

# **Fish Health Section**





## FHS NEWS - January 2023

Fish Health Section website: https://units.fisheries.org/fhs/

Fish Health Section Facebook Site: https://facebook.com/FishHealthSectionAFS

Fish Health Section Twitter feed: @AFSFishHealth

Would you like your recent open-access publication featured on our Twitter feed? We would like to share one publication per week. Just fill out the form at: https://forms.gle/NWVXEFoGcdYME6gh8.

<u>Membership notice:</u> Starting in March 2023, only paid FHS members will receive newsletters and communications from the section. We are giving you several months notice to get your AFS & FHS membership up to date. Please join us and don't miss out on the connection to your peers. We will also be transitioning to a new listserv service so emails will be coming from <a href="mailto:fhs@afsmembers.simplelists.com">fhs@afsmembers.simplelists.com</a> soon. Keep an eye on those spam/junk mailboxes!

# **MEETINGS, WORKSHOPS AND COURSES**

Western Fish Disease Workshop June 6-8, 2023 Parksville, B.C.



We are very excited to be hosting the 62nd annual meeting at the Tigh-na-Mara Seaside Spa Resort from June 6-8, 2023 in Parksville, British Columbia. We hope to see you all in person at this event! More details will be forthcoming about accommodations, CE session, travel details, conference fees and more in the coming months. So please mark your calendars to join us on Vancouver Island, BC. Details will be posted on the AFS Fish Health Section website as they become available along with more email announcements through the AFS-FHS newsletter.



## 46<sup>th</sup> Eastern Fish Health Workshop March 27 TO 31, 2023 Atlantic Beach. NC

We are happy to announce that the 46th Annual Eastern Fish Health Workshop will return to the DoubleTree by Hilton Atlantic Beach Oceanfront in picturesque Atlantic Beach, North Carolina. The meeting will begin with a welcome reception on Monday, March 27, followed by an evening of interesting, bewildering, and bemusing case reports. There will be three full-day sessions (March 28-30), followed by a full-day continuing education course on Friday, March 31. Returning again this year, we invite all of you talented (and not so talented) singers and observers to enjoy Karaoke night! We will also hold a special networking event and dinner at the North Carolina Aquarium at Pine Knoll Shores—the perfect opportunity to catch up with friends and colleagues. The banquet and Best Student Presentation award will take place on Thursday night, when there is never a shortage of dancing—not to be missed.

### REGISTRATION (LINK TO COME)

The \$450 registration fee (U.S. dollars) includes a reception on Monday evening with heavy hors d'oeuvres, electronic workshop proceedings, refreshments at breaks, breakfasts and luncheons on each of the three full days of the workshop (Tuesday, Wednesday, Thursday), an evening event/dinner at the North Carolina Aquarium at Pine Knoll Shores, and a banquet dinner on Thursday night. Late registration will incur an additional fee of \$50 (U.S. dollars), for a total late registration cost of \$500.

#### CONTINUING EDUCATION OPPORTUNITY

On Friday, March 31, 2023, please join us for an exciting continuing education opportunity. This year's topic will be "Fish and Aquatic Invertebrate Welfare." The cost for CE is \$85 (U.S. dollars). Final CE credits are to be determined.

## 29<sup>th</sup> Aquaculture Drug Approval Coordination Workshop March 27, 2023 Atlantic Beach, NC

Registration is now open for the 29th Annual Aquaculture Drug Approval Coordination Workshop! Hosted by the United States Fish & Wildlife Service - Aquatic Animal Drug Approval Partnership Program, the workshop will take place in Atlantic Beach, NC on March 27th, 2023. We also have a weather-dependent welcome social planned for March 26th, 2023 for in-person attendees. For those that are unable to join us in-person this year, we are providing the option to tune in to the workshop virtually. The deadline for registration is Wednesday, March 22nd, 2023, and if you register for the in-person option before February 28th, 2023, we'll do our best to ensure you receive a workshop t-shirt! Please visit our 29th Annual Aquaculture Drug Approval Coordination Workshop Registration Webpage to get signed up!

The 29th Annual Aquaculture Drug Approval Coordination Workshop will be hosted back to back with the 46th Annual Eastern Fish Health Workshop (EFHW), which will take place from March 27th-31st, 2023. For more information about workshop lodging, travel, and presentations, please visit our 29th Annual Aquaculture Drug Approval Coordination Workshop Webpage.

#### JOBS/GRADUATE ASSISTANTSHIPS

**Aquatic Animal Health Veterinarian Nova Scotia Fisheries and Aquaculture**TRURO

Link: <a href="https://jobs.novascotia.ca/job/TRURO-Aquatic-Animal-Health-Veterinarian-%28Veterinarian-1-2%28A%29-%28B%29%29-NS-B2N-5G6/566722617/">https://jobs.novascotia.ca/job/TRURO-Aquatic-Animal-Health-Veterinarian-%28Veterinarian-1-2%28A%29-%28B%29%29-NS-B2N-5G6/566722617/</a>

Reporting to the Chief Aquatic Animal Health Veterinarian, the incumbent will provide a full spectrum of aquatic animal health veterinary service, including the provision of rapid and competent disease diagnosis, treatment and preventative management recommendations for aquatic animal populations.

The candidate will frequently consult with aquaculturists to respond to emergency and general population health issues. The successful applicant must apply provincial aquatic animal health policy and regulations and work closely with provincial and national officials to aid in development of health surveillance programs. They will conduct work relating to the provincial aquatic animal health surveillance programs requiring extensive travel throughout the province.

#### **PhD Position**

Atlantic Veterinary College – Department of Pathology & Microbiology Prince Edward Island

The project focuses on characterizing the nature of skin diseases affecting wild salmonid species in Prince Edward Island (PEI) rivers, and will involve field work, laboratory-based techniques, and pathologic investigations. Over the last five years, anecdotal observations have been made of unusually high numbers of salmonid fish (primarily brook and rainbow trout) with skin diseases in certain rivers on PEI. Affected fish have been reported during the summer and fall seasons by a variety of stakeholders including provincial biologists, watershed volunteers, and residents. Occasionally diseased trout have been submitted to the Canadian Wildlife Health Cooperative (CWHC) at the Atlantic Veterinary College (AVC) for necropsy investigation which invariably revealed extensive patches of grey cottony growths on the skin consistent with infection with an Oomycete species (sometimes referred to as "water mold"). These anecdotal reports of increased incidence of oomycosis in PEI salmonid species is concerning to fisherman and provincial stake holders. An increase in oomycosis in PEI salmonids could suggest exposure to environmental contaminants, increased physiological stressors, or changes in hydrological factors such as reduced flow rate and water temperature. To our knowledge, studies on the prevalence of oomycosis and factors impacting its occurrence in PEI rivers are lacking and will be essential to determine the significance of this disease to salmonid populations as well as identifying possible risk factors leading to increased incidence in some rivers as compared to others.

For further information, see .pdf.

## Research Associate - Fish Immunology

Mississippi State University

Starkville, MS

Link: <a href="https://explore.msujobs.msstate.edu/cw/en-us/job/505256/research-associate-iii-or-senior-research-associate">https://explore.msujobs.msstate.edu/cw/en-us/job/505256/research-associate-iii-or-senior-research-associate</a>

The College of Veterinary Medicine is seeking to hire a Research Associate III or Senior Research Associate to manage the fish immunology laboratory.

This individual will manage a fish immunology laboratory, assist in on-going grant projects, assist graduate students and maintain inventory and order supplies. Skills needed include the ability to perform immunology protocols including leukocyte isolation and enrichment, flow cytometry assays and cell culture and immunohistochemistry and statistical analyses. Also required are RNA and DNA isolation and purification, chromatin immunoprecipitation, genomic analyses and common

bacteriology protocols. This position also requires rearing and maintaining catfish and zebrafish needed for research, feeding fish and clean tanks as needed.
For more information, see .pdf.
Zebrafish Related Job Announcements <a href="https://wiki.zfin.org/display/jobs/Zebrafish-Related+Job+Announcements">https://wiki.zfin.org/display/jobs/Zebrafish-Related+Job+Announcements</a>
RESOURCES/NEWS
Aquatic Animal Drug Approval Partnership (AADAP) Updates are now available online (new link): <a href="https://www.fws.gov/library/collections/aquatic-animal-drug-approval-partnership-update">https://www.fws.gov/library/collections/aquatic-animal-drug-approval-partnership-update</a>

#### Research Associate (Fish Immunology)

The College of Veterinary Medicine is seeking to hire a Research Associate III or Senior Research Associate to manage the fish immunology laboratory.

This individual will manage a fish immunology laboratory, assist in on-going grant projects, assist graduate students and maintain inventory and order supplies. Skills needed include the ability to perform immunology protocols including leukocyte isolation and enrichment, flow cytometry assays and cell culture and immunohistochemistry and statistical analyses. Also required are RNA and DNA isolation and purification, chromatin immunoprecipitation, genomic analyses and common bacteriology protocols. This position also requires rearing and maintaining catfish and zebrafish needed for research, feeding fish and clean tanks as needed.

- 1. Beginning with a bachelor's degree:
- a. To begin at the Research Associate III level, one must have a bachelor's degree and a minimum of 6 years of relevant experience and the equivalent of a master's degree.
- 2. Beginning with a master's degree:
- a. To begin at the Research/Extension Associate III level, one must have a master's degree and a minimum of 3 years of experience.
- b. To begin at the Senior Research Associate level, one must have a master's degree and a minimum of 6 years of experience.
- 3. Beginning with a doctoral degree:
- a. A professional employee with a doctoral degree with 2 years of relevant experience and demonstrated competence can begin work at the Research Associate III level.
- b. To begin at the Senior Research Associate level, one must have a doctoral degree and a minimum of 3 years of relevant experience.

Rank and Salary will be commensurate with education and experience.

Applicants must apply online at <u>msujobs.msstate.edu</u>. Please include cover letter and resume along with names and addresses of three references.

MSU is an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, religion, ethnicity, sex (including pregnancy and gender identity), national origin, disability status, age, sexual orientation, genetic information, protected veteran status, or any other characteristic protected by law. We always welcome nominations and applications from women, members of any minority group, and others who share our passion for building a diverse community that reflects the diversity in our student population.

# PhD Program in Fish Health, 2023

Department of Pathology & Microbiology, Atlantic Veterinary College

The Department of Pathology & Microbiology at the Atlantic Veterinary College (AVC) is currently seeking a candidate to complete a four-year PhD research project in fish health. The position will provide a minimum stipend of \$40,000 Canadian /year with the possibility of supplementation through both internal and external awards and scholarships. Pending project funding, the successful candidate will ideally begin work in May 2023.

The project focuses on characterizing the nature of skin diseases affecting wild salmonid species in Prince Edward Island (PEI) rivers, and will involve field work, laboratory-based techniques, and pathologic investigations. Over the last five years, anecdotal observations have been made of unusually high numbers of salmonid fish (primarily brook and rainbow trout) with skin diseases in certain rivers on PEI. Affected fish have been reported during the summer and fall seasons by a variety of stakeholders including provincial biologists, watershed volunteers, and residents. Occasionally diseased trout have been submitted to the Canadian Wildlife Health Cooperative (CWHC) at the Atlantic Veterinary College (AVC) for necropsy investigation which invariably revealed extensive patches of grey cottony growths on the skin consistent with infection with an Oomycete species (sometimes referred to as "water mold"). These anecdotal reports of increased incidence of oomycosis in PEI salmonid species is concerning to fisherman and provincial stake holders. An increase in oomycosis in PEI salmonids could suggest exposure to environmental contaminants, increased physiological stressors, or changes in hydrological factors such as reduced flow rate and water temperature. To our knowledge, studies on the prevalence of oomycosis and factors impacting its occurrence in PEI rivers are lacking and will be essential to determine the significance of this disease to salmonid populations as well as identifying possible risk factors leading to increased incidence in some rivers as compared to others.

Minimum requirements for Canadian and International students include holding a MSc or DVM (or equivalent) credentials with excellent academic records. Candidates with a keen interest and / or experience in wildlife health and aquatic diseases, environmental conservation and fish biology are encouraged to apply. Prior research experience using riparian field techniques (ex: electrofishing, water sampling) and molecular and diagnostic procedures (ex: PCR, microbial culture) would be considered an asset. The successful candidate must meet the AVC graduate admission requirements.

Prior to submitting their application, applicants are encouraged to contact the faculty member listed below to gauge project compatibility and interest. Interested candidates should submit a letter of interest, curriculum vitae, official transcripts of university grades, and the names, titles, institutions, email addresses, and telephone numbers of three referees.

Faculty contact information and email for submissions are listed below:

Dr. Laura Bourque, Wildlife Pathologist
Canadian Wildlife Health Cooperative – Atlantic Region
Department of Pathology & Microbiology
Atlantic Veterinary College
University of Prince Edward Island
Charlottetown, PE, C1A 4P3 Canada

e-mail: lbourque@cwhc-rcsf.ca