

# NECROPSY EXAMINATION REPORT

Field: #\_MH06-437\_\_  
Date: \_\_4/4/2006  
Species: *Ziphius cavirostris*

## Event Info

Strand date: \_\_4/3/2006\_\_  
Recovery date: \_\_4/4/2006\_\_  
**Euthanized** / Died  
Date & TOD: \_4/2/2006\_\_23:40\_\_  
Necro date & time: \_4/4/2006\_\_16:00pm\_\_  
Storage prior to necropsy: \_\_Beach\_\_  
Stranding location: \_Sandy Beach, Cohasset  
Lat/Long: \_\_\_\_\_N/\_\_\_\_\_W

## Animal Info

Sex: **M** F CBD  
Length: \_\_400\_\_cm  
Weight: \_\_1580\_\_lbs  
Pup / Calf / YOY / **Sub-adult** / Adult / CBD  
Condition at Stranding: **1** 2 3 4 5 6  
Condition at Necropsy: 1 **2** 3 4 5 6  
Human Interaction: **No**\* by gross path  
Mass Stranding: Yes / **No** # animals: \_1\_\_  
Necropsy Location: MRF WHOI, WH.MA

Gross Report drafted by Andrea Bogomolni, WHOI and reviewed by M Moore, WHOI April 6<sup>th</sup> 2006

### Necropsy Summary – Differential diagnosis from gross exam:

Good general body condition. Apparent liver changes (CT scanned); nodular, hard, discolored. Peracute lung changes. Tissue is heavy, sinking and fluid filled. Edematous lymph, acute edematous tracheitis, cystitis and hematuria.

**Differential Diagnosis: Viral/Bacterial Pneumonia. Pending Histology and Microbiology Results.**

### History-

Stranded live 4/3/2006 on Sandy Beach, Cohasset. Sheila Sinclair of NEAq responded. Euthanized on 4/3/06 at 2300 hrs with sodium pentobarbital. Animal arrived at the MRF/WHOI at 1300 on 4/4/2006. Animal was weighed, level A measurements taken. Head removed at 1500 hrs. Neck area was still warm. Necropsy commenced at 1600 hrs.



Sandy Beach, Cohasset MA. 4/3/2006 (NEAq)

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**Necropsy Observations:** Please note general observations of color, condition, textures, etc. even when utilizing NA= not applicable, NE= not examined, NSF= no significant findings, NVL= no visible lesions. List weights (g) next to each organ examined.

### External Exam

**Body Condition:** **robust** thin emaciated  
CBD- Muscle not sunken, good condition overall.  
Several Lesions (see below). Some blood present upon transport behind right eye.

**Skin/Hair coat (color, condition):** Several ulcerated lesions on the left and right lateral side, 20 cm anterior and 25 cm posterior to dorsal fin. Overall condition of skin is very good. Striations on ventral surface of light/dark pattern (most likely blood pooling from transport). Skin is beige brown on dorsal surface, off white to gray on ventral surface.

### **Wounds/scars/lesion:**

**Lateral Surface-** Several scars/lesions on the left and right flank at dorsal fin. Lesions are 3-8 cm, circular and ovoid. Several are ulcerated, red with inflammation. Others are white with a dark outline and raised. Also in this area are sea lamprey wounds. Multiple (20-30) and several are present around the circumference of ulcerated lesions.

**Fluke-** rope abrasion around peduncle and flukes (result of postmortem transport from beach to truck) and beach trauma on flukes.



Above- right fluke dorsal. Below- right fluke edge

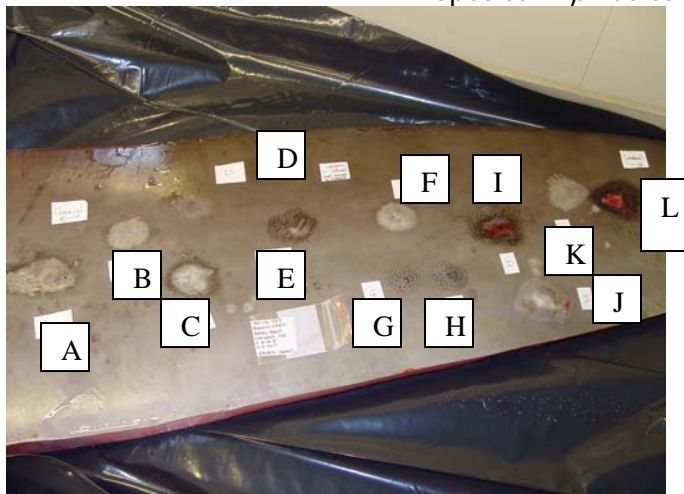


Dorsal view of fluke with rope marks

**Lesions-** (See photo)

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Lesions are marked A (cranial) to L (caudal) on the left lateral side of the body (20cm cranial to 25 cm caudal of dorsal fin) They represent raised white lesions (A, B,C,F,J and K); Erupted, ulcerated lesions (I, L); and what appear to be sea lamprey lesions/attachments (D, E, G,H). All ulcerated lesions also have overlying sea lamprey teeth marks. E is a linear, rough lesion (described as the shape of a "mitochondria" at necropsy).

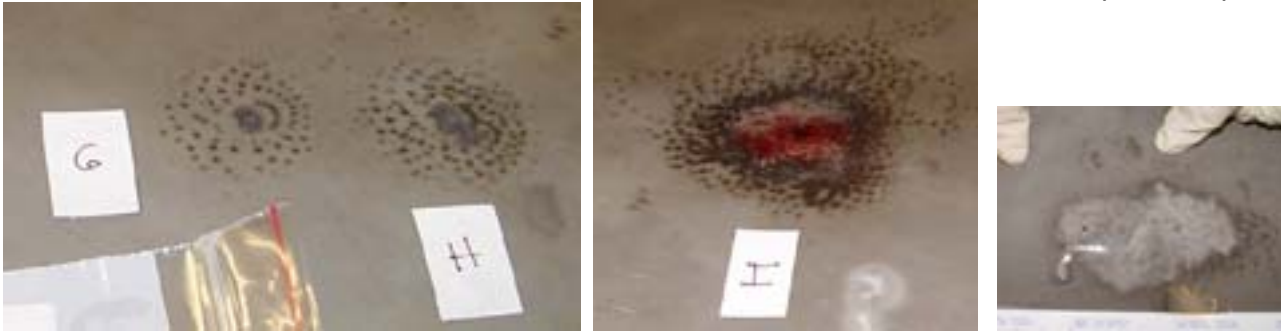


Center of lesion F is raised, healed scar tissue. No ulcerated tissue or lamprey teeth marks. B is similar and raised with uneven edges.

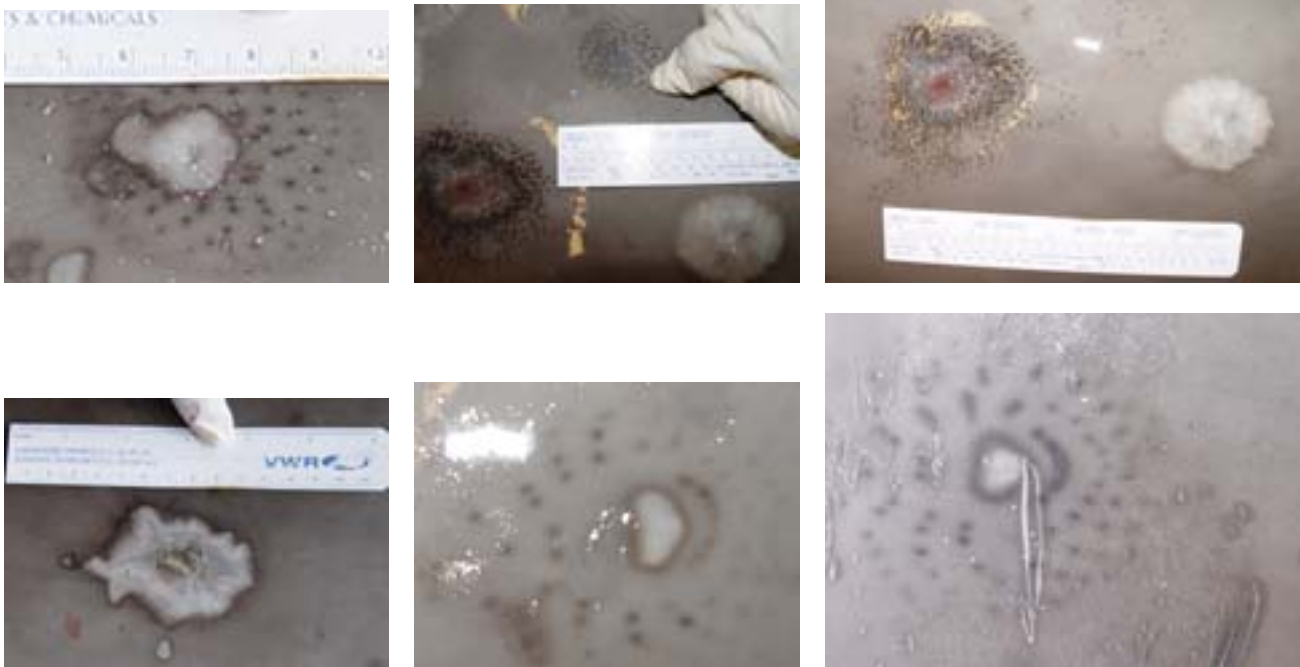


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J is reactive and soft with a halo of grey tissue.



Above are examples of other lesions and lamprey marks with white marking at center.

F & G (lamprey and non associated white lesion for comparison)- To Jim Craddock (WHOI)  
L- Frozen for A Bogomolni - Ulcerated lesion for viral analysis  
A, B, C, D, E-Histo NEAq  
I, J, K- Histo-A Bogomolni

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Fewer lesions present on Left side of body. Small lamprey lesions present as well as irregular shaped lesions with healed tissue scarring in center (at left). Small dots of white tissue around circumference. No signs of lamprey teeth marks around these lesions.

**Parasites:** None external

**Nostrils/Blowhole:** No fluid in blowhole, dry. NSF (culture swab)

**Mouth (tongue, teeth condition, ulcers)/ /Mucous membranes (color):**

Fibriated tongue, pink, normal tissue, no ulcers. Small cut within gape of mouth on right side (below left).



**Eyes (discharge, color, ruptures):** - outline color of skin around eye is a dark brown/coffee color.  
**(R)** NSF- dry. Some blood around right eye when arrived from transport to WHOI. No lesions or lacerations present. **(L)** NSF- both eyes appear clear.

**Ears:** Internal NSF- Clear, light coating. Not degraded, no trauma evident. Intact (*see CT scan-Report D. Ketten*).

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**Genital slit/anus:** No fluid noted in genital slit (culture swab). Anus covered with green/brown runny feces. Three nematodes in feces noted (culture swab). Area appears to have fresh, unhealed lacerations most likely a result of stranding event. Consistent with most cetacean strandings (image at right).



**Umbilicus:** Pink Open **Healed**

### Musculo/Skeletal System

**Blubber:** Overall color of blubber is pink to red tinged. Some areas of blood pooling along the ventral surface created darker, red blubber. Normal Tissue, no parasites, no areas of hemorrhage.

**Muscle:** Dark black/maroon. Slightly tacky muscle over diaphragm. Epaxial not tacky. Blood is extremely dark red.

**Diaphragm:** NSF. Red, thick tissue.

**Skeletal:** NSF

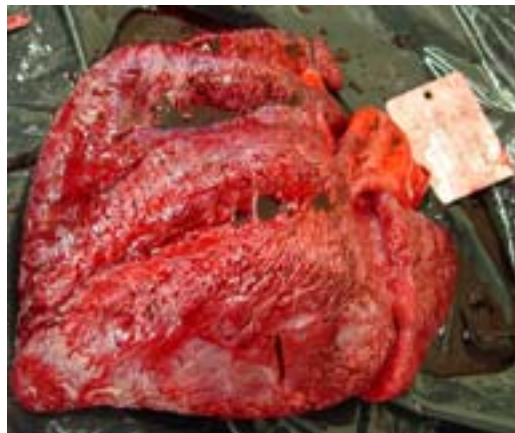
**Thymus-** Normal. Dark red tissue.



### Circulatory System

**Pericardium:** Clear, NSF.

**Heart:** Valves are normal. Tissue Normal. Chordae tendini normal. Walls- Left ventricle- 3.5 cm thick. Right ventricle 2 cm thick. Blood is clotted within. No fat present on external heart tissue.



**Vessels:** Normal, clotted blood within. Blood is red to black in color- extremely dark.

**Above Dorsal Aorta:** Air bubbles present along wall above dorsal aorta in venous plexus. Air collected in gas syringe in cleaned, sterile vacutainer by C. Reddy (WHOI) for GC analysis (**see peritoneum**).



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## Pulmonary System

**Trachea:** Mucosal lining of trachea is edematous and thickened. "Oddly" adherent (must cut the lumen to separate from the cartilage).

**Bronchi:** Left lung has blood tinged fluid coating bronchi to bronchioles deep into lung. (Photos at right).



## **Lungs (color, condition, edema, congestion, consolidation, granulomas, emphysema, lesions):**

(R) Outer tissue is pinkish gray in color, deflated. Lung tissue resting on heart is full of small emphysematous bubbles (culture swab taken). Tissue is congested- (sinks in fresh water). Yellowish green froth. Pulmonary edema. Tissue is red/black and dense. No air space within. "Rice crispy" texture when compressed (photo at left).



(L) Transparent red tinged fluid in pleural cavity. Multi creviced outer tissue. Lung full of decomposition gas- crepitus. Same small bubbles on outer surface of lung. Small amount of red tinged fluid within. Tissue deep red and deflated. Right Lung Tissue internal



Top left- Left lung surface. Mottled, collapsed and pink/grey color.

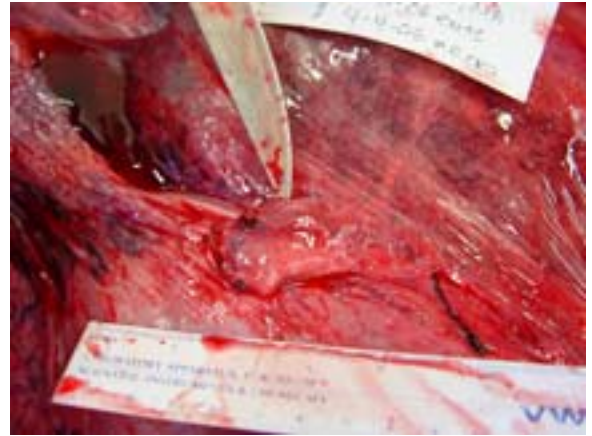
Top right- dorsal surface of left lung with small air bubbles between membrane and parenchyma.

At Left- Edematous, gelatinous texture of outer coating of lung associated with pleural membrane with small air bubbles. Visceral pleura of both right and left lungs have this appearance.

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**Tracheobronchial Lymph:** Edematous, soft, gelatinous. Tissue within is beige and red- hemorrhaged (image at right). External consistency similar to friable autolyzed tissue.



### Gastro Intestinal System

**Esophagus:** NSF. No lesions, no fluid, no contents- beige tissue

**Stomach (contents, ulcers, mucosa, parasites):** Mucous coating in all stomachs. No hard contents visible. Entire contents to be examined by J. Craddock WHOI.



**Small Intestine:** Green chyme throughout. No obstructions and no mucosal lesions. Volume/length is small in amount. 1 tapeworm present as well as small nematodes similar to those found in feces. 2 acanthocephalans (same species) identified (*Final parasite species report pending from C. Rogers William NOAA/NEFSC Woods Hole*).

**Large Intestine:** NSF. Green GI contents lining intestine. No solid contents. Tissue is normal and stained with green/yellow fluid.

**Colon:** Green liquid feces coating colon.



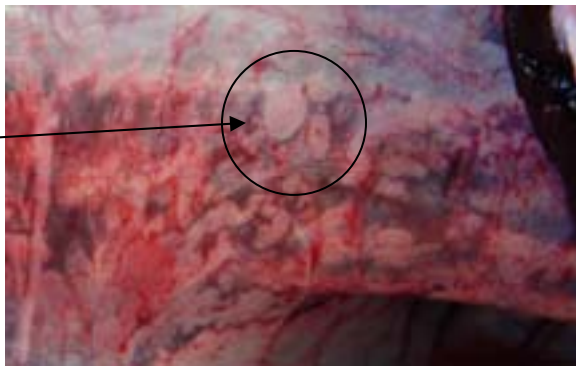
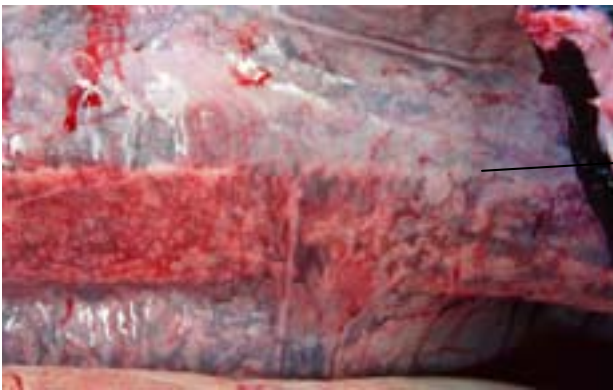
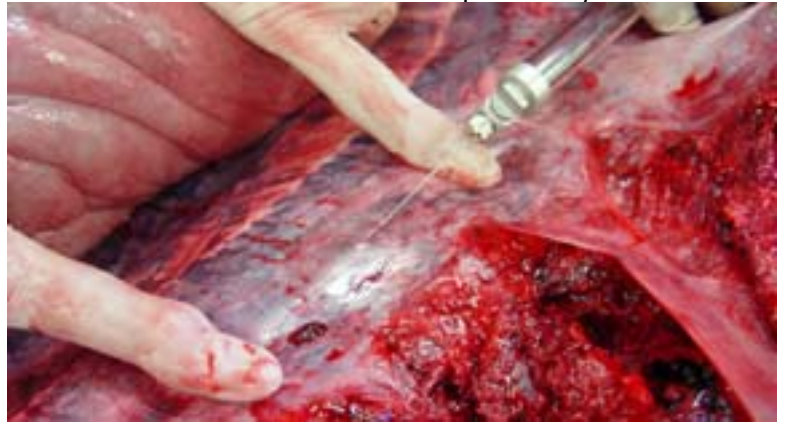
Tape worm in lower intestine (above). R. Williams and S. Herzig running the length of intestines (right)

**Peritoneum, mesentery, omentum:** Parietal peritoneum 15 cm anterior to anus are air bubbles within vessels. Definite hole in vessel associated with abdominal swab area conducted before onset of necropsy for OHH sampling. Air collected with gas syringe for analysis. (photos of bubbles in periaortic venous plexus below)



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**Liver (color, congestion, lesions, size):** Fibrotic and fissured. Lumpy to palpitation. Has the look of a marine



Liver

mammal kidney-nodular and bumpy and brown. Overall, small in size compared to cetaceans of larger size. Dark brown maroon tissue internally. Portal endothelium smooth. No parasites present in nodules. Tissue CT scanned. Large



Liver

spaces visible throughout tissue. (Final images and report of CT scan to be added by D. Ketten).

**Pancreaticoduodenal duct (color, amount):** No fluid or parasites noted. NSF.

**Pancreas:** Nodular and lumpy (like liver). Hard, pink tissue. No fluid within or parasites. Some tissue saved frozen for viral/other analysis.

**Associated Lymph:** None noted.

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### Urinary/Reproductive Systems

#### **Kidneys (renule differentiation, color, condition):**

**(R)** Peri-renal plexus contains bubbles. Bubbles also in venus plexus around parietal wall of pelvic region of abdominal cavity. Tissue red with visible differentiation of cortex and medulla. Each reniculus has a white center with slightly darker ring. Tissue itself appears normal. Blood filled vessels.

**(L)** Differentiated medulla and cortex as in right. Less "packed," (loose) reniculi than expected. Venus plexus around left kidney has numerous bubbles.

**Bladder:** Urine is blood red/amber tinged. 15 ml +. Wall of bladder is hemorrhaged and inflamed. Dark red/maroon (image at right).

**Testes:** Immature - pale white/beige in color throughout. Small.

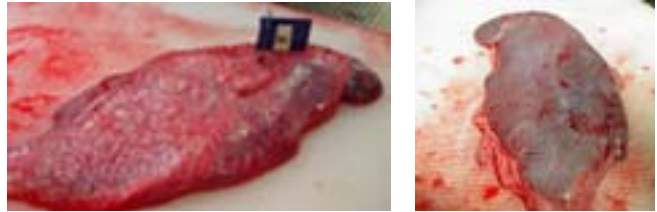
**(R)** 19.6 g                      7.5 x 2.0 x 1.3 cm    Lx W x H cm

**(L)** 25.2 g                      7.9 x 2.2 x 1.4 cm    Lx W x H cm

**Penis:** No lesions

### Lymphatic System

**Spleen:** Bluish gray in color externally. Fibrotic tag on exterior. Tissue has an uneven shape with a tapered tip. Interior is dark purple/red throughout. Three small lymph nodes present. Not reactive- beige in color. NSF.



**Scapular Lymph node:** Soft gelatinous, reactive, tissue (similar to TB lymph). Hemorrhaged, beige internally.

**Mesenteric Lymph node:** Hard, infected nodules (culture swab taken). Reactive and hemorrhaged with small pinpoint areas of hemorrhage which are extremely dark red in color.





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**Left Cranial Lung node:** Very reactive and soft, enlarged.

### Endocrine System

#### **Adrenals:**

(R) NSF (see left) 10.2 x 2.3 x 0.3 cm Lx W x H cm

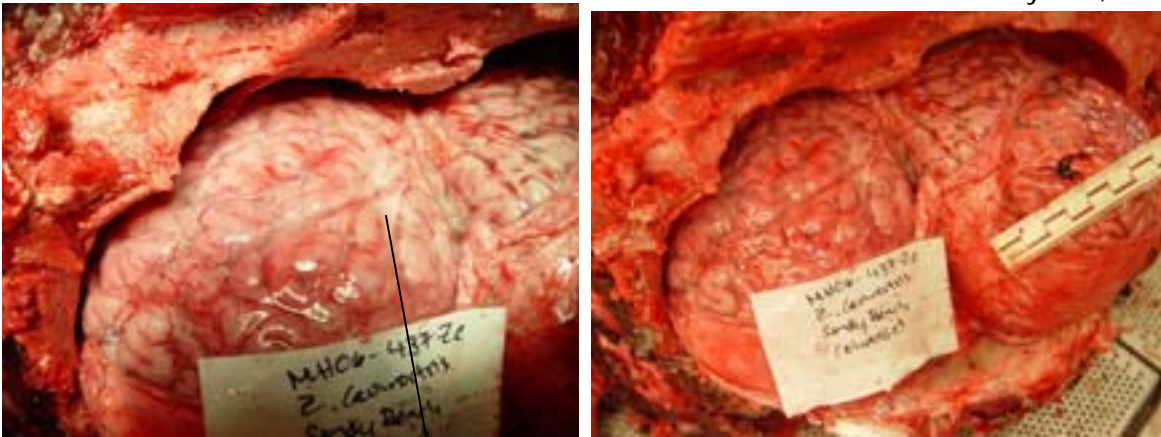
(L) Normal. Good differentiation between medulla and cortex. Red.  
12.6 g 8.0 x 3.5 x 0.7 cm Lx W x H cm

**Thyroid:** Dark maroon throughout, firm, almost hard.

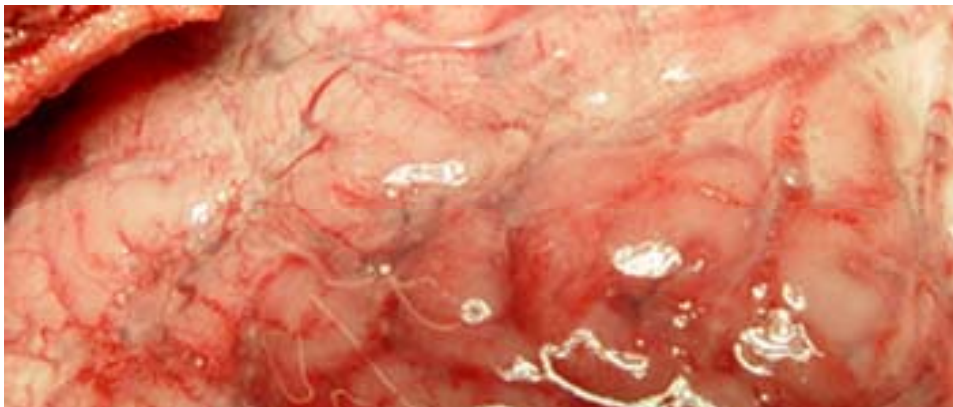
### CNS

**Spinal cord:** White, normal, thick tissue.

**Brain:** Left hemisphere to D. Rotstein. Right to Histo. *Brain CT Report to be submitted separately by Darlene Ketten (WHOI).* Hemorrhages underneath both right and left cerebellum between meninges and bone of skull. Very thick meninges. Dark pooled, gelatinous. Hemorrhage does not extend into brain itself. No lesions noted grossly. Sectioned at midline and sectioned between each half. Tissue is soft. Small air bubbles within vessels on the surface of the brain which do not extend within the brain tissue. Pituitary soft, maroon (to Histo).



See below

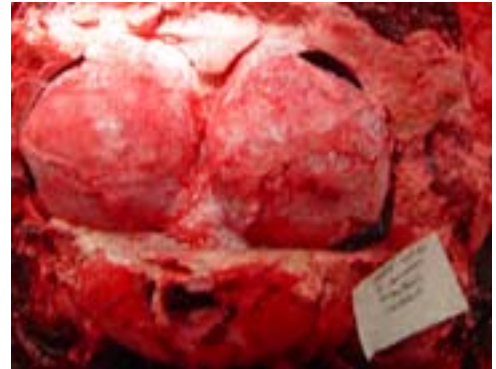
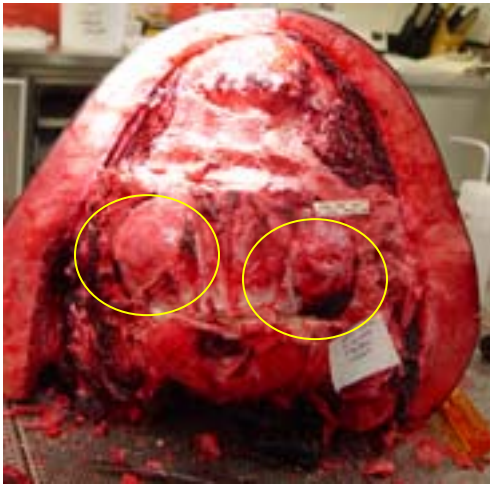


Close up of small air bubbles in the vessels overlying in the brain.



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Area of hemorrhage outlines in yellow above. More prominent under the right cerebellum lobe.

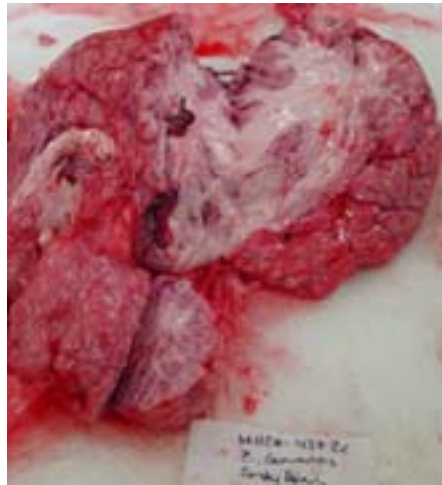


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Tissue soft. No lesions noted on external surface. NSF



Brain sectioned at midline, and midline of 1/2 brain. No pathologies noted. No hemorrhages within brain.

**Pterygoid Sinuses:** Cavities to ears are normal. No fluid or parasites.

**Larynx/goosebeak:** Tissue beige with small points of hemorrhage. Inside nares and larynx is a white creamy mucous coating. Culture swab taken of both areas. (photo at right of hemorrhaged area).





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**Ears internal:** Report to be submitted separately by Darlene Ketten (WHOI).



### Other

**Peritoneal cavity:** Patch of moderate peritonitis over stomach/GI





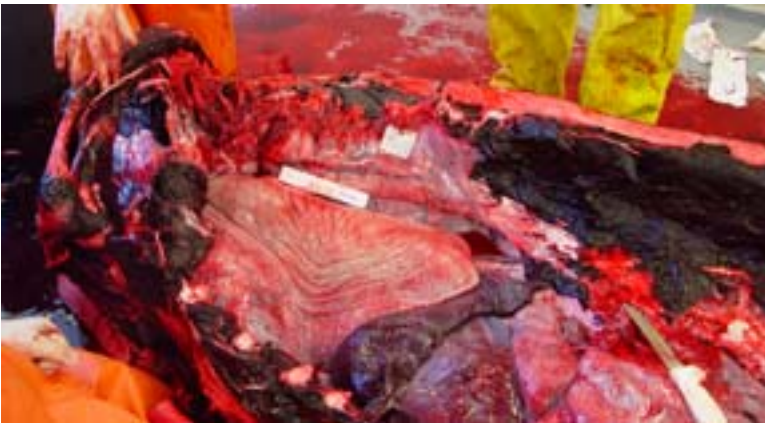
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**Abdominal cavity:** No fluid present



**Thoracic cavity:** Fluid present, appx: 40 cc's, red tinged. At first incision, gas was released from thoracic cavity. **Left lateral caudal apex of visceral pleura:** ¼ inch thick of edema



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### Internal Parasites (location, type, #)

Large intestine- 1 large tapeworm, nematodes, and 2 acanthocephalans.  
Feces- several 1-2 cm long nematodes



Acanthocephalan in GI (R. Williams)



nematode in feces ( R.Williams)

### **SUMMARY- Differential Diagnosis from Gross Exam:**

Good general body condition. Apparent liver changes (CT scanned); nodular, hard, discolored. Peracute lung changes. Lungs are heavy, sinking and fluid filled. Edematous lymph, acute edematous tracheitis, cystitis and hematuria.

### **CARCASS DISPOSITION:**

**Soft tissue:** MRF freezer

**Skeleton:** MRF freezer for Charley Potter, Smithsonian

### **PROSECTORS**

**Michael Moore-** Necropsy team leader (WHOI)

Darlene Ketten- WHOI

Andrea Bogomolni-WHOI

Scott Kramer- WHOI

Julie Arruda WHOI

C. Rogers Williams-NOAA-WH

John Nicholas- NOAA-WH

Brett Hayward-NOAA-WH

Katie Pugliaris-CCSN

CT Harry-CCSN

Brett Hayward-NOAA-WH

Sarah Herzig-CCSN

Jim Craddock- WHOI

Pam Polloni-WHOI

Benji Polloni

Belinda Rubistein- NEAq

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**SAMPLES/Disposition**  
 See attached list

**PHOTOS/VIDEO**

Camera      Roll#                      Frames:                      Description:

MRF digital  
 Roger Williams digital  
 D. Ketten digital  
 CCTimes

**WHOI MEDIA**

**ASSOCIATED DATA SHEETS**

- Human Interaction Protocol ( extensive notes on Level A cetacean data record/Necro report)
- Cetacean Data Record
- necropsy/ archive sample list (NEAQ)

**Researcher Sample Collection List**

Researcher	Affiliation	Sample type	# of samples	Method of storage/location
A. Bogomolni	WHOI	OHH samples	suite	-80 and formalin
B. Rubinstein	NEAQ	NIST- Blubber, Liver, kidney	3	-80 Freezer MRF
C. Reddy	WHOI	Blubber	1	-80 MRF
M. Moore	WHOI	Blubber	1	-20 Freezer MRF
H. Koopman	UNCW	Blubber	1	-80 Freezer
D. Taylor		Pelvics for casting then to SI	2	-80 Freezer MRF
J. Craddock	WHOI	Stomach contents	3	-20 Freezer MRF
J. Craddock	WHOI	Lamprey lesions	1	Formalin
D. Rotstein	UT	½ Brain	1	Chiller MRF
D. Ketten	WHOI	Head	1	Chiller MRF
B. Hayward	NOAA	Blubber	3	-80 Freezer MRF
J. Reidenberg		larynx	1	-20 Freezer MRF
C. Potter	Smithsonian	Skeleton	1	-20 Freezer MRF



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Full Necropsy (Codes 2-3, and Human Interaction Cases)								
	Standard Samples				Frozen and 10% NBF	Frozen -80 and 10% NBF	Frozen -80	
	Frozen	and DMSO	Frozen	10% NBF				
	Life History	Genetics	Contam.	Histo 1 set	Herpes (seals only)	Morbillivirus	UME	
Skin		xx		x				
Teeth/Jaw	none							
Blubber			x	x				
Muscle			x	x				
Liver			x	x				
Kidney (L)			x	x				
Kidney (R)				x				
Stomach	x			x				
Lung (R)			x	x				
Lung (L)				x		FR x FX x		
Tracheobronchial Lymph				x		FR x FX		
Spleen				x		FR x FX x		
Blood/Serum								
Esophagus				x				
Trachea				x				
Prescapular Lymph	x			x		FR x FX x		
Heart				x				
Diaphragm				x				
Pancreas			x	x				
Mesenteric Lymph				x		FR x FX x		
Intestine				x				
Adrenal (L)				x				
Adrenal [R]				x				
Colon				x				
Bladder				x				
Testis	FX x			x				
Uterus	FX							
Ovary	FX					FX	x	
Feces							x	
Stomach/ Upper GI								
Urine								
Aqueous Humor							x	
Milk/Mammary Discharge								
Brain	x	To D. Rotstein	half brain in NBF			FR FX		
Lesions (list)	FR x	skin lesions frozen and fixed , NEAQ + Abogo						
Culture fungal	x	(if swab: keep at room temp)			7 swabs taken, urine for cytology			
Parasites (ETOH)	x	parasites to R. williams (5 nematodes, 1 tape worm, 2 acanthos)						
Skin wounds	x	lamprey marks to J. Craddock						

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### URINALYSIS

Test	Value	Ref Range	Flags	Bar Graph
COLLECTION METHOD	NOT GIVEN			
VOLUME	5.0	ML		
COLOR	BROWN			
<u>CLARITY</u>	CLOUDY			
<u>SPECIFIC GRAVITY</u>	1.042			
<u>GLUCOSE</u> <sup>1</sup>	1+ (250 mg/dL)			
<u>BILIRUBIN</u>	NEGATIVE			
<u>KETONES</u>	NEGATIVE			
BLOOD	3+			
<u>PH</u>	6.0			
<u>PROTEIN</u> <sup>2</sup>	2+ (200-300 mg/dL)			
<u>WBC</u>	6-10	HPF		
RBC	50-75	HPF		
BACTERIA	NONE SEEN	HPF		
EPI CELL	1+ (1-2/HPF)			
MUCUS	NONE SEEN			
CASTS	NONE SEEN			
CRYSTALS	NONE SEEN			
<u>UROBILINOGEN</u>	NORMAL			

### **Comments:**

1. RESULT VERIFIED BY REPEAT ANALYSIS
2. Protein test is performed and confirmed by the sulfosalicylic acid test.

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Species ID confirmation:

From Mark Johnson (WHOI)



Photo: Natasha Aguilar





## **Marine Animal Necropsy Report**

**Date:** April 4 – April 6, 2006

**Field Reference Number(s):** MH-06-437-Zc

**Laboratory Reference Number(s):** Z-cav17

**Genus and Species:** *Ziphius cavirostris*

**Attending / Prosector(s):** D. Ketten, M. Moore, A. Bogolmoni, S. Cramer, J. Arruda, NEAq Staff

**Necropsy Location:** Woods Hole Oceanographic Institution (WHOI), MRF Necropsy Facility, Woods Hole, MA

### **CLINICAL HISTORY**

**Gross Description:** Presented is a sub-adult male Cuvier's Beaked Whale, *Ziphius cavirostris*, 4 meters in length weighing 1590 pounds. The animal was observed alive by the Cape Cod Stranding network (CCSN) April 3, 2006 early evening near Sandy Beach in Cohasset, Massachusetts. At 2330 the animal stranded ashore and was euthanized with Fatal Plus on site by CCSN. The animal was transferred by trailer to WHOI by the Cohasset Department of Public Works April 4, 2006. WHOI received the animal at 1330, 14 hours post mortem. The animal was photographed and measurements of exterior morphology were recorded. Observations of the general condition of the animal showed raised skin lesions with white centers covering a majority of the body. The overall skin color was grey in appearance. Thick mucous suffused with blood was observed dripping from the mouth. A greenish/brown sludge was observed around the exterior region of the anus. Small bleeding slits adjacent to the genital region were observed. Blackened skin 23 cm long by 10 cm high was observed surrounding the right eye, moving posterior to the anterior insertion of the right flipper. No erupted teeth were observed. No scavenger damage was observed. Rope marks, created during loading of the animal onto the transport trailer, were observed at the anterior insertion of the fluke. There was no evidence of human interaction as a causal factor in the stranding.

**Head:** The head was removed at the occipital condyles by Dr. Darlene Ketten, transferred by cart to the WHOI CT scanning room and scanned using high resolution computerized x-ray tomography. Post scanning, the head was returned by cart to the necropsy room for dissection. The primary incision showed moderate extravasated lividity throughout the soft tissue and blubber. The muscle was normal in color. Observation of the darkened skin region around the right eye showed a subdermal contusion 2.5 cm in depth. Both right and left eyes appeared normal. Aqueous humor was sampled from both eyes in-situ. The aqueous humor was yellowish in color. The larynx had a white to yellow thickened mucous intranasal and in the lumen of the "goosebeak" with epithelial sloughing. The laryngeal complex was removed and preserved in 10% buffered formalin. The left ear bulla was extracted. The left petiotic bone was placed in a saline solution and retained for Dr. David Mountain. The left tympanic bone was preserved in 10% buffered formalin. The right ear was extracted April 12, 2006.

**Thorax:** Necropsy performed by Michael Moore.

**Abdomen:** Necropsy performed by Michael Moore.

**Appendages:** Necropsy performed by Michael Moore.

### **RADIOLOGICAL ASSESSMENT**

2D and 3D CT image reconstructions of the skull morphometry and position of two teeth anterior and dorsal to the mandible protruding outward (although not erupted) indicated the animal was a Cuvier's Beaked Whale, *Ziphius cavirostris*. No abnormalities were observed in the head.



## **MICROSCOPIC ANALYSIS**

TBD

## **TISSUE SAMPLE DISTRIBUTION**

**Name:** M. Moore

**Tissue:** Multiple histological samples from the entire visceral cascade, skin, blubber and muscle.

**Name:** B. Rubenstein

**Tissue:** Multiple skin, muscle and visceral samples for toxicological analysis.

**Name:** A. Bogomolni

**Tissue:** Multiple skin, muscle and visceral samples for toxicological and histological analysis.

**Name:** J. Reidenberg

**Tissue:** Laryngeal complex.

**Name:** C. Potter

**Tissue:** Skeleton and skull.

**Name:** A. Lavery

**Tissue:** Multiple jaw fat, melon fat and blubber samples.

**Name:** D. Ketten

**Tissue:** Brain; ears; jaw fats; blubber; muscle; skin and eyes.

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Darlene Ketten, Ph. D.  
Senior Scientist



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**Woods Hole Oceanographic Institution  
Biology Department  
266 Woods Hole Road  
Woods Hole, MA 02543**



Draft



# AFIP Molecular Diagnostics Laboratory Report

AFIP Number: 3016470

MH-06-437-ZC

Molecular diagnostics #: 2006- 4918

Patient Name: Whale, *Leavix*

Pathologist: Bogomolni

Dept: Woods Hole Ocea

Submitting Diagnosis:

Date in: 17-Apr-06

Date Reported: 20-Apr-06

Specimen ID: A=Skin, B=Spleen, C=lung1, D=lung2, E=lymph1,  
F=lymph2

## Actin RNA Control (RT-PCR)A

Result: Positive

Comment:

This assay tests for the presence of amplifiable RNA in the tissue lysate.

## Actin RNA Control (RT-PCR)B

Result: Positive

Comment:

This assay tests for the presence of amplifiable RNA in the tissue lysate.

## Actin RNA Control (RT-PCR)C

Result: Positive

Comment:

This assay tests for the presence of amplifiable RNA in the tissue lysate.

## Actin RNA Control (RT-PCR)D

Result: Positive

Comment:

This assay tests for the presence of amplifiable RNA in the tissue lysate.

## Actin RNA Control (RT-PCR)E

Result: Positive

Comment:

This assay tests for the presence of amplifiable RNA in the tissue lysate.

## Actin RNA Control (RT-PCR)F

Result: Positive

Comment:

This assay tests for the presence of amplifiable RNA in the tissue lysate.

## Morbillivirus (RT-PCR)A

Result: Negative

Comment:

This assay is performed for research use only. CPT Codes: 83890, 83894, 83896, 83897, 83898, 83902, 83912.



**AFIP Number:** 3016470**Molecular diagnostics #: 2006- 4918****Morbillivirus (RT-PCR)B****Result: Negative****Comment:**

This assay is performed for research use only. CPT Codes: 83890, 83894, 83896, 83897, 83898, 83902, 83912.

**Morbillivirus (RT-PCR)C****Result: Negative****Comment:**

This assay is performed for research use only. CPT Codes: 83890, 83894, 83896, 83897, 83898, 83902, 83912.

**Morbillivirus (RT-PCR)D****Result: Negative****Comment:**

This assay is performed for research use only. CPT Codes: 83890, 83894, 83896, 83897, 83898, 83902, 83912.

**Morbillivirus (RT-PCR)E****Result: Negative****Comment:**

This assay is performed for research use only. CPT Codes: 83890, 83894, 83896, 83897, 83898, 83902, 83912.

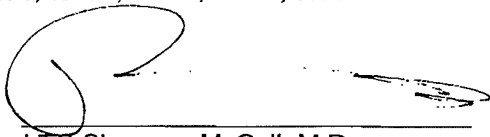
**Morbillivirus (RT-PCR)F****Result: Negative****Comment:**

This assay is performed for research use only. CPT Codes: 83890, 83894, 83896, 83897, 83898, 83902, 83912.

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Amy E. Krafft, Ph.D.

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Jeffery K. Taubenberger, M.D., Ph.D.

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LTC Sherman McCall, M.D.

<b>VETERINARY CONSULTATION REQUEST</b> <b>ARMED FORCES INSTITUTE OF PATHOLOGY</b> <i>(Read Privacy Act Statement and Instructions on back before completing form. Sign and date on back.)</i>				<b>1. TISSUE IN DOCTOR'S OFFICE (X)</b> <i>(AFIP use only)</i>	
<b>2. OWNER'S LAST NAME</b>		<b>3. ANIMAL NAME/TATTOO NUMBER</b>		<b>4. PREVIOUS AFIP CASE NUMBER ON ANIMAL</b> <i>(If applicable)</i>	
<b>5. COMMON NAME</b> <i>(Dog, Bird, Rat, etc.)</i>		<b>6. DATE OF BIRTH</b> <i>(YYYYMMDD)</i>		<b>7. AGE</b>	
				<b>8. SEX</b>	
				<b>9. NEUTERED (X)</b>	
				<input type="checkbox"/> YES	<input type="checkbox"/> NO
<b>10. BREED/TYPE/STRAIN</b> <i>(Beagle, Canary, F-344, etc.)</i>			<b>11. GENUS AND SPECIES</b> <i>(Scientific name)</i>		
<b>12. MATERIALS FORWARDED</b> <i>(X or complete as applicable)</i>			<b>13. CONTRIBUTOR'S CASE IDENTIFICATION</b>		
<input type="checkbox"/>	CLINICAL INFORMATION <i>(Required)</i>		<b>a. SURGICAL PATHOLOGY ACCESSION NUMBER(S)</b>		
<input type="checkbox"/>	SURGICAL PATHOLOGY REPORT <i>(Required)</i>				
<input type="checkbox"/>	AUTOPSY REPORT <i>(Required)</i>		<b>b. AUTOPSY/NECROPSY ACCESSION NUMBER</b>		
<input type="checkbox"/>	PHOTOS, CLINICAL/GROSS				
<input type="checkbox"/>	X-RAYS		<b>c. EUTHANIZED (X)</b>		
<input type="checkbox"/>	SLIDES <i>(Qty)</i> <i>(Required)</i>				
<input type="checkbox"/>	BLOCKS <i>(Qty)</i>		<input type="checkbox"/> YES <input type="checkbox"/> NO		
<input type="checkbox"/>	WET TISSUE				
<input type="checkbox"/>	OTHER				
<b>14. PRIORITY REQUESTED (X)</b>					
<input type="checkbox"/>	ROUTINE		<input type="checkbox"/>	RUSH	
<input type="checkbox"/>			<input type="checkbox"/>	NO LETTER <i>(AFIP use only)</i>	
<b>15. CLINICAL HISTORY</b> <i>(Location and size of lesion, signs, duration, physical and laboratory findings.)</i>					
<b>16. CONTRIBUTOR'S WORKING DIAGNOSIS</b> <i>(Include legible copy of surgical pathology or autopsy report, if applicable.)</i>					
<b>17. COMMENTS AND REQUESTS</b>					
<b>18. CONTRIBUTOR</b>					
<b>a. NAME</b> <i>(Last, First, Middle Initial)</i> <i>(Include Title, e.g., Dr., CPT, etc.)</i>			<b>b. COMPLETE MAILING ADDRESS</b>		
<b>c. TELEPHONE NUMBER</b> <i>(Incl. area code)</i>		<b>d. FAX NUMBER</b> <i>(Incl. area code)</i>			
<b>e. E-MAIL ADDRESS</b>					

**IMPORTANT**

Have you enclosed a legible summary of the clinical findings, laboratory data, operative findings or report, and specific treatment? Have you included a copy of the original pathology or autopsy report? Cases selected for inclusion in specific registries often require additional information. Clinical or gross photos, pertinent X-rays, and additional diagnostic materials add substantially to the educational value of the case and are highly desired.

**AFIP RETENTION POLICY**

- Microscopic slides are kept on permanent file.
- Blocks are retained for a minimum of five years, unless return is requested at the time a case is accessioned.
- Blocks on cases judged to have educational or research value may be retained indefinitely.
- Other material may be discarded when no longer used for education or research.
- Further information can be obtained from the AFIP Contributors Manual available from the AFIP Research Office at (202) 782-2500.
- WEBSITE: <http://www.afip.org/>

**PRIVACY ACT STATEMENT**

**AUTHORITY:** 5 USC 301 and 44 USC 3014.

**PRINCIPAL PURPOSE(S):** Medical information received is considered during the consultative process and is used to form a database for education and research in pathology. Other patient information is used for filing and retrieval of consultation records. Information concerning the contributor is used to maintain contributor mailing lists.

**ROUTINE USE(S):**

a. Pathology consultation files are used to provide a database for medical research and statistical purposes, and when required by law or for other official purposes, individual records may be released to the referring medical care provider (physician, veterinarian), to medical care providers treating the individual, to qualified medical researchers and students, and to other Federal agencies and law enforcement personnel when requested for official purposes involving criminal prosecution, civil court action or regulatory orders.

b. Pathology contributor mailing lists/files are used to publicize changes in policies and procedures pertaining to requests for consultative services and to disseminate information pertaining to continuing medical education courses or educational materials available at the AFIP.

**DISCLOSURE:** Voluntary; however, if the information is not furnished, consultation may not be possible and material submitted may be returned without review.

Please send all submitted material together. Address the material to:

Armed Forces Institute of Pathology  
ATTN: Receiving and Accessions Division (AFIP-RRS)  
Room G-071, Building #54  
6825 16th Street, N.W.  
Washington, DC 20306-6000

Telephone No. (202) 782-1630  
Fax No. (202) 782-7845

The form can be printed from DefenseLINK, under Publications.

If a civilian contractor (non-Federal), I certify to the best of my knowledge and belief that no litigation or claim of professional negligence involving the medical care of this patient has been or is about to be filed. ALL CONTRIBUTORS by their signature affirm that they have read the PRIVACY ACT STATEMENT above.

**19. SIGNATURE OF CONTRIBUTOR**

**20. DATE REQUEST FORWARDED**  
(YYYYMMDD)