**FHS NEWS**

**Fish Health Section website:** [https://units.fisheries.org/fhs/](https://units.fisheries.org/fhs/)

**Fish Health Section Facebook Site:** [https://facebook.com/FishHealthSectionAFS](https://facebook.com/FishHealthSectionAFS)

**AFS Freshwater Policy Recommendations**

As your representative on the AFS Resource Policy Committee, I am seeking comments by February 11th on the attached draft document for AFS freshwater policy recommendations relative to climate change. Manuscript references are intentionally left off of this document because the intent is to provide factual information and tangible policy recommendations to lawmakers and the public as clear, simple statements. There is a related publication coming out in Fisheries in the near future that summarizes the supporting science for response of freshwater fish to climatic changes.

I will assume that no response from you indicates that you support these recommendations and are content with these being put forth as the views of AFS membership.

In your review, I am specifically looking for:

1) Substantive comments only. I am not looking for grammatical or stylistic edits unless something is so unclear that clarification is needed so a reader will not be confused as to the meaning.

2) Corrections to factually inaccurate information. Please include supporting documentation.

3) Identification of important climate solutions that have been overlooked.

If approved, these policy recommendations will be added to the AFS website on climate change and fisheries: [https://climate.fisheries.org/](https://climate.fisheries.org/)

Thank you in advance for taking the time to review these proposed policy recommendations. See attached document. Please send responses to Gary Whelan at whelang@michigan.gov.

**MEETINGS, WORKSHOPS AND COURSES**

**Coral Diseases Seminar**

Online, free registration: [https://us02web.zoom.us/webinar/register/WN_JYkZrVM7QsSW-nKwvHXOVg](https://us02web.zoom.us/webinar/register/WN_JYkZrVM7QsSW-nKwvHXOVg)

February 23, 2021

See attached pdf for more details.

**Joint Meeting of the Northeast Fish Health Committee and AFS Fish Health Section**

Burlington, VT

July 12th – 15th, 2021

Go to the [website](https://us02web.zoom.us/webinar/register/WN_JYkZrVM7QsSW-nKwvHXOVg) for more information.
Calling all Aquaculture America 2021 attendees!
Are you interested in speaking in a special session at Aquaculture America 2021, to be held in San Antonio, Texas from August 11\textsuperscript{th}-14\textsuperscript{th}, 2021? Please see the link below to learn more about the National Aquaculture Association (NAA) special sessions that AADAP is co-hosting with the Aquatic Drug Approval Coalition (ADAC) and the Association of Fish and Wildlife Agencies-Drug Approval Working Group (AFWA-DAWG).


JOBS/GRADUATE ASSISTANTSHIPS

\textbf{Fish Health Veterinarian}
\textbf{Department of Fisheries & Oceans Canada, AMD and SEP}
Courtenay and Nanaimo, Vancouver Island, British Columbia
Closes 1/29/21
Link: https://emplois-psjobs.cfp-ps.gc.ca/psrs-srfp/applicant/page1800?poster=1541759

Fisheries and Oceans Canada (DFO) is hiring two fish vets at either the VM2 or VM3 level (experience and qualification dependent). There are two pending vacancies both based on Vancouver Island: one veterinary position is available in the Fish Health division of Aquaculture Management Division (AMD) based in Courtenay, British Columbia, the second veterinary position is with the Salmon Enhancement Program (SEP) based in Nanaimo, BC, but other work locations may be considered. Both positions will be offered initially as a six month term, with the option for indefinite employment for suitable candidates.

Salary will range from $87,794 to $112,609 (Canadian) depending on candidate experience and qualifications. Suitable candidates will need a DVM or equivalent, and be eligible for membership in a Canadian veterinary association. Job duties are varied but candidates must be willing to work overtime and be physically capable and willing to ride in boats, planes and vehicles for long durations, and perform field work in inclement weather. Previous experience with production animal medicine is a requirement, and preference will be given to candidates with fish, enhancement and/or aquaculture experience.

AMD has a mandate to oversee and regulate aquaculture activities within BC, with a program emphasis on salmon farming. More information about AMD’s fish health program can be found at: http://www.dfo-mpo.gc.ca/aquaculture/protect-protege/fish-health-sante-poissons-eng.html

The Salmonid Enhancement Program (SEP) plays a key role in DFO’s work to conserve and manage Pacific salmon stocks. This is accomplished through a number of activities, including freshwater hatcheries. More information about SEP can be found at: https://www.pac.dfo-mpo.gc.ca/sep-pmvs/index-eng.html

\textbf{Research Geneticist (Animals)}
\textbf{US Department of Agriculture, Agricultural Research Service}
Kingston, RI
Closes: 1/29/21
Link: https://www.usajobs.gov/GetJob/ViewDetails/588357800

This position is located in the Agricultural Research Service (ARS), National Cold Water Marine Aquaculture Center, in Kingston, RI.
The incumbent will develop new information and theory in genetic improvement of shellfish, transfer new methods for developing and manage improved germplasm resources to industry; employ experimental techniques of quantitative genetics, genomics and chromosome set manipulation; and collaborate with internal and external stakeholders.

Responsibilities:
- Conceive and plan investigations on broad and complex problems related to the genetic basis of economically important phenotypes
- Employ experimental techniques of quantitative genetics, genomics and chromosome set manipulation
- Collaborate with shellfish growers, geneticists, breeders and other scientists from University, industry and ARS locations
- Provide the shellfish industry with improved germplasm and represents the NCWMAC to academic institutions, industry and the public in scientific and/or technical discussions

Scientific Coordinator – Aquatic Animal Health
OIE
Paris, France
Closes: 10 February 2021
Application Link: https://app.smartsheet.com/b/form/6bef6b942e56489bb9a0121ecd67c27

The Scientific Coordinator contributes to the development of policy advice on scientific developments, research priorities and international scientific networks in the field of aquatic animal health. He/she contributes to the scientific excellence and integrity of the OIE standard-setting process by supporting the work of the Specialist Commissions and relevant ad hoc Groups to ensure the delivery of high-quality, scientifically-based and up-to-date international standards. He/she also supports OIE activities addressing aquatic animal health and welfare by coordinating activities with the relevant work of other international partners and contributing to capacity building activities of Members such as national focal point trainings.

See attached pdf for more information.

MS (or PhD) Student Opportunity – Zebrafish Health and Mycobacteriosis

The Whipps Fish and Wildlife Disease lab (http://whippslab.weebly.com/) at the State University of New York College of Environmental Science and Forestry (ESF) (https://www.esf.edu/efb/) is seeking MS applicants (or possibly suitable PhD applicants) to investigate mycobacteriosis in zebrafish. The project is part of ongoing research into controlling infectious diseases in this important laboratory model.

The successful applicant will carry out a studies on developing a natural exposure model for Mycobacterium chelonae in zebrafish and the role of fish age and diet on the prevalence and severity of infection. Potential PhD applicants would additionally develop their own research questions.

During the academic year, the applicant will be supported on a departmental teaching assistantship (20 hrs/week) and will be assigned to support courses based on background and interest. The teaching assistantship also covers tuition. Summer support is through research aide position (40 hrs/week).

The successful applicant will develop a MS thesis from their field research, write reports to funders, and produce 1-2 scholarly peer reviewed papers (3-4 for PhD).
**Required Qualifications:** Bachelor’s degree in Biology, Microbiology or related fields. Experience with fish husbandry (e.g., laboratory, hatchery, or hobbyist). Experience or strong interest in microbiology methods, DNA sequencing and sequence analysis. Strong organization and communication skills. Interest in undergraduate teaching. GPA and GRE scores competitive for acquiring departmental teaching assistantship.

**Preferred Qualifications (preferred but not required):** Background in Microbiology and Fish Health. Experience with zebrafish husbandry. Statistical analyses appropriate for characterizing and comparing differences in disease outcomes in experimental groups. Experience with PCR, bacterial culture and other diagnostic methods.

**Term of Position:** Seeking an applicant to begin in either the summer of 2021 or the Fall 2021 semester (late August start). Support for 2 years (MS) or 3 years (PhD), with extension possible. Summer support as technician. Academic year (Sept-Apr) support on departmental teaching assistantship.

**Application Deadline:** Although applications will be accepted until the position is filled, candidates should submit their application by **February 15, 2021** to assure optimal consideration. Send the following to cwhipps@esf.edu: CV, cover letter addressing requirements and fit for the position, and unofficial copies of transcripts and GRE scores. References will be solicited for top applicants. The email should contain the subject line "zebrafish health position".

**MS Student Opportunity – Parasitology/Aquatic Animal Health**
**Mississippi State University**
Stoneville, MS

Beginning Spring 2021 or Summer 2021, the Aquatic Parasitology Lab in the Department of Comparative Biomedical Sciences at the Mississippi State University College of Veterinary Medicine is seeking a graduate student for a Masters level program. The selected student will join a collaborative, multidisciplinary research group focused on serving the Catfish Aquaculture Industry.

In the southeastern United States, catfish aquaculture is hindered by losses attributed to digenetic trematodes. In collaboration with researchers at the Thad Cochran National Warmwater Aquaculture Center (NWAC), this two-year project will focus on examining trematode infection dynamics within catfish production ponds and involve annual field sampling (collection of aquatic snails, fish), experimental infections, animal necropsy (bird and fish), and basic parasitology techniques. Morphological identification of trematode life stages encountered in these systems will be supplemented with molecular data to identify hosts involved in specific trematode life cycles and be used in the development of molecular diagnostic assays. Molecular characterization will encompass basic molecular biology techniques (DNA extraction/isolation, PCR, and Sanger and Oxford Nanopore sequencing).

The student will receive graduate training at the Rosser lab at MSU CVM (in Starkville, MS) and the Griffin laboratory at NWAC (in Stoneville, MS). At the completion of the project the student will be versed in molecular techniques, traditional parasitology, animal husbandry, animal necropsy, general aquaculture principles and experimental design/analysis. Graduate coursework will include courses related to parasitology, aquaculture/aquatic animal health, statistical analysis, molecular biology, and CVM’s graduate seminar series. The successful applicant will develop a MS thesis from their research, present their findings at scientific meetings and stakeholder workshops, and produce 1-2 peer reviewed manuscripts. See attached pdf for more information.
Assistant Professor of Aquaculture
Lake Superior State University
Sault Ste. Marie, MI
Open until filled
Link: [https://jobs.lssu.edu/postings/2781](https://jobs.lssu.edu/postings/2781)

Lake Superior State University (LSSU) seeks qualified applicants for a tenure track faculty position in Aquaculture starting in August 2021, with a dual appointment within LSSU’s new Center for Freshwater Research and Education (CFRE; [www.lssu.edu/cfre](http://www.lssu.edu/cfre)) and the School of Natural Resources & Environment ([https://www.lssu.edu/snre/](http://www.lssu.edu/snre/)).

This is a 12 month position with administrative (50%), research (25%) and teaching (25%, minimum of 3 contract hours per semester) responsibilities during the 9 month academic year, and administrative (50%) and research (50%) responsibilities during the remaining 3 months. Administrative responsibilities include, but are not limited to, providing vision for and oversight of CFRE Fish Hatchery operations, developing and managing the hatchery operational budget, supervising hatchery personnel, and working with internal and external partners to ensure smooth operation of the hatchery. Research responsibilities include creating an active, externally-funded research program in aquaculture that engages undergraduate students and external collaborators, publishing research results in peer-reviewed scientific journals, presenting at professional conferences, acquiring external funding for research, and maintaining and developing collaborative relationships with state, federal, and tribal agencies. Teaching responsibilities include teaching Freshwater Fish Culture, Internship in Aquaculture, Apprenticeship in Fish Culture, and contributing to our undergraduate research seminar series. Additionally, the successful candidate will be expected to develop an academic program in aquaculture (AS or BS level) and any required course(s). Academic advising and mentoring undergraduates engaged in research are also expected.

LSSU is a small (<2,000 undergraduate students) state university located in the beautiful Upper Peninsula of Michigan. The campus sits on the St. Marys River, the sole outflow of Lake Superior and international boundary with Canada, and provides numerous educational and professional opportunities in aquaculture, fisheries management, and aquatic ecology. Additionally, LSSU is surrounded by three Great Lakes and many state, provincial, and national forests and parks that provide tremendous recreational opportunities and a high quality of life.

The CFRE Fish Hatchery ([https://www.lssu.edu/cfre/hatchery/](http://www.lssu.edu/cfre/hatchery/)) houses a student-run Atlantic salmon hatchery, providing hands-on classroom opportunities, and the new Barch CFRE building is expected to be constructed and open in 2021. The Barch CFRE will provide expanded research facilities, including an analytical lab and experimental mesocosms, along with a Great Lakes visitors center and discovery center for K-12 education, all along the shores of the St. Marys River. The new facility will be uniquely positioned to build partnerships to advance Great Lakes education, research, and community engagement in the region. This new position will play a key role in contributing to the growth of the CFRE and related undergraduate opportunities.

The SNRE provides exceptional lab space, specimens, and equipment for education and research. Success of SNRE students stems from extensive interaction with faculty during hands-on labs, student research, and active student organizations. Most students within SNRE are required to complete senior thesis research and they are encouraged to present their research at regional and national scientific conferences. Faculty also work closely in advising student clubs, including the nationally recognized Fisheries and Wildlife Club (student sub-unit of the American Fisheries Society). The successful candidate would be expected to contribute to university service, including advising student organizations.
Minimum Qualifications
Doctoral degree in Aquaculture closely related discipline appropriate to the assignment is required at the time of appointment. The successful applicant should have administrative experience, demonstrated excellence in research, and teaching experience.

Desired Qualifications
Familiarity with aquaculture of salmonids, experience including undergraduates in research, and providing professional opportunities for students outside of class.

Preferred Qualifications
Be able to accompany students on field labs, actively lead and participate in field activities in, on and off the water; be able to lift up to 25 pounds; possess a valid driver’s license and operate a 4WD truck and motor boat.

Aquaculture Veterinarian
Newfoundland Dept. of Fisheries and Aquaculture
St. Alban’s, NL
Open until filled
Link: www.hiring.gov.nl.ca

See attached pdf.

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:
https://www.fws.gov/fisheries/AADAP/aadap_update.html

NEW FEATURE – EDITOR’S RANDOM PICS

Enteronecrosis caused by the parasite Ceratonova shasta, summer steelhead smolt, Lake Billy Chinook, Madras, OR, June 2020.
AFS Freshwater Climate Policy Recommendations

Summary

Climate change is warming rivers, lakes, and streams and altering precipitation patterns throughout America. Scientists are already observing significant changes to freshwater fish as a result of climate change. Some changes will be irreversible.

Today, forty percent of all freshwater fish species in North America are imperiled as a result of pollution, habitat loss, water withdrawals, and invasive species. Highly valued fisheries will be further stressed by climate change as it accelerates and intensifies water pollution, significantly reduces habitat required for fish survival, alters the timing of key behaviors such as reproduction and migration, and increases species extinctions. The impacts of climate change on freshwater fish will lead to significant declines in abundance and diversity of fish, devastating the cultural, recreational, and economic value of freshwater systems with coldwater species particularly at-risk.

It is necessary to take aggressive action to reduce greenhouse gas emissions, protect the integrity of our healthy aquatic ecosystems, and restore degraded systems in order to maintain their crucial storage of carbon as part of halting, and reversing the effects of climate change. Land and water-based conservation solutions are a critical part of a multifaceted effort to reduce greenhouse gas emissions and to make our rivers, lakes and streams, forests, grasslands, wetlands, and coastal systems more resilient to the impacts of climate change. Additional investments should be made in existing conservation programs and activities with established funding delivery systems, partner and volunteer networks, and demonstrated track records for implementation and effectiveness. In other cases, new programs and funding streams will need to be developed in order to capture the full extent and ability of our natural systems to sequester carbon and build climate resiliency.

In addition, we must consider how climate change will continue to alter these systems in the future. This will require additional research on fish and freshwater systems in diverse ecosystems, from arid deserts to mountain streams to bottomlands. It is critical that federal, state, local, and tribal governments prepare for the future by developing adaptation plans that address freshwater ecosystems, fish, and fisheries.

Protection of Resilient Freshwater Habitats

Support and develop programs and policies that protect high-quality freshwater systems that are resilient to climate change. Intact watersheds, with predominately undisturbed natural lands (forests, wetlands, and grasslands) provide substantial carbon storage, will offer the most resilience and should be protected. Critical sources of water for aquatic systems need to be maintained and protected, especially in arid regions. These resilient systems will continue to provide high quality habitats even if species assemblages change. Protections must include land conservation in the watersheds of critical aquatic habitats that provide resilience from climate change. In addition to maintaining existing portfolios of public lands, policies and programs that protect high quality natural lands on private lands must be further developed and supported. These efforts will benefit fish and wildlife habitat, improve water quality and supply, and support climate adaptation and resilience.
Focus Land and Water Conservation Fund (LWCF) projects on expanding conservation easements within targeted, high-valued aquatic systems and encourage projects with climate offset and sequestration benefits.

Increase program funding of North American Wetlands Conservation Act with an emphasis on the critical role of wetlands conservation for resilience and adaptation.

Fully fund the National Fish Habitat Partnerships to improve aquatic connectivity and resilience. The program should be funded to at least $50 million annually to restore and enhance fish habitat, aquatic connectivity and resilience through a national network of fish habitat partnerships.

Pass and fully fund the Recovering America’s Wildlife Act to provide resilience for fish and wildlife, and aquatic habitats and resources to complete the climate-related recommendations within State Wildlife Action Plans.

Implement science-based, landscape appropriate strategies that will optimize carbon storage and sequestration potential of millions of acres of the nation’s forests. Keep forested watersheds intact by expanding forest conservation programs, including Forest Legacy, Healthy Forest Reserve Program, LWCF, the Voluntary Public Access-Habitat Incentive Program (VPA-HIP), and other state and NGO initiatives.

Support the development of State Forest Action Plans that encourage forest protection in the watersheds of resilient aquatic systems.

Encourage the USFS to continue the National Forest System’s mandate to provide for health, diversity, and productivity of the nation’s forests, including management for timber and wildlife habitat and favorable conditions for water flows.

Expand and fully fund the USFS Stewardship Contracting and Good Neighbor programs and encourage targeting of those programs toward resilient aquatic systems.

Develop a comprehensive, national conservation easement program to keep private forests, wetlands, and grasslands intact in order to protect fish and wildlife habitat and maintain important ecosystem services including carbon sequestration. Millions of acres on intact forests, grasslands, and wetlands still exist on private lands throughout the United States. Yet, they face increasing land use change pressures from agriculture, urbanization, energy development, and mining.

**Restoration of Resilient Freshwater Habitats**

Support land and water conservation efforts that restore climate resilience of degraded freshwater habitats. Changing land use in the form of intensified agriculture and increased urbanization have severely reduced freshwater habitat resilience of once-natural lands. Programs that restore degraded lands have potential for recapturing climate resilience of downstream aquatic systems. Incentives for existing and additional conservation programs; encouraging expanded use of conservation practices that address soil health, improve water quality, and provide wildlife habitat in working agricultural landscapes. Expanding private land conservation easement programs could include working lands provisions that allow landowners to benefit from sustainable timber harvest and grazing, while maintaining their natural character. In addition, detrimental dams and other hydrologic alterations of the nation’s rivers must be mitigated to ensure the critical connectivity necessary for fish to migrate to
high quality habitats. Programs and policies emphasizing water conservation, water efficiency, nutrient reductions, natural infrastructure such as riparian zone protection and restoration, and collaborative, community-based restoration efforts will be critical.

- Expand Farm Bill conservation programs, such as the Conservation Reserve Program (CRP), Regional Conservation Partnership Program (RCPP), Agriculture Conservation Easement Program (ACEP) and Environmental Quality Incentive Program (EQIP), for the ecosystem services they provide that will be essential to mitigating and reversing climate impacts, including increased intensity and frequency of drought and flooding, and restoration of water quality in agriculturally-impaired waters. Farm Bill programs should be expanded to support fish habitat and water quality in a fashion similar to wildlife habitat.

- Restore and protect wetlands and native grasslands by expanding Farm Bill easement programs (Wetlands Reserve Easements/Grasslands Reserve Program), especially in the watersheds of high-valued aquatic systems prioritized by fisheries and aquatic system conservationists. These efforts would also support using natural infrastructure solutions to meet the nation’s flood control, water quality, and carbon sequestration goals.

- Fund programs that provide ecologically-beneficial improvements for irrigation systems (e.g., improved efficiency, updated infrastructure, fish-friendly screening at diversions).

- Build drought resiliency through farm and rangeland water retention practices, and whole farm water management systems.

- Support fish passage connectivity and design standards (such as the stream simulation standard developed by the USDA Forest Service) at road-stream crossings for application across all federal, state, and county agencies and road authorities.

- Integrate natural infrastructure solutions with traditional highway construction to improve fish and wildlife habitat, connectivity, and pollinator habitat along rights-of-way.

- Secure sufficient instream (ecological) flows and protect natural hydrology where possible to support fish and other aquatic species and provide resilience for imperiled species. An excellent example is the long-standing program of the Columbia River Basin Water Transactions Program funded by the Bonneville Power Administration and administered by the National Fish and Wildlife Foundation.

**Develop Climate Adaption Plans**

Municipal, state, federal, and international agencies should fully develop climate adaptation plans for managing fish and fisheries resources. Connecting climate adaptation efforts with existing conservation programs and investing in climate-smart projects are critically needed. Adaptive solutions that are science-driven and include multiple stakeholders have the best chances for success.

- The National Fish, Wildlife, and Plants Climate Adaptation Strategy is essential for ensuring state and federal land and wildlife management agencies have the tools and resources necessary to respond to the unique impacts and challenges faced at the landscape scale.
• Fisheries managers must strategically identify important and resilient watersheds or fish resources for protection and conservation and target conservation funding to protect highly-valued fisheries resources.

• Update scientific guidance on translocations with a special focus on climate to help shape federal and state policies.
We’re Hiring.

Aquaculture Veterinarian
Permanent - St. Alban’s, NL
Department of Fisheries and Aquaculture

Are you...  
• looking to build a successful career of clinical field work, frontline medicine and applied research fieldwork in finfish, shellfish and biosecurity?  
• wanting to work within the newest state of the art aquatic diagnostic facility in the country with on site tech support?  
• looking to grow our province’s fledgling industry into a world renowned and respected operation?  
• interested in supporting activities in fish husbandry, vaccination, disease control and nutrition?  
• looking to build on your Doctor of Veterinary Medicine with our commitment to provide you with a fully supported continuing education environment?  
• someone who enjoys travel, autonomy and the outdoors?  

We are...  
• located on the historic Connaigre Peninsula and completing construction of our new Diagnostic Laboratory and Regional Office in the summer of 2011.  
• able to support you in adding to the current aquaculture health knowledge.  
• able to support you in adding to current knowledge with the presentation of your findings to the worldwide scientific community.  
• offering a work environment that will support your clinical field work and applied research through our state of the art facility.  
• offering a work environment that promotes and supports your continued learning.

Upon offer of employment, the successful candidate is required to be licensed to practice veterinary medicine in the province. For additional information on this position, please contact Dr. Daryl Whelan at (709) 729-6872.

The public service is an equal opportunity employer and values diversity in its workforce. Please forward your resume, quoting competition number FA.10.11.389. Salary: $74,929.40 - $88,561.20. Please apply online or send resume via mail to: Recruitment Centre, Public Service Commission, 50, Mundy Pond Road, P.O. Box 8700, St. John’s, NL, A1B 4J6 or Fax: 709-729-6737. Closing Date: Open Until Filled.
Re: Masters student position in parasitology/aquatic animal health

Beginning Spring 2021 or Summer 2021, the Aquatic Parasitology Lab in the Department of Comparative Biomedical Sciences at the Mississippi State University College of Veterinary Medicine is seeking a graduate student for a Masters level program. The selected student will join a collaborative, multidisciplinary research group focused on serving the Catfish Aquaculture Industry.

Application deadline: Open until filled

Start date: January 2021

Location: Mississippi State University College of Veterinary Medicine, Mississippi State, MS and the Thad Cochran National Warmwater Aquaculture Center, Stoneville, MS

Project details: In the southeastern United States, catfish aquaculture is hindered by losses attributed to digenetic trematodes. In collaboration with researchers at the Thad Cochran National Warmwater Aquaculture Center (NWAC), this two-year project will focus on examining trematode infection dynamics within catfish production ponds and involve annual field sampling (collection of aquatic snails, fish), experimental infections, animal necropsy (bird and fish), and basic parasitology techniques. Morphological identification of trematode life stages encountered in these systems will be supplemented with molecular data to identify hosts involved in specific trematode life cycles and be used in the development of molecular diagnostic assays. Molecular characterization will encompass basic molecular biology techniques (DNA extraction/isolation, PCR, and Sanger and Oxford Nanopore sequencing).

The student will receive graduate training at the Rosser lab at MSU CVM (in Starkville, MS) and the Griffin laboratory at NWAC (in Stoneville, MS). At the completion of the project the student will be versed in molecular techniques, traditional parasitology, animal husbandry, animal necropsy, general aquaculture principles and experimental design/analysis. Graduate coursework will include courses related to parasitology, aquaculture/aquatic animal health, statistical analysis, molecular biology, and CVM’s graduate seminar series. The successful applicant will develop a MS thesis from their research, present their findings at scientific meetings and stakeholder workshops, and produce 1-2 peer reviewed manuscripts.

Annual stipend: $19,000/year for two years

Required qualifications: Bachelor’s degree in Microbiology, Biological Sciences, Biochemistry, Environmental Biology, Wildlife Biology, or other closely related fields.

Desired qualifications: Students with prior benchtop molecular biology lab experience are encouraged to apply. The candidate should be highly motivated, with an aptitude for field as well as laboratory work. Students should have the capacity to work both independently and as part of a team in a fast-paced environment where fluid prioritization is the norm. Candidates should possess an interest in parasitology, have strong written and verbal communication skills, and be adaptable to living both on and off campus. The project will require extensive field sampling in less than ideal (hot, humid, insects, snakes, etc.) conditions; the candidate should have a strong constitution.

Interested students should send the following as a .pdf document with the subject heading “MS Student – Trematode Project” to graham.rosser@msstate.edu

- Cover letter
- Resume/curriculum vitae
- Unofficial copy of undergraduate transcript
For additional information contact:

T. Graham Rosser, PhD
Research Assistant Professor
Department of Comparative Biomedical Sciences
College of Veterinary Medicine
Mississippi State University
Mississippi State, MS 39762
P: (601) 433-3918
graham.rosser@msstate.edu

or

Matt J. Griffin, PhD
Research Professor
Aquatic Research and Diagnostic Laboratory
Thad Cochran National Warmwater Aquaculture Center
Department of Pathobiology and Population Medicine
College of Veterinary Medicine
Mississippi State University
Stoneville, MS 38776
Cell: (662) 617-5213
Office: (662) 686-3580
matt.griffin@msstate.edu
# Terms of Reference

**Job title:** Scientific Coordinator – Aquatic animal health  

**Duration of contract:** 1 year, renewable  

**Salary:** Base salary € 3 100 net / month, depending on profile, qualifications and experience  
+ benefits (tax-free salary, yearly bonus)  

## Positioning and reporting

Under the authority of the Deputy Director General (International Standards and Science), and the supervision of the Head of the Standards Department. Located at OIE Headquarters in Paris, France.

## Job purpose

The Scientific Coordinator contributes to the development of policy advice on scientific developments, research priorities and international scientific networks in the field of aquatic animal health. He/she contributes to the scientific excellence and integrity of the OIE standard-setting process by supporting the work of the Specialist Commissions and relevant ad hoc Groups to ensure the delivery of high-quality, scientifically-based and up-to-date international standards. He/she also supports OIE activities addressing aquatic animal health and welfare by coordinating activities with the relevant work of other international partners and contributing to capacity building activities of Members such as national focal point trainings.

## Missions and activities

### Provide technical advice and support on aquatic animal health

- Maintain current knowledge on the topic in order to support the definition of the scope and context for OIE involvement in the topic  
- Contribute to development of policy statements and/or strategic thinking for the implementation of the OIE aquatic animal health strategy  
- Prepare relevant documents and undertake analysis as required  
- Contribute to the preparation of responses to enquiries from Members  
- Liaise with relevant stakeholders, including colleagues globally, Members, other organisations and external parties  
- Provide communication content and technical advice to other relevant teams

### Contribute to the provision of scientific secretariat support to the Aquatic Animal Health Standards Commission and relevant ad hoc Groups

- Provide secretariat support to the Aquatic Animals Commission and relevant ad hoc Groups respecting relevant OIE procedures  
- Prepare background and working documents for meetings of the Aquatic Animals Commission and relevant ad hoc Groups respecting relevant OIE procedures  
- Contribute to the collation and analysis of Member comments, and other relevant sources of information  
- Provide historical analysis of past decisions  
- Contribute to the drafting of meeting reports  
- Ensure communication and alignment with internal teams regarding the work of the Aquatic Animals Commission  
- Contribute to the preparation of responses to enquiries from Members and other stakeholders  
- Follow up actions arising from meetings

### Ensure coordination with partner organisations on the implementation of activities

- Maintain a network of contacts and good communication with subject matter experts  
- Represent the OIE and its position within relevant networks and international forums  
- Coordinate relevant meetings and provide Secretariat functions  
- As required, support the organisation of events on the topic

### Support capacity-building activities for Members

- Develop a training programme and oversee its production  
- Design comprehensive training materials  
- Identify and liaise with relevant speakers  
- Coordinate and/or facilitate the seminars  
- Evaluate and improve the training content and structure
Terms of Reference

Qualifications and Experience

Required qualifications
- A degree in veterinary science, aquatic animal health, biological sciences or equivalent
- At least 8 years of professional experience including at least 5 years of experience particularly in a national regulatory environment, or other international organisation
- Experience in the provision of Secretariat functions at the national or international level

Additional experience
- Professional experience in a National Veterinary Authority or equivalent.

Requirements:

Technical skills:
- Ability to work in English at a high level including excellent oral and written communication skills
- Excellent writing skills
- Ability to summarise complex technical discussions into clear and concise documents and reports
- Good working knowledge of Microsoft Office, in particular Word

Additional skills
- Knowledge and understanding of the international standards setting environment
- Knowledge and understanding and the WTO Agreements in relation to international trade
- Good knowledge of French or Spanish

Interpersonal skills:
- Excellent communication skills
- Ability to establish and maintain good working relationships in a multinational and multicultural environment
- Strong analytical and research skills
- Capacity to learn and a self-motivated worker
- Excellent organisation skills and ability to meet specific deadlines

Working conditions

The post is a full-time position based at the OIE Headquarters in Paris. It requires long hours in a seated position at a computer. The position entails regular missions abroad.

General Information

The OIE places high value on a multicultural and positive work environment. The OIE is an equal opportunity employer and welcomes applications of all qualified candidates, irrespective of their ethnic origin, gender, opinions or beliefs.

This is a full-time position as an international civil servant based at the OIE Headquarters in Paris (France) that is available immediately.

If you are interested in the position, please complete your application online by 10 February at noon (Paris local time) at the latest by clicking on the link below.

APPLY HERE
Davis-Thompson Foundation
Day Seminars

CORAL DISEASES
Tuesday, 23 February

7:00-8:00 am**:
Role of corals in health of tropical marine ecosystems, need for veterinary pathology, and challenges ahead.
Dr. Thierry Work

8:00-9:00 am:
Anatomy of corals.
Dr. Esther C. Peters

9:30-10:30 am:
Describing gross lesions.
Dr. Thierry Work

10:30-11:30 am: Field sampling and processing corals for histopathological examination.
Dr. Esther C. Peters; Dr. Matti Kiupel

12:30-1:30 pm: Microscopic anatomy of corals.
Dr. Michelle Dennis; Dr. Aine Campbell Hawthorn

1:30-2:30: Histopathology of corals, Part I.
Dr. Thierry Work; Dr. Esther C. Peters; Dr. Matti Kiupel; Dr. Jan Landsberg

3:00-4:00: Histopathology of corals, Part II.
Dr. Thierry Work; Dr. Esther C. Peters; Dr. Matti Kiupel; Dr. Jan Landsberg

4:00-5:00 pm: Quiz.
Dr. Thierry Work; Dr. Esther C. Peters; Dr. Matti Kiupel; Dr. Jan Landsberg

*This seminar is preapproved by the ACVP Maintenance of Certification (MOC) Committee for 4 credits
-This program has been approved for 8 hours of continuing education credit in jurisdictions which recognize RACE approval.
**: all times in PST

Registration free but required*

Register here: https://us02web.zoom.us/webinar/register/WN_JYkZrVM7QsSW-nKwvHXQVg