



Ontario Animal Health Network (OAHN)

Aquatic Animal Health

July to December 2018, Report #6

This report is a communication for aquaculture producers in the province of Ontario, compiled by the Ontario Animal Health Network (OAHN)

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Aquatic Veterinary Services Summary

There were a number of diagnoses during the period of July to December 2018 in aquaculture production in Ontario. These diagnoses were primarily columnaris disease (*Flavobacterium columnare*), bacterial gill disease (*Flavobacterium branchiophilum*), *Aeromonas* and ich (*Ichthyophthirius multifiliis*). Aquaculture veterinary case load is expected to decrease heading into the colder months. The majority of the concerns observed on fish farms in Ontario have been non-infectious and related to environmental conditions.

Disease Spotlight: Coldwater Disease (*Flavobacterium psychrophilum*)

Flavobacterium psychrophilum is a bacterial pathogen causing coldwater disease and affects a broad range of species, including rainbow trout. This disease occurs at water temperatures of 16 °C and below and is most prevalent at 10 °C and below.

Which species and ages are susceptible to Coldwater Disease?

Coldwater disease occurs in both cultured and wild populations, with hatchery-reared young trout and salmon species especially vulnerable to infections.

How is the disease spread?

Coldwater disease may be waterborne or transmitted from carrier fish. Fish can become infected at any stage of life. Prevention and control are essential to avoiding losses due to coldwater disease, particularly since there is currently no commercially available vaccine and a limited number of antimicrobials have been approved for treating food fish worldwide.

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Disease Spotlight: Coldwater Disease (*continued*)

What signs should I look for in my fish?

Coldwater disease presents as different manifestations with the ‘classic’ or most prevalent form of disease producing characteristic open lesions on the external body surfaces of fish. These lesions may be initially observed as areas of rough-appearing skin or fin tip fraying. As the infection continues, necrosis develops at the sites of bacterial colonization, often noted as erosion of the caudal (tail) fin and tissue necrosis of the caudal peduncle.



Left: Juvenile rainbow trout displaying signs typical of coldwater disease, including fin erosion and dorsal lesions.

Photo from:

<https://news.wsu.edu/2015/02/19/probiotic-toxin-fights-coldwater-disease-in-rainbow-trout/>

How can the disease be treated?

Importation of eggs to a facility should be treated with a surface disinfectant like Ovadine®. External and systemic infections may be treated with antibiotics. Please contact your veterinarian if you suspect that you have coldwater disease.

Provincial Update

Livestock Medicines Act

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has made regulatory amendments to the *Livestock Medicines Act* Regulation 730. Due to concerns with rising antimicrobial resistance, Health Canada is limiting access to medically important antimicrobials for veterinary use. In particular, it moved all medically important antimicrobials to the Prescription Drug List with the intention that they can only be obtained with a prescription from a veterinarian. Health Canada has re-categorized roughly 340 veterinary drugs from non-prescription to prescription status. Some of these drugs used to be available at Livestock Medicines Outlets licensed under the *Livestock Medicines Act*, Regulation 730.

As of December 1, 2018, the federal change will be in effect and Livestock Medicines Outlets will not be able to receive medically important antimicrobials for further sale. To help reduce uncertainty and confusion for livestock stakeholders and Livestock Medicines Outlets, the Ontario Ministry of Agriculture, Food and Rural Affairs has made changes to Regulation 730 under the *Livestock Medicines Act* to remove medically important antimicrobials from the list of drugs available for sale from provincially licensed Livestock Medicines Outlets.

The new regulation can be found at: <https://www.ontario.ca/laws/regulation/900730>. If you have any questions, please send an email to antimicrobialresistance@ontario.ca.

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Fish Expert Report

Provincial Update (continued)

Antimicrobial Stewardship

The widespread use of antimicrobials in humans and animals has led to antimicrobial resistance around the world. The Farmed Animal Antimicrobial Stewardship Initiative (FAAST) aims to tackle resistance head on through education, collaboration, and engagement across the value chain. FAAST aims to help Ontario veterinarians, farmed animal owners, and their representative organizations:

- improve antimicrobial stewardship in farmed animals
- prepare for upcoming policy and regulatory changes, and
- preserve the efficacy of antimicrobials without compromising animal health or food safety



Check out the FAAST podcast series (<https://www.amstewardship.ca/podcast/>) and learn about the issue of antimicrobial stewardship and questions from veterinarians on the upcoming regulatory changes on antimicrobial use and access. For more information about FAAST please visit <https://www.amstewardship.ca/>.

College of Veterinarians of Ontario

The College of Veterinarians of Ontario (CVO) regulates the delivery of veterinary medicine in Ontario. All veterinarians who practice in Ontario must be licensed by the College.

In November, the CVO and Ontario Veterinary Medical Association (OVMA) hosted two veterinarian education courses focused on food fish medicine and pet fish medicine. These courses were designed to help practicing veterinarians understand the federal legislation changes to antimicrobial usage and equip them with the tools needed to serve clients with fish. These courses were such a success that both sold out and there will be more course offerings in 2019. This means that more veterinarians in the province will be able to service fish owners!

If you are looking for a veterinarian who has been trained in fish anatomy, diagnostics and medical care, you can download a list of trained veterinarians online at tiny.cc/AquaVets or learn more on CVO's website tiny.cc/CVOfish.



Your OAHN Aquatics Team:

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Contact OAHN

Check us out on the web:
www.oahn.ca

Follow us and receive disease updates and more!



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Ontario Animal Health Network



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National Update

Federally Reportable Aquatic Animal Diseases

From July to December 2018, the Canadian Food Inspection Agency (CFIA) have confirmed cases of infectious pancreatic necrosis in rainbow trout in Nova Scotia, infectious salmon anemia in Atlantic salmon in New Brunswick and Newfoundland, koi herpesvirus in koi carp in British Columbia and Alberta, and viral hemorrhagic septicemia in herring collected from the Pacific Ocean. These cases represent both wild and farmed aquatic animals across the country.

Since March 2018, there have been no additional confirmations of whirling disease in Canada.

For more information about federally reportable aquatic animal diseases, please visit CFIA's webpage tiny.cc/CFIA_Disease.

Lab News

Fish testing is expanding at the Animal Health Laboratory, University of Guelph

The Animal Health Laboratory (AHL - <https://www.uoguelph.ca/ahl/>) established a fish testing section in 2014, under the leadership of Dr. Hugh Cai. Since then, the AHL has have tested a wide range of samples covering disease diagnosis and surveillance, health checks, fish movement certification and fish export certification, and have reported several diseases. Recently, Dr. Heindrich Snyman joined the AHL in Kemptville. Dr. Snyman has 5 years experience in fish pathology and he will deal with histopathology for research fish and aquarium fish and provide case coordination. Dr. Nikki LePage will continue as the consulting fish pathologist with a focus on commercial aquaculture fish.

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