Queen conch *Strombus gigas* has long been a Caribbean gastronomic delicacy, and shell collectors prize the large exquisitely colored shell. The United States and France imports most of the commercial catch from the Caribbean worth hundreds of millions of dollars annually. However, the once-abundant conch has been fished to extinction in many countries. The United Nations CITES Authority has been investigating whether international trade of queen conch should now be banned to save the remaining populations. I have been studying the population dynamics of queen conch in Belize (western -- Postdoctoral Fellow continued on page 6 --

-- continued on page 9 --
New Faculty Profiles

Dr. Bethany Bowling

Dr. Bethany V. Bowling, a new Assistant Professor, is a native of Northern Kentucky. She received her B.A. (Biology) from Thomas More College and just completed her Ph.D. in Interdisciplinary Studies – Biology Education from the University of Cincinnati. While at UC she was a NSF Graduate Fellow with Project STEP and collaborated with local teachers on innovative math and science lesson plans. She also worked with the Center for the Enhancement of Teaching & Learning as well as conducting workshops for fellow graduate students. She has a broad interest in biology education, and her research currently focuses on genetics education, specifically understanding students’ misconceptions and improving instruction in genetics.

Dr. Bowling will initially be teaching General Biology and is excited about fueling students’ interests in biology in these introductory courses. Through the Biology Alliance, she looks forward to working with local biology teachers. She will also be heading-up the new Northern KY Girls in Science Program which connects local women scientists from academia, government, and industry with science clubs for middle school-aged girls.

Dr. Eimear Mullen

Dr. Mullen grew up just south of Dublin, Ireland and did her undergraduate work at University College Dublin. Her major was Cell and Molecular Biology. Upon graduating, she moved to Northern Indiana to the University of Notre Dame for graduate school. She worked in the lab of Dr. Neil Shay and her thesis title was “The effect of Soy isoflavones on cellular sterol regulation”. After receiving her Ph.D she did some postdoctoral work with embryonic stem cells in the lab of Dr. Austin Cooney. Currently she is investigating the effects of soy isoflavones as well as other botanical food supplements on cholesterol and lipid metabolism. In particular she will focus on the expression of nuclear receptors and sterol regulatory proteins. It is important for us to understand what these supplements so many are taking are doing to our body at the molecular level, and whether or not they are having the desired effect.

Throughout graduate school and her postdoctoral career she has worked with many undergraduates in the lab as well as teaching a number of courses. She also taught nutrition part time at Montgomery College in Texas and has published in the Journals of Nutrition and Physiological Genomics and recently had a review accepted in PPAR research.
Postdoctoral Fellow Enriches Research Experience of NKU Biology Undergraduates

by Patrick Schultheis

The Department of Biological Sciences has a history of excellence in undergraduate research. Part of this stems from the primarily undergraduate mission of the University. Faculty in the Department have traditionally relied on undergraduates to move their research forward while providing the student with invaluable experiences in preparation for positions in graduate or professional school, academia, and industry. Fortunately, for the students, they graduate and begin their careers. However, this can result in a lack of continuity and research productivity sometimes suffers until replacements can be brought up to speed. To avoid these lags in productivity Dr. Patrick Schultheis, an Associate Professor in Biological Sciences, recently hired Dr. Anil Kumar Chava as a Postdoctoral Fellow. A postdoctoral appointment is a temporary position held by a person who has completed his or her doctoral studies and typically lasts between six months and five years. A major advantage of being a post-doc is that they can devote 100% of their effort to research (a typical tenure-track faculty appointment involves 40% teaching, 40% research and 20% service), allowing time to generate lots of data, establish methods, gain expertise, and publish papers all of which are important for establishing their careers as independent investigators. Post-docs also often help with the day-to-day supervision of undergraduate and graduate students. Having a “second mentor” available at all times can greatly enrich the research experience and enhance the productivity of the students, and consequently the laboratory as a whole. As noted by undergraduate researcher Jared Patton who is carrying out immunocytochemistry experiments in the lab this summer, “Dr. Chava brings a lot of knowledge and experience that has led to great progress in a short amount of time in the lab. He is always there to offer his assistance or to answer any questions. I have more than enjoyed my time working with him.”

Dr. Chava received his Ph.D. from the Indian Institute of Chemical Biology at Jadavpur University in Kolkata, India where he investigated the glycobiology of *Leishmania donovani*, a parasitic protozoa. Transmitted to humans by the sandfly, *L. donovani* is the causative agent of Indian Visceral Leishmaniasis, a debilitating disease that is usually fatal within 2-3 years if left untreated. He then spent two years as a post-doc in the Department of Molecular and Cellular Biochemistry at the University of Kentucky. There he identified, purified and characterized a galactoyltransferase enzyme involved in lipophosphoglycan biosynthesis in *L. donovani."

Dr. Chava brings a wealth of experience in protein biochemistry and cell biology which complement very nicely the molecular biology expertise of Dr. Schultheis. Currently he is working to characterize members of the P subfamily of P-type ATPase transport proteins. P-type ATPases, which include the well-known Na,K-ATPase and Ca-ATPase, utilize the energy released from the hydrolysis of ATP to transport ions and other substrates against their electrochemical gradients. Specifically, Dr. Chava is conducting experiments to determine the intracellular location of the P-Atpases, purify, and determine their substrate specificity. The importance of these transport proteins to cell function is underscored by the fact that they have been retained over evolutionary time in organisms as diverse as yeast, fish, mice and humans. Moreover, mutations in a gene encoding one of the P-Atpases, Atp13a2, have recently been shown to cause an inherited form of Parkinson’s disease. The basic characterization of these transport proteins, therefore, is likely to be critical...
ThinkFirst: Injury Prevention Program
— by Kristi Martines

Dr. Kristi Martines is a speaker for ThinkFirst, an award-winning National Injury Prevention Program providing brain and spinal cord injury prevention education to high-risk age groups (K-12 students). Each year an estimated 500,000 persons sustain brain and spinal cord injuries in the United States. The most frequent causes of these injuries are motor vehicle crashes, falls, sports and recreation, especially diving, and violence. Children and teens are at high-risk for these devastating injuries, many of which are preventable. ThinkFirst’s upbeat prevention programs educate young people about personal vulnerability and risk taking. The message is that you can have a fun-filled, exciting life, without hurting yourself if you “ThinkFirst” and use your mind to protect your body. (URL:http://www.thinkfirst.org/)

Last year, Dr. Martines and her students presented to 3,500 K-12 students in the Cincinnati/Northern Kentucky area.

Evolution in the North …
How NKU Biological Sciences Works to Educate the Public and Debunk Misconceptions of Evolution
— by Richard Durtsche

As a means of educating the public on the foundations of biological science, NKU Biology and Geology Departments have partnered with Sunrock Farm of Northern Kentucky to offer an “Evolution Day” of learning for local Middle School and High School students. NKU faculty present six mini-courses and Sunrock Farm leads three short tours to explain the great diversity among organisms and how they have changed over time. The mini-courses include: Evolution of the Microbes, Evolution of the Invertebrates, Evolution of the Vertebrates, Evolution of the Senses, Paleontology and Prehistoric Life, and Natural Selection. The Farm tours include: The Nature of Science, The Fossil Record, and Domestication: The Microevolution of Goats. Students are engaged in hands-on learning activities with assistance from NKU Biology undergraduates. Examples of these activities include: exploration of rapid changes in bacterial colonies that could lead to the formation of antibiotic resistant species; creek bed fossil hunting; and dissection of sheep eyes to see how evolutionary change has resulted in advanced senses as a result of...
natural selection. This is a regular event held every semester (typically late November and early May).

In addition, Drs. Durtsche, Kannan, Robertson, and Whitson presented evening lectures on a variety of evolutionary topics for The Society of Evolution Education (SEE) at their Evolution Workshops that were open to the public last May and June at Sunrock Farm. Those interested in joining this society can check out the website (www.evolution-education.org).

As many of you may know, the ultra-fundamentalist religious movement against the teaching of evolution is again cropping up in various areas across the country, even in Northern Kentucky with the recent opening of a Creation Center. Often times, these anti-evolutionists present an extreme literal interpretation of the Bible suggesting a 6,000 year old earth and discounting several centuries of evidence in evolutionary biology. This presents a problem for anyone who does not have an understanding of biology or how science works. Without this background knowledge of biology, people are often swayed into a creationist view without considering the mountains of evidence provided by evolutionary studies. The creationists are pressing hard for equal time in schools where the teaching of evolution is involved (a clear legal violation of church and state). The faculty in Biological Sciences does not want to interfere with anyone’s beliefs, however we do want to see an educated public that understands how science and biology work. Evolutionary processes are at the foundation of biology and biological diversity. We hope that you as an audience understand this and will feel free to contact us for further information.

Biology Faculty Goes Celeb

Occasionally, opportunities present themselves where it is possible for faculty and students at NKU to show their science to a broader audience. In the past year, a faculty member in the Department of Biological Sciences was lucky enough to have two opportunities for such broad outreach; Dr. Hazel Barton, who teaches microbiology in our department, was invited to participate in two television documentaries that were aired in December 2006 and May 2007. The first documentary took Dr. Barton to the table-top mountains of Venezuela to examine microbial species in quartzite caves. This documentary, for the Animal Planet network entitled “The Real Lost World”, brought together a team of experts to examine the plants and
Caribbean) over several years. NKU undergraduate students (Toni Lewis, Liza Hernandez, Billy Litmer, Sarah Luse) have collected field data in collaboration with workers from the Wildlife Conservation Society. We have tagged and tracked living conch to determine movement patterns and habitat use around the marine reserve or park at the Glover’s Reef atoll. We took detailed morphological measurements of size, sex, and reproductive status to assess demographic structure. We also help to monitor fishery productivity by sampling catch on commercial fishing boats. In collaboration with our Biology students, students from the Departments of Mathematics (Anthony Dibello, Jennifer Lamb, Jamie Jaspers under the guidance of Dr. Gail Mackin) and Computer Science (Michael Firesheets under the guidance of Dr. Kevin Kirby) have been developing powerful mathematical models to predict population impacts under various levels of fishing pressure.

Our analysis of the commercial fishery shows that the intensity of fishing is unsustainable and that the current fishing regulations are inadequate to prevent overfishing. This provided substantial evidence that stronger conservation measures are immediately needed to protect the species from further decline. In a paper published by the journal Fisheries, I reviewed some results of our studies and suggested a series of measures that should be adopted by governments of Caribbean countries. A series of more restrictive fishing regulations in conjunction with the establishment of networks of large marine reserves are necessary to reduce the risk of overfishing. Our work on queen conch, in effect, supports the implementation of economic sanctions by CITES if no regulatory steps are taken to prevent overfishing. If not, overfishing will likely lead to the crash of this valuable commercial resource, and possibly, to extinction of the species. We will be participating in a special symposium to further discuss the queen conch crisis at the annual meeting of the American Fisheries Society in San Francisco later this year.

The John W. Thieret Herbarium Goes Digital

The John W. Thieret Herbarium received a $21,000 Kentucky EPSCoR grant to barcode ~ 40,000 specimens and database the collection information. This grant funds barcoding equipment, staff and student worker support, and some photographic equipment. The goal is to make the collections web-accessible. New photographic records of rare/unusual specimens, and images of key plant identification features will also be available online. This database will provide an online catalogue and a brief summary of specimens in the collection, and allow instantaneous answers to questions such as: How many species of plants have been collected in Campbell County? or What month do the most species of violets bloom?
Faculty Research

**Dr. Boyce’s** research at Woodland Mound Park in Ohio, examines the response of forest herbs to Amur honeysuckle removal. In Colorado he is looking at bark abrasion by wind-blown particles of bristlecone pine, with its possible connection to the bark-stripping (loss of bark) commonly seen in that species. His professional meetings this year include one at the Hubbard Brook Experimental Forest, one of the Long-Term Ecological Research sites in the US, and a meeting of the Ecological Society of America in San Jose in August, where he will be presenting posters.

In **Dr. Dahlem’s** Lab, Sarah Hale and Michele Burwinkel are investigating the association of the calyptrate Diptera with dog dung in the suburban environment. They are collecting flies that are attracted to fresh dog dung. These flies are known to be mechanical vectors of a wide variety of human and veterinary diseases. Many are important to forensic investigations involving postmortem interval.

In **Dr. Bernie Lohr’s** Lab, Lacey Laudick, Liz Droessler, and Sue Kawar were involved in digitizing and analyzing grasshopper sparrow songs for a study on song learning and sexual selection in songbirds that use high frequency acoustic communication signals. This work is part of a long term conservation project examining factors important in the reintroduction of grassland bird species to restored habitats, including the sensory ecology of such habitats.

**NKU & ECOS GO GREEN**
ECOS is now selling reusable thermos mugs to reduce paper waste on campus. For only $2, you can do your part and get a coffee shop discount on campus.
**Biology Student Clubs!**

**ECOS:**  ECOS is devoted to current issues such as Global Warming. With an increasing awareness of this topic, the condition of the environment has become more important to people. In 2007 we were part of the Campus Climate Challenge in which hundreds of universities across the country agreed to address Global Warming and to take action. Find out more at: http://climatechallenge.org/. This Spring at the Earth Day celebration Larry Blake, VP of Facilities Mgmt. was our opening speaker. He announced that the budget for recycling, $150,000, had been passed. This will give us the resources to expand recycling to handle plastics and aluminum. The university already recycles almost everything else. ECOS has collection boxes around campus for ink jet/printer cartridges and cell phones. In addition, we participated in activities like Adopt-A-Highway (ECOS has adopted a 2 mile section of the AA highway which we clean quarterly), Waterific (teaching 6th graders about the importance of conservation) and Earth Day.

**Beta Beta Beta:**  Tri-Beta had a busy and exciting year. We are closely affiliated with ECOS, and this year helped them raise money for the Julia Butterfly Hill lecture held on Sep. 18, 2006, as well as the Earth Day celebration, held on Apr. 18, 2007. Other activities this year included participation in Relay for Life, and a bowling “Strike out MS” tournament. Tri-Beta members also had the opportunity to help this summer with Latino Fun with Science Camps. In March of 2007, four Tri-Beta members, Laura Brennan, Jessie Caraway, Liza Hernandez and Joshua Grimm, went to Mexico to shadow country doctors. These four, as are most of our members, are seeking pre-professional degrees. They spent almost a week and a half there. It was a great learning experience and they came to appreciate the high quality of health care that is often taken for granted in the U.S. In February of 2007, we hosted the Tri-Beta Executive Committee to make plans for the 2008 National Convention of BBB to be held at NKU May 26 to June 1, 2008. Our sister chapters at Thomas More College and the College of Mount St. Joseph have agreed to be co-hosts. The national meeting will have the theme “Career Fair: What Can I Do with a Biology Degree?”.

**HPC:**  The Northern Kentucky University Health Professions Club (HPC) provides opportunities for its members to learn more about their future career and to gain a better understanding of other health careers (Medical Doctors, Pharmacists, Veterinarians, Dentists, Optometrists, Podiatrists, and Physician’s Assistants). This past year our club had several speakers throughout the school year, as well as some medical school tours. Because HPC is also a club rooted in service to the community, we delivered toys to less fortunate children at Christmas, provided dinner for guests at the Ronald McDonald House, planted trees at Big Bone Lick State Park, among many other volunteer activities. We are also very proud of our fundraising efforts and participation in the American Cancer Society’s Relay for Life. Service to the club and the community has been made a requirement for club membership. We provide information and personal experiences for undergraduates about the important steps that lead to health careers. This includes information on volunteering and commercial review courses for entrance examinations into professional schools. More importantly, our club provides an opportunity to meet other students with similar career interests. This “support network” is vital for success in college. Connections made in HPC have opened the door for many past members and will continue to run strong in the future to do the same for current and future members.
We will also, for the first time, be hosting the national meeting of the Biological Sciences Honor Society, Tri-Beta. This will be a very labor intensive effort, so please feel free to volunteer your services by contacting Dr. Miriam Kannan (Kannan@nku.edu). Many of you were active Tri-Beta members during your years at NKU and remember the excitement of presenting your research data at the national meeting. We now have the opportunity to showcase our Department, the University, and the Tri-State area in addition to providing a venue to promote undergraduate research. Our students continue to excel at research as evidenced by their presentations and recognition at Regional and National meetings (Tri-Beta and discipline specific) and by their authorship on publications. The research benefits them in many ways including the chance to do hands-on science and by providing them with a competitive edge when applying for work, graduate school or professional school. This would not be possible without the generous support of our alumni.

We thank you on behalf of the students and hope you will continue to view undergraduate research as worthy of your financial contribution.

---Chair’s Message from page 1---

KUDOS!

Dr. Charles Acosta received an NSF EPSCoR grant to study aging in fish. He also had a research article published in *Fisheries*.

Dr. Richard Boyce received a grant from Hamilton County to study effects of Honeysuckle removal.

Dr. Richard Durtsche and Dr. Richard Boyce received a grant from CINSAM to study the effects of Honeysuckle on tadpole digestion.

Dr. Becky Evans received a grant from the KY Water Resource Research Inst. to study trace metals in the Ohio River. Research on the Little Miami River resulted in a publication in the *Ohio Journal of Science*.

Dr. Kristi Martines received a KBRIN Area grant to study dendrimers. She has also submitted 2 articles for publication.

Dr. Joe Mester was awarded a grant from CINSAM for molecular immuno-assay development.

Dr. Patrick Schultheis was the recipient of a $150K grant from NIH to study P5-ATPase characterization. His research was published in *Magnesium Research*.

Dr. David Thompson received a grant from CINSAM to study arsenic co-carcinogenesis.

Dr. Maggie Whitson was given an EPSCoR grant for herbarium databasing.

Student Awards
Grants & Fellowships

Megan Kramer (Dr. Martines) was awarded a Greaves Summer Fellowship and a grant from SURCA.

Chad Hargrove, Jared Patton, & Mike Hester (Dr. Martines) all received Merck/AAAS Research fellowships.

---Chair’s Message from page 1---

2007 Biology Awards

Departmental Award: Heather Meeks
John W. Thieret Award: Ryan Baldridge & Ana Liza Hernandez
Clara Richards Award: Karen Burwinkel

KAS 2006 Undergraduate Research Competition

Botany
Poster Winner: Suzanne Truesdell
Microbiology
2nd Place: Ashley Tepe

Karen Burwinkel (Dr. Thompson) was granted a KAS Summer Research Fellowship, the NKU SURCA award, and she placed first in the John C. Johnson Award for Student Excellence in Student Research as well as having a first place poster at the KAS Regional Meeting.

Ana Hernandez (Dr. Acosta) was awarded a research assistantship at Virginia Institute of Marine Science. She also received a grant from the Fly Fisher Federation as well as a Greaves Summer Fellowship.

Ryan Dumas (Dr. Becky Evans) received both a SURCA grant and Greaves Summer Fellowship.
Alumni News!

Biology Alumni Email ListServe To join or update please contact Joan Arnold at jmalvt@aol.com. Send her your email address and full name. For more information go to www.nku.edu/~bioalum/.

The Biology Alumni will visit Costa Rica in 2008.

Bio Alumni will meet Monday, September 10 at ~6:00 pm, in Herrmann Science Building. The trip will be June 28 - July 12, 2008. Planned activities include: hikes along Rio Claro, tour to Corcovado National Park, Isla de Canos, cloud forest tours, birding for quetzales, Arenal Volcano, hike at Hanging Bridges, zip-line canopy trip, Santa Rosa National Park, rafting on Rio Tenorio, tour of Tortuguero National Park with evening green-sea turtle hike, and shopping in San Jose. The cost is $1300.00 per person, double occupancy which covers: costs at Punta Marenco (room, board, surface transportation, and field trips to Corcovado national Park and Isla de Canos); travel arranged by Cabet Travel (includes rooms, ground transportation, plus Rio Tenorio raft trip, zip-line canopy trip and Hanging Bridges trip). Not included is: round trip airfare to San Jose (SJO), seven lunches and dinners, alcohol, or admission to Tortuguero National Park.

Scott Bessler (BS ’06)
Graduate work in Physiology
University of Alabama
Birmingham, Alabama
Scott studies Boa/Python physiology

Stephanie Bessom (BS ’06)
Graduate work in Geology
Wright State University
Dayton, Ohio
Stephanie is working on aquatic toxicology

Sean Binder (BS ’06)
Science Teacher
Williamstown H.S.
Williamstown, Kentucky

Bree-Ann (Zibulka) Brewer (BS ’06)
Married in May 2006
Raw Materials Lab Supervisor
Fivaudan Flavors
Cincinnati, Ohio

Charles Burke (BS ’06)
Graduate work in Molecular Biology
University of Cincinnati
Cincinnati, Ohio

Justin Clark (BS ’06)
Graduate work in anesthesiology
Emory University
Atlanta, Georgia

KP (Kpandja Djawe) (BS ’06)
Graduate work in Epidemiology
University of Cincinnati
Cincinnati, Ohio

Derek Downing (BS ’06)
College of Pharmacy
University of Cincinnati
Cincinnati, Ohio

Laura Engelman (BS ’88)
MA Education, from Georgetown College
Biology Teacher
Grant Co. H.S., Kentucky

Melissa Firestone (BS ’06)
Zoo Keeper
Louisville Zoo
Louisville, Kentucky

Jonathon Grainger (BS ’06)
Medical School
University of Louisville
Louisville, Kentucky

Michelle Guidugli (BS ’06)
Graduate work in Biology
Applied Ecology Program
Eastern Kentucky University
Richmond, Kentucky

Rachel (Sparks) Hauck (BS ’07)
Married Jason Hauck (BS’06)
Bethel-Tate H.S.
Bethel, Ohio

Lee Heckman (BS ’94)
Project Scientist
Shaw Environmental
Cincinnati, Ohio

Liza Hernandez (BS ’07)
Graduate work, Virginia Institute of Marine Science
Gloucester Point, VA
Liza studies resource production of artificial reefs.

David Lies (BS ’06)
Works in a pharmaceutical quality control lab
Eurand, Inc.
Dayton, Ohio
animals of this unusual region. Dr. Barton was the first expert in cave microbiology to examine the rare quartzite caves. During filming she was able to identify that the microorganisms were carrying out unusual activities in these caves, leading to the deposition of rare silicate formations. Using the information obtained, Dr. Barton began a collaboration with Dr. Paula Suarez from the Departamento de Biología de Organismos, Universidad Simón Bolívar. Dr. Barton is returning in October with NKU students to examine the microorganisms in these caves in more detail. Hopefully understanding how these microorganisms are able to mobilize silica may enable us to determine if ancient microfossils could have formed in low temperature environments.

The other documentary in which Dr. Barton participated was for the History Channel. In this documentary, she was a co-host and member of a team asked to explore the deeper reaches of the sacred Maya cave, Naj Tunich, in Guatemala. Despite knowing of this cave for over two decades, parts of the cave still remained unexplored by scientists. Dr. Barton and others explored the bottom of a 600 foot deep pit at the back of the cave looking for Mayan artifacts.

While Dr. Barton got the glamorous side of the documentary experience, it was the collegial nature of the Biology Department at NKU that made it possible for her to go. Filming, especially in remote locations, requires time away from campus and Dr. Barton is extremely grateful to the faculty who helped teach her classes and her supportive students.
We're on the Web!
See The Biologist In Color at:
www.nku.edu/~biology

Upcoming Events....

Mon, Sept 10 - 6 pm - Alumni Costa Rica Meeting, Herrmann Science Center
Sept. 23, 24, & 25 - Annual Biology Department Phonathon
Tue, Sept 25 - 6:30 pm, Bob Sloan and NorStanger, NKU, Budig Theatre (ECOS)
Thurs, Sept 27 - Arts & Science Open House, 3-4:30, Steely Library, Room 410
Fri, Sept 28 - noon - Interviewing Seminar (Tri-Beta)
Sat, Sept 29 - 10am, ECOS Adopt-A-Hwy, UC cafeteria.
Fri, Nov 2 - noon - Student Research Presentations (Tri-Beta)
Thurs, Nov 8, 6-8:30pm, ECOS “Black Diamonds - Moutaintop Removal and the Fight for Coalfield Justice,” BEP 200.
Fri, Nov 30 - noon - Nutrition and Exercise Seminar (Tri-Beta)
June 28 - July 12 - Alumni Trip to Costa Rica (Pura Vida!!!)

Gifts and Donations
Every year the Department contacts alumni, friends, and local industry for contributions in our annual phonathon. We enjoy this opportunity to catch up with you! Your contributions, no matter the size, are always welcome and help us to provide the highest quality opportunities for our students. Much of the funding is used to defray the costs of undergraduates attending and presenting their research at scientific meetings, including Tri-Beta. The opportunity to participate in these meetings (as many of you know) can be life-changing, and can result in landing a job or an invitation to graduate studies. We are looking forward to catching up at the phonathon, and thank you for your continued support of our department and our undergraduates.

ALUMNI UPDATE
We want to hear from you!
Contact us at:
thebiologist@nku.edu

Please include:
Contact Information/ E-mail Class year
What’s new? (promotions, special recognitions, change of job, civic involvement, family, research, travel, etc.)