIES: (Turtle: Olive Ridley)AGE: (Subadult)SEX: (Male)MORPHOMETRICS: Weight carcass (25.4 kg), Straight carapace length (56.3 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 (14.3283°N, -155.1167°W) on 17 July 2019. Stranding information - LL6800, Set 1. NIST samples were collected.

# External/Internal

EXTERNAL:

INTERNAL: One bait is found in the esophagus and one bait is found in the stomach.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

## Laboratory Results

### HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are partially filled with homogenous pink material and occasional cell debris.

Spleen: Three nidi of necrotic debris with giant cells.

Kidney: Multiple variably sized cavities.

All other Organs: No remarkable lesions are seen.

Final Diagnosis (in order of i	mportance)					
Diagnosis	Тород	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	(	) (	) (	)(FY2220	) (	)()

25851-4 Page 2 of 2 Diagnostic findings may not be published without the knowledge and consent of the pathologist. Milt Code: (Drowned)

### Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 5 Date Collected: 9/2/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Poor)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number) TAG NO.: (LL6843set1)SPECIES: (Turtle: Olive Ridley)AGE: (Subadult)SEX: (Male)MORPHOMETRICS: Weight carcass (20.6 kg), Straight carapace length (55.9 cm).COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North<br/>Pacific) COUNTRY: (United States)HISTORY: This turtle was hooked during a longline fishing expedition in the North<br/>Pacific (24.4267°N, -140.8667°W) on 2 September 2019. Stranding information -<br/>LL6843, Set 1. NIST samples were collected.

## External/Internal

EXTERNAL: Animal was hooked through the right tongue and glottis.

INTERNAL: There is subgular hemorrhage. One bait is found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

### Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are partially filled with homogenous pink material and occasional cell debris.

All other Organs: No remarkable lesions are seen.

### COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopogMorphoEtiolFunctDisLink1. Forced submergence()()()(FY2220)()()(Diagnostic findings may not be published without the knowledge and consent of the<br/>pathologist.Milt Code: (Drowned)

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 6 Date Collected: 2/10/2020 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Good)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number) TAG NO.: (LL6989set12)SPECIES: (Turtle: Olive Ridley)AGE: (Adult)SEX: (Male)MORPHOMETRICS: Weight carcass (24.2 kg), Straight carapace length (59.7 cm).COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North<br/>Pacific) COUNTRY: (United States)HISTORY: This turtle was hooked during a longline fishing expedition in the North<br/>Pacific (25.9167°N, -154.1467°W) on 10 February 2020. Stranding information -

## External/Internal

EXTERNAL:

INTERNAL: One bait is found in the esophagus.

L6989, Set 12. NIST samples were collected.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

### Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are partially filled with homogenous pink material and occasional cell debris.

All other Organs: No remarkable lesions are seen.

### COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopogMorphoEtiolFunctDisLink1. Forced submergence()()()(FY2220)()()(Diagnostic findings may not be published without the knowledge and consent of the<br/>pathologist.Milt Code: (Drowned)

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 7 Date Collected: 8/21/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Fair)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number)TAG NO.: (LL6826set9)SPECIES: (Turtle: Olive Ridley)AGE: (Immature)SEX: (Female)MORPHOMETRICS: Weight carcass (16.2 kg), Straight carapace length (49 cm).COLLECTION-SITE: (Open Ocean-North Pacific)AREA: (North Pacific)STATE: (NorthPacific)COUNTRY: (United States)HISTORY:This turtle was hooked during a longline fishing expedition in the NorthPacific (14.6517°N, -157.4433°W) on 21 August 2019.Stranding information - LL6826,

## External/Internal

EXTERNAL:

INTERNAL: No bait found.

PRELIMINARY DIAGNOSIS: Drowning.

Set 9. NIST samples were collected.

#### Samples

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

## Laboratory Results

#### HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are partially filled with homogenous pink material and occasional cell debris.

Liver: Multiple variably sized cavities.

Spleen: Multiple variably sized cavities.

All other Organs: No remarkable lesions are seen.

Final Diagnosis (in order of	importance)					
Diagnosis	Тород	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	(	) (	) (	)(FY2220	) (	)()

25851-7 Page 2 of 2 Diagnostic findings may not be published without the knowledge and consent of the pathologist. Milt Code: (Drowned)

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 8 Date Collected: 7/31/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Fair)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number)TAG NO.: (LL6802set13)SPECIES: (Turtle: Olive Ridley)AGE: (Adult)SEX: (Female)MORPHOMETRICS: Weight carcass (26.2 kg), Straight carapace length (60.1 cm).COLLECTION-SITE: (Open Ocean-North Pacific)AREA: (North Pacific)STATE: (NorthPacific)COUNTRY: (United States)HISTORY:This turtle was hooked during a longline fishing expedition in the NorthPacific (18.0150°N, -161.7117°W)on 31 July 2019.Stranding information - LL6802,

## External/Internal

EXTERNAL:

INTERNAL: The animal is hooked in the proximal esophaus.

PRELIMINARY DIAGNOSIS: Drowning.

Set 13. NIST samples were collected.

### Samples

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

## Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are occasionally filled with homogenous pink material and occasional cell debris.

Liver: Multiple variably sized cavities.

Kidney: Multiple variably sized cavities.

All other Organs: No remarkable lesions are seen.

Final Diagnosis (in order of	importance)					
Diagnosis	Тород	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	(	) (	) (	)(FY2220	) (	)()

25851-8 Page 2 of 2 Diagnostic findings may not be published without the knowledge and consent of the pathologist. Milt Code: (Drowned)

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 9 Date Collected: 10/20/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

#### Signalment-Morphometrics-History

CONDITION: (Good)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number)TAG NO.: (LL6883set8)SPECIES: (Turtle: Olive Ridley)AGE: (Adult)MORPHOMETRICS: Weight carcass (29.3 kg), Straight carapace length (59.9 cm).COLLECTION-SITE: (Open Ocean-North Pacific)AREA: (North Pacific)COLLECTION-SITE: (Open Ocean-North Pacific)AREA: (North Pacific)HISTORY: This turtle was hooked during a longline fishing expedition in the NorthPacific (24.8500°N, -157.4683°W) on 20 October 2019.Stranding information -

## External/Internal

EXTERNAL:

INTERNAL: One bait is found in the esophagus

LL6883, Set 8. NIST samples were collected.

PRELIMINARY DIAGNOSIS: Drowning.

### Samples

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

## Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are occasionally filled with homogenous pink material and occasional cell debris.

Liver: Variably sized cavities.

Kidney: Variably sized cavities.

All other Organs: No remarkable lesions are seen.

### COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopogDorphoEtiolForced submergence()()()(FY2220)()()Diagnostic findings may not be published without the knowledge and consent of the

25851-9 pathologist. Page 2 of 2 Milt Code: (Drowned)

### Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 10 Date Collected: 9/16/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Good)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number) TAG NO.: (LL6853set7)SPECIES: (Turtle: Olive Ridley)AGE: (Immature)SEX: (Male)MORPHOMETRICS: Weight carcass (12.1 kg), Straight carapace length (45.6 cm).COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North<br/>Pacific) COUNTRY: (United States)HISTORY: This turtle was hooked during a longline fishing expedition in the North<br/>Pacific (13.7467°N, -165.4217°W) on 16 September 2019. Stranding information -

# External/Internal

EXTERNAL:

INTERNAL: No bait found.

PRELIMINARY DIAGNOSIS: Drowning.

LL6853, Set 7. NIST samples were collected.

#### Samples

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

## Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are occasionally filled with homogenous pink material and occasional cell debris.

Kidney: Variably sized cavities.

All other Organs: No remarkable lesions are seen.

## COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopog Morpho Etiol Funct Dis Link1. Forced submergence( )( )( )(FY2220)( )( )()Diagnostic findings may not be published without the knowledge and consent of the<br/>pathologist.Milt Code: (Drowned)

### Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 11 Date Collected: 5/7/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Fair)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number)TAG NO.: (AS0239set33)SPECIES: (Turtle: Green)AGE: (Immature)SEX: (Male)MORPHOMETRICS: Weight carcass (3.8 kg), Straight carapace length (31.1 cm).COLLECTION-SITE: (Open Ocean-South Pacific)AREA: (South Pacific)STATE: (SouthPacific)COUNTRY: (United States)HISTORY:This turtle was hooked during a longline fishing expedition in the SouthPacific (-12.5350°S, -168.6933°W) on 7 May 2019.Stranding information - AS0239,

External/Internal

EXTERNAL:

INTERNAL:

PRELIMINARY DIAGNOSIS: Drowning.

Set 33. NIST samples were collected.

### Samples

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

## Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are occasionally filled with homogenous pink material and occasional cell debris.

Liver: Variably sized cavities.

All other Organs: No remarkable lesions are seen.

COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopog Morpho Etiol Funct Dis Link1. Forced submergence( )( )( )(FY2220)( )( )Diagnostic findings may not be published without the knowledge and consent of the<br/>pathologist.Milt Code: (Drowned)

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 12 Date Collected: 8/8/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Good)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number) TAG NO.: (LL6811set11)SPECIES: (Turtle: Olive Ridley)AGE: (Subadult)SEX: (Female)MORPHOMETRICS: Weight carcass (20.3 kg), Straight carapace length (53.8 cm).COLLECTION-SITE: (Open Ocean-North Pacific) AREA: (North Pacific) STATE: (North<br/>Pacific) COUNTRY: (United States)HISTORY: This turtle was hooked during a longline fishing expedition in the North<br/>Pacific (14.5733°N, -158.3217°W) on 8 August 2019. Stranding information - LL6811,<br/>Set 11. NIST samples were collected.

### External/Internal

EXTERNAL:

INTERNAL: One bait is found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

Laboratory Results

### HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are occasionally filled with homogenous pink material and occasional cell debris.

Liver: Variably sized cavities.

All other Organs: No remarkable lesions are seen.

## COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopogMorphoEtiolFunctDisLink1. Forced submergence( )( )( )(FY2220)( )( )( )Diagnostic findings may not be published without the knowledge and consent of the<br/>pathologist.Milt Code: (Drowned)

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 13 Date Collected: 4/23/2018 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Poor)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number)TAG NO.: (AS0226set27)SPECIES: (Turtle: Green)AGE: (Immature)SEX: (Male)MORPHOMETRICS: Weight carcass (10.7 kg), Straight carapace length (42.7 cm).COLLECTION-SITE: (Open Ocean-South Pacific)AREA: (South Pacific)STATE: (South<br/>Pacific)COLLECTION-SITE: (United States)HISTORY: This turtle was hooked during a longline fishing expedition in the South

Pacific (-16.2983°S, -170.6067°W) on 23 April 2018. Stranding information -AS0226, Set 27. NIST samples were collected.

## External/Internal

EXTERNAL: Turtle was hooked through the left canthus.

INTERNAL: There is one bait in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

#### Laboratory Results

HISTOPATHOLOGY

Liver: Variably sized cavities.

All other Organs: No remarkable lesions are seen.

## COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopogMorphoEtiolFunctDisLink1. Forced submergence( )( )( )(FY2220)( )( )( )Diagnostic findings may not be published without the knowledge and consent of the<br/>pathologist.Milt Code: (Drowned)

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 14 Date Collected: 5/24/2018 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Poor)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number)TAG NO.: (AS0228set25)SPECIES: (Turtle: Hawksbill)AGE: (Immature)SEX: (Male)MORPHOMETRICS: Weight carcass (5.5 kg), Straight carapace length (38.8 cm).COLLECTION-SITE: (Open Ocean-South Pacific)AREA: (South Pacific)STATE: (SouthPacific)COUNTRY: (United States)HISTORY:This turtle was hooked during a longline fishing expedition in the SouthPacific (-15.8017°S, -170.3883°W) on 24 Mayl 2018.Stranding information -AS0228,Set 25.NIST samples were collected.

## External/Internal

EXTERNAL:

INTERNAL: One bait was found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

#### Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are occasionally filled with homogenous pink material and occasional cell debris.

Kidney: Variably sized cavities.

Liver: Variably sized cavities.

All other Organs: No remarkable lesions are seen.

Final Diagnosis (in order of	importance)					
Diagnosis	Тород	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	(	) (	) (	)(FY2220	) (	)()

25851-14 Page 2 of 2 Diagnostic findings may not be published without the knowledge and consent of the pathologist. Milt Code: (Drowned)

### Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 15 Date Collected: 6/5/2018 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Fair)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number)TAG NO.: (AS0228set36)SPECIES: (Turtle: Hawksbill)AGE: (Immature)SEX: (Female)MORPHOMETRICS: Weight carcass (3.5 kg), Straight carapace length (32.2 cm).COLLECTION-SITE: (Open Ocean-South Pacific)AREA: (South Pacific)STATE: (SouthPacific)COUNTRY: (United States)HISTORY: This turtle was hooked during a longline fishing expedition in the SouthPacific (-15.6983°S, -170.8917°W) on 5 Junel 2018.Stranding information -AS0228,Set 36.NIST samples were collected.

# External/Internal

EXTERNAL:

INTERNAL: No bait are found.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

### Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are occasionally filled with homogenous pink material and occasional cell debris.

Kidney: Variably sized cavities.

Liver: Variably sized cavities.

All other Organs: No remarkable lesions are seen.

Final Diagnosis (in order of :	importance)					
Diagnosis	Topog	Morpho	Etiol	Funct	Dis	Link
1. Forced submergence	(	) (	) (	)(FY2220	) (	)()

25851-15 Page 2 of 2 Diagnostic findings may not be published without the knowledge and consent of the pathologist. Milt Code: (Drowned)

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 16 Date Collected: 8/4/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

#### Signalment-Morphometrics-History

CONDITION:(Good)POSTMORTEM:(Good)EUTHANASIA:(Not euthanized)TAG TYPE:(Reference Number)TAG NO.:(AS0241set3)SPECIES:(Turtle: Green)AGE:(Immature)SEX:(Female)MORPHOMETRICS: Weight carcass (11.3 kg), Straight carapace length (42.8 cm).COLLECTION-SITE:(Open Ocean-South Pacific)AREA:(South Pacific)STATE:(South

Pacific) COUNTRY: (United States)

HISTORY: This turtle was hooked during a longline fishing expedition in the South Pacific (-12.1283°S, -170.9750°W) on 4 August 2019. Stranding information -AS0241, Set 3. NIST samples were collected.

# External/Internal

EXTERNAL:

INTERNAL: One bait is found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

## Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are occasionally filled with homogenous pink material and occasional cell debris.

Liver: Variably sized cavities.

All other Organs: No remarkable lesions are seen.

COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopog Morpho Etiol Funct Dis Link1. Forced submergence( )( )( )(FY2220)( )( )Diagnostic findings may not be published without the knowledge and consent of the<br/>pathologist.Milt Code: (Drowned)

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 17 Date Collected: 4/29/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Poor)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number)TAG NO.: (AS0239set26)SPECIES: (Turtle: Green)AGE: (Immature)SEX: (Unknown)MORPHOMETRICS: Weight carcass (8.1 kg), Straight carapace length (40.3 cm).COLLECTION-SITE: (Open Ocean-South Pacific)AREA: (South Pacific)STATE: (South

Pacific) COUNTRY:(United States)

HISTORY: This turtle was hooked during a longline fishing expedition in the South Pacific (-15.9867°S, -167.7767°W) on 29 April 2019. Stranding information -AS0239, Set 26. NIST samples were collected.

# External/Internal

EXTERNAL:

INTERNAL: One bait is found in the esophagus.

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed.

All other Organs: No remarkable lesions are seen.

COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopogMorphoEtiolFunctDisLink1. Forced submergence()()()(FY2220)()()(Diagnostic findings may not be published without the knowledge and consent of the<br/>pathologist.Milt Code: (Drowned)

## Submitter Name:

Dr. Summer Martin National Oceanic and Atmospheric Administration 1845 Wasp Blvd Bldg 176 Honolulu, Hawaii 96818 United States Case: 25851 Accession: 18 Date Collected: 2/27/2019 Date Examined: 6/24/2022 Prosector: T. M. Work Pathologist: T. M. Work

## Signalment-Morphometrics-History

CONDITION: (Good)POSTMORTEM: (Good)EUTHANASIA: (Not euthanized)TAG TYPE: (Reference Number) TAG NO.: (AS0237set24)SPECIES: (Turtle: Leatherback)AGE: (Immature)SEX: (Female)MORPHOMETRICS: Weight carcass (10.4 kg), Straight carapace length (46.9 cm).COLLECTION-SITE: (Open Ocean-South Pacific) AREA: (South Pacific) STATE: (South<br/>Pacific) COUNTRY: (United States)HISTORY: This turtle was hooked during a longline fishing expedition in the South<br/>Pacific (-12.5733°S, -169.4017°W) on 27 February 2019. Stranding information -<br/>AS0237, Set 24. NIST samples were collected.

## External/Internal

EXTERNAL: The turtle is hooked in the right shoulder.

INTERNAL:

PRELIMINARY DIAGNOSIS: Drowning.

#### Samples

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

### Laboratory Results

HISTOPATHOLOGY

Lung: Airways are partially collapsed, and ediculae are occasionally filled with homogenous pink material and occasional cell debris.

All other Organs: No remarkable lesions are seen.

### COMMENTS:None

Final Diagnosis (in order of importance)DiagnosisTopogMorphoEtiolFunctDisLink1. Forced submergence()()()(FY2220)()()(Diagnostic findings may not be published without the knowledge and consent of the<br/>pathologist.Milt Code: (Drowned)