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AMERICAN ASSOCIATION OF WILDLIFE VETERINARIANS

SUMMER 2009

MESSAGE FROM THE PRESIDENT



*Newly-elected President,
Colin Gillin!*

New Officers and a New Year (and Lots to Do!)

With the passing of the proverbial gavel between officers, we find ourselves as busy as ever with many new opportunities. As your new president, I can only hope to keep up with the pace of out-going (and Eveready battery-powered) president Jonathan Sleeman. I'd like to thank Jonathan for the great job he did and the leadership he provided over the past two years: how fortunate we are to have him continue on the board of governors as the immediate past president and serve as the chair of the advisory council. I'd also like to thank Mark Cunningham for his great job as vice-president. Over the last two years, Mark organized some of the best AAWV conference sessions and events we've had to date. Mark will be serving with U.S. forces in Afghanistan during 2010 and we all wish him the best on his tour and look forward to his safe return. The board of governors will also see some new faces, including Margaret Wild as vice-president and Peri Wolff who will serve as our new secretary. Our new advisory council will be formed before the end of 2009, and we plan to have AAWV members populate several new action committees listed in our strategic plan in the coming year.

... it is shaping up to be a busy 2010 with AAWV being involved in new ventures affecting wildlife health.

AAWV NEWSLETTER

IS PUBLISHED BY THE
**AMERICAN ASSOCIATION OF
WILDLIFE VETERINARIANS**

Founded in 1979, the AAWV is a national, non-profit organization of veterinarians interested in all aspects of wildlife health.

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MESSAGE continued from front page

Since August, we've had two very productive meetings: with The Wildlife Disease Association in Semiahmoo Washington, and more recently in Tulsa Oklahoma we held a joint meeting with the AAZV. For 2010, we're looking forward to two more exciting conferences planned with our WDA and AAZV partners. The WDA meeting is going to be held in Puerto Iguazu, Argentina from May 30 – June 4. AAWV will once again provide a cutting edge speaker (now known as the Al Franzmann Memorial Speaker) and hold a business meeting; look for information on the AAWV or WDA website in December. Then starting October 23rd, we'll hold our annual meeting with AAZV on South Padre Island, Texas. On the front end of this conference, Jonathan Sleeman will be organizing the first tri-lateral meeting of AAWV's bordering countries, bringing together the Canadian Association of Zoo and Wildlife Veterinarians (CAZWV), the Mexican Association of Conservation Medicine (Kalaankab), and the AAZV [See related item on page 10 – Ed.]. This 2-day pre-conference meeting promises to be a ground-breaking event exploring wildlife and ecosystem health without borders. This is also a great vacation venue, so plan on bringing the family! We'll keep you posted on these and other meetings of interest through electronic mailings.

Within the last month, the AAWV had several members attend the One Health Commission meeting in Washington D. C. Dean Goeldner and Patty Bright both attended the meeting in part as AAWV representatives, providing great exposure for the association and laying the framework for potential future involvement in this important endeavor. We have also renewed our Memorandum of Agreement with ACZM for providing continuing education credits at conferences attended by AAWV members. Additionally, AAWV is working within a joint AAWV/WDA committee to evaluate the structure and function of the Wildlife Veterinary Section of the WDA. Thanks again go to Jonathan for his efforts on this project.

As you can see, it is shaping up to be a busy 2010 with AAWV being involved in new ventures affecting wildlife health. We will continue to develop appropriate position statements and resolutions as a major voice of wildlife health professionals. We anticipate a broader membership base as our student chapters increase nationally and as we activate our online membership renewal process in the coming year. We will continue to provide the membership with timely notifications of jobs, meetings and important information. I am looking forward to prosperous year with AAWV and hope you'll join me, the officers, and advisory council in continuing to grow as a great association at the forefront of wildlife health.



Newly elected AAWV President, Colin Gillin and Secretary Peregrine Wolff “butt heads” over administrative issues...



Immediate AAWV Past President Jonathan Sleeman receives a plaque from AAWV Immediate Past Vice-President Mark Cunningham in appreciation for his outstanding work for the AAWV.

ANNUAL REPORT

[Editor's Note: portions of the AAWV 2009 Annual Report have been edited for inclusion in the newsletter. The full unedited Report is posted on the Members Only page of the AAWV website www.aawv.net.]

PRESIDENT'S REPORT

Appointments

This year, the AAWV Officers and Advisory Council worked with Dr. David Miller, the representative on the American Veterinary Medical Association's (AVMA) Committee on Animal Welfare to find representatives to serve on the AVMA Euthanasia Panel. See Dr. Miller's report which is appended to this report for more details. Dr. Scott Larsen was re-appointed for an additional 3 year term as the representative to the AVMA Committee on Environmental Issues.

Position Statements

The AAWV produced position statements on One Health and Standards for Anesthesia, Analgesia and Surgery for Free-Ranging Wildlife. The latter position statement was presented to the Association of Fish and Wildlife Agencies' (AFWA) Fish and Wildlife Health Committee for endorsement during the March, 2009 meeting in Crystal City, Virginia. The motion for endorsement was subsequently tabled due to lack of unanimous support for the production of these standards. It was decided to proceed with forming a core working group of AAWV members to initiate the development and writing of these standards, and present this draft document to the AFWA Fish and Wildlife Health Committee for reconsideration.

The AAWV also expressed support for AVMA Efforts for the Competitive Federal Recruitment and Retention Program for Veterinarians.

By-Law Changes

Proposed changes to the by-laws this year included the creation of the Dr. Albert Franzmann Memorial Lecture as well as language that would give the president the authority to create permanent and ad-hoc committees. The membership was given the opportunity to vote on these by-law changes this summer. Also, approved this year was the creation of Emeritus membership category for veterinarians who have been active members for at least 10 years, are in good standing with the Association, and are either retired, or have reached the age of 65. See the secretary's report for more details on current Emeritus members.

Newsletter

Jordan Mencher, the newsletter editor, has produced five editions of the newsletter (Summer 2008, Fall 2008, Winter 2009 and Spring 2009, Summer 2009). The newsletter is now distributed electronically representing considerable financial savings for the organization.

Tom Thorne and Beth Williams Memorial Award

Dr. Gary Wobeser was the recipient of this award for 2008 which was presented at the 2008 annual meeting in Edmonton, Alberta. No nominations were received during 2009, and thus no award was presented.

Promotional Activities

A new AAWV table-top display has been produced and includes pictures of AAWV members at work. This display has already been prominently displayed at several meetings including the North American Veterinary Conference in Orlando, Florida during January 2009, the 3rd International Chronic Wasting Disease Symposium in Park City, Utah during July, 2009, and the International Wildlife Disease Association Conference in Blaine, Washington in August, 2009.

Strategic Affiliations

At the WDA Conference in Blaine, Washington, during August 2009, the WDA Council voted to approve a Memorandum of Agreement between AAWV and WDA. The MOA was written by the officers of WDA and AAWV with input from the WDA Council and AAWV Advisory Council with a goal to strengthen and clarify the relationship between the two organizations, and pertains in particular to joint conferences; it was signed by the Presidents and Vice Presidents of both organizations. It is hoped that this MOA will provide a good framework for the two associations working together to mutual benefit. The signing of this MOA did generate some questions regarding the role of the AAWV as the WDA's Wildlife Veterinary Section and the WDA and AAWV have agreed to form an ad hoc committee to explore this issue and develop some recommendations.

Our membership as an Allied Organization with the United State's Animal Health Association was also renewed. The

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AAWV continued to be the official sponsor of the North American Veterinary Conference's Wildlife Medicine and Conservation Session and sponsored the 2009 session by organizing speakers and providing a moderator. This is one of the largest annual veterinary continuing education conferences.

Other Activities and Communications

In August, 2008 the president attended the First International Conference on Ecology of Infectious Diseases and Conservation Medicine organized by the Mexican Association for Conservation Medicine (Kaalankab) in Mexico City. This nascent organization has a similar mission to the AAWV, and a very talented and energetic leadership. This meeting sparked the idea of developing a trilateral memorandum of understanding among the North American wildlife health non-profit organizations due to the ever-increasing array of trans-boundary issues we face. We are also planning to hold a Canadian-Mexican-American trilateral meeting in conjunction with the American Association of Zoo Veterinarians Annual Conference at South Padre Island, Texas in 2010.

The AAWV was also represented by Drs. Pat Klein and Jonathan Sleeman at the first US Geological Survey's National Climate Change and Wildlife Science Center (NCCWSC) Workshop which was held at the National Conference Center in Lansdowne, Virginia during December, 2008.

The president attended the American Association of Zoo Veterinarians (AAZV) Strategic Planning Meeting at White Oak Plantation, Florida during February, 2009. The AAZV is developing a new 5-year strategic plan and this was an excellent opportunity to provide the AAWV perspective on this plan. The AAZV is an important strategic ally with whom we have an MOA.

The AAWV also sponsored the 3rd International Chronic Wasting Disease Symposium in Park City, Utah by providing CE credits for veterinarians through our agreement with the American College of Zoological Medicine. The AAWV also had a significant presence at the WDA Annual Conference in Blaine, Washington in August 2009 and sponsored the student reception which was dedicated to the memory of Dr. Albert Franzmann. We also sponsored a Cutting Edge Speaker, held a very well attended members' meeting, and provided CE credits.

Elections

Elections were held this summer to elect new officers. The results will be announced at the annual business meeting during the AAWV/AAZV Annual Conference in Tulsa, Oklahoma in October, 2009. [Editor's Note: See related article on Page XXX]

Respectfully submitted, Jonathan Sleeman, AAWV President

VICE PRESIDENT'S REPORT

The AAWV held their annual conference in conjunction with the Wildlife Disease Association (WDA) and Canadian Association of Zoo and Wildlife Veterinarians at the University of Alberta, Edmonton, Alberta, Canada 3-11 August, 2008. A Wildlife Immobilization Workshop was co-instructed by Dr. Peri Wolff, and AAWV members Drs. Rick Gerhold and Justin Brown, chaired the "Rabies and Hendra Viruses" and "Tools & Techniques" sessions respectively. The AAWV Cutting Edge Speaker was Dr. Sue Haseltine, Associate Director of Biology, U.S. Geological Survey, who presented "Climate Change: Trends, Future Scenarios, and Impacts on Wildlife Populations and Disease Dynamics." At the joint AAZV/AAWV auction, \$1,050 was collected for AAWV student activities.

Although not a joint meeting, AAWV also was active in this year's WDA conference 3-8 August in Blaine, Washington with both organizing (Dr. Joe Gaydos) and program (Dr. Colin Gillin) chairs being AAWV members. AAWV co-sponsored the conference and a student mixer, the latter of which was dedicated to the memory of Dr. Albert Franzmann. The AAWV Cutting Edge Speaker was Dr. Peter Ross, Research Scientist at the Institute of Ocean Sciences in Sydney, Canada, who presented "Killer whales at risk: can we sustain these charismatic creatures in the face of conservation threats?" Finally, AAWV also co-sponsored the 3rd International Chronic Wasting Disease Symposium in Park City, Utah 22-24 July 2009.

The AAWV met with the American Association of Zoo Veterinarians (AAZV) in conjunction with the Nutrition Advisory Group in Tulsa, Oklahoma 24-30 October. Dr. David Blehert, Diagnostic Microbiologist from the National

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Wildlife Health Center, was the AAWV Cutting Edge Speaker and led off the conference with a presentation titled “White-nose syndrome: Holy fungus batman!” AAWV workshops included Wildlife Necropsy Techniques instructed by Dr. Scott Terrell and “Tools for Veterinarians in Wildlife Field Research” organized by Drs. Sharon Deem and Chris Fiorello. The latter workshop complemented the recently completed “Guidelines for veterinarians interested in in situ conservation and free-ranging wildlife health projects” (please see below). Additionally, AAWV members chaired or co-chaired sessions including “Wildlife Conservation Medicine (Dr. Sharon Deem, chair), “One Health” (Dr. Kirsten Gilardi, co-chair), Wildlife and Zoo Animal Welfare (Dr. Dave Miller, co-chair), and “Greening of Veterinary Medicine” (Dr. Chris Fiorello, co-chair). Chris Fiorello also assisted with the AAWV portion of the auction.

Dr. Sharon Deem and the Guidelines ad hoc committee (Committee on Wildlife Health and Conservation) completed the final draft of “Guidelines for veterinarians interested in in situ conservation and free-ranging wildlife health projects.” This document is posted on the AAWV website at <http://aawv.net/MembersOnly/Guidelines-FinalPDFJune302009.pdf>. The Members Spotlight on the AAWV website this year featured Dr. Terry Norton and his work at the Georgia Sea Turtle Center.

The AAWV also has been actively involved in proposed legislation pertinent to wildlife disease issues this fiscal year. Currently, AAWV is providing comments on a proposed Zoo and Wildlife Veterinary Workforce bill being prepared by the office of Representative Alcee Hastings (Florida). This bill will be designed to 1) increase the workforce capacity by providing funding and creating new zoo/wildlife veterinary positions; 2) provide incentives such as loan forgiveness and scholarships for students to pursue a career in zoo/wildlife medicine; 3) improve educational opportunities by creating internships, fellowships, and residencies and by incorporating zoo/wildlife courses into the veterinary school curriculum; and 5) support and promote wildlife disease research. The AAWV also expressed support for the Veterinary Services Investment Act – a bill designed to similarly support the food animal veterinary profession.

Respectfully Submitted by Mark Cunningham

SECRETARY’S REPORT

The overall membership is approximately 13% higher than in 2008. As of October 1, 2009, there are 256 AAWV members paid through 2009 with 30 members paid through 2010. Of these, 176 (69%) are active veterinarians, 66 (26%) are students, and 10 (4%) are subscribing members. The increase in 2009 was due almost entirely to increased student memberships (increased from 37 in 2008). Membership numbers are well off the peak year of 2001 (298) but above the low year of 2004 (186). The mean number of active veterinarians over the 10 year period is 191. The 2009 student member category is the highest recorded above the peak year (2000) which had 38 veterinary student members. During 2009, 3 new Emeritus memberships were provided to retired AAWV members Paul Barrows, Sarah Shapiro-Hurley, and Kay Mehren. They join emeritus member Vic Nettles. Since the last annual meeting, we saw the passing of 2 AAWV members including Dr. Stephen Kerr (September 14, 2008) and AAWV founder and emeritus member, Dr. Al Franzmann (February 13, 2009). A graphic of the annual membership from 2000 through 2009 is presented below.

Ten (4%) members are international (Canada [7], New Zealand [1], Sweden [1]), Norway [1]. US members live in 42 states and Puerto Rico (1) and the West Indies (1) including AK (4), AZ (2), CA (41), CO (17), CT (1), DE (1), FL (11), GA (11), HI (1), IA (1), IL (6), IN (1), KS (7), KY (2), LA (3), MA (11), MD (4), MI (6), MN (1), MO (12), MT (3), NC (6), NE (2), ND (1), NH (1), NJ (2), NM (3), NV (3), NY (10), OH (6), OK (1), OR (8), PA (5), TN (1), TX (5), UT (3), VA (14), VT (1), WA (5), WI (16), and WY (2).

By affiliation type, 48% (124) of the membership is associated with a university, 12% (31) with private practice, 17% (42) made up government vets of City/State/Federal/Tribal wildlife affiliation, 6% (15) each with zoo medicine or rehab or NGOs, and several were listed as unknown with 5 listed as retired wildlife veterinarians.

Joint memberships with associated organizations were nearly similar to 2008 including 73% (186) members also of AVMA, 59% (152) with the WDA, 43% (109) with the AAZV, and 16% (41) with The Wildlife Society. Not all members responded to all categories.

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We have 5 new Student Chapters including Colorado State University, University of Missouri, UC Davis, Virginia-Maryland Regional College of Veterinary Medicine, and Kansas State University.

Electronic mail

Electronic mail messaging was utilized almost exclusively to contact members in 2009 as an objective to reduce mailing costs and paper use and connect to the membership with real time information on a more frequent basis. Email information included job postings, internships, residencies, graduate assistantships and post-doc wildlife health opportunities, announcements (on-line store, brochure, conferences, workshops, symposia), position statements, newsletters, and membership renewal.

Website

The website continues to be a valuable communication tool with thousands of site and page visits each month, particularly to the job and training opportunities web page. During the fall of 2009, we will add electronic membership renewal to the website.

Respectfully submitted by Colin Gillin



Audubon's "Bird of the Year," Yellow-Billed Magpie (*Pica nuttalli*).
Photo Ashok Khosla.

TREASURER'S REPORT

Jan. 1 – July 31, 2009

Assets

Checking account (US Bank)	\$20,063.31
CD 6 mo (9/18/08) (US Bank)	5,074.97
CD 12 mo (3/18/09) (US Bank)	5,067.44
TOTAL ASSETS	\$30,205.72

Bank Balance (1/1/09) \$17,369.78

Income (through 7/31/09)

Membership Dues	\$5,260.00
Thorne and Williams Fund	\$40.00
TOTAL INCOME	\$5,300.00
	\$22,669.78

Expenses (through 7/31/09)

Bank Charges	
Fees	\$5.00
International fees	\$36.53
Checks	\$12.95
<i>Total</i>	<i>\$60.48</i>
Returned check	\$40.00
Newsletter Layout	\$647.50
Officer Travel	\$543.49
USAHA Dues	\$600.00
Tom and Beth funds to WDA	\$40.00
Display bag	\$25.00
TOTAL EXPENSES	\$2,606.47
BALANCE	\$20,063.31
(Income less Expenses)	

Respectively submitted, Mark L. Drew

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Report from the AVMA Committee On Animal Welfare

The following were among the topics considered during the September 2009 AVMA Animal Welfare Committee meeting:

Euthanasia Panel

The American Veterinary Medical Association (AVMA) is preparing to convene the 2010 version of their euthanasia panel, as a part of its 10 year review cycle. Important new changes include a greater emphasis on inclusivity and a broader perspective. In addition, panel members will be retained in between the regular 10 year reviews, thereby allowing for consideration of newly recognized information or euthanasia challenges that might need to be incorporated into updates of the AVMA euthanasia guidelines. (The most recent version, from 2007, is available at www.avma.org/issues/animal_welfare/euthanasia.pdf). Of relevance to AAWV members will be deliberations on topics such as wildlife euthanasia and depopulation. AAWV and other nondomestic animal experts' will be participating in working groups concerned with depopulation, zoo and wildlife, avian, aquatics, and companion animal euthanasia and welfare. Additional working groups will address equine, food animal, laboratory animal, inhalant agent, non-inhalant agent, and physical agent concerns. It is worth noting that though the AVMA euthanasia panel does not have a separate working group for reptiles and amphibians, the zoo and wildlife working group currently includes a reptile and amphibian subgroup and the aquatic working group is responsible for fish and marine mammals. Dialogue has been initiated to provide stronger, taxonomic-based, non-domestic animal representation on the panel. Although it is hoped that the AVMA will complete its euthanasia guidelines revisions by 2010, the new approach may take some time to 'work out the wrinkles'. Regardless, there is optimism that the 2010 AVMA euthanasia guidelines will recognize the challenges facing veterinarians that work with nondomestic species.

Pending Legislation

It is important for AAWV members to recognize that some animal interest groups are actively promoting legislation that affects animal welfare and management. Pending and passed legislation on food producing animals in several states are well publicized examples of such activity. While many of these bills are well intentioned and may appear to be reasonable at first glance, many of them have negative,

unintended consequences for both animals and the public. Legislation of interest to AAWV members includes measures that limit trapping or hunting. AAWV members are also encouraged to become familiar with other animal related legislation and the underlying objectives of the animal interest groups behind the legislation. When possible, consider communicating AAWV interests to the public and legislators when relevant bills are being considered, as our viewpoints may not be known without your efforts.

The following pending federal legislation was discussed at the September, 2009 AVMA Animal Welfare Committee meeting:

- Reauthorization of the Neotropical Migratory Bird Conservation Act: this act will not progress during this legislative session, but will be reintroduced in the next session.
- Compound 1080 and M-44 Elimination Act: This is a contentious issue that highlights differences in values among stakeholders and differences in interpretation of the available information. Human, non-target animal, and environmental safety and welfare, and product efficacy are concerns for these products. In addition, the unintended consequences of elimination of these products has been debated by different stakeholders. Additional debate has centered on the relative efficacy of alternate strategies for predator control, as well as the perception that 1080 is inhumane or could be used for bioterrorist purposes. USDA-APHIS-Wildlife Services (WS) has presented information that WS uses these products as options when non-lethal methods are not effective, and that the total quantity of the materials used by WS is small and dispersed, thereby mitigating against bioterrorist uses.
- HR 1018 Restoring Our American Mustangs (ROAM) Act: This bill is part of continued efforts to increase the range and number of wild horses while concurrently preventing horse slaughter and euthanasia of animals in Bureau of Land Management (BLM) holding facilities. If enacted, the consequences of this bill are not favorable for native wildlife, and the welfare of horses may also be compromised. There is competing legislation to counter HR 1018, but the political viability of the competing legislation and the strengths of the groups that support it are uncertain.

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- Domestic turtle ban: there are proposed bills to lift the ban on sale of domestic turtles less than 4 inches in size. While intended as a measure to reduce salmonellosis in humans (children in particular), free-ranging populations of exotic turtles present ecological concerns. There are also animal welfare concerns associated with these sales.
- HR 1326 The Great Ape Protection Act: this act is targeted towards preventing research on laboratory chimps. However, provisions in the bill might prevent research that would benefit the health of great apes in zoos. In addition, there was not a clear indication of the source of funding for the bill and many of the provisions did not account for the practical realities of managing these animals in captive settings. Great apes and other high profile species issues are a part of some group's strategies for systematically developing new animal oriented legislation.
- HR 80 Captive Primate Safety Act: This act is intended to eliminate/reduce the number of primates held in private settings by prohibiting interstate transport. It came close to being enacted last year. This year's version is similar, with the exception that primates that are used as service animals would be granted an exemption. AVMA policy is opposed to the use of primates as service animals, due to the risk of injury and zoonotic disease to humans. Consequently, AVMA will not support this bill unless it is revised.
- Haley's Act: this act is an effort to ban contact between the public and big cats in nonsanctioned facilities.
- HR615 Antifreeze Bittering Act: This legislation proposes the addition of a bittering agent to antifreeze to prevent consumption by children and pets (and presumably wildlife, although this was not discussed). However, there is some evidence that these agents may not be effective in reducing antifreeze palatability, that the compounds could contaminate ground water supplies (conflicting references were indicated during the meeting), and that the compound breaks down when exposed to the heat of an engine. Due to lack of clarity of the data, a decision was deferred until there is more definitive information available.

*David S. Miller, AAWV/AZV Representative
to AVMA Animal Welfare Committee*

Report from the AVMA Committee On Environmental Issues

[Editor's note: due to layout constraints, the appendices referred to in this report have not been included here. The full report, including appendices, can be found on the members only page of www.aawv.net.]

This report summarizes activities of the AVMA Committee On Environmental Issues (CEI) from October 2008 to October 2009. This includes four conference call meetings (October 2008; February 2009; May 2009; and August 2009) and one in-person meeting (October 2009).

CEI Membership

The American Veterinary Medical Association's Committee on Environmental Issues has a broad membership including 11 veterinarians in ecology, zoo and wildlife medicine, toxicology, agriculture, private practice, government service, public health, and other disciplines. Current CEI members that are also members of AAWV, AAZV, and/or other allied organizations include Dr. Cindy Driscoll representing aquatic animal medicine, Dr. Scott Larsen, representing zoo and wildlife medicine, and Dr. Peregrine Wolff representing small ruminant medicine. This committee serves to guide the AVMA on environmental issues. If there are any environmentally-related issues that AVMA members feel should be addressed or environmentally-related policies that AVMA members feel need attention, this is the committee through which action and guidance should be taken.

As of July 2009, Dr. Wolff is the chair of the committee (replacing Dr. Dave Jessup) and Dr. Larsen is the vice-chair (replacing Dr. Wolff).

CEI Vision Statement

At the fall 2008 CEI meeting, a vision statement for the committee was created. This vision statement was amended and ratified in February 2009 (Appendix I); it is being used to help direct CEI activities.

One Health Initiative

Dr. Michael Cates has been selected as the AVMA representative to the One Health Joint Steering Committee (OHJSC). The Commission is expected to begin in July 2009. Staff will continue to monitor any relevant environmental issues and on how the OHJSC initiative is progressing.

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Best Management Practices for Unused Pharmaceutical Disposal

An AVMA document on Best Management Practices for Unused Pharmaceutical Disposal was developed by multiple committees and approved by the executive board (Appendix II).

Carcass Disposal

The Committee is reviewing issues related to carcass disposal and the hazards that improper carcass disposal can have on wildlife, domestic animals, and people. The Committee believes that the AVMA does not currently provide clear guidance for veterinarians on carcass disposal of animals chemically euthanized, and is in the process of gathering available information useful for developing a possible AVMA policy and guidance for veterinarians. There is also the possibility of developing a web-based informational resource area on AVMA's website with links to different carcass disposal resources.

Hunters and Zoonotic Risks

The AVMA Communications Division recently gathered information about possible zoonotic diseases for hunters and summarized it on the AVMA website (www.avma.org/public_health/zoonotic_risks/hunters.asp). The CEI is supportive of this effort as a service to AVMA members and the public; the committee is in communication with the Communications Division about how to make this resource better.

Database for Externship/Internships in Conservation, Environmental Medicine, Wildlife, and Zoological Medicine

The Committee on Environmental Issues had requested that staff develop and post on the AVMA website a list of opportunities (work experience, internships, externships, etc.) for veterinarians and veterinary students interested in areas within the veterinary profession focusing on conservation, environmental health, wildlife, or zoo medicine. The initial list of opportunity programs has grown to include 104 programs with 24 data fields, which has been delivered to IT. AVMA staff is working with Online Services and IT to develop an online searchable database for such opportunities. This database is currently in beta-testing and will hopefully become active in the near future. Members will be able to perform searches of various parameters yielding a list of programs meeting their criteria. From this list, members will be able to select and explore information

about programs of their choice. Program hosts will be able (through notification of the AVMA) to add, delete, and change programs and program information. In addition, searchers will be able to notify AVMA of issues with the database or its functionality.

White House Council on Environmental Quality – U.S. “Oceans Policy”

The AVMA has been asked to participate in the effort, led by the White House Council on Environmental Quality (CEQ), concerning the President's memorandum on National Policy for the Oceans, our Coasts, and the Great Lakes (dated June 12, 2009). The President's memo set out the issues of: National policy for oceans and for coastal and Great Lakes ecosystems; Ocean governance framework; Implementation Strategy to meet the objectives of the national policy; and Coastal and marine spatial planning. The AVMA has agreed to participate in this effort and is trying to highlight the utility of veterinary involvement in these issues. In formulating organizational responses, the AVMA is taking input from its membership via the Aquatic Veterinary Medicine Committee and the Committee on Environmental Issues. The National Task Force is taking commentary on the spatial planning aspects through early December 2009. AAZV/AAWV members that want to comment through the AVMA can send their commentary through the CEI or Aquatic Veterinary Medicine Committee. Alternatively, members may submit comments to the National Task Force through other organizations or as individual citizens.

AVMA Government Relations Division

The AVMA's Governmental Relations Division advocates the Association's policies and positions on federal legislative and regulatory issues that influence animal and human health and advance the veterinary medical profession. The CEI frequently evaluates legislation of an environmental nature and then forwards its recommendations onto the AVMA Legislative Advisory Committee (LAC). The LAC works with the executive board to determine the official AVMA position on each piece of legislation and any appropriate action that should be taken. of interest to AAWV and/or AAZV members is included in Appendix III.

*R. Scott Larsen, AAWV/AAZV Representative
to AVMA Committee on Environmental Issues*

New Open Access Journal of Immunological Research Seeks Editors and Manuscripts

The *Journal of Clinical Immunology and Immunopathology Research* (JCIIR) is seeking qualified researchers to join its editorial team as editors, subeditors or reviewers. The JCIIR is a multidisciplinary peer-reviewed journal published monthly by Academic Journals (www.academicjournals.org/JCIIR), and is dedicated to increasing the depth of clinical immunology and pathology research across disciplines with the ultimate aim of improving immunology research. JCIIR also welcomes the submission of manuscripts that meet the general criteria of significance and scientific excellence in this subject area, and will publish original articles in basic and applied research, case studies, and critical reviews, surveys, opinions, commentaries and essays.

In response to a key request of researchers across the world for unrestricted access to research publications,

JCIIR is an Open Access Journal. Open access gives a worldwide audience larger than that of any subscription-based journal and thus increases the visibility and impact of published work. It also enhances indexing, retrieval power and eliminates the need for permissions to reproduce and distribute content. JCIIR is fully committed to the Open Access Initiative and will provide free access to all articles as soon as they are published.

Individuals interested in joining the JCIIR editorial team or submitting a manuscripts for publication should contact Sophia Erih, Editorial Assistant of JCIIR, at jeiir.acadjourn@gmail.com. Instruction for authors and other details are available at www.academicjournals.org/JCIIR/Instruction.htm.

SAVE THE DATE!

“Wildlife and Ecosystem Health Without Borders” North American Trilateral Meeting



South Padre Island, Texas
24-25 October, 2010

In conjunction with the AAZV/AAWV/ARAV Annual Conference

Waterway Contamination with Oseltamivir: Are We Breeding a Super-Flu?

From ProMED (edited)

The new primary flu-fighting drug oseltamivir (sold under the brand name Tamiflu), is getting into surface waters where ducks and other water birds may be exposed to it. Researchers in Japan have confirmed the presence of oseltamivir in rivers downstream of sewage-treatment facilities. The source: urinary excretion by people taking oseltamivir phosphate to treat their own influenza infections. Concerns are now building that birds, which commonly are carriers of influenza viruses, are being exposed to waterborne residues of oseltamivir's active form and might develop and spread drug-resistant strains of seasonal and avian influenza viruses.

For their new study, Gopal Ghosh and his colleagues at Kyoto University sampled water discharged from three local sewage treatment plants and water at several points along two rivers into which the treated water flowed. Sampling started early in December 2008, as the seasonal flu season got under way. The researchers sampled again at the height of the flu's onslaught in early February 2009 and again as infection rates waned. According to the researchers' September 2009 online Environmental Health Perspectives report, oseltamivir's active form, oseltamivir carboxylate (OC), turned up in the treated sewage on every occasion. Values in sewage were low during the first and last samplings, but reached a high of almost 300 ng/l at one outflow in the second sampling period, which coincided with the peak of the flu's seasonal epidemic with 1738 recorded flu cases in Kyoto that week. River residues showed up during the second sampling, from low levels at most sampling points to a high of 190 ng/l in a portion of the Nishitakase River, where treated sewage accounts for 90 per cent of the flow. If correlations predicted by earlier studies are correct, concentrations measured at some river sites in the new Kyoto study seem "high enough to lead to antiviral resistance in waterfowl," Ghosh says. And ducks love hanging out around warm, nutrient-rich outflows of treated water during winter-flu season.

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The situation is not particularly surprising: according to environmental chemist Jerker Fick of Umea University in Sweden, virtually all ingested oseltamivir will end up in the environment in the active form. Roughly 80% of an ingested dose is metabolized to the active carboxylate, which is excreted unchanged. The remaining 20% is excreted in its original phosphate form, but is quickly turned into the active carboxylate form when it reaches a water treatment plant. Two years ago, Fick's team published data showing that most sewage-treatment technologies will remove "zero per cent" of any OC present. Computer modeling done by Wolf von Tümpling Jr of Germany's Helmholtz Center for Environmental Research also suggests that OC can survive sewage treatment, and Ghosh's team has now confirmed the conclusions in situ. Von Tümpling's data also show that OC will break down only very slowly when exposed to sunlight, with concentrations falling by at most half every 3 weeks.

The expected coincident hits by both seasonal and H1N1 swine flu viruses this winter could send oseltamivir use skyrocketing. In July 2009, Food and Drug Administration deputy commissioner Joshua Sharfstein noted that "there is no adequate, approved, and available alternative to the emergency use of certain oseltamivir phosphate products for the treatment and prophylaxis of influenza." So far, however, there has not been any report of isolation of oseltamivir-resistant influenza virus directly from water fowl. If oseltamivir resistance does develop in exposed birds, the affected flu strains would probably be conventional seasonal and avian flu strains and not H1N1, as H1N1 seems to bypass birds as it spreads among people, according to William Schaffner, chair of preventive medicine at the Vanderbilt University School of Medicine. He also notes that United States policy is more conservative than Japan's when it comes to oseltamivir use. Federal guidelines, he says, recommend that "...oseltamivir be reserved for treatment of the very sick and anyone who is immunocompromised."

PUBLICATIONS OF INTEREST

POLYCHLORINATED BIPHENYLS AND POLYBROMINATED DIPHENYL ETHERS IN GALAPAGOS SEA LIONS (*ZALOPHUS WOLLEBAEKI*)

Alava, Juan J. et al. Environmental Toxicology and Chemistry. 28:11, pp. 2271–2282

Concentrations of polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), polychlorinated dibenzo-p-dioxins (PCDDs), and polychlorinated dibenzofurans (PCDFs) were measured in muscle-blubber biopsy samples from 21 Galapagos sea lion (*Zalophus wollebaeki*) pups that were live captured in the Galapagos Islands (Ecuador) using gas chromatography/high-resolution mass spectrometry. Only traces of PBDEs were detected in one male pup, whereas PCDDs and PCDFs were not detected in any sample. The total concentration of PCBs (Σ PCB) in the pups averaged 104 $\mu\text{g}/\text{kg}$ lipid (range, 49–384 $\mu\text{g}/\text{kg}$). No statistically significant differences in Σ PCB were observed among the four study sites in the Galapagos Islands. Concentrations of PCB congeners in Galapagos sea lion pups were dominated by low-molecular-weight congeners. These results suggest that global transport is the main source for PCBs in Galapagos sea lions. The Σ PCB levels were below immunotoxic and endocrine-disruption thresholds in pinnipeds, suggesting a limited risk of adverse health effects. The present study indicates that Galapagos sea lions can serve as a useful sentinel of pollutants with a long-range transport capacity and that Galapagos Islands are not exempt from the threats of global pollutants despite its remote locale.

ROTAVIRUS INFECTIONS IN GALAPAGOS SEA LIONS

Coria-Galindo, E., et al. 2009. Journal of Wildlife Diseases. 45(3): 722–728.

Group A rotaviruses infect and cause diarrhea in the young of a broad range of terrestrial mammals, but it is unknown, to our knowledge, whether they infect marine mammals. During February and March of 2002 and 2003,

we collected 125 serum samples and 18 rectal swab samples from Galapagos sea lion pups (GSL, *Zalophus wollebaeki*), and 22 serum samples from Galapagos fur seal pups (GFS, *Arctocephalus galapagoensis*) from nine islands of the Galapagos archipelago, Ecuador. Sera were tested for antibodies (immunoglobulin G [IgG])

to rotavirus by an enzyme immunoassay using rhesus rotavirus as the capture antigen. In addition, rectal swabs were analyzed for the presence of rotavirus genomic double-stranded RNA by silver-stained polyacrylamide gel electrophoresis. Antibodies to rotavirus were detected in 27 GSL pups (22%) and five GFS pups (23%), and rotavirus RNA was detected in the fecal sample from one GSL pup (6%). These results provide the first evidence that rotavirus infections are prevalent at an early age in Galapagos sea lions and Galapagos fur seals.



Galapagos Sea Lion. Photo Nancy Ottum.

ASYMPTOMATIC DEER EXCRETE INFECTIOUS PRIONS IN FÆCES

Gültekin Tamgüney et al 2009. Nature. 461, pp. 529-532.

Infectious prion diseases—scrapie of sheep and chronic wasting disease (CWD) of several species in the deer family—are transmitted naturally within affected host populations. Although several possible sources of contagion have been identified in excretions and secretions from symptomatic animals, the biological importance of these sources in sustaining epidemics remains unclear. Here we show that asymptomatic CWD-infected mule deer (*Odocoileus hemionus*) excrete CWD prions in their faeces long before they develop clinical signs of prion disease. Intracerebral inoculation of irradiated deer faeces into transgenic mice overexpressing cervid prion protein (PrP)

revealed infectivity in 14 of 15 faecal samples collected from five deer at 7–11 months before the onset of neurological disease. Although prion concentrations in deer faeces were considerably lower than in brain tissue from the same deer collected at the end of the disease, the estimated total infectious dose excreted in faeces by an infected deer over the disease course may approximate the total contained in a brain. Prolonged faecal prion excretion by infected deer provides a plausible natural mechanism that might explain the high incidence and efficient horizontal transmission of CWD within deer herds, as well as prion transmission among other susceptible cervids.

OPPORTUNITIES

A Field-Based Conservation Medicine and Biology Course in Costa Rica

The University of Georgia offers a field based course in Conservation Medicine and Conservation biology in Costa Rica. Goals of this course include learning the basic principles of both disciplines and major topics of hypothesis-driven conservation research projects in tropical field conditions; understanding the interplay of humans and ecosystem health; understanding cultural and socioeconomic issues relevant to conservation biology and conservation medicine; and encouraging and facilitating US-Costa Rican professional and cultural integration. The course includes work at four field sites encompassing marine, lowland rainforest, highland rainforest, and coastal wetland environments.

This course is geared toward undergraduate and graduate students in wildlife management, ecology, pre-veterinary and animal science, as well as veterinary students planning on careers in conservation and international medicine. One of the specific course objectives is to work in teams composed of veterinary students and students in related non-veterinary fields to foster a collaborative approach to research at the early stages of these careers.

The course will be held from June 18-July 19, 2010.

Deadline for Application is March 5, 2010. Space is limited to 20 students. For more information, go to www.uga.edu/costarica/program_summer_vetmed.htm or contact Dr. Sonia M. Hernandez at shernandez@warnell.uga.edu.



UPCOMING MEETINGS

- Jan 16-20** North American Veterinary Conference. Orlando, Florida. Go to tnavc.org/navc-conference for more information.
- Feb 3-5** International Conference on Wildlife Conservation, Health and Disease Management – a Post Millennium Approach. Madras Veterinary College, Tamil Nadu, India. For more info contact Joshua Dein at fjdein@usgs.gov.
- Feb 4-7** International Meeting on Emerging Diseases and Surveillance. Vienna, Austria. Click here for more info.
- Mar 9-12** 14th International Congress on Infectious Diseases. Miami, Florida. For more info go to www.isid.org/14th_icid/.
- May 2-6** XXXII International Meeting for Marine Mammals. Xalapa, Veracruz, Mexico. This year's theme is Marine Mammals: Bio-indicators of the marine ecosystem health. For information about workshops and other conference details, contact Eduardo Morteo at emorteo@gmail.com.
- Sep 1-4** Congreso Veterinario de Leon. Leon Guanajuato, Mexico. Registration is free of charge!! For more info go to www.cvdl.com.mx.

Something Interesting? Share it!

Remember, this newsletter is not only for the AAWV membership, it's also **by** the AAWV membership – and that includes you! I encourage you to submit abstracts, research and project summaries, articles, photos, announcements, even want ads for the newsletter.

We've all got lots of stories to tell!

Send all submissions to jmencher@u.washington.edu.

Happy Holidays and thanks for keeping the AAWV a vital and stimulating organization.

Jordan Mencher, editor