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Report Date: 11/16/2015

Final Report

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Case Coordinator: Dr. Jennifer Haugland, DVM

Accession No: R1532858

FOSTER LAKE & POND MANAGEMENT
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Associated Parties

Owner	Foster Lake & Pond Management	9020 White Oak Rd. Garner, NC 27529 (919) 706-7489
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Purpose of Test

Diagnostic

Animal Information

Name	Taxonomy	Production Type	Sex	Age
Catfish 1	FISH - Catfish			
Catfish 2	FISH - Catfish			
Pooled samples from both fish	FISH - Catfish			

History

According to the history provided, a neighborhood pond has experienced approximately 150 dead fish in the past week. Fish with visible skin sores have also been seen. A creek is the source of water for this 30 acre pond and upstream there is construction which is thought to be the source of the cloudy water. There has been several recent heavy rains. Initially 4-6 inch long catfish and a few other species were found at the inlet but on 11/5/15 a large number of fish were at the dam. The submitter collected 2 sick fish and water was tested. pH 7.0, DO 6-8 ppm, hardness 30-60 ppm, and alkalinity 24-48 ppm.

Lab Findings

Necropsy

General Results

Two live catfish that were approximately 6 inches long were submitted for necropsy. One fish was emaciated. Each fish had an approximately 5-10 mm wide red to ulcerated skin lesion and one fish had multiple pinpoint red ulcers everywhere. Microscopic examination of a skin scraping revealed numerous *Ichthyobodo* sp, a few *Trichodina* sp, moderate *Chilodonella* sp. and a few monogenean trematodes. Abundant fungal hyphae were also present. Gills were pale and a microscopic examination of biopsies revealed numerous *Ichthyobodo* sp lining the lamellae. One fish had white spots in the liver and a pale spleen. The other fish has an enlarged, soft and purple caudal kidney. No other gross lesions were identified.

Morphological diagnosis:

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General Results

1. Skin: parasitism with multiple protozoans and trematodes, ulcerative dermatitis, with secondary fungal growth.
2. Gills: branchitis with *Ichthyobodo* sp..

Comments: Damage to the skin from the parasites can cause septicemia and loss of electrolytes. The severe parasitism of the gills can severely decrease oxygenation. Poor water quality is often an underlying factor to parasitism. Histopathology is pending.

- **Jennifer Haugland, DVM**

Histopathology**General Results**

Sections of catfish brain, gills, liver, kidney, intestine, spleen and body wall are examined.

Morphological diagnosis:

Gills: branchitis, granulomatous, moderate, multifocal and coalescing with moderate numbers of protozoa

Body wall: dermatitis and cellulitis, ulcerative, heterophilic and histiocytic, severe, multifocal with intralesional fungal hyphae and occasional protozoa

Comment:

As stated before the dermal and gill lesions are likely secondary to stress from poor water quality.

- **Steve Rushton, DVM, Dipl. ACVP**

Pending Tests

No Pending Tests

Diagnosis

Severe gill damage and ulcerative dermatitis and cellulitis secondary to parasitism (*Ichthyobodo* sp., *Chilodonella* sp., *Trichodina* sp.)

Comments: There is a significant protozoal parasitism of these fish. These parasites are significantly contributing to the skin lesions and the chronic gill damage. The inflammation in the gills is causing the secondary lamellae to fuse together, decreasing the ability to oxygenate the blood. Skin lesions in fish allow a portal of bacterial entry and also allow the loss of fluids and electrolytes. Scaleless fish, such as catfish, have less protection and thus are more at risk for severe skin lesions and this may explain why more dead catfish were seen than other species. Lesions of specific catfish diseases, such as proliferative gill disease and channel catfish virus, were not identified in the submitted fish.

Another important contributor to overall fish health and the ability to fight off parasitism is good water quality. Based on the history provided, such as the low oxygen level and increased sediment, poor water quality may be a significant contributor to fish loss in this pond. Please call with any questions.

- **Jennifer Haugland, DVM**

Client Report History

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Bulletin(s)

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