



Fish Health Section



The official link to the FHS website is: <https://units.fisheries.org/fhs/>

FHS NEWS

REMINDER!! - please bookmark the new FHS website! We still have not been able to take down the old FHS website which is outdated and inaccurate.

AFS Fish Health Section Facebook Site

The FHS now has a Facebook Page (<https://facebook.com/FishHealthSectionAFS>). Please 'Like' and follow us! Social media is expanding in the scientific arena, and we hope to expand our use for promoting meetings, sharing information, etc. If you have any questions, please feel free to contact Ben LaFrentz (benjamin.lafrentz@usda.gov).

FHS QA/QC Applications

The application period for the FHS Quality Assurance program for aquatic animal laboratories has opened for the calendar year 2020.

The application period for Tier 1 (prequalification) will be open until May 31, and Tier 2 (Recognition) will be open until June 30.

Currently twelve laboratories have completed the requirements for Tier 1 and the first application for Tier 2 is underway.

Additional details and support documents can be found on the Fish Health Section [website](#), or you can contact QA Committee chair Chris Wilson at 435-757-7493 or at <mailto:wetvet53@gmail.com>.

Additions to the Website in 2020

In this new year we've made several additions to the section website. We added a page for students under the "About" tab. There you can find scholarship info, awards, and a link to the Student and Early Career Member site. We've also uploaded archived quarterly newsletters from 1972 - 2007. These contain a good dose of fish health comics, grey literature, and self-effacing humor. I recommend the article "Fish Health Section: The First Five Years (1973 to 1977) and a Little Before That" in 34(3) 2006. It covers the inception of this section, almost five decades ago!

If you'd like any changes or additions to the website, please email me at americub@oregonstate.edu.

Cheers, Ben Americus

MEETINGS, WORKSHOPS AND COURSES

Fish Welfare Symposium

The Fish Health Section will be co-organizing a symposium, entitled "[Fish Welfare](#) (ID number: 9479)", with the Fish Culture Section at the American Fisheries Society 150th Anniversary Meeting in Columbus, Ohio August 29 - September 03, 2020.

Fish Welfare

Fish welfare is an aspect of fish husbandry that is often overlooked. Fish can sense and react to noxious stimuli, often displaying similar aversive responses to the ones we observe in mammals, including stress. Chronic and acute stress can cause anorexia, weaken the immune system, and induce other physiological abnormalities. Stressed fish may display abnormal behaviors or show abnormal swimming patterns. In the aquaculture of food fishes, pre-slaughter stress can cause changes in the texture and quality of fish fillets. In the ornamental fish industry and for fishes cultured and/or transported for stocking, shipping stress may be an important cause of mortality. Thus, fish welfare is not only a matter of ethical debates but a relevant issue for anyone that works with fish from fishermen and fish growers to researchers using fish as animal models. This symposium will aim to explore a variety of aspects of fish welfare, including: how welfare can be assessed, the use of naturally derived compounds to reduce shipping and handling stress, and the effects of fish welfare in the overall health of fish.

Organizers:

Jose Reyes-Tomassini (<mailto:jreyes-tomassini@francis.edu>), Jeff Heindel, Michelle L. "Mick" Walsh and Benjamin R. LaFrentz

Please consider yourself cordially invited to submit an abstract to participate in our organized symposia. The deadline for abstract submission: Friday, March 20, 2020. Please reach out to the symposium organizers via email if you have any questions or to confirm that you plan to be a part of the session. In addition, please reach out if you have any suggestions on folks we should reach out to who you think would be great additions to the above symposia – particularly those speakers based in Ohio.

The Fish Culture Section is also organizing two other symposia listed below that may be of interest:

- 9380 - *Getting It Right: A Guide To Successful Supplementation For Recreation, Restoration, and Recovery*
- 9391 - *Marking, Tagging, and Tracking* (with the Fisheries Management, Marine Fisheries, and FITS Fisheries Information & Technology)

Section/American Fisheries Society sections as well as the AIFRB - American Institute of Fishery Research Biologists)

All symposia for the conference can be viewed here:

https://afs.confex.com/afs/2020/webprogrampreliminary/SYMP.html?fbclid=IwAR30YFqABXMRn5x1uKJoj8xQvmyyOyIEqMgAbkGdv9_-N2exS-u-vbpOiUQ

Ben LaFrentz (benjamin.lafrentz@usda.gov)

CALL FOR PROPOSALS TO HOST THE 9th INTERNATIONAL SYMPOSIUM ON AQUATIC ANIMAL HEALTH SEPTEMBER 4 - 8, 2022

The American Fisheries Society's Fish Health Section is soliciting proposals to host the 9th International Symposium on Aquatic Animal Health (ISAAH-9), September 4 - 8, 2022. This stimulating gathering of international aquatic animal health professionals occurs every four years, most recently in Charlottetown, Prince Edward Island (Canada) with over 500 attendees representing 34 countries. Past participating professional societies have included the American Association of Fish Veterinarians, the World Aquatic Veterinary Medical Association, the European Association of Fish Pathologists, the Japanese Society of Fish Pathology, and the International Association for Aquatic Animal Medicine, and sponsors have encompassed industry supporters, academic institutions, and government agencies.

Organizations and individuals interested in submitting a bid to host ISAAH-9 are welcome to contact Gary Marty at <mailto:Gary.Marty@gov.bc.ca> before June 1, 2020. For more details, please see attached announcement.

61st Western Fish Disease Workshop Hood River, Oregon June 15-18, 2020

Best Western Plus Hood River Inn Conference Center

<http://www.hoodriverinn.com/>

1108 East Marina Way, Hood River, OR 97031

TOLL FREE: 800-828-7873

PHONE: 541-386-2200

Workshop and CE Session: The two day Western Fish Disease Workshop will cover all aspects of the health of wild and cultured fish and shellfish. Following the conclusion of the Western Fish Disease Workshop a continuing education session will occur, TBD. Details for both the workshops and CE session will be updated shortly.

Tentative schedule:

Monday June 15

Evening: Welcome, Registration, Clinical Conundrums
Tuesday June 16
Morning: General Session
Afternoon: General Session
Evening: Poster Session
Wednesday June 17
Morning: General Session
Afternoon: General Session
Evening: Banquet
Thursday June 18
Morning and Afternoon: CE Session

Travel: Flights into PDX Portland International Airport. Hood River is 1 hour East of PDX Airport and there are a variety of transportation options available. Information can be found on the AFS Website at <https://units.fisheries.org/fhs/wfdw/>

**AFS-FHS and Northeast Fish Health Committee Joint Meeting
June 22-26, 2020
Burlington, VT**

“Applying Research: Bridging the Gap Between Aquatic Animal Health Research and Inspections”

The 2020 Annual Meeting of the AFS Fish Health Section will be held jointly with the Northeast Fish Health Committee (NEFHC) for the first time on June 22-26, 2020 in Burlington, VT! The theme for the meeting is "Applying Research: Bridging the Gap Between Aquatic Animal Health Research and Inspections". The venue for the meeting is the [Hilton Burlington Lake Champlain](#) which has newly renovated guest rooms and meeting spaces. The Hilton is only one block from beautiful Lake Champlain and only three blocks from the Church Street Marketplace - Vermont's award-winning open-air mall featuring over 100 places to shop and dine.

The FHS looks forward to co-hosting this meeting with the NEFHC and provides a tremendous opportunity for learning more about fish health research and topics unique to the Northeast US and provides an opportunity to attract our Canadian colleagues to the meeting.

The meeting will begin on June 22-23 with the Northeast Fish Health Committee Meeting, a Continuing Education Course will be provided on June 23, and the FHS meeting will occur on June 24-26. We are planning at least two special sessions: (1) "Fish Health Research/Topics in the Northeast US, and (2) "Current Status of Fish Health Regulations and Testing Criteria for Aquatic Animal Movements in the Northeastern US & Canada". Additionally, a half to full day of Continuing Education is being planned for June 23rd and more details will be provided in the future.

For updates and more information please see the first [announcement](#), check the Meeting [Website](#) and like us on [Facebook](#)!

Health and Colony Management of Laboratory Fish

August 9-14, 2020

MDI Biological Laboratory

Bar Harbor, Maine

Link: <https://mdibl.org/course/health-and-colony-management-of-laboratory-fish-2020/>

This is a short course for veterinarians, technicians, trainees, principal investigators, and core managers who utilize or plan to utilize fish models in laboratory research. The course is directed by Michael Kent, Ph.D., College of Veterinary Medicine, Oregon State University. Course faculty include: Rodman G. Getchell, Ph.D., Cornell College of Veterinary Medicine; Christian Lawrence, M.S., Children's Hospital Boston; and Jan Spitsbergen, DVM, Ph.D., DACVP, Department of Microbiology, Oregon State University.

The course is offered at the MDI Biological Laboratory, located in Bar Harbor, Maine on Mount Desert Island, the home of Acadia National Park. It is intended to help laboratory technicians, researchers, and veterinarians monitor and maintain the health of a colony of aquatic organisms, focusing on zebrafish. This course is appropriate for veterinarians and veterinary trainees, as well as technical staff, students, postdocs, and investigators.

The course consists of lectures, laboratory exercises with a high faculty to student ratio, and discussion. 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.

This course is now approved by the AAVSB RACE (American Association of Veterinary State Boards Registry of Approved Continuing Education) to offer a total of *33 CE* (Continuing Education) Credits to veterinarians and veterinary technicians. RACE approval is for the subject matter categories of both category 1 (Scientific) and 3 (Non-Scientific-Practice Management/Professional Development).

For more information, visit the MDI Biological Laboratory course page <https://mdibl.org/education/courses/> or email the Education Office at education@mdibl.org. See attached pdf for flyer.

JOBS/GRADUATE ASSISTANTSHIPS

M. S. Extension Associate (Fish Health) – 2 positions

University of Arkansas at Pine Bluff, Dept. of Aquaculture and Fisheries

Lonoke, Arkansas

Open until filled

The Aquaculture/Fisheries Center at the University of Arkansas at Pine Bluff (UAPB) has an opening for an Extension Associate (Fish Health) in the UAPB Fish Health Certification Laboratory in Lonoke, Arkansas. The aquaculture industry in Arkansas is the second largest in the United States and is one of the most diverse. Commercial fish farms in Arkansas raise catfish, baitfish, goldfish, sportfish fingerlings, hybrid striped bass, largemouth bass raised as food fish, and fish sold as bio-control agents.

The Extension Research Associate works under the supervision of the Director of the Fish Health Inspection Laboratory. Job duties include: Provide vital laboratory support for inspections following APHIS approved protocols and field support for research and analyze the data and report writing. Schedules inspections for certification, maintains laboratory inventory, supplies and operations. Perform the appropriate diagnostic tests, documentation of results, maintain cell cultures, conduct PCR analyses and maintain associated equipment. Maintain case records for inspection/ diagnostic and water quality cases received in the lab. Preference will be given to applicants who have worked in an APHIS approved laboratory.

See attached pdf for more details and application instructions.

Post-Doctoral Fellowship
Mississippi State University
Stoneville, MS

The Thad Cochran National Warmwater Aquaculture Center, Mississippi State University invites applications for a post-doctoral fellow to work at Stoneville, MS. This is a 2-year, full-time job investigating the epidemiology of *Edwardsiella piscicida* -septicemia in hybrid catfish and other commercially important fish species in the Southern U.S. Initial appointment is for two years and renewal depends on performance and funding availability.

See attached pdf for details.

Graduate Research Assistantship – Masters, Shellfish Aquaculture – Vibrio Control/Disinfection
Delaware State University

A Master's level assistantship is available starting in Spring 2020, and will be filled as soon as a suitable candidate is identified. This assistantship is being funded through the National Oceanic and Atmospheric Administration (NOAA) Educational Partnership Program (EPP) with Minority Serving Institution and comes with a \$21,000/year stipend plus tuition assistance. The selected candidate will also participate in a NOAA Experiential Research & Training Opportunities (NERTO), a 12-week internship at a cooperating NOAA lab during their graduate training.

DESCRIPTION

Shellfish farming is America's fastest-growing marine aquaculture sector. However, growers and regulators are experiencing more stringent post-harvest treatment requirements because of increased public health concerns about illness related to consuming raw shellfish. The most dangerous pathogens in domestic bivalve shellfish are *Vibrio parahaemolyticus* and *V. vulnificus*, and are an increasing concern both for human health and the sustainability of a rapidly expanding half-shell industry. DSU is working with a number of partners including the DE Sea Grant, DE Department of Natural Resources and Environmental Control, private shellfish growers, and commercial technology companies to develop practical, on-farm solutions. With the recent initiation of shellfish aquaculture in Delaware's Inland Bays and growing concerns over vibrios, the selected candidate will explore various vibrio control strategies, both pre- and post-harvest, for possible implementation in DE, the region and nationally.

QUALIFICATIONS

Minimum: Bachelor's degree in aquaculture, fisheries, animal husbandry, biology, microbiology or a related field with a cumulative GPA of 2.8 or higher, and GRE scores. Students with strong quantitative and writing skills are encouraged to apply. U.S. citizenship is required.

APPLICATION

Position is open until filled. To be considered, applicants must submit a personal statement that includes a description of their research interests and prior experiences, a CV, an unofficial copy of their undergraduate transcripts and GRE scores, and three letters of recommendation directly to Dennis McIntosh. A single PDF file containing the requested information in preferred.

Dr. Dennis McIntosh, Professor and Extension Specialist - Aquaculture
Department of Agriculture & Natural Resources
Delaware State University
Phone: (302) 857-6456
Email: <mailto:dmcintosh@desu.edu>

Zebrafish Related Job Announcements

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

RESOURCES/NEWS

AFS Book(s) on Aquatic Animal Health – Solicitation from Parent Society

We would like to offer your Section the opportunity to help steer the development of new books in your field. At the February 2020 mid-year Governing Board meeting in Little Rock, a report from the AFS Special Committee on Books was presented. One of the recommendations of the Special Committee was to request each AFS section to engage in an assessment of book subject needs and opportunities, including

identification of possible authors/organizers. This recommendation was put forward as a proposed motion, and was passed by the Governing Board.

Please suggest possible topics to be considered as future AFS books, along with names of possible authors. Topics should be limited to the disciplines represented by your Section. Suggestions for future book subjects and authors can be submitted at: <https://fisheries.org/section-book-ideas/> (password is: books).

Deadline for submitting suggestions is September 16, 2020.

Thanks for your help!

Scott Bonar
President

Aaron Lerner
Director of Publications

Doug Austen
Executive Director

Stacy A Strickland

From: US Fish and Wildlife Service Fisheries <USFWSFisheries@public.govdelivery.com>
Sent: Friday, March 20, 2020 5:02 PM
To: stacy.a.strickland@state.or.us
Subject: March 2020 AADAP Update



U.S. Fish & Wildlife Service

Aquatic Animal Drug Approval Partnership, AADAP Update
A Branch of the Fish and Aquatic Conservation Program



The AADAP Update provides recent news and updates from the Aquatic Animal Drug Approval Partnership program and its partners. For questions or to offer feedback, email [Julie Schroeter](mailto:Julie.Schroeter). For more about the AADAP Program, please [visit our web page](#). (Photo/NPS)

Well Wishes During This Difficult Time

We hope everyone stays safe and healthy during the COVID-19 pandemic! The entire AADAP staff is currently teleworking, so if you need to contact us, it's best to reach out via email. Thank you!

GnRH IIa announcement

AADAP recently received FDA authorization to open the GnRH IIa INAD #13-345 for participation. GnRH IIa is a spawning hormone to aid in the spawning of female ictalurid catfish. AquaTactics Fish Health is the manufacturer for this INAD. The web fact page for GnRH IIa is under construction; however, the INAD is ready for enrollment through the online database. Once a participant enrolls in the INAD a pdf copy of the protocol will be emailed to the monitor and investigator until the fact sheet is available. Please contact bonnie_johnson@fws.gov for more information.

Approved Aquaculture Drug Fact of the Month:

Did you know Hydrogen Peroxide is approved for use in certain fish species for a variety of diseases? It is labeled for the control of mortality due to 1) bacterial gill disease in freshwater-reared salmonids, 2) external columnaris disease in freshwater-reared coolwater finfish and channel catfish, and 3) saprolegniasis in freshwater-reared finfish eggs. Please check AADAP's [Resources Page](#) for recent drug approval updates. For more information on dosing and limitations, please see AADAP's [Quick Desk Reference Guide to Approved Drugs for Use in Aquaculture](#).

2020 AADAP Workshop:

The 26th Annual USFWS Aquaculture Drug Approval Coordination Workshop will be held in Bozeman, MT on July 27th-30th, 2020. More information including the workshop schedule, lodging, registration, and presentation details will be available soon. We hope to see you at the workshop this summer!

Please submit all reasonable accommodation requests for this meeting by July 13th, 2020.

The U.S. Fish and Wildlife Service is committed to providing access for everyone. Please direct all requests for sign language interpreting services, CART, or other accommodation needs to Julie Schroeter. If you need alternative formats or services because of a disability or have any questions concerning a reasonable accommodation, please contact Julie Schroeter at (406) 994-9910 or julie_schroeter@fws.gov.

[Fish and Aquatic Conservation](#)
Contact us: fisheries@fws.gov



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University of Arkansas at Pine Bluff

Department of Aquaculture and Fisheries

M.S. Extension Associate -Fish Health (2 positions) – Lonoke, Arkansas

Description

The Aquaculture/Fisheries Center at the University of Arkansas at Pine Bluff (UAPB) has an opening for an Extension Associate (Fish Health) in the UAPB Fish Health Certification Laboratory in Lonoke, Arkansas. The aquaculture industry in Arkansas is the second largest in the United States and is one of the most diverse. Commercial fish farms in Arkansas raise catfish, baitfish, goldfish, sportfish fingerlings, hybrid striped bass, largemouth bass raised as food fish, and fish sold as bio-control agents.

Duties and Responsibilities: The Extension Research Associate works under the supervision of the Director of the Fish Health Inspection Laboratory. Job duties include: Provide vital laboratory support for inspections following APHIS approved protocols and field support for research and analyze the data and report writing. Schedules inspections for certification, maintains laboratory inventory, supplies and operations. Perform the appropriate diagnostic tests, documentation of results, maintain cell cultures, conduct PCR analyses and maintain associated equipment. Maintain case records for inspection/diagnostic and water quality cases received in the lab. Preference will be given to applicants who have worked in an APHIS approved laboratory.

Qualifications

M.S. in biotechnology, microbiology, fish health, or a similar field. Two years of experience in a laboratory associated with cell culture and molecular biology and field work is preferred. Must have superior organizational skills with attention to detail, the ability to perform multiple tasks simultaneously and accurately, and be able to adjust rapidly to shifting priorities and variable workloads. Must have a track record of reliability and be able to work independently in a clean room environment using good aseptic technique. Applicant must be willing and able to work a flexible work schedule to meet laboratory demands including evenings and some weekends. Ability to work independently and as part of a team. Good oral and written communication skills are a must. Applicant must possess AFS-FHS certification as an Aquatic Animal Health Inspector, or obtain certification as soon as possible (within 18 months of hire). For details visit: <https://units.fisheries.org/fhs/certification/aquatic-animal-health-inspector/>

Salary/Fringe benefits: Commensurate with qualifications and experience. Group health, life and disability insurance; retirement; social security; workers compensation, paid holidays, vacation and sick leave, tuition discounts for employee, spouse and dependent children.

To Apply: A letter of application, resume, official transcripts, and 3 letters of reference should be sent to: Search Committee for Extension Research Associate (Fish Health - Lonoke)

c/o Human Resources Department University of Arkansas at Pine Bluff 1200 N.
University Drive Mail Slot 4942 Pine Bluff, AR 71601
E-mail: uapbjobs@uapb.edu; renukdasn@uapb.edu

Contact Person

Dr. Nilima Renukdas, renukdasn@uapb.edu

Review of application will begin immediately and will remain open until suitable candidate is found.



MISSISSIPPI STATE
UNIVERSITY™

**THAD COCHRAN NATIONAL
WARMWATER AQUACULTURE CENTER**
Delta Research and Extension Center
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Fax (662) 686-3320

Post-doctoral Fellowship Announcement

Job Description: The Thad Cochran National Warmwater Aquaculture Center, Mississippi State University invites applications for a post-doctoral fellow to work at Stoneville, MS. This is a 2-year, full-time job investigating the epidemiology of *Edwardsiella piscicida* -septicemia in hybrid catfish and other commercially important fish species in the Southern U.S. Initial appointment is for two years and renewal depends on performance and funding availability.

Responsibilities: The selected candidate will work on disease surveillance of *E. piscicida* in the Southeastern U.S., phenotypic, serological, molecular and pathological characterization of *E. piscicida* and *E. ictaluri*, evaluation of the cross-protective efficiency of a live, attenuated *E. ictaluri* vaccine and exploration of the economic impacts of Edwardsiellosis in channel and hybrid catfish production. Research involves both laboratory and field work. Duties include conducting experiments to achieve goals mentioned above, data collection, analysis, traveling to meet with collaborators to collect data/samples, processing samples for molecular analyses, preparation of reports, presentations, manuscripts, and grant proposals. The fellow will coordinate research trials with collaborators, use bioinformatics pipelines to analyze omics-data generated on bacterial isolates, maintain laboratory records on experimental protocols and research findings, and provide assistance on other projects suggested by the PI.

Minimum Qualifications: Recent PhD in microbiology, molecular biology, biology, immunology or a related field with relevance to fish diseases. Candidate should have knowledge and hands-on research expertise in microbiology, molecular biology, and immunology techniques as well as experience in generation, analysis and management of omics-data. Candidate should have experience in fish handling and infection trials. Strong organizational, analytical, writing skills and ability to implement research strategies to efficiently achieve project goals are necessary.

Preferred Qualifications: Research experience in microbiology, molecular biology or immunology and evidence of scientific productivity (conference presentations, publications, grants received etc.). Experience in bioinformatics, animal cell culture, and aquatic vaccine research will be considered a plus. Strong foundation in nucleic acid and protein-based assays, bacterial infection trials, and knowledge in statistical analyses in the context of biological systems are desired. The individual must have a valid driver's license.

Salary: Commensurate with experience and includes benefits.

To Apply: Please send CV, cover letter describing interest in the position, and two letters of recommendation to Dr. Suja Aarattuthodiyil (bsa122@msstate.edu). Applications will be considered till a suitable candidate is identified. MSU is an equal opportunity employer.