

Aquatic Vet News



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Newsletter of the World Aquatic Veterinary Medical Association

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

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## EDITOR'S SCALPEL

A Newsletter which provides essential information and also demonstrates to the world the amount and variety of veterinary input in to the aquatic sector is something that has been long overdue. One hopes not only that WAVMA will go from strength to strength but also that this newsletter will serve a valuable service in that progress. There is one word of caution, the Newsletter is for members and will only thrive with members input. The format is such that we hope it will encourage everyone to

contribute. You have three months to get your articles in by either emailing them to myself or the secretary Chris Walster.

As a veterinarian who has worked internationally in the sector for forty years and now holds positions in both UK and USA I am delighted to be part of the launch of WAVMA. Through WAVMA, the veterinary profession is now taking a very pro-active position in regard to aquatic animal health and welfare. This is something that can only be of benefit to all of our aquatic patients.

With best wishes.

Prof. Ron Roberts,  
President-Elect;

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EXECUTIVE'S ACUMEN

WAVMA 1st Annual General Meeting

An incredible success! At the General Meeting held in Washington DC on July 18th 2007, the Founding Members of the Aquatic Veterinary Association voted on three very important issues. The first was to change our name from the AqVA to the World Aquatic Veterinary Medical Association (WAVMA), to better reflect the international makeup and scope of our organization. An overwhelming majority of Members considered this to be of utmost importance.

Secondly, the Bylaws were ratified by a unanimous vote.

And lastly, also by unanimous vote, a new slate of Officers and Directors was elected. Prof. Ronald



2007/2008 Officers and Directors (from L-R) Drs. Chris Walster, Colin Johnston, Julie Tepper, Dušan Palić, Peter Merrill, Tim Miller-Morgan. Absent – Drs. Ron Roberts and Hugh Mitchell.

Roberts (President-Elect) and Dr. Hugh Mitchell (President-Elect for 2008) are congratulated and welcomed to WAVMA; their experience and energies, coupled with the continuity of the re-elected Officers, will be essential as WAVMA defines its direction and attracts new members, chapters and groups.

Two other Officers, Dr. Julius Tepper and Dr. Tim Miller-Morgan, were re-elected to fill 2008 positions as Directors-at-Large and together with the current President (Dr. Peter Merrill), the Secretary (Dr. Chris Walster) and Treasurer (Dr. Dušan Palić) on the Executive Board. Their roles will be important until the Advisory Council, currently represented through just one Allied Veterinary Organization (The Fish Veterinary Society of the UK) is more fully developed. Eventually the Advisory Council will elect two Members to serve on the Executive Board.

2007 is a somewhat lopsided transitional year for WAVMA. There are less than 4 months left until our new fiscal and administrative year begins, but there is much important work that needs to begin now. A brief word regarding our governing structure is needed here. To avoid confusion, we will no longer use the term 'Interim Board of Directors' to refer to the Officers, but will instead default to being the WAVMA Executive Board.

As provided in the Bylaws, The Executive Board is comprised of the President, President-Elect, Immediate Past President, Secretary and Treasurer respectively.

Although we now have a new name, our mission and focus as the WAVMA remain the same as before. We have several important issues to immediately undertake in order to sustain our forward momentum, and to begin to develop our ideas and goals through straightforward and transparent processes that will foster the efficiency and effectiveness of WAVMA's operations.

The first of these tasks will be to develop a number of committees that will be responsible for the broad areas of financial oversight, governance, communications, educational matters, membership, fundraising, and so on. The number, makeup, direction and success of these committees are quite important, and will be directly proportional to the time and energy that you as Founding Members are willing to devote to them. Please see "Committees Corner" below if you are interested in helping form, or be a member of any committee.

Membership Survey

You will soon be receiving a survey designed to help us as the Executive Board identify the types and priorities of mechanisms that Members want to see developed and advanced within WAVMA. When you receive this survey, please take the time to complete it, as your collective voice will become instrumental in other areas such as committee development. In the meantime, please feel free to submit to the Secretary any ideas for committee development that you might wish to be considered.

More information on these and other areas will be available through the website in the near future, and until then, I wish you all the best in your personal endeavors as aquatic veterinary practitioners.

Regards
Peter Merrill (US), President

MEMBER'S MOMENTS

We invite Members and other readers to send letters to the editor

Sir;

Feeling somewhat foolish writing to the editor of a Newsletter that has yet to see the light of day but there is an issue which I believe to be paramount to the success of the WAVMA and in my opinion requires input from the membership. How does the WAVMA reach out to those parts of the world where communications or professional incomes are insufficient for aquatic veterinarians to be aware of or can afford membership of the WAVMA?

I would be interested in hearing member's suggestions or thoughts on this matter.

Sincerely
Chris Walster (UK), Secretary

STUDENT'S SLOTS

We invite student members to contribute issues or information to this column.

Currently of importance for students wanting to join the WAVMA – all students currently enrolled in recognized veterinary academic programs (including post-graduate programs, internships and residencies) can join the WAVMA at 50% of the normal dues. This could be the best \$50 you ever spent. Further information is available on the WAVMA website).

ASSOCIATION'S ENDEAVORS

Board's Business

To assist the initial operations of the WAVMA, the WAVMA Executive Board has decided to have meetings via conference calls at least monthly. Member communications is one of the highest priorities – both receiving input and letting members know of Board decisions. Therefore the Board has decided to routinely add a synopsis of decisions to this column of the Newsletter on a regular basis.

The following is a summary of actions taken at recent meetings:

- The Board agreed to distribute a membership survey to ensure they know what our members desire of the Association (see page 2 of this Newsletter).
- Based on the decision of members at the AGM an amended Articles of Incorporation will be filed.
- The Association's website will need redesign and revamping with a change to a more appropriate URL (probably www.WAVMA.org) over the next few months – an ideal task for a committee should members like to volunteer. Watch for changes.
- The Board recently approved draft contracts with the organizers of the 2008 World Veterinary Congress (July in Vancouver, Canada) for major meetings that will directly benefit WAVMA members. These include WAVMA to co-organize a weeks worth of clinically orientated aquatic veterinary continuing education (CE) or professional development (CPD), and to hold other business and social meetings at next years World Veterinary Congress in Vancouver July 31 – August 2, 2008 including a two day workshop. It is anticipated that next years WAVMA AGM will be held in conjunction with these activities.
- The Board recommended the following initial committees be established to assist with numerous issues of immediate importance—Education, Publications, Finance, Website, Membership, and Ethics. Suggestions for other committees from members will also be considered.
- The next meeting will be at the beginning of October.

Committee's Corner

Committee activity updates—to date no committees have been formed but please note the recommendations in the above paragraph. If any member wishes to form or serve on a committee please contact the Secretary.

Per the WAVMA bylaws: "The Executive Board shall approve the formation of any committee, task force or other entity that comprises of at least three Full Members to assist the Association in addressing issues, or developing and implementing programs that are in accord with the mission and objectives of the Association."

We encourage members interested in forming a committee to develop a charge and structure for committees for Executive Board approval, that clearly describes the objectives of the entity and to schedule regular meetings to develop and implement plans to fulfill the charge and objectives of the committee. Each committee will need to provide at least annual written reports on all activities for Executive Board and membership review.

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### PRACTITIONER'S CLINICAL & CASE INSIGHTS

Original brief clinical reports of significance to aquatic veterinary practitioners

#### Swollen vent in Salmon

Recently I received an email from one of the groups I am involved in regarding high numbers of wild salmon returning to rivers in England and Wales with swollen vents. The cause appeared undetermined so I forwarded the email around members of the Fish Veterinary Society and received replies from as far away as Canada and Iceland. A synopsis of the replies is below and thank you to all of those who responded.

The condition was prevalent during the summer and autumn of 2006 and occurred in many rivers with the majority of cases identified being female salmon and concerns were expressed over their ability to spawn. Post mortem results indicated presence of *Eubothrium crassum* and *Anisakis sp.* No major lesions were found except around the vent where under histopathology large numbers of non-encapsulated nematodes were seen and the inflammation around the vent appeared to be due to the host response to these nematodes. No virus or bacteria were isolated.

Replies received indicated that this was a problem in Scotland and in Iceland. It had first been noted in

Scotland in 1988 and occurs amongst salmon grilse. It was also mentioned that it had been seen in sea trout taken by nets in the Firth of Forth although there were no other reports of the condition in sea trout. There was also some debate as to whether *Anisakis sp* were seen in the lesions although all agreed that the condition produced marked inflammation around the vent. A contributory factor to the condition was thought to be that due to low water flows in rivers the salmon accumulated in large numbers in the lower parts of the rivers under stressful conditions. As they swam up river in to fresh water the lesions resolved. It was also thought that the increased incidence was also partly due to increased surveillance. Similar lesions have not been seen in farmed salmon.

This year the frequency of typical symptoms was reported as high as 50-75% in some Icelandic rivers. From examinations carried out at the Fish Disease Laboratory in Reykjavik (Institute for Experimental Pathology at Keldur) it would seem that the swollen vents are due to an infestation with *Anisakis sp* and that it is sometimes difficult to confirm the presence of these worms. However the host response to the nematode must be the main factor producing the swollen vents.

The good news is that the salmon appear to recover from this condition with no ill effects and go on to spawn normally. What I find intriguing is why the *Anisakis sp* should congregate around the vent?

Originally I intended to include pictures of the condition that have been supplied to me by colleagues. Partly due to potential copyright issues but also to try and prevent the file size of this newsletter getting too large, they have not been included. If colleagues wish to obtain copies then please contact me. I would also be interested in further comments.

Chris Walster

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CLINICAL CLIPS

Published abstracts of clinical aquatic veterinary significance

AQUATIC ZOONOSSES ASSOCIATED WITH FOOD, BAIT, ORNAMENTAL, AND TROPICAL FISH—Lowry, T, Smith, SA. (2007) JAVMA, 231 (6): 876-880.

Online source:

<http://avmajournals.avma.org/toc/javma/231/6>

SURGICAL APPROACH TO THE COELOMIC CAVITY THROUGH THE AXILLARY AND INGUINAL REGIONS IN SEA TURTLES—Di Bello, A, C. Valastro, F. Staffieri (2006). JAVMA, 228 (6): 922-925.

Abstract:

Objective—To describe a surgical approach to the coelomic cavity through the axillary and inguinal regions in sea turtles.

Design—Descriptive report; **Animals**—9 loggerhead sea turtles (*Caretta caretta*) that had ingested fishhooks or monofilament fishing line.

Procedure—Turtles known to have ingested foreign bodies were anesthetized. For the extraction of fish-hooks located in the stomach, an approach to the coelomic cavity through the soft tissues of the left axillary region (along the cranial margin of the plastron) was made. For the removal of fishhooks and long fishing lines in other portions of the intestinal tract, an approach to the coelomic cavity was performed via the inguinal region. Foreign bodies were removed via gastrotomy or enterotomy.

Results—Of the 9 loggerhead turtles, 3 had a fish-hook in the stomach, 1 had a fishhook in the stomach and fishing line throughout the intestinal tract, 2 had a fishhook in the ileum and fishing line in the ileum and colon, and 3 had fishing line throughout the intestinal tract. Following surgery, 8 turtles recovered successfully; 1 turtle (in which an enterectomy was performed) died. After approximately 8 weeks, the surviving turtles were well enough to be released from captivity.

Conclusions and Clinical Relevance—Results indicated that an axillary approach to the coelomic cavity in sea turtles could be a useful alternative to plastron osteotomy. Moreover, the inguinal approach allows the exteriorization of the intestinal tract from jejunum to colon, which facilitates surgical removal of long linear foreign bodies ingested by turtles.

PLASMA BIOCHEMICAL REFERENCE INTERVALS FOR KOI—Palmeiro, BS, KL Rosenthal, GA Lewbart, FS Shofer (2007). JAVMA 230 (5): 708-712.

Abstract:

Objective—To assess reproducibility of an in-house tabletop biochemical analyzer for measurement of plasma biochemical analytes and establish reference intervals in adult koi.

Design—Prospective study.

Animals—71 healthy adult koi.

Procedures—Plasma was analyzed for concentrations or activities of albumin, alkaline phosphatase, alanine aminotransferase, aspartate aminotransferase, bile acids, BUN, calcium, cholesterol, creatine kinase, γ -glutamyltransferase,

globulin, glucose, K, Na, P, total bilirubin, total protein, and uric acid. Duplicate samples were evaluated by use of the intraclass correlation coefficient to determine reproducibility. To assess the magnitude of differences between replicate samples, the absolute mean difference, SD, and minimum and maximum values were calculated for each analyte. Median values and reference intervals were calculated.

Results—Intraclass correlation coefficient values were excellent for all analytes except alanine aminotransferase (good), Na (poor), γ -glutamyltransferase (poor), and P (poor). Reference intervals were established.

Conclusions and Clinical Relevance—The in-house tabletop biochemical analyzer had good precision for measuring most plasma biochemical analytes. Further research and comparison with other reference procedures are needed before reference intervals and precision can be established for globulin, Na, P, K, and albumin. Aquatic veterinarians may be able to use the reference intervals for adult koi as an important diagnostic tool or as part of a fish wellness program, as commonly done in other domestic species.

CARDIORESPIRATORY EFFECTS AND EFFICACY OF MORPHINE SULFATE IN WINTER FLOUNDER

(PSEUDOPLEURONECTES AMERICANUS)—Newby, NC, AK Gamperl, ED Stevens (2007). JAVMA, 68 (6): 592-597.

Abstract:

Objective—To assess the cardiorespiratory effects of morphine sulfate and evaluate whether morphine blocks cardiac responses to a noxious stimulus in winter flounder.

Animals—42 winter flounder (*Pseudopleuronectes americanus*) that were acclimated at 10°C.

Procedures—Each fish was fitted with a Doppler flow probe around the ventral aorta; cannulae were placed for injection of drug or saline (0.9% NaCl) solution and assessments of respiration. Selected cardiorespiratory variables were measured in morphine-injected (40 mg/kg, IP [n = 18] or 17 mg/kg, IV [2]) or saline solution-injected (1.6 mL [22]) fish at various intervals. Heart rate and cardiac output (CO) were also measured in flounder that were injected with saline solution (n = 19) or morphine (10) and received a noxious or innocuous stimulus (injection of 5% acetic acid or saline solution SC into a cheek) 50 minutes later.

Results—Morphine administration promptly induced marked bradycardia (and a concomitant reduction in CO), followed by prolonged (> 48 hours) increases in CO and heart rate. Morphine

injection only transiently affected respiratory rate. Application of a noxious stimulus to control flounder resulted in a significant (10%) but transient (< 5 minutes' duration) increase in CO, which was completely blocked by prior administration of morphine.

Conclusions and Clinical Relevance—Although morphine blocked the response to a noxious stimulus in fish, its cardiovascular effects might preclude its use in many research situations. Investigation of the dose dependency of these cardiovascular effects and their interspecific variation is required to determine the applicability of morphine for use in fish.

EMERGING FOCI

Emerging issues of importance to WAVMA members

NEW DRUGS & BUGS

New information on emerging drug, biologics and diseases

BARRISTER'S BARRAGE

Legislative and regulatory issues of importance to aquatic veterinary medicine

ADVANCING AQUATIC EDUCATION

A listing of symposia, conferences and meetings of possible interest to members. **NOTE** – Only programs carrying a ● are recognized as providing Veterinary CEPD (Continuing Education and Professional Development) credit for participation.

September 17–23, 2007 – Grado, Italy. European Association of Fish Pathologists 13th International Conference on Fish and Shellfish Pathology. Further details at www.eafp.org.

● **September 26–27, 2007 – Belfast, Ireland.** Fish Veterinary Society Autumn Meeting – in conjunction with the Annual BVA Congress. Further details at www.fishvetsociety.org.uk.

December 5–6, 2007 – Bangkok, Thailand. SEAFDEC International Workshop on Emerging Fish Diseases in Asia. Further details at <http://rfdp.seafdec.org.ph/workshop2007>.

November 6 – 9, 2007 – San Juan, Puerto Rico. Caribbean & Latin American Aquaculture 2007.

Further details at www.was.org.

February 9 -12 2008 – Lake Buena Vista, Florida USA. Aquaculture America 2008. Further details at www.was.org.

May 19 – 23, 2008 - Busan, Korea. World Aquaculture 2008. Further details at www.was.org.

August 3–6, 2008 – Brisbane, Australia. Australasian Aquaculture 2008. Further details at www.was.org.

September 6–9, 2008 – Reykjavik, Iceland International Conference on Fish Diseases and Fish Immunology. Further details at www.yourhost.is/content/view/211/141/lang.is

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## ACADEMIC ARCADE

List of current aquatic veterinary academic (University) programs

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COLLEAGUE'S CONNECTION

Activities, issues or items of other entities of importance to WAVMA Members

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## ADVANCING AQUATIC VETERINARY OPPORTUNITIES

**Graduate Student Positions**—Two graduate student positions leading to MS or PhD degree available for the study of vaccination, immunology and diseases of aquacultured fish.

Funding for both position start January 2008.

Desired credentials of applicant should include undergraduate course work in molecular biology or immunology, and an interest in fish health and/or aquatic animal husbandry. Individuals with a DVM degree are preferred.

Contact: Dr. Stephen A. Smith, Aquatic Medicine Laboratory, Dept. of Biomedical Sciences and Pathobiology, Virginia-Maryland Regional College of Veterinary Medicine, Phase II, Duck Pond Drive, Virginia Tech, Blacksburg, VA 24061-0442, USA. Telephone (540)-231-5131, FAX (540)-231-6033, or E-mail [stsmith7@vt.edu](mailto:stsmith7@vt.edu)



## Job Announcement

Hubbs-SeaWorld Research Institute (HSWRI) is accepting applications for the following position within its Aquaculture Research Program in San Diego, CA.

Position Title: Postdoctoral Research Associate (PRA) in Finfish Health  
Location: San Diego, California  
Salary Range: \$37,000 – 47,000 per year (commensurate with qualifications)  
Application Deadline: October 30th, 2007  
Program Description: The HSWRI Aquaculture Research Program is investigating the feasibility of culturing marine fish for enhancement and traditional farming. Spawning and larval rearing is underway for several high value species including White seabass, striped bass, California halibut, California sheephead, California yellowtail and rockfishes. This research is conducted at one or more of our research facilities in southern California (San Diego, Carlsbad, Santa Catalina Island) and in Ensenada, Mexico ([www.hswri.org](http://www.hswri.org)).

Job Summary: Duties include working with the HSWRI Fish Health Management Team (veterinarians, hatchery management personnel, senior research staff) to: assess fish health (including examining fish prior to interstate or international transport), diagnose and treat fish diseases (including adherence to and management of INAD protocols) and refine fish health management and preventative medicine programs. The candidate will also assist with development of extramural grant proposals and peer-reviewed research publications, and will conduct a research project agreed upon by the individual and the supervising Senior Research Scientists. Production of at least one manuscript suitable for peer-reviewed publication related to work done at HSWRI and presentation of findings in an HSWRI seminar are expected. Appointments are initially for one year; one-year extensions will be considered on a case-by-case basis. The successful candidate will receive full employee benefits from HSWRI and the salary is subject to tax. The comprehensive and competitive benefits package at HSWRI includes medical, dental and vision coverage; FSA account (medical and dependent care reimbursements); 403 B program; paid vacation and holidays.

Qualifications and Responsibilities: Applicants must have a DVM or equivalent degree and be licensed to practice in California. Demonstrated research experience and clinical proficiency with non-domestic species are required. An MS or PhD in epidemiology, pathobiology or related field is desired. A demonstrated track record in publication of research results will be viewed favorably. The successful candidate will work under the direct supervision of two HSWRI Senior Research Scientists (SRS), one of whom is an aquatic animal veterinarian. The Postdoctoral Research Associate is encouraged to work with supervisors to identify and obtain funding for the continuation and growth of the program through extramural grant or contract awards and philanthropic donations. Therefore the candidate must be able to work effectively with HSWRI senior science staff, HSWRI administrative officers (including development officers) and funding agencies.

Application Materials and Contact information: Please send curriculum vitae, a description of clinical and research accomplishments and interests along with the names and telephone numbers of three references to: Postdoctoral Research Associate Program, Hubbs-SeaWorld Research Institute, 2595 Ingraham Street, San Diego, CA 92109. Application materials and questions may be submitted electronically to: [hr@hswri.org](mailto:hr@hswri.org).

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COMINGS & GOINGS

New member list; obituaries

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**TAILPIECE – OTHER MATTERS**

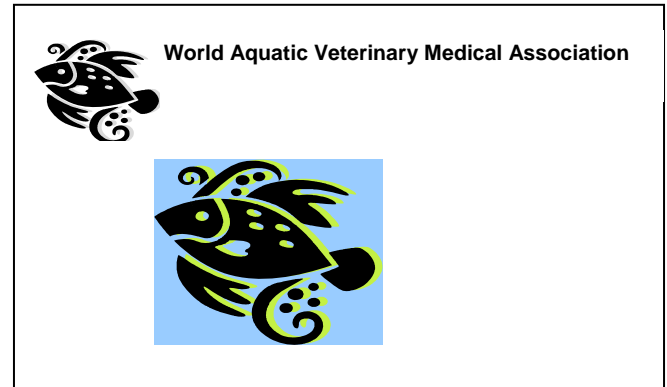
For those things that are not included in other headings

***WAVMA's the new official name.... now how about our logo?***

One of our first projects will be to come up with a logo which will represent our group. To facilitate this, the Executive Board has decided to invite all members to submit their designs for consideration by Sept. 30, 2007. The best 5 entries will then be chosen for voting by the full membership to pick a final design. Please follow the format below:

Attach a Word document with your full color design on the page. On top, create a banner with your logo design done only in gray scale along with the name

“World Aquatic Veterinary Medical Association”. You chose the font and size. See sample below:



Send all entries to me at: [DVM246@aol.com](mailto:DVM246@aol.com) titled “WAVMA logo”.

Regards  
Julius Tepper (US), Director-at-Large

## SPECIAL SELECTION

Our sponsors and supporters are special. Without them we would not have come as far as we have in such a short time. To them our hearty thanks and deep appreciation; support them as they've supported the growing discipline of aquatic veterinary medicine.

### 2007 Sponsors and Supporters:



## CONTACT CORNER

Members are encouraged to contact Executive Board members or Committee Chairs on any issues of importance to the practice of aquatic veterinary medicine.

### Executive Board

#### President (2007)

#### Past President (2008)

Past President (2008)  
Dr. Peter L. Merrill (USA)  
+1 (301)-210-0940  
[wetvet@comcast.net](mailto:wetvet@comcast.net)

#### President-Elect (2007)

#### President (2008)

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#### Secretary (2007-2008)

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#### Treasurer (2007-2008)

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### Committee Chairs