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: 21293

Submitter Name: Species submitted (n):

Mr. George Balazs Turtle: Green (1)

National Oceanic and Atmospheric

Administration 2570 Dole St

Honolulu, Hawaii 96822

United States

6/28/2009 Location: Makai Pier DateCollected: Honolulu DateSubmitted: 7/7/2009 Area: Hawaii State: DateReceived: 7/7/2009 United States DateExamined: 7/7/2009 Country:

SPECIMENS SUBMITTED: Carcass-Frozen

History: This turtle was found with missing head and front flippers at Makai Pier.

Person reporting turtle saw a monk seal interacting with a green turtle ca. 1 mile north of the site and believes this particular turtle was the same

one.

Findings: Accession 1-green turtle immature male in fair body condition. This

animal was missing both front flippers, the left rear flipper and the head. There was also bleeding in deep skeletal muscle and clotted blood near the stomach wall. The nature of the trauma indicated maceration of skeletal muscle with absence of evidence of classical shark-induced trauma such as jagged clean cuts of flesh and parallel scrape marks on the

carapace.

Final diagnosis: Accession 1-Trauma-Predation.

Comments: Gross lesions pointed to predator-induced trauma as cause of death. The nature of the lesions were not compatible with shark bite as evidenced by lack of clean lines of severance of tissues, lack of parallel scrape marks on the carapace, and lack of parallel scrapes on bones. The appearance of the tissues were more akin to a maceration-type action that would be effected by a large mammal (dog, seal). The fact this was a benthic nonnesting turtle and the absence of dogs in the immediate area argues against a dog being responsible for this trauma. The immediate history of seal-turtle interaction surrounding this death would implicate monk seal predation as the most likely cause of death.

Management:

Report Date (mm/dd/yyyy): 7/21/2009 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

WILDLIFE NATIONAL HEALTH CENTER NECROPSY REPORT

Submitter Name:

Mr. George Balazs 21293 Case: National Oceanic and Atmospheric Accession:

Administration Date Collected: 6/28/2009 2570 Dole St Date Examined: 7/7/2009 Honolulu, Hawaii 96822 Prosector: T. M. Work United States T. M. Work

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

Signalment-Morphometrics-History

Pathologist:

TAG TYPE: (Reference Number) TAG NO.: (062809)

SPECIES: (Turtle: Green) AGE: (Immature) SEX: (Male)

MORPHOMETRICS: Weight carcass (9.6 kg), Straight carapace length (41.6 cm).

COLLECTION-SITE: (Makai Pier) AREA: (Honolulu) STATE: (Hawaii) COUNTRY: (United States)

HISTORY: This turtle was found with missing head and front flippers at Makai Pier. Person reporting turtle saw a monk seal interacting with a green turtle ca. 1 mile north of the site and believes this particular turtle was the same one.

External/Internal

EXTERNAL: The head, both front and the left rear flipper are missing. The right humerus is present, however the left humerus is disarticulated and missing. Several (1-4) non parallel rake marks are on the shaft of the right humerus. The flesh surrounding the head and flipper wounds is macerated, and clumps of flesh are adherent on surrounding skin and carapace. Parallel scrapes on the carapace are not evident.

INTERNAL: Pectoral muscles appear adequate. Diffusely, there is hemorrhage within the skeletal muscles surrounding both coracoids. Lumps of clotted blood are on the serosal surface of the crop and stomach.

PRELIMINARY DIAGNOSIS: Trauma-predator.

Samples

SECIMENS RECEIVED: Carcass-Frozen.

Laboratory Results

COMMENTS: Gross lesions pointed to predator-induced trauma as cause of death. nature of the lesions were not compatible with shark bite as evidenced by lack of clean lines of severance of tissues, lack of parallel scrape marks on the carapace, and lack of parallel scrapes on bones. The appearance of the tissues were more akin to a maceration-type action that would be effected by a large mammal (dog, seal). The fact this was a benthic non-nesting turtle and the absence of dogs in the immediate area argues against a dog being responsible for this trauma. The immediate history of seal-turtle interaction surrounding this death would implicate monk seal predation as the most likely cause of death.

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Final Diagnosis (in order of importance)

Diagnosis Topog Morpho Etiol Funct Dis Link

1. Trauma-Predation (T10050)(M10000)(E49230)()()()()

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

Milt Code: (Trauma)