

Fisheries and Wildlife Program News

Department and Program Information and Faculty Achievements

Inside this issue:

Department and Program Information and Faculty Achievements	1
Recent Publications, Reports, Presentations, and Funding	8
Upcoming Events	11
Job Opportunities and Scholarships	12

Dr. Jay Levine receives a \$5 million USDA grant

A major grant announcement was held Monday, March 7, 2005 to announce a **\$5 million USDA grant** that will help lead investigator **Dr. Jay Levine** create a national **Food Safety Research and Response Network (FSRRN)**. The FSRRN will be a multidisciplinary team of more than 50 food safety experts from 18 universities. The team will form a national network to investigate several pathogens that are the most prevalent causes of food-related illness. The FSRRN will also be called upon as a response team of experts during major episodes of food-related illness, including agriculture bioterrorism. Other NCSU investigators on the grant working with Dr. Levine include Drs. **Craig Altier**, **Maria Correa**, Hugh Devine, Wondwossen Gebreyes, Lee-Ann Jaykus, Sophia Katheriou, **Stacy Nelson**, Paul Orndorff, Brian Sheldon, and **Barrett Slenning**. **Dean Warwick Arden** served as host of the announcement and invited speakers included **Chancellor James Oblinger**; Colien Hefferan, the Administrator for the USDA's Cooperative State, Research, Education, and Extension Service (CSREES); Representative David Price; Representative Bob Etheridge and Representative Brad Miller.

Dr. Suzanne Kennedy-Stoskopf begins as the new chairperson of the American Board of Veterinary Specialties

Dr. Suzanne Kennedy-Stoskopf begins as the new chairperson of the American Board of Veterinary Specialties in Chicago this month. The American Board of Veterinary Specialties is an Organization under the American Veterinary Medical Association that oversees all of the veterinary specialty boards in the United States. Dr. Kennedy-Stoskopf is a diplomat of the American College of Zoological Medicine, the veterinary specialty board that credentials veterinarians with advanced expertise in the areas of wildlife, herpetologic, avian, aquatic, and general zoo medicine. She has served and continues to serve as the ACZM representative to the ABVS, and has served for several years on the executive board of the ABVS before being selected to chair the organization.

The Leopold Wildlife Club takes 2nd at Southeastern Wildlife Conclave

The **Leopold Wildlife Club**, an undergraduate student organization sponsored by the Fisheries and Wildlife program, captured **2nd place** at the 2005 Southeastern Wildlife Conclave held at the University of Florida, Gainesville. Also, the Leopold Club took **2nd place** in the Quiz bowl competition and **1st place** in Orienteering. The Southeastern Wildlife Conclave is an annual conference attended by ~20 wildlife programs in the southeast region. The 2006 Southeastern Wildlife Conclave will be held at Tennessee Tech University.

Conclave participants included: **Jane Anderson, Brandon Bridges, Kathryn Cunningham, Ricky Lee Davis, James Dodson, Nicole Fowler, Bryan Hicks, Matt Holbrook, Kim Jervis, Elizabeth Jones, Josh McCormick, Anna McMillian, Jason Smith, Robert Snow, Chesley Ward, Wendy Welborn, and Stephanie Zolkowski.** Accompanying the students were faculty advisors **Dr. David Woodward** and his wife, **Nancy**, and **Dr. Chris DePerno.** Congratulations and join us next year in Tennessee!

The Leopold Wildlife Club takes 2nd place at the 2005 Southeastern Wildlife Conclave. Great job!



The Leopold Wildlife Club Quiz Bowl Team (left to right: **James Dodson, Elizabeth Jones, Stephanie Zolkowski, and Robert Snow**). Photo credit unknown.

Drs. Michael Stoskopf and Suzanne Kennedy-Stoskopf return from Chiang Mai, Thailand

January and February found two professors of the Wildlife and Fisheries Sciences Faculty in Chiang Mai, Thailand developing Thai faculty skills in examining ecosystem health issues in their country. **Dr. Suzanne Kennedy-Stoskopf** (Professor of Immunology and Infectious Disease) and **Dr. Michael Stoskopf**, (Professor of Wildlife and Aquatic Medicine) have worked in Thailand over the past 9 years, building the country's capacity in wildlife and aquatic medicine. They have helped to develop core and elective curricula in each of the six Thai veterinary schools and have worked with government and private concerns to expand the opportunities for young Thai veterinarians wanting to pursue careers in wildlife related areas. This year they were invited to serve as visiting professors at the Faculty of Veterinary Sciences at Chiang Mai University, one of the newest veterinary schools in Thailand. There they had the opportunity to meet and work with scientists dealing with issues not seen in North Carolina, such as the impacts of large concentrations of elephants on key surface water sheds, dam impacts on the giant Mekong catfish, impacts of deer and other wildlife on watersheds, and the challenge of maintaining river water quality with large net pen tilapia productions. Thrown in were opportunities to consult on the more usual run of cases such as very ill tigers and elephants who have accidentally stepped on land mines. Working with the faculty at Chiang Mai University, the NCSU faculty led the first workshop on ecosystem health in Thailand. The workshop which brought together engineers, biologists, and veterinarians from across Thailand used breakout groups and group discussion techniques to examine key ecosystem health issues in Thailand ranging from avian flu management to watershed protection.

Drs. Michael Stoskopf and Suzanne Kennedy-Stoskopf return from Chiang Mai, Thailand.



A mild case of an elephant that stepped on a landmine in Chiang Mai, Thailand. **Dr. Suzanne Kennedy-Stoskopf** and **Dr. Michael Stoskopf** consulted on the case. Photo provided by **Dr. Michael Stoskopf**.

Dr. Craig Harms works to improve management of live stranded whales and responds to pilot whales stranded on the Outer Banks

These past several months have been an unusually busy time for the marine mammal stranding network serving the North Carolina coast. A key component of the marine mammal stranding response, particularly when live animals are found on the beaches is led by **Dr. Craig Harms**, Assistant Professor of Aquatic and Zoological Medicine at NCSU CVM and member of the Fisheries and Wildlife Sciences Faculty. Dr. Harms manages a NOAA Prescott funded effort to improve the management of live stranded whales and dolphins based out of the NCSU Center for Marine Sciences and Technology. On 15 - 17 January, Dr. Harms found himself involved in a very unusual event in North Carolina. Veterinary students and faculty assisted with a response to a mass stranding of 31 pilot whales on the Outer Banks south of Nag's Head, extending over 5+ miles of cold, windy beach. In the initial assessment there were a handful of live animals that were severely compromised and required euthanasia. Animals were necropsied and extensively sampled over the ensuing two days. The response was headed up by Dr. Aleta Hohn of NMFS Beaufort Laboratory and included multiple agencies and institutions (NCSU CVM, Duke Marine Laboratory, UNC-Wilmington, National Park Service, Virginia Aquarium, National Aquarium in Baltimore, to name a few). The NCSU response in addition to Dr. Harms, included **Dr. Greg Lewbart** (Professor of Aquatic Medicine), **Dr. Terra Kelly** (Wildlife Resident), **Dr. Mac Law** (Assoc. Professor of Pathology), **Dr. Taylor Reynolds** (Instructor of Pathology), **Dr. Diane Deresienski** (Adjunct Asst. Professor of Zoological Medicine) and **Dr. Allison Tuttle** (Aquatic Resident), and 14 veterinary students.

Dr. Craig Harms improves management of stranded whales.



Sampling conducted on stranded pilot whales on North Carolina's Outer Banks. Photo provided by **Christy Huy**.

The Forestry Club takes 9th at the 48th Annual Forestry Conclave

The **Forestry Club** captured 9th place out of 14 competing schools at the 48th Annual Forestry Conclave held at Stephen F. Austin State University in Nacogdoches, Texas. This is the annual conference for the Association of Southern Forestry Clubs.

Competitions are held in various technical areas as well as traditional physical areas. Technical Events included Photogrammetry, Wood Technology, Dendrology, Wildlife Identification, DBH Estimation, Compass and Pacing, Pole Classification, and Timber Estimation. Physical Events included Archery, Axe Throw, Women's Bowsaw, Men's Bowsaw, Chain Throw, Jack-n-Jill Crosscut, Men's Crosscut, Women's Crosscut, Knife Throw, Log Burling, Log Chop, Log Roll, Pole Climb, and Pole Felling.

A GREAT time was had by all!! Join us next year at Louisiana Tech University in Ruston, Louisiana.

Conclave participants included: Mike Brafford, Brian Swanson, Rafael Estevez, Doug Hayes, Korey Meadows, Chris Barfield, Anthony Griffin, and Chuck Dollison. Accompanying the students was faculty advisor **Dr. Bronson Bullock**.

*The Forestry Club takes
9th at the 48th Annual
Forestry Conclave.
Congratulations!*



Photo provided by **Dr. Bronson Bullock**.

Dr. Chris Moorman begins tenure as President of the North Carolina Chapter of The Wildlife Society

Dr. Chris Moorman became President of the North Carolina Chapter of The Wildlife Society at the 2005 annual meeting in Brown Summit, North Carolina. He will serve as President until the 2006 Annual Meeting.

Fisheries and Wildlife Alum, Jennifer Freeman hired by J.H. Carter & Associates

On March 7, 2005, Fisheries and Wildlife Alum, **Jennifer Freeman**, began working as a wildlife technician for J.H. Carter & Associates, an environmental consulting firm. Jennifer graduated with a B.S. in Wildlife and Fisheries from NC State in 2004. J.H. Carter & Associates, an environmental consulting firm located in Southern Pines, North Carolina, focuses on red-cockaded woodpecker (RCW) recovery, wetland consultation and mitigation, plant surveys (endangered/threatened species), and they write many Biological & Environmental Assessments. Jennifer has assisted on a wetlands mitigation project and a RCW cavity survey. She can be reached at jfreeman@jhcarterinc.com and information regarding J.H. Carter & Associates can be obtained at <http://www.jhcarterinc.com>.

*Dr. Chris Moorman
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President of the North
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Dr. Suzanne Kennedy-Stoskopf leads discussions on wildlife health research

Dr. Suzanne Kennedy-Stoskopf, the chairperson of the Morris Animal Foundation's Wildlife Scientific Advisory Council, recently led discussions and considerations for the Foundation's plans for supporting wildlife health research. The Morris Animal Foundation, based in Denver, Colorado provides the most funding of any other single private foundation towards the improvement of wildlife health.

Fisheries and Wildlife undergraduate students honored

Jane Anderson, Jared Milrad, and Stephanie Zolkowski, Fisheries and Wildlife majors, have been invited to join Xi Sigma Pi, the Forestry Honor Society. Membership into Xi Sigma Pi is by invitation only. Congratulations!

North Carolina Cooperative Fish and Wildlife Research Unit Receives National Research Award

The North Carolina Cooperative Fish and Wildlife Research Unit received a special award for their research program — *the Cooperative Research Units Research Program Excellence Award*. The four Unit scientists (**Drs. Tom Kwak, Joe Hightower, Jaime Collazo, and Ted Simons**) were formally recognized at a February national meeting of all coop unit scientists by Ken Williams (Chief, Cooperative Research Units). The Unit received an enormous plaque and will be awarded a much-appreciated addition to their federal base funds this year. The text below describes some of the accomplishments recognized with the award.

The North Carolina Cooperative Fish and Wildlife Research Unit was recognized through a Cooperative Research Units Research Program Excellence Award based on the depth and breadth of its recent research accomplishments. Every scientist stationed at this Unit is fully engaged in research relevant to broad areas of resource conservation that are highly relevant to Unit Cooperators and other management agencies with regional, national, or international scope. Work being done at the Unit includes ecology of invasive aquatic species, minimizing injury of endangered aquatic species incidental to electrofishing, habitat improvement for anadromous fishes on a national scale, ecology and management of endangered bird species along the Atlantic seaboard and in Puerto Rico, development of regionally significant landscape tools for conservation planning (regional GAP), and ecology and habitat management of songbirds at landscape scales relevant to effective conservation by Federal and non-Federal agencies and other conservation groups.

The faculty, staff, and students of the NC Unit would like to thank their cooperators for their role in achieving this recognition. Strong and steady cooperator support of the Unit is the key to its success.

The Wildlife Society President, Dr. Richard Lancia attended numerous meetings

As president of The Wildlife Society (TWS), **Dr. Richard Lancia** attended the TWS Council meeting in March at TWS headquarters in Bethesda, Maryland. Also, he attended a joint reception with leaders from American Fisheries Society, Society of American Foresters, Society for Range Management, and others. He addressed a luncheon for natural resource leaders sponsored by the Wildlife Management Institute and a dinner of the Virginia chapter of TWS.

*North Carolina
Cooperative Fish and
Wildlife Research Unit
Receives National
Research Award.*

Recent Publications, Reports, Presentations, and Funding

Publications & Reports

Cain D. K., C. A. Harms, and Al Segars. 2004. Plasma biochemistry reference values of wild-caught southern stingrays (*Dasyatis americana*). *Journal of Zoo and Wildlife Medicine* 35(4): 471-476. (Cain = DVM student mentored by CAH)

Cranfield M. R., L. Gaffikin, T. Graczyk, P. K. Kayobotsi, A. B. Mudakikwa, N. Lerche, R. Minnis, **F. B. Nutter**, D. Tack, and **C. A. Whittier**. Risk of disease transmission between conservation personnel and the mountain gorillas: results from an employee health program in Rwanda. 2004 *EcoHealth* 1:351-361. (Nutter and Whittier = grad students of MKS)

Gorman, T. A., J. D. Erb, B. R. McMillan, **C. S. DePerno**, and D. J. Martin. 2004. Survival, home range characteristics, and habitat selection of river otter in southeastern Minnesota. Pages 107-119 in M. W. DonCarlos, R. O. Kimmel, J. S. Lawrence, and M. S. Lenarz (eds.). *Summaries of Wildlife Research Findings 2003 Division of Fish and Wildlife, Minnesota Department of Natural Resources, St. Paul, Minnesota.* 230 pp.

Harms, C. A. 2005. Surgery in Fish Research: Common Procedures and Postoperative Care. *Lab Animal.* 34(1):28-34.

Harms, C. A., M. G. Papich, M. A. Stamper, P. M. Ross, M. X. Rodriguez, and A. A. Hohn. 2004. Pharmacokinetics of oxytetracycline in loggerhead sea turtles (*Caretta caretta*) after single intravenous and intramuscular injections. *Journal of Zoo and Wildlife Medicine* 35(4):477-488.

Hernandez-Divers, S. J. B. Sc., **R. S. Bakal**, B. H. Hickson, C. A. Rawlings, H. G. Wilson, M. Radlinsky, S. M. Hernandez-Divers, and S. R. Dover. 2004. Endoscopic sex determination and gonadal manipulation in gulf of Mexico sturgeon (*Acipenser oxyrinchus desotoi*). *Journal of Zoo and Wildlife Medicine* 35(4):459-470. (Bakal = graduate student of MKS)

Monks, D. W., W. G. Buhler, M. G. Burton, J. Burnette, C. R. Crozier, **C. DePerno**, J. M. Gosper, **C. Moorman**, G. T. Roberson, J. R. Sidebottom, P. S. Southern, T. Stalker, T. Sutton, S. J. Toth, and E. Jones (Editors). December 2004. 2005 *Agricultural Chemicals Manual.* College of Agriculture And Life Sciences, North Carolina State University, Raleigh, North Carolina.

Osborn, R. G., **C. S. DePerno**, and B. S. Haroldson. 2004. Estimating deer populations in southeast Minnesota. Pages 1-8 in M. W. DonCarlos, R. O. Kimmel, J. S. Lawrence, and M. S. Lenarz (eds.). *Summaries of Wildlife Research Findings 2003 Division of Fish and Wildlife, Minnesota Department of Natural Resources, St. Paul, Minnesota.* 230 pp.

Recent publications and
reports!

Publications & Reports (cont.)

Richards, J.M., J.B. Brown, **T. R. Kelly**, A. L. Fountain, J. M. Sleeman. 2004. Absence of Detectable Salmonella Cloacal Shedding in Free-Living Reptiles on Admission to the Wildlife Center of Virginia. *Journal of Zoo and Wildlife Medicine* 35(4):562-563. (TR Kelly = Wildlife Resident)

Vance, C. K., **Suzanne Kennedy-Stoskopf**, Amy R. Obringer, and Terri L. Roth. 2004. Comparative studies of mitogen- and antigen-induced lymphocyte proliferation in four captive rhinoceros species. *Journal of Zoo and Wildlife Medicine* 35(4):435-446.

Presentations

Day, R. D, J. M. Keller, T. M. Norton, M. Dodd, A. Segars, **C. Harms**, D. Whitaker, M. Arendt, M. Godfrey, W. Cluse, S. J. Christopher, and M. Peden-Adams. 2005. 25th Sea Turtle Symposium, Savannah, GA, 16 - 22 January.

DePerno, C. S. 2005. Deer, rabbits, moles, and voles. Presented to 90 members of the Wake County Master Gardener Volunteers, Raleigh, North Carolina.

DePerno, C. S. 2005. Antler development. Presented to 40 faculty members and students in the Advanced Topics in Zoological Medicine Class (Suzanne Kennedy-Stoskopf), North Carolina State University, Raleigh, North Carolina.

DePerno, C. S., and J. A. Tardiff. 2005. Information on Chronic Wasting Disease and the Minnesota monitoring plan. Presented to 40 faculty members and students in the Advanced Topics in Zoological Medicine Class (Suzanne Kennedy-Stoskopf), North Carolina State University, Raleigh, North Carolina.

DePerno, C. S., J. A. Jenks, and B. J. Bigalke. 2005. Coyote: behavior and depredation control. Presented to 100 individuals at the North Carolina Wildlife Damage Control Techniques Training and Agent Recertification, Wake County Extension Center, Raleigh, North Carolina. (2 seminars).

DePerno, C. S. 2005. Characteristics and behavior of coyote and fox. Presented to 65 members of the Harnett County Livestock Association, Lillington, North Carolina.

Epperly, S, J. Wyneken, J. Flanagan, **C. Harms**, S. Kethan. Attachment of popup archival transmitting (PAT) tags to loggerhead turtles. 2005. 25th Sea Turtle Symposium, Savannah, GA, 16 - 22 January.

Harms C.A., S. A. Eckert, S. A. Kubis, M. Campbell, D. H. Levenson, and M. A. Crognale. 2005. Field anesthesia of leatherback sea turtles (*Dermochelys coriacea*). 25th Sea Turtle Symposium, Savannah, GA, 16 - 22 January.

Kelly, T. R., J. Braun-McNeill, L. Avens, M. H. Godfrey, A. A. Hohn, and **C. A. Harms**. 2005. Baseline health assessment of in-water juvenile loggerhead sea turtles (*Caretta caretta*) in North Carolina. 25th Sea Turtle Symposium, Savannah, GA, 16 - 22 January.

Presentations!

Presentations (cont.)

Levenson, D. H, S. A. Eckert , M. A. Crognale MA, Duhamel P, Kubis SA, and **C. A. Harms**. 2005. Night-time spectral sensitivity of adult female leatherback sea turtles. 25th Sea Turtle Symposium, Savannah, GA, 16 - 22 January.

Moorman, C. E. 2005. Quail Ecology and Management. Quail Management Workshop, Tarboro (35 people)

Moorman, C. E. 2005. Status and Needs of the NC WHEP. Meeting of the NC State Council of Quail Unlimited, Raleigh (12 people)

Moorman, C. E. 2005. Do Urban Greenways Provide High Quality Bird Habitat? Southeast Partners in Flight Annual Meeting, McAllen, TX (75 people)

Moorman, C. E. 2005. Landscaping with Native Plants for Birds and Other Wildlife. Nash County Landowners, Nashville (25 people)

Moorman, C. E. 2005. NC Birding Trail: Environmental Education and Conservation. NC Birding Trail Information Meeting, Washington (34 people)

Moorman, C. E. 2005. Economic Income from Wildlife. Robeson County Landowner's Association, Lumberton (60 people)

Moorman, C. E. 2005. Avian Use of Select CREP Sites: Summary Report for 2004. Meeting of the CREP Advisory Committee, Raleigh (35 people)

Moorman, C. E. 2005. Timber Management on Piney Island Club for Income, Aesthetics, and Wildlife Habitat. Board of Directors of Piney Island Club (8 people)

Grants/Funding

Cope, W. G., D. Shea, R. B. Bringolf, and R. M. Heltsley. 2005. Endocrine and reproductive effects of the pharmaceutical fluoxetine on native freshwater mussels: proximity to measured environmental concentrations. Funded by the Water Resources Research Institute of North Carolina, \$50,000 for one year.

Harms, C., G. Lewbart, and M. Stoskopf. Improving Live Marine Mammal Stranding Response. National Oceanic and Atmospheric Admin. \$66,422

Levine, J., C. Altier, M. Correa, H. Devine, W. Gebreyes, L. Jaykus, S. Katheriou, S. Nelson, P. Orndorff, B. Sheldon, and B. Slenning and cast of many from other institutions. USDA \$5.0 million.

Moorman, C. E. 2005. NC WHEP. NC State Council of Quail Unlimited, \$1,000 for one year.

Stoskopf, M. and A. Acton. Non-invasive Wildlife Health Monitoring Using Molecular Fecal Pathogen Detection. Morris Animal Foundation \$49,819 (Acton = grad student MKS)

*Dr. Jay Levine receives
a \$5 million USDA
grant.*

Grants/Funding (cont.)

Stoskopf, M., C. Harms, G. Lewbart, and S. Kennedy-Stoskopf. Aquarium Health Management. NC Aquariums. \$67,189

Stoskopf, M. Non-lethal Molecular Diagnostics Sampling of Captive Red Wolves. US Geological Survey \$7,900

Upcoming Events

Desert Wilderness and African Savanna Study Tour, Namibia, South Africa

Dr. Werner Dörgeloh, a wildlife biologist and visiting Professor will be leading a three week educational tour (May 28, 2005 – June 17, 2005), in conjunction with staff from NC State University, to Namibia (southwest Africa). Dr. Dörgeloh was born and raised in Namibia and has studied and lectured about wildlife management in South Africa for over 20 years. The objective is to expose students to the unique desert and savanna ecosystems, and to experience different wildlife management and conservation challenges, thereby broadening their perspectives and enriching their educational experience.

The cost for the trip is ~\$5000 including airfare. If you are aware of any student that may be interested in attending or if you would like more information on the Namibia trip please contact Dr. Dörgeloh at wgdorgel@unity.ncsu.edu. Details of the trip (including a slide show) can be located at www.cals.ncsu.edu/undergrad/sfw/studytour.html

Dr. Karen Beck to present her dissertation defense

Dr. Karen Beck will be presenting her dissertation defense seminar at 1:30 PM, Thursday, March 31, 2005 in room D-239 N at the College of Veterinary Medicine. Dr. Beck's research has involved studies of the home range territories of the red wolf and non-wolf canids in Northeastern North Carolina and evaluation of the use of a zone of sterile animals to protect red wolves from introgression of coyote genes. Her dissertation is entitled "Epidemiology of coyote introgression into the red wolf genome"

Leopold Wildlife Club

The next meeting for the Leopold Wildlife Club will be Tuesday, April 12, 2005 at 7:00 pm in 2211 Gardner Hall.

Desert Wilderness and African Savanna Study Tour, Namibia, South Africa.

Job Opportunities and Scholarships

Please see the NC State Fisheries and Wildlife Sciences website for additional information, current position announcements, scholarship opportunities, and links to job websites.

<http://www.cfr.ncsu.edu/for/fishwildlife/>

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If you have questions, comments, or submissions for the next issue please do not hesitate to contact Chris.

*Please do not hesitate
to contact Chris
with comments or
suggestions.*



Andrea Kleist (M.S. student) changing a disk for the camera system used to determine wildlife movements under highway overpasses. Photo provided by **John Lysaught**.