



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 We still have not been able to take down the old FHS website which is outdated and inaccurate.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 Positions – Call for Nominations - Nominations are still needed for the Professional Standards committee, and the Nominating and Balloting committee!!!!

Please send all nominations to Hossam Abdelhamed, abdelhamed@cvm.msstate.edu.

See the flyer attached to the email for this newsletter.

MEETINGS, WORKSHOPS AND COURSES

2019 FHS Meeting and Western Fish Disease Workshop
June 17-20, 2019
Ogden, Utah, USA

Final call for papers!

Abstract submission and registration deadline is quickly approaching.
Register by May 20th before registration costs increase!

Student presentations

To help students prepare for their presentations, the Awards Committee has provided the judging criteria for student posters and presentations. See the document attached to this newsletter.

The 2019 joint AFS Fish Health Section Annual Meeting and the 60th Western Fish Disease Workshop will be held at the Hampton Inn and Eccles Conference Center located in Ogden, Utah. A welcoming social with light appetizers and cash bar will be held on the evening of Monday June 17th. This gathering will also kick off the meeting with a fun and casual session of interesting case studies. The first day's general session will begin on Tuesday morning and will end with an afternoon poster session. Following this event, participants will be given the opportunity to explore restaurants, brew pubs, hiking trails and fishing opportunities in and around the Ogden area. The general session will continue through Wednesday afternoon and will end that evening with the meeting banquet. A full day of Continuing Education designed around the complexity of flavobacteria and the importance of integrated fish health management will be held on Thursday June 20th (see full CE description below).

- The first night's social and interesting case study session will be held at the Union Grill beginning at 5pm. The Grill is just a short walk from the conference center & hotel. The cash bar will be open and appetizers will be provided. Don't

miss this fun opportunity to mingle with friends and kick the meeting week off right! If you are interested in sharing a peculiar case, please fill out a submission form (see below, title only needed for this session - no abstracts) by May 20th.

- Make sure to bring your hiking boots and/or your fishing gear! We are planning organized events for both activities on the evening of Tuesday June 18th.
- Check out the tentative schedule, attached below!
- We plan on having a jobs board displayed during the meeting, if you have any positions to distribute bring them along or email them to (CathrynSmith@utah.gov).
- FYI – The continuing education course has officially been **RACE approved**. We are still waiting for final review and approval for eligible RACE credits, but we should have this information very soon.

Meeting Registration:

General Registration, until May 20th	\$285
Late Registration, after May 20th	\$320
Continuing Education Session	\$70
Additional Banquet Ticket	\$45
Additional Shirt (one is included in general registration cost)	\$20

Register online using TicketBud.

<https://ticketbud.com/events/7c11cd78-44de-11e9-a513-42010a717005>

Alternatively, you may fill out a registration form (see flyer) and send it with a check, made out to AFS Fish Health Section, to Cathryn Smith, 1465 West 200 North, Logan UT 84321.

Continuing Education: A full day of Continuing Education (**RACE approved, number of credits pending**) will be held on Thursday June 20th. This session has been designed to provide a broad overview of flavobacteria and the overall benefits associated with implementing an integrated fish health management program for many fish pathogens. The program will begin with an overview of the genus *Flavobacterium* and will narrow its focus to cold water (*Flavobacterium psychrophilum*) and cool/warm water (*Flavobacterium columnare*) fish pathogens. The morning's session will end with a summary of the development and use of resistant fish strains to manage flavobacterial diseases. The afternoon session will then transition into case examples of integrated fish health management programs across the United States. The day will end with a discussion of bridging the gap between fish health professionals, hatchery employees, administrative personnel, research teams and other partners to build a better collaborative fish health program. Pending final CE committee approval, this session will provide 6 RACE CE credits.

Call for Papers: **Abstract/Title deadline May 20, 2019.** Individuals interested in presenting an oral presentation or poster can submit a complete abstract using the guidelines and submission form provided below. If you are interested in presenting a

case study during the first evening's social, please submit a simple title using the abstract/title submission form below. **The deadline for submitting abstracts and/or case titles is May 20, 2019.**

Lodging: Hotel room deadline May 31, 2019. A block of rooms is being held at the Hampton Inn and Suites and includes an early bird special of \$94/room for the first 25 rooms reserved. All additional rooms are available for \$154/night. **The hotel room deadline is May 31, 2019.**

Additional accommodations at surrounding hotels will be made available as general registration and attendance is assessed.

If you are looking for a roommate for the conference, please feel free to post on our Facebook page and connect with others there!

Location: Hampton Inn and Suites and Ogden Eccles Conference Center, Ogden, Utah

The Hampton Inn is conveniently located next door to the Ogden Eccles Conference Center.

Address: 2401 Washington Blvd, Ogden UT 84401

Phone: 801-394-9400

Website: <http://www.hamptoninnogden.com/>

Rooms will be held under "Western Fish Disease Workshop"

Room block cut off date: May 31, 2019

Directions/Travel: Ogden, Utah is approximately one hour's drive away from the Salt Lake International Airport. The following recommendations for public transportation or the Express Shuttle offer two convenient travel options. Please view the "Visit Ogden" website (<https://www.visitogden.com/trip-planner/getting-here/>) to view all other travel options.

Two easy and recommended options include:

Option #1: Public Transportation - This option requires a transfer between two train lines, the TRAX and the FrontRunner.

- The TRAX train operates from 5:38 am to 11:23 pm every week day (runs every 15 mins).
- TRAX tickets can be purchased (\$2.50 one-way) at an automated ticket booth as you exit the airport at Terminal 1.
- Take the TRAX Green Line 704 (outside Terminal 1 at the SLC International Airport) and exit the train at North Temple Station (5th stop after boarding).
- Walk down the stairs to purchase tickets (\$5.50 one-way) at the automated ticket booth and board the Northbound 750 FrontRunner (runs from 4:31 am to 11:31 pm every 30 mins).
- Exit the train at Ogden Station (6th stop after boarding).
- The Hampton Inn and Suites is located ~0.7 miles from Ogden Station.

- Travelers can take the short final walk or a quick Uber ride to the hotel. For more information and schedules, please visit the [TRAX Green Line](#) and [FrontRunner](#) websites.

Option #2: Express Shuttle - A reservation for a shuttle (\$38.00 one-way) can be made in advance through the Express Shuttle website.

- The Express Shuttle offers door to door service that includes a pick-up from the Salt Lake Airport and drop-off at the Hampton Inn and Suites located in Ogden.
- Visit the Express Shuttle website (<https://expressshuttleutah.com/>) to conveniently book a round-trip prior to arriving at the Salt Lake Airport.
- When you arrive at the Salt Lake Airport, personnel at the Express Shuttle kiosk (located near the “Ground Transportation Desk”) will guide you to your final pick-up location.

Student Travel Awards: The AFS-FHS is pleased to announce that the Snieszko Student Travel Awards will be available to help students with the cost of attending the 2019 AFS Fish Health Section Annual Meeting and 60th Annual Western Fish Disease Workshop. We anticipate 5 separate awards of up to \$1000 to allow students (undergraduates, graduates, or veterinary) post-docs or residents to give an oral or poster presentation at the conference. For more details, including application requirements, please refer to <https://units.fisheries.org/fhs/about/awards/>. Please direct all inquiries and submissions to the Chair of the FHS Awards Committee at fhsstine@gmail.com. **Application deadline April 29, 2019**

For additional information please contact: Wade Cavender (435-720-2784) or Cristi Swan (435-760-4300), and see the flyer attached to the email for this newsletter.

2019 SALMON DISEASE WORKSHOP

July 8-19, 2019

Corvallis, Oregon

This workshop is designed for professionals working in the fish health field and will emphasize recent advances and developments in our understanding of salmonid diseases. The workshop is limited to 20 participants on a first come, first serve basis.

Topics:

- Current immunological and molecular techniques
- Sampling for pathogens in wild populations
- New and emerging fish pathogens
- Cell culture techniques, including maintenance of cultures and viral identification
- Histopathology associated with salmonid diseases
- Current status of important viral, bacterial, and parasitic pathogens
- Salmonid disease treatment practices in Pacific Northwest hatcheries

- Epidemiology

Information and links to registration are posted on this website:

<http://microbiology.science.oregonstate.edu/salmon-disease-workshop>

For more information see the attached flyer or contact Dr. Jerri Bartholomew at

bartholj@science.oregonstate.edu

Health and Colony Management of Laboratory Fish

August 11-16, 2019

MDI Biological Laboratory

Bar Harbor, Maine

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 see the course webpage: <https://mdibl.org/course/health-and-colony-management-of-laboratory-fish-2019/>, or the flyer attached to the email for this newsletter.

Or visit the MDI Biological Laboratory course page <<https://mdibl.org/education/courses/>> or email the Education Office at education@mdibl.org.

JOBS/GRADUATE ASSISTANTSHIPS

HSSL10-10433-Aquatic Animal Health Inspector

Wildlife Forensic and Fish Health Laboratory
Wyoming Game and Fish Commission
Laramie, Wyoming

SALARY: \$4,506.00 - \$5,632.00 Monthly

LOCATION: Laramie

OPENING DATE: 04/23/19

CLOSING DATE: 05/22/19 11:59 PM

DESCRIPTION AND FUNCTIONS

GENERAL DESCRIPTION: The Aquatic Animal Health Inspector works in the fish health section of the Wildlife Forensic and Fish Health Laboratory. The incumbent is required to have the ability to become an Aquatic Animal Health Inspector- a trained individual who possesses the technical skills, knowledge and experience to conduct legally mandated annual veterinary fish health inspections of state and private hatcheries for specific aquatic animal pathogens regulated by the Wyoming Game and Fish Commission in order to preserve and protect Wyoming sport fisheries.

Human Resource Contact: Kate 307-777-4507

ESSENTIAL FUNCTIONS: The listed functions are illustrative only and are not intended to describe every function which may be performed in the job level.

- Conducts a number of legally mandated annual fish health inspections (AFHI) of cultured and free-ranging fish populations to meet the needs of the Fish culture and Fish Management sections of the Wyoming Game and Fish Department, and issues health certifications in accordance with standard laboratory procedures, the Department's Chapter X requirements and the guidelines in the American Fisheries Society Bluebook.
- Travels extensively to state and private aquaculture facilities to collect specific fish tissues and fluids as determined by the AFS Blue Book and the Department's Chapter X requirements.
- Returns said samples to the laboratory and using specialized laboratory equipment processes the samples from the inspections. This includes, but is not limited to, isolation and identification of numerous bacteria, viruses, and parasites

from the appropriate sample type.

- Maintains cell cultures and bacterial cultures necessary for pathogen identification.
- Assists Fish Health Program Coordinator in performing necropsies on cultured or wild fish to determine the presence or absence of pathogens or disease.
- Includes use of digital photography, preparation of bacterial media, and use of surgical tools. Includes report preparation and communication with hatchery personnel, biologists, or concerned fisherman.
- Extracts appropriate sample type and analyzes using the polymerase chain reaction (PCR) for different disease causing organisms.
- Bring on-line new PCR tests as determined by the Fish Health Program Coordinator or the Laboratory Director.
- Acquaints self with aquatic invasive species from the state of Wyoming.

QUALIFICATIONS

PREFERENCES: Preference will be given to those eligible or already have an American Fisheries Society/Fish Health Section (AFS/FHS) Aquatic Animal Health Inspector certification. Must have a valid driver's license.

KNOWLEDGE:

- Knowledge of molecular biology.
- Knowledge of culture techniques.
- Competency in bacterial identification methods, fish parasite identification, and cell culture maintenance and virology techniques.
- Competency in oral and written communication.
- Working knowledge of the use of DNA technology in general and specifically for DNA extraction and fish pathogen identification.
- Competency in the use of chemicals and hazardous materials.
- Working knowledge of Wyoming Chapter X regulations, the Laboratory Fish Health Procedure Manual, and the American Fisheries society Bluebook.

MINIMUM QUALIFICATIONS:

Education:

Bachelor's Degree (typically in Science)

Experience:

1-2 years of progressive work experience (typically in a medical or environmental laboratory) with acquired knowledge at the level of a Laboratory Scientist II

OR

Education & Experience Substitution:

4-6 years of progressive work experience (typically in a medical or environmental laboratory) with acquired knowledge at the level of a Laboratory Scientist II

Certificates, Licenses, Registrations:

None

NECESSARY SPECIAL REQUIREMENTS

PHYSICAL WORKING CONDITIONS:

- Must be eligible for and receive an American Fisheries Society/Fish Health Section (AFS/FHS) Aquatic Animal Health Inspector certification within two years of employment.
- Must be able to safely drive state vehicles in adverse weather conditions.
- Must be willing to travel extensively during the spring months and as needed for inspections.

NOTES:

- FLSA: Exempt

SUPPLEMENTAL INFORMATION:

040-Wyoming Game and Fish Department - Services Division

Click [here](#) to view the State of Wyoming Classification and Pay Structure.

URL: <http://agency.governmentjobs.com/wyoming/default.cfm>

The State of Wyoming is an Equal Opportunity Employer and actively supports the ADA and reasonably accommodates qualified applicants with disabilities.

Class Specifications are subject to change, please refer to the A & I HRD Website to ensure that you have the most recent version.

Aquatic Epidemiologist, Professor Tenure-Track

University of Minnesota

College of Veterinary Medicine

Veterinary Population Medicine Department

The University of Minnesota, Veterinary Population Medicine Department (VPM), College of Veterinary Medicine (CVM), is seeking to hire a 100% Assistant/Associate/Full Professor (tenure-track) position as part of the University of Minnesota Global Food Ventures (GFV) initiative. The GFV is a public-private partnership committed to answering the global imperative of safe, nutritious and affordable food, through the application of innovative discovery and next generation workforce development. Minnesota commodities and citizens expect 21st century interdisciplinary teams of scientists, engineers, veterinarians and public health communicators to protect the safety and to preserve quality nutrition of foodstuffs. These positions will contribute to the GFV research program related to Food Safety Innovations and will leverage existing and proposed GFV investments in informatics. This CVM position will focus **on Aquatic Epidemiology**.

Collectively, this position as well as the other MN-Drive positions will directly leverage internationally recognized programs at the CVM and School of Public Health (SPH) and bolster research opportunities related to the Center for Animal Health and Food Safety (CAHFS), the Food Protection and Defense Institute (FPDI), and the Center for Infectious Disease Research and Policy (CIDRAP). See the attached flyer for a specific description of the proposed faculty position in Aquatic Epidemiology.

RESPONSIBILITIES: The person in this position would have a research, teaching, and outreach focus. He/she is expected to interact with faculty from College of Food, Agricultural and Natural Resource Sciences (Horticulture, Animal Science, Fisheries and Wildlife, Minnesota Aquatic Invasive Species Research Center), School of Public Health, other departments in College of Veterinary Medicine, Minnesota Veterinary Diagnostic Laboratory, and the Center for Animal Health and Food Safety. It is expected that this position will develop nationally recognized, independent sustained research programs in sustainable aquaculture and ecosystem health that complement our existing infectious disease and food safety programs, and can provide expert advice to industry related to aquatic animal health. This position will also have major teaching responsibilities in the DVM curriculum including teaching in epidemiology, advanced epidemiology and veterinary public health rotations. They will also teach in undergraduate and graduate (PhD, MPH, and MS) courses.

REQUIRED QUALIFICATIONS: Candidates must have a doctoral level degree (e.g., DVM, MD or PhD) and publication record demonstrating experience in epidemiology and infectious diseases. The candidate is expected to have advanced knowledge of the biology of agents, hosts, vectors, and reservoir systems of aquatic animal population health and/or advanced knowledge of food safety related to seafood. The ability to develop an independent and sustainable scholarly research program, teach in the classroom and mentor graduate students, and participate in outreach and service is

required. Successful applicants will also contribute collaboratively to multidisciplinary efforts as part of their scholarly work. Demonstrated experience in preparing research grants, publishing in quality peer-reviewed journals, and presentations at national, professional meetings is necessary. Candidates at the associate professor or professor level are expected to demonstrate sustained success in funded scholarly activities and candidates at the full professor level will be expected to also have a substantial, currently funded research portfolio.

PREFERRED QUALIFICATIONS: While a doctoral level degree and commensurate track record of peer reviewed research output is required, a DVM degree plus graduate (MS, PhD) level research degree is preferred since this combination is likely to support the development of both aquatic animal health and epidemiological research tracks within the College. Thus, candidates with a record of funded programmatic research, teaching and outreach in aquatic animal health and epidemiology will be given preference. In addition, candidates with applied data science skills (Big Data) related to population fish production and public health are encouraged to apply.

SALARY AND START-UP PACKAGE: Highly competitive and commensurate with experience and qualifications. The University offers an excellent benefits package. For example, the University pays 100% of the premium for Faculty Basic Life Insurance as well as 100% of the premium for Faculty Group Income Disability Insurance. Faculty contributes 5.5% of their annual salary and the University contributes 10% toward the Faculty Retirement Plan. There are also two Optional Retirement Plans available. For more benefits information see <https://humanresources.umn.edu/benefits>.

START DATE: Negotiable, after July 2019.

APPLICATIONS: Applications will be accepted and reviewed upon receipt until the position is filled. Qualified applicants should apply online <https://z.umn.edu/aquaticepidemiologist> Job ID: 328738. Required documents include a curriculum vitae, a statement of research, outreach and teaching interests, a letter of intent outlining professional record and academic career goals, and names and contact information of three professional references. Inquiries about the application process and the position should be directed to the chair of the search committee, Dr. Sagar Goyal (goyal001@umn.edu; 612-625-2714).

For more information see the flyer attached to the email for this newsletter.

RESOURCES/NEWS

Funding Opportunity – Feed the Future

The Feed the Future Innovation Lab for Fish has issued a request for applications to support research for development in Feed the Future target and aligned countries in west Africa, east Africa, and Asia.

The lab intends to fund approximately 10 proposals for up to three years and with budgets \$200,000-\$800,000 USD; the expected average size will be \$500,000 USD. Current lab activities are in Bangladesh, Nigeria, Kenya, and Zambia. Other Feed the Future target and aligned countries may be considered if sound justification is provided. Areas of inquiry include advancing the productivity frontier, reducing and mitigating risk to fish production systems, and improving human outcomes. Successful proposals also will integrate four crosscutting themes: gender mainstreaming and youth engagement, improving human nutrition, resilience of fish value chains and households, and capacity building.

This competition is open to any qualified research, educational, governmental, private sector, or non-profit institution globally that has a Data Universal Numbering System (DUNS) and is registered in the System for Award Management (<https://www.sam.gov/SAM/>). The lab strongly encourages qualified U.S. minority-serving institutions to respond to this competitive request for applications.

Concept papers are due May 24, 2019, and final proposals by July 24, 2019. For more information about the funding opportunity and for application instructions, please visit <https://rfx.piestar.com/opportunities/fish>.

Aquatic Animal Drug Approval Partnership (AADAP) Update: April 2019

The Unmet Fish Drug Needs Survey Summary Report: Together with the Association of Fish and Wildlife Agencies' Drug Approval Working Group (AFWA/DAWG) and the National Aquaculture Association (NAA), AADAP conducted a survey to assess the current and future unmet drug needs of the aquaculture community in the U.S. For a summary report of the survey, please see the link below:

[Unmet Fish Drug Needs Survey Summary Report](#)

Approved Aquaculture Drug Fact of the Month: Did you know Formalin is approved for the control of external protozoa and monogenetic trematodes in finfish, as well as the control of fungi from the Saprolegniaceae family in finfish eggs? It's also approved for controlling protozoan parasites in Penaeid shrimp. For more information on dosing and limitations, please see AADAP's [Quick Desk Reference Guide](#) to Approved Drugs for Use in Aquaculture

2019 Aquaculture Drug Approval Coordination Workshop: The 25th Annual Drug Approval Coordination Workshop will be held in Bozeman, MT on July 29th-August 1st, 2019. Please see the link below for a tentative workshop schedule, as well as lodging, registration, and presentation details. Make sure to visit our [workshop webpage](#) to register and make your lodging reservations as soon as possible!

We hope to see you at the workshop this summer!

John E. Skinner Memorial Fund Award

The John E. Skinner Memorial Fund was established in memory of John Skinner, former California-Nevada Chapter and Western Division AFS President. The fund provides monetary travel awards for deserving graduate students or exceptional undergraduate students to attend the AFS annual meeting. **The 2019 meeting will be held in Reno, Nevada September 29 to October 3.**

Any student who is active in fisheries or related aquatic disciplines, and has not previously won a full Skinner award, is eligible to apply. Awardees are chosen by a committee of the AFS Education Section. Selection is based on academic qualifications, professional service, and reasons for attending the meeting. **Travel support up to US\$800 will be made available to successful applicants.** Award winners also receive a one-year paid membership to AFS.

For more information and to begin the application process go to:

<https://fisheries.org/about/awards-recognition/call-for-award-nominations-section-awards/john-e-skinner-memorial-fund-award/>

You can also contact:

Julianne Harris

U.S. Fish and Wildlife Service
Columbia River Fish and Wildlife Conservation Office
1211 SE Cardinal Court, Suite 100
Vancouver, WA 98683
Phone: 360-604-2551
julianne_harris@fws.gov (preferred)