

Keeping in Touch

University of Vermont
Volume 19, Number 1

College of Agriculture and Life Sciences
CALs on the Web: www.uvm.edu/cals



Scholarship support is central to success

“Thank you so much for your contribution. You are helping make my aspirations become a reality.”

These words, taken from a student’s recent letter to a scholarship fund donor, are an expression of gratitude that **Dean Rachel Johnson** expects to hear many times over the next three years as she leads the College’s major fundraising campaign toward its goal of raising \$8 million in scholarship support for undergraduate and graduate students.

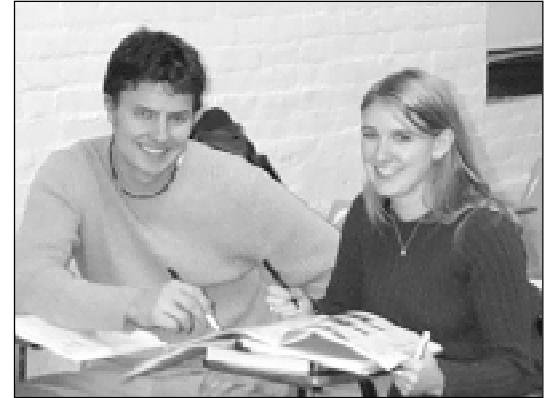
“We must succeed at broadening and deepening our scholarship funds,” stated Dean Johnson at a recent College Advisory Board meeting. “Whether it’s for need-based or merit-based awards, there are dozens of outstanding students we will not be able to attract or retain each year unless we raise these funds.”

University of Vermont Scholarship Coordinator **Mike Gagne** agrees, “It has gotten increasingly competitive as students shop

around for the best financial aid packages. As applications increase and UVM becomes more selective, we need to match that pace with increasingly competitive scholarship funding,” says Gagne.

The College’s Board of Advisors responded to the Dean’s request by making a number of charitable gifts to establish the *Undergraduate Student Opportunity (USO) Scholarship Fund*. CALS alumni, parents, and friends are invited to make additional donations to this fund. Unlike endowed scholarship funds which use interest earnings to make awards, the *USO Scholarship Fund* is set up to spend donations as they come in to help deserving students.

With applications to CALS rising, Dean Johnson hopes to support the increased enrollment projections with additional scholarship funds. “It would be very helpful to have \$100,000 in the *USO Scholarship Fund* by the end of this semester so that we can positively impact next year’s financial aid picture for dozens of students,” says Johnson. “Each do-



John Pigott and Meaghan Blaikie, recipients of the Richard Holzer Memorial Scholarship.

nation—whether \$100, \$1,000, or \$10,000—will be directly applied against what students would otherwise have to borrow, and that could make the difference in whether those students decide to enroll in our College,” she concludes.

Richard Holzer Memorial Scholarship recipients **John Pigott** and **Meaghan Blaikie** are two examples of outstanding students who would not be able to pursue their studies in CALS without scholarship assistance. “The

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Rebuilding agricultural potential in Afghanistan



Bruce L. Parker teaches Afghani agricultural specialists in Kabul about Sunn Pest.

In Afghanistan, a country ravaged by drought and war and struggling to feed its people, the Sunn Pest brings only darkness. This insect, related to the stink bug, is one of the most destructive insects of wheat in Afghanistan. It sucks plant sap, sometimes destroying 50-100% of the crop. Enzymes in the insect’s saliva also ruin the grain’s flavor and destroy the gluten, a protein that makes bread rise. If only 5% of the grains are fed on by Sunn Pest, an entire lot becomes un-salable. Sunn Pest damage has

put over 4 million people and the country’s livestock at risk of starvation. In 2003 the wheat harvest was saved by spraying insecticides, but this approach is expensive, not environmentally friendly, and ultimately not sustainable. For over 7 years, Drs. **Bruce L. Parker** and **Margaret Skinner**, scientists from the UVM Entomology Research Laboratory, have been cooperating with Dr. Mustapha El Bouhssini, from the International Center for Agricultural Research in

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Stratton, UVM Photography



Message from Dean Rachel Johnson

CALS enjoys forward momentum

This is a time of tremendous forward momentum for the College

and the University. Applications are up across the University while the quality of the applicant pool continues to increase.

This corresponds with core elements of the College's strategic plan: to increase undergraduate enrollment while at the same time enhancing academic programs.

Thanks to several lead gifts from members of the College's Board of Advisors, I have established a new scholarship fund, the *Undergraduate Student Opportunity (USO) Scholarship Fund*. This will expand the College's capacity to offer need-based and merit-based scholarship awards to deserving undergraduate students.

Undergraduate scholarships are an essential ingredient in our recipe to successfully attract and retain highly qualified students. We are committed to being accessible and attractive to a diverse array of students who are able to succeed in our programs, and we invite our many alumni, parents, and friends to help us grow the *USO Scholarship Fund*.

Speaking of growth, we are seeing enrollment growth in the new cross-college Biochemistry program, and we anticipate additional growth as the new Integrated Biological Sciences program begins next fall. I wish to acknowledge

the hard work of Professors **Jim Hoffmann** (Botany) and **Chris Francklyn** (Microbiology and Molecular Genetics) for their efforts to bring these programs to fruition. The CALS faculty continue to excel in attracting competitive research funding to the College. Last year CALS was second only to the College of Medicine in research grants and contracts generated among UVM's colleges and schools.

I also wish to acknowledge the dedicated service of colleagues **Bill Murphy** (Plant and Soil Science) and **Neil Pelsue** (Community Development and Applied Economics) both of whom retired earlier this academic year. We are a finer College because of them as they have capably helped advance our teaching, research, and service missions over the past three decades.

One way to recognize the outstanding service of faculty members, retired and active, is to make a gift in their honor to the *USO Scholarship Fund* or another CALS gift fund of your choice. For more information, contact College Development Officer Howard Lincoln, at (802) 656-2509 or howard.lincoln@uvm.edu.

As always, I invite you to keep in touch with me at (802) 656-0137 or calsdean@uvm.edu. I look forward to seeing you at our annual Alumni and Friends Dinner on Saturday, May 1.

Lyndon Carew: Teacher extraordinaire

Do you ever wonder what 15,000 students who graduated from the University of Vermont in the last 30 years have in common? They all took Dr. **Lyndon Carew's** class, *Fundamentals of Nutrition!* Since 1969, UVM has been fortunate to host the many talents of Dr. Carew, Professor in the Departments of Animal Science, and Nutrition and Food Sciences. Dr. Carew has spanned the years by introducing new and innovative materials and methods to keep his teaching program vigorous. He was one of the first to use computers in teaching and is currently devel-

oping a three-credit online course. He brings to his role of teacher a diversity of interests and experiences from years of research and attendance at nutrition conferences in different areas of the world.

Dr. Carew's passion for teaching, his caring and concern for students, and his ability to engage minds have led to the distinction of having received virtually every teaching award UVM offers and many from outside the University. He was voted Vermont Professor of the Year by the Carnegie Foundation, one of the most presti-

gious teaching awards in the country.

Dr. Carew truly embodies the idea and ideal of teacher!

—Karen Plaut and Kathy Tatro



Dr. Lyn Carew at his best, lecturing in his *Fundamentals of Nutrition* class.

International training program is two-way street



CDAE faculty members (from left) Jay Ashman, Dan Baker, and Josh Farley are greeted by the honorable Philip J. Pierre, St. Lucia Minister of Commerce, Tourism, Investment, and Consumer Affairs.

What began as a request for assistance with a fledgling consumer protection program has led to a new international experiential learning opportunity for UVM students. In 2002, the Ministry of Commerce, Investment, and Consumer Affairs of St. Lucia was seeking help from an American university to

advance its consumer protection program through training for its staff. UVM's Community Development and Applied Economics (CDAE) Department, with its affiliation with the state attorney general's Consumer Assistance Program, proved an ideal mentor.

Last year, two St. Lucians visited UVM to work with **Jay Ashman**, who teaches an on-line consumer law course. In January, Ashman traveled to St. Lucia to present workshops on consumer policy and law to the Ministry's consumer affairs staff and meet with key government officials. **Dan Baker** and **Joshua Farley**, also CDAE faculty members, accompanied him to explore options for student projects. "The Ministry wanted professional development. It was our idea to parlay this into an opportunity for students," Ashman explains.

The new course, to be offered this fall, will introduce students to

St. Lucia's culture, history, and economy and allow them to undertake projects in areas such as consumer affairs, entrepreneurship education, and ecological economics. The course will culminate in a two-week stay on the Caribbean island to implement these projects. "Students will work with the Ministry of Social Transformation, for example, to evaluate existing programs to develop tourism opportunities to benefit local communities," Farley says, "This ideally becomes part of our research as well."

CDAE has fielded inquiries from other Caribbean countries for similar training that may segue into additional field research and educational experiences for students. "It's a mutually beneficial exchange," Ashman says of the St. Lucia program. "They get something of value to them. We get educational opportunities for our students. It's not a one-way street. We can learn as much from them." —*Lisa Halvorsen*

CALS joins forces with other UVM Colleges to bring Biochemistry to undergraduates



Elise Piscitelli, a junior majoring in Biochemistry, assists with research being conducted in Dr. Christopher Francklyn's lab.

Biochemistry is a fascinating discipline that has been in the news a lot lately, owing to the excitement over the sequencing of the

human genome and bioterrorism, among other topics. Students at UVM who are eager to study biochemistry can now avail themselves of a new cross-college Undergraduate Biochemistry Program. The year 2003 marked the first full year of this program, which draws upon the faculty and resources of the College of Agriculture and Life Sciences (CALS), the College of Arts and Sciences (CAS), and the College of Medicine. Students enrolled in this major earn the Bachelor of Science degree, either through CALS or CAS.

Much of the credit for spearheading the development of this major goes to **Douglas Johnson**, Professor of Microbiology and Molecular Genetics. Johnson crafted the memorandum of understanding that brought the deans of the three colleges together, and then chaired the design team that developed the new

major. The new program is built around a solid program of coursework that includes both the traditional disciplines that support the major—such as biology, chemistry, math, and physics—as well as new courses like Macromolecular Structure of Proteins and Nucleic Acids, Bioinformatics, and Microbial Pathogenesis. Biochemistry is a hands-on discipline, and biochemistry majors have ample opportunities to work in the laboratories of UVM's top biomedical researchers.

The new major is already attracting a lot of attention from current as well as incoming students who see this as a great opportunity to train for careers in medicine, academic research, and the biotechnology industry. Stay tuned for more news about our new Biochemistry majors—we're expecting great things from them!

—*Christopher Francklyn,*
Co-Director

JMHP turns three



Kat Coughlan, Justin Morrill Honors Program, expects to graduate this spring as a Biological Sciences major.

The Justin Morrill Honors Program (JMHP) is preparing to celebrate its first graduate. Junior, **Kathlyn Coughlan**, is expecting to graduate this spring, completing her Biological Sciences Studies in only three years.

“The small honors program and individual attention were the main reasons I chose to come here,” says Coughlan. Her honors thesis—conducted with her advisor, **Karen Plaut** in the Animal Science Department—examines a new method for predicting the timing of ovulation in dairy cows. Through it, Coughlan says, she

has had a chance to “see science in action and see it as more than just what is talked about in intro classes.” Although her project has been challenging at times, she says she appreciated the chance to “design a project mostly on my own and gain skills that will be useful in other situations.”

Coughlan started working in Plaut’s lab in her first year. So when this project came along, she jumped at the chance to take it on as an honors thesis project. Coughlan says of Plaut, “Karen is a wonderful advisor; she keeps me on my toes and keeps me honest. She lets me do a lot [of the research] on my own but gives me the guidance I need to actually accomplish it.”

Coughlan arrived in the Fall of 2001 as a member of the inaugural class of JMHP scholars. That

small group of “pioneers” has been instrumental in helping to define the honors program. Others in that group are also actively involved in laboratory research projects in several CALS departments.

From that beginning, the Justin Morrill Honors Program now has 42 students. It is an impressive group, boasting 6 Green and Gold Scholars, 9 Vermont Scholars, and 23 Presidential Scholars.

Exciting changes to the JMHP are on the horizon, as the first- and second-year student components of the program are set to merge with other honors programs on campus. The combined forces of different units on campus will allow CALS honors students to pursue a smorgasbord of offerings in their first two years. They will then focus on CALS honors work as juniors and seniors.

—Donald Stratton, JMHP Director

Afghanistan, from page 1

the Dry Areas (ICARDA), Aleppo, Syria, to develop integrated pest management (IPM) for Sunn Pest, focusing on introducing cost-effective strategies appropriate for farmers.

Sunn Pest brings devastation to a country that can ill afford it. The UVM Entomology Research Laboratory’s reputation as a leader in IPM research resulted in the group being selected as one of eight international institutions to receive a grant (\$200,000) from the U.S. Agency of International Development. “Foreign governments have given Afghanistan millions of dollars to buy wheat seed,” says entomologist Margaret Skinner, one of the project’s leaders. “You can give farmers all the wheat seed in the world, but if you don’t manage the Sunn Pest, there isn’t going to be a crop to harvest.”

Through this project, Vermont scientists established a diagnostic laboratory at the University of Kabul, prepared technical manuals and translated them into local Afghan dialects, and presented workshops to extension agents to explain the pest’s biology and IPM.

“We feel strongly that we can help,” says Parker, Professor of Entomology and the lab’s project leader. “We can help manage the insect with methods that minimize the need for chemical insecticides.”

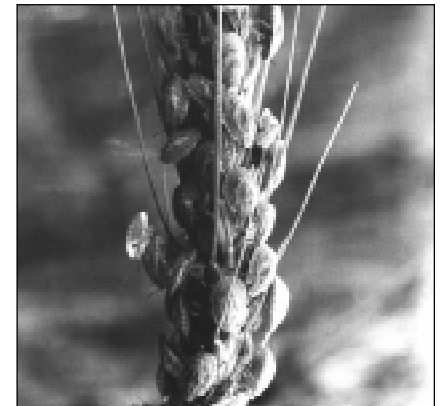
Parker and Skinner visited Kabul for the workshop in August, as part of an extensive trip that took them to meetings and research sites in Dubai, Iran, Syria, and Turkey. Skinner was particularly impressed with the dedi-

cation of the attendees. “Despite adverse conditions, they arrived early and stayed as long as we were able and willing to teach them. They were starved for new information,” she says. During the reign of the Taliban, most of the technical references at the University were destroyed, and contact with the outside world was forbidden.

The group’s expertise with fungi and other natural enemies of the Sunn Pest grew out of work on the tarnished plant bug, a scourge of Vermont farmers. Both scientists believe that what they learn from working with the Sunn Pest will bear fruit with the tarnished plant bug, and their work with Afghan farmers will improve their work with farmers here.

Both Parker and Skinner have spent time in the region for decades, developing a personal connection with the land and people and a strong desire to help. “We have a commitment to and a belief in international agriculture,” Parker explains. “We separate government and politics from our work. We don’t worry about borders. We worry about solutions.”

—Margaret Skinner



Sheaf of wheat heavily infested with Sunn Pest.

The extraordinary work of Drs. Parker and Skinner and their colleagues will be enhanced in coming years as UVM constructs the new Life Sciences building. Contributions are now being sought to help pay for construction of this new CALS facility and to assist the ongoing work of talented and dedicated scientists. For more information, please contact College Development Officer Howard Lincoln at (802) 656-2509 or howard.lincoln@uvm.edu.

UVM College of Agriculture and Life Sciences 11th Annual Alumni and Friends Dinner

Saturday, May 1, 2004
Inn At Essex, 70 Essex Way, Essex, Vermont

Hosted by The New England Culinary Institute

Afternoon Program

Miller Research Center (Spear Street Farm), South Burlington, VT

- 1:30-2:30pm **Equine Tour & Drill Team Demonstration** - Ellen A. Hardacre Equine Center
• Presenters: UVM Horse Barn Members and Advisor Dr. Josie Davis
- 2:30-3:00pm **Constructed Wetlands Tour** - Spear Street Farm
• Presenter: Dr. Aleksandra Drizo
- 5:30-6:30pm **Registration and Social Hour** - Foyer of Governor's Mansion, Inn at Essex
• Cash Bar
• Vermont Food Entrepreneurs Emporia
- 6:00-6:30pm **Dean's "State of the College" Report** - Fletcher and Jenison Rooms
- 6:30-8:00pm **Dinner** - Justin Morrill Ballroom
• UVM Top Cats featured
• Vermont Products Menu highlighted
- 8:00-9:00pm **Award and Recognition Presentations**
• Emeriti Faculty and Special Guests
• Lawrence K. Forcier Outstanding Senior Award
• CALS Outstanding Alumni Awards

For room reservations and directions, call The Inn At Essex at (802) 878-1100 or e-mail innfo@vtculinaryresort.com. Indicate you are with the "UVM Dinner" to receive the \$89 room rate. Website: www.innatessex.com.

Cut and return to: UVM CALS Dean's Office, 146 University Place, Burlington, VT 05405-0106 by **Monday, April 26, 2004**.

Name _____ Class Year _____

Guest(s) _____ Class Year _____

Address _____

E-mail address _____ Home Phone _____

Yes, I plan to attend the Equine Tour ____ (# in party)

Yes, I plan to attend the Wetlands Tour ____ (# in party)

Yes, I plan to attend the Social Hour ____ (# in party)

Yes, reserve ____ (number) seats at \$45.00/dinner. Select meal/s below. \$ _____

____ Braised LaPlatt Beef w/Spring Vegetables

(name/s) _____

____ Rock Art Braised Chicken w/Roasted Vegetables

(name/s) _____

____ Fresh Spring Vegetables in Phylo w/Vt. Cheddar & Apple Cider Gastrique

(name/s) _____


Enclosed is a donation for the *CALS Undergraduate Student Opportunity Scholarship Fund* \$ _____

Enclosed is a check (payable to: UVM) for a *total* amount of: \$ _____

If you have accessibility and/or dietary concerns, call (802) 656-0321 or e-mail robin.smith@uvm.edu.

Keeping in Touch

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11th Annual Alumni and Friends Dinner - Saturday, May 1, 2004 - Registration inside

CALS alumni prominent in major book on tropical plant diversity

Two graduates from the Department of Botany have figured prominently in the publication of the new book *Flowering Plants of the Neotropics*, published last month by Princeton University Press. **Nate Smith**, Class of 1998, is senior editor of the impressive volume, which treats all of the 284 families of flowering plants to be found within the American tropics in the space of 594 pages. **Bobbi Angell**, Class of 1975, is the major botanical illustrator for the work, providing an attractive plate of 10 to 15 detailed line drawings to demonstrate the features of many of the families. Both are currently associated with the New York Botanical Garden, where Smith is now editor of the Garden Press and Angell has long since established herself as one of the preeminent botanical illustrators in the country.

The two alumni share a key ex-

perience, participation in the Costa Rica Plant Diversity Field Trip, an opportunity for undergraduates at the University of Vermont led by Botany Department faculty member **Dave Barrington**. On these trips, offered at UVM biannually since 1979, students visit intact forests in a diversity of climatic regimes in the country with the goal of learning how to estimate plant diversity through training in identification of the plants to family. Barrington remembers Nate Smith as one of the students who stayed up all night every night of the trip he was on to learn as much as possible. Smith has gone on to work with an impressive team of botanists to capture a portrait of tropical American diversity in this new book. A second editor of the book, **Scott Heald**, UVM School of Natural Resources Class of 1996, was also



UVM Costa Rica Botany Field Trip students at work identifying plants in the rain forest of the Osa Peninsula, Costa Rica, January 1999. Nate Smith (farthest left) is senior editor of Flowering Plants of the Neotropics, Scott Heald (farthest right) is also an editor. UVM Botany graduates Damon Little (center left) and Michael Sundue (center right) are now Ph.D. candidates in plant systematics at Cornell and the New York Botanical Garden, respectively.

a participant in Barrington's Costa Rica field trips. A copy of the book will be in the kit for the next field trip.

—David Barrington

Scholarship, from page 1

award helps out tremendously and it encourages me to seek higher levels of academic course work," says Pigott, who is an Animal Science and Chemistry double major. Blaikie chose to pursue an Animal Science degree at UVM because of

the reputation of the Equine Science program and the financial assistance she received. She is passionate about her studies and the UVM Equestrian Team (which she leads as co-captain with Pigott).

The Campaign for the College of Agriculture and Life Sciences offers numerous opportunities for

donors to help current and future students in a meaningful way by contributing to existing scholarship funds or by establishing an endowed fund for undergraduate or graduate students. For more information, visit www.uvm.edu/cals/?Page=calscampaign/ or contact Howard Lincoln at (802) 656-2509 or howard.lincoln@uvm.edu.

—Howard Lincoln