



# SCWDS BRIEFS

A Quarterly Newsletter from the  
**Southeastern Cooperative Wildlife Disease Study**  
**College of Veterinary Medicine**

**The University of Georgia**  
**Athens, Georgia 30602**

Phone (706) 542-1741

FAX (706) 542-5865

Volume 29

January 2014

Number 4

## **APHIS Seeks Comments on Revised CWD Program Standards**

On December 31, 2013, the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services (VS) published a revision of the Chronic Wasting Disease (CWD) Program Standards in the Federal Register for public comment. The deadline for receipt of comments is March 31, 2014. The following paragraphs include text excerpts from the revised CWD Program Standards and other VS documents.

The CWD Program Standards originally were published in 2012 with the VS Interim Final Rule for the *Chronic Wasting Disease Herd Certification Program and Interstate Movement of Farmed or Captive Deer, Elk, and Moose*. Comments are not being solicited on the rule itself. The VS CWD herd certification program (HCP) is a voluntary, cooperative program that establishes minimum requirements for the interstate movement of farmed or captive cervids, provisions for participating States to administer an Approved State CWD HCP, and provisions for participating herds to become certified as having a low risk of being infected with CWD. Approved States can have additional or more stringent requirements that exceed the national program minimum requirements.

The CWD Program Standards provide optional guidance, explanation, and clarification on how to meet the requirements for interstate movement of captive cervids and for the HCP, as well as how to respond to CWD-affected herds. Following the methods described in the CWD Program Standards will facilitate achievement of herd certification status for participants in the voluntary national CWD program. (Although participation in the CWD HCP is voluntary, herd certification is required for interstate shipment of live animals.) The CWD herd certification program essentially requires CWD testing of all captive deer, elk, and moose older than 12 months that die within the herd for a duration of five years before the herd can be certified as low risk for CWD and animals can be shipped interstate.

Stakeholders are encouraged to closely review the revised CWD Program Standards and submit comments. The complete document and commenting instructions can be found at <http://www.regulations.gov/#!documentDetail;D=APHIS-2006-0118-0401>.

## **APHIS-Veterinary Services Reorganization**

The U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services (VS) implemented its reorganization in early November 2013 and provided an announcement to its stakeholders. The following material includes excerpts from the announcement.

Four strategically focused units were created under the new organizational structure: Surveillance, Preparedness and Response Services (SPRS); National Import Export Services (NIES); Science, Technology and Analysis Services (STAS); and Program Support Services (PSS). Organizing major services will allow VS to better align with the changing dynamics of animal health and stakeholder needs.

The SPRS focuses on the broad spectrum of animal health needs centered on each of the major animal commodity groups. For each commodity, SPRS will carry out functions ranging from early awareness and disease surveillance to the development and implementation of animal health programs and emergency response, including One Health issues. The SPRS comprises the Animal Health Centers, the National Preparedness and Incident Coordination Center, the SPRS Logistics Center, the One Health Coordination Center, and six Districts. Six geographic Districts will provide leadership for the implementation of all VS surveillance, preparedness, and response field activities. Within each District, Assistant District Directors (formerly AVICs) will serve as the primary points of contact for State Animal Health Officials and other local stakeholders. Services provided by SPRS include animal health incident management; commodity business planning; disease program, surveillance, and animal disease traceability policy setting and administration; emergency preparedness; epidemiologic investigations and tracing; veterinary accreditation; and veterinary biologics stockpiling.

Continued...

The NIES brings together VS' import and export activities, from policy setting to inspection at ports of entry. The NIES comprises Policy, Permitting and Regulatory Services, District Field Services, Animal Import Center Services, Port Services, Agricultural Select Agent Services, and International Animal Health Standards Services. The NIES operates six service centers, several animal quarantine facilities, and multiple ports of entry. Services provided by NIES include import animal and animal product inspection and quarantine; import and export policy setting and administration; facility inspection; health certificate endorsement; World Organization for Animal Health (OIE) representation and disease reporting; pathways analysis and risk assessment; permit issuance; pre-export inspection; and select agent registration and inspection.

The STAS brings together VS science centers to provide the solid scientific, technical, and analytical foundation needed to support VS in meeting its mission responsibilities. The STAS will leverage and integrate the scientific expertise that is inherent throughout VS and allow VS to incorporate new science and technologies to provide the best analysis, expertise, and information for policy and decision makers. The STAS comprises the Center for Veterinary Biologics, the National Veterinary Services Laboratories, the Center for Epidemiology and Animal Health, and Interagency Coordination. Services provided by STAS include analysis of response options; animal disease modeling; animal health data acquisition, analysis, and interpretation; animal health data standards; animal health surveillance design; diagnostic capability and capacity; economic analysis; national animal health laboratory network coordination; national studies and large scale epidemiological investigations; risk assessments; veterinary biologics approval and monitoring activities.

The PSS provides key support services for VS personnel and stakeholders. The PSS comprises the Planning, Finance and Strategy Staff; Management Support Staff (including the Professional Development Staff); the Chief Information Officer; and the Writing, Editing, and Regulatory Coordination Staff. The PSS will provide services including animal health budget formulation and monitoring; animal health information technology systems; guidance documents; regulatory coordination; recruitment; Secretary's Advisory Committee on Animal Health facilitation; technical training; strategic and workforce/succession planning.

Veterinary Services anticipates that implementing its reorganization will cause some changes to the way stakeholders interact with VS, and it intends to make every effort to ensure a smooth transition. While contacts may change, stakeholders can expect the same high level of service from VS. The complete VS

stakeholder announcement regarding the reorganization can be accessed at [http://www.aphis.usda.gov/animal\\_health/downloads/vs\\_reorg\\_basics.pdf](http://www.aphis.usda.gov/animal_health/downloads/vs_reorg_basics.pdf). It contains information on the associate deputy administrators for the four units, a map of the six new districts in the United States, organizational charts for VS, and other information. Additional reference documents will be posted over time to help stakeholders navigate the new VS organizational structure.

### ***Angiostrongylus vasorum* and *Hepatozoon* in a Red Fox**

In March 2011, an adult female red fox was observed acting erratically in Randolph County, West Virginia. The fox was captured, euthanized, and submitted to SCWDS for diagnostic evaluation. The fox was emaciated and had multifocal to coalescing, bilateral, reddish brown, firm foci throughout the lungs. Microscopic examination of the lungs revealed severe granulomatous bronchopneumonia with first-stage nematode larvae morphologically consistent with *Angiostrongylus vasorum*, also known as the French heartworm. In addition, *Eucoleus aerophilus* (syn. *Capillaria aerophilus*), eggs were observed in the bronchial epithelium. Mild hepatitis was observed due to *Hepatozoon canis* infection, which was confirmed by PCR and sequence analysis. The fox also had mild encephalitis of unknown origin; test results for rabies and canine distemper were negative.

*Angiostrongylus vasorum* (Family Metastrongylidae) is a nematode of wild and domestic canids. Although *A. vasorum* is endemic to several countries in Europe and South America, in North America, the parasite had only been reported in the Canadian province of Newfoundland and Labrador. In Canada, *A. vasorum* first was detected in red foxes in 1973 in Newfoundland, where the parasite remains endemic in red foxes with sporadic cases first reported in domestic dogs (1996) and coyotes (2003).

In most domestic dogs, treatment with parasiticides clears the infection; however, mortality can occur with advanced or undiagnosed infections. The clinical signs and lesions observed in this red fox are consistent with pneumonia associated with *A. vasorum* in domestic dogs; however, the severe lesions observed in this fox are rarely observed in red foxes (1% of 199 of red foxes from Italy had severe lesions). Because *A. vasorum* does not cause morbidity in the majority of infections recorded in foxes, coinfection with *E. aerophilus* and *H. canis* may have played a role in severity of disease in this case.

*Eucoleus aerophilus* is a nematode that is found in the respiratory track of dogs, cats, foxes, and other

carnivores worldwide. A few human infections also have been reported. In red foxes, *E. aerophilus* eggs most commonly are detected in the bronchi (as in this case), and clinical disease is rare, even in cases of coinfections with *Crenosoma vulpis* or *A. vasorum*.

In the U.S., at least two species of canine *Hepatozoon* (*H. canis* and *H. americanum*) are endemic in canids, with *H. canis* infection less frequent than *H. americanum* in domestic dogs. Infection with *Hepatozoon* spp. had not been reported previously in red foxes in North America; however, infections have been documented in red foxes in Japan and several European countries. In North American wildlife, *H. canis* has been reported only in coyotes and a gray fox. In wild animals, *Hepatozoon* infections typically are detected in apparently healthy animals; however, primary hepatozoonosis cases have been documented in spotted hyenas in Africa. Also, secondary hepatozoonosis cases associated with immunosuppressive pathogens, such as canine distemper virus, have been reported in wild and domestic animals.

All three of the parasites detected in this red fox are important parasites of domestic dogs, and the documentation of *A. vasorum* in the United States has potential implications for the health of domestic and wild canids. Infection with *A. vasorum* in domestic dogs can be difficult to diagnose because of the potentially long period of subclinical infection prior to development of severe pulmonary disease or neurological signs. *Eucoleus aerophilus* can cause respiratory distress, while infection outcome with *H. canis* can vary from no clinical signs to a potentially fatal disease characterized by lethargy and anemia.

We do not know how *A. vasorum* was introduced into West Virginia. It could be the result of natural or illegal movement of wild or domestic canids. Further studies, particularly genetic analysis of the parasite, may help elucidate the likely origin of the *A. vasorum* in this fox. Currently, the role free-ranging red foxes play in the transmission cycles of the three parasites we found, as well as the prevalence and distribution of *A. vasorum* among wild canids in the United States, is unknown and warrants further study. (Prepared by Whitney Kistler and Michael Yabsley)

### A Rabid Deer

In early August 2013, SCWDS received the carcass of a wild, adult white-tailed doe from north-central Georgia. The deer had been exhibiting abnormal behavior and respiratory distress. Local law enforcement officials euthanized the deer and contacted Georgia Wildlife Resources Division personnel, who submitted it to SCWDS for postmortem examination.

At necropsy, lesions included hair loss, abrasions, and cutaneous edema over the forehead (Figure 1.), as well as smaller patches of hair loss and numerous, small lacerations on the trunk and hind legs. Differential diagnoses included trauma, hemorrhagic disease (HD), and central nervous system disease. However, the lack of apparent internal lesions of trauma, HD, or brain abscess raised concerns that viral encephalitis could be the cause of the deer's clinical signs, and brain tissue tested positive for rabies at the University of Georgia Veterinary Diagnostic Laboratories in Athens.



Figure 1.

Rabies virus is a well-known cause of fatal central nervous system in humans and wild and domestic animals. In North America, the most common wildlife vectors of rabies are bats (nationwide), as well as raccoons, skunks, foxes, and coyotes, depending on the region. In the eastern U.S., the most common strain of rabies is associated with raccoons. Clinical signs of rabies vary from loss of awareness, incoordination, and lethargy to increased aggression and self-mutilation. The lesions on the head of this deer most likely were due to head pressing against stationary objects, which may occur in wild and domestic animals with central nervous system disease. In fact, abrasions of the forehead are a frequent finding in rabid roe deer in Europe.

The 2013 case represents only the fifth time SCWDS has diagnosed rabies in a white-tailed deer since 1975; however, several cases have been reported in farmed and free-ranging deer in a number of states. For example, 31 cases of rabies were reported in free-ranging white-tailed deer in New York as the raccoon-associated strain of rabies virus spread through the state from 1990 to 2000. Between 2007 and 2010, 11 cases were reported in captive white-tailed deer on four farms in two adjacent Pennsylvania counties, and in 2012 a hunter in Pennsylvania received post-exposure treatment after harvesting and field dressing a deer that was behaving abnormally and later tested

positive for rabies. Although rare, rabies should be considered in deer with abnormal behavior and abrasions of the head. Persons who believe they may have been exposed to rabies should consult with a physician or public health official.

Signs similar to those of rabies in white-tailed deer can be caused by other diseases, including brain abscesses, hemorrhagic disease, West Nile viral encephalitis, eastern equine encephalitis, chronic wasting disease, and trauma. Like rabies virus, West Nile and eastern equine encephalitis viruses are zoonotic disease agents, although transmission to humans generally occurs via mosquito bites. Although zoonotic diseases in deer are uncommon, it is always best to avoid contact with wild animals behaving abnormally and to notify your local wildlife management agency. Animals that appear sick are not suitable for human consumption. (Prepared by Petra Franzen, St. George's University School of Veterinary Medicine and Jennifer Ballard)

### **Bottlenose Dolphin Strandings**

An Unusual Mortality Event (UME) has been declared by the National Oceanic and Atmospheric Administration (NOAA) under the Marine Mammal Protection Act of 1972. The UME declaration indicates "a stranding that is unexpected; involves a significant die-off of any marine mammal population and demands immediate response." The ongoing event began in July 2013, and involves more than 1100 bottlenose dolphin mortalities along the Atlantic coast from New York to Florida.

Strandings in the current UME have ranged from low numbers of live animals to large numbers of decomposed carcasses. Affected dolphins were in poor body condition. Some had respiratory distress when found alive, and lesions were present in the skin, lungs and brain. A primary finding has been pneumonia, and diagnostic testing has identified the tentative cause as cetacean morbillivirus, although investigators are attempting to identify additional factors potentially associated with this UME.

The morbillivirus types that cause disease in dolphins are part of the cetacean morbillivirus (CMV) group that includes dolphin morbillivirus, pilot whale morbillivirus, and Longman's beaked whale morbillivirus. Cetacean morbilliviruses are distinct from canine distemper virus (CDV), which we commonly diagnose in wild carnivores and omnivores at SCWDS. The cetacean morbilliviruses are thought to be more closely related to the morbilliviruses that cause disease in hoofstock. Seals and sea otters have been infected with CDV and the related phocine distemper virus (PDV);

however, these viruses do not appear to be involved in the current event.

The current die-off is seven times greater than the average annual mortality from 2007-2012 along the same stretch of Atlantic coast. Previous events affecting large numbers of cetaceans occurred along the Gulf of Mexico and the northeastern United States in the late 1980's and early 1990's, but the magnitude of the current UME already surpasses them.

Persons spotting stranded marine mammals should not handle or approach them but should report the event to the appropriate stranding network: in the southeastern U.S., the number is 1-877-942-5343; in the Northeast, it is 1-866-755-6622. For more detailed information regarding the Atlantic UME, refer to the fact sheet on morbillivirus ([http://www.nmfs.noaa.gov/pr/health/mmume/midatlantic2013/morbillivir\\_us\\_factsheet2013.pdf](http://www.nmfs.noaa.gov/pr/health/mmume/midatlantic2013/morbillivir_us_factsheet2013.pdf)), as well as the UME website for updated information on mortalities in your region <http://www.nmfs.noaa.gov/pr/health/mmume/midatlanticdolphins2013.html>. (Prepared by Heather Fenton)

### **Unusual Eagle and Grebe Mortality in Utah**

In early December 2013, biologists from the Utah Division of Wildlife Resources responded to numerous reports of sick and dead bald eagles at or near Great Salt Lake. By February 2, 2014, a total of 58 eagles had been found dead, and four more birds were being treated at a rehabilitation facility. Clinical signs observed in affected birds included weakness, tremors, neurologic signs and leg paralysis. Birds that died were examined at the Utah Veterinary Diagnostic Laboratory in Logan, Utah, and at the National Wildlife Health Center in Madison, Wisconsin. Based on test results, officials are attributing the cause of death to infection with West Nile virus (WNV).

Officials are uncertain, but suspect that the bald eagles became infected with WNV after consuming carcasses of eared grebes at Great Salt Lake. Eared grebe carcasses collected at the lake by wildlife officials have tested positive for WNV. Oral transmission of WNV has been demonstrated in several avian species, as well as mammals, under experimental conditions; however, confirming oral transmission in the field is difficult. Investigations continue into WNV epidemiology among the grebes because infected birds generally do not remain viremic for long periods of time.

Large numbers of eared grebes stop at Great Salt Lake during their annual migration to molt and feed, and each year mortality events affect approximately 1% of the population. Avian cholera has been the usual cause of the annual mortality; however, that does not appear to be the case this year.

According to Leslie McFarlane with the Utah Division of Wildlife Resources, grebes began arriving in August, with around 2,000,000 birds at Great Salt Lake by mid-October. Molting and heavy feeding on brine shrimp naturally reduces muscle mass of the grebes, while increasing fat stores and the size of their digestive tracts, rendering the birds flightless as they stage for migration. Grebe mortality first was reported in early November of 2013, but it likely started much earlier and ultimately involved approximately 20,000 birds. Testing of dead grebes detected proviral RNA in cloacal and tracheal swabs, leading investigators to believe that grebes may have shed WNV into the water thereby exposing feeding birds to the virus and prolonging transmission. The departure of grebes in mid-January coincided with a dramatic decrease in reports of sick and dead eagles, further suggesting that eagles may have acquired WNV from the grebes.

West Nile virus is in the family Flaviviridae and typically is transmitted by bites from mosquitoes of the *Culex* genus. Although disease has been reported in 250 species of birds, susceptibility to WNV infection and development of clinical disease vary by species. For example, crows and sage grouse are highly susceptible to fatal infection, whereas other species in the same families rarely develop clinical disease. Fatal WNV infections have been confirmed in numerous raptor species.

Humans, as well as numerous other mammalian species, also are susceptible to WNV, and 1,663 infected persons have died in the United States since the virus first was detected here in 1999. Although most people infected with WNV do not develop any symptoms, approximately 20% develop a fever and general illness, and a very small percentage (1%) will develop a more serious neurologic condition that can lead to death. However, the recent eagle deaths do not appear to represent a threat to human health, because transmission is believed to have occurred via consumption of infected grebe carcasses, and mosquitoes are not active in Utah at this time of year.

The eagle and grebe mortality this winter in Utah has sparked interest among wildlife biologists and animal health officials. Further studies may help elucidate the highly atypical WNV epidemiology that is suspected in this mortality situation. More information regarding the event can be found at the Utah Division of Wildlife Resources website <https://wildlife.utah.gov/wildlife-news/1330-utah-dwr-learns-what-killed-bald-eagles.html>. (Prepared by Heather Fenton)

### Lonnie Williamson 1939-2013



SCWDS lost one of its best friends when Lonnie Williamson died on December 18, 2013. Lonnie retired from the Wildlife Management Institute (WMI) in 1999 after a dynamic and productive 30-year career, but before that he worked at SCWDS while earning his master's degree in wildlife management.

Lonnie came from a modest rural background and grew up on a 218-acre family farm in Jackson County, Georgia, that was purchased by his great-great-grandfather in 1855. Lonnie, his father, and his grandfather were born in the same room in the farmhouse, in front of the same fireplace. After graduating from Jackson County High School in 1957, Lonnie enrolled in the Henry W. Grady College of Journalism at the University of Georgia (UGA) in Athens. Although he was working fulltime to pay his college expenses, he graduated with his journalism degree in just three years! After graduation, Lonnie worked for an Athens advertising agency and the U.S. Postal Service before coming to SCWDS.

Lonnie and I became close friends after meeting through the Future Farmers of America while we were teenagers. We became even closer friends when he moved to Athens to attend the University of Georgia, and later when we worked together at SCWDS.

I went to work as a SCWDS research assistant on September 1, 1965. A few months later, Lonnie decided that I was having more fun than he was, and he wanted in on some of the action. I do not claim to be responsible for launching Lonnie's career in the wildlife profession, but I did highly recommend him to our director, Dr. Frank Hayes, who hired him in January 1966. Dr. Hayes soon recognized Lonnie's extraordinary talents and offered him an opportunity to attend graduate school. Lonnie accepted his offer, and in 1969 he received his master's degree in wildlife management from the UGA School of Forest Resources (now the Warnell School of Forestry and Natural Resources). Dr. Ernie Provost, another good friend of SCWDS, was his major professor.

With four years of experience at SCWDS and a wildlife graduate degree, new doors were opened to Lonnie, and in 1970 he went to work for WMI in and

Washington, DC. In his early years with WMI, Lonnie took post-graduate courses in natural resources and economics at the University of Maryland, honing his bio-political skills even more. Lonnie served as secretary of WMI from 1975 to 1986, when he was promoted to vice-president, a position he held until he retired in 1999. The WMI is a relatively small, private, nonprofit, scientific and educational organization. It is supported by state, local, and national conservation organizations, government agencies, and industrial organizations, including the companies that manufacture hunting firearms and ammunition.

During his 30 years with WMI, Lonnie became a powerful, influential force in the wildlife profession. As a WMI representative, one of his main responsibilities was to lobby U.S. Senators and Representatives to encourage them to pass laws that are beneficial to wildlife, wildlife habitat, wildlife research, and hunters. In this position, he came to know some of the most prominent members of congress, and, more importantly, they knew *him*. They knew who he was, for whom he worked, what he was trying to accomplish, and they respected him for it. Lonnie sometimes assisted in writing speeches for U.S. Senator Richard B. Russell from Georgia, and he interacted with some of the U.S. presidents in office during his time in Washington. He indicated that he did not particularly care for a couple of them, but he did like their dogs!

Being on the national scene gave Lonnie the opportunity to assist SCWDS on previous occasions when our federal funding administered through the U.S Department of the Interior was threatened. This funding began in 1963 at the insistence of several southeastern states, and it was a cornerstone of SCWDS' financial foundation. During memorable battles to save our funding in the 1980s, Lonnie not only kept it from being diverted, he facilitated increases for SCWDS! He accomplished this because he knew the members of congress who made the crucial decisions regarding the distribution of funds. We wish he was still there today. In appreciation of his support for SCWDS and UGA, a magnificent Winchester Model 21 shotgun was presented to Lonnie by UGA president Dr. Fred C. Davidson.

Lonnie's primary vocation and avocation was writing, and he was very good at it. In addition to producing a bi-monthly newsletter for WMI, he wrote for other national publications, including *Outdoor Life*. As a professional outdoor writer, Lonnie was a life member of the Outdoor Writer's Association of America (OWAA), a member of the Mason-Dixon Outdoor Writers Association, and a member of the Southeastern Outdoor Press Association.

Lonnie was highly respected by his peers, who elected him to leadership positions and bestowed on him a plethora of awards. Lonnie served the OWAA as a member and chairman of the board of directors, as vice-president and president, and as a member of several committees. Lonnie received the Jade of Chiefs Award from OWAA in 1983, and in 2000 he was given the Ham Brown Award for outstanding service. Lonnie also received numerous prestigious awards from the Mason-Dixon Outdoor Writers Association, the U.S. Fish and Wildlife Service, U.S. Forest Service, National Military Fish and Wildlife Association, and the Bureau of Land Management.

After retiring, Lonnie returned to the family farm in Georgia, got a border collie, and raised Hereford cattle. Many of you who are acquainted with the "SCWDS family" will be pleased to know Lonnie and long-time SCWDS Office Manager Donna Wood were married in 2011. Lonnie also is survived by a son, a daughter, a sister, and their families. The family requests that anyone wishing to honor Lonnie's memory can do so by contributing to the St. Mary's Auxiliary Love Lights, 1230 Baxter Street, Athens, Georgia 30606.

Lonnie and I were big fans of a fellow Georgian, the late writer and humorist Lewis Grizzard. Occasionally, in a somber moment Lewis, or someone in his presence, would make a profound statement that he thought needed additional emphasis, and he would say, "Lord, let it be so!" It was kind of like giving the preacher an "Amen." I have always liked that statement and still use it every once in a while.

Lonnie and I had a lot of fun over the years. We hunted, fished, camped, traveled, and worked together. And we raised our children together. We laughed a lot together and even cried together a few times, and I miss him. Lonnie was a good person and a good friend. He tried to live a righteous life and abide by the Golden Rule. Lonnie used the Ten Commandments as a life guide and believed he was going to heaven when he died. Lord, let it be so. (Prepared by Gary L. Doster)

## **Changing Faces at SCWDS**

We have bid farewell to people who have departed from SCWDS and have welcomed some new folks over the last several months. Dr. Justin Brown left SCWDS to become the wildlife veterinarian for the Pennsylvania Game Commission, one of SCWDS' newest member agencies. Justin came to SCWDS in 2004 as a graduate student and did pioneering research into the epidemiology of avian influenza viruses (AIV) in wild birds while obtaining his PhD. He then worked as a Post-doctoral Research Associate

and later as an Assistant Research Scientist. Justin was a member of our diagnostic team, continued to investigate AIV, and worked on other SCWDS projects, including lymphoproliferative disease virus in wild turkeys.

Dr. Jamie Phillips has headed to the University of California-Davis College of Veterinary Medicine. Jamie began working at SCWDS as a Post-doctoral Research Associate in 2011, following completion of her PhD in Avian Medicine at the University of Georgia, College of Veterinary Medicine's (UGA CVM) Poultry Diagnostic and Research Center. In 2012, she proved invaluable by conducting the diagnostic tests for hemorrhagic disease viruses during the largest outbreak we have ever observed. She also worked with West Nile virus and other pathogens in wildlife.

In 2013, we said goodbye to Dr. Nicole Nemeth after she completed three years as the first participant in the Wildlife Pathology Residency Program that SCWDS co-sponsors with the Department of Veterinary Pathology at the UGA CVM. Nicole, who first came to SCWDS for a few weeks as a veterinary student extern in 2003, has become an Assistant Professor of Veterinary Pathology at the Ontario Veterinary College in Guelph, Ontario, Canada, and moved there with her husband, Dr. Paul Oesterle, who worked at SCWDS as a Post-doctoral Research Associate in the area of AIV epidemiology since 2011.

Dr. Elizabeth Elsmo became our new wildlife pathology resident in July 2013. Betsy is a recent graduate of the University of Wisconsin School of Veterinary Medicine and also spent time as a veterinary student extern at SCWDS in 2012. In addition to her duties with the Veterinary Pathology Department, Betsy serves on the SCWDS diagnostic service by providing post mortem examinations and consultations on wildlife health issues to the public, as well as to officials with wildlife, animal agriculture, and public health agencies.

Dr. Heather Fenton joined SCWDS this year as our new wildlife pathologist and has hit the ground running as the Chief of the SCWDS Diagnostic Service. Heather obtained her DVM degree at the University of Saskatchewan in 2008 and then spent two years working in mixed animal practice. Most recently she completed a residency in veterinary anatomic pathology with a wildlife emphasis at the Atlantic Veterinary College (AVC) at the University of Prince

Edward Island, Canada, where she also obtained her Masters of Veterinary Science by retrospectively analyzing harbor porpoise mortality in Canada.

Heather has always had a keen interest in wildlife diseases and spent most of her summers assisting colleagues at the Canadian Cooperative Wildlife Health Centre. During her pathology residency, she worked on a variety of wildlife health issues in cooperation with a number of wildlife agencies and hunting and trapping organizations. We are excited Heather has joined us and invite you to contact her with wildlife disease inquiries or to introduce yourself at [hfenton@uga.edu](mailto:hfenton@uga.edu) or 706-542-1741.

Dr. Neus Latorre-Margalef joined SCWDS in September 2013 as a new Post-doctoral Research Associate. Her position is partially funded by Wenner-Gren Foundations, Stockholm, and by an International Postdoctoral Grant from the Swedish Research Council. The title of the project is '*Effect of host immunity in the evolution of antigenic diversity in pathogens.*' The first two years of this three-year project will be conducted at SCWDS and will focus on influenza A in waterfowl. Neus received her PhD in 2012 at Linnaeus University in Kalmar, Sweden, studying the ecology and epidemiology of influenza A virus in mallards.

Jo Anne Crum is a new SCWDS graduate student working on a MS in Veterinary Science. JoJo received her BS from Elon University in 2013, and she will be working on the phylogenetics of epizootic hemorrhagic disease type-2 viruses associated with the extensive 2012 hemorrhagic disease outbreak for her MS research through the College of Veterinary Medicine. She is following in the footsteps of her father Dr. Jim Crum, a SCWDS and West Virginia legend, who received his PhD at SCWDS in 1981.

Brianna Williams is a new SCWDS graduate student working on a MS in Wildlife Ecology and Management in the Warnell School of Forestry and Natural Resources. She conducted her undergraduate research at SCWDS on hemoparasite diversity in lions, hyenas, wild dogs, and domestic dogs at two locations in Zambia. Results of this study recently were published in the journal *Parasitology Research*. Brianna's thesis project will focus on health issues of seabirds nesting on Middleton Island, Alaska, in collaboration with U.S. Geologic Service-Alaska Science Center personnel.

# SCWDS BRIEFS

Southeastern Cooperative Wildlife Disease Study  
College of Veterinary Medicine  
The University of Georgia  
Athens, Georgia 30602-4393

Nonprofit Organization  
U.S. Postage  
PAID  
Athens, Georgia  
Permit No. 11

*RETURN SERVICE REQUESTED*



---

Information presented in this newsletter is not intended for citation as scientific literature. Please contact the Southeastern Cooperative Wildlife Disease Study if citable information is needed.

---

Information on SCWDS and recent back issues of the *SCWDS BRIEFS* can be accessed on the internet at [www.scwds.org](http://www.scwds.org). If you prefer to read the BRIEFS online, just send an email to Jeanenne Brewton ([brewton@uga.edu](mailto:brewton@uga.edu)) or Michael Yabsley ([myabsley@uga.edu](mailto:myabsley@uga.edu)) and you will be informed each quarter when the latest issue is available.