

Fish Health Section



FHS NEWS – August 2022

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

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

Fish Health Section Twitter feed: @AFSFishHealth

People of the Fish Health Section: Commemorating 50 years

Dear Fish Health Section members,

This month, for the final installment in this series of profiles, I am pleased to feature two more of our members.

My only regret in producing this series is that I was not able to feature more than 23 of our 283 members. The series has featured members from 14 different USA States, plus members from Canada and Chile. The featured members have listed a total of 61 different people that positively influenced their careers. **Al Camus** wins my unofficial “President’s Influencer Award” for being mentioned the most often: in four profiles. I look forward to seeing many of you in Santiago or during our annual business meeting in Santiago and via Zoom: Sept. 8, 12:30pm Eastern daylight time.

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

My name is **John Wood**. I’m closing in on 26 years at Pisces Molecular, the company I founded in 1997. The impetus for starting Pisces was the underutilization at the time of molecular genetic techniques in fisheries science. Building on the work of **Ron Hedrick** and **Karl Andree** at UC Davis, Pisces developed the first widely used PCR diagnostic assay in fisheries and in the AFS Blue Book – an assay for *Myxobolus cerebralis*, the cause of whirling disease. Encouraged by all the fish biologists at the Colorado Division of Wildlife, particularly **Pete Walker**, **Barry Nehring**, **Kevin Rogers** and **George Schisler**, I got drawn into the “fish world”, joining AFS and the Fish Health Section, and the numerous issues where molecular techniques could contribute, including disease detection, species identification, genetic purity and hybridization, and most recently environmental DNA sampling. A highlight of this work was the identification of the only extant, historic Greenback Cutthroat population in Colorado with **Kevin Rogers** at CDOW, **Jessica Metcalf & Andrew Martin** at the University of Colorado and my wife, **Janet Epp**. I haven’t figured out yet how to retire – the number of problems or issues in fisheries where molecular genetics can contribute seems never-ending!



Hi all! I am **Stacy Strickland**, and you know me from all the FHS emails over the last few years. I volunteered after attending an FHS business meeting and learning the newsletter needed a new editor and I wanted to get more involved with the section. I have been a Fish Health Specialist for the Oregon Department of Fish and Wildlife since the fall of 2016, based in Madras, OR. I got into this career after a varied list of jobs that included Aviculturist, Picture framer, Real Estate assistant, and jewelry maker. **Craig Banner** hired me into this field just before he retired, and I'm grateful for his mentorship. My first foray into dissecting fish was as a contractor for NOAA Fisheries with **Mary Arkoosh**, studying non-lethal anthropogenic stressors on juvenile Chinook salmon and how they affected disease resistance and prevalence. I have been an FHS member since 2017 and I joined for the networking. My favorite experiences so far have been meeting so many of you at Western Fish Disease Workshops. I love learning and seeing what others are discovering and I look forward to seeing the growth and changes in fish health to come.



Call for Content

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

Thanks in advance for your submissions!

Stacy Strickland, AFS-FHS Newsletter Editor

MEETINGS, WORKSHOPS AND COURSES

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

September 18-23, 2022

MDI Biological Laboratory

Bar Harbor, Maine

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

See attached .pdf for more information.

9th International Symposium on Aquatic Animal Health (ISAAH)

Santiago, Chile

September 5-8, 2022

The Program is set for ISAAH9! See the list of topics/presenters and program timetable [here](#).

In light of current travel restrictions, we are providing a virtual option to attend for the low cost of \$150.

Virtual Registration provides access to all live streams as well as the pre-recorded virtual presentations. In addition, Virtual Registrants are eligible for the WAVMA/AAFV CE session. Contact americanfishvets@gmail.com for details.

If you haven't already done so, register [here](#) to be a part of the first ISAAH held outside of North America!

Thanks for supporting ISAAH9!

The Organizing Committee

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

JOBS/GRADUATE ASSISTANTSHIPS

Post-doctoral Scientist

Pisces Molecular

Boulder, CO

Pisces Molecular has an immediate opening for a full-time postdoctoral scientist position for a project to genetically engineer Kokanee salmon (*Oncorhynchus nerka*) for resistance to the gill lice parasite, *Salmincola californiensis*. The project will utilize a variety of molecular genetic techniques including phage-display libraries, next generation sequencing and gene editing to identify, then alter, the gene(s) in Kokanee responsible for the host specificity of *S. californiensis* for Kokanee (and conversely the preference of a second *Salmincola* species, *S. edwardsii*, for *Salmo* and *Salvelinus* trout species).

The ultimate goal of the project will be to ensure survival of the Kokanee population in Blue Mesa Reservoir, Colorado, which has been seriously impacted by gill lice parasitism. The project is expected to take two years. Funding for this project has been secured. The successful applicant for this position is expected to have wide and robust training in molecular genetics and will perform on a relatively independent basis all phases of project investigations, to include being responsible to the Co-Principal Investigator in planning, developing, and carrying out experiments. Starting date is flexible but ideally as soon as possible.

Applicants must have a PhD degree with a record of innovative scientific accomplishment in graduate and/or post-graduate studies. Pisces Molecular is a small but long-established company in Boulder, CO focusing on innovative molecular genetic approaches to a wide variety of wildlife and conservation issues, including determining the identity and purity of the endangered Greenback Cutthroat trout, developing and using environmental DNA qPCR assays for detecting endangered and invasive species, and sex identification assays for a wide-range of species, including Osprey and Komodo Dragons.

Pisces Molecular is an Equal Opportunity, Affirmative Action Employer of all protected classes, including veterans and individuals with disabilities. Women, racial and ethnic minorities, individuals with disabilities, and veterans are encouraged to apply. Hiring is contingent upon eligibility to work in

the United States. Salary range is \$55,00 to \$75,00 per year. If interested contact John Wood (jwood@pisces-molecular.com; 303-546-9300)

Zebrafish Related Job Announcements

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

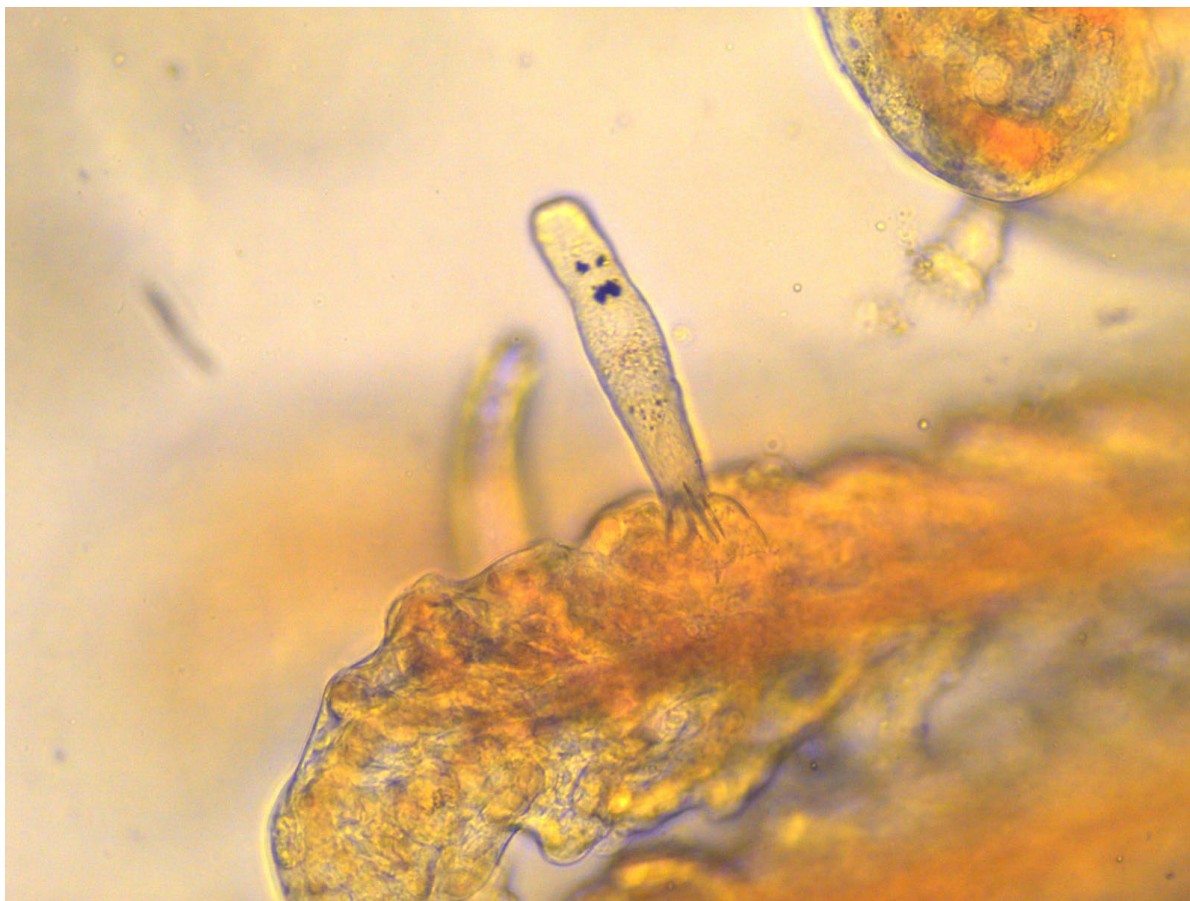
RESOURCES/NEWS

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

AFS Job Board changes

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

Editor's Random Pics



Scroll down for photo caption

Dactylogyrus sp. attached to gill tissue of channel catfish fry. Las Animas State Fish Hatchery, Colorado, July 2022 (200 times magnification). It was stretching up and down like a “wacky waving inflatable arm flailing tube man.” Photo courtesy of John Drennan.



Course Director

Michael Kent, Ph.D.
Oregon state University

Course Faculty

Rodman Getchell, Ph.D.
Cornell University

Christian Lawrence,
SmartLabs

Chris Whipps, Ph.D.
SUNY

Health and Colony Management of Laboratory Fish

Spectember 18-23, 2022

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

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

Topics covered include:

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

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

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