Bob Hines, USFWS

WDA Updates

2012 JWD fundraising effort successful!

Tom Yuill, New Funds and Endowment Committee and Anne Fairbrother, JWD Endowment Subcommittee

We did it! We reached the goal for the first step of building the endowment for the Journal of Wildlife Diseases. Our goal for 2012 was raising $25,000 to match the USDA $25,000 contribution. The WDA leadership group -- officers, Council members and committee chairs -- came through with $12,500. We then came to the membership to raise the remaining $12,500. We are pleased to announce that the general membership met that goal. Council has now added $36,000 from WDA's investment income to the JWD endowment for a total of $86,000 in our first year's effort.

We are pleased not only with the success of this first step, but with what this support means as a tangible endorsement of the effort to assure the continued open access of the JWD for colleagues in developing countries and, ultimately, to all WDA members while keeping annual dues low. This show of support from the leadership and members of the WDA will provide a solid foundation for our efforts in 2013 to seek outside funding to continue to build the JWD endowment.

We encourage continued support from the membership. One way to provide that support from our members in the US is by giving appreciated equities. Stocks that have appreciated that are given to the WDA will provide a tax deduction equal to the value of the stock at time of the gift and avoidance of capital gains taxes. Contact Dave Jessup, the WDA Executive Manager, about how to do that. All gifts to the WDA are US tax deductable because the WDA is classified by the IRS as a 501(C) 3 non-profit scientific and educational organization.

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NEWS ON ARTICLES FROM JOURNAL OF WILDLIFE DISEASES 49(1)

The health of wildlife, domestic species and human beings, and the environments that support them (One Health), has been a focus of the Wildlife Disease Association for more than 50 years. The January 2013 issue 49(1) of Journal of Wildlife Diseases has several articles with significant conservation and wildlife management interest of which we would like to make you aware.

Illustration: John Muir Laws

Goldfinches as 'Typhiod Mary" ? Based on results of a series of experimental exposures, Andre Dohnt and a team from Cornell University answer the question Can American Goldfinches Function as Reservoirs for Mycoplasma gallisepticum? with a clear 'yes'.

Chytrid Disease of Frogs May Drive Slow Declines: Ana Longo and a team mostly from Cornell University followed a population of coqui frogs in Puerto Rico for 10 yr. They show that, in the cool dry season there may be Lability in Host Defenses: Terrestrial Frogs Die from Chytridiomycosis under Enzootic Conditions.

Several other interesting articles can be found in JWD 49(1): Lynx and Toxoplasmosis, Tamiflu and AI Shedding, The $64,000 Question, and Hoppy has Herpes.

For access to the full articles see Journal of Wildlife Diseases 49(1) or contact the wda.manager@gmail.com

Summary of the Joint WDA EWDA conference, Lyon (France) 22-27 July 2012

Local organizing committee: Marc Artois, Philippe Berny, Emmanuelle Gilot and Karin Lemberger.

France is renowned for several things: good food, good wine, great architecture and a fantastic variety of breathtaking landscapes. As France's second largest city, Lyon boasts it all, but could it host the largest and most international WDA conference ever? The answer is yes! **534 people from 57 different countries converged on Lyon** for a week of fruitful exchanges on advances in wildlife health across the globe. The attendees represented 25 European countries, 11 Asian countries, 10 North and South American countries, 9 African countries, and 2 countries from the Oceana. France and USA had the most representatives, followed by the UK, Spain, Canada and Germany.

The conference began with a full day of **workshops**. Two hundred and sixty two participants attended eight workshops. These ranged from large group exchanges such as Wildtech, Vaccination in Wildlife, and a French workshop on Biodiversity and Animal Health; to smaller discussion forums on Amphibian chytridomyocisis, White nose syndrome in bats, the ACZM ultrashort course, and a special necropsy workshop for students.

The **main portion of the conference** took place in downtown Lyon, at the Ecole Nor-

male Supérieure. Close to five hundred scientific papers were submitted, allowing for a very rich range of topics, including 76 oral presentations and 306 posters. The introductory topic of “One Health” was opened by a captivating keynote lecture by Aaron Berstein, MD, PhD who demonstrated the strong links between all live beings. This was reiterated in the three Zoonotic Diseases sessions which included talks on tularaemia, trypanosomiasis, Simian borne diseases, and West Nile Virus. Chytridiomycosis was a strong theme in other sessions.

Marc Cattet gave the keynote speech for the Population Health Assessment **session**, describing the interplay between environment, stress, health, and population performance in Alberta grizzly bears.

The Migration sessions were introduced by a popular talk by Sonia Altizer on “Animal Migration and Infectious disease risk.”

The Terry Amundson student competition session was, as always, a huge hit among students and mentors. A full day was dedicated to oral and poster presentations by students.

The last day of presentations was on Disease Control, with a keynote by Dez Delahay on “Costs and benefits of wildlife disease control.”

The final sessions were: Pathogenesis, Pathogen discovery and Disease Emergence, and Translocation and Reintroduction, with a closing keynote lecture on “Effects of multiple pollutants on a single host” by Philippe Berny.

Students were extremely well represented at the conference, totaling 36% (185) of the participants. The weekend prior to the conference, 50 students travelled to the nearby mountain area of Bauges to participate in the net capture of Chamois. This opportunity was led by instructors from the Regional Office of Hunting and Wildlife (ONCFS).

The **social program** was a central focus of the meeting. Both the icebreaker and the banquet were hosted in two of the cities most prestigious buildings. This was possible thanks to a partnership with the city and regional officials.

The mid-congress **excursion** took most conference goers to the bird park in the Dombes region, where people wandered among the varied exhibits and saw a bird flight show and a scientific interlude by Eric Bureau, the park’s scientific director.

The WDA **auction** raised approximately 6,400 euros (8000 US dollars) for student activities, to be split equally between the EWDA and WDA.

At the closing **banquet**, winners of the Research Recognition Travel Award (Karoun

Bagamian, Emory University, USA), WDA Scholarship (Barbara Shock, University of Georgia, USA) Terry Amundson Presentation Award (Heather Bryan, University of Calgary), and Student Poster Award (Janie Steele, Royal Veterinary College) were announced.

The Ed Addison Distinguished Service Award was conferred on Ian Beveridge, University of Melbourne, and Margo Pybus, University of Alberta.

The Tom Thorne and Beth Williams Memorial Award was given to Ian Barker, University of Guelph, Ontario, Canada.

A special plaque was given to Marc Artois in recognition of his devotion to the association and this conference in particular.

The Duck Award was the pièce de resistance with a spectacular imitation of Marc's French-tainted English by last year's recipient, Ted Leighton. Ted passed on the Duck Award to Christian Gortazar for arriving late and eating cinnamon-truffle wild boar bait biscuits at the Auction, which he claimed were aphrodisiacs.

After a whirlwind week of fun and intellectual stimulation, the organizing committee blushed from the numerous congratulations and compliments of this conference, and where both pleased and relieved to have pulled off such a big task without any major hurdles (minus the few snaffoos with the vegetarian menus, but alas, this is France!)

We would like to thank our local host, Vet Agro Sup, all the other partners and generous sponsors, and all our volunteers whose help and support were essential in the huge success of this conference!

We thank all of the speakers, poster presenters and workshop facilitators for their excellent, informative presentations and contributions. Some speakers have generously made their presentations available online at http://wda2012.vetagro-sup.fr/?q=content/presentations.

Numerous **pictures** were taken during the conference and are available for download shortly. Check the conference website for updates. http://wda2012.vetagro-sup.fr/?q=content/photos

Merci et à bientôt in Knoxville!

Remembering Robert Rausch - 1921-2012

Eric Hoburg

Robert Rausch, 2004, at GELAN (Helminthological Laboratory, Russian Academy of Science), Moscow. (Photo-Dr. Kirill Galaktionov).

Robert L. Rausch was born in Marion, Ohio on 20 July 1921 and passed away at his home on Bainbridge Island, Washington on 6 October 2012. In his 91 years, Robert Rausch was a student in the broadest sense of field biology, a preeminent parasitologist and mammalogist, a generous mentor, and a valued colleague and a friend of those who were fortunate to have known him. His science touched the lives of many, contributing directly to our understanding of pathogens and diseases of wildlife and people, ultimately defining the interfaces for humans and the biosphere.

Robert Rausch was educated at Ohio State University, receiving a BA in zoology and entomology in 1942 and a DVM in 1945. An MSc followed at the Michigan State University in 1946, and PhD at the University of Wisconsin in 1949, both focusing on parasitology and wildlife management. His arrival in Alaska in late1948 followed the establishment of the Arctic Health Research Center (AHRC) of the US Public Health Service. He had a mandate to investigate zoonotic diseases and related health problems of the indigenous peoples of Alaska at a time of considerable cultural transformation across northern communities. There was limited knowledge and understanding of what we now call pathogen biodiversity, and he was immediately immersed in field studies that took him first to Barrow and St Lawrence Island and later into the heart of the Brooks Range. Thus began a unique and life-long path of exploration across starkly beautiful and deceptively complex northern ecosystems by a true pioneer in parasitology whose name is now intimately linked to the far northern environments of Alaska and eastern Siberia.

Over a career spanning 60 years, Robert Rausch was at the forefront of research on systematics, taxonomy, biogeography, epidemiology and pathology of helminth parasites among vertebrate hosts. Dr. Rausch always emphasized what we now regard as an interdisciplinary approach incorporating often disparate observations about place, hosts, and parasites into an expansive view of the biosphere. The result has been an extraordinarily detailed picture of biodiversity and the myriad factors involved as determinants of biotic structure. Parasitology as an integrative discipline is the core message and lesson which continues to emerge from diverse studies by Robert Rausch, who was one of the most perceptive observers of natural history to have graced our science.

In papers numbering over 300, Robert Rausch developed important insights about the systematics, taxonomy, and diagnostics of cyclophyllidean tapeworms (e.g., *Taenia*,

Echinococcus and *Paranoplocephala*), the diphyllobothriids and such nematodes as *Trichinella*. In the spirit of his integrative field biology, there were equally significant taxonomic, biogeographic and ecological studies of mammals, particularly shrews, rodents and carnivores, all representing critical components of broader host-parasite assemblages. Classic and seminal observations abound among the contributions designated under the series *Studies on the Helminth Fauna of Alaska* which resulted from extensive faunal surveys designed to document diversity. Characterized by meticulous methods and by great innovation and considerable depth, these studies articulated and explored important hypotheses designed to reveal a complex web of parasitism emphasizing the interface for people, other mammalian hosts and our environment.

Considering taeniids, his studies had a substantial impact on our understanding of *Echinococcus* and hydatid disease throughout the world. Robert Rausch and colleagues were central in defining the ecological context for transmission of *E. multilocularis* and distribution of alveolar hydatid disease in northern communities. Prior to the definitive studies by Robert Rausch and Everett Schiller in 1951, there was no consensus about the independence of *E. multilocularis* and *E. granulosus*. These studies established the modern foundations for exploring diversity within this important group of zoonotic taeniids. Further, effective measures for control emerged from investigations which were initiated in early 1949 primarily due to the focal nature of zoonotic *E. multilocularis* that he and his research team at the AHRC had identified on St. Lawrence Island and adjacent areas of the north slope of Arctic Alaska. Concurrently, concerns over the occurrence and transmission of *Trichinella* nematodes occupied a central theme in projects linked to public health. The latter culminated in a 2008 paper defining the ecological conditions of transmission for *Trichinella* among marine mammals and the role of accelerated climate change as a determinant of changing patterns of infection and potential for human exposure to this zoonotic helminth. Among many examples across terrestrial and aquatic environments, this paper exemplifies the considerable scope and depth of ecological knowledge that Robert Rausch brought to all

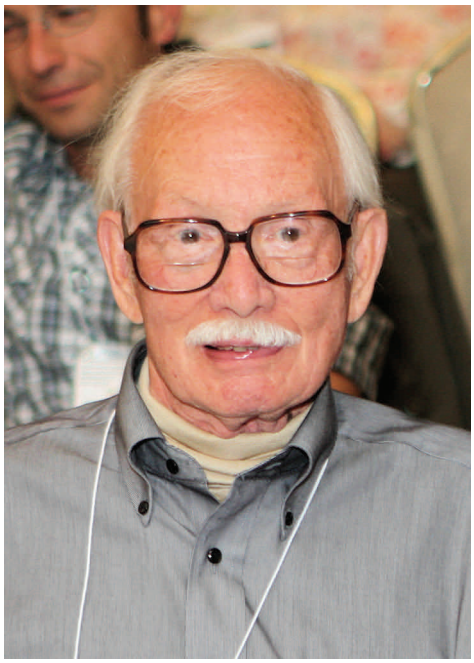
Robert Rausch in the Brooks Range, Alaska in 1949 with George llano (left) during fish collections. (Photo- Archives, University of Alaska Museum).

facets of his research.

A career path for Robert Rausch took him from his first official position as Senior Assistant Scientist in the Public Health Service, Anchorage, in the Territory of Alaska to become Chief of the Infectious Disease Section at the AHRC in Fairbanks (1967-1974). Along the way were academic posts at the University of Alaska (1967-1975), Western College of Veterinary Medicine, University of Saskatchewan (1975-1978) and in the Departments of Pathobiology and Comparative Medicine, University of Washington (1978-2012) where he most recently held an appointment as Professor Emeritus. He served in an advisory capacity to numerous national and international committees for the WHO, NSF, and NAS addressing issues related to public health, zoonotic diseases and polar biology. Dr. Rausch participated on the Council for the WDA and was the President for the American Society of Parasitologists (1984). Among his numerous honors are the Henry Baldwin Ward Medal and Eminent Parasitologist for the ASP, the Meritorious Service Medal bestowed by the US Public Health Service, the K.F. Meyer Award from the American Veterinary Epidemiology Association, and the Distinguished Service Awards from the WDA and the ASP. Robert Rausch was the first recipient of the Arctic Science Prize (1984) established to honor those who have made critical contributions to northern biology.

Robert L. Rausch was a pioneer in every sense and has become an integral part of the history and landscape of Alaska and the north. Lasting friendships were established with the villagers at Anaktuvuk Pass in the central Brooks Range and on the remote shores of St. Lawrence Island in the northern Bering Sea. He was often accompanied on these journeys by Virginia Rausch his wife of 61 years who was his partner in science and through life. Explorations took Robert and Virginia across many varied corners of the planet including Siberia, Mongolia, China, Japan and South America where research and teaching were the mechanisms for important cultural and intellectual exchange. Through his distinguished career, Robert Rausch, a man of great integrity and principles, served in his lifetime as a singular ambassador for parasitology in a broad international arena.

Robert at the WDA Auction in Semiahmoo, WA in August 2009 . Photo: Ian Barker



NEW – WDA Photo Contest to be held at 2013 Annual Conference

Lisa Shender

The Student Activities Committee (SAC) is organizing the first-ever **WDA photo contest**, which will be held at the upcoming annual conference in Knoxville, Tennessee. Yes, there will be prizes!! Full details will soon be available on the WDA website.

Members can either sign up early for the photo contest via the conference registration form (preferred method), or register late on-site at the conference. There will be a discounted entry fee for pre-registered contestants, as well as for the submission of multiple photos (three photos maximum). There are two photo categories: 1) All Wildlife (warm and cold-blooded; captive and free-ranging; stills and action), and 2) Landscapes/Flora.

Members will need to bring a hard-copy of their photos to the conference for display (details on photo size, matting, etc., will be forthcoming). The photos will be scored by a panel of judges as well as receive a "popular-vote" by conference attendees. Members will also have the option of donating their photos to the silent auction, where proceeds will go towards the SAC fundraising efforts.

Winners will be announced at the banquet. Did we mention that there will be prizes? Start thinking now about your best photos and which ones you plan to submit to the contest. If you don't have any great photos, get out and take some soon!

Call for Nominations for the Emeritus Award and the Addison Distinguished Service Award

Dave Edmunds

The WDA awards committee is seeking nominations for the Addison Distinguished Service Award and the Emeritus Award. This is your opportunity to help us provide recognition to deserving WDA members. Below is some information about these two awards; a list of past recipients can be found at (http://www.wildlifedisease.org). Just click on the "About Us" tab and look under "Awards and Recognition."

Please take a few minutes from you busy schedule to consider potential nominees for these very important awards.

The **Ed Addison Distinguished Service Award** (DSA) is the highest award of the WDA. The purpose of the DSA is to honor a WDA member of long standing who, by his/her outstanding accomplishments in research, teaching, and other activities, including participation in WDA affairs, has made a noteworthy contribution furthering the aims of the WDA.

The **Emeritus Award** confers Emeritus status, an honorary category of membership, to members of the WDA who have retired from their profession and who, in the opinion of Council, have contributed significantly to the study of wildlife diseases. Emeritus Award recipients will be considered full voting members who receive the Journal of

Wildlife Diseases without further payment of dues.

Nominations, including a CV, should be sent to:

Dave Edmunds (Edmunds@uwyo.edu) or any awards committee member by

MARCH 15, 2013.

The other awards committee members include:

Ted Leighton (ted.leighton@usask.ca), Lee Skerratt (lee.skerratt@jcu.edu.au), Gerardo Suzan (Gerardosuz@gmail.com), Christy Wyckoff (acwyckoff@gmail.com), Becki Lawson (Becki.Lawson@ioz.ac.uk), Marci Uhart (muhart@wcs.org) and Ed Addison (ecolink@rogers.com).

The Scientific Task Force on Wildlife and Ecosystem Health

Lindsey McCrickard

One Health is a concept described by Dr. Calvin Schwabe in the 20th century as the idea that human, livestock, wildlife, and the environment are all highly interconnected. The health of each system intimately affects all of the others. While it has become clear that the emergence of pathogens is highly complex in nature, it can often be traced back to ecosystem changes associated with an expanding human population, food insecurity and unsustainable use of natural resources resulting in biodiversity loss and changes to ecosystem functioning. Repeatedly over the past few years, we have seen the emergence of a wide variety of new diseases, many of which with a source in wildlife populations. Diseases like Nipah virus, affecting humans and pigs with a reservoir in bats, and highly pathogenic avian influenza, causing mass mortality in wild birds, domestic poultry, and humans, illustrate the need for an adjustment in the way that we address disease control to incorporate a more holistic approach. This type of multidisciplinary approach will allow improved interventions and lead to a better understanding of the disease ecology of these emerging pathogens.

Building on the successes of previous partnerships between the United Nations Environment Program: Convention on Migratory Species (UNEP-CMS) and the Food and Agriculture Organization of the United Nations (FAO), the two organizations launched the Scientific Task Force on Wildlife and Ecosystem Health in Beijing, PRC in June 2011 with the major objective of identifying diseases that have a negative impact on both domestic and migratory wildlife, and are of greatest concern with regard to food security, sustainable livelihoods, and biodiversity conservation. Additional priority areas identified in the launching meeting include migration ecology and disease emergence, the use of wild meat, wildlife farming, and interactions at the human-wildlife-livestock-ecosystem interface.

The Task Force has made a significant contribution to the field of wildlife and ecosys-

tem health since the launching in 2011, including the publication of multiple technical documents, launching an online website, maintenance of a Facebook page highlighting newsworthy events daily, and presentations at multiple international conferences. In addition to technical support work, the Task Force was also able to send facilitators to aid in the implementation of the Wildlife Investigation in Livestock Disease and Public Health: an Introductory Course to One Health, a training program in Bangladesh (September 2012) and Burundi (November 2012) led by FAO and AU-IBAR respectively. These two week training courses introduce participants to One Health issues and encourage cross-sectoral collaboration in order to improve outbreak response and disease control.

The Task Force is looking forward to continuing to work for improved wildlife and ecosystem health through integrative approaches in 2013. The second meeting of the Scientific Task Force on Wildlife and Ecosystem Health is scheduled in conjunction with the Prince Mahidol Awards Conference (PMAC) in Bangkok, Thailand on 29 January 2013. The PMAC is an annual conference organized by the Royal Thai Government. This year's theme is "A World United Against Infectious Disease: Cross Sectoral Solutions." Additionally at this meeting the Task Force will facilitate a meeting of the major multilateral environmental agreements to discuss each group's work in the area of health and identify key areas for collaboration and increased communication. The Task Force will use this meeting time to create a work-plan for the 2013-2014 biennium and identify additional key partners who will bring the Task Force to new heights in 2013. If you are interested in getting involved, please refer to our contact information below.

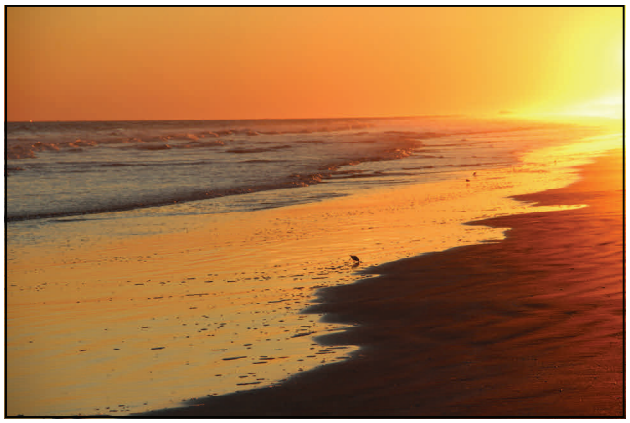
Contact:

Website:

http://www.wildlifeandecosystemhealth.org

Email:
wildlifeandecosystemhealth@gmail.com,
lindsey.mccrickard@fao.org
Facebook:

Scientific Task Force on Wildlife and Ecosystem Health



Images: Samantha Gibbs

The 2013 WDA Joint Conference will be in Knoxville, Tennessee (July 27-August 2, 2013)!

The Wildlife Disease Association (WDA) annually offers four student awards. Students are encouraged to compete for the following awards:

1. **WDA Graduate Student Research Recognition Award:**

   This award is given to the student judged to have the best research project in the field of wildlife health or disease. The winner receives up to $5,000 US to cover travel, housing, registration, and similar expenses related to the conference. The student will be the keynote speaker during the student presentation session at the conference.

2. **WDA Graduate Student Scholarship Award:**

   This award acknowledges outstanding academic and research accomplishment, productivity, and future potential in pursuit of new knowledge in wildlife disease or health. The scholarship has a value of $2,000 US.

3. **WDA Terry Amundson Student Presentation Award:**

   This award acknowledges outstanding oral presentation of research findings at the annual WDA conference. The winner receives $250 US.

4. **WDA Student Poster Award:**

   This award goes to the best student poster detailing a wildlife disease or wildlife health research project presented at the annual WDA conference. The winner receives $250 US.

Applicants for the WDA awards must be student members of the WDA at the time applications or abstracts are received. Information about WDA student membership can be found at: https://timssnet2.allenpress.com/ECOMWDAS/timssnet/memberships/tnt_membership.cfm.

Applicants for the **WDA Graduate Student Research Recognition Award** and **WDA Graduate Student Scholarship Award** must be pursuing an advanced (graduate) degree at the time of application. All four **WDA** awards are non-renewable, and each award may be received only once by a given candidate. Please direct inquiries to:

Dr. Emi K. Saito, Chair

WDA Student Awards Committee

Emi.K.Saito@aphis.usda.gov

APPLICATION INSTRUCTIONS:

1. Wildlife Disease Association Graduate Student Research Recognition Award

DEADLINE: Applications must be ***received electronically*** **no later than Friday, March 1, 2013.**

This award is given to the student judged to have the best research project in the field of wildlife health/disease, based on written communication and scientific achievement. The winner receives a plaque and up to $5,000 US to cover travel, housing, registration, and similar expenses related to the annual WDA conference. The student will be the keynote speaker during the student presentation session at the conference.

For consideration, applicants must electronically submit their application (formatted in PDF or MS Word files) **as an e-mail attachment** to the Dr. Emi K. Saito at Emi.K.Saito@aphis.usda.gov. The application should include the following documents:

1. A summary of their research structured as follows: *Title, abstract, introduction, materials and methods, results, discussion, references, tables,* and *figures*. The abstract, introduction, materials and methods, results, and discussion must be **limited to 10 double-spaced pages with a typeface of font 10 or larger and 1 inch margins**. The title page should be separate.
2. A cover letter, written by the applicant, stating how the research relates to the WDA mission. The mission statement is available inside the back cover of the Journal of Wildlife Diseases or on the WDA website (http://www.wildlifedisease.org/index.shtml).
3. One letter of support from the faculty advisor indicating degree of student involvement in planning and execution of the research project.

Grounds for disqualification include:

- Items missing.
- Submissions received beyond the deadline date.
- Failure to secure status as a student member of the WDA at the time of application.
- Absence from a graduate degree program at the time of application.

2. Wildlife Disease Association Graduate Student Scholarship

DEADLINE: Applications must be ***received electronically*** **no later than Friday, March 1, 2013.**

This award acknowledges outstanding academic and research accomplishment, productivity, and future potential in pursuit of new knowledge in wildlife disease or health. The scholarship has a value of $2,000 US and is awarded annually to an outstanding student pursuing Master's or doctoral degrees specializing in wildlife disease research.

To be considered, the candidate must have completed a four-year baccalaureate degree. Candidates with an overall grade point average of 3.5 or above in 4.0 systems or 80% or better in percentile systems will receive priority. **Students not scored on the 4.0 grade point system MUST include an official explanation of the grade point or grade score system used at their institution and *preferably* provide a conversion to a 4.0 or percentile grade point average**. The candidate should be committed to leadership, scholarship, and service in the wildlife health profession.

To be considered, applicants must electronically submit one copy of the following documents (formatted as PDF or MS Word files) **as an e-mail attachment**. Documents should be submitted as an e-mail attachment to the chair of the student awards committee, Dr. Emi K. Saito at Emi.K.Saito@aphis.usda.gov:

1. All collegiate transcripts. Official transcripts (i.e., with the imprint or official seal of the institution and signature of the responsible university officer) or copies signed by the student's faculty advisor are acceptable.
2. Up to two letters of support, including a letter from the student's faculty advisor, that **directly** address the following specific abilities of the applicant: *academic achievement*, *scholarly promise*, *research ability*, *oral and written communications skills*, *industriousness*, *leadership abilities*, *judgment, and potential for contribution to the field of wildlife diseases*. Additional letters (> 2) will not be read or evaluated, and letters not directly addressing the above qualities will not score well.
3. A curriculum vitae demonstrating evidence of superior scholastic achievement and productivity (specifically list and describe coursework and all scholarships, awards, publications, and presentations).

Grounds for disqualification include:

- Items missing.

- Submissions received beyond the deadline date.
- Failure to secure status as a student member of the WDA at the time of application.
- Absence from a graduate degree program at the time of application.

3. Wildlife Disease Association Terry Amundson Student Presentation Award

DEADLINE: **Monday, April 1, 2013.**

This award acknowledges outstanding oral presentation of research findings at the annual WDA conference. The winner receives $250 US and a plaque. To be considered, the student must give an oral presentation on their research project to the WDA conference audience in the student presentation session.

To be considered for the award students must **submit an abstract clearly indicating the submission as a student award submission via the on-line abstract submission form** on the conference website (http://fwf.ag.utk.edu/WDA2013/).

- Under the menu item *Preferred Type of Presentation*, select *Presentation*.
- Under *Student Presentation*, check *Yes*.
- If, as a student, you prefer not to be in the competition, select *No* for *Student Presentation*. ** Please note: If you indicate that you wish your abstract to be considered for competition and it is not selected for competition, your abstract will not be considered for presentation for the general sessions.
- The abstract should follow the general guidelines in the “Call for Abstracts/Papers.”

Abstracts may be scored on a competitive basis to determine which will be chosen for the conference and for consideration for this award.

Abstracts describing completed research projects with conclusions based upon the data generated are more likely to be selected. Candidates will be scored on the following criteria:

- Quality, innovation, and impact of science
- Quality of visual aids
- Delivery and style
- Relevance to management of wildlife/ecosystem health

4. Wildlife Disease Association Student Poster Award

DEADLINE: **Monday, April 1, 2013**.

This award goes to the best student poster detailing a wildlife disease or wildlife health research project presented at the annual WDA conference. The winner receives $250 US and a plaque.

To be considered for the award students must **submit an abstract clearly indicating the submission as a student award submission via the on-line abstract submission form** on the conference website (http://fwf.ag.utk.edu/WDA2013/).

- Under the menu item *Preferred Type of Presentation*, select *Presentation*.
- Under *Student Presentation*, check *Yes*.
- If, as a student, you prefer not to be in the competition, select *No* for *Student Presentation*. ** Please note: If you indicate that you wish your abstract to be considered for competition and it is not selected for competition, your abstract will not be considered for presentation for the general sessions.
- The abstract should follow the general guidelines in the “Call for Abstracts/Papers.”

Abstracts may be scored on a competitive basis to determine which will be chosen for the conference and for consideration for this award.

Candidates will be scored on the following criteria:

- Quality, innovation, and impact of science
- Organization and layout of poster
- Quality and style of text, figures, and images
- Relevance to management of wildlife/ecosystem health

USGS National Wildlife Health Center Quarterly Mortality Report – July 2012 to September 2012

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 Buckner

Pigeon Paramyxovirus in Eurasian Collared Doves (Arizona, Texas, Nevada)
USGS NWHC in partnership with Arizona Division of Wildlife, Texas Parks and Wildlife Department, US Fish and Wildlife Service Las Vegas Field Office, and the Nevada Department of Wildlife investigated five Eurasian collared dove (*Streptopelia decaocto*) mortality events in Arizona, Texas and Nevada during late summer through the fall of 2012. Pigeon paramyxovirus

Image: Stephen Parsons

was identified as the primary cause of death in these five events and ranged in size from ~100 to 2300 birds. In addition, two rock dove (*Columba livia*) mortality events attributed to PPMV involving ~50 birds, each in Pennsylvania, were investigated earlier (January-March) in 2012.

Pigeon paramyxovirus belongs to a larger group of avian paramyxovirus serogroup 1 viruses (APMV-1), the same group as Newcastle Disease Virus (NDV). Seventeen dove mortality events have been investigated by or reported to NWHC over the past 11 years in which PPMV is suspected. The first events occurred in 2001 when large-scale Eurasian collared dove mortality events (3000-5000 birds) were investigated by the University of Florida and Florida Fish and Wildlife Conservation Commission on the west coast and panhandle of Florida. Since then, APMV associated mortality events in doves have been documented in Florida (2008), Arizona (2008-2012), Montana (2010), and most recently, Texas, Pennsylvania, and Nevada (2012).

For further information on PPMV in Eurasian collared doves:
Schuler, K.; Green, D.; Justice-Allen A., Jaffe, R.; Cunningham, M.; Thomas, N.; Spalding, M.; Ip, H. (2012) Expansion of an Exotic Species and Concomitant Disease Outbreaks: Pigeon Paramyxovirus in Free-Ranging Eurasian Collared Doves. EcoHealth 9, 163–170.

Newcastle Disease Virus in Double-crested cormorants in the Midwest (Minnesota, North Dakota, South Dakota)
During the summer of 2012, USGS-NWHC, in partnership Minnesota Department of Natural Resources (MNDNR), Minnesota Veterinary Diagnostic Lab, National Park

Service-Voyageurs National Park, Leech Lake Band of Ojibwe, and Canadian Cooperative Wildlife Health Centre, investigated thirteen Newcastle Disease virus (NDV) mortality events in double-crested cormorants (*Phalacrocorax auritus*). There were 11 confirmed positive NDV mortality events in double-crested cormorants in the Midwest (Minnesota, North Dakota, and South Dakota) and at least two in Canada (Saskatchewan and Ontario). An estimated 750 cormorants died from NDV in the Midwest in 2012. The mortality events in the Midwest varied in size from about 15 cormorants affected at a site in Codington County, SD to about 400 cormorants affected at a site in Meeker County, Minnesota. The majority of the mortality events took place in MN.

NDV is a member of the avian paramyxovirus-1 serogroup, and strains classified as virulent NDV have the potential to cause disease in poultry. Because of the potential for NDV to affect poultry, the MNDNR in cooperation with United States Department of Agriculture-Minnesota Wildlife Services performed intensive clean-up efforts of carcasses at several of the sites in Minnesota and closed several of the islands to human traffic to prevent accidental spread of the virus. As is typical during NDV mortality events in cormorants, mortality was observed in other co-nesting species such as American white pelicans and ring-billed gulls at several of the NDV sites in 2012, but when carcasses of these species were examined, they were found to have other causes of death, including West Nile Virus and botulism Type C.

Rabid Wolverine in Alaska

Adapted from report written by Dr. Kimberlee Beckmen, AK Dept of Fish and Game

The first recorded case of rabies in a wolverine (Gulo gulo) in North America was diagnosed this summer by Alaska Department of Fish and Game Division of Wildlife Conservation (ADFG DWC) Wildlife Veterinarian Dr. Kimberlee Beckmen.

Image: Steve Kroschel FWS

The wolverine was found dead in June 2012 by ADFG wildlife biologists while flying a helicopter northwest of Umiat on the North Slope of Alaska. The frozen carcass was completely intact, with no scavenging or visible signs of trauma, so it was flown to Fairbanks for necropsy. The wolverine had a recent, non-fatal wolf bite to the masseter muscle of the jaw.

The diagnosis was made possible through an expanded rabies surveillance initiative in Alaska that allows screening of large numbers of wildlife specimens via the dRIT (direct rapid immunohistochemical test) method. The Centers for Disease Control recently confirmed the wolverine was suf-

fering from an arctic fox (*Vulpes lagopus*) strain of rabies.
Rabies is endemic in arctic fox only along Alaska's coast but frequently spills over to red fox, sometimes in epidemic numbers of cases. In the past two years ADFG has tested more than 600 animals, including hundreds of foxes, more than 100 wolves, 19 bats and four wolverines. Of the samples tested, 2.8 percent tested positive for rabies, representing foxes exclusively with the exception of this one wolverine.

Waterbird mortality at Poplar Island Environmental Restoration Project (Maryland)

Beginning in early August 2012, sick and dead birds, consisting predominantly of mallards (*Anas platyrhynchos*) and shorebirds, occurred at the southern end of Poplar Island. Clinical signs included head droop, weakness, lethargy, prolapsed third eyelids, and paralysis of legs and/or wings, suggestive of avian botulism. Mortality continued until late October and involved over 20 species of waterbirds; more than 750 birds; 86% of those died. Survival among affected birds receiving supportive care at TriState Bird Rescue &Research approached 40%. Botulism Type C was confirmed in several mallards submitted after the onset of the event; however, a concurrent algal bloom was present on the island with high levels (1200–>6000 ppb) of microcystin detected in the water. Additional algal toxins and heavy metals were not identified. Varying levels of microcystin were detected in the livers (79-254 ppb) and GI contents (53-54 ppb) of dead birds; the clinical significance of these findings remain unclear due to inconsistent presence of corresponding microscopic lesions in the liver. Liver concentrations of microcystin from this event were within the ranges reported in prior avian mortality events where microcystins were implicated and thus were suspected to play a role in this event. Investigation of this event was a collaborative effort among US Fish and Wildlife Service, Maryland Department of Natural Resources, Maryland Environmental Service, New Bolton Center (Univ. of PA), Greenwater Labs, USGS-National Wildlife Health Center, Southeastern Cooperative Wildlife Disease Study, and Tristate Bird Rescue.

Algal bloom at Poplar Island. Image: Samantha Gibbs FWS

Mysterious skin growth and mortality reported among Florida reptiles

In late July 2012, Everglades National Park Service staff received reports from a local air boat operator of an unusual white, gelatinous substance observed on captive and free-ranging alligators and aquatic turtles. The material was distributed on the heads and bodies of the animals around the feet, eyes, and tails. The presence of this gelatinous substance appeared to be associated with anorexia and mortality. The airboat operator reported observing similar field signs 14 months earlier at another local captive facility. Mortality in one captive

population was estimated to be ~30 native reptiles of mixed species. Non-native reptiles housed at the same facility appeared unaffected. No natural mortality could be confirmed among free-ranging reptiles that were reported with this same condition.

An alligator (*Alligator mississippiensis*), snapping turtle (*Chelydra serpentine*), Florida mud turtle (*Kinosternon subrubrum steindachneri*), and Florida softshell turtle (*Apalone ferox*) with varying degrees of the white material observed on skin surfaces were euthanized and submitted to the USGS-National Wildlife Health Center (NWHC) for diagnostic evaluation in August 2012. At least 2 specimens had recently been captured from the wild. An experienced reptile veterinarian who examined the specimens prior to submission described varying presentations of the white material consistent with calcium deposition, exfoliating skin, or fungal infection, suggestive of poor water quality.

During diagnostic necropsies performed at NWHC, the animals had unremarkable external exams and the only skin abnormalities present were small ulcerations noted on two of the specimens. No white material was observed. Three of the specimens had insignificant loads of gastrointestinal parasites. No viruses were isolated from skin or internal organs. Bacteria and fungi isolates from skin were inconsistent and were considered environmental contaminants. The cause of this morbidity and mortality event among affected reptiles remains undetermined. NWHC encourages continued monitoring of wild reptile populations in the area for clinical signs and/or mortality to allow for additional diagnostic evaluation.

For the full NWHC quarterly mortality report, please see http://www.nwhc.usgs.gov/publications/quarterly_reports/index.jsp

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

Eastern United States

Dr. Anne Ballmann, (608) 270-2445

Email: aballmann@usgs.gov

Central United States

Dr. LeAnn White (608) 270-2491

Email : clwhite@usgs.gov

Western United States

Barb Bodenstein (608) 270-2447

Email : bbodenstein@usgs.gov

Hawaiian Islands

Dr. Thierry Work (808) 792-9520

Email: thierry_work@usgs.gov

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

To view new and ongoing wildlife mortality events nationwide visit http://www.nwhc.usgs.gov/mortality_events/ongoing.jsp

Director of Veterinary Services—Lindsay Wildlife Museum

THE POSITION: The director of veterinary services will provide and oversee veterinary health, medical and surgical services to maximize care for more than 5,000 wildlife rehabilitation cases 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 (live collection). Manage in house diagnostic laboratory and pharmacy.

RESPONSIBILITIES:

Medical, management, administrative, leadership, solicitation of donors, education, and research

TO APPLY: Send cover letter, resume, employment application and three references to: Executive Director, Lindsay Wildlife Museum, 1931 First Avenue, Walnut Creek, CA 94597 or email: lbehr@wildlife-museum.org

For an employment application go to: http://wildlife-museum.org/pdf/forms/employment_app.pdf

See Lindsay Wildlife Museum's website at http://www.wildlife-museum.org

Open until filled.

American College of Zoological Medicine Ultra-short Course Announcement

As in previous years, the American College of Zoological Medicine's Education Committee will sponsor a 1-day ultra-short course in conjunction with the Wildlife Disease Association Annual Conference. The annual conference will take place in Knoxville, Tennessee from 27 of July-2nd of August. The ACZM Ultra-short Course will be held on Sunday, July 27.

The Ultra-short course is administered and instructed by ACZM Diplomates and other specialists. The Ultra-short course is divided into two main sections:

First Section: (1.5 hrs in the am) Introduction to the ACZM

Second Section: (rest of the day) Consists of lectures intended to cover specific zoological medicine topics in-depth.

The cost of this course is $135/person if registering before June 15th.

To register and pay online please visit the ACZM website and click on Short Courses, or follow this link:

http://aczm.org/content.aspx?page_id=87&club_id=366916&item_id=182098

For more information on registration, you can also contact Drs. Sonia Hernandez (706) 296-3909 (USA) shernz@uga.edu or shernandez@warnell.uga.edu or Chris Hanley at (419)385-5721 (USA) or chris.hanley@toledozoo.org

If you are not planning on attending the WDA conference, but are still interested in attending the Ultra-short Course, please contact the above directly.