



Fish Health Section



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

FHS NEWS

The AFS Journals Department Is Seeking High-Quality Photographs to Feature on the Cover of the *Journal of Aquatic Animal Health*

The cover photograph need not correspond to the issue contents, so any high-quality, interesting photo or image is welcome!

Suggested subjects include histopathology, radiography, gill parasites, etc.

We would also be interested in hearing from you if you know of photographers we should contact, a particular lab with a great photo database, or subject matter we should be keeping our eyes open for.

The photographer will retain copyright of the image. \$100 payment for professional photographers.

Please e-mail your possible cover photos or tips to Journals Manager Laura Hendee at journals@fisheries.org. Also see the attached flyer.

STUDENTS AND EARLY CAREER MEMBERS

Student and Early professional event at ISAAH 2018 Charlottetown, PEI, Canada

The Student and Early Professional subcommittee is organizing an event for students and early professionals that will take place during the 8th International Symposium on Aquatic Animal Health (ISAAH 2018). The event is scheduled for Sunday, September 2nd, and will run from 5:30 – 7 pm. It will be open to all students and early professionals. If you have suggestions for any activities for this event, please contact us at student.section.fhs@gmail.com.

Additionally, a room share document has been set up for students and early professionals interested in sharing a room to help defray the costs of the meeting.

https://docs.google.com/spreadsheets/d/1cpz88yuG0LYrsfR5AsyK_eCgjzDZd4F4YO9AasBpXmM/edit?usp=sharing

MEETINGS, WORKSHOPS AND COURSES

Health and Colony Management of Laboratory Fish short course Salisbury Cove, Maine August 12-17, 2018

The MDI Biological Laboratory is pleased to present the short course Health and Colony Management of Laboratory Fish in our state-of-the-art training laboratory, the Maine Center for Biomedical Innovation.

This one-week short course is intended to help colony managers, researchers, and veterinarians monitor and maintain the health of a colony of aquatic organisms. The course consists of lectures, laboratory exercises with a high faculty to student ratio, and discussions. 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 approved by the AAVSB RACE (American Association of Veterinary State Boards Registry of Approved Continuing Education) to offer a total of 35 CE (Continuing Education) Credits to veterinarians and veterinary technicians.

More information can be found in the attached course listing and online at the course webpage: <https://mdibl.org/course/health-and-colony-management-of-laboratory-fish-2018/>

8th International Symposium on Aquatic Animal Health Charlottetown, Prince Edward Island, Canada September 2-6, 2018



The 2018 International Symposium on Aquatic Animal Health convenes every four years, attracting a large audience of fish health professionals from around the world. This is only the second time the Conference has been hosted in Canada – and a first for us on the East Coast!

ISAAH 2018 is being hosted by the [Fish Health Section of the American Fisheries Society](#), the [Atlantic Veterinary College](#), and the [Prince Edward Island BioAlliance](#). Delegates will have the opportunity to join other aquatic health professionals from around the world for scientific workshops and presentations, business meetings, industry panels, keynote presentations, and lots of networking and cultural events.

The theme of ISAAH 2018 is “Integrating Biotechnology in the Advancement of Aquatic Animal Health”. Early Bird registration rates are available until July 13th & there are still limited spaces for registered delegates to attend the [pre-conference scientific workshops](#) on Sunday, September 2nd.

REMINDER

Have you Booked your Accommodations yet? (Early-Bird Discount Room Rate ends August 1 - 3, 2018)

ISAAH is offering special room rates at the Conference host hotel & a few others within walking distance to the Convention Centre. But rooms are filling up fast! Book early to avoid disappointment. Special conference room rates will apply only for bookings made before August 1 - 3rd at select hotels. Find details below.

Have you Registered yet?

(Early-Bird Registration ends July 13, 2018)

Full conference registration and a limited number of one-day passes are available, as well as opportunities to register for pre-conference workshops, off-site events, and post-conference tours.

Important deadlines:

Early Bird Registration Deadline: July 13, 2018

Accommodations Booking Deadline: August 3, 2018

Workshop Registration Deadline: August 3, 2018

Oral PowerPoint Submission Deadline: 1 Day Prior to Session

On behalf of Dave, Esteban and the rest of the organizing committee, we look forward to seeing you in PEI in September!

General Sessions:

1. Coral Diseases
2. Aquatic Mammals
3. Parasitology Myxozoa
4. Bacteriology / Mycology
5. Virology

6. Immunology General
7. Immunology Vaccines
8. Diagnostics and Quality Assurance
9. Invertebrate and Shellfish Disease
10. Parasitology General
11. Parasitology Sea Lice – Ectoparasites
12. Ornamentals and Aquarium Medicine
13. Antibiotic Use / Pharmacology
14. Toxicology / Tox Path
15. Microbiomes

Special Sessions:

1. World Aquatic Veterinary Medical Association (WAVMA)
2. American Association of Fish Veterinarians (AAFV)
3. Diseases of Wild Fin-Fish
4. Quantitative Atlantic Salmon Health (QASH)
5. Genomic Applications in Aquatic Animal Health
6. eDNA / Metagenomics
7. Co-infections in Fish
8. Latin American Fish Health
9. Caribbean Fish Health
10. Gill Health
11. Climate Change & Aquatic Animal Health
12. Bridges between Aquaculture, Human & Environmental Health
13. Sturgeon Disease
14. Tuna Disease
15. Tilapia Disease
16. Zebrafish/Lab Animal Medicine
17. Emergent Disease
18. Nutrition and Fish Health
19. Aquatic Epidemiology
20. Aquatic Animal Health Management
21. Cleaner Fish Disease

Gill Health Symposium for Marine Fish Zhongshan Park, Singapore

November 21-23, 2018

We are proud to announce the first international **Gill Health Symposium for Marine Fish** hosted by the Universities of Sydney, Auckland and Bergen. This 3-day symposium will focus on the function and form of fish gills in the face of a changing ocean environment with emphasis on ocean warming and acidification. The symposium will bring together scientists with expertise in a variety of disciplines such as marine biology, ecology, ecophysiology, environmental chemistry, aquaculture and fisheries.

The target audience for the symposium are scientists from university, government and private sectors and managers from aquaculture and fisheries industries.

Applications will be reviewed from **1 May 2018**. Priority will be given to early and mid career researchers (<10 years from PhD award) and those residing in developing countries. Maximum capacity is 30 people.

The **goal** of the symposium is to create small teams of discipline experts to co-author topic reviews to be submitted as part of a special research topic in ***Frontiers of Marine Science***.

Applications open 1 April 2018. To apply, go to: <http://sydney.edu.au/science/life-environment/research/gill-health-symposium.shtml>

Applications should include:

- short cv (4 pages max.)
- letter of support from your Department Head, Director or relevant supervisor
- statement addressing (1 page max.) current research program and career interests
- statement addressing (1 page max.) your willingness to contribute and support the goals of the Gill Health Symposium

For more information, please see the attached flyer and/or email: Associate Professor Joy Becker, joy.becker@sydney.edu.au

JOBS/GRADUATE ASSISTANTSHIPS

**Fish Veterinarian
Pacific Seafood
Nespelem, Washington**

Summary

Work in conjunction with site Operation Managers and Fish Health Team to manage, maintain and execute all aspects of the Fish Health Plan at our Aquaculture hatcheries and farm.

Essential Duties and Responsibilities

Duties include but not limited to:

- Be a role model in projecting and applying The Pacific Group Diamond Philosophy (Productivity, Quality, Excellence and Teamwork) and promote teamwork at all times.

- Oversee the administration of antibiotics in large net pen facility and hatcheries with a herd management mentality.
- Be up to date on all USDA VFD regulations and policies needed for aquaculture farm management.
- Assist with research projects in conjunction with National Center for Cool & Cold Water Aquaculture (NCCCWA), Western Fisheries Research Center (WFRC) and others. Has to keep accurate records as results will be published.
- Assist in developing a database or other effective record keeping system.
- Assist with data collection and recording.
- Assist with vaccine research and perform bacterial culture when necessary.
- Categorize mortality to identify diseases based upon external clinical symptoms. This is imperative to develop vaccines that work.
- Possess basic microscopic skills to make and stain slides and identify bacterial and parasite agents.
- Collaborate with partners on research projects.
- Perform regular cleaning and standardization of all lab equipment and lab facilities.
- Maintain a presence in fish health related meetings by continuing to develop outside partnerships and contacts with groups and agencies.
- Assist in establishing a feed monitoring program and ensure that feeds meet established standards.
- Assist in establishing a flesh quality monitoring program.
- Become a point of contact for hatchery related fish health questions regarding treatments and questions that may arise.
- Manage good aquaculture practices as part of the effort to prevent aquaculture related fish disease.
- Be observant of problems that may contribute to fish mortality, of rough handling density, and feeding practices to avoid contribution to fish mortality.
- Assist in creating a biosecurity plan for the farm including a check-in and check-out procedures for guests visiting the farm, and once created adherence to the policy must be audited to effectively evaluate compliance.
- Track and monitor the health of eggs, fingerlings and adult steelhead with the Fish Health Plan.
- Observe fish behavior as an indicator of stressors and pre-empt disease outbreaks.
- Maintain precise records on fish production, and educate other team members on fish health biology.
- Play a key role in reviewing and improving fish husbandry and production with a key focus on survival of stocks. Reduce stresses present not only from biological elements but also environmental conditions.
- Perform other duties, as assigned.

See this link for more details:

<https://recruiting2.ultipro.com/PAC1001/JobBoard/3d1f315c-b302-5e3c-ab32-f9b155cb2fba/OpportunityDetail?opportunityId=16d0c4fd-8486-4cc2-ad8b-a6bba8a666d8>

Microbiologist
Pacific Seafood
Nespelem, Washington

Summary

Under the direction of the veterinarian and the site operations manager, perform projects and assist in research related to fish health and mortality. Work closely with site management to identify and remedy the challenges to fish health that are present. Duties support the maintenance and operation of the disease laboratory.

Essential Duties and Responsibilities

Duties include but not limited to:

- Be a role model in projecting and applying The Pacific Group Diamond Philosophy (Productivity, Quality, Excellence and Teamwork) and promote teamwork at all times.
- Assist in developing an effective record keeping system.
- Collaborate in the team structure as well as work independently.
- Assist with vaccine research and perform bacterial culture.
- Appropriately categorize mortality to evaluate what is causing loss.
- Evaluate what percentage of pathogens contribute to the total loss.
- Identify diseases based upon external clinical symptoms.
- Track and monitor the health of steelhead fingerlings in accordance with the Fish Health Plan.
- Classify mortality, health sampling for disease identification, monitoring mortality levels, causes and factors affecting fish health.
- Observe fish behavior as an indicator of stressors and pre-empt disease outbreaks, including a degree of water quality e.g. O2 and TDG levels.
- Maintain a presence in fish health related meetings by continuing to develop outside partnerships and contacts with groups and agencies.
- Manage good aquaculture practices as part of the effort to prevent aquaculture related fish disease.
- Be the point of contact for hatchery related fish health questions regarding treatments and questions that may arise.
- Make and stain slides and identify bacterial and parasite agents.
- Regularly test for antimicrobial resistance.
- Assist in establishing a flesh quality monitoring program.
- Assist with various aspects of vaccine research by performing a variety of technical duties, including daily monitoring of challenge experiments, recording data, and performing microbiological analysis of infected tissue.
- Maintain, calibrate and modify complex/specialized equipment and automated systems used for test and evaluation procedures to achieve desired results.

- Maintain inventory of chemicals, prepares solutions and reagents for use in the laboratory, and safely disposes of chemical and biological waste material.
- Perform regular cleaning and standardization of all lab equipment.
- Assist in establishing a feed monitoring program.
- Ensure that feeds meet established standards.
- Be observant of problems that may contribute to fish mortality, of rough handling density, and feeding practices to avoid contribution to fish mortality.
- Assist in creating a biosecurity, and audit plan for the farm including a check-in and check-out procedures for farm visitors and effectively evaluate compliance.
- Keep precise records on fish production, and educate other team members on fish health biology.
- Perform other duties, as assigned.

See this link for more details:

<https://recruiting2.ultipro.com/PAC1001/JobBoard/3d1f315c-b302-5e3c-ab32-f9b155cb2fba/OpportunityDetail?opportunityId=0380d5ae-e3aa-4ee3-b4b4-795f6bf63b78>

RESOURCES/NEWS

Interesting Article

Welfare of aquatic animals: where things are, where they are going, and what it means for research, aquaculture, recreational angling, and commercial fishing.

<https://academic.oup.com/icesjms/advance-article/doi/10.1093/icesjms/fsy067/5037898>

A pdf file is also attached to this email.

Western Fisheries Science News: April 2018 - Issue 6.4

Fish Health Highlights....

USGS Hosts Scientist from Tunisia

Dr. Nadia Cherif from the National Institute of Sea Sciences and Technologies in Tunisia visited the WFRC for 10 days as part of a U.S. Agency for International Development Partnerships for Enhanced Engagement in Research (PEER) program administered by the U.S. National Academy of Sciences. The project titled “Enhanced Research Capacity and Fish Health Infrastructure to Assist Tunisian Aquaculture” will be important in gaining a better understanding of the global distribution of fish diseases and in developing novel methods to reduce their impact in Tunisia and other countries of the Mediterranean region. Such efforts ultimately will also benefit the U.S. by helping to reduce the global spread of diseases that can affect both commercial aquaculture

and native species. The role of the WFRC will be to provide technical assistance in the creation and validation of novel methods for the detection of fish diseases. For more information, contact Jim Winton, jwinton@usgs.gov, Seattle, WA.

See the attached newsletter for the rest of the news.

Read the whole newsletter online at: <http://wfrc.usgs.gov/newsletter/>

To subscribe (or unsubscribe) to the "Western Fisheries Science News" mailing list, please do so at <http://wfrc.usgs.gov/newsletter/maillist.html>