

2015
SUMMER

NEWS

RESEARCH SPOTLIGHT

MEET LEANDRO CASTELLO, THE
NEWEST MEMBER OF THE FACULTY

Leandro Castello joined the department as an Assistant Professor in June 2013. His academic training includes a Ph.D. from the College of Environmental Science and Forestry, State University of New York, and a Postdoctoral appointment at the Woods Hole Research Center.

Leandro's research addresses fishery conservation problems by adopting a broad interdisciplinary approach that places fish populations in the context of ecosystems and human society. Leandro is particularly focused on the translation of his science into policy. His earlier research focused on the conservation of *Arapaima* spp. — the Amazon Basin's most historically overexploited giant fishes, growing to 3 m in length and 400 pounds in weight. By studying the migration of arapaima and the ability of fishers to count them at the moment of their obligate air-breathing, his research led to the development of management schemes that have now been included in state laws and stimulated the recovery of many populations. His past research also led to a recent book commissioned by the World Wildlife Fund to guide its policy work in the Amazon Basin. The book investigates the ecosystem effects of proliferation of large hydroelectric dams in the Amazon Basin.

Leandro's current research in rivers of the Amazon Basin and Virginia focuses on the impacts caused by pollution, overfishing, hydrological alteration, and land cover change. A new project, funded by NASA, investigates the impacts of extreme climatic events (i.e., floods, droughts) on the productivity and life cycles of the Amazon's most economically important fish species. With deforestation and increasing frequency and severity of extreme climate events in the basin, this research will explore how local human populations, who

depend heavily on fish for food and income, may be affected by future climate change.

In Virginia, Leandro and fellow faculty member **Brian Murphy** are studying the establishment of muskellunge (*Esox masquiongy*) populations in the New River and potential impact on smallmouth bass (*Micropterus dolomieu*) populations through predation. Muskellunge populations became established in the New River as a result of stocking and harvest regulations. Working with Joe Williams of the Virginia Department of Game and Inland Fisheries, students in Leandro's and Brian's laboratories are examining stomach contents to estimate the diet of muskellunge in the New River.



Leandro teaches an undergraduate and upper level class in fisheries techniques and has developed a graduate level class in systems conservation of animal populations. As with his research, in the classroom Leandro emphasizes a system approach that is inclusive of human systems. His courses expose students to laboratory and field techniques as well as data processing and analyses. Group research projects emphasize synthesis and presentation of results.

<http://blogs.lt.vt.edu/castello/>

NEW AVIARY FACILITY EXPANDS RESEARCH CAPABILITIES AT CENTER WOODS

By William Hopkins



After three years of planning and construction, the Department of Fish and Wildlife Conservation is proud to announce that the new research aviary has been completed. This is one of the most significant infrastructure projects undertaken by the College of Natural

Resources and Environment in several years. The facility will support the research efforts of **Dr. William (Bill) A. Hopkins** and his collaborators who study birds in the field and under more controlled experimental conditions.

The facility features space for incubating bird eggs, basic lab bench manipulations, and 16 replicated aviary rooms. Each aviary room is open to natural changes in temperature and daylight cycles, but provides protection

from extreme weather events and predators. The facility will enable Hopkins and colleagues to perform semi-natural, replicated experiments to evaluate important environmental questions such as how pollution affects bird reproduction, and what factors control transmission of bird diseases. The aviary facility will have its official opening in summer 2015, but research projects at the facility are already underway.

Center woods, located on the western side of campus west of U.S. Highway 460, serves as home to the Freshwater Mollusk Conservation Center and conservation aquaculture facility of the department. The department also uses center woods as a location for boat and truck storage and staging for fieldwork and class field trips.



Welcome to the first issue of the Department of Fish and Wildlife Conservation newsletter. With this newsletter we want to share with our alumni, stakeholders, and friends our excitement and pride in the many

successes of our students, alumni, and faculty. We also hope to highlight and enhance our interactions with our state, federal, and private sector partners; our successes are truly shared with and dependent on these groups.

As the new department head I could not be more excited to be part of the department and living here in Blacksburg with my family. My wife and I met at Guilford College in Greensboro, North Carolina. My family roots are in eastern and middle Tennessee and my wife's are in western North Carolina. So our move to Blacksburg is in many ways a return home. We have found a welcoming and diverse community here in Blacksburg and look forward to many hours of exploring the natural and cultural heritage of the region.

I also have the privilege of joining a strong, vibrant and collegial faculty in the Department of Fish and Wildlife Conservation. Our programs in fisheries and wildlife have consistently ranked among the best in the nation. Our faculty are committed to students and produce well-rounded graduates who are ready to tackle today's complex natural resources issues. Our alumni are found in leadership positions globally; it seems that I meet alumni almost everywhere I go.

It is my hope to serve the students, faculty and alumni of the department, college and university, and facilitate their contributions to the citizens of Virginia and worldwide. The department's mission is simple but extremely important in today's world of complex and challenging environmental problems: we strive to significantly contribute to fish and wildlife resource conservation and management at state, national, and international levels through integrated programs in research, teaching, and engagement. We pride ourselves on a diverse research portfolio ranging from game management to conservation of endangered species to wildlife disease and human health. We have updated and refreshed our webpage so please visit us at www.fishwild.vt.edu and learn more about all of our teaching, research

and outreach efforts.

If you wish to support our efforts, please consider a gift designated for the Department of Fish and Wildlife Conservation. The academic landscape is shifting dramatically and private giving now outpaces state funding. Therefore, gifts of any size help in maintaining the quality of education we offer our students. Donations to our Fish and Wildlife Endowment Fund will help us achieve financial stability and establish scholarships and graduate fellowships. Donations to our Fish and Wildlife Operating Fund enhance the undergraduate experience by increasing opportunities for fieldwork and attendance of professional meetings. To learn more about giving opportunities to the Department of Fish and Wildlife Conservation, please visit our college's [giving page](#). I want to thank you for all that you do for our college and the Department of Fish and Wildlife Conservation. We truly value your support and the impact you are making at Virginia Tech for our students.

Please drop by and say hello when you are in Cheatham Hall next time.

Joel Snodgrass
Department Head

GLOBAL CHANGE INITIATIVES FOSTER FACULTY AND STUDENT COLLABORATIONS ACROSS CAMPUS

Portions of this article appeared in previous writings by Lindsay Key

The new Global Change Center at Virginia Tech, directed by **Dr. William (Bill) A. Hopkins**, professor in the Department of Fish and Wildlife Conservation, was officially chartered in January 2015. The Center was launched to support research, education, and outreach in the broad field of global change, addressing critical environmental and societal problems such as habitat loss, invasive species, pollution, disease, and climate change. "We have incredible expertise at Virginia Tech on each of these problems, but this expertise is scattered around campus in different colleges and departments. The Global Change Center at Virginia Tech will foster interactions among experts in diverse fields so that we can approach global change problems with a more holistic, interdisciplinary perspective," Hopkins said. The Center has gained considerable momentum, thanks to the 38 faculty that came together to make the initiative a reality.

A recent example of a global change issue that faculty within the Center are addressing is the sudden, rapid growth of algae in lakes and reservoirs around the United States. These toxic algal blooms are caused by a series of anthropogenic factors that include climate change, altered land use, and pollution. The subsequent consequences include

significant food-web disruptions and drinking water impairment for metropolitan areas. To effectively mitigate such complex environmental problems, research teams comprised of biologists, toxicologists, geochemists, engineers, climate modelers, and social scientists are needed.

Confronting the multifaceted nature of global change requires well-coordinated interdisciplinary teams and highly integrated training models for the next generation of scientists. To address the challenges, the Global Change Center is also home to a successful interdisciplinary graduate education program, Interfaces of Global Change (IGC IGEP), which is central to the Center's educational goals. The graduate program already boasts 24 Ph.D. fellows from diverse fields.

"This is truly a broad endeavor that will benefit the entire campus community, including faculty and students from at least 6 colleges, 15 departments, multiple Institutes, and the National Capital Region. It will also serve as a strong complement to other emerging strengths on our campus including several interdisciplinary graduate programs (IGEPs) and other initiatives in fields such as water, sustainability, and resiliency," Hopkins said.

"We have incredible expertise at Virginia Tech on each of these problems, but this expertise is scattered around campus in different colleges and departments. The Global Change Center at Virginia Tech will foster interactions among experts in diverse fields so that we can approach global change problems with a more holistic, interdisciplinary perspective."

<http://www.globalchange.vt.edu/>

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The start of the 2015 summer field season finds the U.S. Geological Survey, Virginia Cooperative Fish and Wildlife Research Unit with 13 graduate students and 2 post-doctoral research associates. **Paul Angermeier**, assistant unit leader, and **Mark Ford**, unit leader, are working with students on numerous aquatic and terrestrial projects in Virginia and throughout the eastern U.S. The unit continues to work closely with the Freshwater Mollusk Conservation Center on campus.

Funding, both reimbursable and competitive, as well as in-kind support to the unit from Virginia Department of Game and Inland Fisheries, U.S. Fish and Wildlife Service, National Park Service, U.S. Forest Service, Department of Defense and other cooperators has been very good this fiscal year.

Within the U.S. Geological Survey Cooperative Research Unit program, efforts continue to backfill unit vacancies all over the nation. Currently, the Virginia unit has an unfilled assistant unit leader slot, and both the Cooperative Research Unit program and Virginia Tech are optimistic that this vacancy is one of those next in line to be filled.

Two unit-associated doctoral students finished this year. **Alexander Silvis**' ('14 Ph.D. fisheries and wildlife sciences) dissertation was titled "Day-roosting Social Ecology of the Northern Long-eared Bat *Myotis septentrionalis* and the Endangered Indiana Bat *Myotis sodalist*." **Sara Sweeten**'s ('15 Ph.D. fisheries and wildlife sciences) dissertation was titled "The Effect of Microhabitat and Land Use on Stream Salamander Occupancy and Abundance in the Southwest Virginia Coalfields."

Currently, the unit is heavily involved in bat research, helping cooperators understand bat population dynamics and habitat use



patterns following the spread of White-nose Syndrome through many populations. In May, while mist-netting and radio-tagging three females at the U.S. Army's Fort A. P. Hill installation near Fredericksburg, unit personnel discovered the first documented maternity colony of the endangered Indiana bat in Virginia. Although known from winter hibernacula in the western mountains of the Commonwealth, it was unknown whether or not females remained within the state during summer months – now we know that at least some females do. True to the Indiana bat habit of following the shifting mosaic created by forest disturbance processes, radio-tagged females led unit students to a small patch of loblolly pine snags with abundant exfoliating bark. Exit counts over successive nights suggested a maternity colony of 15 to 20 females roosting in a handful of snags. The unit and the U.S. Army are now committed to learning more about this colony in the coming months, as this site provides an unparalleled opportunity to study an endangered species in a managed forest landscape.

FACULTY AND STUDENTS HOST REGIONAL AFS CHAPTER MEETING

By Eric Hallerman

Activity in professional societies polishes the knowledge and broadens the perspective of both students and practicing professionals. The Virginia, Virginia Tech, and West Virginia Chapters of the American Fisheries Society (AFS) met in Blacksburg, Virginia, from February 17-19, 2015. VT faculty, students, and alumni participated in planning and execution of the event, which hosted about 120 fisheries scientists and managers.

Members of the three chapters contributed 22 podium presentations, seven by Virginia Tech students and faculty. Highlights included invited presentations by AFS Past President John Boreman on adaptive management of marine fisheries and by AFS Executive Director (and VT alumnus) **Doug Austen** ('84 M.S. fisheries and wildlife sciences) on the role and future of AFS.

Virginia Tech faculty, students and alumni were prominent in the Chapter's business meeting. Awards Committee Chair John Copeland presented the Eugene W. Surber Professional Fisheries Scientist

Award to **Brian Watson** ('99 M.S. fisheries and wildlife sciences), the Robert E. Jenkins Undergraduate Scholarship to **Erica Ascani** ('16 B.S. fish conservation) and the Robert D. Ross Graduate Scholarship to **Michael Moore** ('16 M.S. fisheries and wildlife sciences). Incoming President **Eric Hallerman** presented the Past-President plaque to **Don Orth** as he completed his term as President of the Virginia Chapter.

The banquet and social included a rare sighting of Professor Emeritus John Ney, who was on his spring migration from Florida to God's country. He posed for a snapshot with the 20th-century fisheries faculty and current student **Hae Kim** ('17 B.S. fish conservation). The social included a poster session with 15 posters, including six by Virginia Tech students and faculty.

Next year's Virginia Chapter meeting is planned for Danville, Virginia in association with the North Carolina Chapter of AFS.



back row: Brian Murphy, John Ney, Steve McMullin, Eric Hallerman, Don Orth; front row: Hae Kim ('17 B.S. fish conservation), Andy Dolloff



Watson receives Surber Award



Amanda Hyman ('16 M.S., fisheries and wildlife sciences) discusses her poster with VDGIF biologist Nate Wilke

Students Bring High Energy to the TWS SouthEastern Conclave

By Marcella Kelly

On March 12-15, 2015, The Student Chapter of The Wildlife Society at Virginia Tech (VTTWS) hosted the 2015 [SouthEastern Wildlife Conclave](#). Twenty-two student Chapters of TWS from across the SouthEastern region gathered at the W.E. Skelton 4-H Educational Conference Center in Wirtz, Virginia, for three days of intense competition, educational workshops, and professional networking.



Conclave, a much-anticipated annual event, provides a venue for scholarship, sportsmanship, and team building among the regional student Chapters. Participants endure physical and mental challenges, both as individuals and teams, as they compete to earn points for their school. The awards banquet on the final night of Conclave recognizes the various individual competition winners and rewards the top three overall chapters.

At this year's Conclave the Team Competition tested each chapter's overall biological and wildlife knowledge as each team rotated between stations and faced a multitude of questions and completed relevant field tasks, including mammal trap set-up, animal track and insect identification, labelling immobilization equipment, and animal ID from remote photographs. Individual competitions Friday afternoon included archery, canoeing, fly-casting, orienteering, riflery, and dendrology. Participants also submitted entries for several fine arts categories, including photography, drawing, poetry, sculpture, and free-form art.

The Quiz Bowl took place Friday and Saturday mornings, with teams of four competing in an intense, jeopardy-style competition. The University of Georgia took

home the coveted Quiz Bowl Trophy, while the University of Tennessee at Knoxville placed second, and Mississippi State University placed third. As hosts, Virginia Tech was not in the competition.

Participants also had the opportunity to attend fifteen different workshops on Saturday afternoon, led by either Virginia Tech faculty or wildlife professionals from various agencies and organizations. The workshops included a falconry demonstration, a venison cooking workshop, a field trip to the Virginia Tech Black Bear Research Center, camera trapping and coyote trapping workshops, and a rocket netting demonstration led by the Virginia Department of Game and Inland Fisheries.

Saturday's awards banquet recognized Frostburg State University as the Third Place Overall winner and the University of Georgia as the Second Place Overall winner. In a very close competition, the University of Tennessee at Knoxville earned the title of this year's First Place Overall winner for the SouthEastern Wildlife Conclave.

The 2015 SouthEastern Wildlife Conclave would not have been possible without the support and dedication of its volunteers. Approximately 40 Virginia Tech students and staff sacrificed all or part of their spring break to help plan and run the event. The 4-H Center staff contributed invaluable support, assisting VTTWS in every way possible. The event was a huge success and Virginia Tech is looking forward to attending the 2016 SouthEastern Conclave when Eastern Kentucky University hosts next year's event.



<http://www.conclave.org.vt.edu>

STUDENTS' WORK RECOGNIZED AT THE REGIONAL TWS MEETING

Students from the Department of Fish and Wildlife Conservation were well represented at the Virginia State Chapter of The Wildlife Society annual meeting, held February 10 and 11, 2015, in Natural Bridge, Virginia.

Graduate Students authoring oral presentations included **John Huth** ('16 M.S. fisheries and wildlife sciences), **Alex Silvis** ('14 Ph.D. fisheries and wildlife sciences), **Lauren Austin** ('17 M.S. fisheries and wildlife sciences), **Anne Hilborn** ('17 Ph.D. fisheries and wildlife sciences), **Dana Morin** ('15 Ph.D. fisheries and wildlife sciences), **Asia Murphy** ('15 M.S. fisheries and wildlife sciences), **Emily Thorne** ('17 M.S. fisheries and wildlife sciences), **Corinne Diggins** ('17 Ph.D. fisheries and wildlife sciences), and **Sara Sweeten** ('15 Ph.D. fisheries and wildlife sciences). **Caitlin Greene** ('15 B.S. wildlife conservation), **Kayla Tugan** ('16 B.S. wildlife conservation) and **Samantha Hannabass** ('16 B.S. wildlife conservation) made undergraduate research presentations.

Undergraduate students providing posters on their research were **Jennifer Holub** ('16 B.S. wildlife conservation), **Samantha Hannabass** ('16 B.S. wildlife conservation), **Paige Crane** ('17 B.S. wildlife conservation), **Zachary Sheldon** ('15 B.S. wildlife conservation) and **Justin Hall** ('16 B.S. fish conservation and wildlife conservation). **Dana Morin** ('15 Ph.D. fisheries and wildlife sciences), **David Montague** ('14 M.S. fisheries and wildlife sciences), **Bernardo Mesa-Cruz** ('14 M.S. fisheries and wildlife sciences), **Christopher Rowe** ('97 B.S. biology, '13 B.S. fisheries and wildlife sciences), **Christopher Satter** ('17 M.S. fisheries and wildlife sciences) and **Corinne Diggins** ('17 Ph.D. fisheries and wildlife sciences) were graduate students whose work was presented in posters. Professors **Mark Ford**, **Marcella Kelly** and **Sarah Karpanty** directed the work of the graduate and undergraduate students.

Dana Morin ('15 Ph.D. fisheries and wildlife sciences), a Ph.D. student of **Marcella Kelly**, received recognition for the best graduate student presentation, which was titled "Coyote life history and social structure: why removals do not work, and why we should not expect them to." **Kayla Tugan** ('16 B.S. wildlife conservation) and **Samantha Hannabass** ('16 B.S. wildlife conservation) received the award for best undergraduate presentation on "The Effectiveness of Detecting Nutria with Hair Snares on Platforms."

Emily Ronis ('15 B.S. wildlife conservation) received the Virginia TWS State Chapter scholarship.

Scott Klopfer ('97 M.S. fisheries and wildlife sciences), Director of the Conservation Management Institute and incoming president of the state chapter was recognized for his years of dedicated service to TWS with the Henry S. Mosby Professional Award. The Mosby Award recognizing outstanding wildlife biologists who have made exceptional contributions in wildlife biology.

Dr. Mosby was involved with graduate and undergraduate wildlife students from the mid-1940s until the early 1980s. He served as the Virginia Wildlife Research Unit Leader and also as the first Department Head when the Department of Fish and Wildlife Conservation was established in 1972.

VDGIF ANNUAL BOARD MEETING HELD AT VIRGINIA TECH

On March 17, 2015, the College of Natural Resources and Environment and the Department of Fish and Wildlife Conservation hosted a meeting of the Board of Game and Inland Fisheries in Blacksburg, Virginia. The evening before the meeting the department held a reception for board members and their guests at the Inn at Virginia Tech. At the reception, faculty and students presented posters highlighting their work with scientists from the Virginia Department of Game and Inland Fisheries. Following the board meeting, several board members joined department faculty and **Dean Paul Winistorfer** for a tour of facilities at center woods. According to **Ben Davenport**, board chairman, the meeting was a success and the college and department hope to host the board again in the near future.



From left to right: Dean Paul Winistorfer, VDGIF Board Chairman Ben Davenport, and VDGIF Executive Director Bob Duncan.

STUDENT SPOTLIGHT

GRADUATE STUDENTS AWARDED SUPPORT FROM
NATIONAL SCIENCE FOUNDATION AND VIRGINIA TECH

By Lynn Hayes

Three Fish and Wildlife Conservation graduate students receive university
and National Science Foundation (NSF) support for their work.

Sydney Hope ('16 M.S. fisheries and wildlife sciences) of Howell, New Jersey, was awarded a Graduate Research Fellowship by the National Science Foundation. Sydney joined the Department of Fish and Wildlife Conservation in August 2014 working with **William (Bill) A. Hopkins**. For her master's thesis Sydney is investigating relationships among clutch size, incubation temperature, stress physiology, and behavior in wood ducks (*Aix sponsa*). Sydney graduated from The College of New Jersey in 2014 with a B.S. in biology. During her undergraduate career, she studied the effects of springtime temperature on the molt dynamics of Carolina chickadees (*Poecile carolinensis*) from rural and urban populations in New Jersey.



Erin Heller ('11 B.S. wildlife science) of Richmond, Virginia, was awarded both a Graduate Research Fellowship by the National Science Foundation and a Virginia Tech Cunningham Doctoral Assistantship. Erin will join our department in the fall as a doctoral student and will be co-advised by **Sarah Karpanty** and **Jim Fraser**. Erin's research will focus on red knot stopover ecology and behavior on the eastern shore of Virginia. Erin received a bachelor of science in fisheries and wildlife science from Virginia Tech in 2011, and is scheduled to complete a master of science degree in biological and agricultural engineering from Old Dominion University in August 2015. Erin's master's research focused on the effects of urbanization on the relationship among birds, ticks and tick-borne diseases in Hampton Roads, Virginia.



Brandon Semel of McHenry, Illinois, was awarded a Graduate Research Fellowship by the National Science Foundation. Brandon will join our department in the fall as a doctoral student and will be advised by **Sarah Karpanty**. His research will focus on golden-crowned sifaka (*Propithecus tattersalli*) ecology, metapopulation dynamics, and habitat use in northern Madagascar. Brandon received a bachelor of science in both environmental science and evolutionary anthropology from Duke University in 2013 and is scheduled to complete a masters of art degree in anthropology in August 2015 from Northern Illinois University. His master's research investigated the benefits of geophagy, or soil consumption, by diademed sifakas (*P. diadema*) and common brown lemurs (*Eulemur fulvus*) in eastern Madagascar.

The NSF Graduate Research Fellowship Program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering and mathematics disciplines who are pursuing research-based master's or doctoral degrees in the U.S. Cunningham Doctoral Assistantships are awarded by the Virginia Tech Graduate School and provide an opportunity to recruit graduate students by offering a multi-year funding commitment.



Elena Mircoff (left) and David Tilson (right) met "Little Princes" author Conor Grennan (center) at a private reception.

TWO WILDLIFE
STUDENTS
AMONG WINNERS
IN UNIVERSITY-
SPONSORED ESSAY
CONTEST

Each year, Virginia Tech chooses a book to provide to all incoming freshman to help them create a sense of community. This year's pick, "Little Princes" is the remarkable story of author Conor Grennan's quest to reunite children in a Nepalese orphanage with their parents after the ravages of war.

In light of the book's thought-provoking themes, the university sponsored an essay contest for all

students using the prompt "What value or belief is important to you and how do you demonstrate it?" Two juniors in the department were among the 23 winners, who had the privilege of meeting the author at a private reception.

David Tilson ('16 B.S. wildlife conservation) wrote about how we can use "life's mishaps and awkward moments as a tool to connect us to others." Tilson, who describes himself as reserved, said that his initial intimidation at the formal reception with the author was quickly put at ease by Grennan's relaxed manner. "He directed the whole discussion with the fluidity and ease of casual conversation," Tilson recalled.

Elena Mircoff ('16 B.S. wildlife conservation and biological sciences) wrote about her insatiable desire for knowledge about the natural world. She explained how her interest in biology spans everything from impromptu frog dissections to doing research with her professors. Mircoff was surprised to discover Grennan had originally written the book as a blog, with no intentions of publishing it. "It really showed that life is about taking opportunities as they appear," she said.

The essay contest is a perfect example of this sentiment. Both students, who expressed surprise and gratitude at being honored for their work, agreed this is an opportunity they are glad they took.

VIRGINIA TECH PH.D. STUDENT RECEIVES FELLOWSHIP TO STUDY NON-NATIVE BLUE CATFISH IN THE CHESAPEAKE BAY



Joseph Schmitt ('17 Ph.D. fisheries and wildlife sciences), a doctoral student at Virginia Tech, has recently received a research fellowship from Virginia Sea Grant to study non-native blue catfish in the Chesapeake Bay. One of eight students to receive this award in Virginia, Joseph is addressing the following questions: 1) What native species are blue catfish eating? And 2) how much are they eating? A variety of field and laboratory experiments are underway to answer these questions, and diet contents have been extracted from over 12,000 blue catfish so far.

From 1973 to 1985, blue catfish were stocked in James, York, and Rappahannock Rivers to create new fisheries, and have since expanded to occupy every major tributary of the Chesapeake Bay. Blue catfish are the largest catfish species in North America and can exceed 100 lbs in weight. Native to the Midwest, blue catfish thrive in big, muddy rivers like the Mississippi and Ohio, where they use their taste bud-covered whiskers and incredible sense of smell to locate prey. They are now flourishing in the Chesapeake Bay, which has been transformed into a murky, nutrient-rich system by agricultural runoff and shoreline development. Blue catfish now dominate Virginia's tidal rivers, raising concerns about their impact on native fish and crustaceans.

Blue catfish also support popular recreational fisheries and expanding commercial fisheries in Virginia. The attention that blue catfish have received as an "invasive species" in Virginia waters has been a major focus in eastern Virginia, as the James River supports a nationally-recognized trophy fishery. The incredible success of blue catfish in these rivers has had a polarizing effect and has resulted in much controversy, as many rely on this resource for their livelihood. The award from Sea Grant will enable Joseph to thoroughly analyze blue catfish diet and consumption rates, which are necessary for the future management of this species.

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FWC GRADUATE SCHOLARSHIP RECIPIENTS FOR THE 2014-2015 ACADEMIC YEAR

Kanchan Thapa ('14 Ph.D. fisheries and wildlife sciences)
A.B. Massey Outstanding Doctoral Student

Beatriz Mogollon ('14 M.S. fisheries and wildlife sciences)
H.E. Burkhart Outstanding Masters Student Award

Zach Farris ('14 Ph.D. fisheries and wildlife sciences)
Outstanding Teaching Assistant

Dana Morin ('15 Ph.D. fisheries and wildlife sciences)
Richard Hunter Cross, Jr. Scholarship

Anne Hilborn ('17 Ph.D. fisheries and wildlife sciences)
Lindsey Rich ('17 Ph.D. fisheries and wildlife sciences)
Henry Sackett Mosby Scholarship

Andrew Kniowski ('17 Ph.D. geospatial and environmental analysis)

Michael Moore ('16 M.S. fisheries and wildlife sciences)
Burd Sheldon McGinnes Graduate Fellowship

Kayla Davis ('16 M.S. fisheries and wildlife sciences)
Roanoke Valley Bird Club Scholarship

Kelsi Hunt ('15 M.S. fisheries and wildlife sciences)
Peggy Spiegel Opengari Memorial Fellowship

Jian Huang ('15 Ph.D. fisheries and wildlife sciences)
Amanda Hyman ('16 M.S. fisheries and wildlife sciences)
Tyler Fox ('15 Ph.D. fisheries and wildlife sciences)
Georgia Pacific Scholarship

FWC STAFF RECOGNITION



Don Fraser ('07 B.S. biology) received recognition from the University's Extraordinary Employee series for his work with the VT Shorebird Program and his efforts to promote multiple sclerosis research & awareness through his non-profit organization, [Bike the US for MS](http://www.biketheusforms.org/).

www.biketheusforms.org/

The Extraordinary Employee series highlights the achievements of Virginia Tech employees who go above and beyond, making a difference in the lives of others on campus and in the community.

www.hr.vt.edu

FWC UNDERGRADUATE SCHOLARSHIP RECIPIENTS FOR THE 2014-2015 ACADEMIC YEAR

Casey Borklund ('18 B.S. wildlife conservation)
Timberland Management and Investment Scholarship

Paige Crane ('17 B.S. wildlife conservation)
The Honorable and Mrs. Shelton Hardaway Short Jr. Memorial Scholarship & the Dwight Chamberlain Wildlife Fellowship

Samantha Cubbage ('15 B.S. wildlife conservation)
Michael B. Wagner Memorial Scholarship

Eleanor Helton ('16 B.S. wildlife conservation and biology)
The Dean's International Study Scholarship

Jennifer Holub ('16 B.S. wildlife conservation)
Class of '52 Scholarship

Ashley Lohr ('15 B.S. wildlife conservation and entomology)
Martha Pennington Orth Memorial Scholarship

Joseph Montemayor ('17 B.S. wildlife conservation)
William O. Ross Scholarship

Allison Moser ('17 B.S. wildlife conservation)
Burd S. McGinnes Fellowship

Tess Pangle ('17 B.S. wildlife conservation and animal poultry science)
Class of '52 Scholarship

Alex Pelletier ('16 B.S. fish conservation)
Thomas H. Jones Scholarship & the Union Camp Scholarship

Erica Peyton ('16 B.S. wildlife conservation)
Jack Sheldon Scholarship

Camron Robertson ('16 B.S. wildlife conservation)
The Dean's International Study Scholarship

Patrick Roden ('15 B.S. wildlife conservation)
Reynolds Henry S. Mosby Scholarship & the National Wild Turkey Federation – Richmond Chapter Scholarship

Emily Ronis ('15 B.S. wildlife conservation)
Alumni Foundation Student Ambassador Scholarship

Kelsey Schoenemann ('15 B.S. wildlife conservation)
Chesapeake Foundation Scholarship

Zachary Sheldon ('15 B.S. wildlife conservation)
Burd S. McGinnes Fellowship

Andrew Sodergren ('15 B.S. fish conservation)
Jack Raybourne Annual Scholarship

Tanner Sparkman ('16 B.S. wildlife conservation and biology)
Robert H. Giles Scholarship

Katherine Tweedy ('16 B.S. wildlife conservation and biology)
William O. Ross Scholarship

Jordan Williams ('18 B.S. fish conservation)
William O. Ross Scholarship

FWC CNRE Ambassadors for 2014-2015

Erica Ascani ('16 B.S. fish conservation)
Sarah Bayless ('17 B.S. wildlife conservation)
Chandler Eaglestone ('15 B.S. wildlife conservation)
Haena Lee ('16 B.S. fish conservation)
Ashley Lohr ('15 B.S. wildlife conservation and entomology)
Sterling Pino-DeGale ('15 B.S. wildlife conservation)
Emily Ronis ('15 B.S. wildlife conservation)

FWC CNRE Leadership Institute 2014-2015 Cohort

Chandler Eaglestone ('15 B.S. wildlife conservation)
Samantha Hannabass ('16 B.S. wildlife conservation)
Sterling Pino-DeGale ('15 B.S. wildlife conservation)
Ashley Weston ('15 B.S. fish conservation and biology)

FWC & CNRE OUTSTANDING SENIOR AWARD

Ashley Lohr received both the 2015 FWC and the College of Natural Resources and Environment Outstanding Senior Award. She was recognized at the annual banquet and at the University's annual awards banquet.

Ashley received a bachelor's degree in wildlife conservation with a minor in entomology during the University Commencement ceremony.

PHI KAPPA PHI MEDALLION RECIPIENT

Emily Ronis was selected as the college's outstanding senior to receive the Phi Kappa Phi Medallion. She was honored at the Annual Phi Kappa Phi banquet in April.

Emily received a bachelor's degree in wildlife conservation with a minor in environmental policy and planning during the University Commencement ceremony.



FACULTY RECOGNITION

EMMANUEL A. FRIMPONG NAMED A CARNEGIE AFRICAN DIASPORA FELLOW



Associate Professor **Emmanuel Frimpong** has been named a Carnegie African Diaspora Fellow. The scholar program supports 100 short-term faculty fellowships for African-born individuals living in the United States or Canada and working in higher education.

Frimpong's work in the Department of Fish and Wildlife Conservation focuses on the ecology, life history, and distribution of freshwater fish with an emphasis on applications in aquaculture and the conservation of fish and fisheries. He has created a comprehensive database of more than 100 biological traits of 809 U.S. freshwater fish species and worked with the on-campus library to make the database available online to scientists across the country. The fellowship is "validation of what I have worked very hard to accomplish — to be a significant contributor to research and

development in Ghana and sub-Saharan Africa," Frimpong said. He will spend time in his home country of Ghana collaborating with the Kwame Nkrumah University of Science and Technology to develop aquaculture, fisheries, and water resources management curricula and to conduct research on aquaculture development for food security and the conservation of fish and fisheries.

"With three months in Ghana, I hope to have more time to see problems up close and contribute my expertise substantively to the solutions," he said. "Finding ways to solve immediate problems of humanity with the scientific knowledge and tools we have now motivates me. If the people of sub-Saharan Africa can be taught to manage their natural resources well, they will have the resources they need now and for future generations."

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KATHLEEN ALEXANDER RECEIVES 2015 ALUMNI AWARD FOR EXCELLENCE IN INTERNATIONAL RESEARCH



Kathleen Alexander, associate professor of wildlife in the Department of Fish and Wildlife Conservation at Virginia Tech, has received the university's 2015 Alumni Award for Excellence in International Research.

Sponsored by the Virginia Tech Alumni Association, the Alumni Award for Excellence in International Research is presented annually to a faculty or staff member who has had a significant impact on international research at Virginia Tech. Selection is based on contributions to the internationalization of Virginia Tech, global impact, significance of the project, and sustainability of the project. Recipients are awarded \$2,000.

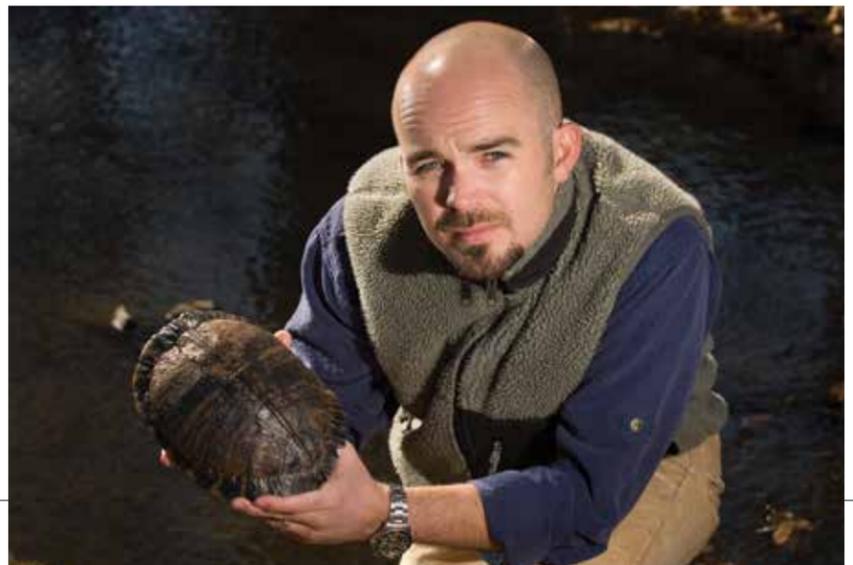
A member of the Virginia Tech community since 2007, Alexander focuses on international development and public and wildlife health with an emphasis on balancing human health and environmental sustainability. Her scholarship examines the manner in which diseases are transmitted at the human-animal-environmental interface. Working across Africa, she takes an interdisciplinary approach to the study of infectious disease, integrating divergent study elements, from human culture and behavior to hydrological dynamics and climate change.

WILLIAM HOPKINS RECEIVES 2015 ALUMNI AWARD FOR EXCELLENCE IN RESEARCH

William (Bill) A. Hopkins, professor of wildlife in the Department of Fish and Wildlife Conservation at Virginia Tech, received the university's 2015 Alumni Award for Excellence in Research.

Sponsored by the Virginia Tech Alumni Association, the Alumni Award for Excellence in Research is presented annually to as many as two Virginia Tech faculty members who have made outstanding research contributions. Alumni, students, faculty, and staff may nominate candidates. Each recipient is awarded \$2,000.

A member of the Virginia Tech community since 2005, Hopkins is a physiological ecologist who studies the influence of anthropogenic global changes, such as pollution, habitat destruction, and climate change, on wildlife populations.



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The 6th Western Hemisphere Shorebird Group Meeting will be held Sept 12-16, 2015-Wallops Island, Virginia

For more information:

<http://www.cpe.vt.edu/whsg2015/index.html>

The Western Hemisphere Shorebird Group formed in 2006 and held its first meeting in Boulder, Colorado, USA. The goal from the outset has been to promote pan-hemispheric discussions and actions for the conservation of shorebirds and of coastal ecosystems. If you agree with these goals, then you are a member of the Western Hemisphere Shorebird Group!

