

AVIAN NECROPSY FORM

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Fulcrum: Added Checked

CASE IDENTIFICATION INFORMATION AND HISTORY		
LAB ID/ OTHER ID	180718-01	SPECIES Mallard
COLLECTED	7/12/18	COUNTY Lee
RECEIVED	7/18/18	TOWN Cape Coral
EXAM	7/18/18	EVENT ID
		NECROPSY BY: Jared Fish
		NOTES BY: Allyson Jones

COLLECTOR ADDRESS AND CONTACT INFORMATION

COLLECTION REMARKS/CASE HISTORY Dock found dead in Cape Coral canal off Coronado and Lafayette

CARCASS BASICS AND DEMOGRAPHICS

STATUS	CAPTURE TYPE	SPECIMEN TYPE	PRESERVATION	AUTOLYSIS	EXAM TYPE
<input type="checkbox"/> RECAPTURE <input checked="" type="checkbox"/> WILD <input type="checkbox"/> CAPTIVE <input type="checkbox"/> REHAB CENTER <input type="checkbox"/> OTHER	<input type="checkbox"/> SICK/MORIBUND <input type="checkbox"/> CHEM. IMMOBILIZED <input type="checkbox"/> GUNSHOT <input type="checkbox"/> NATURAL (HAND) <input checked="" type="checkbox"/> FOUND DEAD <input type="checkbox"/> OTHER	<input type="checkbox"/> LIVE ANIMAL <input type="checkbox"/> PHYSICAL EXAM <input checked="" type="checkbox"/> WHOLE CARCASS <input type="checkbox"/> PARTIAL CARCASS <input type="checkbox"/> OTHER	<input type="checkbox"/> FRESH <input type="checkbox"/> FORMALIN <input type="checkbox"/> ETOH <input checked="" type="checkbox"/> FROZEN ONCE <input type="checkbox"/> FROZEN TWICE	<input type="checkbox"/> NONE <input checked="" type="checkbox"/> MINOR <input type="checkbox"/> MODERATE <input type="checkbox"/> SEVERE	<input checked="" type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> MARGINAL <input type="checkbox"/> NONE

BODY CONDITION	OVERALL FAT	FED/ST STATUS	SEX	AGE	WEIGHT
<input type="checkbox"/> UNKNOWN <input checked="" type="checkbox"/> EXCELLENT <input type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> POOR <input type="checkbox"/> EMACIATED	<input type="checkbox"/> UNKNOWN <input type="checkbox"/> ABUNDANT <input type="checkbox"/> MODERATE <input type="checkbox"/> ATROPHY <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> NONE	<input type="checkbox"/> UNKNOWN <input checked="" type="checkbox"/> SCANT INGESTA <input type="checkbox"/> MORE INGESTA <input type="checkbox"/> EMPTY/HRDPRTS	<input type="checkbox"/> FEMALE <input checked="" type="checkbox"/> MALE <input type="checkbox"/> UNKNOWN	<input checked="" type="checkbox"/> SUBADULT <input type="checkbox"/> ADULT <input type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER	<u>306g</u> KG/LB <input type="checkbox"/> ESTIMATE <input checked="" type="checkbox"/> DAMP <input type="checkbox"/> DRY <input checked="" type="checkbox"/> WHOLE <input type="checkbox"/> PARTIAL

NOT EXAMINED	FROZEN	FORMALIN	ARCHIVE-FROZEN	EXTERNAL EXAM	
				ECTOPARASITES	COMMENTS:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EYES: both appear sunken + opaque
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EARS: both appear sunken + opaque clear fluid material in left ear
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NARES: red fluid mostly from left nare (photo) + also present in right
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ORAL CAVITY/TONGUE: top of tongue appears very pale (photo), 2.5mm skin abrasion on left side of tongue (photo) ⇒
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PLUMAGE/SKIN: green material scattered throughout feathers + skin (photo) ⇒
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	UROPYGIAL GLAND: pale appearance, green-colored skin surrounding
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VENT: pale appearance, green-colored skin around it
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FEET/LEGS: green material present, 1.5mm diameter puncture in webbing on right foot. ⇒

MEASUREMENTS (cm)	OTHER EXTERNAL COMMENTS:
BILL/EAR: 7cm (tip to ear)	Oral Cavity - blood / red fluid also draining into mouth, brown 1mm spots on upper maxilla Feet/Legs - multiple white spots (discoloration) on feet + legs from 1mm - 2.5mm diameter (photo)
WING/TAIL: 26cm	
TOTAL LENGTH: 39cm	
TAR/META:	

Abdominal Width: 20cm

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NOT EXAMINED	FROZEN	FORMALIN	ARCHIVE-FROZEN	INTERNAL EXAM	ENDOPARASITES
					<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
					COMMENTS:
					RESPIRATORY
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LARYNX: NSF	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CHLOANAL SLIT: appears clear (photo)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TRACHEA: NSF	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BRONCHI: NSF	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	LUNGS: appear brown-colored with white speckles, left lung normal on cut surface, dark brown/red, ⇒	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AIR SACS: appears clear + clean	
					UROGENITAL
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>	KIDNEYS: appear slightly autolysed, normal coloration	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	URETERS:	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	GONADS: NSF	
					MUSCULOSKELETAL
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PECTORAL MUSCLES: green-colored on surface, minimal muscles (photo), hemorrhage under breastplate/keel (photo)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JOINTS: NSF	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SKULL:	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OTHER: hemorrhaged keel piece saved in formalin	
					HEMOLYMPHATIC
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SPLEEN: autolysed	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BURSA:	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BONE MARROW:	
					CARDIOVASCULAR
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HEART: mild fat around coronal artery, normal appearance in ventricles, slightly autolysed atrium	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	GREAT VESSELS: NSF	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PERICARDIAL SAC: NSF	
					ADIPOSE (FAT)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COELOMIC CAVITY FAT: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> HIGH	<input type="checkbox"/> N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HEART FAT/PERICARDIUM: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> HIGH	<input type="checkbox"/> N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MESENTERIC FAT: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> HIGH	<input type="checkbox"/> N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SUBCUT FAT: <input type="checkbox"/> NONE <input checked="" type="checkbox"/> SLIGHT <input type="checkbox"/> MODERATE <input type="checkbox"/> HIGH	<input type="checkbox"/> N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FAT/NOTES: —	
					NEUROENDOCRINE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BRAIN:	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SCIATIC NERVE:	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ADRENAL: NSF	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	THYROID:	

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NOT EXAMINED	FROZEN	FORMALIN	ARCHIVE-FROZEN	
				DIGESTIVE
				LIVER, PANCREAS, GALLBLADDER
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	LIVER: forest/moss green discoloration (photo), normal coloration on cut surface on exterior
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PANCREAS:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	GALLBLADDER: NSF
				UPPER GI
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ESOPHAGUS: scant gray chyme present
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PROVENTRICULUS: NSF
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	GIZZARD VENTRICULUS: firm, appears to have luster/shine (photo) on both sides
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	STOMACH/VENTRICULUS CONTENTS: blank + sandy ingestia
				LOWER GI
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	DUODENUM: brown, milky chyme present
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	JEJUNUM: milky chyme present (brown/green), white/tan plaque present (photo)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ILEUM: tan/orange tan/orange plaques on exterior (photo)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CAECUM: brown/orange chyme material with black speckles
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	COLON: brown paste present
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CLOACA: NSF
				CAVITIES
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CAVITY NOTES: —
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	INFRAORBITAL SINUS:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	OTHER INTERNAL COMMENTS —

HISTOCASSETTES (On each cassette write a consecutive number and a 1-2 word label)

#	LABEL	DETAILED DESCRIPTION
1.		
2.		
3.		
4.		
5.		

AI/APMV1/DVE SWABS	LAB SUBMITTED TO	DATE SUBMITTED	COMMENTS/RESULTS
Place barcode(s) here			

AVIAN NECROPSY FORM

DIAGNOSTIC SAMPLES	LAB SUBMITTED TO	DATE SUBMITTED	COMMENTS/RESULTS
BLOOD			
SMEARS			
SERUM			
CBC			
CHEMISTRY			
FECAL			
DICHROMATE			
FORMALIN			
HISTOLOGY			
PARASITES			

Plumage/Skin - hemorrhage on chest 2 cm x 1 cm (length) (width) (photo), hemorrhage/congestion in pelvic region 29 mm x 31 mm

Lung - right lung slightly autolyzed with dark red coloration

Addendum by Lisa Shender on 8/22/18:

Small intestine and liver tissue were submitted to Greenwater Laboratories in Palatka, FL, for analysis of Cyanobacterial toxins. The microcystin/nodularin MMPB assay was performed. Lab results were received on 7/30/18. Results are below:
 Liver = 215 ng/g
 Small intestine = 207 ng/g
 The above are "estimated" analytical values as the values achieved were outside the calibration range.

In addition, formalin-fixed tissues were submitted to FWC FWRI-St. Pete for histopathology and the evaluation of microcystins via immunohistochemistry (IHC) special stains. Results are pending as of 8/22/18.

This mallard was evidently exposed to microcystins but we cannot say if this was the cause-of-death as there is little comparative data on lethal levels of these toxins in this species. Pending results may help to elucidate the significance of the toxicology findings.