



Fish Health Newsletter

American Fisheries Society/Fish Health Section

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President's Report:

From the President,

I continue to hear from many of you through my periodic updates and hope that you will keep sending items of interest. Electronic communications are making it much easier to share information and make people feel more connected with what is happening in our field. You can help out by keeping your email address current. A current email address is becoming even more important to us than a correct mailing address! If you have changes to make, please make them both on the AFS membership page, and also email them directly to me so I can change them on our list. Someday I'd like to send out an update and have zero returned messages.

FHS Membership

I recently received our current membership database and although I was pleased to see that we are maintaining our membership numbers, I believe we could do better in some categories. Currently we have 395 members, so we are still one of the largest sections in AFS. I believe we also have among the highest levels of international involvement in our section as well. We currently have 29 members from Canada and 40 overseas foreign members, with the largest numbers of representatives from Japan, Australia, Germany and Spain.

Our affiliate membership category is continuing to grow, but slowly. We currently have 13 affiliate members, and only 3 of these are foreign members. This is a membership category that we felt would attract more foreign members as well as members of other professional societies. Please do your part by encouraging collaborators to join!

We continue to have a strong student membership, 35 students, which is approximately 10% of our total membership. The good response that the awards committee had for applications for the Snieszko student travel award this year indicates that this segment is active, and I hope it will continue to grow. From the numbers of job postings that are submitted, there appear to be many opportunities for people entering the field of fish health.

New Officers

I would like to take this opportunity to congratulate and welcome the newly elected officers and committee members (see election results), who will take office in September in New Orleans. Each of them has agreed to commit their expertise and energies to helping the Fish Health Section meet our needs and expectations, and they deserve our thanks. The responsibilities that they have volunteered to fulfill won't always be convenient, but they will be rewarding. Thanks again!

National Issues

Nationally, there are several things that are happening which will shape the future of aquaculture in this country. I have written in previous issues about the Joint Subcommittee on Aquaculture (JSA) National Aquatic Animal Health Task Force. Meetings of the task force are continuing to be held with the various stakeholders. The goal is to prepare a recommended strategy to protect and manage aquatic animal health and at the same time improve the long term productivity and sustainability of both natural and cultured aquatic animal resources in the U.S.

Another plan that is being developed by the National Marine Fisheries Service, headed up by Spencer Garrett and Kevin Amos, is titled "Development of a national aquatic animal health plan for the Exclusive Economic Zone (EEZ)". This goal of this program is to reduce the barriers to nearshore and offshore aquaculture.

Many of you are already involved with these plans at some level, and I am sure that we will be hearing more about them. I hope that you will become involved in these decisions as they will eventually affect all of us.

As you all know, the ISAAH meeting is fast approaching. This will be a great meeting – see you there!

Jerri Bartholomew, President

Meetings:

Continuing education opportunity: Infectious Diseases of Fishes

American Fisheries Society's 132nd Annual Conference, Baltimore, Maryland August 17th

Instructors: Jerri Bartholomew, Beth MacConnell, Paul Bowser

This course is designed to provide a general education in the areas of fish health for individuals who work as field biologists, fish culturists, and managers. It is important that, in addition to fish health professionals, persons involved in fish culture or in the management of wild fisheries be able to recognize the signs of disease and properly

prepare samples for clinical assay. As a basis, this course will rely on a video to demonstrate techniques for necropsy and the collection of samples; the video will also introduce bacteriology, virology and parasitology. Although the video portion of this course illustrates these topics using salmon, the course will include other cultured and wild species of fish. Time will be devoted to lecture and discussions expanding on the following topics:

The proper collection of samples and preparation of samples for clinical assay, including necropsy, aseptic methods, and sample storage.

The different pathogen groups and how they are diagnosed, including discussion of both salmonid and non-salmonid pathogens of regional and national significance.

How to respond to field and culture situations where a disease outbreak is in progress.

The role of water quality in relation to fish health.

The 5th International Symposium on Viruses of Lower Vertebrates: Comparative Virology of Amphibians, Reptiles and Fish, Seattle, Washington, USA, August 27 - 30, 2002

Registration for the Symposium is being managed by Convention Services Northwest. Conference registration and complete information about the Symposium are available via the Web at <http://www.regweb.com/csnw/isv1v>.

For more information please contact:

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Fourth International Symposium on Aquatic Animal Health, September 2-6, 2002, New Orleans, Louisiana

The ISA AH will be held at the beautiful Sheraton New Orleans hotel, and will be hosted by the Fish Health Section of the American Fisheries Society. The organizing committee is chaired by Ron Thune.

To be added to the mailing list to receive announcements visit the Symposium web site at www.vetmed.lsu.edu/isaah2002.htm

Requests can also be sent to isaah2002@vetmed.lsu.edu or by regular mail to ISA AH2002, Department of Pathobiological Sciences, School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA, 70803 USA.

28th Annual Eastern Fish Health Workshop, April 21-25, 2003, The Eisenhower Inn and Conference Center, Gettysburg, PA

The National Fish Health Research Laboratory (Kearneysville, WV) will host the 28th Eastern Fish Health Workshop at the Eisenhower Inn and Conference Center (Gettysburg, PA). Registration begins Monday, 21 April from 5:00 - 7:00 PM, followed by three full day sessions, 22, 23, 24 April 2003. Battlefield tours and a special night at the Farnsworth Mourning Theater and Ghost walk are planned as optional group activities. Not only will there be a complete session on the final day (24 April), but that evening features our Annual Banquet with entertainment (covered under registration). We encourage you to make your departure plans for Friday, 25 April. In conjunction with the Workshop, a 7 hour session entitled "Molecular Biology - The Basics" will be presented by Dr. Ted Clark and Dr. Jim Casey of the Dept. of Microbiology and Immunology, College of Veterinary Medicine, Cornell University, is being organized through the Continuing Education Committee of the Fish Health Section of the American Fisheries Society. The session explains techniques used in contemporary molecular biology and targets individuals who have had little experience in this area of science. It will convene at the Eisenhower Inn on Friday, 25 April 2003 from 8:00am - 4:00 pm. Individuals participating in this program will earn 7.0 credit hours of CE Credit from the Fish Health Section of the American Fisheries Society. For additional information please contact Dr. Paul R. Bowser (prb4@cornell.edu). The class size will be limited to 40 people, based on a first-come basis. Cost is \$35 (or U.S. equivalent), which includes registration, handouts, breakfast, lunch and break.

Lodging accommodations must be made directly with The Eisenhower Inn and Conference Center at (800) 776-8349 or (717) 334-8121. Accommodations have been provided at \$55.00 + tax per night but you must identify your affiliation with the Eastern Fish Health Workshop and call before 21 March 2003 to secure reservations at these prices. A \$120.00 registration fee (\$U.S.) includes workshop proceedings, refreshments during breaks, full buffet breakfasts, and luncheons on each day of the proceedings, a get-acquainted reception on Monday evening, and the 28th Anniversary Banquet on Thursday night. Please make checks payable to the "Eastern Fish Health Workshop c/o Rocco Cipriano" and return payment with your completed registration form by 31 March 2003. Contracts for food services necessitate a late registration fee of \$140.00 after this date. For more information or to be included on the electronic mailing list, please contact R. Cipriano at the address below.

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Announcements:

Fish Pathologist Examination

The exam for the AFS/Fish Health Section certification for Fish Pathologist will be administered at the Fourth International Symposium on Aquatic Animal Health in New Orleans September 1-5, 2002. The specific time and location will be decided later and applicants will be contacted prior to registration. If an applicant cannot attend the meeting, other arrangements for taking the examination will be made. Those qualified persons that have submitted the required fee for taking the exam should contact Ted Meyers at (907) 465-3577 or at ted_meyers@fishgame.state.ak.us.

New requirements for Fish Health Inspector re-certification

The Professional Standards Committee and the EXCOM have agreed upon a new set of requirements for re-certification of Fish Health Inspectors and now wish to put it before the membership at large for a vote. These new requirements will be voted on by FHS members attending the business meeting held at the September international meeting in New Orleans and are outlined below.

Total Credits required: 60 credits since the last renewal. At least 30 credits must be earned with activities directly related to aquatic animal pathology (including all fields of aquatic animal health). The remaining credits (30) may be earned in any of the following general categories: (1) fisheries or aquatic sciences other than aquatic animal pathology, (2) veterinary or human medicine, (3) microbiology, toxicology, pathology, water quality, pharmacology, or other sciences that provide relevant continuing education.

Credit toward fulfilling the continuing education requirements may be obtained by attending short-courses, annual meetings (including workshops and conferences), and university courses. One unit of credit is obtained for each clock hour of attendance, except credit for university courses which is calculated as 15 hours for each semester unit of academic credit (or for the quarter system, 10 hours for each unit of academic credit). Presentation or organization of short courses, annual meetings, and university courses provides the same number of credits as attending. However, multiple presentations of the same or similar subject material can only be credited once during a certification renewal period.

Continuing education activities offered for credit toward recertification are subject to approval by the Professional Standards Committee. Each applicant for renewal of certification must retain independent documentation of all continuing education credits. This documentation must be produced for inspection and verification by the Professional Standards Committee during its evaluation process.

FHS ELECTION RESULTS

John Grizzle: Vice President

Professor in the Department of Fisheries and Allied Aquacultures
Auburn University, Auburn, AL

Ken Cain: Secretary/ Treasurer

Assistant Professor in the Department of Fish and Wildlife,
University of Idaho, Moscow, ID

Diane Elliot: Technical Standards Committee

Research Microbiologist for the Western Fisheries Research Center
(Biological Resources Discipline), USGS, Seattle, WA

Scott Foote: Professional Standards Committee

Project Leader at the U. S. Fish & Wildlife Service California – Nevada Fish Health Center

Gael Kurath: Nominations Committee

Research Microbiologist with the USGS Western Fisheries Research Center
Seattle, WA

CONGRATULATIONS TO OUR NEWLY ELECTED OFFICERS!

S.F. Snieszko Student Travel Award Winners

This year there were 8 applications for the S.F. Snieszko Student Travel Award. The awardee is chosen based on the quality of the abstract, significance of the research, academic achievement, professional achievement, and financial need. The committee chose to award two deserving students for presentation of their research at the Fourth International Symposium on Aquatic Animal Health, in New Orleans.

Pareeya Udomkusonsri: doctoral student in Comparative Biomedical Sciences, College of Veterinary Medicine, North Carolina State University, Raleigh, NC; under the Direction of Dr. Ed. Noga and Dr. Nancy Monteiro-Riviere. Pareeya will present her research entitled "Pathogenesis of the Acute Ulceration Response (AUR)" at the ISAAC in September.

Benjamin LaFrentz: master's student in Fish and Wildlife Resources, University of Idaho, Moscow, ID; under the direction of Dr. Ken Cain. Ben will present his research "Characterization of serum and Mucosal Antibody Responses of Rainbow Trout (*Oncorhynchus mykiss*) to *Flavobacterium psychrophilum*", and a poster "Passive Immunization of Rainbow Trout (*Oncorhynchus mykiss*) against *Flavobacterium psychrophilum*" at the ISAAC.

CONGRATULATIONS to Ben and Pareeya, we look forward to your research presentations in New Orleans.

Western Fish Disease Workshop, Oregon State University, Corvallis Oregon

The 43rd Western Fish Disease Workshop hosted by the Center for Fish Disease Research, Department of Microbiology was held at OSU in Corvallis, June 25-26. The workshop was preceded by an AFS/FSH Continuing Education course on "Newer Diagnostic Methods", attended by sixty participants. The course covered topics including virus identification and *Renibacterium salmoninarum* detection using PCR, special stains for Microsporidia, and test development and validation for *Myxobolus cerebralis*.

Two graduate students from the Department of Biological Sciences at California State University, Hayward, under the direction of Beverly Dixon, were awarded travel grants to present their research. **Leslie Reiman** presented a research poster entitled "Isolation of the Normal Anaerobic Intestinal Flora of Shrimp, *Litopenaeus vannamei*, co-authored with Dr. Shaun Moss from the Oceanic Institute, Waimanalo, Hawaii. **Ken Iwaki** presented a research poster entitled "Pathogenic Amoebae Associated with Aquatic Systems", co-authored with Dr. Fred Schuster of the California Department of Health Services in Richmond, CA.

Retirees:

John Hnath

After over 38 years with the State of Michigan (37.5 years with the Department of Natural Resources), John will retire June 28, 2002. He began his career with the DNR in 1965 at the Grayling Research Station. After just 3 months, he was drafted into the Army where he worked at the Biological Warfare Research station in Fort Detrick, Maryland (research on fish diseases). He returned to Grayling in January 1968. In 1974 he transferred to the Wolf Lake Fish Health Lab where he completed his career as the State Fish Pathologist. We wish you well John.

Rich Holt

Rich Holt, Senior Fish Pathologist, is retiring from the Oregon Dept. of Fish & Wildlife. I first met Holt in the winter of 1967. He had completed his B.S. degree in Microbiology at Iowa State University and had come to Oregon State University to work on an M.S. degree in Microbiology. His interests were in the myxobacteria associated with soils. While discussing his future with the faculty, someone suggested he talk with me concerning my interests in the gliding bacteria that cause diseases in Pacific salmon.

So this brought the big Norwegian Iowa farm boy to my office door. He was uncertain about changing his interests from soils to salmon disease work but I convinced him to join the group in my lab. That was 35 years ago. I liked Rich the first time I ever saw him and my regard for him has only grown over the years.

Rich finished his M.S. degree in 1971 and worked with us for a year as a research assistant on the thermal pollution project. He then joined the Oregon Dept. of Fish and Wildlife's fish pathology program stationed at Clackamas, Oregon. In 1977 Rich returned to OSU to further develop the ODFW program in fish disease diagnostics in the Dept. of

Microbiology. It was during this period that he began his research work that led to a Ph.D. degree in Microbiology in 1987. The research for his thesis concerned myxobacteria and cold water disease in fish.

Rich became senior fish pathologist for the Oregon Dept. of Fish & Wildlife with the retirement of John Conrad and has done an outstanding job developing and managing this program. Rich will be missed by his colleagues in ODFW, Microbiology, the hatchery crews and the many members of the public that he has served so well over the years. Our best to you, Linda, and your family. Have a good retirement.

John Fryer
Dept. of Microbiology
Oregon State University

Establishment of Disk Diffusion Quality Control Limits for Antimicrobial Susceptibility Testing Aquatic Isolates

Ron A. Miller M.S., Robert D. Walker Ph.D., and Renate Reimschuessel, D.V.M. Ph.D.

Within aquatic and marine veterinary diagnostic laboratories, disk diffusion has been the most widely used of the three susceptibility methods, disk diffusion, broth microdilution, and agar dilution. Researchers at the U.S. Food and Drug Administration – Center for Veterinary Medicine are conducting a multi-laboratory disk diffusion study to establish quality control limits for two potential QC organisms, *Escherichia coli* ATCC® 25922 and *Aeromonas salmonicida* subsp. *salmonicida* ATCC® 33658, against nine antimicrobial agents commonly used in global aquaculture. Following methods developed by Alderman and Smith (Aquaculture 2001), and the guidelines established by the National Committee for Clinical Laboratory Standards, this study will be conducted in the spring of 2002. Data will be presented at the International Symposium on Aquatic Animal Health in New Orleans in September, and will be included in an NCCLS Report later this year.

The potential usefulness of broth microdilution and agar dilution susceptibility testing of aquatic and marine microorganisms is also currently being investigated at the U.S. FDA-CVM. The ability to repeatedly determine accurate minimum inhibitory concentrations for important aquatic pathogens is essential in the administration of a safe and effective antibiotic treatment. It is our goal to standardize antimicrobial susceptibility testing methods for testing aquatic, freshwater and marine isolates, at temperatures suitable for optimal growth.

National Aquatic Animal Health Task Force: Update

Kevin Amos
National Marine Fisheries Service

Last summer, the Joint Sub-Committee on Aquaculture (JSA) re-convened the National Aquatic Animal Health Task Force ("Task Force") for the purpose of developing a national health plan for aquaculture. A similar working group had previously attempted to craft a plan, but, for a variety of reasons, failed to accomplish its mission and disbanded in 1996. The new, invigorated federal Task Force is composed of representatives from U.S. Department of Agriculture/APHIS (John Clifford, Chair; Otis Miller), U.S. Department of Interior/USFWS (Tom Bell, Co-Chair), and the Department of Commerce (Spencer Garrett, Co-Chair; Linda Chaves, Kevin Amos). Its mission is to develop and implement a National Aquatic Animal Health Plan for Aquaculture (NAAHP) in partnership and cooperation with industry, regional organizations, state, local, and tribal governments and other stakeholders.

Two meetings have been held with interested stakeholders. The first meeting was held in Silver Spring, Maryland, last December. The purpose of that meeting was to develop a mission statement for the Task Force and to solicit information on the elements of a national plan.

The December meeting was well attended with representatives from many organizations, including Jerri Bartholomew for the Fish Health Section, American Fisheries Society. Advice was given to the Task Force on how the plan might be developed and what elements needed to be included. High priority was given to protecting the U.S. from invasion of foreign animal diseases, certification and movement of live product (both export and import), and pathogen/disease control and management. As a result of the meeting, a decision was made to focus on export health certificates first, followed by import issues and laboratory inspection procedures and accreditation. To address the export issue, a meeting was held this past month in Tucson, Arizona, hosted by Don Lightner. The discussion was focused on the needs of the aquaculture industry for export certificates, who would conduct the inspections, and the process by which health certificates would be issued. The conclusion of the group was that the needs of private industry and public entities were generally being met by the existing infrastructure. Following deliberations of the Task Force, a plan will be developed and implemented on the export certificate, recognizing and utilizing to the best of our ability, laboratories and personnel already in place.

In the near future, the Task Force will begin writing, reviewing and implementing the national plan. The Task Force is considering a draft outline of a plan, in which export, import, and laboratory accreditation are three parts. We anticipate having a completed draft plan ready in two years. However, as various elements are completed, they may be implemented cooperatively with the federal members of the Task Force. As new information from the Task Force becomes available, it will be shared with FHS members in the newsletter.

On a parallel, but different front, Spencer Garrett, Kevin Amos, and the staff of the National Seafood Inspection Laboratory in Pascagoula, Mississippi, have a contract with Sea Grant to develop a fish health management plan for salmonids in the exclusive economic zone (EEZ). The EEZ includes the marine waters which lie 3-200 miles off the shores of U.S. states and territories. The National Marine Fisheries Service (NOAA Fisheries) has jurisdiction over these waters. The Department of Commerce believes the

U.S. will increase aquaculture production five-fold by the year 2025. A logical place for this growth to occur is in the EEZ. NOAA wanted to be pro-active and have a place to manage fish health before aquaculture activities commenced. While the Sea Grant contract is for the development of a plan for salmonids, it is expected to be a model for other species which might be cultured in the EEZ.

Northwest and Northeast regional EEZ workshops are being held to solicit information from interested scientists and government regulators. The first workshop was held in Seattle the first week of June and a second workshop will be held in Maine the last week of July. Stay tuned for developments!

Fish Health Newsletter – Editorial Policy

The *Fish Health Newsletter* is a quarterly electronic publication of the Fish Health Section of the American Fisheries Society and is available for downloading in Adobe pdf file format. Submissions on any topic of interest to fish health specialists and preliminary case reports are encouraged with the understanding the material is not peer-reviewed. Abstracts submitted to the *Journal of Aquatic Animal Health* are also encouraged. Submissions must be formatted in Microsoft Word, WordPerfect, or Rich Text Format, and can be sent by electronic mail or via 3.5" floppy disk to the editor's address below. **Graphics files should be sent separately in jpeg format.**

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