

AQUATIC VET NEWS

WORLD AQUATIC VETERINARY MEDICAL ASSOCIATION

Volume 6, Number 2

Second Quarter 2012

Election Time for 2013 Officers

The following WAVMA Full members have been nominated to serve as Officers or Directors-at-Large. WAVMA Full Members should vote online at <http://www.surveymonkey.com/s/2013Elections> by *midnight (GMT) July 31, 2012*.

All on-line votes, and in-person late votes cast at the WAVMA Annual General Meeting to be held at the AVMA Annual Convention in San Diego, California (August 6, 2012) will be tallied. Result of these elections will be announced shortly thereafter.

Secretary (1 nominee for 1 position):

Christopher I. Walster (United Kingdom) – BVMS, Glasgow University; MVPH, Glasgow University.

Treasurer (1 nominee for 1 position):

Nicholas Saint-Erne (United States) – BS, DVM, Kansas State University.

Director-at-Large (2 nominees for 2 positions):

Devon R. Dublin (Guyana/Japan) – DMVZ, double Major Degree in Veterinary Medicine and Zootechnics (Hons.), Agrarian University of Havana, Cuba; MSc in Marine Life Sciences, Hokkaido University, Japan; PhD Candidate in Marine Life Sciences, Hokkaido University, Japan.

Lydia Brown (United Kingdom) – BVSc, Liverpool University; FRCVS (Aquatic Veterinary Studies); PhD (Aquatic Veterinary Studies), Stirling University.

Meet the candidates



Chris Walster

My intent is to help create the best forum for communications with members and others and strengthen WAVMA's programs and contributions to aquatic veterinary practitioners around the world.



Nick Saint-Erne

I hope to continue working with the Executive Board to make this organization vital to veterinarians interested in treating aquatic animals. Also, to promote the advantages of veterinary involvement in the care of food fish and shellfish, the pet industry and pet aquatic animal keepers, and in the of wild sea creatures and aquatic animals.



Devon Dublin

I am very enthused with the strides that WAVMA has made and I am happy to have been afforded the opportunity to be a part of that process. I will continue to promote WAVMA and its endeavours if I am called upon to serve again.



Lydia Brown

I'd like to encourage more membership, see younger members involved, and help promote the society in my spheres of interest.

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Editor's Note

WAVMA just continues to grow and get better! We are nearing completion of the Certified Aquatic Veterinary Practitioner program and the Fellowship Program. We have just signed a contract with Elsevier to provide books to our members at a 20% discount (see below) and are setting up a web-store to be able to sell products to WAVMA members from our website. WAVMA is a member of the World Veterinary Association and the World Small Animal Veterinary Association. This allows us to collaborate with other veterinarians from around the world. Our membership list is growing and we have more active WAVMA members than ever before. Good things are happening at WAVMA, and better things can happen if every member contributes in some way to our organization's success. Please get involved now! Contact a board member to see how you can help [see contacts on page 23].

Nick Saint-Erne
Newsletter Editor

WAVMA Book Store

If you have a book that you would like to offer to the members, please contact the newsletter editor. We would like to create an online bookstore at the WAVMA.ORG website, where members can save on books or videos that would help them in their aquatic veterinary practice. We also have WAVMA polo shirts for sale. These can be ordered from Julius Tepper (cypcarpio@aol.com) and will be available on the web-site soon.

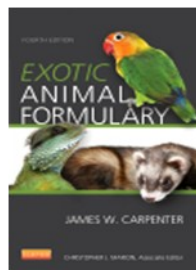
Also, WAVMA has recently signed an agreement with Elsevier to offer their books to our members at a 20% discount! These books and more are available from Elsevier Health Science:

www.us.elsevierhealth.com

Exotic Animal Formulary (2013)

By James W. Carpenter, MS, DVM, Dipl. ACZM

A quick, concise reference, and formulary for drugs and dosages used for exotic animals, and common questions and medical situations encountered in clinical practice. Species covered include invertebrates, fish, amphibians, reptiles, birds, primates, wildlife, and small mammal "pocket pets." List Price US \$59.95



A passel of Parrot Cichlids!

Exotic Animal Medicine: A Quick Reference Guide (2009)

By Scott Stahl, DVM, DABVP-Avian and

Lance Jepson, MA, VetMB, CBiol, MIBiol, MRCVS

A Quick Reference Guide provides readily accessible, user-friendly information for veterinarians of the majority of exotic pet species, differential diagnoses, a follow up plan and treatment regimes, for a variety of common mammal, avian, reptilian, amphibian pets, and pond fish, tropical freshwater and marine fish. List Price US\$99.95



Manual of Exotic Pet Practice (2008)

By Mark Mitchell, DVM, PhD and Thomas N. Tully, DVM, Dipl. ABVP(Avian)

Guide to common exotic species in practice including invertebrates, fish, amphibians reptiles, birds, marsupials, and small mammals. Includes unique anatomic images, medical and surgical approaches, preventive medicine, disease presentations, zoonoses, nutritional issues, restraint, lab values, drug dosages, and special equipment needed. List Price US \$102.00

WAVMA Members receive 20% discount off List Price.

All purchases include shipping and handling. Some are available as e-books.

Executive Reports

Dear Colleagues,

As you are aware, WAVMA became an affiliate member of the World Small Animal Veterinary Association (WSAVA). This organization is made up of veterinary associations from around the world.

One can appreciate that the focus of this organization has been on companion animals, especially dogs and cats and it is hoped that WAVMA can introduce ornamental fishes to the focus of WSAVA. We will be proposing to the WSAVA conference committee some topics and speakers for its consideration for next year's conference.

As a result, I am asking the general membership to kindly volunteer or recommend possible speakers in the field of Aquatic Veterinary Medicine and topics that may be of interest to veterinarians who are not working with fishes/aquatic animals.

Please be reminded that as a WAVMA member you are entitled to discounted registration at all WSAVA conferences. The next is scheduled to be held in Auckland, New Zealand from March 6-9th, 2013. More information can be found at <http://www.wsava2013.org/>.

For 2012 to be successful, we most certainly need your input on multiple programs that are developing, and most of all, please share with me what you would want to see in return for your membership dues. It is my primary goal as the President to bring new programs online as WAVMA member services. However, to keep evolving and serving our members, we need your ideas and input about new services and improving existing. I will be waiting for your e-mails (president@wavma.org) in 2012 and beyond.

All the best in the next year,

Dušan Palić

2012 WAVMA President
Professor & Chair of Fish
Diseases & Fisheries Biology
Faculty of Veterinary Medicine,
Ludwig Maximilian University,
Munich, Germany



Dr. Dusan Palić

Future WAVMA Meetings

2012 AVMA Convention Aquatic Vet Sessions & WAVMA AGM (San Diego, CA USA - Aug 4-7)

2012 NOVICE Aquatic Vet Program (Bucharest, Romania - Oct 4-5)

Allows WAVMA to showcase aquatic educational programs through presentations and two workshops. The Board approved funding towards costs of \$2000

Aquaculture 2013 WAVMA Aquatic Vet Sessions (Nashville, TN, USA – Feb 21-25)

2013 AVMA Convention, Aquatic Vet Sessions (Chicago, IL, USA – July 20-23)

2013 WVC Aquatic Vet Sessions (Prague, Czech Republic, - Sept 17-20)

WAVMA New Members

Members are the life-blood of any professional Association. Please join us in welcoming the following new members:

Veterinarian Members:

Grace Karreman (Canada)
Angela Cassel-Flacks

Student Members:

Brianna Tobin (USA)
Jessica Dewar (USA)
Ivan Lim
Noelle Litra (USA)
Richard Kabuusu
Alexander Primus
Wesley Dyer
Sarah McConnachie
Raphael Malbrue
John Tracey

Secretary's Report

It is WAVMA Executive Board election time again. If you have not submitted your nomination then please ensure you do so immediately. From around June 30, candidate biographies will be available on the website (www.wavma.org/Executive-Board-Elections) as well as the ability to cast your vote online. This is your opportunity to influence the way WAVMA is run and in which direction it should go. Some of you may be unsure as to why you can vote for someone, against someone or abstain. These three choices are important when in all likelihood there will be only one choice of candidate for all positions. This choice gives you, the member, an option to let the Executive Board know that not everyone is happy with the way things are run. You could vote against a candidate if you feel strongly they are unsuitable or perhaps tick "abstain" if only mildly irritated or the candidate is unknown to you. Whatever way you vote it is helpful to the Executive Board to gauge how the membership feels and all members are encouraged to exercise their voting rights.

Once again members of the Board have spent considerable time representing WAVMA at various conferences and meetings, more often than not at personal expense of both monetary and time, always with the aim of promoting aquatic veterinary medicine and to benefit WAVMA members. During April, I attended the WSAVA/FECAVA/BSAVA Conference in Birmingham, England as the WAVMA representative (deputizing for Devon Dublin) since it is pretty close to my home. WAVMA has already contributed to the review of WSAVA's Convention for the Protection of Companion Animals and whilst I was there I gained not only a greater understanding of how WSAVA works but was also able to contribute to several ongoing discussions about making WSAVA more relevant to practitioners.

One of the outcomes is that the WSAVA website will be revamped allowing WAVMA to better promote itself to the 180,000 veterinarians who are members of WSAVA. Additionally it was agreed to make the monthly WSAVA newsletter more appealing to these 180,000 vets through articles of relevance to the various species specialties of the profession and content describing member's daily lives and professional tips. So if you want to promote yourself to other practitioners, send a concise article to Devon Dublin, WAVMA's WSAVA representative.

I also had the pleasure of representing WAVMA at the Palisade Conference London 2012. Palisade produces the computer software, The Decision Suite (www.palisade.com), which includes @Risk, with which some of you will be familiar. The conference focuses on

Enterprise Risk Management, a business process examining the risk and opportunities a business may be exposed to. There are marked similarities between the risk management process and in developing a biosecurity plan. From the presentations I also realised that this software is not just for use in epidemiology but also has a place in the management of veterinary practices and also for those of you with some spare capital in managing your share portfolio. I would strongly recommend anyone who uses Palisade's products or intends to purchase them attend one of these conferences as they offer incredible value for money.

Prior to the conference, Palisade also sent out a professionally prepared press release mentioning WAVMA. At the time of writing, I have yet to receive the report on its effectiveness, but know it was sent out globally, and has been picked up by organisations such as the BVA with a resume being printed in the BVA's Veterinary Record. As well as publicity for WAVMA, members can obtain a substantial discount off Palisade products. Please contact secretary@wavma.org for further details.

In recent months several members have joined NOVICE (www.novice.eu) which is best described as a Facebook for veterinarians, offering home pages, blogs, a Twitter equivalent and wiki pages amongst other things. Currently it has around 2000+ members globally. WAVMA has set up a group that has received praise from the NOVICE developers for the amount of activity. All members are encouraged to join and information has previously been sent out to members via the listserve. It is a great platform to promote aquatic veterinary medicine to other vets and also link up with vets from other disciplines. One of the project's outputs is an annual conference focusing on veterinary education and WAVMA has been asked to put together a program on the global opportunities for aquatic veterinary education. The conference takes place in Bucharest, Romania 4-5 October, 2012.

We are half way through 2012 and some projects have been completed, such as the Fellows program and the pace of development for others has slowed simply because there is too much to do for those who volunteer their time to WAVMA. I usually make an appeal at this point for help and content for the development of the website, amongst other things. Since it is election time, I would like to ask that more members give some of their time to further build the member benefits of WAVMA.

Continued on page 5 -

Secretary's Report - continued

If all the current programs were in place, as well as providing intangible professional benefits to WAVMA members such as the listserve, promotion of aquatic veterinary medicine and the educational and information dissemination provided by the Aquatic Vet News for example, the tangible benefits to members could be worth well over \$600 per year, making membership an excellent investment. So, if you have not considered standing for the Executive Board please consider assisting one of the committees. Not only will you gain personally from the experience but know that you have helped develop one of the most exciting areas of veterinary medicine.

Dr Chris Walster (UK)

chris.walster@onlinevets.co.uk

WAVMA Secretary

Committee Reports

Communications Committee Report

Student Chapters

Progress on developing a University of Prince Edward, Atlantic Veterinary College student chapter is progressing well. Dr. Larry Hammell has agreed to be the Faculty Advisor and work with Sophie Whoriskey, Samara Parker, Alicia Morse and Brianna Tobin to get more vet students to join WAVMA, help refine a "Guidelines for Forming & Operating Student Chapters," and develop chapter bylaws.

To encourage the development of WAVMA Student Chapters, the Board approved "supporting Student Chapters that have at least 5 members, by allocating 50% of student chapter member's dues to running the Chapter programs, and providing free full membership to faculty members that serve as the Student Chapter liaison or advisor, and actively coordinated student programs throughout the previous year.

NOVICE Programs

Plans for a WAVMA aquatic veterinary education program with lectures and workshops at the 2012 NOVICE Conference in Bucharest, Romania (October 4-5) is progressing well and Laura Urdes and David Scarfe are awaiting confirmation from the Conference Organizing Committee. The WAVMA Executive Board approved \$2,000 to help offset speaker travel expenses.

David Scarfe, DVM

Communications Committee Chair

dscarfe@ameritech.net

Meetings Committee Report

Plans for our presence at the AVMA Annual Convention, which will take place in San Diego, CA from August 4-7, 2012, are moving ahead nicely. In addition to our information booth, in conjunction with the AVMA Aquatic Veterinary Committee, we have organized a special full day session on August 7. Based on discussions at our dinner meeting in St. Louis at last year's WAVMA Annual General Meeting, this session has been arranged with advanced topics, case reports and roundtable discussions designed to help us bring new clinical insights to our aquatic practices. In addition, attending this conference will allow the participant to earn up to 42 Hours of CE.

Below is a list of the Aquatic topics to be presented each day:

Saturday, August 4: Career Options in Aquatic Veterinary Medicine & Fish Medicine Basics

Sunday, August 5: Diagnostic Techniques

Monday, August 6: Infectious Diseases of Fish

Tuesday, August 7: Advances in Clinical Aquatic Veterinary Medicine

On Monday, Aug. 6, from 6:30 PM- 10 PM, we will have our **Annual General Meeting and dinner**. Thanks to the cooperation between WAVMA and Novartis Animal Health US, Inc., we will have several representatives present to discuss their new Cavoy vaccine for koi herpesvirus protection (CyHV-3). Novartis has also agreed to sponsor our AGM for that evening. The meeting will take place at the Manchester Grand Hyatt San Diego, One Market Place, San Diego, CA 92101 (619.232.1234).

I will open the meeting after most have arrived and introduce everyone. After we have eaten, our President, Dusan Palic, will update members on the progress we have made during the past year. He will then conduct a short business meeting. We will then have time for members to discuss our progress for the past year. As we anticipate a great turnout, please let me know as soon as possible if you plan to attend the dinner so we can arrange seating.

Julius Tepper, DVM

Meetings Committee Chair

cypcarpio@aol.com

Student Committee - WAVMA Student of the Month

Emily Denstedt graduated in 2009 from Queen's University in Ontario with an Honours Bachelor of Science degree in biology. She is now completing her second year as a veterinary student at the Ontario Veterinary College in Canada.

Throughout her academic career, Emily has been heavily involved in a diverse number of experiences in conservation, clinical work, and rehabilitation. She worked as a supervisor for four years at Salthaven Wildlife Rehabilitation Centre, and turned her home into a satellite station for injured or orphaned waterfowl. She has also been involved in conservation education as a bird of prey handler with Wild Ontario.

Emily developed her interest in aquatics in 2007 when she spent time in Taiwan learning the field techniques of cetacean research. She performed a dolphin necropsy, visited ports to learn about fisheries methods, and recorded data for cetacean sightings at sea. That same year, Emily completed an internship at Dolphin Quest Bermuda where she worked as a dolphin trainer, collected samples for various studies, and assisted veterinarians in their research of dolphin calves and mothers in the facility. Emily has also had the privilege of working with wildlife veterinarians at the Center for the Rehabilitation of Wildlife, Sanibel Island where she helped rehabilitate a number of sea turtles.

As a veterinarian, Emily hopes to pursue a career that involves both clinical practice and conservation research. This summer she will be traveling to Southeast Asia with Global Vets to do reef surveys for Marine Conservation Cambodia. She is planning to do external rotations in her fourth year at public aquaria facilities and will continue to seek out opportunities in aquatic and conservation medicine.



Veterinary Students,

Please assist us in identifying a faculty member at your veterinary school to serve as the primary contact with WAVMA. Good candidates may include: a mentor for your aquatics club, or a professor who teaches a fish medicine course or any individual with an interest in aquatic animal medicine.

Please provide us with the faculty contact information or have the faculty member contact us directly at:

WAVMA_Student_Cmte@mailhost.wavma.org.

Student Chapter Incentives

For every group of five or more student members at a specific veterinary school, the Board, agreed to rebate 50% of student membership fees to run the chapter programs

WAVMA must be informed of the programs and the school officials. At least one faculty member at the school must be a full WAVMA member to act as a mentor.

If the faculty member can show active mentorship they will receive complimentary membership in the following year.

Listserv Letters

Dear WAVMA Members,

Has anyone had any deaths in ornamental freshwater ponds that are using the copper ion generators for algae control?

In our area, our alkalinity and hardness are both typically high (150+ mg/L) but I have had a few koi deaths in two ponds and found low alkalinity (30-50 mg/L), which of course increases toxicity. No copper plumbing, no runoff from copper treated shingles, no copper statues, etc. The ion generators are commercially available for backyard pond use to control algae.

Thanks,
Helen E. Roberts, DVM
nyfishdoc@aol.com

Hi Helen,

Have not had that problem, but copper is certainly more toxic in low alkalinity water. Biological filtration will use the carbonates in the water, so the alkalinity will gradually drop in any closed system without periodic water changes. Our water here is very high in alkalinity. In other parts of the country with low alkalinity copper can be more of a problem.

In a closed system, any copper that is added into the pond or aquarium from the water is either assimilated or precipitates fairly quickly, thus the initial effect of the copper is reduced over time. If the water source contains copper and is constantly flowing into the system, however, then there is a continual source of copper, and the fish will reach maximum levels and it will become toxic. Certain fish have much higher levels of tolerance to copper in the water. In tropical fish, Bala sharks are the most notorious for toxicity from copper. Other very sensitive fish include freshwater spiny eels, loaches, and tiger barbs, along with invertebrates such as snails.

There is a great paper on copper and alkalinity by Craig Watson and Roy Yanong from the University of Florida here:

<http://edis.ifas.ufl.edu/fa008>

Nick Saint-Erne, DVM
Technical Services Veterinarian
Aquatics Division

PetSmart, Inc.

Saint-Erne@Q.com

I had one case of copper toxicity from ion generators as well and the fish returned to normal after removing the unit or when we added some of the clays to increase alkalinity. Similar soft water with low alkalinity. Koi seemed very sensitive and I had mortalities and fish behaving oddly...anorexic, swimming head down, disoriented...have you tried to get a copper measure?

Scott Weber
sharkdoc01@gmail.com

Yes, copper was >0.25 mg/L...that is the highest level on current test kit (new one on its way). Although the copper ion generator instructions do mention an alkalinity range, I think they should also include a test for that too (since copper test *strips* are included). 50 ppm alkalinity seems too low IMHO. Note: >100 ppm level is mentioned in the training module that I would bet most owners do not look at. Of course only the named fish with a high degree of emotional attachment are dead.

Here's info on the most common one: High-tech, ion generator employs a metal alloy probe that releases a mixture of positive copper, silver and zinc ions. The result is increased water clarity and quality plus a reduction in pond maintenance. Versatile, low-voltage system installs inline or submerged for convenient use with new or existing pond filtration systems. User-friendly electronic control panel allows simple adjustment of operational parameters. Replaceable IonGen Probe typically lasts one to three seasons of use. For use with pond up to 25,000 gallons.

Target Water Parameters for Optimal Performance:

To achieve the best results with the IonGen, it is recommended that the water feature's water is within the water parameters listed below. The water feature's water parameters can change during the season, especially in water features that experience high evaporation. Many times a simple water change can help "reset" the water feature's water parameters.

Alkalinity 50-250 ppm

Copper 0.20-0.25 ppm

The "training module" mentions the relationship and also suggests levels >100ppm with fish in pond.

For more information from the dealer, see:

<http://www.aquascapeinc.com/upload/IonGen-System-FAQ.pdf>.

Thanks,
Helen E. Roberts, DVM

Literature Review



Fish Virus Abstracts compiled by **David Scarfe**

White Spot Syndrome Virus: an Overview on an Emergent Concern

Sánchez-Paz A (2010). *Vet. Res.*, 41(6): 43pp. (An open access publication accessible at www.vetres.org)

Abstract

Viruses are ubiquitous and extremely abundant in the marine environment. One of such marine viruses, the white spot syndrome virus (WSSV), has emerged

globally as one of the most prevalent, widespread and lethal for shrimp populations. However, at present there is no treatment available to interfere with the unrestrained occurrence and spread of the disease.

The recent progress in molecular biology techniques has made it possible to obtain information on the factors, mechanisms and strategies used by this virus to infect and replicate in susceptible host cells. Yet, further research is still required to fully understand the basic nature of WSSV, its exact life cycle and mode of infection.

This information will expand our knowledge and may contribute to developing effective prophylactic or therapeutic measures. This review provides a state-of-the-art overview of the topic, and emphasizes the current progress and future direction for the development of WSSV control strategies.

Emerging Viral Diseases of Fish and Shrimp

Walker PJ & JR Winton (2010). *Vet. Res.*, 41(6): 24pp. (An open access publication available at www.vetres.org)

Abstract

The rise of aquaculture has been one of the most profound changes in global food production of the past 100 years. Driven by population growth, rising demand for seafood and a leveling of production from capture fisheries, the practice of farming aquatic animals has expanded rapidly to become a major global industry.

Aquaculture is now integral to the economies of many countries. It has provided employment and been a major driver of socio-economic development in poor rural and coastal communities, particularly in Asia, and has relieved pressure on the sustainability of the natu-

ral harvest from our rivers, lakes and oceans. However, the rapid growth of aquaculture has also been the source of anthropogenic change on a massive scale.

Aquatic animals have been displaced from their natural environment, cultured in high density, exposed to environmental stress, provided artificial or unnatural feeds, and a prolific global trade has developed in both live aquatic animals and their products. At the same time, over-exploitation of fisheries and anthropogenic stress on aquatic ecosystems has placed pressure on wild fish populations. Not surprisingly, the consequence has been the emergence and spread of an increasing array of new diseases.

This review examines the rise and characteristics of aquaculture, the major viral pathogens of fish and shrimp and their impacts, and the particular characteristics of disease emergence in an aquatic, rather than terrestrial, context. It also considers the potential for future disease emergence in aquatic animals as aquaculture continues to expand and faces the challenges presented by climate change.

Transmission of Cyprinid herpesvirus-3 (CyHV-3) from goldfish to naïve common carp by cohabitation.

El-Matbouli M & H Soliman (2011). *Res. Vet. Sci.*, 90(3): 536-539.

Abstract

Cyprinid herpesvirus-3 (CyHV-3) has spread worldwide and has had a major impact on koi and common carp production. Previous studies on the host range of the CyHV-3 found that fish species other than koi and common carp are fully resistant to natural virus exposure. Recently, CyHV-3 was detected in goldfish (*Carassius auratus auratus*) that were in contact with CyHV-3 infected koi. In the present study, a specific RT-PCR product was amplified from the viral thymidine kinase gene in gills, intestine and brain tissues of CyHV-3 infected goldfish. This implied that CyHV-3 replicated in these goldfish. Also, in the presence of a stress factor such as temperature fluctuation, the CyHV-3 infected goldfish transmitted the virus to cohabitated naïve SPF common carp. CyHV-3 DNA was detected in the cohabitated naïve carp tissues by PCR. The results of this study demonstrate that goldfish is a carrier for CyHV-3, permit virus propagation, and disseminate the virus to susceptible carp causing the disease.

Book Review

Fish Vetting Essentials

Authors: Dr Richmond Loh & Dr Matt Landos

Cost: AUS \$99.00 plus P&P (S&H)

WAVMA Member Discount: 15% please type in the discount code of wavma when ordering

Publisher: Self Published

ISBN: 978-0-9871571-0-2

Number of pages: 215, A4 size.

Target Audience: Any veterinarian with an interest in fish medicine and surgery

Available from: www.thefishvet.com.au

This is a revised and expanded edition of the original Australian Fish Vetting Essentials, written by two veterinarians who are members of the Australian and New Zealand College of Veterinary Scientists' Aquatic Animal Health Chapter and between them have many years of experience in treating fish and other aquatic animals. The book is written in a concise and friendly style and delivers exactly as per the title. It is a book that can be read from cover to cover or dipped into as necessary to check dosages or show the client a picture of the parasite being discussed. The book may be divided into five sections: comparative anatomy and physiology, husbandry, disease investigation and diagnosis, therapeutics and what might be called miscellaneous but includes important topics such as diagnostic imaging and surgery.

The book starts with a section on comparative anatomy and physiology and then follows with brief descriptions and identifying key to the various groups of (mainly ornamental) fish. Whilst the discussion is brief and to the point, it does provide sufficient information so that a veterinarian new to aquatic medicine can feel confident they understand the principle differences of importance to diagnosis and treatment, whilst to those of us with more experience it provides a nice reference and chance to recall some of the concepts taught at college.

The next section I have termed husbandry and it ranges from setting up ponds and aquaria through water quality parameters to diet and nutrition and again the information provided covers these areas sufficiently to provide confidence to the practitioner, whilst not being too onerous. Of great use in this section are numerous tables, such as optimal pH for various species and acceptable and toxic levels of heavy metals. This is a feature that runs through the whole book, the necessary information is provided in an easy to read format, but if you require great depth to the subject, then you

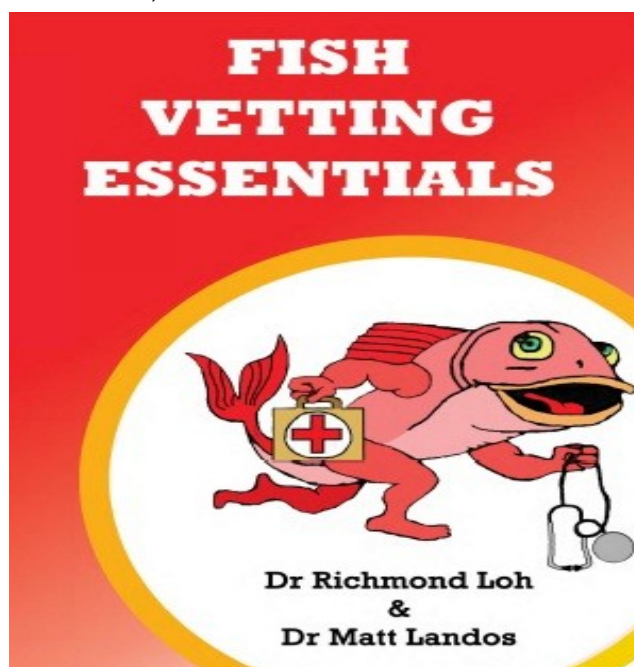
have to look elsewhere.

Following on is the disease investigation and diagnosis section. Here basic sampling techniques are described, as well as laboratory methods used, such as bacteriology, haematology and serum biochemistry. Having described how to carry out a clinical examination, the text moves to a description of the common fish diseases, again with a focus on ornamentals and many of the descriptions include photographs.

The therapeutics section is reasonably complete, although I was surprised that phenoxyethanol was not included under anaesthetics, possibly indicating a very slight bias towards those drugs available in Australia and so towards those the authors are more familiar with. The final section ranges across several topics from surgery to reproduction as well as notifiable diseases.

This is a book which delivers exactly what it says on the cover and is a great addition to the consultation room and not just to gather dust in the practice library since it is designed to be used. The coverage is comprehensive, demonstrating the full toolbox available to the veterinarian and contains the sort of information in one text that I wish had been available when I started my own path along aquatic veterinary medicine. Every practice should have a copy.

Review by: **Chris Walster**
Island Vets, UK



Colleague's Connection

WAVMA Member Receives Accolades

At the 2012 Annual meeting of the Minnesota Veterinary Medical Association, **Dr. John Howe** of Grand Rapids, Minnesota received the MN-VMA *Veterinarian of the Year Award*. A 1977 graduate of the University of the Minnesota College of Veterinary Medicine, he has been a WAVMA member since 2011.

Dr. Howe owned and operated a mixed animal practice in North Branch, Minnesota for 7 years and in 1984 he established North Country Veterinary Clinic in Grand Rapids, Minnesota. While his veterinary interests include laser surgery, orthopedics, and ultrasound, his practice includes aquatic animals. He is a certified fish health inspector for the state of Minnesota and currently chairs the Minnesota Aquatic Livestock Committee, and is a member of the MN-VMA Governmental Affairs Committee.



Dr. Howe is a past president of the Minnesota Board of Animal Health, Minnesota VMA, and Arrowhead VMA. He has also been the vice chair of both the AVMA Council on Veterinary Service and AVMA Governance Performance Review Committee.

Recently he was recently elected to serve a 6-year term (2011-2017) on the AVMA Executive Board representing District VII (Iowa, Minnesota, Missouri, Nebraska, North Dakota and South Dakota).

To see more about his North Country Veterinary Clinic in Grand Rapids, Minnesota go to www.ncvcvet.com.

AQUACULTURE 2013 Call for Speakers

Intent to Present: *Deadline – August 15, 2012*

Abstract Submission: *Deadline – August 31, 2012*

As Associate Sponsors of **Aquaculture 2013**, the AVMA and WAVMA invite aquatic veterinarians, veterinary students & paraveterinary professionals to submit abstracts for 15 or 30-minute presentations on any issues or strategies that have advanced aquatic veterinary medicine. Presentations topics useful to veterinarians and aquaculture producers include:

- Pathophysiology and impact of important and emerging diseases affecting aquaculture production, public health and seafood safety
- Biosecurity, surveillance and other strategies & approaches for the prevention, control and eradication of disease
- Legislative and regulatory issues addressing disease outbreaks
- Optimal and judicious use of biologic & therapeutic agents in disease outbreaks
- Clinical management of important food and ornamental finfish, crustacean and molluscan diseases

Presentations suitable for Veterinary Continuing Education and Professional Development (CEPD) are particularly encouraged.

NOTE: Oral presentations for this program will be accepted on a first-come, first-served submission of titles and/or abstracts. Other presentations may be assigned to posters or other sessions.

Intent to Present – To be included in this Session submit the following to dscarfe@avma.org before August 15, 2012:

Speaker Name & Affiliation

Presentation Title

Indicate desire for a 15 or 30 minute presentation

Abstract Submission – Full abstracts must be submitted online (www.WAS.org) before August 31, 2012.

If you know of a WAVMA member who has contributed to advancing any area of aquatic veterinary medicine and is willing to be profiled in this column, please contact AVNeditor@WAVMA.org.

WAVMA Attends WSAVA 2012

After WAVMA was successfully accepted as an affiliate member at the 2011 World Small Animal Veterinary Association (WSAVA) World Congress in Jeju, South Korea, Dr. Chris Walster, our secretary and alternate representative to WSAVA, represented the interests of WAVMA with full voting rights at the WSAVA/FECAVA/BSAVA World Congress 2012 held at the ICC/NIA in Birmingham, England from April 11-15, 2012.

This congress was touted as the largest international veterinary event ever held in the UK, offering more than 40 streams of veterinary CEPD lectures, featuring 300 lectures by world-class speakers, a world-class exhibition space showcasing the latest industry advances from over 250 exhibitors, plus a vibrant social programme for all levels and abilities of veterinary practice staff.

High on the WAVMA's agenda was the quest to have aquatic species promoted in the WSAVA and one of the ways of doing this was to initiate dialogue on the Convention for the Protection of Companion Animals to have it reflect this. I am thankful to all those who offered comments, suggestions and opinions on the document and would like to mention Dr. Peter Merrill and Dr. Bruce Maclean for their constructive inputs.

WAVMA is privileged to have a page dedicated to our activities on the WSAVA website (see picture below) and this is a great start to have the many veterinarians associated with this organization aware of and interested in aquatic veterinary medicine. You can visit the site at: www.wsava.org/WAVMA.htm.

Dr. Devon Dublin

WAVMA Representative to the WSAVA

The screenshot shows a Windows Internet Explorer browser window displaying the WSAVA website. The address bar shows the URL <http://www.wsava.org/WAVMA.htm>. The page title is "World Small Animal Veterinary Association - WSAVA - Windows Internet Explorer". The website header includes the WSAVA logo and navigation links: HOME, ABOUT US, CONTACT US, NEWS, CONGRESSES, SITEMAP. The main content area is titled "World Aquatic Veterinary Medical Association" and lists contact information for the Secretariat, President of Association, and Representative.

World Small Animal Veterinary Association - WSAVA - Windows Internet Explorer
<http://www.wsava.org/WAVMA.htm>
 お気に入り Suggested Sites
 devdub - Yahoo! Mail Active! mail World Small Animal ... X
 ホーム ABOUT US CONTACT US NEWS CONGRESSES SITEMAP
 HOME » Member Associations » **Affiliated Members** » World Aquatic Veterinary Medical Association

World Aquatic Veterinary Medical Association

World Aquatic Veterinary Medical Association (WAVMA)

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Taskbar: Cucusoft AVI to V... SP-Student Activi... World Small Anim...
 EN 7:32 PM

Clinical Reports

Bilateral hyphaemia and lens opacity in a grey reef shark, *Carcharhinus amblyrhynchos*.

Richmond Loh, The Fish Vet.

Caroline Kerr, Neuroecology Group,
The University of Western Australia.

Sam Hair, Department of Agriculture and Food,
Western Australia.

Abstract:

A wild-caught, commercially supplied, reef shark developed bilateral hyphaemia and cloudy swelling of the lens within 3 days in captivity. Cytologic assessment of the blood film was consistent with an inflammatory leukogram. A pure growth of *Micrococcus luteus* was isolated from blood collected from the tail vein. A course of antibiotics and prolonged anti-inflammatories was curative.

Key words:

Hyphaemia, septicaemia, shark, *Micrococcus luteus*, cataracts.

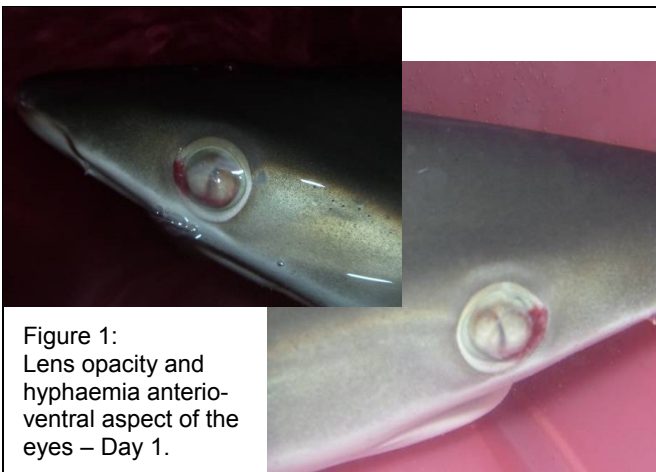


Figure 1:
Lens opacity and
hyphaemia antero-
ventral aspect of the
eyes – Day 1.

Introduction:

Sharks in general show few clinical signs of ill-health. Usually the earliest signs of ill-health may be suspected if there is a change in behaviour, attitude and appetite. Close observation of their eyes may also provide a good indicator to their health as is evident in this clinical report.

Case Description:

Signalment & History

Grey reef shark, female, 60cm, 2.2kg. Wild-caught. It was housed in a 100kL, recirculating, circular tank with another similar size shark. After 3 days in captivity, it became inappetent and it developed bilateral eye lesions characterised by haemorrhage into the anterior chamber of the eyes, cloudy swelling of the cornea and possible adhesion of the iris to the cornea (Figure 1).

Water Quality	Sera test kit	API test kit	Other brand	Ideal Range
TAN (mg/L)	2	0		<1
Nitrite (mg/L)	0.5	0		0
Nitrate (mg/L)	50	40-80		<50
pH (units)	8.0	7.9		8.0-8.2
WT (°C)			24.6	
DO (mg/L)			7	6-7.2
Salinity (g/L)			35	34-36
S.G.			1.028	

Differential Diagnoses

Trauma, Osmotic challenge, Septicaemia.

Clinical Evaluation

The shark was placed in an anaesthetic bath (MS-222 to effect) and blood was sampled from the tail vein for haematology (blood film) and bacteriology (sample collected into Amies transport swabs). A swab of the surface of the cornea was also sampled. For recovery, the gills were irrigated with non-anesthetic water using a small aquarium powerhead and a dose of doxapram (10mg/kg IM) was administered.

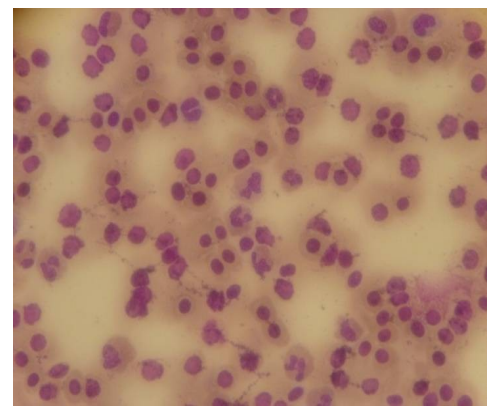
Clinical Tests

Haematology

There was leukocytosis with a predominance of polymorphonuclear cells and lesser numbers of monocytes in the blood monolayer (figure 2).

Figure 2:

Haematology showing an inflammatory leukogram.



Clinical Reports - continued

Bacteriology

Table 1: Bacteriology results from samples taken from the shark.

Sample	Routine fish bacterial culture	<i>Acinetobacter lwoffii</i>	<i>Aeromonas sobria</i>	<i>Micrococcus luteus</i>	<i>Shewanella putrefaciens</i>	<i>Vibrio alginolyticus</i>
Eye swab	Significant growth	moderate growth	moderate growth	-	moderate growth	moderate growth
Tail Vein Blood swab	Significant growth	-	-	pure moderate growth	-	-

Table 2: Antibiotic sensitivity panel for the bacteria isolated from the tail vein.

Sample	Bacterial isolate	A m o x y c i l l i n	A m p i c i l l i n	C h l o r a m p h e n i c o l	Com- pound Sul- phona mides	D o x y c y c l i n e	E n r o f l o x a c i n	Ery thr om yc i n	Fl o r e n i c o l	O x o l i n i c A c i d	O x y t e r a c y c l i n e	Sul- pha meth oxaz ole	Te tra cy cli ne	Trimetho prim / Sul- phameth oxazole
Blood swab	<i>Micrococcus luteus</i>	S	S	S	R	S	S	S	S	R	S	R	S	R

Results & Rule-outs

To obtain *Micrococcus luteus* as a pure growth and a blood film with a prominent inflammatory cell population supports the diagnosis of septicaemia.

Treatment Options

During anaesthesia, antibiotic therapy (enrofloxacin at 10mg/kg IM q4d) and anti-inflammatories (meloxicam at 0.36mg/kg IM q1d) was instituted immediately. Betadine diluted 1:10 was administered topically on the eyes with poly-ox bandage. After 5 days, the anti-inflammatory was substituted with flunixin at a dose of 0.3mg/kg q4d to reduce the frequency of handling the shark and subsequent stress. After a further 12 days (3 treatments), the flunixin was administered at the reduced dose of 0.25mg/kg q4d and the enrofloxacin at the reduced dose of 5mg/kg q4d.

Follow-up

Inappetance persisted and several appetite stimulants were tested including the addition of garlic, aniseed oil, prawns, squid, salmon and lobster. It was also suggested we try beef heart and beef liver (Donald Stremme, pers. com). Little or no

success was achieved with these methods, although this could perhaps partly be attributed to the stress of capture and treatment. A second opinion was sought on the situation from Dr Martyn King, a specialist in veterinary ophthalmology. Dr King confirmed the initial diagnosis of corneal damage and described evidence that the eyes may have been perforated due to the obvious adhesion of the iris to the cornea. He concluded that no ongoing perforation was present and the lesions in both eyes had sealed well. He reported that all other intraocular structures appeared normal. It was suggested that the perforations could have occurred during transport, although the lesions may only have become obvious as the eyes responded to the trauma by developing the significant reactions observed here. He thought the long-term prognosis should be very good, although these injuries can take some time to heal. He suggested it would be advisable to persist with the anti-inflammatories and antibiotics, as the risk of infection was high.

Case Resolution

Complete resolution was achieved by day 37 (Figure 6).

See Photographs on following pages.

Clinical Reports - continued

Figure 3: Day 3 of treatment.



Figure 4: Day 14 of treatment.

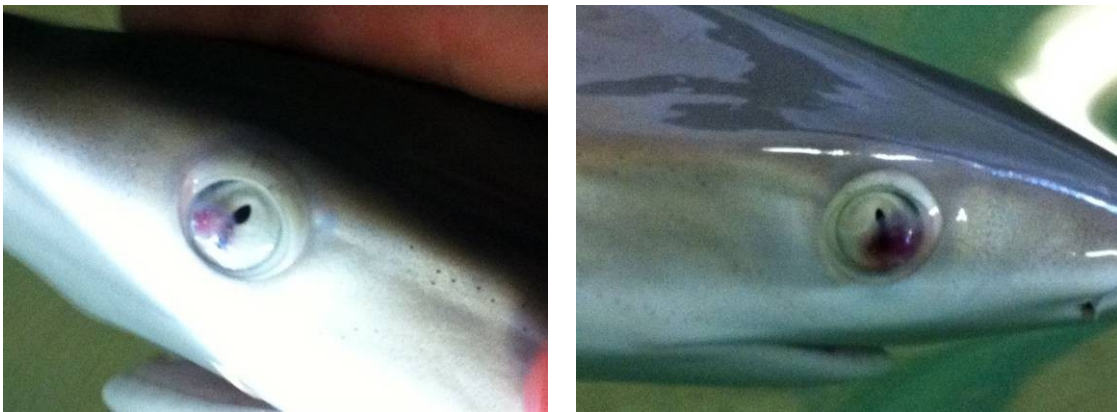


Figure 5: Day 23 of treatment.



Clinical Reports - continued

Figure 6: Day 37 of treatment. Resolution.



Discussion & Conclusions

There was some inconsistency with the water quality results produced with the API and the Sera brand of test kits. Those results produced by the API test show no significant findings. However, those results produced from the Sera test kits of elevated ammonia and nitrite are typical of a “new tank” syndrome. Regardless of the results, it was acknowledged that more frequent water changes would only be of benefit.

The hyphaemia and cloudy irregular lens surface appeared more severe in the rostral aspect of the globe and these are suggestive of traumatic injury. Cytologic assessment of the blood film was consistent with an inflammatory leukogram.

Micrococcus luteus is a Gram positive coccoid bacteria that is a normal inhabitant of teleost slime and elasmobranch skin and in mud. It is capable of causing systemic infection in immunocompromised fish. Tests showed this isolate to be sensitive to a large variety of antibiotics including the enrofloxacin we were using to treat the shark.

The swab from the surface of the eye grew a variety of organisms (as was expected). They were not considered to be primary pathogens. This is a typical finding from samples taken from the external surface of aquatic animals.

References

Austin B & Austin D (2007) Bacterial Fish Pathogens. Diseases of Farmed and Wild Fish. Fourth Ed. Springer. Chichester.

Loh, R (2012) Fish Vetting Medicines: Formulary of Fish Treatments. Richmond Loh Publishing, Perth.

Aydin S , Ciltas A , Yetim H & Akyurt I (2005) Clinical, Pathological and Haematological Effects of *Micrococcus luteus* Infections in Rainbow Trout (*Oncorhynchus mykiss*). J. Animal & Veterinary Advances. 4(2): 167-174.

A female grey reef shark off Wake Island - this species is one of the most common sharks on Indo-Pacific reefs.
From Wikipedia.com



Emerging Issues

Aquaculture gains top level recognition as a contributor to future food production June 12, 2012

Stavanger, Norway –

Kofi Annan left a deep impression on world aquaculture leaders when spoke this morning on how aquaculture can contribute to feeding nine billion people by 2050 in addressing the fully-subscribed global aquaculture business conference AquaVision 2012 in Stavanger, Norway. It is a mark of the rising recognition of aquaculture as part of the solution to feeding the planet in the coming decades that Kofi Annan, two times Secretary General of the United Nations, found time in his hectic agenda to give a presentation on this important topic. Around 100 local students who had prepared reports on sustainable food production attended the conference to hear Mr Annan speak. After his presentation, he met with those students with the highest rated reports.

In the same AquaVision session, Árni Mathiesen, Assistant Director General at FAO—the Food and Agriculture Organization of the United Nations, described the emerging food security challenges. FAO views aquaculture as a vital part of addressing this challenge in a sustainable manner. Mr Mathiesen reported that FAO aims to build a broad global partnership programme to advance aquaculture and wants to see special initiatives to increase the impact of fish on human nutrition, including for women and for children, especially in their first 1000 days.

Speaking next, Dr Fraser Thomson of the McKinsey Global Institute told the delegates that aquaculture can potentially increase to meet the protein needs of 500 million more people. He calculated by 2050 there would be an additional three billion more middle class people with spending power to be selective in their food purchasing. He highlighted the importance of aquaculture by pointing out the constraints on land agriculture, which include competition for raw materials, water, land and energy.

Also in the first session Dr Lisa Borges of the Sustainable Fishery Partnership described how aquaculture can contribute to sustainable fisheries and Professor Rudy Rabbinge of Wageningen University elaborated on why the food security challenge is increasing the importance of aquaculture. The conference is organised by global fish feed leader Skretting and its parent company Nutreco. It was opened by Knut Nesse, Head

of Skretting Group and Nutreco Executive Board member. Subsequent conference sessions will focus on the boom in aquaculture in Asia, the location of many of the new consumers, and look into the contributions of science and technology to aquaculture growth and sustainability.

AquaVision is a world-class aquaculture conference that attracts a diverse range of stakeholders to Stavanger every two years and has done so again in June 2012. The conference, organised by Skretting and its parent company Nutreco since 1996, has established itself as an important meeting place for some 400 participants from more than 30 countries.

AquaVision 2012 is being attended by the maximum capacity of 430 registered delegates from around 33 countries. Organised by Skretting and Nutreco since 1996, AquaVision is now established as a world-class conference that attracts a diverse range of stakeholders to Stavanger every two years.

For more information on AquaVision 2012 go to <http://aquavision.org>.

A potential tool to mitigate the impacts of climate change to the Caribbean leatherback sea turtle

JUAN PATINO-MARTINEZ, ADOLFO MARCO, LILIANA QUINONE S and LUCYHAWKES

Abstract

It is now well understood that climate change has the potential to dramatically affect biodiversity, with effects on spatio-temporal distribution patterns, trophic relationships and survivorship. In the marine turtles, sex is determined by incubation temperature, such that warming temperatures could lead to a higher production of female hatchlings. By measuring nest temperature, and using a model to relate the incubation temperature to sex ratio, we estimate that Caribbean Colombian leatherback sea turtles currently produce approximately 92% female hatchlings. We modeled the relationship between incubation, sand and air temperature, and under all future climate change scenarios (0.4–6.0°C warming over the next 100 years), complete feminization could occur, as soon as the next decade.

However, male producing refugia exist in the periphery of smaller nests (0.7°C cooler at the bottom than at the centre), within beaches (0.3°C cooler in the vegetation line and inter-tidal zone) and between beaches (0.4°C higher on dark beaches), and these natural refu-

Emerging Issues - continued

gia could be assigned preferential conservation status. However, there exists a need to develop strategies that may ameliorate deleterious effects of climate-induced temperature changes in the future.

We experimentally shaded clutches using screening material, and found that it was effective in reducing nest temperature, producing a higher proportion of male hatchlings, without compromising the fitness or hatching success. Artificial shade in hatcheries is a very useful and simple tool in years or periods of high environmental temperatures. Nevertheless, this is only an emergency response to the severe impacts that will eventually have to be reversed if we are to guarantee the stability of the populations.

Please, feel free to email me at juanpatino@ebd.csic.es for a copy of this article.

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Extracted from:

[HerpDigest.org](http://www.herpdigest.org): The Only Free Weekly Electronic Newsletter That Reports on the Latest News on Herpetological Conservation, Husbandry and Science
Volume # 12 Issue # 14 3/21/12
Publisher/Editor- Allen Salzberg
Need a daily fix of herp news? Go to HerpDigest's Facebook page <http://www.facebook.com/pages/HerpDigestorg/130624001610> and hit like.

Leatherback sea turtle (*Dermochelys coriacea*),
from Wikipedia.com



Looking ahead to World Congress 2013

Registration for the WSAVA World Congress 2013 in Auckland SkyCity Convention Centre, March 6–9 is now open.

Register early to take advantage of the early bird specials!

A message from Dr Pieter Verhoek -
Chair WSAVA2013 Local Organising Committee
Auckland, New Zealand

I have just returned from WSAVA 2012 where we were promoting WSAVA 2013. What wonderful feedback we had! The number of veterinarians we spoke to who raved about coming to New Zealand was humbling. In fact everywhere we've been over the last four years, delegates have said 'we can't wait to come to Auckland, New Zealand and experience the best that your country has to offer.'

New Zealand is on everyone's 'bucket list' and there is only one way to fix it – register now! We also want you to enjoy our wonderful scenery; its exciting adventure activities and our people - a cosmopolitan culture with a mix of European, Maori and the Pacific Islands.

We've been on an incredible journey over the last seven years and now that WSAVA2013 is almost upon us and we can't wait! I can clearly remember the day when we first floated this idea and the day that we won the opportunity to host World Congress. I have the same excitement today and the dream of bringing the world's best speakers covering all disciplines of veterinary science to New Zealand.

Please go to our website to view the Scientific Program, find out more about what we have to offer and register for the experience of a lifetime.

Dr Pieter Verhoek
Chair WSAVA2013 Local Organising Committee
Auckland New Zealand
www.wsava2013.org/

Legislative and Regulatory Issues

Items below are extracted from AquaVetMed e-News, which provides information to veterinary and veterinary-allied subscribers concerning aquatic animal medicine, health, welfare, public health and seafood safety, obtained from a variety of sources (largely AquaVetMed subscribers). Subscribe by contacting Dr David Scarfe at dscarfe@avma.org.

Trade rules must be tightened to halt frog-killing fungus

Source: Nature

Frogs are in trouble. In the 1990s researchers in Spain, Australia and Central America discovered that amphibians in rainforests and mountain lakes were dying in large numbers. The killer, it turned out, was chytridiomycosis, a disease caused by the fungus *Batrachochytrium dendrobatidis* (Bd), which has since been found around the world.

Scientists have rushed to understand the disease, and have attempted different ways to mitigate its spread. But science alone is not sufficient. Mark Auliya, a herpetologist and trade-policy expert at the Helmholtz Centre for Environmental Research in Leipzig, Germany, says that policies have to change on an international level. Auliya is part of the European Union (EU) project Risk Assessment of Chytridiomycosis to European Amphibian Biodiversity (RACE), in which teams of scientists are each looking at different aspects of the disease: genetics, physiological and behavioural effects, and geography. RACE will end in 2013 and Auliya is preparing to make policy recommendations based on the project. He spoke to Nature about the compelling need for new animal-trade legislation.

Two or three years ago we had about 200 Bd-infected amphibian species and now we have more than 500. Bd is now distributed in more than 50 countries, on all continents that harbour amphibians. There are almost 7,000 amphibian species, but less than 3% are covered by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). To control Bd in Europe there has to be a completely new EU-imposed comprehensive disease-control directive, which includes the regulation of all amphibian-trade activities across all entities that house or deal with amphibians. There is nothing legislating against Bd in particular.

For full article, go to:

<http://www.vetscite.org/publish/items/007358/index.html>

Australia discusses KHV use for Biological Control

On Wednesday the **25th of July at 2 pm** NSW/QLD Australia time, a free webinar on KHV will be provided courtesy of the Australian Biosecurity Intelligence Network ([ABIN](http://www.abin.org.au)). Veterinary virologist Ken McColl will provide some background, and recent progress, on an "Invasive Animals CRC"-funded project entitled "Koi Herpesvirus – a potential biological control agent for carp in Australia".

The presentation will be held using Adobe Connect. To attend the presentation, simply click on the link below. If you have not attended an ABIN Web Conference previously, please run the test connection link a day prior to the presentation. Audio for the presentation will be via a toll-free teleconference line, also listed below. If you do not have access to the website you can still listen to the presentation on the phone, however please do not listen to the presentation over the computer. Listeners who are calling in should mute their computer speakers. Also, listeners should mute their phones until question time if possible, as background noise is sometimes audible in the presentation.

Please feel free to invite any other individuals you think would be interested. I can provide international phone numbers if necessary.

The Australian Toll-Free Number:

Phone Number: **1800 720 493**

Participant passcode: **290 508 0292**

ABIN Helpdesk (issues on the day)

Phone: 1300 136 376

Email: helpdesk@abin.org.au

ABIN Aquatic Animal Health Webinar Room (Click on this link on the day)

<https://connect.abin.org.au/aquaticanimalhealth/>

ABIN Test Link (Click on this link prior to the meeting to test your browser will connect to ABINconnect)

http://connect.abin.org.au/common/help/en/support/meeting_test.htm

Please do not hesitate to contact me if you have any questions.

Dr Marissa McNamara

Biosecurity Intelligence Unit, Biosecurity Queensland
Department of Agriculture, Fisheries and Forestry
39 Kessels Road, Coopers Plains Qld 4108

email marissa.mcnamara@daff.qld.gov.au

t 07 3276 6067



Aquatic Veterinary News

The Quarterly Newsletter of the World Aquatic Veterinary Medical Association

Consider promoting your products, services or programs to aquatic veterinarians, veterinary students, nurses and paraveterinary professionals throughout the world

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February 15; May 15; August 15; November 15

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1/8 page (~2" x 3")	\$40	\$20

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One Profession; One Discipline; One Voice – Cohesive & Inclusive!

Aquatic Veterinary CE & PD



MEETINGS OF INTEREST TO AQUATIC VETERINARIANS

Veterinarians attending these meetings may be awarded veterinary CE/CPD credit towards annual re-licensure or re-registration to practice veterinary medicine. Individuals should check with the organizers if CE/CPD certificates are provided.

2012 AFS-FHS ANNUAL MEETING JULY 31-AUGUST 3 Radisson Hotel, LA CROSSE, WI



The following groups will hold their annual meetings on July 30 and/or 31.

The Great Lakes Fish Health Committee

The Drug Approval Workshop

The Veterinary Workshop on Fish Regulatory Medicine

<http://www.uwlax.edu/conted/fish/index.htm>

The link above will take you to the home page for all events. From there you can link to information about each meeting. You may register on-line for the Drug Approval Workshop and AFS-FHS meetings separately, or save \$\$ and attend both meetings for a reduced fee. Register for the Veterinary Workshop on Fish Regulatory Medicine directly with Dr Gretchen May at WI DATCP. This workshop is free, thanks to a grant from USDAAPHIS. There is no formal registration to attend the Great Lakes Fish Health Committee meeting.

In an effort to go mostly paperless, abstracts will be posted on the website well in advance of the meeting and can be downloaded, saved electronically or printed as you like. There will be a short paper program available at the meeting. To appreciate science as art and the "way coolness" of micrographs and other photographic images taken of our daily work, please bring prints of your favorites for display at the meeting. Special prizes will be awarded, and everyone is a winner!

Enjoy a cruise on the Mississippi River the evening of August 2, complete with Wisconsin's finest beverages and local specialty snacks. The boat has room for 60 people, so sign up early!

FAWC Opinions on the welfare of farmed fish and on the welfare of farmed fish at slaughter 12 July 2012 Edinburgh, Scotland

The Farm Animal Welfare Committee (FAWC) is conducting a study leading up to two Opinions, one on the welfare of farmed fish generally, and one on the welfare of farmed fish at slaughter. We are grateful for all the written submissions we received as a result of our earlier consultation. We have taken all these comments on board in the course of our review. FAWC is now seeking to meet with interested organisations/individuals in order to seek views on the likely direction of the advice to government.

A stakeholder meeting will take place on Thursday, 12th July 2012 at the Thistle at King James Hotel, 107 Leith Street, Edinburgh, EH1 3SW. Depending on response we may decide to hold one or two sessions during the day. Allotted times would be notified in a confirmation letter. If you would like to send a representative to the stakeholder meeting please contact me by e-mail (richard.aram@defra.gsi.gov.uk) by **Friday, 15 June**. Please let me know if a morning or afternoon slot would suit you better.

Further information on the role of FAWC can be found on our website <http://www.defra.gov.uk/fawc>.

Richard Aram
FAWC Secretariat

AVMA Convention - San Diego Convention Center August 4-7, 2012

Join us for 4 days of aquatic veterinary sessions for the private practitioner, jointly organized by AVMA's Aquatic Veterinary Medicine Committee & the World Aquatic Veterinary Medical Association.

www.avmaconvention.org/avma12

WAVMA Annual General Meeting

Monday, August 6 @ 6:00 – 10:00 pm (at AVMA)

Come meet your colleagues, feast on free food & find out what's evolving in Aquatic Veterinary Medicine.

e-mail cypcarpio@aol.com by July 31, 2012 to ensure we have food and space for you.

Visit the AVMA / WAVMA Aquatic Veterinary Medicine Booth (# 2220/2222) in the Exhibit Hall.

Aquatic Veterinary CE & PD - continued

A free workshop for veterinarians on fish regulatory medicine is scheduled for July 31, 2012 at the Radisson Hotel in La Crosse, WI.

We are pleased to be able to offer this third veterinary workshop on fish regulatory medicine in conjunction with the American Fisheries Society-Fish Health Section meeting, the USFWS Aquaculture Drug Approval Coordination Workshop, and the Great Lakes Fish Health Committee meeting, all being held July 30, 2012 through August 3, 2012.



This is an excellent opportunity to participate in additional continuing education concerning fish health.

WHEN: July 31, 2012
 WHERE: ***New Location this year
 Radisson Hotel
 La Crosse, WI

TOPICS: Economic Considerations in Fish Regulatory Medicine

Risk Based VHS Surveillance to Improve Surveillance Techniques and Interstate Fish Health Regulations

Improve Fish Regulatory Practices

FEE: There is no fee for the workshop.
 Lunch and breaks are included.

The workshop is funded by the U.S. Department of Agriculture and the Wisconsin Department of Agriculture, Trade and Consumer Protection. The workshop is organized by Dr. Gretchen May and Dr. Myron Kebus.

Take Online Courses in Aquatic Animal Health Fall 2012

The University of Florida (UF) Aquatic Animal Health (AAH) program offers Distance Learning courses through the UF College of Veterinary Medicine. These online courses are asynchronous so you can participate from anywhere in the world!

Registration is currently open for our Fall 2012 semester course, [Aquatic Animal Conservation Issues](#). This 3 credit course will expose students (upper level undergraduate and graduate) and professionals (with an AA or higher degree) to some of the controversial issues surrounding aquatic animal species ranging from invertebrates to marine mammals, with emphasis on marine mammals, but also including sea turtles, fisheries, and marine ecosystems.

Registration for our fall course will **end on August 21st**. Registration options are available for students seeking university credit or continuing education. These courses are designed for undergraduate students interested in this field of study as well as veterinary/graduate students and professionals already immersed in aquatic animal medicine. Space is LIMITED! Register today!

Please visit our [Distance Learning](#) page to learn more about the courses we offer. There you will find course information, course topics, a course syllabus, and registration information (cost and deadlines). Our FAQ page is also helpful in addressing any concerns you may have about taking courses online.

Have Questions? We have Answers!

Complete this quick [form](#) to let us know you are interested. We will add you to our contact list and e-mail you periodically. Feel free to send us an e-mail:

Darrell Stevens Jr. - Steved1@ufl.edu
 Heather Maness - htdaniel@ufl.edu
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You can also visit the links below:

Learn about the [UF Aquatic Animal Health Program](#)
 Learn about the [AAH Distance Learning Program](#)

Like us on [Facebook](#) for updates and event information.

Aquatic Veterinary Opportunities

2013-2014 Veterinary Student (3rd/4th Year) Externships – New England Aquarium, Boston, MA, USA.

The New England Aquarium offers a unique experience to 3rd & 4th year veterinary students by offering the opportunity to work in both a museum/institutional setting and in the field of aquatic animal medicine. Externships are available from September 1 through June 30; summer rotations are not available. Because of limited availability, veterinary students are encouraged to apply up to a year in advance; application deadline is November 1, although early decisions can be considered on a case-by-case basis. Incomplete applications will not be considered for review.

Time commitment – minimum 6-8 week rotation.

The Animal Health Department at the New England aquarium consists of a staff of 10 employees and serves to provide an optimal veterinary and preventive health program for collection and stranded/injured aquatic animals. The department includes 3 veterinarians, 4 biologists, 2 water quality specialists, and a lab office supervisor. We are devoted to education, research, and conservation to investigate and promote global aquatic animal health issues. Six to eight-week rotations are available for 3rd and 4th year veterinary students to complete veterinary externships in aquatic animal medicine at the New England Aquarium in Boston, MA. Clinical work at the off-site Animal Care Center in Quincy, MA may be required based on case load.

Rotations are a comprehensive introduction into aquatic animal husbandry and veterinary medicine. Students are rotated through all areas of the aquarium, which includes working with fish, invertebrates, birds, reptiles, amphibians, marine mammals, environmental quality and marine animal rescue/rehabilitation. Students are expected to produce a case report, research paper, and 30 minute PowerPoint presentation.

To apply, send two (2) copies of a letter of intent, two (2) copies of a curriculum vitae, two (2) copies of veterinary school transcript, two (2) copies of 2 letters of recommendation, and 3 proposed dates of the externship in one package to: Attn - Veterinary Externship, Volunteer Programs & Internships, New England Aquarium, Central Wharf,

Boston, MA 02110-3399; or Fax or e-mail to (617) 973-6552, vols@neaq.org.

For more information see www.neaq.org/get_involved/index.php.



The New England Aquarium collaborates with fishermen and the seafood industry to minimize the environmental impacts of fishing, and reaches out to consumers to help educate the public about responsible seafood choices.

Sustainable Seafood Programs

Promoting ocean-friendly seafood choices and encouraging the responsible management of our fisheries. Includes our aquatic forum series and Celebrate Seafood.

Celebrate Seafood

Choose seafood that is good for you and good for the environment. Learn how to make ocean-friendly seafood choices and get delicious recipes.

Sustainable Seafood Advisory Services

The Aquarium advises members of the seafood industry to encourage the development of ocean-friendly aquaculture and wild-caught fishery operations.

Bycatch program

The Aquarium is working to reduce the impact and frequency of bycatch of non-targeted species in commercial and recreational fisheries through marine conservation engineering and the Consortium for Wildlife Bycatch Reduction.

Aquaculture program

Developing sustainable aquaculture through research, observation and collaboration with industry and conservation organizations. Includes best practices and



New England
Aquarium

Protecting the blue planet

Contact Corner

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One Profession; One Discipline; One Voice—Cohesive & Inclusive!

WORLD AQUATIC VETERINARY MEDICAL ASSOCIATION



We are on the Web!

WAVMA.ORG

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WHO ARE WE

The mission of the World Aquatic Veterinary Medical Association is to serve the discipline of aquatic veterinary medicine in enhancing aquatic animal health and welfare, public health, and seafood safety, in support of the veterinary profession, aquatic animal owners and industries, and other stakeholders.

The purpose of the World Aquatic Veterinary Medical Association is:

- To serve aquatic veterinary medicine practitioners of many disciplines and backgrounds by developing programs to support and promote our members, and the aquatic species and industries that they serve.
- To identify, foster and strengthen professional interactions among aquatic medical practitioners and other organizations around the world.
- To be an advocate for, develop guidance on, and promote the advancement of the science, ethics and professional aspects of aquatic animal medicine within the veterinary profession and a wider audience.
- To optimally position and advance the discipline of aquatic veterinary medicine, and support the practice of aquatic veterinary medicine in all countries.

Aquatic Vet News

Instructions for Contributors



Do you want to make an impact and a contribution to aquatic veterinary medicine? If so, consider becoming a regular or periodic contributor to the quarterly *Aquatic Vet News*.

Help make the *Aquatic Vet News* the source for pertinent and important news. If you would like to be an Associate Editor or have material published in AVN, contact the Editor, Nick Saint-Erne: (Saint-Erne@Q.com).

We particularly invite contributions for (and Associate Editors to assist with) the following regular columns:

Clinical Cases

Clear description of a distinct clinical case or situation and how those were resolved.

Book Reviews

Brief review of a published book, including an overview and critique and where to obtain the book.

Legislative & Regulatory Issues

Description of legislation or regulations with information on how to access further details.

Externships, Internships & Residencies

Description with specific contact information for veterinary student externships and post-graduate internships or residencies at private practices, institutions, universities or organizations.

Meetings & CEPD Opportunities

Description of upcoming aquatic veterinary educational meetings noting the meeting title, dates, location, and contact person or website.

Jobs Available

Description of available full or part-time employment for aquatic veterinarians.