

Fish Health Section



FHS NEWS – May 2022

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

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

Fish Health Section Twitter feed: @AFSFishHealth

AFS-FHS Call for Nominations – 2nd Call

Are you looking to be more involved in your professional community? Those that volunteer their time to serve on FHS committees gain valuable experience contributing to the greater fish health community, all while fostering new connections and expanding their involvement!

The Nominating and Balloting Committee is seeking nominees for the following position:

- Technical Standards Committee (3 year term)

More information on these positions can be found on the FHS website.

<https://units.fisheries.org/fhs/about/by-laws/>

All nominees must be Fish Health Section members in good standing. Nominees for the Professional Standards Committee must be a Certified Fish Health Inspector, a Certified Fish Pathologist, or a Doctor of Veterinary Medicine.

The nomination period has been extended to recruit nominees for this position. Please send all nominations to Jayde Ferguson, jayde.ferguson@alaska.gov

Don't miss out on this chance to serve our important fish health organization and contribute to fish disease diagnostics!

People of the Fish Health Section: Commemorating 50 years

Dear Fish Health Section members,

This month, I am pleased to feature two more of our members, both of whom are AFS-Certified Aquatic Animal Health Inspectors. Also, Tom Jones has volunteered to serve as our local host for the 2023 FHS annual meeting in Vermont.

Submitted by Gary Marty, FHS President (Gary.Marty@gov.bc.ca)

Hello from **Barbara Johnston!** I have been a Fish Health Section member since the early-1990s and an Aquatic Animal Health Inspector for most of that time. My journey into the world of fish health began while working at the Vermont Department of Fish and Wildlife Salisbury Fish Culture Station. Here, “hands-on” fish health learning opportunities, including non-lethal sampling methods for *Aeromonas salmonicida* with **Rocco Cipriano**, made me excited to learn more about fish health. In 1993, I moved into the fish health world full time when the State of Vermont opened its brand-new fish health laboratory in Waterbury. This lab’s main purpose was to provide inspection and diagnostic services to the State’s fish culture stations, which led me to become an Aquatic Animal Health Inspector. A highlight of my time was working with folks with the USFWS Northeast Fishery Center and the USFWS National Wild Fish Health Survey. In 2018, I “returned home” and joined the Maryland Department of Natural Resources. As the Cooperative Oxford Laboratory’s DNR Director, it has been a tremendous experience bringing my skills and knowledge from Vermont and applying them in new directions and species such as oysters and freshwater mussels.



Hello, **Tom Jones** coming at you from the beautiful State of Vermont. I was very fortunate to start off my career as a Fish Culturist with the Vermont Fish & Wildlife Department. In 1989, the USFWS’s “Fish Health Management Course” (Long Course) gave me a solid foundation of fish health principals. Skilled instructors/scientists such as **Rocco Cipriano**, **Emmit Shotts**, and many others were and continue to be inspiring. A special “shout-out” to a few of the many individuals that have helped me along the journey. Thank you **Tom Wiggins** and **Patricia Barbash**, both of whom advocated solid fish health management. I’ve been a member of the FHS since 2000. This membership has been invaluable for access to fish health professionals always willing to share information for the betterment of fish populations. In addition, the AFS Blue Book is vitally important to help prevent and manage serious fish pathogens. From a Fish Culture perspective, dealing with continuous fish mortality is agonising! The highpoint of my career is being able to work side-by-side with various professionals in the lab/hatchery/field to help prevent and help solve fish health problems. Additionally, participating in the Northeast Fish Health Committee has been awesome.



QA/QC Committee Update

QA/QC Committee has changed the deadline for Tier 1 and Tier 2 applications to September 1 for current and future applications. The hope is this adjustment allows most applicants to work through the busiest part of their field seasons and still have time to address applications. Please contact Wade Cavender wadecavender@utah.gov for more information.

Call for Content

Do you have a puzzling diagnostic case? Or do you have a new diagnostic finding that might interest others? How about newly published research? I am starting a new feature to highlight Fish Health Section Members’ current conundrums and accomplishments. Think about what you could submit and contact me at stacy.a.strickland@odfw.oregon.gov with your ideas. Limit to be around 1 page including graphs/pictures. Especially during these virtual meeting and conference times, let’s share our work and keep our peers up-to-date on what’s happening in the world of fish health!

Thanks in advance for your submissions!

Stacy Strickland, AFS-FHS Newsletter Editor

MEETINGS, WORKSHOPS AND COURSES

28th Annual Aquaculture Drug Approval Coordination Workshop

Bozeman, MT

July 25-28th, 2022

Registration for the 28th Annual Aquaculture Drug Approval Coordination Workshop is now OPEN!

Hosted by the USFWS AADAP Program, the 28th Annual Aquaculture Drug Approval Coordination Workshop will take place in Bozeman, MT from July 25th- 28th, 2022. For those that are unable to join us in-person this year, we are providing the option to tune in to the main portion of the Workshop remotely. This will be a non-interactive option, offered free of charge, and will not include access to side meetings or networking/team building events. Topics to be discussed include aquaculture drug approval research and the progress of associated efforts. For more information including a tentative Workshop schedule, lodging and registration options, and deadlines for potential Workshop presenters please visit our [Workshop webpage](#).

2022 Health and Colony Management of Laboratory Fish (short course)

September 18-23, 2022

MDI Biological Laboratory

Bar Harbor, Maine

<https://mdibl.org/course/health-and-colony-management-of-laboratory-fish-2022/>

See attached .pdf for more information.

9th International Symposium on Aquatic Animal Health (ISA AH)



Santiago, Chile

September 5-8, 2022

With the continued lifting of COVID related restrictions on travel and in-person meetings, the Abstract Submission Deadline and Early Bird Registration for [ISA AH9](#) has been extended to June 15th.

Follow this link to submit abstracts: [ABSTRACT SUBMISSION FORM](#)

For those unable to attend in-person, there is also a virtual option to attend and present (see below).

 <p>ISA AH 9th Sept, 2022 Santiago, Chile</p>	<p><i>"Enhancing Aquatic Animal Health towards One Health"</i></p>	 <p>UC Chile</p>
Registration before June 15th (full/student):	\$425/\$225	
Registration after June 15th (full/student):	\$550/\$350	
Virtual Registration:	\$150	

The following topics have already been submitted for consideration:

WAVMA/AAFV (Continuing Education Opportunity) Parasite Life Cycles
Zebrafish/Lab Animal Models Modeling in Aquatic Animal Health
Genomic Applications in Fish Health Emerging Diseases
Immune modulation in Fish Health Management Myxozoa
Microbiomes: Applications in Fish Health Climate Change: Impacts on Fish Health
Polymicrobial Infections Toxic Algae
Food Security

We look forward to hearing from you and hope to see you in Santiago!

The Organizing Committee

Fernando Mardones, School of Veterinary Medicine, Pontifical Catholic University, Chile
Marilia Salgado Caxito, School of Veterinary Medicine, São Paulo State University, Brazil
Romina Ramos Ríos, School of Veterinary Medicine, Pontifical Catholic University, Chile
Francisca Córdova Bührle, School of Veterinary Medicine, Pontifical Catholic University, Chile
Natalia Zimin-Veselkoff, School of Veterinary Medicine, Pontifical Catholic University, Chile
Esteban Soto, School of Veterinary Medicine, UC Davis, USA
Matt Griffin, College of Veterinary Medicine, Mississippi State University, USA.

JOBS/GRADUATE ASSISTANTSHIPS

Laboratory Manager – Aquatic Health Section

WSU Washington Animal Disease Diagnostic Laboratory (WADDL)
Pullman, WA

The Washington Animal Disease Diagnostic Laboratory (WADDL) within the Washington State University (WSU) College of Veterinary Medicine is offering an Aquatic Health Laboratory Manager position. This unique position is fully emersed in an American Association of Veterinary Laboratory Diagnosticians (AAVLD) accredited veterinary laboratory and supervises critical aquatic diagnostic and regulatory testing for both aquaculture (primarily salmon/ trout) producers and wild fish natural resource agencies throughout the Pacific Northwest and western United States. The laboratory manager is a key team member in an Aquatic Health Core that includes the Aquatic Health Section composed of 8.5 staff FTE (microbiologists and one laboratory technician) overseen by the position, three American College of Veterinary Pathologists (ACVP) boarded veterinarian pathologists focused on aquatic animal necropsy and histopathology, and faculty and staff within the WADDL bacteriology/ antimicrobial susceptibility testing and molecular diagnostics/ whole genome sequencing sections.

See attached .pdf for more information

Scientific Coordinator – Aquatic animal health

OIE World Organisation for Animal Health

Paris, France

Closes June 13, 2022

Link: <https://www.oie.int/en/job-offer/scientific-coordinator-aquatic-animal-health-standards-department-hq-paris-france/>

Research Scientist: Fish Health

Center for Aquaculture Technologies

Souris, Prince Edward Island, Canada

Closes June 22, 2022

Experienced, capable, and passionate about the aquaculture sector? We have an outstanding opportunity for a talented individual to provide leadership at The Center for Aquaculture Technologies (CAT), a private aquaculture innovation and research company who are seeking a **Research Scientist - Fish Health**, in Souris, PE. This is a full-time, permanent, position and will begin immediately with the successful candidate reporting to the Director of Fish Health. Our research team focuses on providing high quality contract R&D support and professional services to the global aquaculture industry.

The successful candidate will have a demonstrable history in running aquatic clinical studies, a strong quality mindset and be skilled in the science of GLP and GCP related requirements and operations. In addition, the candidate should be customer focused, a skilled communicator and have excellent writing skills. They must be independent, creative thinkers with the ability to multi-task in a fast-paced environment. This is an exciting opportunity to have a big impact in a key area of growth for our business, servicing both internal requirements, and an external customer base. We're looking for a pragmatic team player, who has a proven track record of delivery, unafraid to get their hands dirty and has the ambition to match our own ambitions.

- Study Director/ Principal Investigator for *in vivo* clinical and research trials
- Adherence to the principals of Good Laboratory Practice and Good Clinical Practice
- Writing of protocols and reports
- Preparation of regulatory submissions to support study execution
- Analyses of data and production of study reports
- Designing and ensuring scientific integrity of experiments

- Care and maintenance of research animals including husbandry and animal welfare checks.
- Development and revision of standard operating procedures.
- Timely completion of all projects with a high degree of quality and excellence.

Desired skills/experience/competencies:

- A minimum University degree including Aquaculture; Animal Biology; Microbiology; Parasitology; Virology; Biochemistry; Immunology; Cell Biology/Physiology. Masters or PhD seen as an advantage, but not essential
- Virology and/ or bacteriology experience an advantage
- Experience working in a laboratory setting including responsibility for documenting tasks.
- Ability to work as part of a team in compliance with facility standard operating procedures.
- Research experience in a strictly controlled regulatory environment will be considered an asset.
- Willingness to learn new skills and to perform routine tasks.
- Demonstrable organizational skills with the ability to multi-task.
- Self-motivated with a demonstrated ability to think creatively and solve problems.
- Fosters a positive work environment congruent with the company values and philosophy.
- *Commitment to CAT's Core Purpose: Dedication to and passion for CAT's core purpose: We are driven by the transformative potential of aquaculture. To feed the world, support the environment, and sustain the planet. Our purpose is to unlock this potential.*

CATC offers a competitive salary and benefits including group health care and retirement savings plans.

Closing date: 22 June 2022 or until the position is filled.

Please submit your application via our website at <https://aquatechcenter.com/career/study-director-fish-health/>

Only candidates selected for an interview will be contacted.

MS Position in Fish Health

Auburn University

Greensboro & Auburn, AL

Closes June 15, 2022

A Master of Science (M.S) position is available at Auburn University. The incoming student will be a Graduate Research Assistant under the guidance of Dr. Anita Kelly and Dr. Tim Bruce. Dr. Kelly's lab is located at the Alabama Fish Farming Center (AFFC) in Greensboro, AL, and Dr. Bruce's lab is located at Auburn University; both are within the School of Fisheries, Aquaculture and Aquatic Sciences (SFAAS).

This M.S. project will involve experimental field studies (~50%) and in vivo pathogen challenge trials (~50%). Specifically, this M.S. thesis research will examine improving fingerling catfish inventory control and survival upon stocking. Overall, the student is expected to conduct an independent research project followed by writing and defending a detailed thesis.

See attached .pdf for more information.

Fish Health & Welfare Veterinarian

Atlantic Sapphire Bluehouse Miami

Homestead, FL

Link: https://workforcenow.adp.com/mascsr/default/mdf/recruitment/recruitment.html?cid=8dfbf10f-7d57-4ac6-b66b-a605584d273f&ccld=19000101_000001&type=JS&lang=en_US

Zebrafish Related Job Announcements

<https://wiki.zfin.org/display/jobs/Zebrafish-Related+Job+Announcements>

RESOURCES/NEWS

Aquatic Animal Drug Approval Partnership (AADAP) Updates are now available online (new link): <https://www.fws.gov/library/collections/aquatic-animal-drug-approval-partnership-update>

AFS Job Board changes

Check out the new AFS [Career Center](#) with new and improved features for both job seekers and employers. Job hunters now benefit from improved search functions and email alerts. While employers can peruse candidate applications and submit jobs more quickly and easily through an online submission form with a credit card payment system. Individual AFS members can still advertise for assistants and internship positions at no charge. See the AFS member employer [pricing options](#).

EDITOR'S RANDOM PICS



Petechial hemorrhaging indicative of IHNV in juvenile sockeye salmon. Lake Billy Chinook, OR, April 2022.



Course Director

Michael Kent, Ph.D.
Oregon state University

Course Faculty

Rodman Getchell, Ph.D.
Cornell University

Christian Lawrence,
SmartLabs

Chris Whipps, Ph.D.
SUNY

Health and Colony Management of Laboratory Fish

Spectember 18-23, 2022

Health and Colony Management of Laboratory Fish is a short course to help colony managers, researchers, and veterinarians monitor and maintain the health of a colony of aquatic organisms. This course is broad and is appropriate for technical staff, students, postdocs, and investigators, as well as veterinary professionals and trainees.

The course consists of lecture, laboratory exercises and discussions. With a high faculty to student ratio, during the course there are ample opportunities for students to discuss unusual and/or unsolved diagnostic case experiences from their home laboratories as problem-solving exercises.

Topics covered include:

- Fish Disease: Pathogenesis, diagnostics, necropsy methods, treatment and control
- General Fish Biology: Anatomy, form and function
- General training: anatomy, histology and necropsy techniques
- Core management: breeding, nutrition, water quality, system design and biosecurity

Several species are discussed, but particular emphasis is given to zebrafish.

Apply Now! <https://mdibl.org/course/health-and-colony-management-of-laboratory-fish-2022/>



M.S. Position in Fish Health

A Master of Science (M.S) position is available at Auburn University. The incoming student will be a Graduate Research Assistant under the guidance of Dr. Anita Kelly and Dr. Tim Bruce. Dr. Kelly's lab is located at the Alabama Fish Farming Center (AFFC) in Greensboro, AL, and Dr. Bruce's lab is located at Auburn University; both are within the School of Fisheries, Aquaculture and Aquatic Sciences (SFAAS).

Responsibilities and tasks

This M.S. project will involve experimental field studies (~50%) and *in vivo* pathogen challenge trials (~50%). Specifically, this M.S. thesis research will examine improving fingerling catfish inventory control and survival upon stocking. Overall, the student is expected to conduct an independent research project followed by writing and defending a detailed thesis.

Qualifications

We are looking for a motivated candidate who has:

- Bachelor's degree in the Biological Sciences
- Knowledge of aquaculture, microbiology, or fish health
- Proven ability to carry out goal-oriented work and fluent with data management systems (i.e., Excel, Word, statistical analysis)
- Lab competencies in molecular biology (e.g., nucleic acid extraction, ELISA, gene expression (RT/qPCR), protein assays) and/or microbiology (e.g., culture, identification (PCR), microbe-related assays) would be considered an asset
- Fish husbandry experience will be an asset
- Must have a valid driver's license and a car
- Must be able to swim
- Ability to work in a team laboratory setting, as well as independently

Approval and Enrollment

This M.S. graduate appointment is subject to academic approval, and the candidate will be enrolled in the M.S. program within the School of Fisheries, Aquaculture and Aquatic Sciences (SFAAS). For information about our program, please see: <http://sfaas.auburn.edu/programs-of-study/graduatestudies/>

Salary and appointment terms

This project will be carried out at the E.W. Shell Fisheries Center, situated in Auburn, Alabama (<http://sfaas.auburn.edu/e-w-shell-fisheriescenter/>) and at the Alabama Fish Farming Center, located in the heart of the catfish aquaculture industry (<https://agriculture.auburn.edu/research/faas/alabama-fish-farming-center/>). The salary (\$18,000 + fringe benefits) and appointment terms (2 yrs.) are consistent with the current rules for MSc degree students; typically, a tuition waiver is provided. The student will begin coursework and research in **August 2022 (Fall Semester)**.

Application

Please submit your application no later than **15 June 2022**. To be given consideration, applications must be e-mailed to amk0105@auburn.edu as a **single .pdf file/packet** containing all materials. The .pdf packet must include:

- A cover letter motivating the application (background, interests, goals)
- Curriculum vitae
- Contact information (e-mail and phone numbers) for three references
- Unofficial transcripts and GRE scores (refer to: <https://www.ets.org/gre>)

Further information

For further information about the project and assistantship, contact Dr. Kelly at amk0105@auburn.edu. Information on Auburn University may be found here: <http://www.auburn.edu/main/welcome/index.php>

**Laboratory Manager:
Aquatic Health Section
Washington Animal Disease Diagnostic Laboratory (WADDL)**

Title: Aquatic Health Laboratory Manager

Location: The position is located on the Pullman Campus of Washington State University

Appointment: The appointment is permanent, 12-month, Administrative Professional (AP)

FTE: 1.0 Full-time equivalency

Salary: Commensurate with training and experience

Position Available: August 1, 2022

The Washington Animal Disease Diagnostic Laboratory (WADDL) within the Washington State University (WSU) College of Veterinary Medicine is offering an Aquatic Health Laboratory Manager position. This unique position is fully emersed in an American Association of Veterinary Laboratory Diagnosticians (AAVLD) accredited veterinary laboratory and supervises critical aquatic diagnostic and regulatory testing for both aquaculture (primarily salmon/ trout) producers and wild fish natural resource agencies throughout the Pacific Northwest and western United States. The laboratory manager is a key team member in an Aquatic Health Core that includes the Aquatic Health Section composed of 8.5 staff FTE (microbiologists and one laboratory technician) overseen by the position, three American College of Veterinary Pathologists (ACVP) boarded veterinarian pathologists focused on aquatic animal necropsy and histopathology, and faculty and staff within the WADDL bacteriology/ antimicrobial susceptibility testing and molecular diagnostics/ whole genome sequencing sections.

The primary responsibility of the manager is oversight of the Aquatic Health Section operations including scheduling and organizing regulatory and diagnostic sample submission and testing, staffing, laboratory procedures, budget management, quality assurance and short and long-term planning in close collaboration of the Aquatic Health Section head. The Aquatic Health Core is client focused, and the laboratory manager is expected to interact and support producers, veterinarians, and state, federal, and tribal regulatory officials regarding interstate and international movement of fish or fish gametes and the reduction of disease risk in production systems.

Growth opportunities for this position include expansion of the WADDL Aquatic Health Section testing to support aquaculture involving other freshwater and marine fish and non-fish species, food safety testing, and enhancing the understanding of pathogen transmission at the interface of wild aquatic populations and aquatic production facilities. The successful applicant is expected to have a strong background in fish health and diagnostic assays with an understanding of laboratory quality assurance.

WADDL is a fully accredited (AAVLD), full service veterinary diagnostic laboratory within College of Veterinary Medicine at Washington State University, Pullman, WA. Divisions of the laboratory include aquatic health, bacteriology, histopathology (including immunohistochemistry), molecular diagnostics, necropsy, parasitology, serology, toxicology and mammalian virology. The Aquatic Health Core performs over 44,000 assays per year including viral culture, bacteriology, ELISA, PCR testing, whole genome sequencing and necropsy/ histopathology.

Learn more about WADDL at: [WADDL Home \(wsu.edu\)](http://WADDL Home (wsu.edu)) and you can watch a video about the new WADDL laboratory at: Introducing the new WADDL - YouTube

Minimum Qualifications: Bachelor's degree in an appropriate related scientific discipline and four (4) years of progressively responsible professional experience involving fish health which has included at least two (2) years of supervisory experience or equivalent education and experience. Certification as an American Fisheries Society, Fish Health Inspector would be expected within 6 months of employment.

Preferred Qualifications: Advanced degree in microbiological/ biological sciences such as a DVM and/or PhD. Experience in an aquatic diagnostic laboratory. Familiarity with laboratory procedures and QA/QC required for official health inspection of aquatic animals. Interest in continuing education in the field of aquatic animal health and diagnostic assay development.

To apply please visit: [WSU Jobs \(myworkdayjobs.com\)](http://WSU Jobs (myworkdayjobs.com))

For more information please contact:

Kevin Snekvik, DVM, PhD, Diplomate ACVP
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Professor, Department of Veterinary Microbiology and Pathology
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Phone - (509) 335-6331