

Fisheries and Wildlife Program News

Department and Program Information and Faculty Achievements

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The Leopold Wildlife Club Successful at the 2006 Wildlife Conclave

The 2006 Wildlife Conclave was held at Tennessee Tech University, March 9-12, 2006. Eleven members of the Leopold Wildlife Club attended the four-day event. Members included **Brandon Bridges, Jimmy Dodson, John Henry Harrelson, Liz Jones, Gabe Karns, Billy Paugh, James Seuberling, Brandon Sherrill, Jason Smith, Robert Snow, and Sarah Watts. Dr. Chris DePerno** accompanied the club to the competition. North Carolina State University placed **1st** in orienteering (Jimmy Dodson, John Henry Harrelson), **1st** in radiotelemetry (Robert Snow, John Henry Harrelson), and **3rd** in quiz bowl (Liz Jones, Jimmy Dodson, John Henry Harrelson, Robert Snow). Also, club members had strong showings in archery (Gabe Karns, Billy Paugh), rock climbing (Jimmy Dodson, James Seuberling), obstacle course (Brandon Bridges, Brandon Sherrill, Billy Paugh, James Seuberling), and dendrology (Jason Smith, Robert Snow). It was a good time to interact with wildlife students from universities in the Southeast.



2006 Southeastern Wildlife Conclave, North Carolina State University Leopold Wildlife Club. From left to right, back row - **Billy Paugh, Brandon Sherrill**; middle row - **Jimmy Dodson, Jason Smith, Gabe Karns, Sarah Watts, John Henry Harrelson, Liz Jones, Robert Snow**; front row - **James Seuberling, Brandon Bridges**. Advisor on the trip and photo provided by **Dr. Chris DePerno**.



Leopold Wildlife Club members participating in the Team Competition. Team members pictured, **Brandon Bridges, Jimmy Dodson, John Henry Harrelson, Liz Jones, Gabe Karns, Billy Paugh, James Seuberling, Brandon Sherrill, Jason Smith, Robert Snow, and Sarah Watts.**

Tired! The men's obstacle course team, **Billy Paugh, James Seuberling, Brandon Bridges and Brandon Sherrill.**



*2006 Wildlife Conclave
Events.*



Gabe Karns participating in the archery competition. All photos provided by **Dr. Chris DePerno.**

3rd Place in the Quiz Bowl Competition. Team members (from left to right), **Robert Snow, John Henry Harrelson, Liz Jones,** and **Jimmy Dodson.** Congratulations!



1st Place in the Radiotelemetry Competition. Team members (from left to right), **Robert Snow** and **John Henry Harrelson.** Nice job!



*2006 Wildlife Conclave
Awards.*

Two consecutive years - **1st Place** in the Orienteering Competition. Team members (from left to right), **John Henry Harrelson** and **Jimmy Dodson.** Congratulations! All photos provided by **Dr. Chris DePerno.**



The Forestry Club Successful at the 2006 Wildlife Conclave

The NCSU Forestry Club has just returned from the 49th Annual Conclave event held at Louisiana Tech University in Ruston, Louisiana. This is the annual conference for the Association of Southern Forestry Clubs (A.S.F.C.). Competitions are held in various technical areas as well as traditional physical areas. Through the hard work of our students, NCSU ranked 10th overall (out of 15 competing schools)! LA Tech did a WONDERFUL job of hosting conclave. Conclave students made the cover color picture of the local paper two days in a row! A GREAT time was had by all!! Join us in 2007 at the University of Tennessee-Knoxville.

Technical Events: Photogrammetry, Wood Technology, Dendrology, Wildlife Identification, DBH Estimation, Compass and Pacing, Pole Classification, and Timber Estimation

Physical Events: Archery, Axe Throw, Women's Bowsaw, Men's Bowsaw, Chain Throw, Jack-n-Jill Crosscut, Men's Crosscut, Women's Crosscut, Knife Throw, Log Birling, Log Chop, Log Roll, Pole Climb, and Pole Felling

Here are some individual rankings for our students (top 5 only). 2nd place - Pole Fell - **Mike Brafford**, 3rd place - Axe Throw - **Mike Brafford**, 4th place - Women's cross-cut saw - **Dakota Smith** and **Nuri Steinhauer**, 5th place - Dendrology - **Nuri Steinhauer**, 5th place - Men's Cross-cut saw - **Chris Barfield** and **Mike Brafford**.

Overall rank for all schools:

1st - Stephen F. Austin State University	2nd - University of Arkansas - Monticello
3rd - University of Georgia	4th - Virginia Tech
5th - University of Florida	6th - Louisiana Tech University
7th - Auburn University	8th - Oklahoma State University
9th - Mississippi State University	10th - North Carolina State University
11th - Texas A & M University	12th - University of Tennessee
13th - Clemson University	14th - Alabama A & M University
University of Kentucky (not competing for points this year)	

*The Forestry Club had
a great time.*



Forestry Team Members (from left to right), **Nuri Steinhauer**, **Mike Sweat**, **Davis McGowen**, **Dakota Smith**, **Mike Brafford**, **Chris Barfield**, **Mark Reiland**, and **Dr. Bronson Bullock**.

Fisheries and Wildlife Undergraduate Student, Jessie Birckhead, named a Caldwell Fellow

Jessie Birckhead was named a 2006 Caldwell Fellow. Jessie is a freshman in the Fisheries and Wildlife Sciences Program, with a concentration in wildlife. Also, she is pursuing a minor in Art Studies. Jessie is from Raleigh and graduated from Enloe High School. Jessie loves music and has played the upright bass for eight years. Jessie enjoys being outdoors and is a member of the Herpetology Club at NC State.

The Caldwell Fellows Program was established in 1998, by merging two of NC State's oldest and most prestigious programs, the John T. Caldwell Alumni Scholarship Program and the NC State Fellows Program. The program selects freshmen that exhibit leadership potential and commitment to personal growth. The program encourages students to engage in both individualized and communal personal growth through retreats, a leadership course, a seminar series with community leaders, and internship opportunities. The program provides a tuition stipend and access to additional funds for growth opportunities such as study abroad. This year 25 students were selected as Caldwell Fellows. <http://www.ncsu.edu/fellows/>

*Congratulations Jessie
Birckhead!*



Caldwell Fellow, **Jessie Birckhead**, holding an eastern box turtle on a recent camping trip in the Croatan National Forest. Photo provided by **Andrew Durso**.

2006 North Carolina Chapter of The Wildlife Society Award Presentations

The following presentations were made at the Fort Fisher Air Force Recreation Area during the Annual North Carolina Chapter of The Wildlife Society Business Meeting held on 25 February 2006.

STUDENT AWARDS

The Ken Wilson Memorial Award is presented annually to a student or students, nominated by faculty members of the two schools within the State having wildlife programs and/or by Chapter members, and selected by the Awards Committee. Awards are presented for academics, contributions to research, work projects that contribute to State wildlife conservation efforts, and other accomplishments that the Chapter deems worthy of recognition. The award is cash support along with a framed certificate and copy of *A Sand County Almanac*.

North Carolina State University Recipient: **Elizabeth Jones**

Nomination submitted by: **Phil Doerr**

Elizabeth Jones joined the undergraduate program in Zoology and Environmental Science just over 4 years ago. Since then this young woman has matured as a scholar and contributor to the university community. She is a remarkably active member of the Leopold Wildlife Club (TWS Student Chapter). Also, Liz is an outstanding classroom student, being on the Dean's List every semester and maintaining a GPA of 4.0. In class she is a delightful student who asks thoughtful, probing questions.

Liz quickly jumped into wildlife club activities and offered to work fundraisers and educational activities. Her "can do" attitude is infectious and makes everyone else believe the job can be done. She is the kind of student that will take charge and get the ball rolling! At the 2005 Southeastern Wildlife Conclave she was a spark plug who ignited enthusiasm for every competition and contributed as a Quiz Bowl team member.

Liz has a reputation among her peers for her energetic pursuit of excellence and accomplishment. Because she leads primarily by example and the contagious power of enthusiasm her peers are always ready to help see a project to successful completion.

In addition to serving as Club Treasurer and College of Natural Resources Council Secretary, Leopold Wildlife Club members elected her as Education Committee Chair for two years running. Liz schedules and teaches a large number of public school programs about wildlife, and helps other students learn how to conduct such programs. Liz absolutely loves teaching outdoor lore and natural history to young people and teaches NC Museum of Natural Sciences classes to youngsters. She is an expert in taxonomy and has solid field knowledge of a wide array of animals and plants, terrestrial and aquatic.

Liz is possessed of a remarkable and unquenchable passion for wildlife work. Her dedication, motivation and work ethic is amazing. Nothing will discourage this determined and talented young woman. Currently pursuing an M.S. in wildlife, Liz Jones is a wonderful example of what our future wildlife scholars and leaders should be!

*Congratulations
Elizabeth Jones!.*

Haywood Community College: **Shane Billings**

Nomination submitted by: **Dave Dudek (North Carolina State University Alum)**

Shane Billings is currently enrolled in the Fish & Wildlife Management Technology program at Haywood Community College (HCC). Shane entered the program in the fall of 2004 and will earn an A.A.S. degree graduating with honors in the spring of this year. He has proven to be an exemplary student earning Dean's List honors for each semester to date with an Overall G.P.A. of 4.0. Due to this academic excellence, Shane received invitation for Phi Theta Kappa Honor Society induction. To his credit, Shane has managed to excel in his studies as a married, full-time student, even while maintaining full-time employment. Shane has consistently exhibited a strong work ethic, which will serve him well in future endeavors.

Not only exhibiting excellence in his academic pursuits, Shane has demonstrated service above self in extra-curricular activities. He has exhibited willingness and capacity to assume leadership responsibilities. He was elected as Vice President of the HCC Student Chapter, TWS in 2004; more recently, he has stepped up willingly to fill a vacated chapter presidency. Shane is a well-respected, energetic organizer who inspires active involvement in chapter activities. He leads by example having personally secured significant donations toward chapter funds needed to defray travel costs to the annual Southeastern Wildlife Conclave. Shane will serve as a prominent member of the HCC conclave team, as he did last year.

Shane also manages to devote considerable time toward volunteer service. He has provided leadership and assistance to a Take a Kid Fishing program, local stream clean up efforts, and fieldwork with natural resource management agencies. He has attended and received workshop certifications in Project Wild, Aquatic Wild, CATCH and All Taxa BioInventory; Shane is pursuing NC Environmental Education certification. This spring, Shane will be volunteering internship service as creel clerk for the GSMNP.

Shane exhibits the devotion and initiative suited to a wildlifer with promising career potential. Our chapter recognition and his continued TWS involvement will help him realize this potential.

***Congratulations
Shane Billings!***



Left—**Dr. Chris Moorman** and NCSU Student Award recipient **Liz Jones**. Both photos provided by **Dr. Phil Doerr**.

Right—**Drs. Dave Dudek** and **Chris Moorman** with HCC Student Award recipient **Shane Billings**.



NCTWS CHAPTER AWARD

This award is presented to a chapter member for individual effort and contributions to wildlife conservation. Service to the Society and Chapter is strongly considered, along with professional achievement. The award is a custom designed plaque.

Recipient: **Pete Campbell**

Nomination submitted by: **Jeff Marcus**

Pete has been an active member of NCTWS for most of his career. He recently served as chapter President back in 2002 and he led a very active and productive presidency. After his term as president was complete, he did not just fade away from NCTWS to focus on his extremely full work responsibilities. He continued push for several initiatives to come to fruition, including the student mentor program and funding scholarships to send a NCSU student to wildlife summer camp and to sponsor a Haywood student's wildlife internship. Last year, Pete played a big role in the planning of the first-ever joint annual meeting with NCTWS and the NC Fisheries Society. He has been very active in fund raising over the past two years, securing big-ticket item donations from local and national businesses for the raffle and auction.

Pete personifies the ideals of The Wildlife Society, reaching across agency and regional boundaries to promote partnerships and cooperation. He is a worthy recipient of the NCTWS Chapter Award.

*Congratulations
Pete Campbell!*



Dr. Chris Moorman congratulating **Pete Campbell** on receiving the NCTWS Chapter Award. Photo provided by **Dr. Phil Doerr**.

Jared Milrad participated in the Botswana: Ecology and Conservation Program

During fall 2005, **Jared Milrad**, a senior in the Fisheries and Wildlife Sciences Program, participated in the Botswana: Ecology and Conservation Program through the School for International Training.

The following description was submitted by Jared Milrad.

As most citizens of the world know, one cannot live in isolation from natural resources. The fisheries and wildlife sciences curriculum at NC State has instilled in me the role that wildlife resources can play in community development, sustainable economic interests, and ecosystem management. As a participant in a School for International Training program last fall in Botswana, I used this knowledge to study human/wildlife conflicts, the sustainable use of wildlife resources, and the potential for transboundary national parks in southern Africa. There is no classroom quite like the Chobe River, with the largest population of elephants in the world, or the Moremi Game Reserve, a community-driven project to protect vanishing ecosystems while still using wildlife resources. The lecture hall was replaced by three homestay experiences, where I became an active member of a rural or urban community. Finally, the paper exams were complemented by an unwritten, take-home message: local communities must receive tangible benefits from wildlife resources or else they have no incentives to conserve them. After all, local people, not tourists, are the long-term guardians of wildlife. I learned that if we as wildlife managers do not empower communities at the grassroots level, wildlife along with the conservation movement will vanish in due course.

*Jared Milrad visits
Botswana.*



Studying animal behavior of impala, Moremi Game Reserve, Botswana

New Fisheries and Wildlife M.S. Student

Charlotte Matthews joined the Fisheries and Wildlife Sciences Program at North Carolina State University this spring semester as a M.S. student. Charlotte is originally from Eastland, Texas. In 2004, she graduated with a B.S. in Biology from Furman University in Greenville, South Carolina. After graduation, Charlotte worked at Laguna Atascosa National Wildlife Refuge in South Texas and as an eagle biologist for the North Carolina Wildlife Resources Commission. Charlotte is doing her research with **Dr. Chris Moorman**, investigating the effects of fire and mechanical fuel removal on reptiles and amphibians in the Southern Appalachians. Welcome Charlotte!



*Welcome Charlotte
Matthews!*

Charlotte at her office in The Turner House. Photo provided by **Dr. Chris DePerno**.

Dr. Ken Pollock is a co-author on a new book—Occupancy Estimation and Modeling

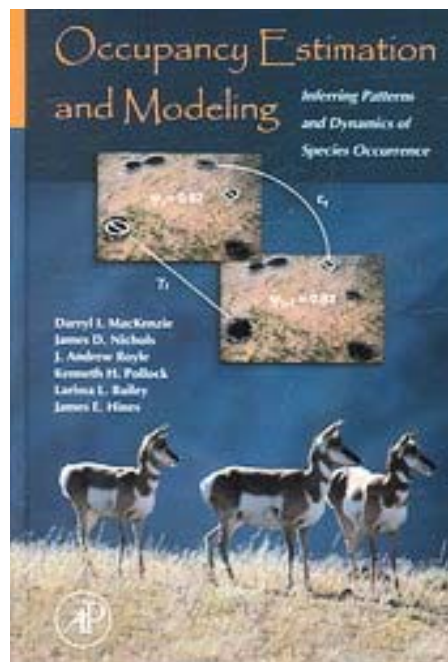
MacKenzie, D. I., J. D. Nichols, J. A. Royle, **K. H. Pollock**, L. L., Bailey, and J. E. Hines. 2005. *Occupancy Estimation and Modeling : Inferring Patterns and Dynamics of Species Occurrence*. Elsevier, San Diego, USA.

Occupancy Estimation and Modeling is the first synthesis of recently developed techniques that account for detectability in species presence/absence data. Metrics based upon such data are widely used in wildlife and ecological applications, however it is often recognized that an ‘absence’ may simply be the result of not detecting the species. Regardless of the complexity of the modeling, resulting inferences may be misleading if the imperfect detection of the species is not accounted for.

In **Occupancy Estimation and Modeling** detailed background is given on general principles for sampling animal populations, historical and current uses for occupancy-type metrics, and statistical techniques used throughout the book. Attention then focuses on methods appropriate for single-species studies, both for situations where patterns in occupancy are of interest at a single point in time, and when studying the processes of changes in occupancy through time. Inference for multiple-species based upon presence/absence data are also considered, whether interest is in interspecific interactions among species or community-level questions.

Not only does **Occupancy Estimation and Modeling** focus on cutting-edge analytic methods, but also important issues related to ecological study design are addressed throughout. **Occupancy Estimation and Modeling** has been written for biologists with little statistical training who seek to apply these latest methods.

*Dr. Ken Pollock
publishes a new book!*



Student Fisheries Society

2005 Student Subunit Report

The American Fisheries Society (AFS) Student Subunit at NC State University had a very productive year. Attendance at the student-run meetings averaged 25 attendees per month, and the email list increased 25% to 129 individuals. In 2005, the subunit conducted 12 broad activities and projects which addressed three organizational goals:

Aquatic Stewardship

- 1) Provided judges and staff—National Ocean Sciences Bowl contest
- 2) Provided volunteer teachers—Rocky River Festival Outdoor Classroom
- 3) Organized a local stream cleanup—NC Museum of Natural Sciences
- 4) Convened professional discussion regarding Carolina madtom (*Noturus furiosus*) conservation

Information Transfer and Outreach

- 5) Provided support—Education and Outreach Committee Waterfront
- 6) Development Initiative
- 7) Staffed NCWRC booth—NC State Fair
- 8) Developed a new Student Subunit logo

Member Services

- 9) Hosted eight invited professional speakers
- 10) Provided equipment/refreshments for a spring anadromous fishing outing
- 11) Granted \$1815 in student travel grants
- 12) Partially funded two recreational bowling efforts
- 13) Provided refreshments/contacts for students at monthly meetings

2005 guest speakers included:

	Speaker	Organization
March	Mike Wicker	US Fish and Wildlife Service
April	James Kapetsky	FAO of the United Nations, retired
May	David Eggleston	NC State MEAS Department
October	Coleen Sullins	NC Department of Water Quality
November	Steve Rebach	NC SeaGrant
November	Todd Kellison	National Park Service
December	Gerald Pottern	RJG and Associates, Inc
December	Bob Barwick	NC Wildlife Resources Commission

This year, Subunit members represented the club in many professional settings. Students attended and presented individual work at various American Fisheries Society gatherings: The North Carolina Chapter meeting in Brown Summit, NC, the Southern Division meeting in Virginia Beach, VA and the AFS National meeting in Anchorage, Alaska. Members attended the NC Aquaculture Association annual meeting in Atlantic Beach, NC, and the 5th Annual AFS Student Colloquium at Eastern Carolina University in Greenville, NC. The club assisted three NC State graduate student presenters with travel costs to Alaska, and additionally supported the travel of 3

*AFS Student Subunit
had a great year in
2005!*

undergraduate students. Funds raised by the Subunit for this purpose exceeded \$800, and \$1000 was provided by the NC State Chapter. The club is very grateful to the State Chapter Executive Committee for their assistance.

In 2005, the Subunit received two awards as an organization. Both awards were based upon the accomplishments of the 2004 membership. At the Southern Division meeting the club was recognized as the division's Outstanding Student Subunit. Building upon that success, the club received the national Outstanding Student Subunit Award by AFS president Barbara Knuth in September. The award recognized outstanding professionalism, active resource protection and enhancement programs, and commitment to the mission of the AFS. The club was the first student subunit ever honored with this mark of distinction.

Individual members were recognized by various AFS entities for their achievements. In February, **Jenny Vander Pluym** was presented the Richard L. Noble Best Student Paper Award at the State Chapter meeting. At the AFS Annual Meeting in September, **Lori Davias** was recognized nationally for her submission to the Student Writing Contest, and **Warren Mitchell** was awarded an honorable mention in competition for the John E. Skinner Travel award. In December, **Lori Davias** was presented with our 2005 Student Fisheries Society Service Award for two years of tireless effort as vice president.

Following a late-fall vote, all officer positions turned over on January 1st, 2006. Three graduate students from the Department of Zoology, two from the Department of Marine, Earth and Atmospheric Sciences, and one undergraduate majoring in Fisheries and Wildlife Sciences accepted new posts:

*AFS Student Subunit
had a great year in
2005!*

	2005	2006
Co-President	Jenny Vander Pluym	Jessica Brewster
Co-President	Warren Mitchell	Christin Brown
Vice President	Lori Davias	Julie Harris
Secretary	Eugene Won	Brandon Puckett
Treasurer	Eugene Won	Ray Mroch
Undergraduate Vice President	Michael Shepherd	Tyler Averett

As the year closes, the NCSU Student Subunit transfers a strong momentum to 2006. Planning for a diverse mix of meetings and activities is well underway. The annual raffle at the 2006 State Chapter meeting remains the primary fund raiser, and this year's prizes are excellent. Each year we seek to improve the items, and we remain grateful to the State Chapter for the opportunity to raise funds at the annual meeting. In 2006, the Subunit will feature the new logo on a fresh printing of 'Student Fisheries Society' t-shirts. Sale of shirts will provide modest funding, primarily to cover gifts for invited speakers at our monthly meetings.

We sincerely thank the North Carolina chapter of AFS for their support, and recognize the professionals and faculty members who continue to interact with our organization. It is with healthy morale and fresh enthusiasm that we enter 2006. Co-Presidents **Jessica Brewster** (jrbrewst@unity.ncsu.edu) and **Christin Brown** (chbrown@ncsu.edu) may be contacted with inquiries.

Submitted by Jenny Vander Pluym and Warren Mitchell, outgoing Co-Presidents.

2005 Leopold Wildlife Club Subunit Report

The Leopold Wildlife Club is an affiliate with the North Carolina Wildlife Federation and a student chapter of The Wildlife Society. The club has approximately twenty-five active members that meet biweekly. During the bimonthly meetings, members are made aware of educational, professional, and experiential opportunities in the wildlife arena. The club is an excellent opportunity for students looking to expand their professional college experience.

Club members volunteer to assist local elementary schools. Elementary science nights and other special events provide an opportunity to expose young kids to wildlife and their habitats. Allowing the children to see and touch snakes, skulls, and skins enables them to make a connection with the wildlife world. Our current treasurer has kept our elementary education program very active the last couple of years.

The club maintains a long-term monitoring project of wood duck boxes at Yates Mill Pond. Throughout the spring semester, club members check for wood ducks, screech owls, and other cavity-nesting species each week. Also, the club participates in the Bald Head Island Deer Survey. Every fall, three-member teams dedicate six weekends to surveying the white-tailed deer population at Bald Head Island. Survey results are one piece of data used to manage the deer population size.

This year, club members contributed several hundred hours of hard, physical labor towards restoring native diversity at Turner House. Under a project coordinated by **Dr. Chris Moorman**, the club participated in installing a pond, constructing walking trails, spreading mulch, and planting native flora.

The club participates in an annual fundraiser at the Dixie Deer Classic. Club volunteers operate a booth and educate the public on NC State's involvement in natural resources. Also, live snakes are present and used to create opportunities to talk to kids and their parents about wildlife education and conservation. The proceeds are used to help fund summer camp scholarships and the annual Wildlife Conclave competition.

Also, many club members attended the 2005 Fisheries, Wildlife, and Forestry Summer Camp. A total of 24 fisheries and wildlife students and 12 forestry students attended the camp. The camp was six weeks long for fisheries and wildlife students and nine weeks long for forestry students. The fisheries and wildlife portion of camp was taught by **Dr. Chris DePerno, Dr. Tom Kwak, Mr. Brent Lineberger, Mrs. Beverly Lineberger, and Mr. Mark Johns**, with guest lectures from **Drs. Clyde Sorensen, Chris Moorman, Bronson Bullock, and Mr. Jimmy Dodson**. Teaching assistants were **Kim Jervis and Stephanie Zolkowski**.

The fisheries and wildlife students spent a considerable amount of time learning bird songs and plant identification. Students participated in mist netting, bird banding, a cover board/habitat project, fishing sampling, and invertebrate sampling. The class had field trips to Caswell County, North Carolina, Chesapeake Farms in Maryland, and to the Great Smoky Mountains Institute at Tremont in Tennessee. Additionally, they teamed up with the forestry students for a mapping project, habitat project, and the annual camp enhancement day.

*Leopold Wildlife Club
had a great year in
2005!*

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

This past February **Dr. Chris Moorman** ended his tenure as President of the North Carolina (NC) Chapter of The Wildlife Society (TWS). Under Chris' leadership, the NCTWS received a \$3,000 Wildlife Information Network (WIN) grant from TWS to develop an educational brochure for teachers interested in youth programming related to birds and the NC Birding Trail. Also, in memory of Susan Sharpe, the chapter created a scholarship fund to support 4-H attendance at the Annual Fur, Fish and Game Rendezvous. The chapter continued to build upon the library of COWCH (Conserving our Wildlife Conservation Heritage) interviews. The chapter partnered with TWS to create an advisory panel to comment on the Navy's s Environmental Impact Statement for the proposed eastern NC Outlying Landing Field (OLF). The chapter raised \$1,250 for Haywood Community College and NCSU student scholarships and balanced the annual budget. Thank you Dr. Moorman for serving as President. The new President of the NC TWS Chapter of TWS is **JohnAnn Shearer**. JohnAnn is a Fish and Wildlife Biologist with the US Fish and Wildlife Service located in Raleigh, North Carolina. She is the Partners for Fish and Wildlife State Coordinator. JohnAnn can be contacted at JohnAnn_Shearer@fws.gov.

*Dr. Chris Moorman
ends tenure as
President of the North
Carolina Chapter of
The Wildlife Society!*



Dr. Chris Moorman passing 'the goat' to **JohnAnn Shearer**. Photo provided by **Dr. Phil Doerr**.

Amy Raybuck receives the 2006 Thomas L. Quay Award

Amy Raybuck, was selected by the Fisheries and Wildlife Faculty Executive Committee as this year's recipient of the Thomas L. Quay Wildlife and Natural Resources Undergraduate Experiential Learning Award. Amy is a junior in the Fisheries and Wildlife Sciences Program and is double majoring in Fisheries and Wildlife and Zoology. She is originally from Freedom, Pennsylvania and moved to Raleigh three years ago. Since beginning her college career, Amy has done two internships. Two summers ago, she worked with the Amazonian parrot on Abaco Island, Bahamas and last summer she worked at Bull Neck Swamp (North Carolina) with reptiles and amphibians. This summer, she will attend the Fisheries and Wildlife summer camp. After graduation, Amy plans to attend graduate school and focus on wildlife diseases that are transmissible to humans.



*Amy Raybuck receives
the Thomas L. Quay
Award.
Congratulations!*

Amy holding a eastern kingsnake at Bull Neck Swamp (near Plymouth, North Carolina). Photo provided by **Stan Hutchens**.

PUBLIC LECTURE

The Survival of the Cheetah: CCF's diverse range of research, education and conservation programs.

April 21, 3:30-5:00 PM, 2010 Biltmore Hall

DR. LAURIE MARKER

Executive Director/Founder

Cheetah Conservation Fund, Namibia, Africa



*Dr. Laurie Marker,
coming to NCSU!*

Dr. Laurie Marker has worked with cheetahs since 1974.

Cheetah populations continue to decline worldwide, but Namibia still has the largest free-ranging population of cheetah of which 90% are found outside the protected areas on commercial farms. Come hear Dr. Laurie Marker, Founder and Executive Director of the Cheetah Conservation Fund, give her expert views on the survival of the cheetah in the wild, the solutions to solving the endangered life of the cheetah and the conservation programs that support CCF's diverse range of research and education.

Sponsored by
Fisheries & Wildlife Program, Department of Forestry and Environmental Resources
North Carolina State University

DR. LAURIE MARKER
Executive Director/Founder
CHEETAH CONSERVATION FUND

Dr. Laurie Marker is Founder and Executive Director of the Cheetah Conservation Fund (CCF) with its headquarters in Namibia, Africa. Having worked with cheetahs since 1974, Laurie set up the not-for-profit Fund in 1990 and moved to Namibia to develop a permanent Conservation Research Centre for the wild cheetah. In 1992, CCF became a registered Namibian Trust. CCF's ground-breaking activities are housed at their International Research and Education Centre in the main cheetah habitat of the country. In July 2000, CCF opened a field research station to the public featuring a Visitor's Centre as well as a Cheetah Museum and Education Centre.

Dr. Marker helped develop the U.S. and international captive program, establishing the most successful captive cheetah-breeding program in North America during her 16 years (1974-1988) at Oregon's Wildlife Safari in the USA. Laurie first came to Namibia in 1977 when she brought a captive-born, hand-raised cheetah to Namibia to determine if a cheetah must be taught to hunt or if the process was fully instinctual. This was the first-of-its-kind research to better understand if there was a chance for captive-born cheetahs to be re-introduced into the wild. Dr. Marker learned about the conflict between livestock farmers and cheetahs in Namibia, discovering that wild cheetahs needed help. For the next ten years she continued traveling to Africa to learn more about the wild cheetah's problems and what could be done to assist wild populations.

In the early 1980's, with collaborators at the National Zoo and National Cancer Institute (USA), Dr. Marker helped identify the cheetah's lack of genetic variation, thus causing the species greater problems for survival. In 1988, in collaboration with these two institutions she became the Executive Director of the Center for New Opportunities in Animal Health Sciences, based at Smithsonian Institution's National Zoo. She continues to serve as a NOAHS Research Fellow. In 1988 she developed the International Cheetah Studbook, a registry of captive cheetah worldwide, and is the International Studbook Keeper. In 1996, she was made a vice-chair of the World Conservation Union's (IUCN) Species Survival Commission's (SSC) Cat Specialist Group and now serves as a member on the core management group. In 2000 Marker was recognized as one of Time Magazine's Heroes for the Planet and given the Burrow's Conservation Award from Cincinnati, Ohio. In 2001, she was locally honored in Namibia, receiving the Paul Harris Fellowship from the Windhoek Rotary Club, and in 2002 received a special award from the Sandveld Conservancy, signifying Namibia's farming community's public acknowledgement of Dr. Marker and CCF's contributions. In 2003, Laurie received her doctorate from Oxford University, England.

Dr. Marker works actively to carry out CCF's mission: "to secure habitats for the long-term survival of cheetah and their ecosystem through multi-disciplined and integrated programs of conservation, research and education". CCF's activities include: bio-medical research to learn more about over-all health, diseases, reproduction and genetic make-up of the population; distribution, habitat and ecosystem research; wildlife and livestock management to reduce predator conflicts; and non-lethal predator control methods. One of CCF's most successful programs is the Livestock Guarding Dog Program. CCF also supports extensive environmental education programmes; staffs conduct school assemblies throughout the country as well as at CCF's Centre. Also, CCF has a field operations base in Kenya, with close links to cheetah conservationists in Botswana, South Africa and Iran.

Dr. Laurie Marker,
Cheetah Conservation
Fund!

Recent Publications, Reports, Presentations, and Funding

Publications & Reports

Aday, D.D., D. P. Philipp, and D. H. Wahl. 2006. Sex-specific life history patterns in bluegill (*Lepomis macrochirus*): interacting mechanisms influence individual body size. *Oecologia* 147:31-38.

MacKenzie, D. I., J. D. Nichols, J. A. Royle, **K. H. Pollock**, L. L. Bailey, and J. E. Hines. 2005. *Occupancy Estimation and Modeling: Inferring Patterns and Dynamics of Species Occurrence*. Elsevier, San Diego, USA.

Powell, R. A. 2005. Evaluating welfare of black bears (*Ursus americanus*) captured in foot snares and handled in winter dens. *Journal of Mammalogy* 86:1171-1177.

Schuler, K. L., J. A. Jenks, **C. S. DePerno**, M. A. Wild, and C. C. Swanson. 2005. Tonsillar biopsy test for chronic wasting disease: two sampling approaches in mule deer and white-tailed deer. *Journal of Wildlife Diseases* 41:820-824.

Presentations

DePerno, C. S., and J. A. Jenks. 2006. Coyote: behavior and depredation and control. Presented to 60 individuals at the North Carolina Wildlife Damage Control Techniques Training and Agent Recertification, North Carolina State University, College of Textiles Convention Center, Raleigh, North Carolina.

DePerno, C. S. 2006. Welcome and introduction to the Wildlife Damage Control Agent Training – Recertification. Presented to 60 individuals at the North Carolina Wildlife Damage Control Techniques Training and Agent Recertification, North Carolina State University, College of Textiles Convention Center, Raleigh, North Carolina.

DePerno, C. S. 2006. Welcome and introduction to the Wildlife Damage Control Agent Training – Certification. Presented to 100 individuals at the North Carolina Wildlife Damage Control Techniques Training and Agent Recertification, Wake County Extension Center, Raleigh, North Carolina.

Moorman, C. E. 2006. Landscaping for Birds and Other Wildlife: The Basics. Lincoln County Master Gardeners, Lincolnton, North Carolina (29 people).

Moorman, C. E. 2006. Effects of Fire and Fire Surrogates on Herps. National Fire and Fire Surrogate Ecological Impacts of Fuel Reduction Workshop, Asheville, North Carolina (75 people).

Moorman, C. E. 2006. Birding Field Tour. NC Birding Trail Meeting, Plymouth, North Carolina (20 people).

Moorman, C. E. 2006. Landscaping for Birds and Other Wildlife. NCWF Stewards Training, Bass Lake City Park, Holly Springs, North Carolina (15 people).

Recent publications and reports!

Recent Publications, Reports, Presentations, and Funding

Presentations

- Moorman, C. E.** 2006. Coarse Woody Debris and Wildlife. NCWF Stewards Training, Bass Lake City Park, Holly Springs, North Carolina (15 people).
- Moorman, C. E.** 2006. Forest Management for Wildlife. NCWF Stewards Training, Bass Lake City Park, Holly Springs, North Carolina (15 people).
- Moorman, C. E.** 2006. Financial Opportunities on Private Lands. Agent Training, Rocky Mount, North Carolina (12 agents).
- Moorman, C. E.** 2006. Do Urban Greenways Provide High Quality Bird Habitat? NC TWS Annual Meeting, Fort Fisher, North Carolina (75 people).
- Powell, R. A.** 2005. What you measure matters: Thoughts on home ranges. 85th Annual meeting of the American Society of Mammalogists held at Missouri State University.
- Powell, R. A.** 2005. Comparing Brownian Bridge and kernel estimators of animals' home ranges. Annual meeting of The Wildlife Society held in Madison, Wisconsin.
- Powell, R. A., and M. Mitchell.** 2005. What is a home range? Annual meeting of The Wildlife Society held in Madison, Wisconsin.
- Powell, R. A., and M. Mitchell.** 2005. Using the kernel estimator to understand black bears' home ranges. Annual meeting of The Wildlife Society held in Madison, Wisconsin.
- Powell, R. A.** 2005. Do biological universal exist? What hummingbirds, chickadees, primates and Sewell Wright have taught me about black bears. Departmental seminar, Department of Wildlife Ecology, University of Maine.
- Powell, R. A.** 2005. Do biological universal exist? What hummingbirds, chickadees, primates and Sewell Wright have taught me about black bears." Departmental seminar, Department of Zoology, North Carolina State University.
- Powell, R. A., and B. Zielinski.** 2006. Evaluating the Demographic Factors that Affect the Success of Reintroducing Fishers *(Martes pennanti)*, and the Effect of Removals on a Source Population." Annual meeting of the Western Section of The Wildlife Society held in Sacramento, California.

Recent publications and reports!

Recent Publications, Reports, Presentations, and Funding

Grants/Funding

Aday, D. D., and J. Rice. 2005. Lake Norman food webs. North Carolina Wildlife Resources Commission. Five Years (2006-2011).

Moorman, C. E., and C. S. DePerno. 2005. An interactive website to facilitate use of native plants in urban landscapes. North Carolina Division of Forest Resources, Urban and Community Forestry Grant Program. \$24,500; 1 year.

Lancia, R. A., and C. S. DePerno. 2006. Passive integrated transponder (PIT) tags for the Wildlife and Fisheries Summer Camp Program. North Carolina State University, College of Natural Resources, Department of Forestry and Environmental Resources Environment Technology Fund. \$3,318; 1 year.

DePerno, C. S. 2006. The use of pre- and post-test and objective questions to evaluate teaching and student learning. North Carolina State University, Faculty Center for Teaching and Learning. \$1,000; 1 year.

DePerno, C. S. 2006. 2006 Nicholson Funding Request (Sweden). North Carolina State University, Raleigh, North Carolina. \$6,000; 1 year.

FOR SALE at the Wildlife Store—T-shirts and Hats Proceeds benefit the Leopold Wildlife Club

Recent publications and reports!

Shirts = \$10 for Leopold Wildlife Club Members (all sizes available)

Shirts = \$12 for non-members

Hats = \$12 for Leopold Wildlife Club Members

Hats = \$15 for non-members

We will mail items to you (please add \$3.00 shipping/handling). Please specify size and make checks out to **Leopold Wildlife Club** and mail checks to **Cindy Burke**, NCSU, Fisheries and Wildlife Sciences Program, Turner House, Box 7646, Raleigh, NC 27695-7646.



Upcoming Events

Leopold Wildlife Club

The next meeting for the Leopold Wildlife Club will be Tuesday, April 11, 2006 at 7:00 pm in 102 David Clark Lab.

The **Annual Buzzard Banquet** will be Tuesday, April 25, 2006 at 7:00 pm at the Turner House. Plan to attend!

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/>

Giving Back

Giving Back!

Giving Back

It only takes a moment to make a huge impact. NC State offers a wealth of programs that educate students and provide assistance to the community, but we need your help. Your contribution to the College of Natural Resources can make a huge impact on all facets of university life and ensure that these valuable programs can continue. The College of Natural Resources needs the support of our alumni and friends. Please consider making a gift today through the NC State Annual Fund or contact Jennifer Viets Catalano at 919-513-7734 or jennifer_viets@ncsu.edu.

Also, you may consider giving to our 2 Summer Camp student endowments (1 Fisheries, 1 Wildlife). These endowments help undergraduate students attend the Wildlife and Fisheries Summer Camp. For more information on how to contribute, contact Dr. Richard Lancia at 919-515-7586 or richard_lancia@ncsu.edu.

Compiled and edited by:

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Nice Fish, Gary!.



Gary Whitaker, a returning Fisheries and Wildlife Sciences student, caught this 8 lb 5 oz largemouth at Jordan Lake. The fish was caught with a crankbait on the rip-rap near Ebenezer boat ramp. The fish was released after being photographed.