



Mississippi State University - College of Veterinary Medicine

Aquatic Animal Health Diagnostic Laboratory

127 Experiment Station Road * PO Box 197, Stoneville, Mississippi 38776
Phone: 662-686-3304 * Fax: 662-686-3568

FINAL REPORT

Client:

TPWD - Loraine Fries
505 Staples Road
San Marcos TX 78666
512-353-3486

Case Number: S12-533**Date:** 10/17/2012**Species:** Flathead catfish**Date of Exam:** 8/2/2012**Number Submitted:****Pond Number****Sample Status:****Fish size****Diagnosis:**

Hepatic cestodiasis - focal.

Water Quality Accession Number:

TAN	Nitrite	Chloride	pH	UIA	Alkalinity	Hardness
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Parasitology**Parasite identified****Parasite Intensity****Bacteriology****Organism isolated****Location****Terramycin****Romet****Aquaflor****Virology****Cell Line****CPE****Dx****Remarks:**

Two sections of liver are examined. Within the larger section is an encysted larval cestode. Within its parenchyma are numerous calcareous corpuscles. This parasite is surrounded by several layers of fibrous connective tissue. Throughout the section, the subcapsular sinusoids and blood vessels appear to be congested. Throughout the section, there are several hepatocytes that have a hypersinophilic cytoplasm and have pulled away from the surrounding cells (hepatocellular individualization). Although there are some increased hepatocellular cytoplasmic eosinophilia and individualization, there was no appreciable hepatocellular necrosis. These changes and the subcapsular congestion may be a result of handling of the tissue.

Diagnostician


Lester H. Khoo, VMD, PhD



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Case Number: **S12-534**

Date: 10/17/2012

Species: *Ictalurus punctatus* (channel catfish)

Date of Exam: 8/2/2012

Number Submitted:

Pond Number

Sample Status:

Fish size

Diagnosis:

Hepatocellular individualization, multifocal, moderate to marked with minimal to mild hepatocellular necrosis

Water Quality Accession Number:

TAN	Nitrite	Chloride	pH	UIA	Alkalinity	Hardness
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Parasitology

Parasite identified

Parasite Intensity

Bacteriology

Organism isolated

Location

Terramycin

Romet

Aquaflor

Virology

Cell Line

CPE

Dx

Remarks:

Two sections of liver are examined. Changes are similar in both sections although they are more evident in the larger section except that there is a moderate amount of subcapsular autolysis that is evident only in the smaller section. In both sections, there are multiple areas of pallor where the hepatocytes are separated from each other. These areas of pallor sometimes coalesce to form larger discrete chord-like foci. A few of these hepatocytes within these pale areas have hyperosinophilic cytoplasm and some have pyknotic nuclei. Most of the larger hepatic vessels deeper within the section are filled with eosinophilic fibrillar material (proteinaceous material) with entrapped blood cells. Several of the vessels and sinusoids closer to the capsular surface are filled with red blood cells. The changes (lesions and pattern) that are evident are suggestive of a possible toxic insult.

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FINAL REPORT

Client:

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Case Number: S12-535**Date:** 10/17/2012**Species:** Smallmouth Buffalo**Date of Exam:** 8/2/2012**Number Submitted:****Pond Number****Sample Status:****Fish size****Diagnosis:**

~~Dx~~ Hepatic hemosiderosis (hemachromatosis), subacute to chronic, diffuse, severe with pigmented macrophage centers.
Heptocellular vacuolation, macrovesicular (lipid), multifocal, subacute, mild.

Water Quality Accession Number:

TAN	Nitrite	Chloride	pH	UIA	Alkalinity	Hardness
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Parasitology**Parasite identified****Parasite Intensity****Bacteriology****Organism isolated****Location****Terramycin****Romet****Aquaflor****Virology****Cell Line****CPE****Dx****Remarks:**

Three sections of liver were examined. Changes are similar in all 3 sections. Throughout the sections, the hepatocytes have small to moderate amounts of a coarse granular brown pigment within their cytoplasm. There are also larger aggregates of cells that have similar intracytoplasmic pigment but these are most often around blood vessels (pigmented macrophage centers). There are also scattered in the sections several hepatocytes in small foci or individual cells that have large discrete vacuoles in their cytoplasm (lipid presumptive). The larger vessels in the sections are filled with blood. Although no special stains were performed to confirm that the pigment is iron, the appearance (coarse and granular) are very suggestive of iron. Hemosiderosis has been reported in smallmouth buffalo (Thiyagaraja A, Hartley W.R. and A. Abdelghani (1998) Hepatic hemosiderosis in buffalo fish (Ictiobus spp) Marine Environmental Research 46(1-2):203-207.

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Client:

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TX

78666

Case Number: S12-536**Date:** 10/17/2012**Species:** White crappie**Date of Exam:** 8/2/2012**Number Submitted:****Pond Number****Sample Status:****Fish size****Diagnosis:**

Hepatocellular necrosis, multifocal, acute to subacute, mild.

Water Quality Accession Number:**TAN****Nitrite****Chloride****pH****UIA****Alkalinity****Hardness****Parasitology****Parasite identified****Parasite Intensity****Bacteriology****Organism isolated****Location****Terramycin****Romet****Aquaflor****Virology****Cell Line****CPE****Dx****Remarks:**

Three sections of liver were examined. The majority of the sections are composed of wide interconnecting areas of pallor with smaller, more normal staining areas surrounding congested blood vessels. Sinusoids throughout the section are also filled with red blood cells. The hepatocytes in the pale areas have cytoplasmic vacuoles of various sizes some of which are discrete most others are not (glycogen and lipid presumptive). The nuclei of these hepatocytes are often pushed towards the periphery of the cell. Often within these pale area are necrotic hepatocytes characterized by shrunken, hypereosinophilic cells with pyknotic nuclei. The changes seen in these sections may be due to a toxin. There is very little if any inflammatory infiltrates in these necrotic areas and no microscopic etiological agent was evident in the sections examined.

Diagnostician


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