



# FISH HEALTH NEWSLETTER

American Fisheries Society/Fish Health Section

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## **President's Report:**

Message from President – FHS Newsletter, March 2004

After a prolonged, cold winter, the snowpack is rapidly melting in the valleys of northern Utah, giving us all hope of actually seeing bare ground again! All the melting snow and ice is giving a boost to the drought-ravaged streams, and making the cutthroat trout start thinking of spawning in the months ahead. While the fish have been dormant through the winter, things in the Fish Health Section haven't been as quiet.

Recently, there have been two workgroup meetings associated with the National Aquatic Animal Health Plan. The first group dealt with the roles of fish health professionals in the future, while the second dealt with regulated pathogens. I attended the meeting as the FHS President and state resource agency representative, while Andy Goodwin was our representative at the second. Jerri Bartholomew will attend the third meeting in April. A number of other FHS members such as Marilyn Blair, Bruce Stewart, and Kevin Amos were in attendance representing their various agencies. I continue to have concerns about the importance and protection of wild fisheries in this process, as well as the role of non-veterinary professionals. While it seems inevitable that APHIS-accredited veterinarians will play an increasing role in import/export certifications, I stressed the need to include the expertise of fish health professionals of various educational backgrounds, and especially FHS certified pathologists and inspectors.

I believe it is up to us as Section members to ensure our certifications continue to be valid in a changing world. I have had some interesting conversations with Joy Evered and the Professional Standard Committee to explore new options for certification in the future. (See Joy Evered's committee report later in this issue.) At the same time, the FHS is reaching out to new veterinarians to share our expertise and make sure our continuing education courses can be used as credit for relicensure.

In the meantime, our membership numbers are still down, so I continue to encourage current members to reach out to nonmember colleagues and encourage them to join. Remind them of some of the benefits of joining, such as the newsletter, regular listserv updates, discounts on AFS books. I plan to appoint a committee to look at better ways to recruit members and improve our service to our current members. I'm always open to your ideas or suggestions in this regard.

On a personal note, I was shocked and saddened at the news of the death of members Bob Busch and Marsha Landolt. I met them almost 20 years ago in Mississippi. They were long-time active Section members and I think they epitomized excellence among fish health professionals. They will be greatly missed.

Chris Wilson

### **Meetings:**

#### **SPECIAL PRE-IAAAM CONFERENCE SESSION - "EXPANDING PRIVATE PRACTITIONER OPPORTUNITIES IN FISH MEDICINE"**

[http://www.iaaam.org/meeting/2004/2004\\_meeting.htm](http://www.iaaam.org/meeting/2004/2004_meeting.htm)

San Luis Hotel and Resort, Galveston, Texas

Sunday, April 4, 2003; 8:00 am-5:30 pm

Sponsored by: International Association for Aquatic Animal Medicine Novartis Aqua Health Ltd. Tropical Aquaculture Laboratory, IFAS, University of Florida This session brings together fish veterinarians from private practice, government, industry and academia to review the demographics of aquaculture and ornamental fish; the history and current status of veterinary involvement; the current regulatory climate for both fish drugs and veterinary practice; practitioner experiences from the field including business perspectives; and DVM/CE opportunities for fish medicine training. The session will conclude with a panel discussion on the future of fish veterinary medicine both for the individual veterinarian and for the profession as a whole. This session is open to all veterinary practitioners and veterinary students who are interested in the possibilities of fish veterinary medicine as a specialty, or an adjunct to their traditional practice. It is possible to register for this one-day, pre-IAAAM session by itself or in conjunction with the full IAAAM conference.

Please contact: Hugh Mitchell, MS, DVM at [hugh.mitchell@ah.novartis.com](mailto:hugh.mitchell@ah.novartis.com) or (425) 821-6821 for further information and details, and/or go directly to the IAAAM 2004 meeting website which also contains a registration form and travel and accommodation information.

4th World Fisheries Congress  
Vancouver, BC CANADA  
May 2 - 6, 2004

The Congress theme, "Reconciling Fisheries with Conservation: The Challenge of Managing Aquatic Ecosystems," will be addressed by a world class list of Keynote speakers, session topics, posters, limited presentations, round table discussions, forums, workshops and debates.

Online Abstract Submittal for the Fourth World Fisheries Congress will open April 2003. Please visit [www.worldfisheries2004.org](http://www.worldfisheries2004.org) for details

#### THE 45<sup>TH</sup> WESTERN FISH DISEASE CONFERENCE, JUNE 22-24, 2004 IN JUNEAU, ALASKA

##### Meeting Registration and Continuing Education Workshop

The 45<sup>th</sup> Western Fish Disease Conference will be hosted by the Fish Pathology Section of the Alaska Department of Fish and Game in Juneau, Alaska during Wednesday and Thursday June 23-24<sup>th</sup>, 2004. A Fish Health Section Continuing Education Workshop will precede the meeting on Tuesday June 22<sup>nd</sup>. The registration fee for the CE workshop is \$30 and the agenda will be announced at a later date. An off site venue planned for the evening of June 23<sup>rd</sup> is a 3 hr whale watching and buffet dinner cruise (with NO host bar) from a 78 ft catamaran ([www.allenmarine.com](http://www.allenmarine.com)) that is included in the \$140 meeting registration fee along with break refreshments, abstract and agenda booklet. Checks for meeting registration should be made payable to "*Western Fish Disease Conference/FHS*" and mailed to Ted Meyers at the address below. The deadline for registration and hotel room reservation is *May 31, 2004*. Sorry, but we will NOT be able to take credit cards for registration fees.

##### Hotel and Transportation into Juneau

A block of rooms have been reserved at the historic Westmark Baranof Hotel ([www.tripadvisor.com/Hotel\\_Review-g31020-d73086](http://www.tripadvisor.com/Hotel_Review-g31020-d73086)) in downtown Juneau where the meeting will be held. Room rates are \$129/night single or double occupancy + 12% sales tax. Reservations can be made by calling Westmark Central Reservations @ 1-800-544-0970. June is the middle of Juneau's busy tourist season, so please make your room reservations early to take advantage of the hotel rate and reduced fares with advanced booking on Alaska Airlines. Block room rates are from June 21-23 but can be extended several days on either end of the meeting for those wishing to spend recreational time in Juneau. Juneau is also a good stopover point for those who might wish to tour Glacier Bay or travel on to Anchorage and Denali Park after the meeting. Transportation from the Juneau airport to the hotel is a 15-minute ride by taxi or rental car (Budget, Avis, Rent-A-Wreck).

Juneau is located in the rainforest of the Southeast panhandle of Alaska and can be reached only by sea or air. For those having time for a cruise, the Alaska Marine Highway Ferry system travels from Bellingham, WA providing a pleasant 2-day voyage on their flagship the Columbia. Reservations may be made online ([www.alaska.gov/ferry](http://www.alaska.gov/ferry)). Alaska Airlines flies direct to Juneau from SeaTac Airport in Seattle several times daily with a flight time of about

2 hrs. Super Saver fares are available if tickets are booked in advance and during special offers on the airline website ([www.alaskaair.com](http://www.alaskaair.com)).

Juneau weather is unpredictable and noted for rain almost anytime but late June can be one of the driest periods of the year having an abundance of sunny weather with pleasant daytime temperatures of 65-70°F. Note for Fisherpersons: chinook (king) salmon fishing generally peaks in June and can be quite good while pink and chum salmon as well as halibut will also start to show up in the fishery. Fishing charters, glacier and scenic tours, wildlife and whale cruises, gold rush history and special interest attractions are all available in Juneau with detailed planning and reservation information provided by the Juneau Convention and Visitors Bureau website ([www.traveljuneau.com](http://www.traveljuneau.com)).

#### Instructions for Abstracts and Oral Presentations

This is the first call for abstracts regarding oral and poster presentations addressing all aspects of diseases in wild and cultured aquatic animals. Abstracts must be submitted in camera-ready format. All printed material should fit into a box having margins of 14 X 15 cm. The format should include: 1) title in capitalized letters; 2) superscript numbers to denote affiliations if multiple authors; 3) an (\*) following the author's name who will make the presentation; 4) use a high quality printer and font size with at least 12 pitch, preferably Times New Roman. PowerPoint presentations for oral delivery should be emailed or sent on 3.5 floppy disc prior to the conference. Oral presentations should be no longer than 12 minutes leaving 3 minutes for questions.

Abstracts are due no later than *April 15, 2004* and should be submitted by mail or email in Microsoft Word with the registration/abstract form (attached) to Ted Meyers at the indicated address below. No Faxed abstracts please.

#### Contact Information

Ted Meyers  
Alaska Department of Fish and Game  
Commercial Fisheries Division  
P.O. Box 25526  
Juneau, AK 99802-5526  
Telephone: (907) 465-3577  
FAX: (907) 465-3510  
Email: ([ted\\_meyers@fishgame.state.ak.us](mailto:ted_meyers@fishgame.state.ak.us))

Registration and Abstract Submission Form

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_ email: \_\_\_\_\_

Registration Fee (includes dinner cruise) = \$140 \_\_\_\_\_

Number of guest dinner tickets \_\_\_\_\_ @\$78 each \_\_\_\_\_

Registration for the Continuing Education Workshop = \$30 \_\_\_\_\_  
(Agenda to be announced)

Total Amount enclosed \_\_\_\_\_

Make Checks Payable to "Western Fish Disease Conference/FHS"

Submitting an abstract for the meeting? Yes \_\_\_\_\_ No \_\_\_\_\_

Title: \_\_\_\_\_  
\_\_\_\_\_

Type of Presentation Oral \_\_\_\_\_ Poster \_\_\_\_\_

Equipment Needs: Slide Projector \_\_\_\_\_ LCD Projector \_\_\_\_\_ Other \_\_\_\_\_

Return Registration Form, Abstract and Payment To:

Ted Meyers  
Alaska Department of Fish and Game  
Commercial Fisheries Division  
P.O. Box 25526  
Juneau, AK 99802-5526  
(907) 465-3577  
Email: ted\_meyers@fishgame.state.ak.us

## SYMPOSIUM ON PARASITES OF FISHES AND OTHER AQUATIC HOSTS

<http://www.uv.es/emop>

Organisers: O. Halvorsen (University of Oslo, Norway) (e-mail: [odd.halvorsen@nhm.uio.no](mailto:odd.halvorsen@nhm.uio.no)) & P. Alvarez-Pellitero (Instituto de Acuicultura Torre de la Sal, CSIC, Spain) (e-mail: [alvarezp@iats.csic.es](mailto:alvarezp@iats.csic.es)).

Two main sessions are considered: Session I: General aspects. Taxonomy, Ecology, Epidemiology  
Organiser: O. Halvorsen

Keynote speakers: O. Halvorsen (conditional) & R. Poulin (University of Otago, New Zealand)  
Session II: Parasites of cultured fish and shellfish

Organiser: P. Alvarez-Pellitero

Keynote speakers: M. Kent (University of Oregon, USA) & A. Sitjà-Bobadilla (Instituto de Acuicultura Torre de la Sal, CSIC, Spain).

Deadline for early registration and abstract submission is April 30, 2004. Detailed information on registration, abstract submission, accommodation, etc. can be obtained in the web page of EMOP9 indicated in the following general note.

Note: A multicongress macro-event will be organised in Valencia, Spain, July 18-23, 2004, which includes the NINTH EUROPEAN MULTICOLLOQUIUM OF PARASITOLOGY (EMOP IX), the SEVENTH INTERNATIONAL MEETING ON MOLECULAR EPIDEMIOLOGY AND EVOLUTIONARY GENETICS OF INFECTIOUS DISEASES (MEEGID VII), the CONGRESS OF THE SPANISH SOCIETY OF TROPICAL MEDICINE AND INTERNATIONAL HEALTH (SEMTEI IV), the INTERNATIONAL SYMPOSIUM ON BIOTERRORISM, MAJOR EPIDEMIC THREATS AND BIOSECURITY, and more than 30 Symposia, Workshops (including more than one session and several including even 3-4 days as the Symposia on Malaria, Leishmaniasis and Chagas Disease) and many Monographic Sessions. More than 2000 people from all the continents are expected to attend the macro-event. All those congresses, meetings, symposia and workshops will interact and share common sessions. The central topic of the EMOP Meeting is Multidisciplinary for Parasites, Vectors and Parasitic Diseases.

The most important deadlines for low registration fees and abstract submission are April 30, 2004.

Registration fees have been kept to a minimum, including very low fees for students, in the way to encourage the participation of young researchers. Hotels in Valencia city (a total of 33, including from modest to high luxury levels) have accepted to offer special low prices for the macro-event. Up to 700 additional, very low-price rooms for students are offered in special student residences and colleges. The meeting includes moreover special social events and a complete programme for accompanying persons covering all meeting days.

For direct requests, contact the congress secretariat in the following address:

EMOP IX - Secretariat

Departamento de Parasitología

Facultad de Farmacia

Universidad de Valencia

Av. Vicent Andrés Estellés s/n

46100 Burjassot - Valencia, Spain

Fax: +(34)-96-354-47-69

Email: [emop.9@uv.es](mailto:emop.9@uv.es)

2004 Annual Meeting of the Fish Health Section, American Fisheries Society

The meeting will be held during the last week of July, 2004 at the National Conservation Training Center in Shepherdstown, WV. For more information on this state-of-the-art facility, see their Web Site at <http://training.fws.gov/>. Plans are underway to present a one-day continuing education workshop on current topics in fish parasitology during the meeting. The meeting is being organized by Vicki Blazer ([vicki\\_blazer@usgs.gov](mailto:vicki_blazer@usgs.gov)).

#### 28TH WORLD VETERINARY CONGRESS

<http://www.worldvet.org/modules.php?op=modload&name=News&file=article&sid=1655>

Call for Speakers Deadline Extended to Mar 07, 2004 - 02:14 PM

The World Veterinary Association (WVA) (<http://www.worldvet.org/>) has extended its deadline for submission of proposals for presentations at the 28th World Veterinary Congress (WVC), to be held the 16-20 July 2005 in Minneapolis, Minn., United States. The deadline for submission of proposals is now 1 June 2004. Don't miss your chance to share your knowledge with fellow veterinary professionals from around the world. If your proposal is selected, you will receive complimentary registration to the Congress, access to the on-site speaker ready room, continental breakfast and lunch, and be eligible for one of two compensation packages. All speakers will also be listed in print and electronic promotions of the WVC. Proposals should include presentation specifics including title, length of presentation, and a description of what topics will be covered. Please note that submissions without an attached proposal will not be considered.

Proposal Submission form - (<http://www.worldvet.org/docs/wvccall.pdf>)

2005 Annual Meeting of the Fish Health Section, American Fisheries Society

In 2005 the Annual Meeting of the Fish Health Section will move to the Midwest. An offer to host the meeting by Joe Marcino of the Minnesota DNR has been accepted by the FHS. The meeting will be in the Minneapolis, MN area with the specific date in the summer not yet confirmed.

#### **Announcements:**

##### INFORMATION REQUEST - SAPROLEGNIASIS

Our Department is working on a proposal for a government research grant. The proposal intends to investigate treatment for fungal infections substituting malachite green. I understand that FDA put out a report on research done with malachite green. I am looking for names or contacts with some expert group or University that has worked on Saprolegniasis or other fungal diseases in fish. The grant allows collaboration with international institutions. Therefore, it would be highly important for us to initiate contact with people that would be willing to work with us on this project. The deadline for submitting the proposal is very soon. Thank you in advance for your help.

Sergio Contreras Lynch M.V.

Jefe Departamento de Salud Hidrobiológica

División de Investigación Acuícola

Instituto de Fomento Pesquero

[scontreras@ifop.cl](mailto:scontreras@ifop.cl)

## GUIDELINES FOR THE USE OF FISHES IN RESEARCH

[www.fisheries.org/html/Public\\_Affairs/Sound\\_Science/Guidelines2004.shtml](http://www.fisheries.org/html/Public_Affairs/Sound_Science/Guidelines2004.shtml)

The new 2004 Guidelines were developed to help scientists develop realistic understandings of fish in the design and conduct of research on fish and fish habitats. The Guidelines provide a structure that ensures appropriate attention to valid experimental design and procedures while ensuring humane treatment of fish. Written by the 11-member Uses of Fishes in Research Committee, the Guidelines provide recommendations on field and laboratory activities, such as sampling, holding, and handling fishes; information on administrative matters, including regulations and permits; and advice on ethical questions such as perceptions of pain or discomfort that may be experienced by experimental subjects. The 53-page document now includes many listings of web sites of value. The Guidelines have been developed for use by researchers within the U.S.; therefore, the roles, responsibilities, and information needs of Institutional Animal Care and Use Committees are given specific attention. However, the principles described in the Guidelines are applicable to research on fishes everywhere.

To order a printed copy of the Guidelines, contact:

Aaron Lerner, Publications Manager

American Fisheries Society

5410 Grosvenor Lane

Bethesda, MD 20814

phone: 301-897-8616, ext. 231

e-mail: [alerner@fisheries.org](mailto:alerner@fisheries.org)

Cost:

\$7.00 per copy (includes shipping) within the United States

\$12.00 per copy (includes shipping) for mailing outside the United States

10 or more copies: \$4.00 per copy within the United States and \$7.00 outside the United States

Orders must be prepaid. Payment must be made in U.S. currency against a U.S. bank or paid by VISA or MasterCard.

## AQUANET - DEVELOPMENT OF VACCINES TO MITIGATE THE DEVASTATING IMPACT OF TWO DISEASES ON THE HEALTH OF CULTURED SALMON

VANCOUVER, Feb. 25 /CNW/ - AquaNET is issuing a directed call for proposals to develop novel and safe vaccines to reduce mortalities associated with two diseases of cultured salmonids in British Columbia. The diseases are Infectious Hematopoietic Necrosis Virus (IHNV) and Soft Flesh Syndrome, a parasitic disease caused by *Kudoa thyrsites* (*Kudoa*). It is estimated that these diseases currently cost the British Columbia's aquaculture industry \$150M per year. "Research is urgently needed to develop safe vaccines and stop the devastating effects these diseases are having on the health of cultured fish," states AquaNET's Executive Scientific Director, Dr. R. Scott McKinley. "AquaNET will respond by combining the Network's research expertise with those involved in the fish health sector. This research will lead to a commercialisation strategy and reflect the Network's principles of innovation and risk management." In 2003, AquaNET co-sponsored a research forum



focused on IHNV that clearly outlined the need for research to develop effective and licensed vaccines that could be made available to the aquaculture industry. The goal of this call for proposals is to expedite the process of research, development and commercialisation of vaccines for treatments against IHNV and Kudoa. All proposals submitted will be subject to AquaNET's standard scientific peer review process. In addition, proposals will need to demonstrate relevance to the Canadian aquaculture sector; partnership support of at least 50% of the research costs; and commitment to a quick turn around of results.

Deadline for application is March 25, 2004.

For further information:

please visit AquaNet's website at [www.aquanet.ca](http://www.aquanet.ca) or Contact: Uschi Koebberling, Ph.D., Communications Manager, AquaNET, Tel. 604-666-4452, Cell 604-319-0615, Fax 604-666-3497, e-mail: [uschi@interchange.ubc.ca](mailto:uschi@interchange.ubc.ca)

### **CALL FOR FISH HEALTH SECTION AWARDS**

S.F. Snieszko Distinguished Service Award - this is the highest award given by the FHS. Dr. S.F. Snieszko stands as one of the most prominent figures in the establishment of the modern fish health sciences in the U.S. and internationally. This award is presented to individuals to honor outstanding accomplishments in the field of fish health. It is a career achievement award. The nomination must be made by a current member of the FHS to the awards committee. The nomination package must include 1) a letter of nomination, 2) a current curriculum vitae of the nominee and 3) six letters of recommendation that support the nominee's dedication and contributions to research, teaching and/or service in fish health. Nomination packages will be accepted until May 31, 2004. For a list of previous awardees, go to the FHS website at <http://www.fisheries.org/fhs/sniezko.htm>

Special Achievement Award – award for a significant accomplishment in the field of fish health. This award is presented to a FHS member who has in the past year made a significant accomplishment in basic or applied fish health. Candidates for this award must be nominated by a current FHS member. The letter of nomination should state the accomplishment, its importance to the science of fish health, and the implications of the accomplishment (regional, national or international). Copies of articles or other supporting documents should be submitted with the nomination. The nomination may be submitted any time within one year of the accomplishment. Nominations to be presented at 2004 meeting will be accepted until May 31, 2004.

#### **Student Awards**

The FHS provides two types of student awards. For both, the student is required to be a member of the FHS. Please encourage any students to become members and apply for these awards.

S.F. Snieszko Student Travel Award – this award provides funding for the student to attend and to present a research paper at the annual FHS meeting. The amount and number of awards differs from year to year based on funding and number/quality of applications. Student should send a letter of application indicating that they are a member of the FHS, abstract of the paper to be presented, a travel budget, and a letter of support from a

sponsoring faculty member. Packages must be received by the Awards Committee by June 15, 2004.

FHS Best Student Paper Award – an award given to the “best” student presentation at the annual meeting. Selections are made by 3-4 judges, based on a) scientific content, b) scientific merit of the research, c) originality of the work and d) quality of the presentation. Please note on the meeting registration and abstract whether you wish to have your paper judged.

Send nominations for all awards to:

Vicki Blazer

National Fish Health Research Laboratory

11700 Leetown Road

Kearneysville, WV 25430

E-mail: [vicki\\_blazer@usgs.gov](mailto:vicki_blazer@usgs.gov)

### **CALL FOR FISH HEALTH SECTION NOMINATIONS**

It's that time of year again. Please get involved with the Fish Health Section. Look around, in the mirror and among your colleagues, and think about people who might be willing to serve the Section in one of the positions listed below. Our officers and committees have held us together as a Section over the years. Nominations accompanied by biographical sketches will be available in the on-line April FHS newsletter and voting will be completed by June 1, 2003. If you are a member who wishes to submit a nomination, please contact Beth MacConnell ([beth\\_macconnell@fws.gov](mailto:beth_macconnell@fws.gov)).

We need nominations for the following positions:

Vice-President (who then becomes the President-elect, President, and finally, the Immediate Past-President):

The office of Vice-President begins the leadership role leading to President and Past-President. This position provides continuity in the leadership of the Section over 4 years. The Vice-President selects the time and place for the annual meeting to be held three years hence, pending final approval by the Section EXCOM.

Nominating and Balloting Committee (3 years):

The Nominating and Balloting Committee of three members plus the Immediate Past-President solicits nominations for a slate of at least two candidates for each of the offices of Vice-President and Secretary-Treasurer. The Chair is the senior elected member. The Committee is responsible for verifying eligibility of all nominees before the official ballots are prepared. Nominations of Section members in good standing are submitted prior to March 15 to the Committee Chair. Nominations must have the consent of the nominees to be considered. In addition, the slate of candidates for the Professional Standards Committee, the Technical Standards Committee and the Nominating and Balloting Committee will be identified by the same date. The Nominating and Balloting Committee is responsible for

timely preparation, mailing and tabulation of all mail ballots circulated to the membership and prompt reporting of the results to the President and the Newsletter editor.

Technical Standards Committee (3 years):

This Committee consists of three members elected by the Section. One new member is elected each year and the Chair is the senior member of the Committee. The Committee fosters and promotes the use of standard, reliable and sensitive technical procedures for detection, diagnosis and confirmation of aquatic animal diseases and for enhancing the health of aquatic animals. Committee members are recognized technical specialists. This Committee is responsible for editing, compiling and distributing the Fish Health Section Blue Book "Procedures for the Detection and Identification of Certain Finfish and Shellfish Pathogens".

Professional Standards Committee (3 years):

This Committee consists of three members elected by the Section, the senior member serving as Chair. Each member must be one of the following: certified Fish Health Inspector, certified Fish Pathologist or Doctor of Veterinary Medicine. No Section member who has had his or her certification revoked for cause may serve on the Committee. The committee is responsible for developing and maintaining a system for recognizing professional competence in the aquatic animal health field by administering the professional certification programs of the Section.

## **NOTES FROM THE DRUG LADY**

OTC APPROVAL. Alpharma Animal Health gained a supplemental new animal drug application approval (NADA 130-435) for their oxytetracycline product (OXYMarine™) for otolith marking of all finfish fry and fingerlings by immersion on December 24, 2003. The Use Directions call for immersing fish in a solution containing 200 to 700 mg oxytetracycline hydrochloride (buffered) per liter of water for 2 to 6 hours.

UPDATED ROMET™ (ORAL ANTIBACTERIAL previously approved for control of enteric septicemia in catfish and furunculosis in salmonids). Romet™ TC is approved for Type B medicated feeds and its status was clarified and concurred with by CVM in late November 2003: Recent controlled studies by Alpharma Animal Health show that fish will eat feeds containing Romet™ TC (16.7% sulfadimethoxine and 3.34% ormetoprim) as readily as they will consume non-medicated control diets. Use Directions for Romet™ TC call for preparation of a liquid slurry that is then used to coat fish feeds. This can be accomplished by placing pellets in a cement mixer or by spreading them on a plastic or smooth surface for the coating process. The coated pellets should be allowed to air dry for several hours prior to use. These Use Directions are consistent with the approved drug label (ROMET-30™ Type A Medicated Article) and the approved Blue Bird labels for medicated feeds. Although no additional pre-marketing approval is required for Type B Medicated Feeds, Alpharma consulted CVM and received their concurrence. No feed mill license is required to use Romet™ TC to make medicated fish feeds.

MUMS. A bill entitled “Minor Use Minor Species Animal Health Act” was reintroduced in the U.S. Congress into the House (HR-2079) and the Senate (S-741). The National Aquaculture NADA Coordinator sent e-mails to state fish chiefs on July 3, 2003 to urge them to support the MUMS legislation and counteract the misinformation being transmitted by opponents to the bill. MUMS legislation passed the Senate HELP Committee in November 2003 and the complete Senate on March 3, 2004. The House is expected to take two to three weeks to pass the bill into law.

ADUFA. The Animal Drug User Fee Act of 2003 (Public Law 108-130) was passed by U.S. Congress in late December 2003 and authorizes FDA to collect user fees for certain drug approval applications. All sponsors will have to respond but sponsors of minor species or minor uses will not have to pay fees. CVM sent letters to all holders of INADs and NADAs on February 25, 2004 to gain information on any errors or omissions in the listing of products or establishments. The National Aquaculture NADA Coordinator sent information to all known INAD and NADA sponsors on March 11, 2004 on a guidance document to be posted on CVM’s website on Monday, March 15, 2004 that will direct them on how to apply for a waiver from any fees since their drug product involves minor species only.

## **Recent Actions of the United States Animal Health Association**

### UNITED STATES ANIMAL HEALTH ASSOCIATION – 2003

RESOLUTION NUMBER: 8      APPROVED

SOURCE:                      COMMITTEE ON AQUACULTURE

SUBJECT MATTER:            STANDARD PROCEDURES FOR AQUATIC ANIMAL  
HEALTH INSPECTIONS

DATES:                        OCTOBER 12, 2003

#### BACKGROUND INFORMATION:

In June of 2001, members of the Fish Health Section (FHS) of the American Fisheries Society (AFS) and the United States Fish and Wildlife Service (USFWS) initiated a process to update the portion of the FHS Bluebook that covers procedures for aquatic animal health inspections. Three committees were assembled made up of both FHS members and USFWS employees, which included Doctor of Veterinary Medicine (DVM) and non-DVM aquatic animal health professionals, to review and revise the bacteriology, virology and parasitology sections. Criteria that were used in the selection of appropriate assays included, 1) the sensitivity of the assay, 2) the specificity of the assay, 3) the cost of the assay, 4) availability of reagents, 5) availability of technology, 6) manpower requirements, and 7) scientific defensibility (they must be referenced). Additional sections were added to detail sampling methods, Polymerase Chain Reaction (PCR), and methods for revision of this document. The

inspection manual was presented and accepted by the FHS and USFWS on September 4, 2002 at the 4th International Symposium of Aquatic Animal Health that was held in New Orleans, Louisiana. The title of the manual is *Standard Procedures for Aquatic Animal Health Inspections*.

These inspection techniques represent a minimal acceptable standard. The techniques are inspection techniques used to detect the presence of certain selected fish pathogens; they are NOT diagnostic techniques. The *Standard Procedures for Aquatic Animal Health Inspections* is a protocols manual and not a policy manual. State and federal governments will stipulate which pathogens should be inspected for, what aquatic animal species are to be examined, and may well wish to define their own conditions for sample sizes and inspection frequency. This manual is meant only to provide appropriate methods for fish inspection, not to specify when and where and to which animals they should be applied.

#### RESOLUTION:

The United States Animal Health Association (USAHA) requests that the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS), be a member of the Aquatic Animal Health Task Force on Aquaculture, to consider the protocols contained in the *Standard Procedures for Aquatic Animal Health Inspections* when formulating the National Aquatic Animal Health Plan.

#### APHIS RESPONSE:

The United States is currently in the process of developing a national aquatic animal health plan under the auspices of the Joint Subcommittee on Aquaculture, National Aquatic Animal Health Task Force. This is a joint effort between three Federal agencies: the National Oceanic and Atmospheric Administration Fisheries; the U.S. Fish and Wildlife Service; and the U.S. Department of Agriculture, Animal and Plant Health Inspection Service. Tribal and State governments and other stakeholders will also be involved in the development of the plan.

Chapter 5 of the National Aquatic Animal Health Plan will deal with laboratory methodology, including inspection and diagnostic techniques. In drafting this chapter, a working group composed of experts on this topic from State and Tribal governments as well as from industry and other stakeholders will rely on reference materials including the *Fish Health Bluebook*, which includes the *Standard Procedures for Aquatic Animal Health Inspections*, and the Office International des Epizooties *Manual of Diagnostic Tests for Aquatic Animals* in an effort to harmonize methodologies both domestically and internationally.

UNITED STATES ANIMAL HEALTH ASSOCIATION – 2003

RESOLUTION NUMBER: 9 APPROVED

SOURCE: COMMITTEE ON AQUACULTURE

SUBJECT MATTER: NATIONAL VETERINARY ACCREDITATION  
PROGRAM, AQUACULTURE SPECIALIST ROGRAMS

DATES: OCTOBER 12, 2003

BACKGROUND INFORMATION:

For more than 30 years, global aquaculture production has increased approximately 11% per year with the United States a little behind this average; a trend that is assumed will continue. Recent Foreign Agriculture Organization (FAO) information indicates global aquaculture (farmed aquatic animals) production rivals or exceeds that of lamb, beef, pork, poultry, and combined other animal commodities. Currently the United States ranks about ninth in total aquaculture production. The United States is a net importer of seafood, with seafood being the largest contributor to the agricultural-product trade deficit.

Disease in cultured aquatic animals is now recognized as a major limiting factor of the industry. Risks of disease outbreaks are exacerbated by wild animal reservoirs and disease in animals and products imported from major producing countries that have few, if any, disease protection measures in place. Sub-optimal United States aquaculture veterinary surveillance and response, in turn, may result in the spread of disease to wild animals, further compounding problems.

The United States has recently experienced two national emergency declarations involving aquatic animal diseases, Infectious Salmon Anemia and Spring Viremia of Carp. In the early 1990's, Taura Disease decimated multimillion-dollar US shrimp aquaculture. Numerous other Office of International des Epizooties (OIE) notifiable diseases are currently endemic in the United States. Other emerging diseases potentially may affect the aquaculture industry.

The National Veterinary Accreditation Program (NVAP) is globally recognized as an optimal mechanism to address responses to animal diseases of national significance. Currently, the NVAP is being revised, and an aquaculture specialization category has been proposed. The need for more, well-trained, accredited, private, veterinary practitioners for prevention, control and eradication of aquatic animal diseases is well recognized and supported by the aquaculture industry.

Continuing education (CE) programs for federal, state and private veterinarians suitable for NVAP aquaculture accreditation are desperately needed to ensure sufficient numbers of well-

trained, qualified personnel. Several veterinary entities have increased the number of CE programs in aquatic animal medicine that meet the qualities of NVAP, CE.

#### RESOLUTION:

The United States Animal Health Association (USAHA) encourages the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) to:

1. Implement the proposed changes to National Veterinary Accreditation Program (NVAP), which include an aquaculture specialization category.
  - a. Identify necessary aquaculture educational components
  - b. Structure continuing education (CE) programs suitable for NVAP accreditation and provide necessary logistic and financial support.
  - c. Implement the developed CE programs to ensure sufficient numbers of well-trained private, state and federal veterinarians accredited in aquatic animal medicine of farm-raised species.

#### APHIS RESPONSE:

In the drafted amendment of the regulations for the National Veterinary Accreditation Program (NVAP), the U.S. Department of Agriculture, Animal and Plant Health Inspection Service (APHIS), has proposed to offer voluntary veterinary accreditation specializations. This anticipated component of the revised NVAP will serve the interests and marketability of the professional services of individual participants and will become important in meeting the changing needs of industry and fulfilling APHIS' mission. Veterinary accreditation specializations will be accompanied by training that must be taken if the specialization is to be attained. These training programs are currently being developed.

Examples of veterinary accreditation specializations include:

- Quality control certification programs (e.g., herd certifications such as on farm animal production/hazard analysis and critical control points, trichinae, toxoplasmosis, salmonella).
- Emergency management/foreign animal diseases.
- Aquaculture (e.g., exports, farm certifications, and health certificates).
- Scrapie testing.
- Cervidae testing.

## Update from the 2003/2004 Professional Standards Committee

### Major Projects

1. Updating the on-line information regarding Pathologist and Inspector Certification and recertification- This will provide current information on the certification and recertification requirements to all who are interested.
2. Providing certification and recertification forms on-line- This will provide ready access to the information and forms for those interested in certification and needing recertification.
3. Reviewing Certification categories- Our intention is to make them more appropriate for the current specialties and needs of the Fish Health Community. The current discussions have considered three "specialty" categories 1) people primarily performing laboratory procedures, 2) people primarily involved with field collection for inspection sampling, and 3) people primarily involved with the diagnosis, control, and prevention of diseases in Aquatic animals.
4. Increasing the availability of the certification exams- Previously the exam for Pathologist Certification has been coordinated and administered only if requested. The current Committee has discussed the benefits of providing the examination at the FHS meetings to make it easier for those pursuing certification to plan for it. This may become increasingly important if examinations are required for all of the certification categories.



**In Memory of  
Dr. Marsha L. Landolt (January 19, 1948 – January 2, 2004) and  
Dr. Robert A. Busch (August 22, 1946 – January 2, 2004)**

With the dawning of the new year, the fish health community lost two prominent scientists, top managers, inspiring leaders, and good friends. At 1:30 a.m. on January 2, 2004, Dr. Marsha Landolt and her husband, Dr. Robert Busch died when an avalanche slammed into their holiday cabin in the Sawtooth Mountains of Idaho, USA, filling the lower story of the cabin with snow and killing the couple as they slept. All of the other family members staying in the cabin for the holiday were sleeping on the upper level and managed to escape. These included Marsha's adult son, Nicholas Kocan, and one of Bob's daughters, Jenna Rovig, along with her husband and two children. Bad weather had prevented Bob's other daughter, Jodi Wright, her husband and their three children, from joining the gathering at the cabin.

Dr. Landolt earned her B.S. degree in biology at Baylor University (1969), her M.S. degree in Zoology from the University of Oklahoma (1970), and her Ph.D. degree in pathology from George Washington University (1976). She worked for the U.S. Department of the Interior in Leetown, West Virginia from 1970-1974, for the National Zoo in Washington, D.C. from 1974-1975, and for the University of Washington in Seattle since 1975. Beginning as an Assistant Professor in the UW School of Fisheries and specializing in research on fish health with an emphasis on toxicology, Dr. Landolt quickly gained the respect of her colleagues and rose through the ranks. She became Associate Dean of the College of Ocean and Fishery Sciences from 1983 to 1991, and Director of the School of Fisheries from 1991 to 1996, revitalizing one of the largest fisheries schools in the nation and re-establishing its position as a magnet for fisheries students from throughout the world. From 1996 until her death, Dr. Landolt served as Dean of the UW Graduate School, overseeing the careers of 10,500 graduate and professional students, and as Vice Provost, taking on administrative assignments that helped solidify Washington's position as one of the premier research universities in the nation. Despite her success as an administrator, however, Dr. Landolt continued to publish scientific manuscripts throughout her career, authoring over 70 articles and book chapters, including several co-authored with Dr. Busch.

Marsha Landolt was an outstanding mentor to her students, often leading by example. She was known for her organizational ability, her careful researching of facts before reaching a conclusion, her engaging style of public speaking, and her editorial skills. Her students tried to emulate many of her qualities, and former students can often be recognized by their liberal use of red ink when asked to edit a manuscript. She was also a warm and caring person who was always willing to dispense sage advice, personal or professional, to those in need. People who witnessed her precise manner of speech and elegant dress were often surprised to learn that she was a down-to-earth, fun-loving person with a great sense of humor and an ability to tell stories with the best.

Dr. Robert Busch earned his B.S. degree in biology from Colorado State University (1968), his M.S. degree in microbiology from the University of Northern Colorado (1971), and his Ph.D. degree in immunology and bacteriology from the University of Idaho (1976). He taught at Humboldt State University in California and then was recruited by Rangen Inc., an aquaculture feed manufacturer, to serve as Research Center Director at their facility in Hagerman, Idaho. He later became Research Director of Clear Springs Foods, Inc. in nearby Buhl, where he designed

the research laboratory and conducted genetic and pathology research using rainbow trout. Dr. Busch's next move occurred in 1989 when A.L. Laboratories, Inc. (a subsidiary of the Norwegian company Apothokernes Laboratorium, later Alpharma) purchased Biomed Inc., a Bellevue, Washington company that developed and manufactured vaccines for aquaculture species. As Vice President for the Animal Health Division and General Manager of Biomed Inc. (and later Alpharma Northwest), Dr. Busch was able to combine the abilities of the original Biomed staff with new scientific and marketing recruits to expand the fish vaccine business from a tiny enterprise to a major aquaculture industry. After Alpharma moved its fish vaccine operations to Norway in 1999, Dr. Busch devoted his professional talents and extensive knowledge of fish vaccines and pharmaceuticals to work as a private consultant to the aquaculture industry, both nationally and internationally.

Dr. Busch always asked for the best from his employees and led by example. He brought scientists together from around the world for meetings to share ideas and build a vision of accomplishment. He held tightly to his opinions and did not easily change them, but would graciously change his position when persuaded by convincing logic or valid data. He was a voracious reader, and constantly challenged assumptions in his search for scientific truth. Dr. Busch's scientific skills were equaled or exceeded by his business acumen. It was his savvy and unwavering position that a product should be priced based on its worth to the industry, rather than its cost of production. The profits, he maintained, should go to development of the next generation of vaccines and to opening markets worldwide. It was this strategy that helped to turn a struggling business into the multimillion-dollar industry that it is today.

Despite his earnest demeanor in his professional life, Bob Busch was also known for his beaming smile, his infectious, booming laugh, and a gift for storytelling that rivaled Marsha's. By the time he and Marsha married in 1991, both were well recognized for achievements in their careers, and both were supporters of the American Fisheries Society. Bob was a regular participant in AFS Fish Health Section conferences, and was known for his informative presentations and his probing, insightful questions at these meetings. Marsha was one of the authors of the AFS Strategic Plan, which was approved by the AFS Executive Committee in 1994. The plan set out eight goals that defined a vision of AFS in the year 2001, and provided strategies to achieve each goal.

Despite their busy schedules, Marsha and Bob always found time to devote to their families, which included Bob's daughters from his previous marriage to Marge Hine and Marsha's son by former husband Dr. Richard Kocan. They enjoyed diverse activities that included international travel and outdoor pursuits, often ending with a candlelight dinner highlighted by Marsha's gourmet cooking. They were very proud of their grandchildren and introduced them to baseball, the opera, magic tricks, and woodworking. At the time of their deaths, they were planning to divide their retirement time between their cabin in the mountains of Idaho and sailing among the San Juan Islands of Washington. We mourn the loss of two outstanding mentors, colleagues, and friends in the prime of their lives. They will be missed.

Diane G. Elliott and David B. Powell



## **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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