

### Introducing: Dr. Christina Law

by Dr. Kelly Jeffer, NCDA&CS

We would like to introduce you to Dr. Christina Law, a new member of our Emergency Programs (EP) team. As the Western Region EP Veterinarian, Dr. Law's territory covers 22 counties including the Charlotte metro and the Triad areas. Dr. Law will also serve as co-coordinator with Dr. Mandy Tolson of the NC Veterinary Response Corps. Dr. Law joins us with six years of experience as a large animal practitioner. She also worked with the poultry industry in NC for two years. Be on the lookout for Dr. Law. She looks forward to meeting all of you. (To view our full field staff map, please see our website, [www.ncagr.gov/oep](http://www.ncagr.gov/oep).)



Dr. Christina Law and her horse, Aaron

### In This Issue:

- Dr. Christina Law (pg 1)
- NC Foot and Mouth Disease Exercise Series (pg 1, 6)
- One Medicine Symposium (pg 2, 4)
- Member spotlight (pg 3)
- Amateur Radio (pg 3, 5)
- Oiled Bird Response Workshop (pg 4)

### NC Foot and Mouth Disease Exercise Series

by Dr. Karen Beck, NCDA&CS

Foot and Mouth Disease (FMD) is caused by a highly contagious virus. All cloven-hoof animals (cattle, sheep, swine, deer, etc.) are susceptible to the disease. Nearly 100% of the susceptible animals exposed become sick, and young animals may die from the disease. Cattle and sheep can become carriers post infection. Foot and Mouth Disease Virus can only replicate in a live host, but virus shed in the environment is still capable of infecting susceptible animals. People, non-susceptible animals, equipment, animal products, animal waste and vehicles can very effectively spread the virus.

(Continued on page 6)

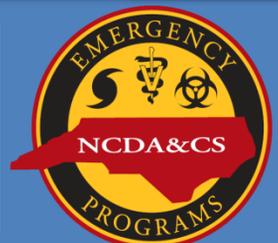


**NORTH CAROLINA DEPARTMENT OF AGRICULTURE &  
CONSUMER SERVICES**

**Emergency Programs Division**

*Steve Troxler, Commissioner*

*Sharron Stewart, Director*



# Eighth Annual One Medicine Symposium Focuses on Vector-borne Diseases

By Drs. Carl Williams, NC DPH & Kelly Jeffer, NCDA&CS

On December 8<sup>th</sup> the NC Division of Public Health and the NC Department of Agriculture and Consumer Services (NCDA&CS) hosted the annual One Medicine Symposium at the Sheraton Imperial Hotel and Convention Center. For the eighth year the state agencies have collaborated with planners from the NCSU College of Veterinary Medicine (NCSU CVM) and the UNC Gillings School of Global Public Health to create a cross-disciplinary meeting that provides relevant and timely information to practitioners of medicine, veterinary medicine, public and environmental health.

The objectives of the 2010 meeting included: discussing similarities and differences of vector-borne disease ecology, diagnosis and case management in humans and in animals; discussing the impacts of our changing ecology on wildlife and disease risks for people and pets; and how surveillance in both populations can benefit one another. As a keynote speaker, Michael Yabsley, PhD, of the Southeastern Cooperative Wildlife Disease Study, (<http://www.scwds.org/>) gave an overview of tickborne disease of man and animals of the Southeast US and presented a variety of new research. Dr. Yabsley was followed by Christopher Paddock, MD, from the CDC and Edward Breitschwerdt, DVM, from the NCSU CVM who presented on rickettsial diseases of man and dogs and specifically how emerging rickettsial pathogens are potentially confounding surveillance for Rocky Mountain spotted fever (RMSF) in the US. This presentation was particularly timely given the struggles local health departments face regarding surveillance for RMSF. Continuing on the topic of mosquito-borne diseases, James Whitehouse, MD, from Asheville Infectious Disease Consultants talked about the clinical presentation, management and surveillance of LaCrosse Encephalitis. This is the most common mosquito-borne disease of man in NC. Barry Engber, ScD, from NC DENR, discussed the NC avian sentinel surveillance program for mosquito-borne diseases. (Continued on page 4)



## VRC COORDINATOR

**Mandy Tolson, DVM**  
Southeast Region Emergency Programs  
Veterinarian  
(252) 813-0989  
[mandy.tolson@ncagr.gov](mailto:mandy.tolson@ncagr.gov)

**COMPLETE YOUR VRC  
REGISTRATION AT  
[www.servnc.org](http://www.servnc.org)**

## Upcoming Events:

**Please see our website for  
future training and activities.**

**Don't forget to plan to join us  
on November 4, 2011 at NCVV  
for the public practice track!**

## REQUIREMENTS FOR VRC DEPLOYMENT

- ICS 100, 200 and 700
- Biosecurity/PPE Training
- Knowledge of NC Emergency Management
- Knowledge of Emergency Support Functions
- Attendance at VRC Meetings
- Sign a Code of Conduct



# Amateur radio: When All Else Fails

by Dr. Karl Bowman, NCSU CVM, President, Raleigh Amateur Radio Society

Most individuals have heard about amateur (ham) radio. For many, the most visible evidence of ham radio is the large antenna tower in the backyard of a nearby home, or the truck with a call sign license plate and so many antennas it looks like it has porcupine quills. But, what tends to grab one's attention are the news reports about ham operators providing emergency communications, maybe the only communications, during a disaster. Hurricanes Fran, Bonnie and Floyd? Amateur radio was there.

Members of the NC Veterinary Response Corps should know about amateur radio and possibly, obtain an amateur radio license.

There are many reasons why individuals pursue amateur radio as a hobby. For many, the most important reasons are the challenge and excitement of successful communications and the subsequent friendships that develop with others, regardless of whether the distance bridged is halfway around the world or across town. Other reasons may include interest in amateur radio club activities; education of new hams, including youth activities; repair and restoration of vintage radios and amateur radio equipment; advancing the state-of-the-art in electronics and communications; or being an advocate for amateur radio with local and federal agencies and government. Many people do not realize that most of the commercial wireless technologies we take for granted today were either invented by, or perfected by, hams. For example, amateur radio operators were using the first generation of cell phone-type technologies in the 1960s. (Continued on page 5)



## VRC SPOTLIGHT:



Dr. Karl Bowman

Dr. Karl F. Bowman received his DVM degree from Michigan State University in 1976. He served as an intern and resident at Auburn University (1976-79); and, as a resident at the New Bolton Center, University of Pennsylvania (1979-81). Dr. Bowman received his MS degree from Auburn University in 1981. Dr. Bowman is board-certified by the American College of Veterinary Surgeons and the American Board of Veterinary Practitioners in the clinical specialties of veterinary surgery and equine practice, respectively. In 1981, Dr. Bowman joined the faculty at the NCSU College of Veterinary Medicine. Dr. Bowman was the NCSU Veterinary Teaching Hospital Clinician of the Year in 1996. He was given the NCSU Libraries Faculty Award in 2003. Dr. Bowman is currently Emeritus Associate Professor, Equine Surgery. He became involved with the NC Veterinary Response Corps in 2008. Dr. Bowman resides in Raleigh, NC with his wife, Dr. Gale Gilbert Bowman (K4GGB), owner of Bowman Animal Hospital and Cat Clinic, Inc. Karl (W4CHX) is President of the Raleigh Amateur Radio Society (2010-2011).

### ABOUT VRC

**OUR MISSION** To train and prepare professionals in the animal care community to respond to disaster events (all hazards) that affect both production and companion animals. Our members will serve as a resource for our state and the nation.

*To see recent news and updates, please visit the VRC website at [www.ncvrc.org](http://www.ncvrc.org). If you have questions about the VRC or would like to offer suggestions or articles for future newsletters, contact Mandy at [mandy.tolson@ncagr.gov](mailto:mandy.tolson@ncagr.gov).*

On January 28, 2011, Dr. Greg Massey and Dr. Laurie Degernes offered a workshop at NCSU CVM on Oiled Bird Response. Participants were given an introduction to the needs of birds after oil contamination and the steps that are required to prepare the birds for release. Participants at the workshop were given the opportunity to talk to responders who have been on the front line during a response and were able to share valuable information from their experiences. The day consisted of lectures as well as wet labs. The wet labs included practice in donning and doffing personal protective equipment (PPE) for responders, hock and foot wraps, keel pad placements, administering fluid therapy and feeding the birds. Though more training is needed to respond to this kind of event, this workshop gave participants the opportunity to learn some of the logistics and expertise that would be needed. Attendees included veterinarians who practice in varied disciplines as well as rehabilitators and Veterinary Response Corp members. This one day workshop provided 8 hours of continuing education for veterinarians and veterinary technician and covered a broad range of subject matter pertaining to oiled bird rehabilitation.

Participants dress out in personal protective equipment



Dr. Degernes demonstrates fluid therapy administration



## One Medicine Symposium 2010 – Continued from Page 2

Following lunch an expert panel discussed the human, veterinary and ecological aspects of Lyme disease as well as surveillance for Lyme disease. Paul Lantos, MD, from Duke University and a member of the 2010 IDSA Lyme disease review panel

([www.idsociety.org/lymedisease.htm](http://www.idsociety.org/lymedisease.htm)) spoke about diagnosis and management of Lyme disease in people. Susan Little, DVM, from Oklahoma State University Center for Veterinary Health Sciences, spoke about the diagnosis, management and surveillance for Lyme disease in dogs. Charles Apperson, PhD, from NCSU spoke about the variety of *Ixodes* species ticks and their complex ecology in the southern US. The final session of the day included presentations by Susan Montgomery, DVM, from the CDC, about Chagas disease and Edward Breitschwerdt about *Bartonella* species as human and animal pathogens and their potential to cause chronic, unrecognized infections. Adam Birkenheuer, DVM, from NCSU CVM and Abelardo Moncayo, PhD, from the Tennessee Department of Health concluded the day by presenting on human and canine babesiosis.

These presentations were very timely as human babesiosis has recently been added to the Nationally Notifiable List by the Council of State and Territorial Epidemiologists ([www.cste.org/ps2010/10-ID-27.pdf](http://www.cste.org/ps2010/10-ID-27.pdf)).

As you can see, the symposium provided nationally renowned speakers to address multiple issues of medical and public health interest. As always the symposium offered at least six hours of continuing education credit for physicians, nurses, veterinarians, veterinary technicians, environmental health specialists and remained a great value with only a \$50 registration fee. This year's symposium was well attended with more than 360 participants, which is the second highest attendance in the history of the symposium. If you are interested in reviewing individual presentations they are available online at [www.ncagr.gov/oep/oneMedicine/OneMedicineSymposium2010.htm](http://www.ncagr.gov/oep/oneMedicine/OneMedicineSymposium2010.htm). Stay tuned for information about the 2011 symposium at [www.onemedicinenc.org/](http://www.onemedicinenc.org/).

# Amateur Radio – When All Else Fails

Continued from page 3



Regardless, all licensed hams acknowledge the important role of amateur radio in public service and emergency communications. For some, this is the principal reason they became licensed. It is important to note that all active hams have developed operating skills and have access to some or all of the amateur radio bands, which allows them to participate effectively in public service and emergency communications. Furthermore, that is the justification for the Federal Communications Commission (FCC) reserving portions of the electromagnetic spectrum (“airwaves”) for amateur radio and requiring ham operators to pass tests on radio communication theory, practice, safety and regulations.

The word, “amateur,” in amateur radio does not mean unprofessional, but that an operator cannot receive payment for services. Hams are very much professional communicators and earn their privileges by taking FCC written examinations on electronic theory and proper operating procedures. The FCC mandates that amateur radio be used only for personal and not commercial use. A business or group, even a non-profit organization, cannot use amateur radio to maintain its regular operations during a disaster or emergency situation. This position may seem at odds with the need for disaster or emergency communications, but the principle that needs to be observed relates to who is being benefited. If it is the public at large or there are lives at risk, then use of amateur radio during disaster or emergency communications is appropriate. Obviously, amateur radio can be (and is) incorporated into local, county and state emergency plans; and, for emergency plans at hospitals.

So, the question remains: should you become a licensed amateur radio operator? From my perspective, the answer is yes! Amateur radio is fun; it will bring a new perspective to your involvement in public service and emergency response; and, the entry level licensing test (Technician Class) is not difficult, but it will require study. In case you were wondering, knowledge of Morse code is no longer required to obtain an amateur radio license. Our club, Raleigh Amateur Radio Society, usually teaches one or two Technician licensing classes per year and we provide “on the air” training of new hams via participation on our repeater network. Your community is very likely to have an amateur radio club that can provide similar opportunities. Obviously, if there is interest among NC Veterinary Response Corps members, a Technician licensing class could be arranged in Raleigh during one of our meetings.

If you have any questions, please do not hesitate to contact me at (919) 669-6068 (cell) or via email at [W4CHX@arrl.net](mailto:W4CHX@arrl.net). Best regards! Karl W4CHX

The assistance of Bill Morine, N2COP, NC Section Manager, American Radio Relay League, during the preparation of this communication is appreciated greatly.



# NC Foot and Mouth Disease Exercise Series

Continued from page 1



The occurrence of FMD in North Carolina would represent a catastrophic event that would have far-reaching effects on both the State's and the Nation's economy due to export losses and eradication costs.

During the summer of 2010, NCDA&CS and our partners, with funding from a NC Homeland Security grant, developed a series of activities focused on Foot and Mouth Disease (FMD) preparedness and response. This exercise series provided the opportunity to work with our partners to review key concepts in structuring a response, to develop an Incident Command System (ICS) structure for a foreign animal disease (FAD) response, to learn about FMD response in other countries as well as state and federal response plans, and to develop a list of resources needed for an initial response to an outbreak.

This exercise series brought together partners from local, state and federal agencies, academia and private industry. We were also fortunate to have the State Veterinarians from South Carolina, Tennessee and Virginia participate in the exercise and bring a regional perspective to the response effort. More than 60 people participated in each exercise.

In keeping with the building-block approach of the Homeland Security Exercise and Evaluation Program (HSEEP), the series began with a workshop to review important ICS concepts and to develop an ICS structure for initial response in the event of a confirmed positive in North Carolina. Next, a seminar was held that reviewed the basic biology of FMD, lessons learned from previous outbreaks in other countries and the key components of both the United States Department of Agriculture (USDA) and NCDA&CS FMD response plans. Finally, participants at the tabletop exercise were given various scenarios and asked to identify the resources needed for the initial response.

The wide-range of participants was key to the success of this effort. Having a diverse group with different experiences and perspectives allowed participants to learn about and consider the many facets of a response. A large part of the success of this series was due to the valuable opportunity for all levels of government and the private sector to interact and work together to solve organizational and policy issues ahead of an event.

