



## Member's Corner

### 60<sup>th</sup> Annual International Conference of the Wildlife Disease Association

*Local organizing committee: Bob Patenaude, Stéphane Lair, Lena Measures and Manon Simard*

The 60<sup>th</sup> Annual International Conference of the Wildlife Disease Association was held August 14 to 19, 2011 in beautiful Québec City, Québec, Canada. The culinary delights and history of Québec were introduced to conference participants at the welcoming reception held in the historic Chapelle des Amériques with special guest, Samuel de Champlain. In addition, conference participants enjoyed four "Quebec Moments" during the conference in which a local historian, Harry Hunkin, recounted the history, politics and cultural heritage of Québec. Not only was the city and venue of the conference clearly enjoyed by participants but many expressed appreciation of the local restaurants and cuisine at the conference itself including the exceptional service provided by the Hotel Chateau Laurier. Bravo!!!

Two workshops were held prior to the start of the conference, *Surveillance des maladies de la faune sauvage dans le monde francophone* (wildlife disease surveillance in the francophone world) along with a student career workshop.

The conference was opened with the theme, *Wildlife Resources in a Changing World* and presentations were given by five invited speakers (Eric Dewailly, Manon Simard, Lena Measures, Nadia Ménard and Andrew Derocher) in this theme. Nicholas Ogden, the Al Franzmann Memorial Lecturer, and Sandra Telfer, the Carleton Herman Lecturer, also gave presentations.

There were 186 oral and poster presentations, including 22 student oral presentations and 23 student posters in the Terry Amundsen Student Competition. There were 289

participants from 23 different countries. Sessions included the effects of diseases on wildlife resources, zoonoses, surveys and new reports, health of marine mammals, avian influenza, Canadian wildlife, ecology of disease in mammals, health of herpetofauna, host-pathogen interaction, chronic wasting disease, arctic and subarctic wildlife diseases, new methodology and tools, white nose syndrome and other diseases of bats, management of disease and socio-political challenges and a special session on health and conservation of great apes.

Optional field trips allowed participants to explore rivers, islands, scenery, history, cuisine and other local tourist attractions in the Québec City area. The WDA auction raised approximately \$6,000 US for student activities. At the well attended closing banquet, winners of the Terry Amundsen student competition (see page 7), WDA Graduate Student Recognition Award (Stacie Robinson, University of Wisconsin-Madison), special WDA Awards and the Pseudart Lottery winner (Anne Justice Allen) were announced. Two Québec Inuit throat singers entertained and amazed the attendees with an amusing throat-singing competition between Bob Patenaude and Marc Artois (Bob won!).

The WDA Emeritus Award was conferred on Richard Boetzler and Charles Hibler (see page 2). The Tom Thorn – Beth Williams Memorial Award was conferred on Jonna Mazet for her contributions to management of scabies in bighorn sheep, improving the understanding and management of oil intoxication, helping establish and run the Oiled Wildlife Care Network, helping to establish and direct the University of California at Davis - Wildlife Health Center, all while mentoring several dozen MPVM and PhD students, and most recently, for serving as the principal investigator on a \$75 million multi-institutional grant from USAID.

We would like to thank our local host sponsor, the Québec Ministère des Ressources Naturelles et de la Faune and other sponsors and all our volunteers without whose support and help our conference would not have been as highly successful as it was.



Dave Jessup presents the Tom Thorn and Beth Williams Award to Jonna Mazet

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## 2011 Winners of the WDA Emeritus Award Presented at the 60th Annual WDA Conference

*Ed Addison*

Charles P. Hibler

Charles [Chuck] Hibler was born in Austin, Texas. He served in the U.S. Navy from 1948 to 1952 before enrolling in a biology program at New Mexico State University. Following graduation with a B.S. in 1956, Dr. Hibler completed M. Sc. and Ph.D. degrees at Utah State and Colorado State Universities respectively while serving as a research scientist with the United States Department of Agriculture. He spent two years as an associate professor at New Mexico State University and then joined the faculty of Colorado State University [1967] where he remained through to his retirement. He served in a number of capacities at CSU including associate dean, professor and Director of the Wild Animal Disease Center.

Dr. Hibler's parasitological research was varied. Many studies uncovered and elucidated elegant ecological relationships among vertebrates, invertebrate intermediate hosts and parasites. Much of the research of Dr. Hibler, his students and colleagues addressed practical wildlife management and human health problems relating to wildlife parasites and disease. His research on *Elaeophora schneideri* in tabanids and mule deer and the impact of this system on sympatric wapiti was seminal. This research along with that of Chuck's close friend and colleague, Roy Anderson, on *Parelaphostrongylus tenuis* in white-tailed deer and related sympatric cervids challenged wildlife managers to integrate their management aspirations for sympatric cervids. Other research interests included summer lamb mortality in bighorn due to protostrongylid infections; the impact of trematode larvae on reduced eyesight and increased vulnerability of young salmonids; ecological studies of waterborne *Giardia* and methods for detection of chronic wasting disease.

Dr. Hibler taught parasitology and related courses on animal health, has been a mentor and role model to many and supervised numerous graduate students including Terry Spraker, Bill Lance and Beth Williams.

Within the Wildlife Disease Association, Dr. Hibler was editor of the *Journal of Wildlife Diseases* for 7 years [1975-1982], vice president of the Association [1981-1983], one of the principal organizers of at least two WDA annual conferences [1971, 1978] and recipient of the Distinguished Service Award [1981].

Richard G. Botzler

Rick Botzler received a B.S. in biology from Wayne State University [1963] and M. W.M. [1967] and Ph.D. [1970] degrees in wildlife management from The University of Michigan. While at Michigan Rick received the Howard M. Wright Award as the outstanding student in wildlife management. This early focus on and recognition related to wildlife management was a harbinger for Rick's future contributions to wildlife health and wildlife management. Dr. Botzler was a professor of wildlife and held other positions at Humboldt State University for 37 years (1970-2007).

Much of Rick's research was on bacteria in wildlife and in free-living components of the ecosystems within which he worked. While he had an early special focus on studies with *Yersinia* and *Listeria*, later research branched out working on other bacteria, on helminths and on other aspects of wildlife health.

Unquestionably one of Dr. Botzler's greatest accomplishments in the area of wildlife health has been as a teacher extraordinaire. Throughout the past few decades and in both the United States and Canada, I have met many colleagues actively involved in wildlife management who had Rick as a professor, who recognized him as an exceptional teacher and who were inspired by him to pursue and excel in careers in wildlife management. For Rick's students, disease and health were an integral component of wildlife management. Acknowledgement of Rick's excellence as a professor included his receiving awards as the outstanding professor at Humboldt State University (1991) and as the outstanding professor of the whole 20 campus University of California system (1992)!

Dr. Botzler also contributed significantly in many ways within the Wildlife Disease Association. Rick has served on many WDA committees over a period of more than 20 years including amongst others the Membership, Student Activities, Time and Place, Awards, and Budget and Audit Committees. He also served on the WDA Council (1991-1996). Rick served as an Assistant Editor of the *Journal of Wildlife Diseases* and later as Editor of the *Journal* (1991-1996). Rick was also very actively involved in organizing a number of our annual Association conferences including being program co-chair of the 38<sup>th</sup> (1989, Corvallis, OR) and 43<sup>rd</sup> (1994, Asilomar, CA) conferences and as local arrangements chair of the 51<sup>st</sup> conference at Humboldt State University (2002). In acknowledgement of his many contributions to the Association, Rick received the Distinguished Service Award in 1997.

We are privileged to recognize Drs. Hibler and Botzler as recipients of the Wildlife Disease Association Emeritus Award.

## Changing of the Newsletter Guard

*Jenny Powers*

After four delightful years as newsletter editor it is time to pass the job on to another dedicated and enthusiastic WDA member. I have enjoyed meeting and working with so many of our membership through this position. Please welcome Samantha Gibbs as our incoming newsletter editor and ply her with as many thoughtful articles as you have provided to me. Sam is the National Avian Health and Disease Coordinator with the US Fish and Wildlife Service, out of Arlington, Virginia and has been active with the WDA since her graduate student days at the Southeastern Cooperative Wildlife Disease Study, in Athens, Georgia. You can reach Sam at: [Samantha\\_Gibbs@fws.gov](mailto:Samantha_Gibbs@fws.gov).



## Nominations for the 2012 WDA Council Election

Lynn Creekmore

The WDA Nominations Committee is seeking nominees for two Council Members-at-Large (3 year term) and a Student member of Council (two year term) on the WDA Council. Newly elected members of Council assume office at the end of the next annual conference following the election. The 2012 Conference will be held July 22 -27 in Lyon, France.

Ideally Council Members-at-Large have a good understanding of the Association through their previous volunteer contributions. While experience gives Members-at-Large valuable perspectives that they can bring to the Council, numerous less experienced members have also been nominated and elected and have brought new and different ideas to Council.

If you have suggestions for WDA members as nominees for these positions, please submit your suggestions for consideration by the nominations committee to, Lynn Creekmore ([lynn.h.creekmore@aphis.usda.gov](mailto:lynn.h.creekmore@aphis.usda.gov)) by November 15, 2011 and include the following:

- Name of possible candidate.
- Name of sponsoring member.
- Name of second sponsoring member.
- Degrees earned; place and date
- Former professional positions held; place and date
- Present Position; title and location
- Member of WDA since...
- Previous WDA activities
- Affiliations with relevant professional and scientific societies
- Interests associated with the mission of the WDA

Additionally, please have the nominee submit a personal agenda statement with an outline of personal goals for the WDA if elected.

## History of the WDA Gavel

Dolores Gavier-Widén

The gavel set of WDA has been in the custody of 16 presidents of the Association, including Roy Anderson to whom it was presented at the WDA banquet on August 20, 1981 in Laramie, Wyoming. Very few people other than our presidents have had a good look at this special piece of our history.

The gavel set was presented to the Association by Dr. Carlton M. Herman, one of the founders of the WDA and our first president. Carlton had a longstanding hobby of woodworking that included serving as president of the International Wood Collectors' Society and as an associate editor of "World of Wood". Carlton melded his long term commitments to both the WDA and to woodworking into the design and production of this truly unique gift.

The gavel is a single piece of wood denoting the stability and singleness of purpose of the WDA. It was made from a piece of

Mountain mahogany (*Cerocarpis* sp.) which was collected by Carlton on a field trip to the Sierras in northern California during 1949 when the possibility of forming a wildlife disease organization was first considered. The sound box was made from two types of wood. The hollow top was fashioned from spalted (fungus-infected) pecan (*Carya illinoensis*) collected from a limb that had been struck by lightning in North Carolina. The base of the sound box was made from wormy chestnut (*Castanea dentata*) that had been killed by blight in Pennsylvania. Thus, disease is very well represented in the woods of the sound box. The containing box within which the gavel set was presented was constructed of black cherry (*Prunus serotina*) and purchased from a commercial dealer in Maryland.

The symbolism and high quality craftsmanship of the gavel set



Wildlife Disease Association gavel and sound box, created for and presented to the association by Carlton Herman

are exceptional. If you have not seen this part of our history and are at an annual conference, attend the business meeting of the Association and ask the president if you can see the gavel set.

A description of the gavel set and a photo of Carlton Herman were first published in the *Journal of Wildlife Diseases* in 1982 [JWD 18: 263-264].

## EcoHealth Alliance

Dave Jessup

The WDA has a new Sustaining Member! During the WDA Council meeting in August 2011 the EcoHealth Alliance was approved as a new Sustaining Member organization. They will be providing up to \$3000 yearly to support *Journal of Wildlife Diseases* and the placement of articles in it with eco-health and one health themes, in particular articles that might not get published otherwise for lack of financial support. THANK YOU! <http://www.ecohealthalliance.org/>

# WDA News

## Obituary - Robert Frost

*First published by USAHA*

It is with deep sorrow that we announce the death of our friend Bob Frost. He passed away at his home in Lincoln on August 15 after a brave fight against cancer.

Bob Frost, raised in Sacramento, received his Bachelor of Science degree in Wildlife Conservation at the University of California, Berkeley in 1964.

In 1979 Bob built a ranch designed for camelids which evolved into a reproductive and diagnostic validation research herd. While serving on the International Llama Association's Board of Directors he sought science based programs which led him to the United States Animal Health Association (USAHA). Bob served as USAHA's President in 2003 and is a lifetime member of the USAHA Board of Directors.

To establish a first line of defense against disease that endangers wild and domestic animal populations, human health and our food supply, Bob championed the modernization of the United States' federal animal health laboratories in Ames, Iowa, Plum Island, New York and the wildlife facility in Fort Collins,

Colorado. In 2004 he initiated collaborative efforts between Canada, Mexico and the United States to form a North American Animal Health Laboratory Network. As USAHA's President he established the Committee on Diagnostic Laboratory and Veterinary Workforce Development and the Committee on International Standards to facilitate long term safeguards for animal and public health worldwide.

Bob was a Professional Member of Teddy Roosevelt's century old Boone and Crockett Club and served as Wildlife Liaison to the Club's President.

Bob initiated through USAHA a "Healthy Wildlife" philosophy that resulted in a fifty state collaborative wildlife health initiative and Yellowstone National Park's Yellowstone Wildlife Health Program. Bob served as a member of the United States Secretary of Agriculture's National Wildlife Services Advisory Committee



## WDA Section News

### Australasian Section Conference Report

*Jenny McLelland*

This year our conference took us to the spectacular and at risk Coorong, at the mouth of the great Murray River in South Australia. Just under 80 delegates attended this years conference (catered by the fabulous Shirley and family) which was held at Camp Coorong Race Relations Centre. The centre is run by the local Ngarrinjeri people – people who have inhabited the area for 1000s of years. The Coorong is a wetland of international significance (listed 1985) at the termination of the Murray-Darling Basin, which covers 1/7 of Australia, houses more than 3million people and supports more than 40% of Australia's primary production. Ecosystems present in the area include fresh-water, estuarine, marine and hypermarine and the area supports tens of 1000s of waterbirds, many migratory from the northern hemisphere. Historically, it has supported hundreds of 1000s of these birds. Excessive water extraction from along the river system has resulted in extensive changes to this system and those that depend on it. Invited speaker, Associate Professor David Paton from the school of Ecology, Evolution and Landscape Science at the University of Adelaide, spoke about the Coorong, our water use and its effects and challenged us to think about our lifestyles and water useage including embedded water.

The conference was officially opened on Monday morning with a welcome to country and smoking ceremony by Ngarrindjeri elders Tom Trevorrow and Major "Moogey" Sumnar.

Our scientific program, was kicked-off with invited speaker James Smith, a local ecologist who spoke on Anthropogenic impacts on urban wildlife, and was followed by talks on kiwi, wombats, koalas, kangaroos and fish, just to name a few. Elder, Uncle Tom Trevorrow, a mesmerising and charismatic orator



provided us with some insight into Ngarrindjeri history pre- and post-settlement by white people as well as a local view on some more recent political challenges for his people.

# WDA Section News

Dr Amber Gillet was our student prize winner for her interesting and well presented talk on an assessment of disease in stranded sea-snakes in South-East Queensland. A second prize of Medicine of Australian Mammals (generously donated



A wet but enjoyable field trip during the Australasian WDA meeting

by the Australian Wildlife Health Network), was awarded to undergraduate student Jemima Amery-Gale for her presentation on detection and identification of a gammaherpesvirus in antechinus spp. Jemima, a first-time presenter gave an excellent presentation beginning in the Ngarrindjeri language:

## **Ngapi nglelun alyenik ruwi elun Ngarrindjeri ruwi.**

I know this here land is Ngarrindjeri land

## **Yunti-angan thuldun ruw-angk Ngarrindjerar-ald.**

Together-we all meeting land-on Ngarrindjeri people-of

## **Ngati merpur pundhar luk Ngarrindjeri ruw-angk.**

I caught (animal) like mice Ngarrindjeri land-on

## **Ngarrindjer-ar watjun mulumi nglelurumi ruwald.**

Ngarrindjeri-plural have sacred knowledge land-of

Free Translation:

I KNOW THIS LAND HERE IS NGARRINDJERI LAND.

TOGETHER WE MEET ON LAND BELONGING TO THE NGARRINDJERI PEOPLE.

I TRAPPED THE ANIMALS ON NGARRINDJERI LAND.

THE NGARRINDJERI HAVE SACRED KNOWLEDGE OF THE LAND.

The social program included the return of the WDA-A quiz night; plenty of wig-wearing (something that has become a bit of a tradition); a wine and cheese night and silent auction featuring local musicians; the "Hystery of the WDA-A" by long-time

member Pin Needham; traditional basket weaving; a performance from the Tal-kin-jeri Dance troupe and our annual dinner. The dance troupe performance was an impromptu addition and was a highlight of the conference. Seeing the young dancers, connect with their culture through traditional forms of music and dance was inspirational. \$645 was raised from delegates and a further \$200 donated from our auction proceeds went to help support this group attend a cultural exchange in Hawai'i later this year.

Our field-trips to the North and South Coorong were sadly very wet, but still very enjoyable with plenty of pelicans and other birds to distract David Schulz (a previous duck award recipient) from returning to the bus on time and resulting in a search-party heading out.

Overall, it was a successful and fun conference with delegates primarily from Australia and New Zealand, but also from Oman. We hope many more WDA members will be able to make it to future conferences, with the next being held closer to the top of the Murray-Darling basin in SE Queensland.

## **The Barry L. Munday Recognition Award**

This award recognizes the significant contributions to wildlife health made by a member of the Section in the preceding 5 years. Significant contributions to wildlife health include not just research or study of wildlife disease but also communication, education, training and mentoring, the composite of things at which Barry Munday (a founding member of WDA-A) was so very skilled. I am pleased to announce that Dr Rupert Woods (BSc, BVMS, MVS, MACVSc, PhD) was this years award recipient. Rupe currently manages the Australian Wildlife Health Network an initiative of the Australian Government, and is hosted by Taronga Conservation Society and NSW Department of Primary Industries. The chief objective of the AWHN is development of a nationally integrated wildlife health system for Australia with core business being wildlife health surveillance. Rupert has worked with most of Australia's Universities, zoos, hunters, wildlife carers and many others in setting up a network of over 600 people. His networking skills are unsurpassed. His work with government often goes unannounced gently prodding government officials to act or respond to wildlife disease issues. Over a decade, with a very small budget he has achieved a network system of international standing. Tiggy Grillo from the AWHN accepted the award on Rupert's behalf as he was unable to attend the annual dinner.

## **New Latin American Section**

### *Dave Jessup*

WDA has a new Section. WDA Council approved the application for a Latin American Section at the recent WDA annual conference. Marcela Uhart will serve as chair, Jose Luis Catao Dias assistant chair, Maria Forzan as treasurer and Eliana Reiko Matushima and Ezequiel Hidalgo as secretaries. They have an e-Newsletter up and running already. Congratulations!

## Nordic Section Quarterly Report, July—Sept.

Edited by Bjørnar Ytrehus ([bjornar.ytrehus@vetinst.no](mailto:bjornar.ytrehus@vetinst.no))

### Rabies on Svalbard, Norway

Bjørnar Ytrehus, Kjell Handeland, Irene Ørpetveit, Britt Gjerset, Norwegian Veterinary Institute, Norway

In the middle of September an arctic fox (*Vulpes lagopus*) bit a woman in Longyearbyen (Norway), the largest settlement of the Svalbard archipelago in the Arctic. A fox was also seen attacking a car at the same place, and later on the same day, a dog regarded to be very tame, killed a similar fox at the same locality. This fox was shipped to the Norwegian Veterinary Institute and examined. It was a young, well conditioned female, but it had severely protruding nictitans membranes, atypical stomach content (sand, soil) and empty intestines. The liver was pale, had rounded edges and a soft, fragile texture. Samples from the brain tested positive for rabies. A week after this incident, two reindeer (*Rangifer tarandus platyrhynchus*) were found outside of Longyearbyen. One was lying on its side with opisthotonus and loss of consciousness. The other showed signs of paralysis of the hind legs. They were both euthanized, submitted to NVI, examined and found to be positive for rabies virus. In the end of September, samples from another polar fox found at Longyearbyen and three reindeer carcasses found close to the Polish Polar Station at Hornsund, about 120 kilometers south of Longyearbyen, also tested positive for rabies. Samples from several animals, both foxes and reindeer, are currently on their way from Svalbard to the diagnostic laboratory.

Reference:

MacDonald E, Handeland K, Blystad H, Bergsaker M, Fladberg M, Gjerset B, Nilsen O, Os H, Sandbu S, Stokke E, Vold L, Ørpetveit I, Gaup Åmot H, Tveiten O. Public health implications of an outbreak of rabies in arctic foxes and reindeer in the Svalbard archipelago, Norway, September 2011. *Euro Surveill.* 2011;16(40):pii=19985.

### Increased mortality of young harbor seals at Anholt in Denmark

Jakob Harslund ([jlfh@vet.dtu.dk](mailto:jlfh@vet.dtu.dk)), Marian Chriél, Trine H. Jensen, National Veterinary Institute, Denmark

Since the 27th of June increased mortality among young harbor seals has been observed in a colony of approximately 500 adult harbor seals (*Phoca vitulina*) on the island of Anholt in Denmark. Fifty-six seals were found dead the 27<sup>th</sup> of June, 61 seals the 28<sup>th</sup> of June (of which two animals were killed due difficulty breathing and severe emaciation, respectively), 6 seals the 29<sup>th</sup> of June and nine seals the 1<sup>st</sup> of July. The National Veterinary Institute in Aarhus has so far received 6 harbor seals for necropsy. The seals were found in varying nutritional condition and without significant pathological

changes. Several cadavers were characterized by progressive decomposition and only the two animals euthanized were in good condition. The bacteriological analysis revealed pure culture of the bacterium *Klebsiella pneumoniae subsp. pneumoniae* in the liver of seal that was killed due to breathing difficulties. Infection with this bacterium can cause pneumonia and blood poisoning and subsequently labored breathing and death. However, it is unclear whether this bacterial infection is the principal cause of deaths among the seals. The National Veterinary Institute is awaiting further laboratory results to get closer to an explanation.

No evidence of phocine distemper virus (PDV) could be detected in relevant tissue samples by PCR analysis. Phocine distemper virus caused extensive and devastating epizootic mortalities among harbor seals in 1988 and 2002. The laboratory will hopefully continue to receive animals for relevant analyses.

### Sea eagle found dead in Demark killed by carbofuran poisoning

Jakob Harslund

The number of sea eagles (white-tailed eagle, *Haliaeetus albicilla*) in Denmark has increased during the last several years from 17 breeding couples in 2007 to 37 breeding couples in 2010. In April 2011, a sea eagle was found dead lying dead beside a carcass on a dyke in a forest on the island Langeland in Denmark.

To establish the cause of death, the sea eagle was sent to the National Veterinary Institute in Aarhus for necropsy. The animal was found in good body condition and without remarkable macroscopic or histopathological changes. Consequently, the suspicion of poisoning was raised. The content in the proventriculus and stomach were abundant and contained fish bones and fragments of muscle, skin and bone tissue and part of a paw from a cat.

Toxicological analysis of stomach contents demonstrated the presence of carbofuran. Birds are extremely sensitive to carbofuran and die shortly after ingestion. Carbofuran is an insecticide that has been banned in the EU since 2008. It has not been possible to determine origin of carbofuran in the eagle.

### The national wildlife disease surveillance in Denmark move to Copenhagen

Anne Sofie Hammer ([ansh@vet.dtu.dk](mailto:ansh@vet.dtu.dk)), National Veterinary Institute, Denmark

The national passive wildlife disease surveillance in Denmark is moving from Eastern Jutland to Copenhagen October 2011. The passive wildlife disease surveillance program in Denmark has been running continuously for more than 70 years and is currently based at the Danish National Veterinary Institute, Danish Technical University.

# Student News

## Colorado State University Student Chapter



*Justin Lee*

The Colorado State University Student Chapter of the WDA is rockin! This is in large part due to the many wildlife health professionals in Fort Collins and the surrounding region that support our efforts and participate in our events. Now in our 3<sup>rd</sup> year, we continue to organize seminars, workshops, and fieldtrips focused on current wildlife health topics of local, national, and international relevance.

Our fall semester started off on a great note when 50 people including students, faculty, and local professionals gathered to hear Dr. Pieter Johnson (University of Colorado) describe his research on parasite induced amphibian deformities. Our Fall Seminar Series will also feature Dr. Andre Dhondt (Cornell University) on October 25<sup>th</sup>, and Dr. Kevin Castle (National Park Service) on November 15<sup>th</sup>.



Dr. Laurie Baeten instructs CSU WDA member Christy Wyckoff about diagnostic microbiology during the Wildlife Disease Outbreak Investigation Workshop we hosted in April 2011.

This spring we hosted a workshop where CSU faculty and veterinary residents trained CSU WDA members to conduct wildlife disease outbreak investigations. Topics covered in classroom and laboratory settings included disease ecology, sample collection strategies, diagnostic testing, and a 'choose your own adventure' style case investigation. Continuing with that theme, we held a one day wildlife immobilization and anesthesia workshop for CSU WDA members in October with Dr. Lisa Wolfe (Colorado Division of Wildlife). This workshop included classroom instruction, target practice with dart guns, and hands-on experience monitoring anesthetized animals.

We'd like to thank the WDA parent organization for continued support of our young but growing organization. For more information about the CSU Student Chapter of the WDA please visit our website [www.csuwda.colostate.edu](http://www.csuwda.colostate.edu).



CSU WDA members Britta Wood and Lindsay Bowker volunteering to repair damaged fences at the National Black Footed Ferret Conservation Center during a fieldtrip to the facility we hosted in June 2011.

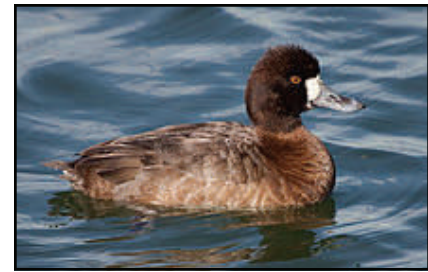
## Student Presentation Award Winners at the Wildlife Disease Association Annual Conference

*Emi Sato (photo by Ian Barker)*



Emi Sato presents the WDA Terry Amundsen student presentation award to Steven van Beurden (Utrecht U.), and Caroline Van Hemert (U. Alaska). Honorable mention went to Lisa Werden (U. Guelph).

Other award winners included poster winner Samantha Allen (U. Guelph) with Jesus Palomino (U. Saskatchewan) receiving honorable mention. The Graduate Research Recognition award went to Stacie Robinson (U. Wisconsin) and the Student Scholarship winner was Shamus Keeler (U. Georgia).



## Trematodiasis in lesser scaup (Minnesota)

In April 2011, Minnesota Department of Natural Resources (DNR) began surveying Lake Winnibogoshish for avian mortalities. Biologists observed lesser scaup that were unable to fly and had difficulty diving. Approximately 300 lesser scaup were found dead between April and May on the lake and several were submitted to the US Geological Survey's National Wildlife Health Center where trematodiasis, specifically *Sphaeridiotrema globulus* and *Cyathocotyle bushiensis*, was confirmed. This lake has a history of almost annual parasitism mortalities associated with exotic trematodes (*S. globulus*, *C. bushiensis*, *Leyogonimus polyoon*) since 2007.

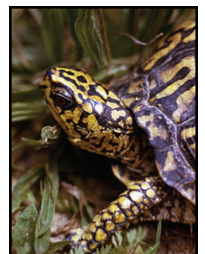
The lesions associated with these gastrointestinal parasites include mild to severe ulcerative hemorrhagic enteritis and caseous plaques and mortality is thought to be associated with blood loss and shock. Lesser scaup (*Aythya affinis*) and American coot (*Fulica americana*) have consistently been the two most affected species by this disease in the midwestern United States. Increased susceptibility of these species may be a result of their increased rate of exposure to the infective stage due to foraging preferences; these include feeding on mollusks and preferences for deep, open water habitats with emergent vegetation. Another factor in increased susceptibility may be due to dense populations of these species that use infected areas during spring and fall migrations.

## Field investigation at Poplar Island Environmental Restoration Site (Maryland)

Wildlife disease specialists and biologists from the US Geological Survey's National Wildlife Health Center, Maryland Department of Natural Resources, and the U.S. Fish & Wildlife Service teamed up to investigate double-crested cormorant mortality at a rookery site on Poplar Island in Talbot County, Maryland, in June 2011. During the summer 2010, virulent Newcastle disease (vND) and concurrent salmonellosis were detected in young of the year cormorants at this rookery resulting in the death of approximately 84 birds. While juvenile cormorant mortality had not yet exceeded that observed during the previous summer, baseline mortality for this population of 816 active nests was uncertain. Given the high density of domestic poultry in Maryland, resource managers wished to investigate the possibility of vND recurrence in this population. Fresh dead carcasses, as well as several 3-6 week old birds exhibiting lethargy, incoordination, and wing dragging were collected for diagnostic evaluation. In addition, serum and paired oropharyngeal and cloacal swabs were collected non-lethally from a subset of asymptomatic 4-6 week old juveniles for future analysis. No evidence of vND or closely related avian paramyxovirus-1 was detected in the affected birds. Aspergillosis was diagnosed in the cormorants found dead while no infectious diseases were identified among the clinically affected juveniles. Collaborative studies with USDA Wildlife Services and the Minnesota Department of Natural Resources have been initiated this summer (2011) to better understand vND disease ecology in double-crested cormorant populations.

## Ranavirus mortality among amphibians and chelonians in the Eastern U.S. (Connecticut, Maryland, Florida)

Ranavirus infections were responsible for mortality events involving several species of frogs and Eastern box turtles extending throughout the Atlantic states between April and June 2011. Ranavirus was previously confirmed in wood frogs and spotted salamanders in Connecticut during 2009, and various frog species in Florida during 2002 and 2006. Box turtle mortality due to ranavirus infection has occurred annually since 2008 in Montgomery County, Maryland, although the disease was first reported in amphibians elsewhere in the state in 2005. Larval and metamorph (tadpoles) stages of amphibians are most susceptible to infection by ranavirus. Ranavirus mortality often involves large numbers of individuals, which are found swimming erratically or floating upside-down in the water, and have reddened ventrums, hemorrhages, and skin ulceration. Clinical signs in box turtles include weakness, lethargy, oral plaques, swollen eyes, thick discharge from the mouth and/or nares, and difficulty breathing. It is thought that infected amphibians may serve as a potential reservoir for sympatric chelonians. Ranavirus infections, mostly involving amphibians, have been confirmed in 28 states nationwide since 1997. Maine, Rhode Island, Maryland, Idaho, and Wyoming account for over 40% of the reported ranavirus mortality events in the NWHC wildlife disease database.





# News from the Field

## Quarterly Wildlife Mortality Report

April 2011 to June 2011

State	Location	Dates <sup>a</sup>	Species	Mortality <sup>b</sup>	Diagnosis <sup>c</sup>	Labsite <sup>d</sup>
AK	Barrow	05/10/11-05/31/11	King Eider Common Eider	***	Open	NW
AK	Eastern Aleutian Islands	04/03/11-04/15/11	Common Murre	200	Undetermined	NW
AK	Kodiak Island	05/16/11-****	American Crow Black-billed Magpie Glaucous-winged Gull Unidentified Pigeon	9	Trauma	NW
AZ	Maricopa County	06/29/11-08/27/11	Mallard	12	Botulism Type C	NW
CA	Klamath NWR, Tule Lake NWR	04/10/11-04/15/11	California Gull Ring-billed Gull	13	Avian cholera	NW
CA	Sonny Bono Salton Sea NWR	05/15/11-07/21/11	Double-crested Cormorant	20 (e)	Viral Infection: Avian Paramyxovirus 1	NW
CA	Tule Lake NWR	05/12/11-05/13/11	Caspian Tern	12 (e)	Trauma: impact	NW
CT	New London County	06/14/11-06/24/11	Wood Frog	200 (e)	Viral Infection: Ranavirus	NW
DC	Lafayette Park	06/13/11-06/15/11	Mallard	5	Septicemia, Parasitism: coccidiosis	NW
FL	Gold Head Branch State Park	04/07/11-04/25/11	Southern Leopard Frog Bullfrog Gopher Frog	150 (e)	Viral Infection: Ranavirus	FL, SDZ, UFL
IA	Bremer County	06/01/11-07/20/11	Little Brown Bat Northern Long-eared Bat	40 (e)	Undetermined	NW
KY	Wayne County	05/18/11-05/18/11	Purple Martin	20 (e)	Trauma	SCW
LA	Allen County	05/03/11-05/17/11	Blue Jay Bird, unidentified	7 (e)	Undetermined	SCW
MA	Barnstable County, Suffolk County	05/11/11-06/20/11	Common Eider	16 (e)	Emaciation, Hepatic necrosis	NW
MD	Chesapeake Bay	05/03/11-05/07/11	Double-crested Cormorant	9	Drowning suspect	NW
MD	North Branch Stream Valley Park	05/03/11-ongoing	Eastern Box Turtle	9 (e)	Viral Infection: Ranavirus	NW
MD	Poplar Island	06/03/11-06/30/11	Double-crested Cormorant	107	Aspergillosis, undetermined	NW
ME	Oxford County	04/25/11-05/15/11	Little Brown Bat Unidentified Bat	5	Fungal Infection: white-nose syndrome	NW
MN	Lake Winnibigoshish	04/20/11-05/13/11	Lesser Scaup	300 (e)	Parasitism: <i>Sphaeridiotrema globulus</i> , <i>Cyathocotyle bushiensis</i>	NW
MS	Multiple Counties	04/15/11-05/24/11	Northern Cardinal Brown-headed Cowbird	20 (e)	Salmonellosis, salmonellosis suspect	NW
ND	Minot	05/14/11-05/16/11	Eared Grebe Ruddy Duck	5	Open	NW
ND	Riverdale	06/13/11-06/21/11	Fox Squirrel Little Brown Bat	7 (e)	Predation, gunshot	NW
OH	Licking County	05/20/11-06/03/11	Canada Goose	6 (e)	Trauma: gunshot	NW
OH	Athens County	06/15/11-06/29/11	European Starling American Robin Common Grackle	80 (e)	Open	NW
OH	Paulding	06/20/11-****	Little Brown Bat	27 (e)	Undetermined, emaciation	NW
OH	Union County	06/09/11-06/13/11	Little Brown Bat	8	Undetermined	NW
OR	Malheur NWR	05/23/11-06/01/11	Western Grebe Clark's Grebe	60 (e)	Open	NW
TN	Van Buren County	05/23/11-05/23/11	Purple Martin	5	Toxicosis: organophosphate, carbamate insecticide	SCW
VA	Newport News County	06/01/11-06/28/11	Evening Bat	10 (e)	Undetermined, emaciation	NW
VA	Fredericksburg	04/01/11-07/01/11	House Finch	10 (e)	Parasitism: trichomoniasis	NW
WA	Curlew Lake	05/15/11-05/15/11	Canada Goose	32 (e)	Trauma, Open	NW
WI	Door County	06/10/11-ongoing	Unidentified Gull	92	Botulism type E	NW

# News from the Field

State	County	Date	Species	Count	Notes	Agency
			Double-crested Cormorant			
			Ring-billed Gull			
			Herring Gull			
			American White Pelican			
WV	Lewis County	6/27/11-6/27/11	Big-Brown Bat	7	Undetermined	SCW
WV	Moorefield	6/23/11-06/23/11	Common Grackle	18 (e)	Undetermined	SCW
			European Starling			
<u>Updates/Corrections</u>						
CAN	Hants County	03/23/11-05/25/11	Little Brown Bat	7	Fungal Infection: white-nose syndrome	CCW
			Northern Long-eared Bat			
FL	Crescent Lake	03/24/11-04/19/11	Mallard	25 (e)	Undetermined	FL
			Muscovy Duck			
LA	Livingston County	03/16/11-03/23/11	Brown-headed Cowbird	5 (e)	Avian salmonellosis	SCW
MN	Chippewa Lake	07/01/10-08/31/10	Mudpuppy Salamander	1,000 (e)	Undetermined	NON
MN	Upper Mississippi River NWR	03/29/11-04/22/11	Lesser Scaup	5,850 (e)	Parasitism: <i>Sphaeridiotrema globulus</i> , <i>Cyathocotyle bushiensis</i>	NON
			Bufflehead			
			American Coot			
			Ring-necked Duck			
MT	Roundup	02/15/11-****	Mule Deer	***	Parasitism: Nematodiasis	MT
ONT	Nipissing District	03/31/11-05/15/11	Little Brown Bat	100 (e)	Fungal Infection: white-nose syndrome	CCW
PA	Tioga County	03/22/11-04/15/11	Eastern Small-footed Bat	25 (e)	Fungal Infection: white-nose syndrome	NW
			Northern Long-eared Bat			
			Eastern Pipistrelle (AKA Tricolored)			
			Little Brown Bat			
WI	Upper Mississippi NWR	03/29/11-04/22/11	Lesser Scaup	425 (e)	Parasitism: <i>Cyathocotyle bushiensis</i> , <i>Sphaeridiotrema globules</i>	NW
			American Coot			

<sup>a</sup>\*\*\*\* = cessation date not available.

<sup>b</sup>(e) = estimate, \*\*\* = mortality estimate not available.

<sup>c</sup>Suspect diagnosis = diagnosis is not finalized or completed tests were unable to confirm the diagnosis, but field signs and historic patterns indicate the disease.

<sup>d</sup>Canadian Cooperative Wildlife Health Centre (CCW), Florida Fish and Wildlife Conservation Commission (FL), Montana Fish, Wildlife and Parks Diagnostic Laboratory (MT), No diagnostics pursued (NON), USGS National Wildlife Health Center (NW), Southeastern Cooperative Wildlife Disease Study (SCW), San Diego Zoo (SDZ), University of Florida (UFL).

Written and compiled by the U.S. Geological Survey National Wildlife Health Center Field Investigations Team members: Anne Ballmann, LeAnn White, Barb Bodenstein, and Jennifer Bradsby.

To report mortality or receive information about this report, please contact the USGS National Wildlife Health Center (NWHC), 6006 Schroeder Road, Madison, WI 53711

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**For single animal mortality, nationwide, please contact:** Jennifer Bradsby, USGS National Wildlife Health Center Biologist by phone: (608) 270-2443, fax: (608)-270-2415, or email: [jbradsby@usgs.gov](mailto:jbradsby@usgs.gov)

The Quarterly Wildlife Mortality Report is available at <http://www.nwhc.usgs.gov>

To view new and ongoing wildlife mortality events nationwide visit [http://www.nwhc.usgs.gov/mortality\\_events/ongoing.jsp](http://www.nwhc.usgs.gov/mortality_events/ongoing.jsp)

# Training, Education, Employment

## Texas A & M University

### Assistant or Associate Professor of Ecosystem Health

The Department of Veterinary Pathobiology in the College of Veterinary Medicine & Biomedical Sciences at Texas A&M University, invites applications for an Assistant or Associate Professor in the field of Ecosystem Health. This is a 12-month, tenure-track, fully-funded Assistant/Associate Professor position with a 50% assignment to research, a 45% assignment to teaching, and a 5% assignment to academic service and administration. Detailed position information can be obtained from [/vtpb/employment-opportunities](http://vtpb/employment-opportunities). Please feel free to call or e-mail Dr. Linda Logan, department head at 979-845-5941 or [LLogan@cvm.tamu](mailto:LLogan@cvm.tamu)

## Lindsay Wildlife Museum

### Director of Veterinary Services & Research

Lindsay Wildlife Museum is seeking a director of veterinary services & research. The director of veterinary services & research will provide veterinary health/medical/surgical services to: maximize care for rehabilitating wildlife and animal encounter (live collection) animals, provide medical care for more than 5,000 wildlife rehabilitation cases annually and 110 captive native California wild animals that are used for educational programming, provide training for staff and volunteers to provide appropriate nursing care, work closely with directors of rehabilitation and animal encounters and manage the in house diagnostic laboratory and pharmacy. Please contact the executive director with questions at: Lindsay Wildlife Museum, 1931 First Avenue, Walnut Creek, CA 94597 or email: [lbehr@wildlife-museum.org](mailto:lbehr@wildlife-museum.org). See Lindsay Wildlife Museum's website at [www.wildlife-museum.org](http://www.wildlife-museum.org)

## Seattle Aquarium

### Veterinarian (half-time)

The Seattle Aquarium seeks a part-time veterinarian to provide and maintain a complete program of veterinary care for the aquarium. Position closes October 30, 2011 start date is December 15, 2011. Email PDF of cover letter/letter of interest and your resume to: [jobs@seattleaquarium.org](mailto:jobs@seattleaquarium.org) and either the contact information for or recommendation from three references.



## University of Guelph and the Toronto Zoo

### Residency/Doctor of Veterinary Science in Zoological Medicine and Pathology

A three year Residency/Doctor of Veterinary Science graduate degree program in Zoological Medicine and Pathology, commencing **September, 2012**, is offered jointly by the Department of Pathobiology, Ontario Veterinary College, University of Guelph and the Toronto Zoo. Applications due November 25, 2011. Further information on the program and detailed instructions for application are available on-line at <http://>

[www.ovc.uoguelph.ca/path/positions/DVScZoologicalMedicine.cfm](http://www.ovc.uoguelph.ca/path/positions/DVScZoologicalMedicine.cfm), or from - [dkangas@uoguelph.ca](mailto:dkangas@uoguelph.ca)

## Eko tracks

### South Africa—Study Abroad

Eko Tracks offers several exciting study abroad programs in veterinary science and wildlife conservation, internship in wildlife conservation and park management, volunteer opportunities in wildlife rehabilitation, a field expedition and eco tours in southern Africa. These are specifically designed for students, nature and outdoor lovers, adventurers and other interest groups. Read more about these exciting educational programs (itinerary, dates, prices etc.) on our website [www.ekotracks.com](http://www.ekotracks.com) and on Facebook [ekotracks](http://ekotracks).

## Wildlife Rehabilitation Center of Minnesota

### Wildlife Medicine Externship

WRCMN is a full-service emergency wildlife hospital that treats approximately 8500 injured, ill, and orphaned wild animals annually, representing 160 different species. With a year-round staff of 10, including 2 veterinarians and 3 veterinary technicians, WRC is the busiest and largest wild animal hospital in the nation. We are equipped with a surgery suite, ultrasound, endoscopy, radiology, and do most lab work in-house. Externs will spend 40-45 hours/week in the treatment room working alongside the veterinarians assisting with admission and physical exams of new patients, fracture immobilization, wound care, drug and fluid administration, radiographic interpretation, orthopedic and soft tissue surgery, hematology analysis, and physical therapy. Case load May-September is 50-100 new cases/day. October-April is 5-50 new cases/day. Externship length minimum is 2 weeks. Housing is not provided, but information regarding nearby extended stay hotels and university housing is provided. Summer positions fill up quickly, so apply early! Interested applicants should send a copy of their current CV and requested dates to Leslie Reed, DVM at [leslie@wrcmn.org](mailto:leslie@wrcmn.org). For more information about WRC, visit our website at: [www.wrcmn.org](http://www.wrcmn.org)

**Please see the WDA website for full descriptions of training and employment opportunities.**

**<http://www.wildlifedisease.org/opportunities.htm>**

# Meetings and Conferences

## Joint Wildlife Disease Association and European Wildlife Disease Association Meeting JULY 22-27, 2012, LYON, FRANCE

The 61st International Conference of the WDA and the 10th Biennial Conference of the EWDA will be jointly organized in Lyon (France) from Sunday, July 22nd through Friday, July 27th 2012. The main topic of the conference will be "Convergence in wildlife health". The organizing and scientific committees are aiming at gathering experts in wildlife health from a wide range of experiences and origins.

Featured topics:

- One Health
- Migration and Infectious Disease Risk
- How to Assess the Health Status of a Wild Animal Population
- Weighing Costs and Benefits of Wildlife Disease Control

Information is available at: <http://wda2012.vetagro-sup.fr/>. Keep in touch: register for the newsletter on the website. **PLEASE NOTE!** We have left Monday 23<sup>rd</sup> of July free for people who would like to organize workshops in conjunction with the WDA/EWDA conference. Please note that we will facilitate the organization of a workshop to the best of our ability, but do not have funding to support workshop costs. Workshop organizers are expected to take care of funding themselves. **People who are interested in organizing a workshop should send an email to chair of the scientific committee,**

**Thijs Kuiken**

**([t.kuiken@erasmusmc.nl](mailto:t.kuiken@erasmusmc.nl)).**

**Deadline : October 31<sup>st</sup> 2011.**



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Campus Vétérinaire de Lyon



# Meetings and Conferences

## The Wildlife Society, 18th Annual Conference, Waikoloa, Hawaii— 5-10 November 2011

Wildlife professionals from across North America will participate in one of the most significant wildlife conferences that TWS has ever assembled. As home to some of the greatest plant and animal biodiversity on the planet, Hawaii offers the perfect venue for the largest single gathering of wildlife professionals in North America. Perhaps more than any other state Hawaii spotlights the most pressing challenges that natural resource managers and conservationists face today—including the rapid spread of invasive species and the impacts of a changing climate. For information about the conference see <http://wildlifesociety.org/>



## The International Wildlife Rehabilitation Council Symposium, Fort Lauderdale, FL — 8-12 November 2011

This exciting learning and networking event offers professional wildlife rehabilitators, biology researchers, veterinarians, and students opportunities to:

- Attend educational seminars and professional peer-reviewed papers presented by veterinarians, wildlife rehabilitation professionals, and biological researchers from around the world.
- Sign-up for an intensive two-day workshop in Oiled Wildlife Rescue presented by the International Bird Rescue.
- Take the IWRC's professional course in Basic Wildlife Rehabilitation for 13 state-recognized credit hours. This course covers the basics of wildlife rehabilitation including a hands-on cadaver lab to learn essential rehabilitation techniques.
- Network and learn in informal settings (lunches, dinners, and cocktail hours) from wildlife care industry leaders worldwide.
- Take a guided field trip to the everglades and tour and meet the staff of the South Florida Wildlife Center.

We hope you will join us for a fun and educational Symposium in Fort Lauderdale! To sign up for the symposium or learn more about the International Wildlife Rehabilitation Council, visit our website at [www.theiwrc.org](http://www.theiwrc.org) or call 866-871-1869.

## 11th International Effects of Oil on Wildlife Conference

January 2012 New Orleans, Louisiana, USA

We are now accepting abstracts for papers and posters on topics related to the effects of oil on wildlife. The conference theme is "Global Impacts: Many Species, One Response". Suggested topics include: Government and Industry Concerns, Contingency Planning Field Response and Capture Methods, Wildlife Rehabilitation Techniques, Current and Future Research Legal Issues and Interests, Sea Turtles and Marine Mammals, Post Release Monitoring Environmental Impacts, and Priorities for Wildlife Effects of Non-Petroleum Spills. Abstracts for papers should be sent to [eow@tristatebird.org](mailto:eow@tristatebird.org) by 5 July 2011. Submissions will be reviewed and notification of acceptance will be made by 15 July 2011. Guidelines for abstract submission will be available at [www.eow2012.org](http://www.eow2012.org) after 15 May 2011. Registration information will be distributed in the near future. Please continue to check our website at [www.eow2012.org](http://www.eow2012.org) for updates. E-mail us at [eow@tristatebird.org](mailto:eow@tristatebird.org) or call us at +001 302.737.9804 x 113 with questions or suggestions.



## Conservation, Management, and Health of Aquatic, Aerial, and Terrestrial Wildlife—13-18 February 2012 University of Sydney, Australia

This intensive Short Course will focus on the ecology of disease, diagnosis of vectorborne diseases, human influences on wildlife disease, followed by a systematic review of the diseases of aerial, terrestrial and aquatic wildlife. Additional practical workshops are planned on necropsy and laboratory skills, wildlife health risk assessment, and information management and mapping. The course is open to anyone with an interest in wildlife disease, including pathologists, veterinarians, conservation biologists, veterinary students and postgraduate students.

Confirmed speakers include internationally renowned wildlife pathologists: Drs Scott Fitzgerald, Gary Wobeser, Ian Barker, Richard Jakobhoff, Judy St. Leger and Leellen Solter along with many highly respected local speakers.

This course is coordinated by The Australian Registry of Wildlife Health in collaboration with the Cybec Corporation, the University of Sydney and the C. L. Davis Foundation, and supported by the Wildlife Disease Association – Australasia and SeaWorld USA.

For more information contact: [arwh@zoo.nsw.gov.au](mailto:arwh@zoo.nsw.gov.au), Phone (02) 9978 4749. The course program and registration forms will be available shortly to download from this website: <http://www.arwh.org/publications>