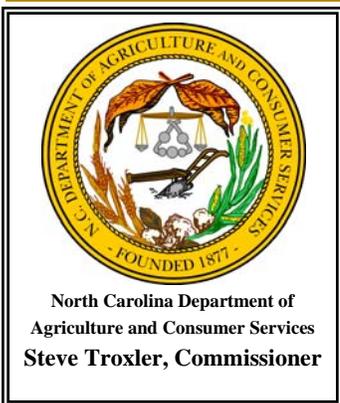


The NCVDLS REPORT



Accredited by the American Association of Veterinary Laboratory Diagnosticians

Veterinary News and Information From North Carolina's Diagnostic Laboratories



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In This Issue...

Feature Article	4
Client Corner	2
Short Cuts	5
Departmental News	11
Directory	12

Holiday Closings...

April 10, 2009
May 25, 2009

Our laboratories will be closed on the above listed days.

Please e-mail NCVDL@ncmail.net with any comments and/or suggestions concerning The NCVDLS Report
Editor - Dr. Tim McComb

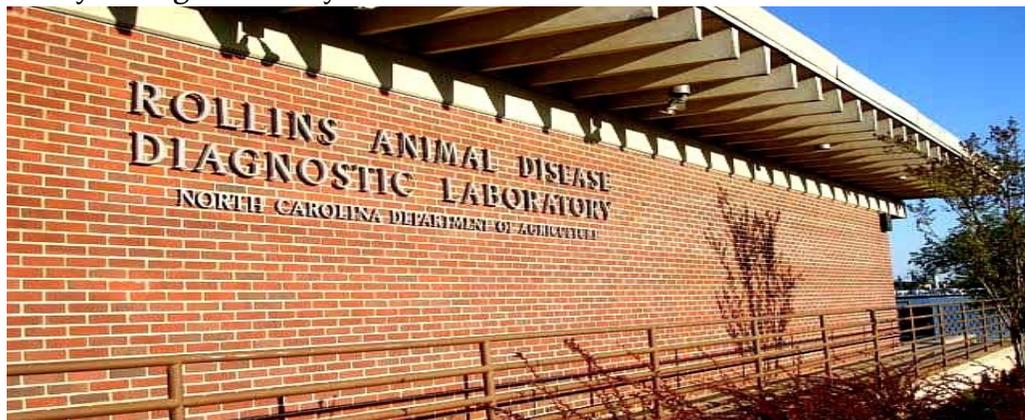
Message from the Director

Happy New Year to all of our clients. The New Year has brought with it good things for the NCVDLS, in spite of the challenges and frustrations of budgetary management in our current state economic climate.

Construction has officially begun for the renovation of the former Rollins chemistry/ toxicology laboratory. The renovation will convert the existing space into a new enhanced Biosecurity Level 2 molecular suite and histology laboratory. The molecular suite will be complete with robotics equipment to handle high-throughput testing in order for us to respond rapidly to a foreign animal disease outbreak or bioterrorism event. The new histology lab will help ease the cramped conditions under which the staff is currently working. The anticipated date of completion for this project is July, 2009.

Also on the renovation front, the much needed Western Animal Disease Diagnostic Laboratory renovation and repair project was successfully completed in December, 2008. Complete with fresh paint and landscaping there was also a much needed upgrade to the necropsy room. We have plans to offer Coggins testing to our equine clients at this facility in the near future; more details to follow.

Two auditors from the Centers for Disease Control visited the Rollins Biosecurity Level 3 Laboratory in early January for a comprehensive two day review of the facility and its practices and procedures. This was in order to re-certify the lab as an entity authorized to possess, use or transfer select agents and toxins. Congratulations are offered to the Responsible Official, Dr. Gene Erickson, Beverly Wood, supervisor of the molecular diagnostics section and her staff and our Biosafety Officer, Kathy Schmidt, for all their excellent preparation prior to the visit. Although we are awaiting written confirmation, the auditors were highly complimentary and made assurances to us that the facility will again be fully certified.



Message from the Director, *continued*

During its last session in 2008, the General Assembly appropriated funds to enable us to purchase a new incinerator for the Rollins Laboratory. A bid has been awarded and the company is in the process of fabrication with an install date to be announced in March, 2009. This will replace a 30 year old incinerator with a more energy efficient unit that has a higher burn capacity.

Please feel free to contact me at any time regarding any NCVDL issues, suggestions for improvement or concerns. There are plans to conduct a survey this year so we can assess the needs of our clients. I would ask that you please take the time to complete it, as we continue to strive to make improvements to better serve you.

Sincerely,

Karen W. Post DVM, MS

Karen Post

Client Corner

Please help us go green! We are strongly encouraging our clients to choose online result reporting instead of choosing to receive paper copies by mail. State government is in a budgetary crisis and we have been asked by the new Governor to reduce our expenses. Most of our reports, with the exception of those requiring official USDA tests for import/export or interstate movement, are available on our website for registered users. Online results can be obtained more quickly than mailed copies. Effectively, this helps us to serve you better by providing test results in a more timely manner.

Becoming an online client is easy. On our website, www.ncvdl.com, there are 2 ways to register. The first is to click on the link "How to request access to online test results" and complete the request form. The other is to click on the link "contact us" and make your request. Once you become an online client, be sure to check this box on our submission form when sending in samples to ensure that no paper copy is mailed.

Other reporting options available at this time include faxing and most recently, e-mailing. While there is a box on the current submission form that must be checked for faxing reports, there is not a check box for the e-mail option. These latter requests should be handwritten on the margin of the form. Check boxes for e-mail will be present on the next revision of our submission forms.

We appreciate your efforts to assist us!

Dr Karen Post

The Food and Drug Administration (FDA) is planning to expand on an animal feed ban regarding ruminant brains and spinal cords. Under current regulation ruminant neurologic materials from cattle 30 months of age or older are prohibited from being included in feed materials intended for use in cattle, sheep or goats. This initial ban is intended to limit to the introduction of Bovine Spongiform Encephalopathy in the United States. The new regulation is set to take effect on at the end of April 2009 and will now prohibit including these ruminant neurologic materials in any animal feed product. Although few

CLIENT CORNER, CONTINUED

violations are cited, the expanded ban is designed to minimize the risk of accidental feeding of prohibited materials to cattle or contamination of feed products intended for use in cattle. It has not yet been determined how this will impact the rendering procedures followed by the NCVDL system.

Dr. Tim McComb



Exterior improvements included a new ramp and railing



A new look for the reception area

Major Repair and Renovation Project at WADDL

In January of 2008 the State Construction office approved the award of a construction contract for major repairs and renovations to the Western Animal Disease Diagnostic laboratory in Arden, NC. The scope of the project included compliances with ADA and Department of Insurance issues regarding access and safety, increased efficiencies in HVAC and plumbing operations, upgrading incinerator and cooler function, loading dock repair, roof repair, installation of acoustic tile ceilings, and interior and exterior painting of the facility which was constructed in 1974. Work began in late April 2008 and by December 2008 all major work had been completed. Coordinating work schedules with multiple subcontractors the staff at WADDL ensured that impact on laboratory clientele would be minimized. Only during a three day period, for asbestos abatement, were laboratory services restricted. A two day AAVLD site accreditation visit was conducted in May of 2008. The site accreditation team expressed approval at seeing the level of commitment that the state of North Carolina had invested in NCVDLs. (The NCVDLs was certified for full accreditation for all species by the AAVLD.)



A fresh, fully stocked necropsy floor

Dr. Richard Oliver

Feature Article

Atypical Myopathy: A Cluster of Four and then One More in WNC Horses

Dr. Richard Oliver and Dr. Robert Mowrey

Atypical Myopathy (AM) is a frequently fatal syndrome of as yet undetermined etiology occurring sporadically in grazing horses. This acute rhabdomyolysis is characterized clinically by sudden onset of muscular weakness, stiffness, recumbency, sweating and when urine is observed, myoglobinuria. A consistent finding is the significant increase of serum activities of creatine phosphokinase (CPK). The condition has been reported in several European countries with an increasing frequency evident in the past decade. Case reports prior to the syndrome's identification suggest that the condition has also been encountered in the United States and Canada where it was referred to as "seasonal pasture myopathy". On November 6, 2008 three out of a total of five horses on a farm along Cane Creek in southeastern Buncombe County became acutely ill with clinical signs of recumbency, lethargy, stiffness, mild nonspecific colic, accelerated heart rate, and later, coffee colored urine and increased respiratory rate. CPK values were significantly elevated. At 11:20 am on November 8 one horse died and was necropsied within 2.5 hours of death. A second horse was euthanized late that evening and necropsied on the morning of November 10. By the evening of 10th the condition of the third horse from the index farm was deteriorating (Heart rate 60, sweating, painful, CPK markedly elevated) and a horse from a farm located directly across Cane Creek from the index farm was hospitalized with similar clinical signs. Both died and were taken to the UGA Athens Diagnostic Laboratory where necropsies were performed on November 11. The horses ranged in age from 4 to 17 years. Consistent, but subtle, findings in each of the 4 necropsy examinations included pale, irregular streaking of the gluteal and vastus medialis muscles and mild interstitial hemorrhage and edema of the pelvic limb musculature and iliopsoas muscles. Histopathology findings consisted of acute, severe, diffuse rhabdomyonecrosis and rhabdomyolysis in all 4 cases and mild, multifocal cardiomyocyte necrosis in the first horse. Ionophore screens on gastric reflux from the first horse and liver from each of the first two horses were negative. A search of both premises for toxic plants was conducted by professional botanists along with agriculture extension agents with no plant encountered that had the known potential to induce myonecrosis.

On the morning of November 25, 2008 an 18 month old Tennessee Walking Horse filly was found dead in a pasture bordered by a stream in northeast Henderson County. At necropsy the only finding of note was the presence of 12 ml of dark brown urine in the bladder. Histopathologic evaluation revealed marked focally extensive peracute and acute polyphasic myonecrosis of skeletal muscle and moderate multifocal peracute myocardial necrosis in the heart.

To date no additional cases have been seen by, or reported to, this laboratory. As indicated above the cause of atypical myopathy remains unknown. It is suspected that the condition is induced by an ingested or enterically produced toxin (e.g., bacterial toxin, mycotoxin, or phytotoxin). Particular weather conditions (minimum daily temperatures from 29° to 56° F and weather often inclement) and pasture conditions (adjacent to stream or other body of water) seem to trigger the appearance of clinical signs.

Management recommendations in the scientific literature remain varied and have produced inconsistent results at best. Recommendations include the supplementation of antioxidants and carbohydrate based concentrates coupled with limited or no pasture access during inclement weather experiencing significant temperature drops in the fall and winter months. Routine healthcare management including a regular deworming and vaccination program are also encouraged. Cooperative Extension recommendations from Extension Horse Husbandry advise producers to regulate grazing time near low, wet

Feature Article continued

areas and streams to limit spot grazing. The use of temporary fencing to eliminate access to wet pasture areas and eliminate overgrazing is encouraged.

The website <http://www.myopathieatypique.be> is a comprehensive and frequently updated site dedicated to the subject of atypical myopathy.

Special thanks are extended to Dr. Robert Mowrey of NCSU Extension Horse Husbandry Department for his collaborative assistance and information.

Short Cuts

COMPANION ANIMAL

Chromobacterium violaceum infection was diagnosed in a 22 month old female **Fox Walker Hound** that was submitted to Griffin Lab for necropsy. Approximately 300 other dogs from all over the country participated in a hunt in South Carolina. Fourteen dogs were reported dead within 48 hours of the hunts completion. The dogs ran 5 hours each day and some of the dogs returned with numerous abrasions. Swelling was noted in the extremities and some of the dogs were reported to be off feed and drinking an excessive amount of water. The surviving dogs were reported to be very lethargic and listless. Ocular discharge was noted in some of the dogs. On postmortem exam thin body condition, mild dehydration, submandibular edema, pale mucous membranes, multiple severe excoriations along the legs and ventrum, red areas of alopecia surrounding the eyes and petechia along the ventrum and legs were noted. Pulmonary hyperemia was noted throughout the lungs. Petechia were evident along the gastric mucosa. Hepatic pallor was noted along with capsular petechia. The renal cortices were hyperemic and contained white foci. Histopath lesions were indicative of a bacterial septicemia. Kidney, liver and lung were submitted for aerobic culture. *Chromobacterium violaceum* was cultured from the kidney and liver. Since this bacterium is found widely in the environment, primarily in soil and water, it is theorized that the portal of entry in this case was either through breaks in the integument or possibly through the ingestion of contaminated water. Human infections have also been reported with most occurring in tropical or subtropical regions. Most human infections occur in the immunocompromised. Clinical signs include local cellulitis, lymphadenitis, fever, vomiting and diarrhea. Septic shock develops rapidly. Being gram negative, the organism produces a potent endotoxin. Infections are known to progress rapidly in both humans and animals.

Dr. Kim Hagans

Hepatic lipidosis and hypoglycemia in young toy breed puppies continues to be an important cause of death of puppies. In 2008, 17 cases of juvenile hepatic lipidosis/fatty liver were diagnosed in the NCVDLs. Several breeds were affected with the Chihuahua (4) and mixed toy breed (3) slightly over represented. Two cases were diagnosed in the Yorkshire Terrier breed and the following breeds were represented by a single case: Corgi, Shetland Sheepdog, Pomeranian, Siberian Husky, Beagle, Pug, Schaunzer, and Shi Tzu. Toy and small breeds are most commonly affected but other larger breeds can also be

COMPANION ANIMAL, CONTINUED

affected. A few of these cases had concurrent diseases such as parvovirus. The uncomplicated cases of hepatic lipidosis and hypoglycemia had a recent history that included a new home, vaccination, or some other form of environmental stress.

Dr. Jennifer Haugland

A 4-year-old intact female **Great Dane** became lethargic for several days and was found dead. The dog was not on heartworm prevention and was housed outdoors with 2 other dogs. On necropsy, the pet was in good body condition, with mild dehydration and moderate to severe autolysis. Multifocal ecchymotic hemorrhages were located along the tracheal epithelium. The right ventricle was dilated, creating a globoid cardiac silhouette. The abdominal cavity was markedly distended and contained 6.8L serosanguinous fluid. Severe serosal hemorrhage extended from the serosal surface of the distal duodenum to the ileum. Segmental hemorrhage and corrugation of the mucosa was noted. Approximately 30 tapeworms and >50 segments were located in the small intestine. The remainder of the examination was unremarkable. Histopathologic findings revealed periportal, periacinar, and bridging hepatic fibrosis and bile duct proliferation with cholestasis, piecemeal necrosis, and regenerative nodules; and subserosal hemorrhage and submucosal fibrosis of the small intestine. The hepatic lesion is consistent with **right heart failure/passive congestion**. The tapeworm infection is an incidental finding.

Dr. Mahogany Wade

There were three diagnoses of **pythiosis** submitted to NCVDLs in 2008. *Pythium* spp. are aquatic fungal like organisms that are found in stagnant or swamp water. The first case diagnosed was a 2 year old Golden Retriever that died after an abdominal mass ruptured causing the dog to bleed to death. Histological examination with special staining of the mass associated with the mesenteric lymph node returned a diagnosis of *Pythium* spp. The next case was an intestinal biopsy from a 2 year old Golden Retriever and the third case was another intestinal biopsy from a 5 year old Labrador Retriever. Interestingly, the Golden Retrievers lived in Orange County and Charlotte, whereas the Labrador came from Southport. See the Winter 2006 Newsletter in the archives at www.ncvdl.com for more information about this disease.

Dr. Jennifer Haugland

A 6-year-old intact female **Cane Corso** was inappetent several days preceding death. The dog was current on vaccinations and not housed with any other pets. Gross examination revealed thin body condition and severe dehydration. Multifocal pedunculated skin tags were observed along the limbs. Severe periodontal disease was identified. The incisors were severely blunted to gum level, there was severe wear along the mesial aspects of the canines, and a 1 cm ulcer was located along the left buccal mucosa. The heart was globoid and the pericardial sac contained approximately 50 ml purulent fluid. Nearly 100% of the total lung volume was firm with multifocal 3-5 mm opaque plaques along the pleura. The renal cortex was pale yellow-orange with infarction. Generalized lymphadenopathy was observed with severe enlargement of the sternal, bronchial, submandibular and axillary lymph nodes. Abundant fibrosis of the spleen was apparent. A 15 x 12 cm firm, 1.5 kg fibrotic subcutaneous mass consisting of cysts and abscesses was located along the ventral thorax. The pathology findings included **malignant melanoma** of the gingiva, brain and adrenal gland; renal cortical infarct with fibrin vascular thrombi; mammary **adenocarcinoma**; adrenal cortical **adenoma**; interstitial pulmonary fibrosis with lymphohistiocytic

COMPANION ANIMAL, CONTINUED

infiltrates and multifocal thrombosis and occasional vascular recanalization; vascular smooth muscle hypertrophy of the heart and periportal and bridging fibrosis. The cause of death in this dog was most likely due to septicemia or disseminated intravascular coagulation (DIC) secondary to the neoplasia.

Dr. Mahogany Wade

A five year old male African Pygmy Hedgehog was presented for necropsy after a history of chronic progressive hind limb weakness and ataxia. Histological examination of brain and spinal cord revealed chronic neuronal necrosis, axonal degeneration, and gliosis with spongiotic change. These findings are consistent with a well known but poorly understood condition in African Pygmy Hedgehogs termed Wobbly Hedgehog Syndrome. This typically affects younger hedgehogs and can become terminal within a few months of onset. Initial signs include weakness and ataxia of the hindlimbs, variable weight loss and can progress to tetraplegia. The cause is not known and histologic examination is required for a definitive diagnosis.

Dr. Tim McComb

An 8 year old Saint Bernard died from peritonitis secondary to gastric and duodenal ulceration with subsequent perforation of the duodenum. *Helicobacter* spp. were observed on histopathology in the chronic gastritis lesions. There was also a severe, chronic active hepatitis with fibrosis. This dog had a four week history of treatment with carprofen prior to death. It is unknown if the dog had liver disease prior to the carprofen treatments because information regarding pre-treatment blood work was not provided. The liver lesion was similar to those described in reported cases of idiosyncratic hepatitis in dogs medicated with carprofen. Gastric ulceration is also a known side effect of NSAID medication and in this case the presence of *Helicobacter* spp. may have potentiated the risk of this side effect. There was also another case of an 8 year old Labrador Retriever that died from peritonitis secondary to gastric ulceration and perforation. This dog had been medicated with another NSAID, meloxicam, for 4 weeks.

Dr. Jennifer Haugland

LIVESTOCK

Five cattle were diagnosed with anaplasmosis on the necropsy floors of the NCVDLs in the year 2008. The cattle were all beef breeds with the age range of 5-7 years. One animal was submitted in September, 3 were submitted in October, and the last one was submitted in November. There were no cattle deaths attributed to *Anaplasma* sp. in the spring which agrees with submissions in past years. Mortality due to anaplasmosis does not appear to be a spring problem in NC.

Dr. Jennifer Haugland

A 550kg 24 month old Angus bull was submitted for necropsy to Griffin Lab with a history of weight loss (300lb) and decreased appetite over the past 3 months after separation from the cow herd. The bull went down and was examined by the veterinarian. Supportive therapy was provided and the bull seemed to improve. He did stand and was transferred to the barn but he remained weak. The only abnormality identified on postmortem examination was splenomegaly. The brain tested positive for rabies. A mild, multifocal, lymphocytic, subacute encephalomyelitis, with neuronophagia, gliosis, and intracytoplasmic inclusion bodies was identified in the brain and spinal cord on histopathology. Clinical signs of rabies are rarely definitive. Rabid animals of all species usually exhibit typical signs of CNS disturbance. The most reliable signs, regardless of species, are acute behavioral changes and unexplained progressive paralysis. Behavioral changes may include sudden anorexia, signs of apprehension or nervousness, irritability, and hyperexcitability. The animal may seek solitude. Ataxia, altered phonation, and changes in temperament are apparent. Uncharacteristic aggressiveness may develop—a normally docile animal may suddenly become vicious.

Dr. Kim Hagans

Thirteen animals were diagnosed with Johne's Disease either on the necropsy floors or by fecal culture of live animals in the year 2008. There was one adult alpaca, three goats of 3-4 years of age, a 4 year old Suffolk, a 6 year old Jersey cow, a 30 month old recently purchased Angus bull, a 4 year old Maine Anjou bull, a 3 year old Angus cow, and 4 adult aged Holstein cows. The positive cases are 21% of the total of Johne's culture requests.

Dr. Jennifer Haugland

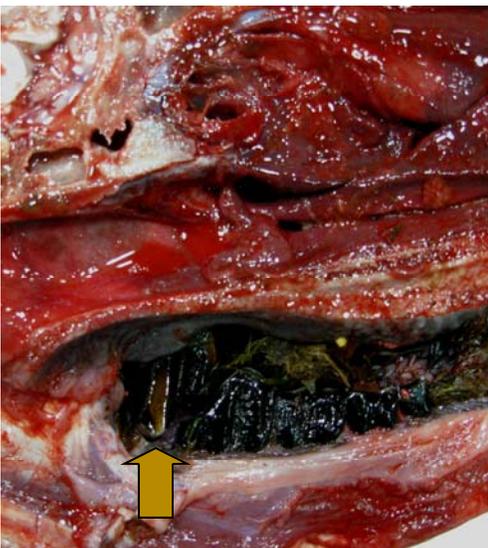


Fig 1: Arrow demonstrates the elongated molar.

A sixteen year old female llama with a four year history of episodic purulent nasal discharge was presented for necropsy. When the nasal discharge occurred, the llama was treated with various antibiotics and the condition would improve, but it would subsequently reoccur. The general health of the animal was good although the owner reported it was difficult for her to maintain normal weight.

On gross examination, the llama was thin with pink mucous membranes and normal hydration. The cranium was split longitudinally. Both of the rear maxillary molars were severely elongated. Severe gingivitis was present in the elongated molars and adjacent molars. The dental disease caused disruption of the maxillary bone and fistulas were present bilaterally in the maxillary sinuses. Both of

LIVESTOCK, CONTINUED

the maxillary sinuses were filled with compacted forage. On the right side, a fistula from the maxillary sinus had invaded the frontal sinus. The right frontal sinus was filled with a large caseous abscess.

According to Dr. David Anderson of Kansas State University, College of Veterinary Medicine, dental problems are often encountered in llamas and alpacas. Tooth extraction and apicoectomy are the most common surgical treatments performed on these species of animals. (JAVMA, Vol. 231, No. 2, July 15, 2007, Niehaus, DVM and Anderson, MS, DVM, DACVS). Routine floating of teeth is not commonly performed on camelids because their teeth are supposed to have numerous points on them. Dental problems should be addressed early in the disease process since camelids with poor body condition are at a greater risk for postsurgical complications compared to animals with good body condition.

Dr. Kim Townsend

Seven cattle submitted to NCVDLs for necropsy were positive for BVD virus in the year 2008. The diagnosis was made by viral isolation or positive staining by IHC. All animals were between 9 days and 8 months of age. The 9 day old animal was a Holstein and the rest were beef cattle. With the exception of the Holstein calf, which had enteritis, the other cattle died due to pneumonia caused by *Mannheimia haemolytica*, *Histophilus somni*, or *Mycoplasma* sp. These positive necropsy cases are 3.4% of all necropsy cases tested for BVDV.

Dr. Jennifer Haugland

An approximately 7-year-old female Angus cow developed bilateral rear limb weakness with progression to recumbency over a few days following calving. The herd grazed fescue pasture with an occasional mineral block. The vaccination history and additional information were not provided. The gross examination was relatively unremarkable with exception of diffusely pale tan hepatic parenchyma. The brain was negative for rabies. Histopathologic evaluation of the tissues indicated **lymphosarcoma** in the abomasum and lymph node and mild to moderate diffuse hepatocellular fatty change in the liver. Lymphosarcoma, a malignant cancer of the lymphatic tissue, may result in either discrete tumor nodules or diffuse infiltration throughout tissues and organs. It is strongly associated with bovine leukosis virus (BLV) infection in cattle. The cancer can affect multiple organs, including the abomasum, kidney, heart, uterus, vertebral canal and retro-orbital space. Clinical signs may include anorexia, anemia, weight loss, decreased milk production, chronic indigestion, melena, diarrhea, heart failure, posterior paralysis, and exophthalmos depending upon the location of the solid tumor.

Dr. Mahogany Wade

A 5 year old Boer doe was diagnosed with *Yersinia enterocolitica* enterocolitis after a 4 day history of diarrhea, which led to death. The feces were very loose and green. There was marked edematous thickening of the intestinal walls and the mesentery. This edema is most likely secondary to an infection of *Haemonchus contortus* and *Trichuris* sp. in addition to clinical hypoproteinemia and signs of anemia. Histopathological evaluation of the small intestine revealed acute, severe, segmental, necrosuppurative enteritis with colonies of coccobacilli. *Yersinia enterocolitica* was isolated from the small intestine and large intestine. Cultures for *Salmonella* spp. and *Campylobacter jejuni* were negative. *Y. enterocolitica* is an infrequent cause of diarrhea in goats and usually affects kids between 1-6 months of age but all ages can

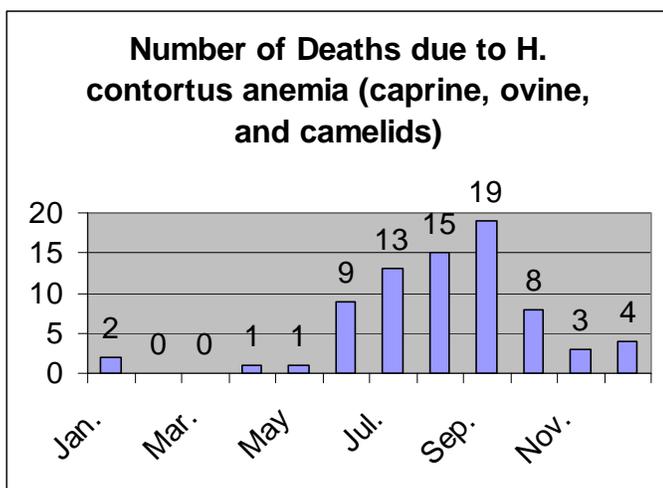
LIVESTOCK, CONTINUED

be affected. Birds and rodents are considered reservoirs and swine can be carriers. *Y. enterocolitica* is often present in the gut of normal animals but factors such as parasitism may predispose the development of enterocolitis. This bacterium can also cause gastrointestinal disease in humans. *Yersinia* sp. culture requires special media and techniques and thus is only done at this laboratory when specifically requested.

Dr. Jennifer Haugland

A 3-week-old female Angus was found dead. The calf was nursing well and abnormalities were not observed by the farmer. On gross examination, the cecum and spiral colon contained abundant bloody mucoid feces and the rectum contained a 1 cm mucous plug. A mild multifocal subacute cholangiohepatitis was identified via histopathologic examination. **Cholangiohepatitis**, inflammation of the bile ducts and hepatic tissue, is a condition that causes liver failure. It is thought to occur via bacteremia, ileus, or an ascending infection from the intestine to the liver via the enterohepatic circulation.

Dr. Mahogany Wade



In 2008, 16% of all goats submitted for necropsy died from anemia and hypoproteinemia caused by *Haemonchus contortus* parasitism (9% of all sheep). This is actually a decrease from the years 2005 (32%) and 2004 (23%). However, *Haemonchus* anemia continues to be the most common cause of death in goats with *C. perfringens* Type D enterotoxemia (5%) being second and listeriosis (4%) being the third most common cause of death. The distribution of deaths for 2008 was similar to other years in which the majority of deaths occurred between June and October

Dr. Jennifer Haugland

DEPARTMENTAL NEWS

ROLLINS LABORATORY

Bacteriology: Medical technologists, Karen Surratt and Angie Murphy, sadly have resigned their positions this past fall.

Information Technology: Herman Honeycutt has resigned his position to accept a promotion with the NCDA & CS Information Technology section.

Lab employees participated in and raised 1,291 lbs. of food for the **Food Bank of Central and Eastern North Carolina** during its 2008 annual Heart of Carolina Food Drive. A competition was held to raise the most food based upon laboratory section which was won by the maintenance/receiving section. The average amount of food raised on an employee basis was 20.5 lbs.!

Please make welcome, Dr. Alison Tucker, our newest mammalian pathologist, who began her employment with us in October, 2008. Dr. Tucker received her undergraduate and veterinary degrees from the University of Pennsylvania. She was in private practice (dairy) for 13 years before enduring a residency in Anatomic Pathology at the University of Tennessee, which she completed this past September. With interest in both large animal and companion animal pathology, she attended the 2009 ACVP meeting in San Antonio, TX, and was on the panel of presenters for the male reproductive pathology symposium. Dr. Tucker and her husband are enjoying the Raleigh area.



CE ATTENDANCE

The American Association of Veterinary Laboratory Diagnosticians (AAVLD) held its annual meeting in Greensboro, NC from October 22-27, 2008. The AAVLD is the governing body that oversees accreditation of participating veterinary diagnostic laboratories. The annual meeting offers numerous opportunities for continuing education credit for various specialties in the diagnostic system. In attendance from the NCVDL were: Dr. Karen Post, Dr. Gene Erickson, Dr. Peter Moisan, Dr. Alison Tucker, Dr. Steve Rushton, Dr. Tasheen Aziz, Dr. Mahogany Wade, Dr. Stacey Robinson, Dr. Kim Townsend, Dr. Reg Ridenour, Dr. Richard Oliver, and Dr. Carlton Rouse.

One day prior to the AAVLD meetings, the CL Davis Gastrointestinal Pathology Symposium was held and was attended by Dr. Moisan, Dr. Rushton, Dr. Tucker, Dr. Robinson, and Dr. Wade.

The North Carolina Veterinary Conference was held in Durham, NC from November 6-8, 2008. The available sessions catered to a variety of specialty fields and included poultry health, welfare and forensic investigation, and public practice and emergency response. Sessions were attended by Drs. Tasheen Aziz, Mahogany Wade, Stacey Robinson, and Tim McComb.

EMPLOYEE OF THE QUARTER

Congratulations to Kathy Harwood

Kathy Harwood has worked at the Griffin laboratory for 17 years and is responsible for both the virology and microbiology sections. She is very conscientious of her work and always has a positive attitude. She strives to stay current with her technical knowledge and recently attended a Salmonella workshop. She is very dependable and provides fill in services to other departments and is an active participant in training new employees.

Kathy is also involved in church activities and volunteers as a tutor to a child in middle school.



Kathy (right) with Dr. Hagens.

Directory

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[Dr. Tahseen Abdul-Aziz](#)

[Dr. Peter Moisan](#)

[Dr. Steven Rushton](#)

[Dr. Alison Tucker](#)

Veterinary Diagnosticians

[Dr. Jennifer Haugland](#)

[Dr. Stacy Robinson](#)

[Dr. Mahogany Wade](#)

Veterinary Microbiologists

[Dr. Gene Erickson](#)

[Dr. Karen Post](#)

Laboratory Section Supervisors

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[Sandy Murphy—Bacteriology](#)

[Mary Horne—Histopathology](#)

[Jennifer Pruitt—Serology](#)

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[Dr. Tim McComb](#)

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Dr. Karen Post	NCDA&CS Veterinary Diagnostic Laboratory System
Dr. Eric Gonder	Goldsboro Milling
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Dr. David Marshall	NCDA&CS Veterinary Division
Dr. Randy Jones	Livestock Veterinary Services
Dr. Jennifer Haugland	NCDA&CS Veterinary Diagnostic Laboratory System
Dr. Betsy Sigmon	Creature Comforts Animal Hospital