



Fall 2009

Special points of interest:

- **New Working Group Chair**
- **Ranavirus research**
- **Working Group minutes from the last TWS meeting**
- **Buggy Creek Virus**

*Minutes from
the Annual
TWS Meeting*

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The Vector

The Newsletter of The Wildlife Society
Wildlife Diseases Working Group

From the Chair **Changing of the Guard**

It is an honor to serve as the new Chair of the Wildlife Disease Working Group. Let me start by acknowledging our first Chair, Keith Wehner. He put us on the map and guided us through our infancy. Because of Keith's efforts, we are staged to become one of the most productive Working Groups in TWS. With 159 members, we are already one of the largest Working Groups and I believe we have the people power to do great things. Let me also thank Kirk Shively and Joe Caudell, editors of our newsletter, who have served as the glue that holds our Working Group together. The Vector clearly is a high quality product and it received high acclaim at our last annual meeting. Thanks also go to Tim Algeo, who kept our communication and financial records in line during the last two years and Jordona Kirby who has stepped forward to do the same for the next two years. Congratulations to our recently elected Board Members (Alan Franklin, Sarah Hamer, and Mike Samuel), thanks to the Board Members who will continue to serve another year (Rick Brown, Rich Chipman, John Fischer, and Graham Hickling), and a special thanks to our Committee Chairs

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**Working Group Report:**

Minutes from the Wildlife Disease Meeting at the Annual TWS Meeting

In attendance: David Bergman, Kelli Blomberg, Rick Brown, Kristin Brugger, Shannon Chandler, Richard Chipman, Joshua Dein, Collin Gillin, Alan Franklin, Scott Hygnstrom, Dave Jessup, Gretchen Kaufman, Markus Peterson, Jenny Powers, Jeff Root, Stacy Samuelson, Krysten Schuler, Seth Swafford, Amy Viscito, J. Quam-Wickham, Peri Wolff, Thierry Work.

Twenty-two members participated in the meeting of the Wildlife Disease Working Group (WG) this year in Monterrey, CA. According to the bylaws, a quorum is 12 members or 15% of the membership which ever is lower. Therefore we had a quorum at this meeting for the purposes of conducting business.

WG board member Rich Chipman and incoming WG Chair Scott Hygstrom conducted the meeting on behalf of outgoing Chair Keith Wehner, who was not able to participate.

Old Business**Keith Wehner Acknowledgement**

Rich Chipman opened the meeting by thanking outgoing Chair Keith Wehner for his professional commitment and hard work in cooperatively establishing the Wildlife Diseases Working Group. It was also noted that Keith did a great job in encouraging members to join with diverse backgrounds who worked for a wide variety of agencies, universi-

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Student Research

Disease Ecology of Amphibian Ranaviruses

Ranaviruses (Family Iridoviridae, Genus *Ranavirus*) are responsible for the majority of reported amphibian mass mortality events in North America. This pathogen also has caused known die-offs in Central and South America, Europe and Asia. The virus infects larval amphibians across epithelial surfaces which can occur during exposure to contaminated sediment or water, direct contact with infected individuals, or ingestion of infected tissue. Gross signs of viral infection can include severe edema, erythema, and hemorrhages (Fig. 1). Ranaviruses infect multiple organs (e.g., spleen, kidney, liver) and cause cell death via necrosis and apoptosis. Ultimately, the amphibian dies from organ failure or complications associated with reduced organ function. The progression of ranaviral disease can be rapid, with mortality occurring in <7 days for some species following exposure to virions.

Ranavirus was isolated from the northern leopard frog (*Lithobates pipiens*) in the 1960s, but mass mortalities were not reported until the 1990s. Molecular analysis of isolates across large geographic regions suggests this pathogen may be emerging. Despite the potential threat of ranaviruses to amphibian biodiversity, few controlled studies have been performed examining the relative susceptibility of species. Further, no studies have examined whether amphibian developmental stages (i.e., egg, hatchling, larval, metamorph) differ in susceptibility. This information is critical for identifying species at the greatest risk of experiencing a die-off and determining the role of immune system development in affecting susceptibility to the virus.

I am conducting research in the Center for Wildlife Health at the University of Tennessee. My research involves a series of experimental challenges where 7 amphibian species are exposed to a ranavirus isolate in a water bath during 4 developmental stages associated with key changes in the immune system. Species that I am using belong to 4 major anuran families in North America: Ranidae (true frogs), Hylidae (tree frogs), Bufonidae (true toads), and *Scaphiopodidae* (spadefoots): green frog (*Lithobates clamitans*, LICL), wood frog (*L. sylvaticus*, LISY), northern leopard frog (*L. pipiens*, LIPI), upland chorus frog (*Pseudacris feriarum*, PSFE), Cope's gray tree frog (*Hyla chrysoscelis*, HYCH), Ameri-



Figure 1: HYCH with severe edema and hemorrhaging following exposure to ranavirus.

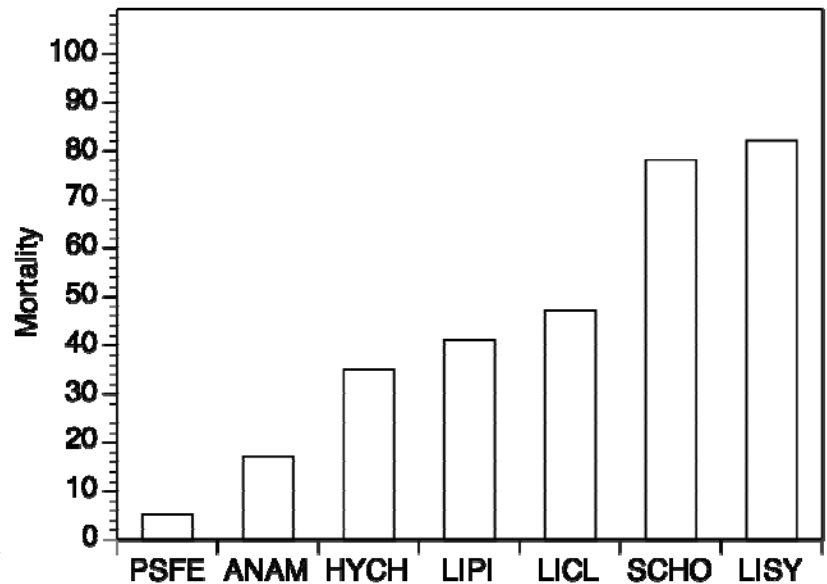


Figure 2: Mortality rates of 7 species exposed to ranavirus. Mortality rates were averaged across all developmental stages.

can toad (*Anaxyrus americanus*, ANAM), and eastern spadefoot (*Scaphiopus holbrookii*, SCHO). My response variables include survival, growth and infection rates 14 days post-exposure.

Preliminary results for mortality indicate that susceptibility to ranaviruses differs among developmental stages and species. Across all species, mortality was 21%, 43%, 54% and 56% for the egg, hatchling, larval and metamorph stages, respectively. However, with the exception of the egg stage, these rates differed depending on the species. In general, the metamorph stage was the most susceptible for the true frogs (LICL, LISY, LIPI) and ANAM, whereas the larval stage was the most susceptible for the tree frogs (HYCH, PSFE). LISY was the most susceptible species with 100% mortality in the larval and metamorph stages. SCHO experienced the greatest mortality during the hatchling stage. Across developmental stages, susceptibility to ranaviral disease differed substantially among species; LISY and SCHO had the greatest mortality rates while PSFE and ANAM were least susceptible (Fig. 2). Collectively, these results indicate that ranaviruses can infect multiple hosts but disease risk differs among species and appears to be lowest for the egg stage.

Mechanisms driving these trends are unknown. Low mortality in the egg stage suggests that the egg capsule may function as a protective barrier for embryos. High mortality of LISY and SCHO may be related to a tradeoff between immune function and developmental rate, because typically these species breed at sites with ephemeral water thus their larvae must develop rapidly. These hypotheses remain to be tested.

From the Chair (Continued from page 1)

and members, our outgoing Board Member, Bob McLean, and all those who were willing to run for one of the elected positions. You will be called upon again!

We had a great Annual Meeting of TWS in Monterey. Julie Blanchong, Dave Jessup, and Kristin Brugger headed up a Symposium on Diseases and Toxicants Affecting Marine Wildlife that was popular, well designed, and geo-spatially and temporally topical. It doesn't get any better than that. Two other sessions of contributed papers on wildlife diseases and toxicology also were presented. If you missed the meeting this year, put next year's meeting on your calendar right now. We will be meeting again October 3-7 in Snowbird, Utah. Members of the Working Group already are developing proposals for a Symposium on the role of wildlife in emerging infectious diseases and a Workshop on necropsy and field techniques. See the minutes of the Working Group meeting for details and let me or the leaders of the efforts know if you are interested in chipping in. Our Working Group meeting was a little smaller than expected (22 members), but we were able to get a lot of good work done and kick off some new initiatives. We have several active committees that need some new and energetic volunteers to help keep things rolling. In particular, the Communications Committee

needs people to help gather, package, and review content for our newsletter editors and website master. Recall my reference to glue? These positions are critical to our communication and success in the future. Our Working Group has recognized the importance of involving students in our activities, thus the development of the Student Interactions Committee that has championed the efforts of including student-derived and oriented articles in *The Vector*. The Workshop on necropsy and field techniques that I referred to earlier also will have a student slant, so we need to include their ideas and energy throughout the process of development. Students and professionals...don't be shy... step up and be a part of the process! The Working Group is also working on a position statement on climate change and searching for opportunities to work on collaborative efforts with the Wildlife Diseases Association.

So far, this message has been largely an expression of appreciation and a reflection on the past. If you were looking for elegant pontifications, you may be disappointed. I may, however let you have a peek at my crystal ball in the next edition. Always leave them wanting more....

It's my pleasure.....Scott Hygnstrom

Ranavirus research (continued from page 2)

My future plans include replicating this study for several common salamander species that coexist with larval anurans. I also am conducting a study that addresses whether natural stress associated with exposure to aquatic predators (e.g., dragonfly larvae) increases the likelihood of infection and morbidity by ranaviruses. My work is being conducted in combination with other projects investigating evolutionary, ecological and anthropogenic drivers of ranavirus emergence.



Figure 3: Nathan Haislip inoculating tadpoles with ranavirus.

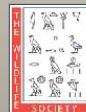
For more information on this project, you can contact Nathan at: nhaislip@utk.edu or visit his website at: <http://fwf.ag.utk.edu/mgray/WetlandLab/NHaislip.htm>. Nathan Haislip is mentored by Drs. Matt Gray, Jason Hoverman, and Debra Miller of the UT Center for Wildlife Health (<http://wildlifehealth.tennessee.edu>).

Article by Nathan Haislip, M.S. Candidate; University of Tennessee Center for Wildlife Health

Attention Certified and Associate
Wildlife Biologists:
Flaunt your acronyms!



You worked hard to earn your AWB® and CWB®, so add them to your business card and emails **and stand out from the crowd.**



TWS membership is now required for certifications to remain valid, so be sure to join or renew at wildlife.org

Working Group Meeting Notes (Continued from page 1)

ties and organizations. Rich also thanked Bob McLean for his work on the WG board and his long professional history of working on wildlife diseases.

2009 Membership Report

Rich Chipman provided a membership report. There were 159 members in 2009. This is up slightly from 152 members in 2008.

2009 Elections

The results of the 2009 WG Elections were discussed. Approximately 32% of the membership voted.

New Board members

Chair- Elect	Richard Brown	(2009-2011)
Sec-Treasurer	Jordana Kirby	(2009-2011)
Board Members	Alan Franklin	(2009-2011)
	Sarah Hamer	(2009-2011)
	Michael Samuel	(2009-2011)

Continuing Board Members

Chair	Scott Hygnstrom	(2009-2011)
Past Chair	Keith Wehner	(2009-2011)
Board Members	Rich Chipman	(2008-2010)
	John Fischer	(2008-2010)
	Graham Hickling	(2008-2010)

Mission Statement

The proposed mission statement was passed by a vote of the membership. It reads:

“The mission of the Wildlife Diseases Working Group is to promote better scientific understanding of the causes and consequences of disease in ecosystems and wildlife populations; to apply the principles of wildlife science, ecology, and epidemiology to the prevention and management of diseases in wildlife; to foster education and transfer of information on diseases to wildlife management professionals and the public; and to apply this knowledge to enhance the health and conservation of wildlife populations and their interactions with humans and domestic animals.” A short discussion followed.

Secretary/Treasurer's Report (Rich Chipman)

Rich Chipman presented the Secretary/Treasurer's report, which was submitted by Tim Algeo to Chair Keith Wehner prior to the meeting. The WG account is currently at Merrimack County Savings Bank in Concord, New Hampshire. This will likely be switched over to another bank in TN near the office of the new Secretary treasurer Jordana Kirby. The WG account balance is \$1,588.92 as of 8/31/09. Balance as of 3/17/08 was \$1,272.40. No expenses were incurred this year and deposits equaled \$316.00. Service charges (\$2.00 total) were noted in our Excel spreadsheet for 3/16/09, but were accidentally not reported in the report for the period ending 3/17/09, which explains the ending balance of the report ending 3/17/09 being \$2.00 greater than the start-

ing balance of this report. The books for the WG were audited (completed 3/30/09) by Krysten Schuler, Wildlife Ecologist with the USGS National Wildlife Health Center. Motion to accept Treasurer's Report (Dave Jessup), seconded (Krysten Schuler). Treasurer's Report = Approved.

Committee Reports (Scott Hygnstrom)

Technical Session Committee – Julie Blanchong and Dave Jessup

Symposium: Diseases and Toxicants Affecting Marine Wildlife: Causes, Conflicts, Solutions. Tuesday, Sep 22, 2009, 8:30 AM -12:20 PM

Very successful and had good attendance. Special thanks to Julie and Dave for putting together a high visibility, location-relevant session sponsored by the WG.

Communications Committee – Kirk Shively and Joe Caudell

The Vector: A big thanks to Kirk Shively and Joe Caudell for their ongoing professional work on *The Vector*. WG members in attendance commented on the outstanding quality of our newsletter and felt its publication really puts activities of the WG in a positive light.

Scott Hygnstrom poled the WG members in attendance to see if everybody was receiving the newsletter. A few members are still not receiving it. Scott said he would work with Kirk and Joe on this to make sure everybody receives it quarterly.

Website - Michael Milleson and Shylo Johnson have been working on the WG website. It is up and running. Scott H. and Rich C. thanked them for their work on behalf of the WG. Also, requested that WG members please go to web site and provide ideas for content directly to Mike and Shylo. They can work to incorporate ideas. Josh Deans volunteered to work on content and ideas for both the web page and *The Vector*.

Scott Hygnstrom volunteered to serve on the Communication Committee. More volunteers are needed for content development and review of final drafts.

Membership Committee – Vacant

The board thanked Tricia Fry for chairing the membership committee. Scott H. asked for additional volunteers to work on this committee. Past Chair Keith Wehner and Kirk Shively had volunteered prior to the meeting. A new chair and addition members are needed.

Nominations and Elections Committee – Keith Wehner

The nominations and elections process went very well last year. Use of the Internet for electronic voting facilitated increased participation of members (32%) in the process.

Three WG board positions will need to be filled in 2010. Keith Wehner, Scott Hygnstrom and Dave Jessup volunteered to be on the Nominations and Elections Committee and organize a slate of candidates for next year.

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Working Group Meeting Notes (Continued from page 4)

Student Interactions Committee – Sarah Hamer

No one from the Student Interactions Committee was able to attend the WG meeting this year. However, the stated goals of this committee are to encourage students to give papers in the WG-sponsored symposia and to submit articles and summaries of thesis work in progress to *The Vector*. Alan Franklin volunteered to work with Sarah Hamer and Graham Hickling on this committee.

Audit Committee - Vacant

A 2010 Audit Committee was formed. Krysten Schuler and Jeff Root volunteered to work with Secretary Treasurer Jordona Kirby to organize and conduct an audit of the WG books in summer 2010.

Climate Change Position Statement

A position statement on climate change for the WG was drafted and reviewed by the WG Board. Special thanks to Mike Samuel and Bob McLean for working on this document. Scott H. agreed to contact TWS staff member Laura Bies to work on next steps to formalize the position statement. After Laura Bies provides guidance, Scott H. will send the position statement out for review to the entire WG.

WDA Interaction Task Force - Colin Gillin and Sarah Hamer

An updated memorandum of understanding has been established between TWS and the Wildlife Disease Association. Collin Gillin serves on the Wildlife Disease Association council and is the designated liaison with TWS. Considerable discussion occurred on ways to formalize a liaison position to TWS Council. What is the common ground between organizations? What can we do together?

New Business

Joint TWS-WDA Meeting

Alan Franklin discussed the idea of having a joint meetings with WDA by involving TWS sections rather than associated with annual TWS meeting. Group support was noted for this in concept.

Information

The 17th Annual Meeting of TWS will be in Snowbird, Utah October 3-7, 2010. A call for proposals for workshops and symposia has been

posted with a deadline for submission of proposals by December 4, 2009. The broad theme of next year's conference is Excellence in Wildlife Stewardship through Science and Education.

Plenary Speakers -2010 or 2011 TWS Annual Meeting

While the WG recognizes that it is mostly up to the current TWS president and local organizing committee to come up with plenary speakers, it was agreed that the WG should promote and work with Bruce Leopold to have a wildlife disease oriented person be one of the suite of speakers chosen for Utah.

Symposium Ideas – 2010 or 2011 TWS Annual Meetings

TWS generally defines symposia as a series of presentations that address aspects of a single topic. Symposia usually are a half day; however, requests for a full day may be considered depending upon available space. Deadline for this proposal is December 4, 2009. We discussed options and settled on the role of wildlife in emerging infectious disease. Alan Franklin agreed to work with Jeff Root, Rich Chipman and Seth Swafford to put together a draft proposal for 2010 meeting.

Workshop Ideas – 2010 TWS Annual Meeting

TWS sponsored workshops generally focus on provide training on a specific skill, technique, or process and may involve one or more instructors and are intended to emphasize learning through participation, discussion, and "hands-on" activities. A long discussion led to the primary idea of providing a workshop on necropsy and field techniques in Utah next year, hosted by collaboratively by the Wildlife Diseases and Wildlife Toxicology WGs and the WDA. Several individuals volunteered to begin working on the workshop proposal on behalf of the WG, including: Seth Swafford, Kristin Brugger, Krysten Schuler and Peri Wolff.

Transition to New WG Chair.

Scott Hygnstrom installed as new Chair and welcomed by the committee.

Report respectfully submitted by Richard Chipman, WG Board Member and Scott Hygnstrom, WG Chair



WILDLIFE DISEASE ASSOCIATION (AUSTRALASIAN SECTION)
AND

WILDLIFE SOCIETY of the NEW ZEALAND VETERINARY ASSOCIATION –
JOINT CONFERENCE 2009

10-16 DECEMBER, WOODSTOCK LODGE, THE CATLINS, NEW ZEALAND



The Joint Conference of the Australasian Section Wildlife Disease Association and the Wildlife Society of the New Zealand Veterinary Association will be held 10 – 16 December 2009 in the Catlins, South Otago, New Zealand.

Registration forms along with all additional conference information will be posted on the following websites:

New Zealand Wildlife Health Centre <http://wildlife.massey.ac.nz>
Wildlife Disease Association Australasia <http://www.wda-aust.org/>
Wildlife Disease Association <http://www.wildlifedisease.org/>
Wildlife Society of the NZVA <http://www.nzva.org.nz/sibs/wildlife/>

Student Research**A Cost of Coloniality Comes Home to Roost: Natural and Introduced Avian Hosts of Buggy Creek Virus**

Animals that live in groups must contend with a number of consequences of social life, one being an increased risk of exposure to parasites and pathogens. Almost 40 years ago, Richard Alexander, John Hoogland, and other evolutionary biologists postulated that this unavoidable cost of group-living is universal among social organisms and must be outweighed by advantages of living together if this type of social structure is to confer a selective advantage.

In 1982 my advisor, Charles R. Brown, began a long-term study of the costs and benefits of colonial nesting in the cliff swallow (*Petrochelidon pyrrhonota*), a passerine bird that builds gourd-shaped mud nests in large numbers on the sides of steep cliffs and underneath bridges and highway culverts. Brown and coworkers quickly determined that one of the



10-day-old cliff swallow nestling. Photo V. O'Brien

more serious disadvantages of coloniality for these birds comes from infestations of hematophagous swallow bugs (*Oeciacus vicarius*), cimicids similar to bedbugs, that live in the swallows' mud nests and increase in larger colonies. A single nest can contain over 2000 swallow bugs. When numerous, the bugs can kill nestlings outright or greatly reduce the young birds' body condition and impair later survival.

Bugs may also be vectors for viruses that cause disease. In the mid 1970s, Thomas W. Scott, Cliff E. Hopla, and others discovered an unusual alphavirus, named Buggy Creek virus (BCRV), associated with swallow bugs, cliff swallows, and introduced house sparrows (*Passer domesticus*). Not known to affect humans, and closely related to western equine encephalomyelitis virus, BCRV had not attracted much research attention until the late 1990's when Brown wondered whether this virus might represent another cost of coloniality for cliff swallows exposed to more bugs in larger nesting colonies. Subsequent studies in Nebraska and North Dakota revealed more BCRV in bugs in larger swallow colonies, and that the virus commonly persists in adult bugs throughout the cold Great Plains winters.

I joined the project to help answer Dr. Brown's original question of how BCRV might be affecting cliff swallows in groups of different sizes. One benefit of working with this virus is that the sedentary (wingless), long-lived bugs create



Cliff swallow nests. Photo V. O'Brien

predictable spatial foci (i.e., the bird nesting colonies) where avian hosts are commonly exposed to virus-infected vectors. By sampling over 1000 adult, juvenile, and nestling cliff swallows at the Nebraska study site, I determined that cliff swallows are rarely infected by BCRV (1.5%), possibly due to adaptation of the birds via coexistence with their hemipteran parasites and the virus. So much for the original question: BCRV doesn't affect cliff swallows, and thus isn't a cost of group life for them.



Taking a blood sample from 4-day-old house sparrow nestling. Photo V. O'Brien

The story might have ended there with this being a nice example of an endemic virus that just smolders along in a limited host-vector set and that in most cases we wouldn't even know was there. But enter an invader. House sparrows were introduced multiple times into North America from Great Britain in the 1800's, and by about 1940 they had arrived in Nebraska and were occupying swallows' nests in colonies close to human habitations. Sparrows were suddenly exposed to swallow bugs in the nests, which readily feed on them. House sparrows, having no historical "experience" with BCRV, were exposed to a novel pathogen.

My work has shown much higher virus infection prevalence in house sparrows than in cliff swallows: about a quarter of all nestling house sparrows hatched in cliff swallow colonies develop detectable viremia. If birds are infected by the virus before about 7 days of age, almost all die. Dead nestlings exhibit encephalitis, and it is clear that BCRV is quite pathogenic to them. It appears to be primarily a disease of nestlings, however. Both field surveys and experimental infections have shown that adult house sparrows have only short-lasting, low-level viremias that do not noticeably affect them. Dr. Brown's original hypothesis about BCRV being a cost of coloniality might be true for the naïve house sparrow, as colonies with more sparrows had more nests with infected nestlings.



Juvenile cliff swallow. Photo V. O'Brien

We now think that the divergence of BCRV into two different genetic lineages reflects the far superior ability of sparrows to amplify the virus. This provides one lineage the opportunity to replicate in a classical bird-associated transmission cycle in the presence of

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Conference Announcement: 14th International Congress on Infectious Diseases

Dear Members, Colleagues, Sponsors and Friends:

In this ever shrinking world where people, products and pathogens move rapidly around the globe, our collective expertise and experience will enable us to find answers to the infectious disease challenges confronting us all. It is in this shared spirit of scientific excellence and collegial collaboration that preparations have begun for the 14th International Congress on Infectious Diseases to be held in Miami, Florida from March 9-12, 2010. Building on the unqualified successes of our most recent biannual meetings in Lisbon and Kuala Lumpur, the International Society for Infectious Diseases is delighted to return to North America for the 14th ICID.

We are very excited about coming to Miami, an internationally recognized multicultural, multilingual and dynamic city that serves as a welcoming entry point into the United States. Miami also is home to outstanding universities and medical centers, and has a worldwide reputation as a pioneer city in international medicine, infectious diseases research and practice.

Whether you are a clinician, researcher, educator, public health official or practitioner of any of the disciplines that contribute to the care of patients with infectious diseases, please mark your calendars and make plans to join thousands of your colleagues from approximately 100 different countries in Miami at the Congress.

The 14th ICID will continue the unique educational approach that distinguish International Congresses on Infectious Diseases from other meetings, namely a scientific program that runs the spectrum from cutting edge science to state-of-the-art practices to global infectious disease control, all presented by a truly international faculty and at-



Save-the-Date

14th International Congress on Infectious Diseases
MIAMI, FLORIDA • USA • MARCH 9-12, 2010
Organized by the International Society for Infectious Diseases
1330 Beacon Street, Suite 228 • Brookline, MA 02446 USA • Phone: (617) 277-0551
Fax: (617) 278-9113 • Email: info@isid.org • Web site: http://www.isid.org

tended by participants whose diverse backgrounds create an incomparable opportunity for the worldwide exchange of information for the benefit of our patients and societies.

Plenary lectures by world leaders in infectious disease and microbiologic research, clinical practice and health policy will be complemented by symposia organized, moderated and presented by experts in their respective fields, interactive meet-the-professor sessions headed by engaging faculty and daily oral and poster presentations based on submitted abstracts. Importantly, the Congress allows members to renew and expand their participation in the Society and non-members to become members that contribute to its future. The Congress also provides a perfect environment for stimulating intellectual exchange and camaraderie, essential elements for the creation of new ideas and partnerships.

We look forward to your participation in Miami in March 2010, and to working together on the world's premier multispecialty global infectious diseases conference.

Raul E. Isturiz, MD, FACP
President, International Society for Infectious Diseases

Buggy Creek (Continued from pg. 6)

sparrows (perhaps like it did when it first jumped into cliff swallows), while the other lineage is adapting to more of a bug-only cycle in the absence of effective avian amplification (sites without sparrows). Buggy Creek virus is a great example of disease emergence in response to arrival of an invasive species. The ease with which it can be found in nature and studied means it offers many opportunities to better understand the ecology and evolution of arboviruses.

Article by: Valerie A. O'Brien, Ph.D. student, University of Tulsa (e-mail: valerie-obrien@utulsa.edu)



V. O'Brien posing with a house sparrow nestling.



Officers and Board Members

Executive Board

Scott Hygnstrom (chair elect) shygnstrom1@unl.edu
Keith Wehner (past chair) keith.p.wehner@aphis.usda.gov
Richard Brown (chair elect)
Jordona Kirby (sec/treas)

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Keith Wehner Nominations and Elections
Kirk Shively Communications kirk.j.shively@aphis.usda.gov
Vacant Membership

Mission Statement

The mission of the Wildlife Diseases Working Group is to promote better scientific understanding of the causes and consequences of disease in ecosystems and wildlife populations; to apply the principles of wildlife science, ecology, and epidemiology to the prevention and management of diseases in wildlife; to foster education and transfer of information on diseases to wildlife management professionals and the public; and to apply this knowledge to enhance the health and conservation of wildlife populations and their interactions with humans and domestic animals.

Meetings, Dates, and Deadlines

December 2009

The 55th Annual Northeastern Mosquito Control Association Meeting will be held at the Sturbridge Host Hotel in Sturbridge, MA from December 2-4, 2009. For more information, please visit their web site at www.nmca.org.

March 2010

The deadline for submitting papers to the 2010 Wild Pig Conference is March 1, 2010. Both oral presentations and posters are being sought for the conference from state agencies to discuss problems, issues, successes, and current management as well as traditional feral swine research and management papers (including feral swine diseases). Details for submissions can be found at www.WildPigConference.com.

The 14th International Congress on Infectious Diseases will be held in Miami, Florida on March 9-12 at the James L. Knight International Center. Details about the conference and paper submission can be found at http://www.isid.org/14th_icid/

April 2010

The next Wild Pig Conference will be sponsored by the Jack H.

Berryman Institute and will be held in Pensacola, Florida on April 11-14, 2010. More information be sure to keep an eye on this publication and the conference website (www.WildPigConference.com) for more information on submitting papers and attending the meeting.