

APSC

The Department of
Animal and Poultry Sciences

www.apsc.vt.edu

Dear Alumni and Friends:

The semester is in full swing with our undergraduate population swelling to nearly 600. We had record enrollment this fall semester with 174 undergraduates joining our program, 140 of which are freshman. Thirty percent of this incoming class came to us from out of state, further contributing to the diversity of our educational environment. Our undergraduates continue to engage in a variety of activities including research, study abroad, and internships, gaining skills, knowledge, and experiences outside the traditional classroom setting. And though our faculty numbers are at an all-time high at approximately 35, we still have four additional positions to fill.

Our youth equine and livestock specialist searches have yielded some outstanding individuals and we expect these new hires will be on campus at or shortly after the end of the spring semester. These positions are particularly important to Virginia Tech as these individuals are custodians of our state-wide youth-based programs which are among the best in the country. The other two positions, an integrated beef production systems and the microbial physiologist and gut health poultry-based positions, are equally critical to bolster our ability to serve the needs of our stakeholders. Based on the caliber of the applicant pools, we are confident that we will add four highly qualified individuals to an already vibrant faculty. To illustrate the caliber of the faculty currently assembled in APSC it is worth mentioning that in addition to serving our undergraduate population and delivering vital information to our stakeholders, faculty members are expected to secure funding to support our missions. Over the past two years, APSC faculty members have secured some \$8 to \$9 million from federal, state, and private sources. These funds were a direct result of proposals written by our faculty that addressed issues such as: experiential learning techniques, managing calf growth rate, appetite control, heat stress, and embryo transfer. These successes have received significant national attention.

Dairy relocation to Kentland is proceeding on schedule and land vacated by dairy cows is currently being re-fenced and "watered" for the APSC cattle herd. Unfortunately, budget woes have slowed phase II facilities, which are designed

to support the needs of both APSC and DASC teaching and research needs. This delay in turn has slowed progress on renovations and building of new animal and poultry science facilities that are woefully outdated and largely unfit for discovery and education activities. Even so, however, securing these facilities remains a high priority to the college. We will likely need continued support from our alumni and friends to make sure these new facilities become a reality in the near future.

All in all, the department is on a positive trajectory; we have a super gifted undergraduate population, an outstanding faculty and staff, and stakeholders that are very supportive. On the other hand, it would be cavalier to ignore that we have some challenges and weaknesses that need to be addressed. But with a lot of discussions, and some careful planning and time, we are confident that we are remaining true to the long-standing tradition of excellence reflected in this department and the commonwealth.

As always, if you happen to be on campus, please do not hesitate to stop in for a visit.

Sincerely,



David E. Gerrard
Professor and Department Head
Animal and Poultry Sciences



David E. Gerrard, professor
and department head





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Department news

Temple Grandin Visits Virginia Tech

Temple Grandin, a world-renowned autism activist, best-selling author, and authority in animal welfare and behavior, visited Virginia Tech on Thursday, December 4 to give a series of talks to both the university community and the public.

Grandin's speaking engagement in the morning was dedicated to meeting students from the Department of Animal and Poultry Sciences and the Virginia-Maryland College of Veterinary Medicine to discuss current and future animal welfare issues that challenge society. In the afternoon session, Grandin presented a seminar entitled, "Understanding Animal Behavior, and Reducing Stress," which explored how livestock handlers can lower animals' stress levels through various tactics that keep animals calm at processing plants.

To conclude her visit, in the evening Grandin gave a presentation entitled, "The World Needs All Kinds of Minds." All



Temple Grandin

Photo by Rosalie Winard

these sessions were heavily attended, and attracted visitors from the local community at large and campus.

Grandin developed animal welfare guidelines for the meat industry in the '90s and continues to consult with major food industry clients on animal welfare. Half of the cattle in the U.S. and Canada are handled in equipment she has designed for meat plants.

Grandin's visit was sponsored by the Department of Animal and Poultry Sciences in the College of Agriculture and Life Sciences with support from the Virginia Tech Center for Autism Research.

HokieHarvest

20th Annual Hokie Harvest Sale Boasts Several Records

By Emma Reeves, Virginia Tech Beef Leadership Council Reporter

Associate Professor Dan Eversole, Department of Animal and Poultry Sciences

On the rainy evening of October 31, 2014, students, alumni, and supporters gathered in the Livestock Judging Pavilion at Virginia Tech to make history at the 20th annual Hokie Harvest Sale. The trusted VPI prefix that has been featured in bull studs worldwide was added to the herds of buyers from Virginia, West Virginia, Pennsylvania, and South Carolina at this event that has become a tradition in Blacksburg. This year's record-setting sale registered 161 buyers from 12 states and grossed an all-time high of \$204,700 on a total of 55 purebred and commercial lots with record averages of \$4,404 and \$3,064, respectively.

There were four Angus and two Simmental cow/calf pairs sold with averages of \$7,000 and \$5,850 for each respective breed. The highest-selling pair consisted of Lots 1 and 1A which commanded a \$7,700 total. Lot 1 is a two-year-old GAR Composure daughter that ranks in the top 1% for CED and the upper 5% on \$F and \$B. Her heifer calf is a product of Connealy Confidence 0100, one of the most popular 'heifer bulls'

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Alumni awards

Veterinary student awarded national scholarship



Brendan Martin
Photo courtesy of Sherrie Whaley

Brendan Martin of Mt. Solon, Virginia, has received the American Association of Bovine Practitioners Foundation – Zoetis Veterinary Student Scholarship to support his career in large-animal veterinary medicine. Martin is a fourth-year veterinary student at the Virginia-Maryland College of Veterinary Medicine at Virginia Tech. The \$5,000 national scholarship is awarded to 15 veterinary students each year through collaboration between Zoetis and the American Association of Bovine Practitioners Foundation. Martin also received an expenses-paid trip to the AABP Annual Conference in Albuquerque, New Mexico in September.

The 24-year-old Martin grew up on a beef cattle, poultry, and crop farm in Augusta County, Virginia, where he helped his dad background steers and helped his cousins with their dairy. When he first came to Virginia Tech for his bachelor's degree in 2008, his plan was to double major in animal and

poultry sciences and dairy science. While studying at Virginia Tech, he became interested in bovine reproduction and started an Angus cow/calf herd from just a few cows. "I have been able to use my herd of cattle to learn from, as well as to help pay for school," said Martin. His degree plans changed once he was granted early acceptance into the Virginia-Maryland College of Veterinary Medicine. Martin knew that he wanted to farm since high school, but said he also realized that he could not afford to buy a farm.

"I chose to attend college, with the goal of going to veterinary school so that I could work with cattle, farmers, and ranchers throughout the day, and then have the ability of owning my own farm as well. I have always enjoyed cattle and being part of agriculture," he said. A member of the veterinary college's Food Animal Practitioners Club, he has worked alongside practitioners in Virginia, Texas, Kansas, and Missouri to learn synchronization programs for

Faculty recognition

The Center for Instructional Development and Educational Research recognized Mark Cline, assistant professor of animal and poultry sciences, for his commitment to utilizing research to enhance his teaching methodologies while simultaneously making important contributions to science.



Mark Cline

According to Cline the formula for successful teaching is simple, "First, be genuinely excited about the material, and let that enthusiasm always show; always be animated and entertaining; second, relate material to the students' everyday lives whenever possible and allow students to share their experiences and knowledge with the entire class in order to promote a more active, fully-involved educational environment; thirdly, always be compassionate and approach students more like colleagues rather than subordinates; and lastly, sometimes failures are the best learning experiences, and most failures can be molded into success. It's the educator's role to guide the student perspective on perceived failure, to focus on and learn from the positives, not dwell on the negatives."

Cline's true passion for teaching and use of the above formula is evidenced every day in his courses; he is an animated lecturer who interjects humor into his lectures as a teaching device, remains humble while retaining confidence, and incorporates his students into his lectures instead of lecturing at them. His classroom is designed as a mixture of traditional lecture and very short activities designed to stimulate

New faculty



Bridgett McIntosh

Bridgett McIntosh joined the faculty of the Department Animal and Poultry Sciences in August 2014 as the Equine Extension Specialist headquartered at the Middleburg Agricultural Research and Extension Center in Middleburg, Virginia.

Bridgett grew up on a horse farm in rural New York and was initially drawn to Virginia to attend Hollins College, where she earned a B.A. in biology and competed on the International Horse Show Association riding team. She went on to earn a master's and a Ph.D. from Virginia Tech in animal and poultry sciences with a concentration in equine nutrition and forages. Prior to her position at Virginia Tech, Bridgett was the Equine Extension Specialist and Associate Professor at the University of Tennessee where she developed statewide equine Extension education and outreach programs.

While Bridgett's Extension and research programs are multi-disciplinary and broad in scope to address the needs of a diverse industry, her main focus area is on pasture and grazing management to improve horse health and environmental stewardship. Properly managed pastures provide an ideal source of nutrition and exercise for horses, while reducing adverse environmental impacts associated with soil erosion and nonpoint source pollution. Situated in the heart of Virginia's horse country, the MARE Center provides an unparalleled setting for demonstration research and educational programs focused on best management practices for horse farms that optimize horse and environmental health. In

addition to traditional Extension programs, Bridgett works with undergraduate and graduate students in a hands-on experiential learning environment to train tomorrow's leaders in the equine industry.

Bridgett has a deep-rooted passion for the horse industry and serves as a representative for Virginia Tech on both the Virginia Horse Council and the Virginia Horse Industry Board. In addition to her professional interests, Bridgett has had a lifetime involvement in the horse industry where she began showing ponies at seven years old and continues to compete in the hunters today. As avid foxhunters, she and her husband are delighted for the opportunity to live in Virginia's hunt country and to be a part of the Middleburg community.



Caroline McPhee Leeth

Caroline McPhee Leeth grew up in the Tidewater area of Virginia and attended Virginia Commonwealth University in Richmond, Virginia prior to transferring to Virginia Tech as an animal science major.

She received early acceptance to veterinary school in her junior year and subsequently graduated with a D.V.M. from Virginia Tech. After practicing small animal general practice for six years, she returned to graduate school and received a Ph.D. in biochemistry and biomedical sciences through a joint program with the University of Maine and the Jackson Laboratory. Her thesis work focused on the aberrant cellular pathways involved in the autoimmune disease, systemic lupus erythematosus, using the BXS mouse model under the direction of her mentor, Derry Roopenian.

After completing her degree, Leeth accepted a position as associate research scientist in the laboratory of David Serreze, also of the Jackson Laboratory. Her work focused on cytotoxic T lymphocyte and B lymphocyte biology in autoimmune diabetes using the NOD mouse model. Her current work at Virginia Tech includes investigations into B lymphocyte biology in autoimmune diseases using both the NOD and BXS mouse models. This work will provide insights into B lymphocyte behavior in disease conditions with applications to animal health. She is also interested in equine cellular immunology and will be working on B lymphocyte biology in the horse as well as on the pathogenesis of Equine Protozoal Myeloencephalitis.



Jordan Wicks

Jordan Wicks joined the Department of Animal and Poultry Sciences faculty in August 2014 as the meat center manager. Jordan hails from rural central Illinois. Though not raised on a farm, she studied at Southern Illinois University where she earned a B.S. in Animal Science Production. She continued her education at Auburn University where she obtained a master's in meat science. Following graduation Jordan took a job as plant manager for a new pork processing company in North Alabama where she oversaw slaughter, fabrication, and food safety. She most recently was a food safety and operations manager for large smoked sausage company in South Alabama and was responsible for implementing and updating food safety systems.

New staff



Susan Rosebrough

Graduate Program Coordinator

After completing her B.S. in Psychology at Virginia Tech, Susan worked as a domestic violence program coordinator at the Women's Resource Center of the New River Valley. In 2007 she returned to Virginia Tech as the academic programs coordinator for the Department of Biological Systems Engineering, where she coordinated both the undergraduate and graduate programs, and was a four-time recipient of the Alpha Epsilon "Outstanding Staff of the Year" award.

Committed to diversity and inclusion, Rosebrough is a certified Virginia Tech Safe Zone ally, a current member of the CALS Diversity Council, and has recently served on the university's Commission for Equal Opportunity and Diversity. In 2013 she received the CALS Diversity Enhancement Award, and in 2014 she completed the Diversity Ally Certificate through the Diversity Development Institute.

In her spare time, Susan enjoys gardening, crafting, and community service. Her volunteer service has ranged from preparing tax returns for low- to moderate-income families, to leading a knitting support group for survivors of domestic violence and sexual assault. She currently serves as an officer of election for the Montgomery County Electoral Board.



Haitham Yakout

Manager of the Paul Siegel Poultry Research Center

Haitham Yakout recently joined the animal and poultry sciences department at Virginia Tech as the manager of the Paul Siegel Poultry Research Center. Haitham grew up in Alexandria, Egypt where he earned his B.S. in Poultry Production and M.S. in Poultry Nutrition. He then pursued his Ph.D. in a joint program between Alexandria University and Nebraska University in poultry nutrition. Prior to joining the department, he conducted research in the area of poultry nutrition and extension as a visiting scholar at both the Mississippi State University poultry science department and the Virginia Tech animal and poultry sciences department.

Martin continued from page 3

cows and heifers, artificial insemination, embryo transfer, and reproductive ultrasound. "Knowing how to perform these procedures and which ones to use will help producers become more efficient and hopefully result in a more profitable enterprise for them," said Martin.

Martin's career goal is to obtain a job in a progressive bovine practice where he can "work with producers and their livestock in a rural setting. I plan to own a farm myself and continue to operate a cow/calf herd," he explained. Martin is only the second student

from the Virginia-Maryland College of Veterinary Medicine to win the scholarship. Dr. Sarah Krall, who won the scholarship in 2009, now practices at Shenandoah Animal Hospital in Woodstock, Virginia. "AABP and Zoetis are committed to the next generation of veterinarians," said Dr. M. Gatz Riddell Jr., veterinarian and AABP executive vice president. "Our hope is these students will soon enter the field of veterinary medicine and become leaders in our industry." More than \$500,000 has been awarded to 107 students in the last six years.

**Our fifth Annual
APSC Research Symposium
will be held on
Tuesday May 19, 2015.**

This annual event highlights applied and basic research performed by our graduate as well as undergraduate students. This year, it will be in conjunction with the Graduate Student Appreciation and Awards presentation at the Alphin-Stuart Arena on Virginia Tech main campus in Blacksburg.

Graduate Students

APSC Graduate Degrees Awarded Summer 2013-Summer 2014

M.S. Degrees

Kayla Brooks (Advisor: R. Rhoads) The safety and adequacy of galactooligosaccharides and fructooligosaccharides in infant pig formula.

Britni Brown (Advisor: M. Rhoads) Periconceptional heat stress of Holstein cows affects subsequent production parameters measured during adulthood.

Stuart Callahan (Advisor: Estienne) Effects of nursery floor space allowance on growth, physiology, and immunology of replacement gilts.

Deidre Harmon (Advisor: M. McCann) Phosphorus excretion in beef steers as impacted by increasing levels of corn gluten feed.

Dan Jia (Advisor: Jiang) Roles of growth hormone in liver growth and mesenchymal stem cell myogenic and adipogenic lineage commitment.

Laura Nelson (Advisor: Cline) The influence that neuropeptide Y and varying macronutrient rich diets have on food intake, gene expression, and adipose tissue in broiler chickens.

Kristen Seelenbinder (Advisor: R. Rhoads) The effects of a dual challenge of porcine reproductive and respiratory syndrome virus and heat stress on metabolism of growing pigs.

Shengchen Su (Advisor: Wong) Expression of digestive enzymes and nutrient transporters in the intestine of Eimeria-challenged chickens.

Ming Xie (Advisor: Ealy) Additive effects among uterine paracrine factors in promoting bovine trophoblast cell proliferation.

Shuai Zhang (Advisor: Gilbert) Chickens selected for high body weight show relative impairment in fatty acid oxidation efficiency and metabolic flexibility in skeletal muscle and white adipose tissue.

Yafei Zhang (Advisor: Jiang) Role of the SH3 and cysteine-rich domain 3 (STAC3) gene in proliferation and differentiation of bovine satellite cells.

Ph.D. Degrees

Joseph Emenheiser (Advisor: Lewis) Economic pasture-based cow-calf systems for Appalachia.

Ying Jiang (Advisor: Denbow) Fasting alters histone methylation in paraventricular nucleus through regulating of polycomb repressive complex 2.

Ting Lu (Advisor: Harper)
Effects of a dietary antioxidant blend on growth performance, liver function, oxidative stress, meat and fat quality, and early inflammatory response in pigs and broiler chickens fed a diet high in oxidants.

Gabriela Marquez Betz (Advisor: Lewis) Index selection in terminal sire sheep: Implications for genetic improvement in a crossbreeding system.

Wei Zhang (Advisor: Gilbert) Neurological-molecular interface in food intake and metabolism in birds and mammals.

New APSC Graduate Students Fall 2014

MS Students

Morgan Biggs (R. Rhoads)
B.S. Animal and Poultry Sciences
Virginia Tech, 2013

Amanda Fabi (Estienne)
B.S. Animal Science
University of Delaware, 2014

Shaimaa Hamad (Dorshorst)
B.S. Poultry Production
Cairo University, 2009
B.S. English, Cairo University, 2005

Michelle Jambui (Dorshorst)
B.S. Tropical Agriculture
Papua New Guinea University of Natural
Resources & Environment, 2010

Sydney McCauley (El-Kadi)
B.S. Animal and Poultry Sciences
Virginia Tech, 2014

Kayleigh Mize (M. McCann)
B.S. Animal and Poultry Sciences
Virginia Tech, 2014

Connie Mou (Persia)
B.S. Animal Science and Dairy Science
Iowa State University, 2014

Katherine Oliver (El-Kadi)
B.S. Agricultural Sciences
Western Kentucky University, 2013

Rebecca Poole (R. Rhoads)
B.S. Animal and Poultry Sciences
North Carolina State University, 2014

Richard Preisser (Gerrard)
B.S. Animal and Poultry Sciences
Virginia Tech, 2014

Joo Seo (Lee)
B.S. Animal Science
Colorado State University, 2009

Ph.D. Students

Dez-Ann Sutherland (Dorshorst)
M.S. Agricultural Science
Delaware State University, 2013
B.S. Animal Science
North Carolina A&T State University,
2010

Jinlei Wen (Persia)
M.S. Animal Nutrition and Feed Science
China Agriculture University, 2008
B.S. Animal Science
China Agriculture University, 2005

Cline continued from page 3

student engagement. As evidenced by one of his students, "Dr. Cline is an excellent teacher. He really cares about presenting the material so that it is clear and actively involves the students in lecture." Some past examples of Cline's unique approach to teaching include: using a few minutes before 8 a.m. classes begin to play energetic popular music to help students become more alert, bringing refreshments to exams to ease test anxiety and to "provide fuel for thought," and having students act out physiological phenomena in class to facilitate understanding. Intense debates surrounding biological issues are also used as teaching tools, which engage students to seek out information outside of that presented in class. These approaches appear quite effective; despite not having an attendance policy, his students are consistently present for his class. One student remarked, "Dr. Cline is a great professor, probably the best I've ever had. I've learned so much, and actually enjoyed coming to his class." Students who are not enrolled in his class have been known to sit in on his lectures, and his sections are usually filled beyond capacity.

Remembering his own struggles as a student, Cline developed a compassion for students who sometimes need extra encouragement outside of class. He retains a physics exam that he took as a freshman in college, using his own grade of a 56 as an example for struggling students. Despite having to work harder than his classmates and facing many difficulties along the way, his determination and persistence allowed him to earn a Ph.D. He tells his students that he is willing to put forth an equal amount of effort as they, and has stayed as late as 11:30 p.m. helping students the night before an exam, assuring them that hard work and determination usually prevail. This strategy has proven successful, as several students that have failed Cline's first lecture exam have finished his course near or at the top.

It is also important for science majors to appreciate the relevance and need for discovery. Last semester in animal physiology and anatomy he devoted a partial laboratory session to discussing research and scientific literature.

Research articles provided by colleagues within the College of Agriculture and Life Sciences were distributed and students were asked to present an article from the perspective of the lead scientist. The intent of this activity was to enhance student awareness of CALS research and inspire them to pursue research opportunities during their undergraduate education. The impact of Cline's instruction is evident, as one of his students noted, "because of this class, I have changed my major and decided to be a biology professor."

Last year he also incorporated a novel research project into Neuroscience I which is cross-listed as APSC 4994. Cline used this as a means to discuss research and demonstrate how scientific knowledge is acquired; they discussed experimental design, statistical analysis, interpretation of results, and scientific literature. A study was conducted and each student used the data to prepare a research manuscript. Students with the best manuscripts and those that contributed to the laboratory research became authors of a manuscript that was submitted to General and Comparative Endocrinology and accepted for publication last month.

Cline is also outstanding at teaching potential teachers, as evidenced in this excerpt from a colleague, "Mark Cline is an inspiration to junior faculty in our department striving to become better teachers. I have adopted many of his teaching tools in my classes in order to better engage my students and enhance their learning experience. There is no other teacher in the world more passionate about teaching and dedicated to his students than Dr. Cline. Mark Cline was born to teach."

Graduate students continued from page 6



Brad Reinholt

William T. Steele Jr. Graduate Scholarship

Brad Reinholt received the William T. Steele Jr. Graduate Scholarship that is awarded to a full-time graduate student in the College of Agriculture and Life Sciences based on academic achievement.

Brad is in the third year of his Ph.D. program in the Department of Animal and Poultry Sciences. He studies horse stem and progenitor cells under the mentorship of Sally Johnson, associate professor of animal and poultry sciences, and plans to graduate in 2015.

When he completes his degree, he plans to seek a postdoctoral or research scientist position in the life sciences industry with the ultimate goal of becoming a research team leader in a nonacademic setting. Brad truly enjoys the work he does in the life science research field and finds this career path stimulating and it challenging.

research
academic
achievement
Poultry Sciences

Undergraduate student accomplishments and activities



Galen Vosseller

Congratulations to Galen Vosseller, a junior in the Department of Animal and Poultry Sciences, who was awarded the Richard "Dick" G. and Ann L. Saacke Scholarship in Reproductive Physiology in fall semester 2014.

Galen's career goal is to become a veterinarian and, while enrolled in ALS 3304 Physiology of Reproduction, discovered how much she enjoys the discipline of animal reproduction. Her goal now is to specialize in reproductive medicine in veterinary college.

Richard Saacke retired from the Department of Dairy Science at Virginia Tech many years ago. His former graduate students and members of the dairy artificial insemination industry created the Richard G. and Ann L. Saacke Scholarship in Reproductive Physiology in honor of Saacke's invaluable contributions to this industry through research and through the training of graduate students. Richard and Ann both take an active role in interviewing candidates for this scholarship that is awarded to one individual each fall and spring semester.

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APSC Dean's List Spring 2014

Kacey M. Adams	Victoria L. Gray	Andrea D. Oliver
Lindsey E. Arthur	Sarah R. Greenway	Grace C. Ott
Ella C. Barnes	Carla A. Gutierrez	Rachel E. Owens
Kathryn A. Baugh	Samantha A. Habib	Grace A. Parker
Linda M. Beckett	Kalynn E. Harlow	Kaitlyn S. Peden
Joshua A. Bowyer	Aaron D. Heishman	Anna K. Revercomb
Santerra K. Boyd	Emma T. Helm	Krista L. Reynolds
Andrea M. Bradley	Patricia J. Helsel	Kathryn M. Ritenour
Casey T. Braginton	Sarah G. Helweg	Amanda M. Rogers
Olivia D. Brooks	Hanna J. Herdegen	Samantha C. Rogers
Caleb K. Brown	Rhiannon N. Hodges	Willow L. Ruud
Asjah R. Brown	Erin E. Holland	Andrew G. Sahol
Alexis K. Bruzugul	Kaitlin N. Holmes	Emily L. Schlake
Jamie M. Burkhardt	Emily A. Horton	Kara B. Schneide
Rachel W. Calcutt	Mary-Katherine P. Jones	Adam L. Shahaltough
Brittany N. Carter	Erika L. Joseck	Lauren E. Sherrod
Brittany A. Castle	Kathryn P. Joyce	Steven L. Shipp
Lavanya Chakrapani	Kelsey P. Kallapos	Shane J. Softy
Jazmin B. Cheveres	Cassidy L. Kees	Drew A. Sollenberger
Tracy Y. Childress	Jordyn N. Kim	Enilda R. Soto
Hannah R. Church	Howard A. Kirby	Natalie R. St. John
Keagan N. Clevenger	Kea M. Kiser	Christine E. Stephan
Benjamin B. Coates	Hayley A. Knapp	Eric N. Stewart
Elena C. Cox	Elizabeth R. Knick	Ashley N. Strader
Lindsay T. Creger	Amanda E. Kordenbrock	Devi A. Sturm
Thomas B. Cromer	Jessie A. Kull	Racheal E. Swackhammer
Mary K. Davis	Andria E. Laib	Meredith V. Taccetta
Catherine C. Davis	Payton E. Lawrence	Kaley R. Tate
Lindsay J. Deacon	Rachel A. Leeth	Candace J. Teel
Nycole E. Deleeuw	Kellen D. Levinson	Nicole A. Teets
Meghan S. Delp	Meredith D. Lewis	Michelle K. Thompson
Daniella E. Diaz	Alyssa R. Lindrose	Alyssa N. Thompson
Dillon S. Didehvar	Sarah N. Lipps	Allyson C. True
Erin E. Dlubac	Keil P. Lycke	Alexa H. Turner
Jennifer M. Donaggio	Bethany G. Lyon	Kristen M. Ulmer
Summer B. Driscoll	Margeaux E. Malone	McCauley T. Vailes
Megan L. Dunn	Sarah E. Martin	Julie A. Van Scoik
Shelby I. Edwards	Charlotte H. Maxwell	Angela M. Virostek
Rebecca L. Ellis	Jessica L. McCarty	Galen M. Vosseller
Lauren A. Engel	Megan K. McLean	Deborah J. Weinstein
Rachel A. Enger	Aidan M. Meehan	Hope H. Wentzel
Michael C. Estienne	Victoria E. Mellin	Kristen F. Wereszynski
William A. Fiske	Nicholas G. Moore	Catherine D. Wheeler
Stephanie E. Folkerts	Courtney A. Morris	Mallory B. White
Brendan T. Freitas	Victoria K. Morrison	Jordan P. White
Gabrielle A. Gauthier	Rebecca C. Mowry	Sarah H. Wieland
Hannah W. Geisler	Kellsie M. Mullikin	Carli A. Williams
Savannah M. Giannasi	Adam R. Murray	Emily A. Woodward
Meaghan K. Godwin	Amber R. Noel	Janie G. Young
Deanna E. Gradwell	Mallory N. Obenour	Courtney E. Youngbar
Anastasia G. Graf	Megan N. Ohlhaber	Kelsey P. Younts
Stephanie M. Grasso	Arynn D. O'Kane	Madeline J. Zimmermann

Undergraduate students continued from page 8



Brittany Rice

Brittany Rice, a former post-baccalaureate research and education program scholar in the Department of Animal and Poultry Sciences, received the award for Best Student Oral Presentation at the 92nd Annual Meeting of the Virginia Academy of Science on May 15, 2014 in Richmond, Virginia for her presentation entitled, "Insulin-induced hypoglycemia is associated with gene expression changes in the liver and hypothalamus of chickens from lines selected for low or high body weight." Rice is now a master's candidate at Eastern Kentucky University.

Master's candidate
scholar
Science
research
Poultry Sciences
academic



Poultry Club members educate Blacksburg youth through fun poultry-related activities at their first ever spring egg hunt.

Poultry Club

The Poultry Club at Virginia Tech promotes the study of the avian species and enhances members' understanding of the poultry industry. Members learn about a wide variety of topics, ranging from production to research. The club participates in many unique activities, fundraisers, and community service projects. These include guest speakers at meetings, industry tours, a fall turkey harvest, Kids Tech University, National Agriculture Day, a spring egg hunt, a trip to the Poultry Federation Youth Convention in Harrisonburg, Virginia, and a multi-day trip to the International Poultry Exposition in Atlanta, Georgia. Examples of past participating business entities include Mountaire Farms, Mill Mountain Zoo, Tyson, and Cargill. Besides many professional opportunities, members enjoy some fun social events, such as football tailgates with industry professionals and meals with the club. Many of our students are able to intern at poultry companies and upon graduation, have many career options within the poultry industry.



Poultry Club students at the annual International Production and Processing Expo in Atlanta, Georgia.

List of Officers:

President: Betty McConn
betty12@vt.edu

Vice President: Marie Schirmacher
riets15@vt.edu

Communications: Ursula Gerson
ugerson@vt.edu

Treasurer: Morgan Walls
wmorgan1@vt.edu

Secretary: KaLynn Harlow
keharlow@vt.edu

Student activities



Andrea Oliver at the New England Aquarium.

Andrea Oliver

I was fortunate enough this summer to work with the wonderful staff and animals at the New England aquarium in the penguin department.

As an intern, I was responsible for the care of the 85 African, Little Blue, and Southern Rockhopper penguins on exhibit. Much of my duties consisted of diet preparation, feeding, and cleaning, but I was also able to help with many special projects to learn more about exotic health care.

The main focus of my internship was to develop and give the 20 minute "penguin talk" to the visitors at the aquarium. I needed to be well versed on penguin information to give the talk well and be able to field the variety of questions from our visitors. In addition to my work with penguins, I was able to learn a lot about the veterinary care of other exotics. I learned about the process of fish spaying and was even able to help with a shark surgery. Through this experience I learned



Andrea feeding the penguins.

that there are an incredible number of similarities between domestic and exotic animal medicine. The big difference is that exotic medicine is still an emerging field; so many techniques used for domestic animals have not been tried yet. I hope to see the field continue to move forward as more discoveries are made so that we can further protect these disappearing species.



Hope Wentzel

Hope Wentzel

During summer 2014 (or winter 2014, since I was in South America) I worked as a research assistant for the Sustainable Pasture Improvement Project of the Instituto de Producción Animal (Institute of Animal Production) at the Universidad Austral de Chile (UACH) in Valdivia, Chile.

Over the course of my 10 weeks there, I had the privilege of helping graduate students on the project with managing the grazing sheep, as well as taking pasture measurements and soil samples to investigate the condition of the pasture in response to different pasture management strategies. Additionally, I worked with a professor at UACH, to design and conduct my own research

project investigating sheep grazing selectivity between two grass species to better understand how to best manage sheep.

The experience went far beyond my work on the project. I had countless conversations in which professors, graduate students, and undergraduate students shared their perspectives on agriculture, Chile, the world, and life in general. From the near-magical forests of Puyehue, to the wildly rugged landscapes of Patagonia, this piece of the world is an absolute treasure. I can't wait to apply the lessons learned in Chile to my work here at the Department of Animal and Poultry Sciences at Virginia Tech.



Victoria Harrington

Victoria Harrington

I spent my summer working as an intern for Fulton Cattle Inc. in beautiful Miller, South Dakota. Fulton Ranch has been an ongoing operation for three generations and is continuing to grow. The ranch currently operates a 2,000-head commercial Angus cow-herd and farms over 30,000 acres of wheat, corn, beans, alfalfa, and hay. Working out west on a ranch was a dream of mine ever since I was little and I greatly enjoyed the opportunity.

Student activities continued from page 10

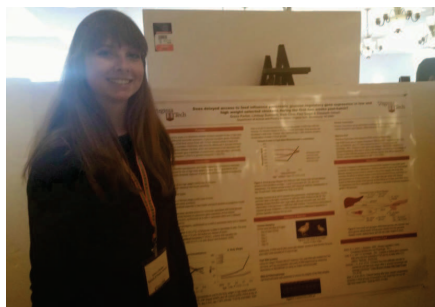


Victoria Harrington at work.

I had a diverse array of duties which included:

- Overseeing the health management program.
- Balancing and adjusting rations of horses and cattle.
- Administering vaccinations.
- Assisting with artificial insemination, calving, and pregnancy diagnosis.
- Operating heavy machinery.
- Constructing and maintaining fences.
- Riding horses, sorting, pairing, tagging, calving, doctoring, branding, processing calves, feeding, caring for and checking.

I absolutely loved what I did, from spending eight hours a day in the saddle moving and working cattle to maintaining weed control in pastures. The days could be long and strenuous but the good solid work was a blessing and I learned so much even coming from a beef background. All in all, my summer was amazing and I would not trade it for anything.



Grace Parker presenting her research at the 2014 Summer Undergraduate Research Conference at Virginia Tech.

Grace Parker

Obesity is an epidemic in the U.S. and is a predisposing factor for metabolic disorders. I research two lines of chickens that have been genetically selected for low or high body weight: the low weight chickens are lean and some are anorexic, while the high weight chickens are obese and compulsive feeders. Thus, they are a model to understand glucose regulation to benefit both human health and agriculture.

My research studies the expression of glucose regulatory genes in the pancreas of these chickens. My project helps understand the molecular mechanisms underlying nutrient assimilation and glucose regulation in the body, which is essential to facilitate strategies that could increase growth rate, feed efficiency, and breast muscle in commercial broilers. Conducting research is extremely rewarding because it allows me to give back to society, while increasing my self-confidence and giving me a sense of accomplishment. Recently, I presented my work at the 2014 Summer Undergraduate Research Conference at Virginia Tech. It was very encouraging to see the excitement of my listeners as I shared my research with them.



Kelsey Krum (APSC) ready for the walk in the cloud forest at Tiputini

APSC Participates in First Year Experience Winter Session Study Abroad Program in Ecuador

On December 27, 2014 16 students and four faculty departed from Washington, DC for a 14-day exploration of Ecuador. The group included three intrepid freshmen APSC students and Dr. Cindy Wood, Associate Professor of Animal and Poultry Sciences.

The purpose of the program, which began with weekly lectures on the geography, history, culture and agriculture of Ecuador during the second half of the fall 2014 semester, was to learn about environmental and economic challenges facing Ecuador, specifically as they relate to agriculture and the life sciences, while gaining firsthand knowledge about the country during the immersion experience.

In Ecuador, the group visited the Galapagos Islands to learn about its biological diversity and the pressures these islands face; traveled by bus, plane and boat into the Amazon jungle to visit the Tiputini Biodiversity Research Station; and

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Hokie Harvest continued from page 2

in the Angus breed. Lot 1 cow was purchased by Hart Farms of Blacksburg, Virginia while her Lot 1A fancy daughter sold to Blue Willow Angus of Ceres, Virginia. Lots 4 and 4A were the sale toppers at \$6,700 in the Simmental cow/calf division. This SimAngus first-calf heifer ranks in the upper 3 percent for calving ease and is sired by the high growth Angus sire, Sydgen Mandate 6079. She sold to Hart Farms of Blacksburg, Virginia for \$3200. Her herd sire prospect posts elite cutting-edge EPDs in Marbling, API, and TI and sold to Craig White of Buckingham, Virginia for \$3,500.

In the Hereford breed, Lot 11 was the most sought-after animal in both the bred cow and bull categories. She is a three-year-old MSU TCF Revolution 4R daughter bred safe to THM Durango 4037. She hails from the productive Victoria cow family and ranks in the elite 1% for WVEPD, YVEPD, Milk & Growth, and CHB\$. She sold for \$3,700 to David Campbell of Abingdon, Virginia.

Fifteen Angus, Simmental, and Hereford yearling bulls brought an average of \$4,113. The group was topped by Lot 19, an Angus bull sired by Connealy Consensus 7229 who sold for \$5,800. Lot 19 was also the highest-selling individual animal in the sale. His calving-ease genetics combined with tremendous curve-bending \$W and \$B will certainly turn a profit for his new owner. This promising Angus bull was purchased by Carl Benson Jr. of Daleville, Virginia.

Lots 23 and 24 were the high sellers in the Simmental bull division, bringing \$4,800 per head. Lot 23 is a polled, heterozygous black, TNT Axis X307 son who ranks in the top 3 percent on WVEPD and YVEP. This SimAngus bull was purchased by Okes Family Farm of Cool Ridge, West Virginia. The purebred, homozygous black Lot 24 is sired by SVF Allegiance Y802 and boasts impressive individual performance for weaning and yearling weight. He found a new home



Kristen Gardner (foreground) and Emily Dyer (background) are getting the job done!

with Hanson Cattle Company of Renick, West Virginia.

The 28 head of commercial bred heifers and cows sold this year averaged \$3,064, which is significantly higher than the 2013 sale average of \$1,990. Bidding was lively and numerous, and buyers swept the ring on female groupings. Wilbert Snider of Newport, Virginia and Max Campbell of Lebanon, Virginia were the volume buyers of these spring-calving females.

The 67 students in the 2014 Livestock Merchandising class did an excellent job organizing the Hokie Harvest Sale in an experiential learning environment. For the past 20 years, this class has served as valuable hands-on experience for students in all aspects of organizing and hosting a livestock sale. The nine student committees were clerking, animal display and sale prep, food and beverage, registration, clipping and photography, sale ring prep, advertising, catalog and social media, and decoration. Students James Comstock of Winchester, Virginia, Zayne Williams of Wytheville, Virginia, and Santerra Boyd of Tazewell, Virginia served as bid-takers for the sale while Jake Bailey, Fishersville, Virginia, and Will Strecker,

Lexington, Virginia worked the sale ring. Nikita Burke of Dayton, Virginia was the student clerk in the block.

Special thanks are extended to Col. Ken Brubaker of Brubaker Sales and Marketing, Harrisonburg, Virginia for guest lecturing and serving as the sale consultant and auctioneer. A huge 'thank you' is extended to our guest speakers Tom Burke, American Angus Hall of Fame, Smithville, Missouri; Julie and Martin Macqueen, High Road Livestock Photography of Covington, Virginia Dr. Terry Swecker of the Virginia-Maryland College of Veterinary Medicine, Blacksburg, Virginia; Aaron Ray Tompkins, Cowbuyer LLC of Ennice, North Carolina; and Chris Terembes, Executive Sires of Charlottesville, Virginia for sharing their expertise and time to support this year's class and the 20th anniversary of the Hokie Harvest Sale.

The Food and Beverage Committee, with assistance from the Block and Bridle Club in the Department of Animal and Poultry Sciences, served a delicious, complimentary BBQ dinner to over 450 guests before the sale. Their continued support and cooperation are greatly appreciated.

There continues to be a very strong interest among Virginia Tech students and prospective buyers in hosting future Hokie Harvest Sales. Due to the historical prices in today's cattle market and the reputation of this student-run sale, we are optimistic to host the 21st Annual Hokie Harvest Sale on Friday, October 30, 2015. Mark your calendars now and we hope that you can 'Come and Experience the Harvest'! If you would like to be added to the mailing list for future Hokie Harvest Sales, email Dan Eversole at deversol@vt.edu or call 540-231-4738.

Hokie Harvest

Personal and professional growths are highlights of European study abroad for equine science students

By Avery Marks, trip participant

Consistent with Virginia Tech's mission to help students obtain a "sense of self" through cooperative learning and enhanced global awareness, a recent study abroad course provided unique experiences for students interested in pursuing careers in the international equine industry. For the 20 students on the two-week tour of Germany, Austria, and the Czech Republic, the opportunity to gain insight from some of the top equestrian professionals in the world and witness European horse management, training, and business practices first-hand was an unparalleled and transformative experience.

To date, nearly 80 students have participated in the equine science study abroad to Europe. The unique experience serves as a capstone that builds on the outstanding campus-based programs at Virginia Tech, helps students to expand their cultural perspectives, and gives them new opportunities to grow personally and professionally.

Europe plays a major role in the global horse industry, producing many of the top Olympic horses and riders, and serves as a world leader in the production of horses and products for the global equestrian market. Students visited several prominent equestrian and academic facilities, including the Spanish Riding School in Vienna, Austria, the University of Veterinary Medicine in Hanover, Germany, and the premier training and sales facility, Hof Kasselmann, where students were able to visit at length with master young horse trainer, Ulf Möller.



The 2014 Equine Science study abroad group at the Spanish Riding School in Vienna.

Photo by: Brittany Carter



A beautiful day at the Brandenburg State Stud at Neustadt.

Photo by: Brittany Carter

Caroline Pearson, a rising junior at Virginia Tech found the depth and breadth of the experience opened her eyes to many new possibilities for an equine-related career, "I learned that you don't have to put all of your eggs into one basket. There are many different ways to get involved and be successful in the industry."

A favorite experience of many students was an opportunity to engage in the German Reitabzeichen, a theoretical and practical test of equine knowledge and equestrian skill that results in an international certification for successful participants. In preparation for the test, students participated in lecture and laboratory sessions while residing at the famous Brandenburg State Stud at Neustadt, Germany.

Although primarily focused on horses, the study abroad course constantly immersed students in local culture and history, challenging them to consider their experiences from multiple perspectives. While touring, the group visited historical sites, including a visit to the Berlin Wall, with some of its remnants still present for viewing, and a walk through the former concentration camp Bergen-Belsen in Northern Germany. Even daily interaction with locals and tasting the cuisine allowed for a better understanding of the world outside of the students' familiar environments. Molly Lumsden, a rising senior at Virginia Tech, explains, "Personally, I have gained a wider perspective of the world. Knowing that there are so many other people and places in the world is one thing, but actually interacting with different people provides a perspective you can only gain by traveling." For some students it was their first time visiting Europe; for others it was their first time leaving the country. It was unanimous that the trip provided

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study abroad

Study abroad continued from page 13



The 2014 Equine Science study abroad group at the Neuschwanstein Castle in Schwangau, Germany.

Photo by: Rebecca Splan

something unique for each student that they will take on their future endeavors.

The bi-annual experiential learning program was headed by Virginia Tech Associate Professor of Animal and Poultry Sciences Rebecca Splan who has organized and led the course since 2008. In addition to Splan, students benefited from the knowledge and mentorship of two other faculty guides; Dr. Christian Schacht, a leading international veterinarian, judge, trainer and author, based in Germany, and Tanja Hess, an associate professor of animal science at Colorado State University. To date, nearly 80 students have participated in the equine science study abroad to Europe. The unique experience serves as a capstone that builds on the outstanding campus-based programs at Virginia Tech, helps students to expand their cultural perspectives, and gives them new opportunities to grow personally and professionally.

Equine activities

Hokies achieve success at the All American Quarter Horse Congress Judging Contest

In one of the largest horse judging competitions in the country, the Hokies earned top honors in the Senior Limited Collegiate Horse Competition held October 15, 2014 in Columbus, Ohio.

The Congress Horse Judging Contest challenges competitors to place 11 different classes including three conformation classes and eight performance classes. Each class is made up of four high quality horses.

The performance classes included western pleasure, reining, western riding, hunter under saddle, hunter hack, equitation, trail, and new to the contest this year, the ranch horse pleasure class.

Winning the individual halter/conformation horse judging competition was Rachel Owens while teammate Rachel Bell finished fifth in halter judging. Hanna Bartnick was only one point out of first place in judging performance classes and finished second. The reasons competition was comprised of scores for oral presentations to explain the students' decisions for class placings and highlighted three Hokies in the top rankings. Hanna Bartnick placed first, Rachel Bell second, and Rachel Owens placed seventh in individual reasons. Overall, Hanna Barnick placed second and Rachel Bell placed seventh high in individual in the contest.

The Congress contest was the culmination of work that started last spring for the Hokies. The students traveled to Tennessee and Texas to judge top horses and meet industry leaders who generously shared their time and expertise. The team members are grateful to these supportive professionals, the Virginia Tech animal and poultry sciences department who sponsors the activity, and the Pat Stuart funds for making the training and contest travel possible. The team was coached by Julia S. McCann with the assistance of undergraduate Hannah McDonald this fall.



Pictured (L-R): Ashley Owens of Lebanon, Virginia, Hannah McDonald assistant coach of Cross Junction, Virginia, Hanna Bartnick of Roanoke, Virginia, Rachel Bell of Blacksburg, Virginia, and Rachel Owens of Virginia Beach, Virginia.

Virginia 4-H State Horse Judging Team brings home the gold at Arabian Nationals

Submitted by Celeste Crisman

The 2014 Virginia State 4-H Horse Judging team won High Team Overall out of 17 teams and 55 individuals at the 2014 Arabian National Horse Judging Contest in Tulsa, Oklahoma.

4-H Members competing were:

Julia Hartman of Albemarle County;
 Hannah Ho of Albemarle County;
 Emily Reasor of Wythe County;
 Chelsea Bickley of Fluvanna County;
 and Lilly Johnston of Gloucester County.



Princesses and Prizes - Team members (L-R): Lilly Johnston, Julia Hartman, Emily Reasor, Chelsea Bickley and Hannah Ho.

Results are as follows:

Halter Individuals: Julia Hartman – 5th, Hannah Ho – 7th, Chelsea Bickley – 14th, Emily Reasor – 15th and Lilly Johnston – 25th.

Halter Teams: Virginia - 2nd

Performance Individuals: Hannah Ho – 2nd, Chelsea Bickley – 6th, Emily Reasor – 9th, Lilly Johnston – 24th and Julia Hartman – 26th.

Performance Teams: Virginia - 1st

Reasons Individuals: Hannah Ho – 4th, Emily Reasor – 8th, Chelsea Bickley – 9th, Lilly Johnston – 15th and Julia Hartman – 17th.

Reasons Teams: Virginia - 2nd

Overall Individuals: Hannah Ho – 3rd, Chelsea Bickley – 7th, Emily Reasor – 9th, Julia Hartman – 13th, and Lilly Johnston – 22nd

Overall Teams: Virginia – 1st

The 2014 team was chaperoned and coached on this trip by Yvonne Miller and Kara Hite. Both coaches had only excellent comments about the work ethic and focus of this team. They spent two full days practicing at the show and working on their reasons prior to the contest. By the photos, you can see that they came away with many awards for their hard work — ribbons, trophies, belt buckles, scholarships, big smiles, and memories to cherish forever.

The entire team has worked very hard this year – the additional members that were not able to make the trip to Tulsa are: Hunter Liles of Pittsylvania County and Kristin Seay of Louisa County. Additional coaches who have helped with the team this year are Richard and Jody Toms. Huge thanks to everyone – 4-Hers, county coaches, parents, state coaches, and the 4-H Horse program for helping these girls to make the most of their 4-H horse judging experience.

Virginia 4-H Horse Judging and Hippology Teams Close Out 2014 at Eastern National 4-H Horse Roundup

By Celeste Crisman – Extension Horse Specialist, Youth programs

The Eastern National 4-H Horse Roundup was held November 7-9 in Louisville, Kentucky and I am once again, honored to tell you of our Virginia 4-Her's accomplishments. We had a small delegation this year competing at Eastern Nationals as once a 4-Her competes in a particular event, their eligibility ends for 4-H competition in that area so many aren't ready to give it up yet. This year we had a three-person Judging team and a three-person Hippology team.

Competing for Horse Judging was Emily Reasor of Wythe County, Hunter Liles of Pittsylvania and Julia Hartman of Albemarle County. In team competition, Virginia was 2nd in Performance, 3rd in Reasons, and 3rd High Team Overall. Individually, in Performance Hunter Liles was 1st and Julia Hartman was 5th; in Reasons Hunter Liles was 2nd. In Individuals Overall, Julia Hartman was

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ENR 2014 Hippology Team from left to right: Chelsea Bickley, Mariah Casaday and Abbey Strickland.

ENR continued from page 15



2014 ENR Horse Judging team from left to right: Hunter Liles, Celeste Crisman (coach), Julia Hartman, Emily Reasor and Yvonne Miller (coach).

6th. All three girls had a great day with Emily just out of the ribbons!

For Hippology, 4-Hers competing were Chelsea Bickley, Mariah Casaday and Abbey Strickland all of Fluvanna County. In the Written Phase, Abbey Strickland was 6th individually and the Virginia Team was 8th. For the Judging Phase, Abbey Strickland was 1st with a perfect 200 score and the Virginia Team was 1st! For Stations, the Virginia Team was 7th and for Team Problem Solving the Virginia team was 4th. Overall, Abbey Strickland was 6th and the Virginia team was 6th!

Both teams achieved these accomplishments as three-person teams which puts them at a severe disadvantage of no dropped scores against all the other four person teams! Congratulations all around to Virginia 4-H!

**4-H Horse
Judging
teams
National**

Student ambassadors

The ambassador program is student-run with the help of Mark McCann, and provides opportunities for students to develop professional leadership skills while representing the department to prospective students, parents, employers, government leaders, and the livestock and poultry industries. Student ambassadors receive training about the department's curriculum, research, extension programs, faculty and staff, livestock and poultry centers, research laboratories, and related industries. Students also contribute knowledge of their specialized options and emphases along with involvement in clubs, research, academic experiences and personal experiences at Virginia Tech.



Marie Schirmacher
President
Poultry, Pre-Vet

Marie is a senior in the department. She serves as a member of the poultry club, and a sister of Sigma Alpha sorority. Staying busy with poultry research, she plans to attend graduate school.



Hope Wentzel
Livestock, Production Business

Hope is a senior in the department. She is a member of Phi Beta Delta, Ag for ECHO and more. She plans to work in animal agriculture through extension and international development.



Kami Meador
Social Chair
Livestock, Pre-Vet

Kami is a senior in the department. Kami holds an executive position in Block and Bridle and is currently a teaching assistant. She plans to help the lives of animals after graduation.



Keagan Clevenger
Livestock, Pre-Vet

Keagan is a senior in the department. He is actively engaged in the Virginia Tech Beef Leadership Council and works at the Virginia Tech Beef Center. He plans to become a large animal veterinarian.



Santerra Boyd
Livestock, Pre-Vet

Santerra is a senior in the department. She is involved with Block and Bridle, and works at Smithfield horse center. She plans to pursue a master's degree in either extension or agricultural teaching.

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Ambassadors continued from page 16



Taylor Delnicki
Equine, Science

Taylor is a senior in the department. Taylor is involved in Greek Life and spent a semester abroad in Ecuador. After graduation she wants a career in the medical field where she can use Spanish.



Dillon Didehvar
Secretary
Companion/Lab Animal and Poultry, Pre-Vet

Dillon is a junior in the department. He is the president of the Wildlife Conservation Club and immersed in research on neuropeptides. He plans to pursue a career as a poultry veterinarian.



Kellsie Mullikin
Equine, Pre-Vet

Kellsie is a junior the department. She is the assistant manager of the dressage team and the Equestrian Club alumni chair. After graduation she aspires to have a career in equine exercise physiology.



Cate Beach
Livestock, Pre-Vet

Cate is a junior in the department. She is an officer in Swine Club and a member of Gamma Beta Phi. She volunteers in a research lab and plans to either attend veterinary school or pursue epidemiology.



Asjah Brown
Equine, Pre-Vet

Asjah is a junior in the department. She is a member of Sigma Alpha sorority and is involved in research. After graduation she plans to attend veterinary school.



Peyton Lee
Livestock and Equine, Production-Business

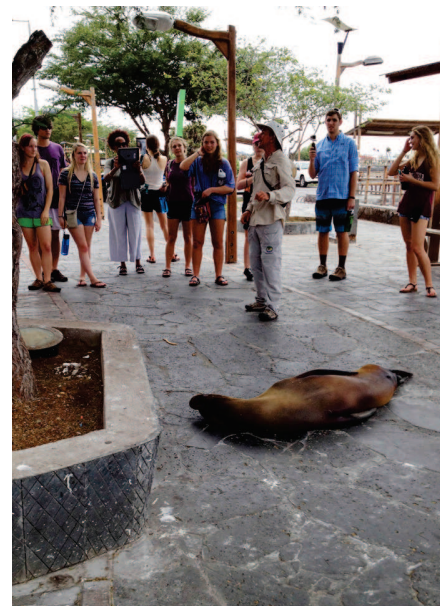
Peyton is a junior in the department. She is the BBQ chair for Block and Bridle and holds an officer position in Virginia Tech Beef Leadership Council. She plans to work with the National Junior Angus Association.



Julie Van Scolk
Livestock, Pre-Vet

Julie is a senior in the department. She is a member of the Honor community and the rugby team. She also holds the position of student manager at the sheep center. She plans to attend veterinary school.

Ecuador continued from page 11



Sea Lions were everywhere on the Galapagos Islands.

visited a number of agricultural enterprises in the Riobamba area. We also toured the historical city of Quito and visited the markets in Otavala.

In the journals they kept, all the students agreed that the program was well-worthwhile and should be repeated. For some of them it was life-changing; for others it affirmed their choice of major and field of study.

APSC

We'd also like to extend a warm welcome to the newest members of our ambassador family. Congratulations to Nikeer Shah, Lauren Sherrod, Grace Ott, Erin Dlubac, and Leah Kasmak, who will begin sharing their wonderful experiences beginning in 2015.

Update your information

We are interested in knowing what you are doing! Please help us keep our mailing list current by completing and returning this form to the Department of Animal and Poultry Sciences, Virginia Tech (0306), Blacksburg, VA 24061 or email vtapsc@vt.edu with the following information.

Name: _____ Year and Degree: _____

Home Address: _____

Employer: _____

Current Position: _____

Work Address: _____

E-mail Address: _____

News about Yourself:

Would you like to be contacted concerning support of one of our scholarship programs or extra-curricular group activities?

☐ Yes

☐ No

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Judging Pavilion 231-9150

Alphin-Stuart Arena 231-9150

The Department of Animal and Poultry Sciences newsletter is published by the Department of Animal and Poultry Sciences, 3460 Litton Reaves Hall (0306) Virginia Tech, Blacksburg, VA 24061.

Please contact 540-231-6311 or vtapsc@vt.edu with questions, comments, or requests for information.