



# Fish Health Section



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

## FHS NEWS

### IN MEMORIAM TO PETE BULLOCK



**Graham L. "Pete" Bullock**  
**March 6, 1935 – January 8, 2011**

Dr. Graham L. "Pete" Bullock passed away on Saturday, January 8, 2011, at Jefferson Memorial Hospital after a long battle with polymyositis; - a degenerative muscle disease. Through his life, Pete touched the lives of individuals. By his research, he broadened our knowledge. By his teaching, he helped begin and advance our careers. In his friendship, he brought us together. His sense of humor was legendary. Pete was a valued colleague to numerous persons in fish health throughout North America and around the world. He was highly respected and well thought of by all who met him. We shall remember him, we shall miss him.

Pete was born in Martinsburg (WV) on March 6, 1935. He received his BS degree in Biology/Chemistry from Shepherd College (Shepherdstown, WV) in 1957 and his MS degree in Bacteriology from the University of Wisconsin (Madison, WI) in 1959. He earned his PhD in Environmental Microbiology at Fordham University (Bronx, New York) in 1970 under the co-mentorship of Dr. Stanislaus F. Snieszko and Dr. John J. A. McLaughlin.

From 1959 – 1960, Pete worked as a quality control bacteriologist at the Thomas J. Lipton Company in Hoboken (NJ). In 1960, he was hired by Dr. Snieszko as a research microbiologist at the Eastern Fish Disease Laboratory (EFDL; Leetown, WV). It was there that he began an iconic career researching the diagnosis, control, and treatment of bacterial diseases of fish as a senior investigator and then as the section leader of Bacteriology when the EFDL evolved into the National Fish Health Research Laboratory (NFHRL; Leetown, WV). In 1981, Pete led the NFHRL as its scientific director, which was the position that he held until he retired from federal service in 1990. Even then Pete continued to conduct research on bacterial diseases, drug treatments, and the floral colonization of fluidized bed bio-filters at the Conservation Fund's Freshwater

Institute in Shepherdstown (WV) until 2005. He remained active for several more years tutoring homebound students for the Jefferson County Board of Education.

Pete was a member of the American Fisheries Society's Fish Health and Fish Culture Sections and a Past President of the Fish Health Section. He was a recipient of the Dr. Stanislaus F. Snieszko Distinguished Service Award and the United States Department of the Interior's Meritorious Service Award for his lifelong contributions to his profession. He authored more than 100 publications in scientific journals and published a book on bacterial diseases of fishes. Pete is survived by his wife Chris, his five children Jane, Jeff, Dan, Keith and David.

### **JOINT ANNUAL FHS MEETING AND 52<sup>ND</sup> WESTERN FISH DISEASE WORKSHOP**

June 14-16, 2011  
Nanaimo B.C.

Please join us in Nanaimo, British Columbia for the joint Western Fish Disease Workshop/AFS FHS meeting from June 14-16, 2011 at the Vancouver Island Convention Centre (check out <http://www.viconference.com> for more information on the beautiful Island and all that it offers). A continuing education session on day 1 will be followed by 2 days plenary session. More information will be forthcoming.

However, before the meeting it is time to think of anyone you may wish to nominate for the Snieszko Distinguished Service Award. Information concerning this award is listed below. If you have someone in mind you would like to nominate, please start putting the packet together now and requesting letters of recommendation.

#### **STUDENTS!!!**

Don't delay in putting in your application for the Snieszko Student Travel Award! Please follow the new directions and submit the complete package no later than April 1, 2011.

#### **Snieszko Distinguished Service Award**

This is the highest award in the FHS presented for the purpose of honoring individuals for outstanding accomplishments in the field of aquatic animal health. The criteria for this award are as follows:

- \* Individuals to be considered for this award must be nominated by a current member of the FHS.
- \* Persons making nominations must obtain six letters of recommendation from fish health professionals that support the nominee's dedication to research, teaching an/or service to the field of aquatic animal health. The six letters along

with the curriculum vitae for the nominee should be sent to the Award Committee with a letter of nomination.

\* Because this is a career award, candidates should have a significant number of active years in science within the fish or shellfish health field as well as significant accomplishments, which are not limited to but can include the following examples:

o Candidates should have a significant number of research publications in recognized peer reviewed journals and/or book chapters and books within the subject of fish or shellfish health.

o A candidate must have been active in finfish and shellfish health research or diagnostics as indicated by significant publications and/or secured grants for graduate student thesis projects, and/or administration of a successful finfish or shellfish health program or laboratory.

o Accomplishment by a candidate of a major discovery regarding a new finfish or shellfish disease or diseases and/or continued significant contributions to the understanding of a previously discovered disease or diseases.

o Previous recognition by peer through other society, committee or distinguished service awards and/or by elected or appointed chair/presidential positions.

FHS members interested in nominating an individual for this award should send the required materials as described above to Deborah Iwanowicz no later than April 1, 2011.

### **Snieszko Student Travel Awards**

This award, a sum of up to \$1000, is awarded to one or more students yearly to defray travel to the Annual FHS meeting to present a talk in the aquatic animal health field. The requirements from student applications are as follows:

\* Letter of application and statement of any special financial circumstances (i.e. not supported by a stipend, etc.)

\* Curriculum vitae must be submitted along with three letters of recommendation

\* Itemized budget on how money is to be spent, i.e. travel, meals, lodging and registration

\* Copy of abstract of paper to be presented

\* The student MUST be a member of the AFS/Fish Health Section

The applications will be judged by the following criteria:

\* Quality of abstract

\* Significance of/interest in the research

\* Academic achievement

\* Professional achievement

\* Financial need

Students interested in applying for the Snieszko Student Travel Awards should prepare an application packet containing the above items and put it in pdf format. Send complete pdf to Deborah Iwanowicz no later than April 1, 2011.

Pdf packet should include (in order): 1) Letter of application and statement of any special circumstances, 2) CV, 3) Three letters of recommendation, 4) Itemized budget, 5) Copy of abstract to be submitted.

Awards Contact:

Deborah Iwanowicz  
USGS  
National Fish Health Research Laboratory  
11649 Leetown Road  
Kearneysville, WV 25430  
P: 304-724-4439  
F: 304-724-4435  
Email: [diwanowicz@usgs.gov](mailto:diwanowicz@usgs.gov)

**MEETINGS AND WORKSHOPS - FOR INFORMATION ON THESE AND OTHER  
UPCOMING MEETINGS GO TO THE WEBSITE:**

<http://www.fisheries.org/units/fhs/meeting.php>

### **SALMON DISEASE WORKSHOP**

July 11-22, 2011  
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 served basis.

General Topics

- Viral Diseases, Cell Culture & Viral Diagnosis
- Bacterial Diseases
- Parasitic Diseases• Disease in Net Pen Culture; Michael Kent, OSU
- Issues in intensive trout culture;
  - Immunology and stress
- Molecular Diagnostics
- Disease Control and Treatment
- Histology & Histopathology

- Pharmacology

Cost of the workshop is \$950 plus housing (if desired). May be taken for 5 CE credits. For more information, if you wish to receive graduate credit and to register, please contact Dr. Jerri Bartholomew at 541-737-1856 or e-mail at: [bartholj@science.oregonstate.edu](mailto:bartholj@science.oregonstate.edu)

A website for more information and with links to registration will be posted in the near future.

### **HEALTH AND COLONY MANAGEMENT OF LABORATORY FISH**

Mount Desert Island Biological Laboratory Bar Harbor, Maine

15 – 19 August 2011

[http://www.mdibl.org/courses/Health\\_and\\_Colony\\_Management\\_of\\_Laboratory\\_Fish/182/](http://www.mdibl.org/courses/Health_and_Colony_Management_of_Laboratory_Fish/182/)

### **36TH EASTERN FISH HEALTH WORKSHOP – see attached 2011 registration form, abstract instructions and title forms**

Holiday Inn Charleston – Mt Pleasant

Mt Pleasant , South Carolina

28 March – 1 April, 2011

The EFHW is not far away and we are now accepting titles for the general sessions. Please complete the title attachment and return it to me as soon as possible in order to reserve your place on the general program.

#### Important Due Dates:

General Session Titles: Currently accepting until the program is full

Abstract: 1 March 2011

Early Registration: postmarked before 1 February 2011 (\$175)

Late Registration: 2 February and thereafter (\$200)

Hotel Reservation: 1 February 2011

Presentations: 15 March 2011

The 36th Annual Eastern Fish Health Workshop will be dedicated to the memory of Dr. Graham L. "Pete" Bullock who passed away on Saturday, January 8, 2011, at Jefferson Memorial Hospital after a long battle with degenerative polymyositis. Pete was one of the original participants in the very first Eastern Fish Health Workshop and supported the meeting throughout his career while employed in the U. S. Fish and Wildlife Service and Conservation Fund's Freshwater Institute. Despite his illness, we were fortunate to have been graced with his presence during last year's banquet. Through his life, Pete touched the lives of individuals. By his research, he broadened our knowledge. By his teaching, he helped begin and advance our careers. In his friendship, he brought us together and his sense of humor was legendary. Pete was a valued colleague to numerous persons in fish health throughout North America and respected around the world. We shall remember him, we shall miss him.

## SPECIAL SESSIONS

1. Emerging dsDNA Viral Diseases of Fish and Amphibians - Tom Waltzek
2. Keeping 'em happy, healthy, and in those aquaria – Shane Boylan
3. Probiotics: a SCAT-er-gun approach – Sally Molloy
4. Just when you thought it was safe to go back: shark health – Alistair Dove
5. Pondering the realities of antibiotic therapies - Mark Gaikowsky
6. The Gulf of Mexico Oil Spill and environmental health – Greg Lewbart
7. Seeing in toto: the ecology of disease – Karen Burnett
8. Coral Ecosystem Health – Cheryl Woodley
9. The Aquatic Detective: Unusual and Perplexing Case Reports

## GENERAL SESSION TITLES:

Preliminary Findings from Health Assessment of Hybrid Clams Cultured in Florida - Denise Petty

Antimicrobial Susceptibility Of *Francisella asiatica* Isolates From Fish - Esteban Soto

The pathogenesis of VHSV in experimentally infected sea lamprey (*Petromyzon marinus*) - Laura Coffee

Susceptibility of hybrid striped bass to viral hemorrhagic septicemia virus type IVb at two temperatures - Emily Cornwell.

Results of 2010 surveillance for koi herpes virus and viral hemorrhagic septicemia virus in the Great Lakes - Emily Cornwell

LMBC's: A new largemouth bass cell line - Greg Wooster

Biological control of proliferative gill disease on commercial catfish operations - Matt Griffin

## Continued Education Opportunity:

Histopathology, Part II: Finding and Interpreting the Overlooked will be offered on Friday, April 1 from 8:00 AM until 4:00 PM. The course is chaired by Dr. Stephen A. Smith of Virginia Tech and will involve presentations on the normal histology and histopathology of tissues of fish that were not covered in last year's Eastern Fish Health Workshop CE Session. Organ systems addressed this time will include the eye, muscle, endocrine system, gastrointestinal system and reproductive system. There will also be an introduction to fixation, processing and staining techniques to open the session. As an added bonus, this year's

participants will receive a CD-ROM of the presentations given this year as well as those presented at last year's CE Session (i.e. skin, gills, liver, kidney, cardiovascular, brain and nervous system, spleen and reticuloendothelial tissues). Participants in this program will earn 6.0 CE credit hours from the Fish Health Section (FHS) of the American Fisheries Society. The FHS is a RACE certified continuing education provider (No. 546) with the American Association of Veterinary State Boards. This program is designed to meet the requirements for six (6.0) hours of veterinary continuing education in jurisdictions which recognize AAVSB RACE approval; however, participants should be aware that some boards have limitations on the number of hours accepted in certain categories and/or restrictions on certain methods of delivery. For additional information contact Dr. Smith (stsmith7@vt.edu). Cost is \$40 (U.S.) and includes registration, handouts, breakfast, lunch and break.

**Call For General Session Titles and Abstracts:** To guarantee a place on the program, please return a title for your presentation via email by completing the appropriate sections of the Word attachment entitled "title" If you are presenting a short case report, please indicate that you would like your contribution to be included in the "Aquatic Detective" session.

Abstracts must be submitted by 1 March 2011. They can be sent via email to rcipriano@usgs.gov. Please follow the directions for preparation of abstracts and presentations (see attachment: abstract prep). Your attention to these guidelines is greatly appreciated. Power Point presentations are due by 15 March 2011.

**Best Student Paper Presentation:** The Eastern Fish Health Workshop will donate \$200 and a plaque for the Best Student Presentation. Eligible individuals must (1) be enrolled in an undergraduate or graduate research program at the time that the presentation is given and present his/her own research. The award will be presented at our Banquet. You must register for this competition by completing the appropriate section of the Word attachment entitled "title"

**Registration:** A \$175.00 registration fee (U.S. dollars) includes a reception on Monday evening, workshop proceedings, refreshments at breaks, buffet breakfasts and luncheons on each of the three days of the workshop, and the Anniversary Banquet on Thursday night. Make checks payable to the "Eastern Fish Health Workshop" and return payment with your registration form by 1 February 2011. A late registration fee of \$200.00 (U.S. dollars) is charged after this date. The EFHW does not accept credit cards and there are no daily or discounted registrations.

**Lodging Accommodations:** Accommodations must be made directly with The Holiday Inn Charleston – Mt Pleasant at (843) 884-6000. You must identify your affiliation with the Eastern Fish Health Workshop and call before 1 February 2011 to secure a room at the special convention rate (\$129.00 per night + tax).

Holiday Inn Charleston - Mt Pleasant (250 Johnnie Dodds Blvd., Mount Pleasant, SC 29464

From: Charleston International Airport - Take 26 East to exit 220. Take a left at the first stoplight; - distance is 13.0 miles. Shuttle charge one way is approximately \$30. Travel time takes 25 minutes.

From: Interstate 95 – Exit 86 to I-26 east to hwy 17 north cross Ravenel Bridge - exit left to 17N. Turn left at 1st traffic light (McGrath Darby) off the bridge. Hotel is on your left.

## **JOBS**

<http://www.fisheries.org/units/fhs/employment.php>

### **COMBINED RESIDENCY/MS TRAINING IN ANATOMIC PATHOLOGY WITH AN EMPHASIS IN AQUATIC ANIMAL PATHOLOGY.**

Washington State University is offering an anatomic pathology residency/MS training position with an emphasis in Aquatic Animal Pathology. This rigorous three-year program combines anatomic pathology residency training in a fully accredited diagnostic laboratory ([http://www.vetmed.wsu.edu/depts\\_waddl/](http://www.vetmed.wsu.edu/depts_waddl/)) with training in biomedical research leading to a MS degree (<http://www.vetmed.wsu.edu/depts-vmp/graduate/AnatomicPath.aspx>). Trainees completing training are eligible for American College of Veterinary Pathologists (ACVP) certification. The ten-year ACVP board pass rate for WSU trainees is greater than 93%. Training occurs under the guidance of 7 ACVP and one ACLAM board-certified pathologists. The MS graduate training position will focus on a research project involving rainbow trout, salmon or other significant fresh water or marine fish species native to the Pacific Northwest and important to aquaculture production. The selected graduate student will study under the Ed McLeary Distinguished Professor in Aquatic Animal Health and his collaborators. Projects will be hypothesis directed with an emphasis on infectious disease and/or immunology at the host pathogen interface. The starting stipend is \$35,436/yr, with tuition support and medical benefits. The position would begin in the summer of 2011. Applicants must possess a DVM or equivalent degree. Applications should include veterinary college transcripts, curriculum vitae, a statement of professional goals, and names of three references. Send applications to: James Stanton, Department of Veterinary Microbiology and Pathology, Washington State University, PO Box 647040, Pullman, WA 99164-7040; phone (509)335-3725; e-mail [jstanton@vetmed.wsu.edu](mailto:jstanton@vetmed.wsu.edu).

Washington State University is an affirmative action/equal opportunity educator and employer. Protected group members are encouraged to apply.

## **CONTRACTOR FOR MOLECULAR AND IMMUNOLOGICAL WORK**

Hatfield Marine Science Center, Newport, OR

This appointment would be for approximately a year. Tasks under this order will include, but not be limited to:

€ Perform molecular techniques and analyses with juvenile salmon tissue samples to examine immunological and toxicological endpoints including but not limited to:

- Next generation sequencing
- PCR, rt-PCR
- DNA microarray

€ Determine host response to pathogens using immunological techniques to include but not limited to:

- Performing ELISAs to quantify proteins and determining antibody affinity and titers
- Analyze function of macrophages by examining production of superoxide dismutases and their ability to phagocytise pathogens
- Establishing and maintaining salmonid primary cell lines

€ Maintain Data and analyze results to include but not be limited to:

- Input sample ID information into spreadsheet
- Input results into spreadsheet
- Perform statistics to determine statistical differences between samples

€ Assist in maintaining salmon to include but not be limited to:

- obtaining and caring for salmonid embryos and juvenile salmon
- Clean tanks
- Feed fish appropriate diets
- Determine water quality

€ Maintain and organize laboratory to include but not be limited to:

- Organize freezer storage of samples
- Keep laboratory well stocked of general supplies
- Maintain laboratory equipment
- Practice chemical hygiene practices in order to maintain a safe laboratory working environment
- Adhere to laboratory safety practices

€ Assist with Disease challenges to include but not be limited to:

- Maintain and grow fish pathogens in culture (broth and tissue)
- Expose fish to pathogens or contaminant

- Collect tissue samples
- Record data

€Contribute to progress reports, manuscripts, and proposals.

Contact Jim Skubic at Frank Orth (the contracting company) for information. Jim can be reached at (425) 814-2000 x105  
Reference task order #60.

## **RESOURCES**

### **NEWS**

**NUTSHELL NEWSLETTER #30 – see attached PDF**

### **NATIONAL AQUATIC ANIMAL HEALTH PLAN (NAAHP)**

January 2011 Update

The Joint Subcommittee on Aquaculture created the interagency coordinating National Aquatic Animal Health Task Force on Aquaculture in 2001 led by the Animal and Plant Health Inspection Service in the Department of Agriculture, the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration and the United States Fish and Wildlife Service of the Department of the Interior to support the development of a National Aquatic Animal Health Plan. The Plan was approved by the three primary agencies.

What is the NAAHP?

The NAAHP is the summation of ideas on how the Federal government, in collaboration with stakeholders, should develop policies, programs, and if necessary regulations, to address aquatic animal diseases in order to benefit aquaculture and aquatic animal resources in the United States. The NAAHP was released in 2009 and is available at:

[http://www.aphis.usda.gov/animal\\_health/animal\\_dis\\_spec/aquaculture/download\\_s/naahp.pdf](http://www.aphis.usda.gov/animal_health/animal_dis_spec/aquaculture/download_s/naahp.pdf)

Who is implementing the NAAHP?

The Federal agencies with primary responsibility for aquatic animal health — the U.S. Department of Agriculture (USDA), the U.S. Department of Commerce (DOC), and the U.S. Department of the Interior (DOI) — are leading the development and implementation of the NAAHP from the Federal perspective, under the auspices of the Joint Subcommittee on Aquaculture (JSA), a Federal interagency coordinating group. However, we recognize that we will necessarily

need partners to collaborate and support NAAHP efforts and programs to be successful.

What has happened to the NAAHP since it was made public?

Once the NAAHP was made available we solicited comments from stakeholders. Comments ranged from general support to challenges of regulatory and legal authority for aspects of the NAAHP. While we did not respond to comments directly, we consider stakeholders comments as we move forward. We also intend to update the NAAHP every 5 years and will rely on submitted comments to amend the NAAHP.

Over the past year the Federal agencies have been working with stakeholders to develop a National Aquatic Animal Pathogen Testing Network. This effort is intended to provide testing standards and oversight to those existing laboratories conducting testing for movement and surveillance purposes. The intent is to increase the confidence for States, importers and other stakeholders in the results from laboratories and in the health status of animals in movement. Additionally, this infrastructure is intended to satisfy international trading partners in the U.S. Federal government's ability to make assurances as to reporting of aquatic animal diseases and control the movements of pathogens around the U.S. and in international trade.

The Federal agencies are also evaluating commercial off-the-shelf IT programs that will facilitate international and interstate trade. As any producer will tell you, the paperwork process to move live aquatic animals can be burdensome and time consuming. We intend to provide services to facilitate this trade electronically and more efficiently.

Finally, the NAAHP recommends the Establishment of a Federal Advisory Committee. What USDA has done is to restructure its existing 'Foreign Animal Disease Advisory Committee' into an 'Animal Health Advisory Committee' under which subcommittees can be formed to address specific technical and scientific issues. The establishment of an aquatic animal health subcommittee is a priority for USDA based on the recommendations of the NAAHP. The full committee has been selected and the first meeting is planned for January 20th and 21st.