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Business office:

1-800-627-0629, ext 221

sstarr@allenpress.com

**Pauline Nol, Editor**

USDA/APHIS

National Wildlife Research Center

4101 LaPorte Avenue

Fort Collins, CO USA 80521

Telephone: 970-266-6126

e-mail: pauline.nol@aphis.usda.gov

*Visit the WDA website at: <http://www.wildlifedisease.org>*

## **President's Corner**

**Interesting Times.** As the saying goes, "We live in interesting times". Perhaps never before has the idea of diseases of wild animals threatening our economies or our lives been so much in the forefront of popular thought. With this notion come pitfalls and opportunities. The specific diseases involved are not the issue. What is interesting is how the threat of these diseases has had such a dramatic affect on the perception of their importance. Wildlife disease experts find themselves bathed in a new light with ever greater interest in their work. Up to this point, while one's work has not been obscure, it was not on the front pages of many newspapers either. Now, some people find themselves giving press conferences, or making presentations, or reviewing large scale emerging disease response plans, or briefing government officials, or talking to special interests groups. Most may not be accustomed to this level of attention. However, there is a greater opportunity to educate and inform, to build collaborations with unlikely partners, and to provide a reasoned perspective that is often missing. But all this comes at a price; Time.

Coupled with the increased interest is an increased level of expectation. "How soon will the rapid test be available?" and "How long will it be before this disease is identified and eradicated?" are some of the more traditional questions being asked with greater urgency. Newer questions include, "When will the disease get to wildlife in my area, how will it get there and what can be done to prevent its arrival?" How did the notion that wildlife should be free of disease get started anyway? Unfortunately, those with the greatest expectations often control the funding we all seek and they often do not have a complete grasp of the complexity of the problems.

Few if any wildlife disease programs have enough money to do the job that needs to be done. Funding dollars get stretched thinner each year. Researchers need to leverage the dollars they get with new partners and interests. These new collaborations bring funding and fulfill the basic expectations of all the partners but they potentially diffuse previous efforts specifically addressing conservation of wildlife and natural resources. It is becoming rarer to conduct disease research with wildlife because the research and the resource have intrinsic value. Rather, research involving wildlife disease is becoming seen as valuable primarily as it relates to prevention of disease threats to either human or domestic animal health.

So what's next? You can be sure that more change is coming. It's the game we are in now and the best way to win the game is to know the rules. New rules. Be flexible but stick to the science. Make science-based decisions and recommendations. Educate to buy time to get the best answer and don't settle for the almost answer. Learn how to communicate effectively with the press and the public, as this can help get what is needed for the resource. Collaborate and build teams. Keep focused on the message, wildlife and natural resources have value, and although efforts on their behalf come with a price tag, their value is priceless. This matters; it is why we are here.

*-Scott D. Wright, President*

## WDA NEWS

**The 55<sup>th</sup> Annual Meeting of the Wildlife Disease Association. August 6-11, 2006.** The 55<sup>th</sup> annual meeting of the WDA will be held August 6 through 11 at the University of Connecticut in Storrs, CT. More information to come on our website at <http://www.wildlifedisease.org>.

**Call for Nominations for the WDA Distinguished Service Award and the WDA Emeritus Award!!** The WDA awards committee (Lynn Creekmore, Don Forrester, Steve Schmitt, and Terry Creekmore) is seeking nominations for the Distinguished Service Award and the Emeritus Award. This is your opportunity help us provide recognition to deserving WDA members. Below is some information about these awards. This information, as well as a list of past recipients, is posted on our website (<http://www.wildlifedisease.org>). Just click on the "About Us" tab and look under WDA Recognition and Awards. Please take a few minutes from your busy schedule to consider potential nominees. Nominations, including a CV, should be sent to Lynn Creekmore ([lynn.h.creekmore@aphis.usda.gov](mailto:lynn.h.creekmore@aphis.usda.gov)) or to any of the other committee members by March 15, 2005.

**The Distinguished Service (DS) Award** is the highest award of the Wildlife Disease Association. The purpose of the DS Award 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 Wildlife Disease Association.

**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.

## WDA STUDENT ACTIVITIES

### STUDENT NEWS

**The WDA's student definition has been revised:** Student members must be

- 1) enrolled in an undergraduate or graduate student program at least half time, or
- 2) participating full time in an internship or residency program which is approved for credit towards board certification.

Student members must obtain their academic (or equivalent) supervisor's signature designating their student status and submit that annually when paying dues. Student members shall have all the rights and privileges of regular members. Student members will have a reduced membership fee as determined by Council.

### Geographic Concentrations of WDA Members

As of the end of October 2005, there were 1112 members in the Wildlife Disease Association. Twelve cities were listed in the mailing addresses of 186 members [16.7% of the total membership]. These cities generally reflect the areas where there is a particularly strong presence of people working on health of wildlife. Many of us could accurately predict some of these cities but there may be some surprises for you! The list of cities is located on page 9. Of course, there could well be members working in one city but having their contact address with the WDA listed in another location such as the city within which they reside.

This list would give students a starting point if they were looking for areas of study with numerous people working on wildlife health. This comment is by no means to suggest that selecting a site for graduate study should be based on the number of WDA members in a location! Hopefully, students are attracted to study in a particular location because they identify a 'good fit' between their interests and those of a particular supervisor who will be a good teacher to them!

*-Submitted by Ed Addison*

**European Student Chapter of the Wildlife Disease Association.** We are pleased to announce the creation of the **EWDA Student Chapter**, the European Student Chapter of the Wildlife Disease Association! With a prime objective to promote shared knowledge between established researchers and wildlife disease students. Subscribe to the *EWDA discussion E-list*, learn about the latest wildlife health and disease news, job, and education opportunities, and discuss and debate wildlife health hot topics! Participate in the *EWDA Student Workshop*, enhance your wildlife disease research skills, and meet renowned scientists and potential mentors! Don't miss the *EWDA Conference Student Mixer*, develop international relationships with students from all over Europe and beyond, and have fun!

**Whether you are undergraduate, MSc, PhD, or post-doc, become TODAY a EWDA Student Chapter MEMBER!** Membership form and all you need to know are on the student page of the EWDA website (European section of the Wildlife Disease Association: [www.ewda.org](http://www.ewda.org)).

*-Leslie A Reperant, EWDA Student Representative (reperant@Princeton.EDU).*

## **STUDENT AWARDS**

**ATTENTION MENTORS AND ADVISORS!** Please encourage your students to apply for WDA's student awards. Each year, the WDA sponsors a competition for student awards. Students are encouraged to apply for three awards. The WDA Student Awards Committee judges the research and scholarship awards. Members of the attending audience at the annual WDA meeting judge the Terry Amundsen Award. Criteria upon which each award is judged are available on the WDA website at the following URL: [http://www.wildlifedisease.org/Student/Student\\_Awards.htm](http://www.wildlifedisease.org/Student/Student_Awards.htm). These awards are non-renewable and can be received only once by a given candidate. For further information, please contact Dr. Todd Cornish, Wyoming State Veterinary Laboratory, University of Wyoming, 1174 Snowy Range Road, Laramie, WY 82070 (TCornish@uwyo.edu).

***Wildlife Disease Graduate Student Research Recognition Award: DEADLINE: April 20, 2006.***

This award is given to the student judged to have the best research project in the field of wildlife disease, based on written communication and scientific achievement. The winner receives a plaque and up to \$2000 US to cover travel, housing, registration, etc. related to the annual conference. The student is the featured presenter during the Student Presentation Session at the conference.

**To apply, applicants should submit 11 copies of the following documents** (electronic submissions formatted as MS Word or PDF files also acceptable):

-A summary of their research (10 pages double spaced written in type face font 10 or larger) structured as follows: Title, abstract, introduction, methods, results, discussion, references, tables and figures. The title page should be separate, and the 10-page limit applies only to the title, abstract, introduction, methods, results, and discussion.

-A cover letter stating how the research relates to WDA objectives (see inside back cover of WDA journal).

-A 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 postmarked beyond deadline date.

**Wildlife Disease Association Scholarship: DEADLINE: April 20, 2006.** This scholarship acknowledges outstanding academic and research accomplishment, commitment, and potential in pursuit of new knowledge in wildlife disease or health. The scholarship has a value of \$2000 US and is awarded annually to an outstanding student who is pursuing master's or doctoral degree specializing in research on wildlife disease. 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 system or 80% or better in percentage system will receive priority. The candidate should be committed to leadership, scholarship, and service in the wildlife health profession.

**To apply, applicants should submit 11 copies of the following documents** (electronic submissions formatted as MS Word or PDF files also acceptable):

-All relevant transcripts. Transcripts can be official (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.

-Up to 3 letters of support, including a letter from the student's faculty advisor, that address the following specific abilities of the applicant: academic achievement, scholarly promise, research ability, verbal and writing skills, industriousness, leadership abilities, judgment and potential for contribution to the field of wildlife diseases.

-Evidence of superior scholastic achievement (coursework, scholarships, awards, publications).

**Grounds for disqualification include:**

-Items missing.

-Submissions postmarked beyond deadline date.

**Terry Amundsen Student Presentation Award: DEADLINE: Abstracts must be submitted by the date stated in the 2006 Call for Papers.** This award acknowledges outstanding oral presentation of research findings. Winner receives \$250.00 and a plaque. To be considered, the student must give an oral presentation of their topic of choice to participants in the special student session of the annual WDA meeting.

**Evaluation:** Upon completion of the presentations, evaluation forms will be handed out to the audience who will be asked to score the presentations for the following:

-Quality of science

- Quality of visual aids
- Delivery
- Relevance to management of wildlife health

The student with the highest score will receive the award. Members of the WDA Student Awards Committee will adjudicate tied scores.

### Cities with largest numbers of WDA members as of October 2005

City	State/Province	Country	Number of WDA Members
Madison	Wisconsin	USA	27
Athens	Georgia	USA	22
Fort Collins	Colorado	USA	22
Davis	California	USA	21
Saskatoon	Saskatchewan	CANADA	19
Gainesville	Florida	USA	15
Bozeman	Montana	USA	12
Ithaca	New York	USA	11
Uppsala		SWEDEN	10
Laramie	Wyoming	USA	9
College Station	Texas	USA	9
Fairbanks	Alaska	USA	9

### HAPPENINGS IN THE FIELD

#### Report on California Seabird Mortality Event, January - May 2005

**Hannah Nevins & James T. Harvey**-Coastal Ocean Marine Bird and Mammal Education and Research Surveys (BeachCOMBERS), Moss Landing Marine Laboratories, 8272 Moss Landing Road, Moss Landing, CA 95039 USA hnevins@mlml.calstate.edu, (831) 771-4422

**Melissa Miller and David Jessup**-Marine Wildlife Veterinary Care and Research Center, 1451 Shaffer Road, Santa Cruz, CA

**Shannon Lyday and Jan Roletto**-Beach Watch, Beach Watch, Gulf of the Farallones National Marine Sanctuary, Fort Mason, Building 201, San Francisco, CA 94123 USA Jan.Roletto@noaa.gov, (415) 561-6622 ext. 207

This report summarizes ongoing studies to identify and quantify species-specific mortality factors affecting marine birds in California. Our specific objectives are to: 1) identify mortality factors, 2) quantify the mortality (using standardized beach surveys), and 3) create a reference library of necropsy images and tissue samples for future investigations of species-specific disease. We continue to seek coordination with rehabilitation centers, researchers, and resource agencies, to increase our understanding of populations of marine birds in central California.

During January to February 2005, beached bird survey programs in central California reported increased deposition of several pelagic seabird species including Cassin's and Rhinoceros Auklets in the Monterey Bay area (MBNMS Beach Combers) and Common Murres and Brandt's Cormorants

north of Monterey Bay (GFNMS Beach Watch). Tufted and Horned Puffins which are typically rare species were also encountered during Monterey Bay area surveys during this time. The timing of this mortality of these species was earlier than usual, and the magnitude of deposition was greater than in other years surveyed, with the exception of the 1997–1998 El Niño (1997 to 2004). Typically a post-breeding/fledging mortality peak occurs for murre and cormorants August through October (Roletto et al., 2004). This spring time mortality event is 4 times higher than in previous years. Necropsies of 15 Cassin's, 3 Rhinoceros Auklets, 1 Ancient, and 1 Marbled Murrelet indicated that most individuals were in poor condition as they had no remaining fat reserves and severe muscle wasting. The concordance in mortality trends in these pelagic species indicated a biological response to reduced prey resources in the offshore ecosystem during January to February. During April to May 2005, beach surveys reported increased numbers of Common Murres and Brandt's Cormorants. State, federal and local agencies collected seabird carcasses to determine the cause of this mortality. Brandt's Cormorants comprised the greatest proportion (67%, n = 39) of seabirds submitted for necropsy. The majority of those examined were immature (56%, n = 22), and fewer sub-adult (10%, n = 4), and adult (33%, n = 13). There were no significant differences in sex ratios among age groups. Six banded cormorants were recovered which had been marked as fledglings on the Farallon Islands in 2003 (3) and 2004 (3). All immature cormorants were characterized by a buffy colored breast plumage, immature gonads, and absence of breeding plumes. Sub-adults were distinguished from breeding adults by the length and completeness of nuptial plumage (iridescent body plumage, a blue gular pouch, and long nuptial plumes) and differences in gonad maturity. With the exception of one specimen, all examined birds were moderately to severely emaciated, had no subcutaneous fat, low body masses, atrophied livers, atrophied pectoral muscles, and empty stomachs. The exception was one bird with a stomach full of fresh anchovies; this specimen has been submitted for domoic acid biotoxin testing. Several individuals had increased internal and external parasite loads; however, this finding was not consistent among all birds and was considered secondary to starvation. Most of the Common Murres necropsied were mature adults (5 of 7) in breeding plumage; four of these were female. The three murre collected in Bodega Bay area, were females which had recently laid eggs. This was apparent on dissection; ruptured follicles, distended oviducts and cloacas. These birds were in severely emaciated condition, with body masses at approximately 70% of normal. Perhaps the energetic requirements of producing an egg decreased their overall body condition and made them vulnerable to reduced prey availability.

The combined results from long-term beach surveys and recent necropsies indicated an unusual increase in the mortality of several species of pelagic alcids and neritic cormorants in central California during January to May 2005. Starvation was found to be the primary cause of death in the majority of birds examined. Mature, breeding-aged adult cormorants and murre were affected as well as immature individuals suggesting severe food limitation. Ultimately, physical environmental factors, such as reduced upwelling, favorable winds, and resulting reduction in oceanographic conditions are likely responsible for the reduced productivity in the region. Fishery oceanographers indicate recruitment of juvenile rockfish was low in the spring of 2005 (NMFS, Santa Cruz Lab) and colony-based studies suggest reduced breeding success for many of these species (PRBO). Thus it seems likely that reduced availability of prey is the ultimate cause of seabird mortalities reported during this period.

This work was made possible by the dedicated volunteer beach surveyors of BeachCOMBERS and Beach Watch programs. We especially thank the following individuals for responding quickly to collect specimens for necropsy during this unusual mortality event: Sharon McGuire and Chris Miller, Scott Benson and Karin Forney, Linda Jordan and Dave Evans, Kathy and Gene Pfeifer, Pam Kearby and Glenn Seiler, Marti Ainsworth and Margo Hober, J. Adams and J. Hubbard, and T. Brookens (BeachCOMBERS); Jeff Price (CA State Parks), Branner Solano, M. Finney, Peter de Jung, Jamie Hall, and Dru Devlin (Beach Watch); Kristen Arkush (UCD, Bodega Marine Laboratory); Jenny Erbes

(PRBO); Itchung Cheung (UCSC) and Stacey Tatman (MWVCRC). We also thank volunteers who helped with necropsies: Kim Starbuck, Elizabeth Phillips, Corinne Gible, Melinda Nakagawa (MLML); and Sandrine Hazan, Elizabeth Wheeler, Eva Berberich, Elene Dorfmeier, Lexi Fisher, and Adam Schneider (MWVCRC).

This work was supported in part through a grant from the Monterey Bay National Marine Sanctuary Foundation, Science Integrated Monitoring Network. Substantial in-kind support was provided by Moss Landing Marine Laboratories and California Dept. of Fish and Game, Marine Wildlife Veterinary Care and Research Center. Future investigations will benefit from timely data collection, summary, and the continued efforts for systematic beach surveys. If you have questions or comments regarding this or other mortality events in the area please contact Hannah Nevins (831-771-4422, hnevins@mlml.calstate.edu).

## **USGS/National Wildlife Health Center's Quarterly Wildlife Mortality Report**

**Common redpoll mortality in Alaska due to *Escherichia albertii*.** From late December 2004 to February 2005, the Alaska Department of Fish and Game received reports of dead common redpolls at back-yard bird feeders in the Fairbanks area. The period of highest mortality coincided with a period of prolonged minus 40 C temperatures in late January. The common redpoll population at the beginning of the outbreak was estimated at 8,000 birds, which was a historic high for the area. Approximately 100 deaths were documented, although it is assumed that the actual death toll was considerably higher. There were no consistent gross post-mortem lesions and histologic lesions consisted mainly of mild enteritis. Although there were no anatomic changes to indicate septicemia, *Escherichia albertii* was isolated in high numbers and in pure cultures from the intestines and tissues of five redpolls that died during the peak of the die-off. All *E. albertii* isolates were indistinguishable by pulsed-field gel electrophoresis. The identification of *E. albertii* was established by 16S rDNA gene sequence and by phenotypic similarity to previously reported *E. albertii* isolates. Other birds, including redpolls, a black-capped chickadee, a crossbill, and a boreal owl that were known to have died of other causes were cultured as controls and were negative for *E. albertii*. *Escherichia albertii* is a recently described member of the *Enterobacteriaceae* that has been associated with diarrheal illness in humans, but has not been previously associated with disease or infection in animals. The *E. albertii* isolated from these redpolls was very similar to the description of an atypical *E. coli* previously reported from a finch mortality event in Scotland.

**Unusual Moose morbidity and mortality in Alaska.** A wildlife veterinarian and wildlife biologists from the Alaska Department of Fish and Game investigated morbidity and mortality in 7-10 month old moose calves that began in late December 2004 and continued until early April 2005. Most of the 25 mortalities occurred during or shortly after a two week period of extremely cold weather (minus 40 degrees C or colder) with deep snow. Some of the calves died suddenly, while others were observed to be lethargic for a period of time before becoming recumbent and eventually dying. Closer visual examination of dead animals showed emaciation, conjunctival edema, and enlarged abdomens. Specimens collected from necropsied animals were submitted to several diagnostic laboratories and a contract wildlife pathologist for laboratory tests and histopathology. Cooperative efforts by the diagnosticians resulted in a diagnosis of bacterial peritonitis and septicemia. Further studies are in progress to identify the various bacterial agents involved and to determine if pre-existing migrations of parasites (*Setaria* sp.) in the calves may have played a role in the onset of disease.

**Marine animal mortality.** In late January 2005, fish kills were reported in association with a red tide or harmful algal bloom (HAB), in southwest Florida. There were daily reports of fish mortality in different locations during February. Thousands of fish representing at least 20 species were affected,

including several Goliath groupers weighing 200-300 lbs. In early March, the Florida Fish and Wildlife Research Institute began getting calls about dead manatees primarily in Charlotte, Lee, and Sarasota counties. By the end of March, 38 manatees (of the 65 found dead that month) were confirmed to have brevetoxin toxicity through necropsy findings and levels of toxins in stomach contents and tissues. While manatee mortality from the HAB dropped precipitously in the following months, to 5 in April, 0 in May, and 7 in June, fish kills continued, with more than 100 events reported in the region through the end of June. The effects of the HAB were reported in an area extending from Pinellas County to the Florida Keys, a straight-line distance of more than 320 km (225 miles) and extended for varying distances offshore.

**Tern mortality in Massachusetts.** Common tern mortality was first noted early June 2005 on South Monomoy Island, Massachusetts. Over the next 3 weeks, approximately 40 terns were found sick and dead. Affected birds were wobbly, stumbling and had drooping wings. On necropsy, the carcasses ranged from emaciated to good body condition, there were no significant gross lesions, and bacterial and viral cultures were negative. The mortality coincided with a “red tide” which occurred along the coasts of Maine, New Hampshire, and Massachusetts. Reportedly, a storm on May 7-8 provided suitable conditions for a large algal bloom. Shellfish beds were closed to harvesting as a result. Dolphin mortality occurred during the same time period and was also thought to be associated with the algal bloom. Biotoxin assays on tern samples are in process. Interestingly, there is a published report of tern and gull mortality on Monomoy in 1978 that was determined to be due to paralytic shellfish poisoning associated with saxotoxin in shellfish (The Condor 1983: 338-345).

**Unknown cause of seabird mortality along the Atlantic Coast.** Unusual seabird mortality, reported in early June 2005, involved shearwater, terns, and gulls along the Atlantic Coast from Assateague Island, Maryland to Brevard County, Florida. Approximately 700 birds, primarily shearwaters, were found dead or sick along these shorelines. Many sick birds were admitted to wildlife rehabilitation facilities or veterinary hospitals for care. About 50% of the reports were from Florida, primarily Volusia and Brevard counties. Multiple state and federal agencies were involved in responding to this event. On necropsy, the only common finding was emaciation. Unfortunately, since many of the species affected live offshore, by the time the carcasses washed ashore they were often decomposed which made examination and analysis difficult. Many tests are still underway at the end of June.

**Thousands of wood frogs die in Rhode Island.** In April 2005, a wetland ecologist at the University of Rhode Island recorded egg masses with approximately 4 million larvae in a large pond area in Washington County, Rhode Island. In early June, the tadpoles appeared normal, however, on a return visit in mid June, the ecologist found hundreds, possibly thousands of sick and dead wood frog tadpoles. Tadpoles were at a late development stage and had all four legs. Many sick tadpoles were lethargic, rolled on their sides, had red spots on their skin and were easily collected. At a visit 10 days later, no living tadpoles were found in the main pond. There were three lethargic painted turtles, a few sick grey tree frog tadpoles and spotted salamanders found in a nearby area. Ranavirus was isolated from the grey tree frog tadpoles and salamanders submitted to NWHC for diagnostic evaluation. It is suspected that Ranavirus was also the cause of death in the wood frog tadpoles.

**Update to the Happenings in the Field in Supplement to the Journal of Wildlife Diseases July, 2005.** Regarding sick and dead Western Snowy Plovers and gulls in Southern California, type C botulinum toxin was detected in serum and liver from several gulls (samples sent to USGS and CAHFS San Bernardino labs). Clinical signs of gulls (flaccid paralysis but alert mentation, and recovery in lesser affected gulls) were consistent with botulism.

**Quarterly Wildlife Mortality Report**  
April 2005 to June 2005

State	Location	Dates	Species	Mortality	Diagnosis	Reported by
CAN	Calgary, Alberta	04/10/05-04/19/05	Bald Eagle	4	Toxicosis: Pentobarbital	AFW
AK	Fairbanks North Star Borough	12/23/05-02/18/05	Common Redpoll	100 (e)	Enteritis	OT, WA
AK	Fairbanks, Fox, and Delta Junction areas	12/24/04-04/08/05	Moose	25	Peritonitis	NVL, WA
AK	Juneau	02/01/05-06/11/05	Common Redpoll Red Crossbill Pine Siskin	40	Salmonellosis	NW
AK	Kenai NWR	06/01/05-06/21/05	Wood Frog	20 (e)	Parasitism: Perkinsus-like organism	NW
AL	Morgan Co	04/15/05-05/20/05	Southern Leopard Frog	7,000 (e)	Parasitism: trematodiasis	NW
AR	Benton County	05/18/05-05/20/05	Bullfrog	6	Fungal Infection: chytrid	NW
CA	Central California coast	01/01/05-08/31/05	Common Murre Brandt's Cormorant Unidentified Gull Cassin's Auklet Rhinoceros Auklet	1,563	Starvation	OSR
CA	Northern California counties from Santa Cruz to Eureka	02/01/05-05/01/05	Pine Siskin American goldfinch House Sparrow	2,400 (e)	Salmonellosis	CFG
CA	Santa Cruz Island, Bat Cave	05/16/05-06/26/05	Ashy Storm Petrel	70 (e)	Predation	NW
FL	Atlantic coast/beaches of Orange, Nassau, St. Johns, Volusia, Brevard Co.	06/09/05-ongoing	Greater Shearwater NOS Shearwater Unidentified Gull Northern Gannet Unidentified Tern	700	Open	FMR, NMF, NW, SCW, UFL
FL	Eglin AFB	05/21/05-06/05/05	Southern Leopard Frog Gopher Frog	25 (e)	Open	NW
FL	Shoreline	03/01/05-ongoing	Manatee	50	Toxicosis: brevetoxin	FL, FMR,
GA	Walker County	05/04/05-05/05/05	Blue jay Northern Cardinal	13	Toxicosis: Famphur	SCW
IA	Jones County	02/01/05-02/19/05	American Goldfinch	13 (e)	Salmonellosis	NW
KS	Lee Richardson Zoo	06/18/05-06/23/02	Mallard	75 (e)	Botulism type	NW
LA	Breton NWR	06/12/05-06/23/05	Laughing Gull Eastern Brown Pelican Ring-Billed Gull Little Blue Heron	7,200 (e)	Trauma: storm Toxicosis: Oil	IBR
MA	South Monomoy Island	06/09/05-06/27/05	Common Tern	40 (e)	Open	NW
MD	C&O Canal National Historic Park	05/25/05-06/06/05	Wood Frog Spotted Salamander	2,000(e)	Undetermined	NW
MO	St. Charles County	04/06/05-04/14/05	Southern Leopard Frog	20 (e)	Open	
MT	Guardipee	04/19/05-04/19/05	Northern Leopard Frog	1	Fungal Infection: chytrid	NW
MT	Stinger Creek Headwaters	03/22/05-03/22/05	Columbia Spotted Frog	5 (e)	Trauma	NW
NE	Alliance	04/01/04-04/15/05	Red-Winged Blackbird	15 (e)	Open	NW
NV	Ely	06/01/05-06/06/05	Pine Siskin	7	Salmonellosis	NW
OR	Oregon west of the Cascade Range	12/15/04-03/15/05	House Finch American Goldfinch Pine Siskin	1,200 (e)	Salmonellosis <i>S. typhimurium</i>	OR
RI	Town of Richmond	06/19/05-06/26/05	Wood Frog Spotted Salamander Painted Turtle	5,000 (e)	Viral Infection: Ranavirus	NW
TX	Briscoe County Playas	06/21/05-07/01/05	Spotted Chorus Frog	25 (e)	Viral Infection: Ranavirus	NW
TX	Lake Corpus Christi	01/25/05-03/01/05	Brown-Headed Cowbird	20	Open	

WA	Yakima, Selah, and Tieton	05/31/05-ongoing	Evening Grosbeak	234	Salmonellosis	NW, WA
WI	LaCrosse County, WI, Lake Onalaska, Upper Mississippi River	04/01/05-05/05/05	Lesser Scaup American coot Ring-necked Duck Canvasback Bufflehead	3,000 (e)	Parasitism: <i>Cyathocotyle bushiensis</i> , <i>Sphaeridiotrema globulus</i>	NW
WY	Goshen County	02/09/05-02/17/05	Pine Siskin American Goldfinch	24 (e)	Salmonellosis	WY
<u>Updates/Corrections</u>						
CA	Mission Beach to Mexican border	02/09/05-07/23/05	Western Gull California Gull Western Snowy Plover Herring Gull Ring-Billed Gull	115 (e)	Open	SDC
WA	Coastal areas	12/01/04-04/30/05	Trumpeter Swan Tundra (Whistling) Swan	241	Lead poisoning	BC, WA

(e) = estimate; \* = morbidity, not mortality

B.C. Ministry of Environment (BC), California Fish and Game Wildlife Investigations Lab (CFG), Centers for Disease Control and Prevention (CDC), Florida Fish and Wildlife Commission (FL), Florida Fish and Wildlife Research Institute, St. Petersburg, FL (FMR), International Bird Rescue Research Center (IBR), National Veterinary Services Laboratory, Ames, IA (NVL), National Marine Fisheries Service (NMF), Oil Spill Response Team, (OSR), Oregon Dept. of Fish and Wildlife (OR), San Diego County Veterinary Diagnostic Laboratory (SDC), Southeastern Cooperative Wildlife Disease Study, Athens, GA (SCW), University of Florida (UFL), US Army, Fort Meade (USA), U.S. Fish and Wildlife Service (FWS), USGS National Wildlife Health Center (NW), Wisconsin Dept. of Natural Resources (WI), Washington Animal Disease Diagnostic Laboratory (WA), and Wyoming Game and Fish (WY)

Written and compiled by Rex Sohn -Western US, Kathryn Converse- Central US, Grace McLaughlin/Kimberli Miller - Eastern US, NWHC. The Quarterly Wildlife Mortality Report is available at <http://www.nwhc.usgs.gov>. To report mortality or receive information about this report, contact the above NWHC staff, or for Hawaiian Islands contact Thierry Work. Phone: (608) 270-2400, FAX: (608) 270-2415 or e-mail: [kathy\\_converse@usgs.gov](mailto:kathy_converse@usgs.gov). USGS National Wildlife Health Center, 6006 Schroeder Road, Madison, WI 53711.

## WDA SECTION NEWS

### NEWS FROM THE EUROPEAN SECTION

**EWDA WEBSITE - [www.ewda.org](http://www.ewda.org).** Visit the EWDA website and find information on conferences, members interests, publications and lots more. The website is kindly provided free of charge by the UK Central Science Laboratory. We are currently considering a new look for the site so if you have any further suggestions or material then please send them to [r.delahay@csl.gov.uk](mailto:r.delahay@csl.gov.uk).

### **Meeting announcement and call for papers: - the 7<sup>th</sup> European Wildlife Disease Association Conference (EWDA), Aosta, Italy, 27-30<sup>th</sup> September 2006**

The 7th EWDA Conference will be held in Aosta, Italy from 27 to 30 September 2006 and is entitled - "Public health, management and conservation in wildlife disease".

The plenary lectures will address: -Zoonoses and emerging diseases including avian influenza. Other sessions include Zoonoses and Emerging Diseases; Wildlife Disease Related to the Environment; Infectious Diseases of Wildlife; Diagnostic Approaches to Wildlife Disease. More details will be posted on the EWDA web site (above), anticipated deadlines are:

**February 2, 2006:** 2nd announcement with detailed scientific programme and details of accommodation.

**June 1, 2006:** ordinary inscription.

**July 1, 2006:** presentation scientific abstracts.

-Riccardo Orusa

## **Demographic collapse of the population of Chamois (*Rupicapra pyrenaica*) in the Eastern Pyrenees due to disease associated with a pestivirus infection**

*Ignasi Marco, Rosa Rosell, Gregorio Mentaberre, Encarna Casas y Santiago Lavín. Servei d'Ecopatologia de Fauna Salvage. Facultat de Veterinaria. Universitat Autònoma de Barcelona. 08193-Bellaterra. Spain.*

*E-mail: Ignasi.Marco@uab.es*

During 2001 and 2002 an outbreak of a previously unreported disease was detected in the chamois population of the National Hunting Reserve of Alt Pallars-Aran in the Catalan Pyrenees (NE Spain), near the border between Andorra and France (Marco and Lavín, 2003; Hurtado et al., 2004). A new virus belonging to the Genus Pestivirus was isolated from several affected animals. These chamois showed weakness, extensive alopecia, skin hyper-pigmentation and cachexia. Microscopic lesions included non-specific lesions in the central nervous system consisting of neuronal death and other degenerative lesions.

Since then, a small number of additional isolated cases have been recorded in chamois, in which a Pestivirus has been isolated. However, in early 2005, a high mortality of chamois was observed at the National Hunting Reserve of Cerdanya-Alt Urgell, an area close to the border with France, and about 40 km from the 2001-2002 outbreak. Affected animals presented with respiratory signs including dyspnoea and blood exuding from the mouth and nostrils. At necropsy, severe pneumonia was diagnosed as the cause of death in the early cases. In the last animals found dead in the outbreak, pneumonia was not found however lesions similar to those of the 2001-2002 outbreak were observed, principally alopecia, skin hyper-pigmentation and non-specific microscopic degenerative lesions in the brains. Of six chamois examined, Pestivirus was isolated from four with pneumonia and two with skin lesions. In June 2005, a chamois with skin lesions was examined at the National Hunting Reserve of Cadí, an area close to the southern border of the Cerdanya-Alt Urgell Reserve, and from this individual a Pestivirus was also isolated. During the subsequent months, tens of chamois were found dead over a large area of the Reserve.

A census performed in July 2005 revealed a dramatic decrease in the populations of both reserves. In Cerdanya-Alt Urgell, from 563 chamois counted in 2004, only 81 were now counted, indicating a decrease of 86%. On the French side of the reserve, a high chamois mortality was also reported, varying from 75% in the areas near the border, to 30% in the more distant areas. In the Cadí Reserve, a total of 1.565 chamois were recorded at the end of July 2005, while 2.363 chamois were counted in the 2004 census, that is a decrease of 34% for the whole Reserve. If we calculate the decrease in the affected areas, the overall decline in numbers would be even higher. Chamois have continued to die after these census counts. At the October census in Cerdanya-Alt Urgell, only 38 chamois could be found, indicating a decrease of 93%. At the time of writing this summary, chamois are continuing to die in these reserves and, we assume, in other areas of the Pyrenees there may be a similar mortality.

### References

- Marco, I. and Lavín, S. (2003). Pestivirus in chamois from the Catalan Pyrenees (NE Spain) in 2001 and 2002. Supplement to the J. Wildl. Dis., 39: 2-3.*
- Hurtado, A.; Aduriz, G.; Gomez, N.; Oporto, B.; Juste, R.A.; Lavín, S.; Lopez-Olvera, J. and Marco, I. (2004). Molecular identification of a new pestivirus associated to an outbreak of disease in the Pyrenean chamois (*Rupicapra pyrenaica pyrenaica*) in Spain. J. Wildl. Dis., 40: 796-800.*

## **Workshop on Wildlife Disease Surveillance in Europe**

### **IREC (CSIC – UCLM – JCCM), Ciudad Real, Spain, 21-23 October 2005**

*Sponsored by: Consejería de Universidades y Educación, Junta de Comunidades de Castilla – La Mancha (Acción Especial # AEB-05-005). The visit to Cabañeros National Park was courtesy of the Organismo Autónomo Parques Nacionales, Ministerio de Medio Ambiente. The active participation of the Subdirección General de Sanidad Animal (Ministerio de Agricultura, Pesca y Alimentación).*

Introduction. The National Wildlife Research Institute (IREC) in Ciudad Real, Spain, hosted a workshop attended by 18 wildlife health experts from ten countries in Europe. The group, all scientists from the European Wildlife Disease Association, (EWDA) reviewed wildlife diseases that are important in Europe not only for biodiversity, but also for public and livestock health. There were three parallel sessions looking at current challenges in Europe, considering significant wildlife diseases, wildlife disease surveillance and avian influenza surveillance.

Wildlife Diseases currently important in Europe. In the opinion of the group at Ciudad Real the following were considered - mycobacterial diseases, viral diseases of wild birds (e.g. avian flu, flaviviruses and pox virus), rabbit haemorrhagic disease (RHD), myxomatosis, classical swine fever (CSF), rabies. Other wildlife related zoonotic diseases that were discussed include Hanta virus, tick-borne diseases, tularemia, salmonellosis, brucellosis, trichinellosis, and echinococcosis (*Echinococcus multilocularis* + *E. granulosus* infections). Other important groups of wildlife disease are those that reflect environmental pollution and those that effect wildlife populations such as ‘canine’ distemper, morbilli-virus infections, European brown hare syndrome (EBHS), parasitic mange in carnivores and mountain ungulates and avian trichomonosis. Finally those diseases that affect both wild and domesticated animals such as Aujeszky’s disease pestivirus in chamois were considered.

WiREDs. It is increasingly recognised throughout the world that wildlife may be a major, if not perhaps *the* major, source of *new and emerging diseases*, and attention to these wildlife-related emerging diseases (WiREDs) is now a priority.

Wildlife Disease Surveillance in Europe. In 1993 the OIE started reporting on wildlife disease (WD) at a global scale. The reporting of WD in Europe has greatly improved by incorporating more countries and better data since that time. Countries start from different baseline experiences however our results and expectations converge on the necessity to create a permanent exchange of knowledge among professionals. This aim can be achieved by establishing a ‘European Wildlife Health Network’.

Avian Influenza virus (AIV) surveillance in wild birds in Europe. Results of AIV surveillance in recent years were compared for several countries. Spain, France, the UK and the Netherlands have, following EU recommendations, enhanced their surveillance in wild birds, to include sampling live water birds, legally shot water birds, and the investigation of unusual mortality incidents in wild birds.

**Submissions to the European Section.** Material for publication in News from Europe can include recent wildlife disease outbreaks and new diseases in Europe, short case and meeting reports; job, and scholarship announcements. We encourage submissions, and will help with the English language, if required. The deadline for the next issue is August 2005.

Please mail, fax or e-mail submissions to, Paul Duff, VLA Diseases of Wildlife, VLA Penrith, Merrythought, Calthwaite, PENRITH, Cumbria, CA11 9RR, United Kingdom, e-mail p.duff@vla.maff.gsi.gov.uk Fax ++44(0)-1768-885314 /phone ++44(0)-1768-885295.

## **NEWS FROM THE AUSTRALASIAN SECTION**

### **President’s Message**

I think that it can be said that this year’s international conference “Wildlife disease in a shrinking world” in Cairns was a resounding success with 270 delegates, 100 of these being

international visitors, and almost 20 countries represented. My congratulations and thanks to those who have been involved over the last three years in planning, organising and executing this conference. Relatively in depth discussions were carried out between the local section members and “parent body” members during the council meeting preceding the conference and during a combined AGM in an attempt to more clearly define the relationship between the two groups. I believe that the full spectrum of opinions and concerns has now been voiced and it appears that we have a process to further progress this matter.

Congratulations to a number of Australasian section members who were acknowledged with awards at this meeting. Firstly to Dave Spratt who received the prestigious Emeritus award. I think that I speak for all our members when I say well done Dave and well deserved. Another highly recognised award was bestowed upon an Australasian section member. This Duck Award is normally presented in recognition of a single event where the recipient has made an embarrassing oversight, slipped up or just done something plain stupid; it was awarded this year as more of a life time achievement award; although some might say the recipient’s suggestions on economic rationalisation of the journal were reason enough for the award – congratulations Schultz! Scott Wright provided highly entertaining account, complete with a salt water crocodile lurking in the background, of how this award came into existence for those of us not familiar with its history. Congratulations to Janice Joss and Stephanie Godfrey who also received awards for their student presentations made at the conference.

Looking forward to next year’s annual extravaganza, Janeen Samuel is in the process of working out dates for the 2006 conference at Naracoorte, South Australia. Paul Eden has also done some preliminary work looking at options for holding the 2007 conference in Western Australia. Please see the minutes from the AGM for some of the proposed locations and activities (<http://users.tgs.com.au/adsluehk/index.htm>).

The section also hosted the Fenner Conference on the Environment, Wildlife Health Workshop on July 11 at the Shine Dome, Canberra. Speakers included Ian Barker, Ted Leighton, Mike Samuel, John Mackenzie, Rupert Woods, Karrie Rose and Jane Bennett. Some 60 delegates from a wide range of backgrounds including human health, the game industry, Universities, wildlife rehabilitators and private veterinary practitioners attended. We believe that we achieved our aim of informing and engaging a wider community about issues associated with wildlife disease. Policy recommendations generated through discussions held as part of this workshop will eventually be available. Many thanks to Pam Whiteley who personally undertook the organisation for this event. The research stipend will be awarded again in 2006 and there will be two stipends available, each of \$1000 for two projects; one with a veterinary focus and one with a non veterinary focus. To apply please submit a brief electronic summary of the project to Dave Spratt (Dave.Spratt@csiro.au) by December 31st 2005. Dave can be contacted for the conditions of this award.

Please also consider nominating a candidate for the Barry Munday Award. This award was established in recognition of the tremendous work done by Barry in the field of wildlife health and disease and candidates who have made an outstanding contribution to this field in the last 5 years will be considered. Further details on this award are also available from Dave Spratt and nominations should be submitted by December 31, 2005.

*-Tim Portas, President of the Australasian WDA*

### **Asian Rhino Project: Perth Zoo/Murdoch University**

A postgraduate scholarship supporting research in areas that will benefit the management of rhinoceros species for conservation purposes is being offered by the Asian Rhino Project and Murdoch University. Enrolment in Murdoch University, with supervision by relevant staff in the School of Veterinary Studies in collaboration with staff at Perth Zoo, will support a research programme developed in one or more of the following broad areas: parasitology/microbiology, nutrition, and

reproduction. The research programme will involve both laboratory and field work in SE Asia and is envisaged to give emphasis to problems facing the conservation of rhinos in that region. Applicants should have a degree in veterinary science, or closely related field, and provide evidence of experience in wildlife and/or motivation to apply their qualifications to the conservation of wildlife. For further information contact: Kerry Crosbie Project Director of the Asian Rhino Project; Ph 08 9526 2060; [kerry.crosbie@asianrhinos.org.au](mailto:kerry.crosbie@asianrhinos.org.au) Or Andrew Thompson, Professor of Parasitology at Murdoch University; Ph 08 9360 2466; [Andrew\\_t@murdoch.edu.au](mailto:Andrew_t@murdoch.edu.au)

## **WDA SECTION CHAIRS AND CONTACT INFORMATION**

**African Section.** For information regarding the African Section, contact Elizabeth Wambwa, Kenya Wildlife Service, P.O. Box 40241, Nairobi, Kenya. Telephone: 254-2-504180; Fax: 254-2-505866; email: [ewambwa@yahoo.com](mailto:ewambwa@yahoo.com)

**Australasian Section.** For information regarding the Australasian Section, contact Tim Portas, Western Plains Zoo, P.O. Box 831, Dubbo, NSW 2830, Australia. Telephone: 61 2 6881 1460; Fax: 61 2 6884 1496; email: [tportas@zoo.nsw.gov.au](mailto:tportas@zoo.nsw.gov.au).

**European Section.** For information regarding the European Section, contact Marc Artois, ENVL, Unite Pathologie Infectieuse, BP83, 69280 Marcy l'Etoile, France, Telephone: 33-487-87-27-74, email: [m.artois@fvet-lyon.fr](mailto:m.artois@fvet-lyon.fr).

**Nordic Section.** For information regarding the Nordic Section, contact Eric Agren, Department of Wildlife, National Veterinary Institute, SE-751 89 Uppsala, SWEDEN, Telephone +46 18 67 40 00 Fax +46 18 30 91 62 or E-mail: [Erik.Agren@sva.se](mailto:Erik.Agren@sva.se).

**Wildlife Veterinarian Section.** For information regarding the Wildlife Veterinarian Section, contact Kirsten Gilardi, Wildlife Health Center, University of California Davis, CA 95616 USA. Telephone: 530-752-4896, FAX: 530-752-3318, email: [kvgilardi@ucdavis.edu](mailto:kvgilardi@ucdavis.edu).

## **JOB ANNOUNCEMENTS**

Visit the JWD website at <http://www.wildlifedisease.org/Jobs.htm> for up to date job listings.

**Faculty Position In Zoological Medicine, Department Of Surgical Sciences, School Of Veterinary Medicine, University Of Wisconsin, Madison.** The Department of Surgical Sciences is seeking applicants to fill a faculty position in zoological medicine at the rank of Clinical Instructor, Clinical Assistant Professor, or Clinical Associate Professor. Teaching responsibilities include participation in didactic instruction in undergraduate courses in the Wildlife Ecology Department (Wildlife Diseases and Wildlife Management Techniques) and special species health courses in the DVM curriculum (History, Restraint and Physical Examination of Birds, Reptiles and Small Mammals, Avian Health, Reptile Health, Laboratory Animal Medicine, Restraint and Anesthesia of Zoo and Wild Animals). Clinical instruction includes 26 weeks in the Veterinary Medical Teaching Hospital training veterinary students and residents. Individual will be expected to participate fully in the ACZM-approved residency training program, as well as assist research associates, graduate students, residents, veterinary students, and undergraduate students involved with the Conservation Health Consortium. Clinical service responsibilities include management of special species animals with clinical illnesses, consultation in the Veterinary Medical Teaching Hospital, and participation in continuing education programs. Research may include independent and collaborative creative scholarship consistent with the research mission of the School of Veterinary Medicine. Successful candidates will be expected to pursue clinically-relevant studies that advance the field of zoological medicine. Faculty are also

expected to participate in committees responsible for oversight of academic programs. Qualifications include the DVM or equivalent degree and specialty training in zoological medicine. Diplomate status in the American College of Zoological Medicine is preferred. Rank and salary will be commensurate with qualifications and experience of the candidate. Applications will be accepted until December 23, 2005, or until the position is filled. The anticipated starting date is July 1, 2006. The University of Wisconsin is an equal opportunity employer, and applications from minorities are particularly encouraged. Applications should include a letter of intent, statement of career goals, curriculum vitae, and the names and contact information for at least three references. Application should be mailed to: Joanne Paul-Murphy, DVM, Dipl ACZM, Department of Surgical Sciences, School of Veterinary Medicine, University of Wisconsin, 2015 Linden Drive, Madison, WI 53706.

## **TRAINING/EDUCATIONAL OPPORTUNITIES**

Visit the JWD website at <http://www.wildlifedisease.org/Training.htm> for more information on training opportunities.

**Avian, Reptile, Rabbit, Ferret, and Rodent Diagnostic Endoscopy Course. November 18 and 19, 2006.** This 15 hour continuing education course is designed to teach the theory and practical applications of diagnostic endoscopy in birds, reptiles and small mammals. Whether you are a private practitioner, zoo/aquarium/wildlife veterinarian, or researcher this course will train you to perform minimally-invasive endoscopic procedures including biopsy techniques. This is a basic to intermediate level course, and fundamental knowledge of avian and reptilian anatomy is assumed. You will be trained using PowerPoint lectures and video presentations in equipment choice and care; oral, aural, and upper respiratory endoscopy in small mammals; coelioscopy, gastro-intestinal and respiratory endoscopy of reptiles; coelioscopy, gastro-intestinal endoscopy and tracheoscopy of birds; biopsy and sampling techniques; and endoscopy fee structure and practice management. In addition, there will be over 8 hours of practical lab time in which you will be able to practice and develop your skills in anesthetized (non-recovery) research iguanas and pigeons scheduled for euthanasia. All procedures approved by the UGA Institutional Animal Care and Use Committee. Refreshments, lunches, certificate of training, and full color printed course notes containing all tutorial materials will be provided. Limited to 16 veterinarians. \$750 for veterinarians, \$150 for accompanying technicians. Course will be held in surgery suites at the College of Veterinary Medicine, University of Georgia, Athens, GA 30602, USA. The College is 1.5 hrs shuttle bus ride from the Atlanta International Airport, and only 10 minutes from the Athens Regional Airport with service from the Charlotte International Airport. For registration details contact Sandi Kilgo at Telephone: 1-706-542-1451 or Email: [skilgo@vet.uga.edu](mailto:skilgo@vet.uga.edu). For more information, visit the following website: [www.gactr.uga.edu/conferences](http://www.gactr.uga.edu/conferences).

**Fish and Chelonian Diagnostic Endoscopy Course. December 2 and 3, 2006.** This 15 hour continuing education course is designed to teach the theory and practical applications of diagnostic endoscopy in fish (including koi and catfish) and chelonians (including turtles, tortoises and terrapins). Whether you are a private practitioner, zoo/aquarium/wildlife veterinarian, or researcher this course will train you to perform minimally-invasive endoscopic procedures including biopsy techniques in fish and turtles. The course will include PowerPoint video lectures and practical instruction in gastro-intestinal, respiratory, and coelomic endoscopy. Special emphasis will be placed upon equipment selection, animal preparation, endoscopic identification of tissues and organs, and the collection of biological samples for disease diagnosis and research purposes. In addition, there will be over 8 hours of practical wet-lab time to practice and develop endoscopy skills in anesthetized (non-recovery) farmed koi, catfish and red-eared sliders (terrapins). All procedures approved by the UGA Institutional

Animal Care and Use Committee. Refreshments, lunch, certificate of training, and full color printed course notes containing all tutorial materials will be provided. Limited to 16 veterinarians. \$750 for veterinarians, \$150 for accompanying technicians. Course will be held in surgery suites at the College of Veterinary Medicine, University of Georgia, Athens, GA 30602, USA. The College is 1.5 hrs shuttle bus ride from the Atlanta International Airport, and only 10 minutes from the Athens Regional Airport with service from the Charlotte International Airport. For registration details contact Sandi Kilgo at Telephone: 1-706-542-1451 or Email: [skilgo@vet.uga.edu](mailto:skilgo@vet.uga.edu). For more information, visit the following website: [www.gactr.uga.edu/conferences](http://www.gactr.uga.edu/conferences).

**Dallas Zoo and Dallas Aquarium Veterinary Student Preceptorship.** A four to eight-week preceptorship offers exposure to clinical zoo and aquarium veterinary practice at a large metropolitan zoo. The student will work closely with the veterinary and keeper staff and receive an introduction to husbandry, restraint/immobilization, basic medical procedure techniques, and necropsies of zoo animals, the unique aspects of veterinary management of animals in a zoo setting, and the MedARKS recordkeeping system. An onsite library is available for use. Responsibilities will be assigned based on the student's areas of interest and experience level. The student is expected to complete a project and present results to the veterinary staff, and will be responsible for local transportation, housing, and food. Applicants should be a fourth year veterinary student (or in final year of non-U.S. veterinary program) and have completed four weeks of a clinical medicine or surgery rotation before the start of the preceptorship. Negative tuberculin skin test within 60 days of the start of the preceptorship, current tetanus vaccination, and personal health insurance are required. Applicants should send a letter of intent, curriculum vitae, contact information for three references, and the name of their Zoo/Exotic Animal advisor to: Tim Storms, Associate Veterinarian at Dallas Zoo and Dallas Aquarium, 650 South R.L. Thornton Fwy., Dallas, Texas 75203-2996.

**Envirovet Summer Institute.** The goal of the Envirovet Summer Institute is to create a force of scientists with unique perspectives, knowledge, skills, and expertise required to implement an efficient approach to ecosystem repair that will enable synchronous gains in wildlife, domestic animal, human, and economic health. To meet this goal, Envirovet Summer Institute 2006 will provide six weeks of intensive lecture, laboratory, and field experiences to 25 veterinarians, veterinary students and wildlife biologists in the areas of terrestrial and aquatic wildlife and ecosystem health in developed and developing country contexts. Each participant in Envirovet Summer Institute 2006 will engage in comprehensive classroom, laboratory, and field interactions from mid-June to the beginning of August. Individuals with determination, stamina, sense of purpose, keen intelligence, and capacity to envision and pursue positive outcomes in the face of incomplete knowledge and institutional inertia are invited to apply for admission to the 2006 Envirovet Summer Institute. For more information, log onto <http://www.cvm.uiuc.edu/envirovet>.

**Zoological Intern - Wildlife Safari.** Wildlife Safari, Oregon's only 600-acre drive-through zoological park, is looking for college students with a strong interest in wildlife conservation. If you are majoring in the life sciences, wildlife management, animal science, or environmental education and are planning a career in the animal care field, we have an internship program for you. Join Wildlife Safari's Summer Internship Program and get hands-on experience in working with captive wild animals in a zoological park. Internships are available from May 24 through September 1, 2004. Work 40 hours per week and earn a \$550 per month stipend. Work as a tower guard monitoring animal and visitor activity in the cheetah, lion and bear areas. Work closely with our animal keepers taking care of hoofed animals, carnivores, primates, and birds. Take field trips and tour other zoological parks. Earn college credit (if available from your school). If you are interested in being

part of Wildlife Safari this summer, send a resume and letter describing your areas of interest. Be sure to check your class schedules and let us know the dates you are available this summer. Send information to: Summer Intern Program Attn: Josh Jones Wildlife Safari P.O. Box 1600 Winston, OR 97496.

**Training Available in Fish Diagnostics, Inspections, and Laboratory Methods.** The US Fish and Wildlife Service Fish Health Centers provide laboratory and field examination services to the National Fish Hatcheries. Our main emphasis is to assist the hatcheries in producing quality fish that will contribute to the enhancement and restoration of aquatic ecosystems. At the Olympia and Idaho Fish Health Centers, the work may involve travel to field sites to perform diagnostic examinations and collect samples that are then evaluated in our laboratories. Routine testing procedures include bacteriology (biochemical, ELISA, and PCR methods), virology (cell culture, serological, and PCR methods), parasitology (microscopic and PCR methods), histology, and clinical chemistry. Training may be arranged for one day or several weeks at one or both of these laboratories depending on the interests and availability of the individual. In general, most broodstock inspections are performed from September through November, juvenile inspections are performed from January through April, and wild fish surveys are conducted from March through September. Routine diagnostic examinations are performed year round and special projects are conducted as time and necessity permit. For more information, please contact Joy Evered DVM, at the Olympia Fish Health Center; email [joy\\_evered@fws.gov](mailto:joy_evered@fws.gov) or Marilyn Blair DVM, at the Idaho Fish Health Center; email [marilyn\\_j\\_blair@fws.gov](mailto:marilyn_j_blair@fws.gov).

**Sr. Veterinary Student Preceptorship in Avian and Conservation Medicine.** A four to six-week preceptorship in Avian and Conservation Medicine is being offered to a senior-year veterinary student by the International Crane Foundation (ICF) in Baraboo, Wisconsin. The preceptor will train with the Veterinary Services Unit of the Conservation Services Department in all phases of the clinical practice, but have opportunities for interaction with the Crane Conservation Department to learn captive propagation, husbandry, and management of this unique family of birds. The preceptor can expect to gain practical experience in crane capture, transport, anesthesia, preventive medicine, disease surveillance, and the contribution of veterinary medicine to crane conservation including field project support and professional consultations. Preceptors are encouraged to complete and report on a research or laboratory project during their stay. Opportunities for visiting the University of Wisconsin School of Veterinary Medicine and the National Wildlife Health Center in Madison, WI will be made available to interested preceptors. No stipend is available for this position; however, on-site housing in the ICF Guesthouse will be provided depending on availability at the time the preceptorship is scheduled. Applicants should send a cover letter, curriculum vitae, or resume and one letter of recommendation from a faculty member of their home institution to: Barry Hartup, DVM, Director of Veterinary Services, International Crane Foundation, E-11376 Shady Lane Road, Baraboo, WI 53913, email [hartup@savingcranes.org](mailto:hartup@savingcranes.org). Please view our website at [www.savingcranes.org](http://www.savingcranes.org).

**Directory of Post-Graduate Educational Opportunities in Zoo and Wildlife Medicine.** The World Association of Wildlife Veterinarians has recently produced a Directory of Post-Graduate Educational Opportunities in Zoo and Wildlife Medicine. The Directory covers opportunities in over fifty countries and is a must for veterinary students or graduates interested in furthering their careers in the field of wildlife medicine. For further information, please contact the Secretary of the WAWV at: [F.Scullion@zoo.co.uk](mailto:F.Scullion@zoo.co.uk).

## MEETING AND CONFERENCE ANNOUNCEMENTS

Visit the JWD website at <http://www.wildlifedisease.org> for more conference listings.

**Annual Winter Meeting of the Colorado Chapter of The Wildlife Society. Fort Collins, Colorado. January 25 - 27 2006.** Energy and Natural Resources: Finding the Balance. Learn about the effects of energy development on wildlife, ways to minimize impacts, laws and regulations associated with energy development and wildlife, and how to increase dialog between industry and natural resource professionals. The schedule will include a symposium on Bighorn Sheep and concurrent workshop on Wind Power and Wildlife, a plenary session on Energy and Natural Resources: Finding The Balance (invited speakers from Department of Interior, state agencies, industry, conservation organizations, academia, and policy makers), and a technical session involving poster and paper presentations from wildlife students and professionals on a variety of subjects. For more information, contact Stewart Breck, NE Representative CCTWS, Telephone: 970-266-6092, Email: [stewart.w.breck@aphis.usda.gov](mailto:stewart.w.breck@aphis.usda.gov), or the following website: <http://www.wildlife.org/chapters/co/index.cfm>. This meeting is planned in conjunction with Wind Power and Wildlife (January 23-25, 2006). For more information about this meeting email David Klute ([david.klute@state.co.us](mailto:david.klute@state.co.us)).

**The 20<sup>th</sup> Annual Meeting of the The Society for Conservation Biology, San Jose, CA, June 24-28, 2006.** The Society for Conservation Biology looks forward to welcoming the global community of conservation professionals to its 20th annual meeting, *Conservation Without Borders*. A primary objective of the 2006 meeting is to transcend real and perceived boundaries of ecology, sociology, politics, and human behavior that impede conservation science and its application. By leveraging the intellectual capital of professionals and students with diverse expertise and affiliations, we aim to build conservation capacity at local, regional, and global levels. Major topic areas will range from partnerships with private landowners to marine and freshwater conservation to transboundary conservation. We also will share and celebrate the rich ecology and culture of California with our visitors from around the world. The literal and figurative conservation landscape is changing rapidly. Please join the Society for Conservation Biology in advancing the science and practice of conserving the Earth's biological diversity. For more information visit the SCB's website at <http://www.conbio.org/2006>

**The 55<sup>th</sup> Annual Meeting of the Wildlife Disease Association. August 6-11, 2006.** The 55<sup>th</sup> annual meeting of the WDA will be held August 6 through 11 at the University of Connecticut in Storrs, CT. More information to come on our website at <http://www.wildlifedisease.org>.

### NOTE FROM THE EDITOR

Send any items such as reports, meeting announcements, diagnostic riddles, position and grant announcements, or anything else deemed appropriate for the Supplement to the Journal of Wildlife Diseases or the WDA website, to Pauline Nol (Supplement Editor) at USDA/APHIS, National Wildlife Research Center, 4101 LaPorte Avenue, Fort Collins, CO 80521 USA, Ph: (970) 266-6126, Fax: (970) 266- 6157, Email: [pauline.nol@aphis.usda.gov](mailto:pauline.nol@aphis.usda.gov), or Michael Ziccardi (Website Editor) at Wildlife Health Center, University of California, Davis, CA, 95616, USA, Ph: (530) 754-5701, Fax: (530) 752-3318, Email: [mhziccardi@ucdavis.edu](mailto:mhziccardi@ucdavis.edu). Files in Microsoft Word sent electronically or via disk are preferred, though submissions in any form are welcome. **MANY THANKS!**

—Pauline