



FISH HEALTH NEWSLETTER

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President's Report:

My term begins following a very difficult time for many of us in the Gulf Coast region. The devastation experienced by many families in Alabama, Mississippi, Florida, Louisiana and Texas following two hurricanes is hard to describe. So at this time my thoughts and prayers go out to all who might have been affected by Katrina and Rita and hope that all of our membership made it through safely. We in the south also appreciate all the help and concern from those in other parts of the country that weren't affected.

I recently attended the Retreat, Governing Board Meeting and Leadership Conference prior to the Annual AFS meeting in Anchorage, Alaska, September 8-12, 2005. The Governing Board of the AFS is an incredibly diverse group of individuals. However, it was interesting that many of the things that concern us in our section are mirrored in the parent society. Certainly a good portion of the retreat was devoted to improving methods of recruitment, outreach, and assessing the profiles of the current membership of the society. The parent society is in exceptionally good shape financially under the leadership of Gus Rassam and outgoing President Barb Knuth. Incoming President Chris Kohler has some good ideas for continued strengthening of the society.

The FHS remains one of the most successful special interest sections in the AFS and continues to maintain a steady membership while some other sections are experiencing declines. The highlights of my report to the Governing Board reflect the hard work of outgoing section President John Grizzle, Secretary Ken Cain, and all of the officers and committee members who work together to make the section successful. I welcome the newly elected officers, Vice President Ted Meyers and Secretary Treasurer Linda Beck. I also welcome new committee members, Evi Emmenegger (Nominating and Balloting), Drew Mitchell (Technical Standards), and Christine Densmore (Professional Standards).

Here are some of the highlights from 2005!

Aquatic Stewardship

ï The FHS supported national efforts to manage whirling disease and coordinate new drugs for use in aquatic species by providing financial assistance to the Annual Whirling Disease Symposium and to the National Coordinator for Aquaculture New Animal Drug Applications.

Information Transfer and Outreach

ï Scott LaPatra represented the FHS at meetings of the American Association of Veterinary Laboratory Diagnosticians and the United States Animal Health Association.

ï Joint efforts continue by the U.S. Fish and Wildlife Service and the FHS to produce an annual update of the National Fish Health Inspection Procedures document.

ï Planning continues for the International Symposium on Aquatic Animal Health, September 2-6, 2006, San Francisco, California. Co-Sponsorship of the meeting is anticipated from the Fish Health Section of the Asian Fisheries Society, the European Association of Fish Pathologists, the International Association for Aquatic Animal Medicine, National Shellfisheries Association, the Japanese Society of Fish Pathology and the American Veterinary Medical Association.

ï Under the certification program of the FHS, 11 re-certifications were awarded to Fish Pathologists and 8 new certifications and 5 re-certifications were awarded for Fish Health Inspector.

ï The listserv developed and managed by Jerri Bartholomew continues to be an efficient way to distribute information in a timely fashion to FHS members.

ï The new and improved FHS web-site administered by Ben LaFrentz contains everything you need to know about the section.

ï As you know, since you are reading it, Lora Petrie-Hanson is editor of the Newsletter and it remains an important source of information about happenings in the section, upcoming events and short scientific articles.

ï A new FHS poster and brochure has been created and will be displayed at various venues and meetings.

Membership Services

ï Three continuing education courses co-sponsored by the AVMA were held in 2005: "Current Topics in Aquatic Toxicology" at FHS Annual Meeting, Minneapolis, MN. "Spring Viremia of Carp" at Eastern Fish Health Workshop, Shepherdstown, WV. "Risk Assessment" at Western Fish Disease Workshop, Boise, ID.

ï Students are encouraged to participate in the FHS by taking advantage of reduced registration fees, stipends for student travel, and cash awards for best student paper presented at the annual meeting.

ï A series of papers (Reviews in Fish Health) are being published in the magazine *Fisheries*.

ï The 2004 edition of the FHS Blue Book continues to be sold through the AFS bookstore.

You can see from all of this what a busy section we are, and how many communication tools we have at our disposal. *The Journal of Aquatic Animal Health* is becoming a higher impact journal due to the increased quality of articles being

published. This is due to the excellent job being done by the editors and associate editors in insuring production of a quality product. To insure this trend continues, the Journal of Aquatic Animal Health Visibility Task Force was established to elevate the visibility of the journal. Andy Goodwin and Chris Moffitt are Outreach Editors charged with recruiting high quality manuscripts.

Annual Meeting

The Annual Meeting was held in Minneapolis, Minnesota 27-29 July, 2005. The meeting was a great success and Joe Marcino, of the Minnesota Department of Natural Resources, Paul Bowser and Rachelle Kosoff, Cornell University, should be commended for putting together a great program and making local arrangements. Andrew Goodwin, UAPB, did an excellent job with the CE session on Aquatic Toxicology. Awards given at the annual meeting were the Snieszko Distinguished Service Award that went to Dr. Robin Overstreet of the Gulf Coast Research Laboratory, Ocean Springs, Mississippi. Drew Mitchell introduced Robin at the banquet prior to his receiving the award. Many of us are most familiar with Robin's recent work on the taxonomy and life cycle of the catfish trematode *Bolbophorus damnificus*, but his contributions over the years to aquatic parasitology and marine science are truly amazing. I hope Robin's lab didn't sustain too much damage from Katrina. The best student paper award went to Deborah Cartwright of the University of Georgia who is conducting research at the Leetown Fish Health Laboratory on identification of *Bothriocephalus acheilognathi* using species specific primers. The Snieszko Student Travel Awards went to Deborah Cartwright and Tanuja Upadhyaya (Jawaharlal Nehru University, New Delhi, India). I ask all section members who serve as major professors, committee members or mentors of graduate students to encourage ("threaten, twist arms" etc.) all students to become members and participate in section activities and meetings. Its cheap and students should take advantage of it!

Upcoming Goals and Activities

The International Symposium on Aquatic Animal Health will be held Sept 2-6 at the San Francisco Marriott. John Cooksey, best known for his work with the World Aquaculture Society, is our meeting coordinator. Information about the meeting can be obtained by visiting the AFS website, www.fisheries.org and clicking on the link to the Fish Health Section and ISAAH 2006. Please start making your plans now to attend and if you have an idea for a special session please notify me or our program co-chairs Pete Taylor pete_taylor@r1.fws.gov or Vicki Blazer vicki-blazer@usgs.gov. The call for abstracts will be next spring and we hope to make this meeting a memorable one both scientifically and socially.

We will again be co-sponsoring the 12th Whirling Disease Symposium February 9-10, 2006, at Denver's Grand Hyatt Hotel and the BKD workshop being held November 15-17, 2005 in Seattle Washington.

The success of our CE program and the collaboration with the AVMA in awarding CE credits to veterinarians as well as fish health professionals for our courses is desirable and we would like to see this program continue to grow. We hope to see continued updates to the popular Blue Book CD. One area that I would like to see move forward is the standardization of our techniques used in fish health laboratories. With the new technologies and techniques available, it would be of value to all labs to conduct their testing in a similar fashion. We would also benefit from global participation by fish labs in such an endeavor. An example of where this is being done is in the Clinical Laboratory Standards Institute, M42 and M49 documents, providing standard methods for antibiotic susceptibility testing of fish pathogens and other aquatic bacteria. This is being addressed through our technical standards committee and our QA/QC committee.

I extend my best wishes to everyone for the fall and for a successful 2006.
John Hawke

Meetings and Workshops:

LMBV 2006 Spring Meeting Workshops

Organizers: Loraine Fries (Texas Parks and Wildlife, Inland Fisheries) and John Grizzle (Auburn University)

Time: Thursday 1:00-5:00pm

The LMBV working group will present information detailing LMBV research conducted since the last LMBV workshop in 2004 and will discuss, together with agency representatives, needed research to help direct future investigations. Any interested party is welcome to attend. The working group will also discuss the possibility of evolving into a formal SDAFS Technical Committee.

While presentations are encouraged, this workshop offers a forum for brief, informal updates by interested individuals. In past meetings, attendees from across the United States have provided updates concerning the status of LMBV in their states or LMBV-related research at their facilities. These updates are of value to all with an interest in this virus and need not be formally prepared presentations. If you are interested in attending the workshop, please contact Loraine Fries at 512-353-3492 or via e-mail at [mailto:loraine.fries@tpwd.state.tx.us]loraine.fries@tpwd.state.tx.us.

Cost to participants: None

This information is also posted on the web at
<http://www.sdafs.org/meetings/2006/default.htm>]<http://www.sdafs.org/meetings/2006/default.htm>.

10th Biennial Fish Diagnosticians Meeting

Hosted by

**Texas Veterinary Medical Diagnostic
Laboratory
&
Texas A&M University
College of Veterinary Medicine**

at

College Station, TX

February 25-26, 2006

Initial call for interesting case reports



Contact: Tricia W. Varner, DVM, PhD
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The 2006 AQUAVET Program

AQUAVET® I -- COURSE ANNOUNCEMENT

AQUAVET® I -- An Introduction to Aquatic Veterinary Medicine will be offered by AQUAVET® in 2006. The course is designed for veterinary students and veterinarians who have an interest in applying their veterinary training to aquatic animals. The course will be presented at the Marine Biological Laboratory in Woods Hole, Massachusetts. The course dates are May 14 – June 10, 2006. The combined tuition, room, and board fee for the 4 week course has been set at \$1,600 for full time veterinary students, and at \$2,800 for veterinarians. Through the generosity of a program benefactor, a \$200 scholarship will be applied to partially off set the fee for all full time veterinary students resulting in a net tuition of \$1,400 for such accepted full time veterinary students this year.

Detailed information about the course is available on our web site.

<http://www.aquavet.info>

Applications for admission will be due on January 13, 2006 and may be obtained by accessing the program web site from which the application form may be downloaded for completion and submission by mail. On line applications will not be acceptable

AQUAVET® II -- COURSE ANNOUNCEMENT

AQUAVET® II -- Comparative Pathology of Aquatic Animals will be offered by AQUAVET® in 2006. This course will be oriented toward the pathology of vertebrates and invertebrates: commonly used as laboratory animals; encountered in display aquaria; and of importance in aquaculture enterprises. Representative species from each category will serve to demonstrate features of commonly observed diseases. The course is designed for veterinary students and veterinarians who have participated in AQUAVET® I or have had comparable experiences in aquatic animal medicine and pathology.

The course will be presented at the Marine Biological Laboratory in Woods Hole, Massachusetts. The course dates are May 14 - May 27, 2006. The combined tuition, room, and board fee for the 2 week course has been set at \$900 for full time veterinary students and at \$1,500 for veterinarians.

Detailed information about the course is available on our web site.

<http://www.aquavet.info>

Applications for admission will be due on January 13, 2006 and may be obtained by accessing the program web site from which the application form may be downloaded for completion and submission by mail. On line applications will not be acceptable. Please visit our web site at:

AQUAVET® Summer Research Experience

In addition, we anticipate a limited number of summer research opportunities during an 8-10 week period following the course. Students selected as AQUAVET® Summer Research Fellows are not required to pay tuition or room and board fees for the 8-10 weeks of the research program itself. In addition, research students will receive a stipend of \$1,050 for the research period. At least one Fellowship will be restricted to aquaculture related projects.

Notes from the Drug Lady

The Federal-State Aquaculture Drug Approval Partnership Project (known as the IAFWA Project) is poised to submit the final documents for nine therapeutants and 16 label claims between now and 2007. The most immediate approval is florfenicol for enteric septicemia in catfish accomplished mainly by the sponsor, Schering-Plough Animal Health (SPAH). SPAH also funded studies at the Upper Midwest Environmental Sciences Center (target animal safety) and Mississippi State University (efficacy). Here is a listing of the final submissions projected for 2005 to 2007 and 2008 to 2009.

LABEL CLAIMS WITH FINAL SUBMISSIONS PROJECTED FOR 2005-2007

1. CHLORAMINE-T—Bacterial gill disease on all freshwater-reared salmonids
2. CHLORAMINE-T—External columnaris disease on walleye
3. COPPER SULFATE—Ichthyophthiriasis on channel catfish in earthen ponds with no outflows
4. FLORFENICOL—Enteric septicemia in catfish
5. FLORFENICOL—Systemic coldwater disease in all freshwater-reared salmonids
6. FLORFENICOL—Furunculosis in all freshwater-reared salmonids
7. FLORFENICOL—Systemic columnaris disease in all freshwater-reared salmonids and catfish
8. FLORFENICOL—*Streptococcus iniae* in tilapia and hybrid striped bass
9. FORMALIN—Saprolegniasis on all freshwater-reared fish
10. HYDROGEN PEROXIDE—Saprolegniasis on all freshwater-reared fish eggs
11. HYDROGEN PEROXIDE—Saprolegniasis on all warmwater fish
12. HYDROGEN PEROXIDE—Bacterial gill disease on all freshwater-reared salmonids
13. HYDROGEN PEROXIDE—External columnaris disease on all coolwater fish and channel catfish
14. OXYTETRACYCLINE (ORAL)—Systemic coldwater disease in all freshwater-reared salmonids
15. OXYTETRACYCLINE (ORAL)—Systemic columnaris disease in steelhead trout
16. OXYTETRACYCLINE (IMMERSION)—External columnaris disease on all coolwater and warmwater fish

LABEL CLAIMS WITH FINAL SUBMISSIONS PROJECTED FOR 2008-2009

1. AQUI-S®—Zero withdrawal anesthetic for short-exposure handling (rested harvest, spawning, marking, tagging, measuring, & sexing) on all freshwater fish
2. AQUI-S®—Zero withdrawal anesthetic for short-exposure handling on all saltwater salmonids
3. COPPER SULFATE—Saprolegniasis on channel catfish eggs
4. POTASSIUM PERMANGANATE—External columnaris disease on channel catfish in earthen ponds with no outflows

When these label claims are approved, we will have a basic medicine chest for a few species. We are conducting a survey of the 38 states that contributed \$5.37 million to the IAFWA Project to determine any unmet label claims. These will be prioritized and pursued for additional label claim approvals.

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Ichthyopathologists from all over the world participated in the EAFP's 12th International Conference in September 2005 in Copenhagen, Denmark. There were numerous presentations and round-table discussions of interest to fish parasitologists. For the first time, an entire day (September 14, 2005) was devoted to Myxozoa. The special gathering included two sessions of oral presentations and a myxozoan poster session, all of which provided an updated overview on contemporary topics of myxozoan research. The oral sessions included 17 presentations, encompassing a diverse range of Myxozoan research topics: evolutionary ecology of malacosporeans, studies on life cycles, molecular genetics and phylogeny, ultrastructure, host fish immune responses and novel diagnostic assay methods. A total of 20 posters dealing with various myxozoan topics were presented in the poster session. These included among others, matching myxosporeans and actinosporeans (prize winning poster!), construction of a cDNA library from triactinomyxon spores, correlating *Tubifex* genotypes with propagation of *Myxobolus cerebralis* as a risk assessment tool for whirling disease, and biochemical characterization of glycan-epitopes in a myxozoan.



At the poster session (left to right): Ivan Fiala, Jerri Bartholomew, Mansour El-Matbouli.

A round-table discussion forum that dealt with various current topics, new tools and approaches with the objective of stimulating new areas of Myxozoan research and encouraging international collaboration, concluded the day. The first topic dealt with the idea of creating Tissue Microarrays (TMAs) of myxozoan parasites. This concept deals with production of serial paraffin histology sections of specimens of special interest which can be processed for histochemistry, immunocytochemistry, ISH, and was presented by Dr Ariadna Sitja-Bobadilla (CSIC, Spain). The second topic outlined a suggested protocol for standardized preparation and preservation of actinosporean spore samples, and was presented by Stephen Atkinson and Sascha Hallett (OSU, USA). Finally standardization of procedures for obtaining and analyzing SSU rDNA sequences with the ultimate goal of a complete revision of the systematics of the Myxozoa was summarized by Oswaldo Palenzuela (CSIC, Spain).



At the roundtable (left to right): Oswaldo Palenzuela, Stephen Atkinson, Ariadna Sitja-Bobadilla, Arik Diamant, Jerri Bartholomew



There was even time for talking about Myxozoa during the coffee breaks...(left to right): Sascha Hallett, Jerri Bartholomew, Stephen Atkinson, Oswaldo Palenzuela, Shira Perlberg, Arik Diamant and Ariadna Sitja-Bobadilla.

For more information, see 2005 end-of-the-year issue of the EAFP Bulletin and visit the **Myxozoa website** www.myxozoa.org.

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.**

Editor

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