

College of  
**Agriculture and Life Sciences**  
**NEWS**

Fall 2005



# Breaking the Fever

**Laura Harrington Devises Genetic Strategies to Defeat Dengue**

**Also inside**  
Integration Crucial for Rural Immigrants  
The Coral Killers  
Turfgrass's Cutting Edge



Cornell University

# Scenic Prints of Cornell & Ithaca

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Laura Harrington, professor of entomology, examines specimens of *Aedes aegypti*—the mosquito that transmits dengue fever. Photo by Kevin Stearns/University Photography

## Message from the Dean



Left to right: Nicki Dardinger, a graduate student in Natural Resources, a red-tailed hawk named Eleanor, and Dean Susan Henry attended the dedication of the new Esther Schiff Bondareff '37 and Daniel N. Bondareff '35 Raptor Facility on Game Farm Road.

Gary Hodges

**E**xiting things have been happening across campus this fall. Several involve fundraising and illustrate the strengths of partnerships. Several involve multi-college collaborations and illustrate the strengths of Cornell's interdisciplinary programs.

First, I'd like to talk about fundraising. In this issue, please read the 12-page report that celebrates the success of the \$20 million campaign for the Undergraduate Business Program. Under the able leadership of Stephen Ashley '62, MBA '64, and Peter Nolan '80, MBA '82, we successfully endowed eight new faculty professorships and raised \$1.4 million in teaching endowments.

In October, we dedicated the new Cornell raptor facility. Our guests of honor were Esther Schiff Bondareff '37, for whom the new facility is named (along with her late husband, Daniel N. Bondareff '35), and alumnus Jay Hyman '55, DVM '57, who coordinated gifts in Esther's honor.

Second, I'd like to talk about collaborations. On October 14, Cornell placed second out of 18 in the 2005 Solar Decathlon contest. This notable achievement involved an interdisciplinary team of 50 to 70 students from Agriculture and Life Sciences, Engineering, Architecture, Art, and Planning, Arts and Sciences, and the Johnson School.

CALS's contribution was the landscaping. Students from the Departments of Horticulture and Landscape Architecture grew more than 1,500 edible plants, such as peppers, lettuces, nasturtiums, and herbs, and designed them into the landscaping plan. The solar house has been temporarily reconstructed in front of Roberts Hall. It is a remarkable green and sustainable project that is at once modern and functional. See [www.news.cornell.edu/stories/Oct05/solar.DC.bpfhtml](http://www.news.cornell.edu/stories/Oct05/solar.DC.bpfhtml).

In November, we dedicated the new Cornell Agriculture and Food Technology Park in Geneva, N.Y., a unique project that involves Cornell, the NYS Agricultural Experiment Station, the city of Geneva, Ontario County, NYS Electric & Gas, and state and federal legislators. At this new "technology farm," we will bring technologies developed at Cornell into innovative partnerships with food, agriculture, and bio-based industries.

Perhaps this semester was best presaged in August, when Cornell placed fourth in a poll conducted by the *Washington Monthly* that asked not what colleges can do for students, but what colleges were doing for the country. Noted the editors: "Universities... should produce the academic minds and scientific research that advance knowledge and drive economic growth, and they should inculcate and encourage an ethic of service." See [www.washingtonmonthly.com/features/2005/0509.collegeguide.html](http://www.washingtonmonthly.com/features/2005/0509.collegeguide.html).

We should all be very proud of Cornell's standing in that poll. As a college uniquely situated in this remarkable land-grant, Ivy League university, we take very seriously our mission to advance society through cutting-edge research and scholarship, to develop leaders who will shape society, and to improve people's lives through the ethos of public service.

—Susan A. Henry, Ph.D., the Ronald P. Lynch Dean of Agriculture and Life Sciences

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# Short Reports

## Extinct No More

The ivory-billed woodpecker, long thought to be extinct, has been re-discovered in the Big Woods of eastern Arkansas by researchers from the Cornell Laboratory of Ornithology at CALS. After a year of intensive evidence gathering, researchers published their findings in the journal *Science* in April, and have been successfully defending their sightings ever since.

On February 11, 2004, kayaker Gene Sparling of Hot Springs, Arkansas, saw a bird with markings similar to those of the ivory-billed woodpecker—a bird that hadn't been observed in over 60 years. Upon hearing the news, Tim Gallagher, editor of the Lab of Ornithology's *Living Bird* magazine, and Bobby Harrison, associate professor at Oakwood College, traveled to the Arkansas bayou where the sighting occurred. On February 27, they saw the bird for themselves. Both agreed that the bird had characteristics similar to those of the ivory-billed woodpecker and sat down to sketch what they had seen.

The sighting led to a year-long effort to collect evidence to prove the ivory-billed woodpecker was not extinct—an effort subsequently chronicled in Gallagher's behind-the-headlines book about the quest, entitled *The Grail Bird* (Houghton Mifflin 2005).

In the 7,000 hours of search time, the bird has been sighted at least 15 times. There has also been video footage of the ivory-billed woodpecker, and numerous recordings of the woodpecker's display drumming. Frame-by-frame analyses of the video clearly show features that distinguish the ivory-billed woodpecker from the very similar pileated woodpecker. Analyses of 18,000 hours of audio recordings seem to corroborate the findings.

The search team has focused its efforts in approximately 16 of the 850 square miles in the bottomland forests of Arkansas. John Fitzpatrick,



Arthur A. Allen

Louis Agassiz Fuertes Director of the lab, said that the next step is to broaden the search to assess whether breeding pairs exist and how many ivory-bills the region may support. To expand the area being monitored and minimize disturbance to the endangered woodpeckers, the team continues to use acoustic monitoring technologies as well as on-the-ground searches. Fitzpatrick said the team also encourages others to search for ivory-bills in suitable habitats throughout the South.

So far, the search for the elusive bird has resulted in more than \$10 million in donations to fund the search and acquire habitat critical to its survival.

For more information, visit [www.ivorybill.org](http://www.ivorybill.org).

Compiled from Cornell News Service reports by Samantha Wickham '08

## Cornell to Help Spearhead Next Green Revolution

In a time of skyrocketing gasoline prices and concerns over global warming, Cornell is helping to spearhead the next green revolution: using plants to produce energy, industrial chemicals, and green materials.

Awarded more than \$8.2 million in federal funding over four years through the recent signing of the federal Transportation Bill, Cornell has been tapped by the federal government as one of five Sun Grant Centers of Excellence—regional hubs that will lead biomass to energy and chemical research, education and outreach activities, and solicit and fund proposals that focus on using renewable agricultural resources to produce heat, electricity, biofuels, natural products such as biopesticides and bioherbicides, and industrial chemicals.

"Over the next 10 to 25 years, there will be a major transition to agricultural-based bio-industries," said Larry Walker, professor of biological and environmental engineering at Cornell and director of the Northeast Sun Grant Institute. "Genomics, nanobiotechnology, and breakthroughs in molecular biology, genetics, and biological engineering have opened up a broad spectrum of opportunities and challenges for manipulating microbial and plant systems to produce novel organic compounds and to meet part of the U.S. and world energy needs."

Involving at least two dozen Cornell faculty members, the institute was established in 2004 at Cornell.

The Northeast Sun Grant Initiative will focus on biopower (energy produced from renewable biomass for heat and electricity); biofuels (liquid and gaseous transportation fuels, such as bioethanol and biodiesel, made from biomass resources); and bioproducts (chemicals and materials that are traditionally made from petroleum-based resources but will be made from biomass). In each strategic area, initiatives will involve feedstock development, conversion processes, systems integration, and biomass public policy issues.

Currently, less than 10 percent of chemicals and commodities and less than 5 percent of U.S. energy demands are derived from agriculturally based resources, Walker pointed out.

A multitude of bio-energy and bioproducts projects are already under way on campus—many of them in the College of Agriculture and Life Sciences. For a complete list, see [www.news.cornell.edu/stories/Sept05/SunGrantInstitute.ssl.html](http://www.news.cornell.edu/stories/Sept05/SunGrantInstitute.ssl.html).

For further information: [www.nesungrant.cornell.edu](http://www.nesungrant.cornell.edu).

Susan Lang

## North Atlantic Right Whales Headed toward Extinction



Stormy Mayo

Northern right whales feeding in Cape Cod Bay.

One of the world's most endangered whales, the North Atlantic right whale (*Eubalaena glacialis*), is on a path toward extinction due to collisions with ships and entanglements in fishing gear, according to Cornell whale expert Christopher Clark. He urges emergency measures, such as reducing boat speeds, rerouting shipping lanes around the whales' migratory paths, and modifying fishing techniques and gear.

Estimates indicate only 350 North Atlantic right whales remain, and deaths are exceeding births by about 1 percent per year. North Atlantic right whales mostly live in heavily trafficked and fished coastal waters off the North American eastern seaboard, from Florida to Canada.

"Swimming between ships and lobster pot lines, whales are constantly facing the gauntlets of traffic and snares. It's hard for a big animal like that to get through," said Clark, the I.P. Johnson Director of the Bioacoustics Research Program at Cornell.

Since 1986, 19 out of 50 reported dead right whales were killed by collisions with vessels, and at least six confirmed deaths were from fishing gear entanglements. There were also 61 confirmed cases of entangled whales dragging fishing gear, including the six confirmed entanglement deaths.

The Department of Commerce and the National Oceanic and Atmospheric Administration are promoting emergency measures that include reducing ship speeds and rerouting commercial and military traffic, Clark said.

The Bioacoustics Research Program at the Cornell Laboratory of Ornithology has deployed moored buoys fitted with underwater listening devices that automatically detect whales and relay the data back to Cornell. Soon the near to real-time data will appear on a web site map; a ship's captain approaching a whale migratory path will be able to check the web site and avoid that area.

Both federal and state agencies are working with fishermen and engineers to create a rope that breaks at a tension point suitable for whales. The agencies will supply this rope free to fishermen and are instituting mandatory requirements for breakaway gear.

Efforts are also under way to reduce vertical lines from buoys on the surface to lobster pots on the sea floor by consolidating many pots on one line.

Krishna Ramanujan

## Challenge Industries Begins Operation of Cornell Hydroponics Facility



Kevin Stearns/University Photography

Greenhouse manager Bob LaDue of Challenge Industries led a tour of the facility Sept. 1 following the ribbon cutting.

A ribbon cutting was held on Sept. 1 to commemorate Challenge Industries signing of the license to operate the Cornell Hydroponics Facility in Dryden, N.Y., with Cornell University. A combination of cutting-edge greenhouse technology developed at Cornell and vocational assistance provided by the local social service agency, the 8,000 sq. ft. hydroponic greenhouse produces high-value greens, herbs, and lettuce, employs more than 12 people, and has lots of room to grow.

"This is a great example of real-world technology transfer moving to a very directed, day-to-day operation with clear beneficial results," says Lou Albright '63, MS '65, PhD '72, professor in the Department of Biological and Environmental Engineering and co-developer of the technology used in the greenhouse, who is enthused that the seven-year-old facility will continue to provide employment and food to the region.

"We're excited to be in the greenhouse business," says Patrick McKee, president of

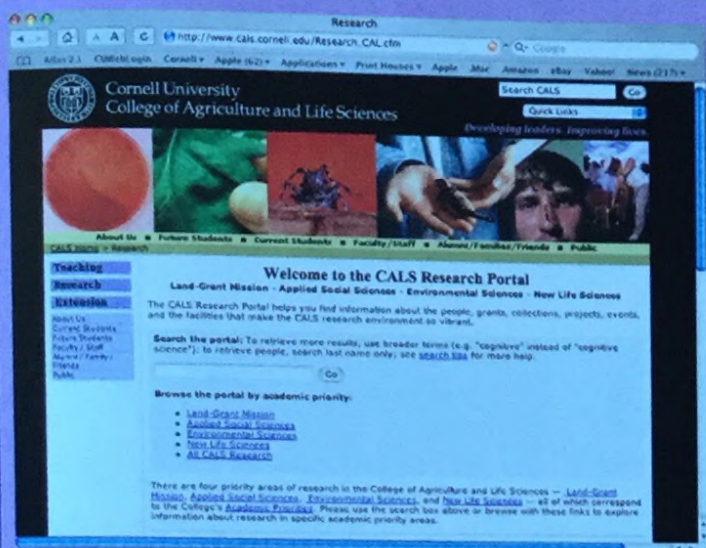
Challenge Industries. "This wonderful facility will allow Challenge to further its mission to provide vocational services to a wide array of individuals who face barriers to employment. It's a great place for our clients to work."

The greenhouse was built in 1998 to implement Controlled Environment Agriculture (CEA) technology developed by Albright and Robert Langhans MS '54, PhD '56, professor emeritus in the Department of Horticulture. CEA is an intensive agricultural method for improving growing practices by optimizing light, temperature, and other conditions. Running at peak capacity, the greenhouse is currently capable of producing more than 1,245 heads of lettuce daily.

Shifting the operation of the 8,000 square foot greenhouse to Challenge benefits workers, consumers, and the Ithaca community by partnering Cornell with Challenge Industries, New York State Electric and Gas (NYSEG), and the New York State Energy and Regional Development Agency (NYSERDA). The large-scale community economic development effort also involves the City of Ithaca through a Community Development Block Grant program, the Triad Foundation, and United Way.

Aaron Goldweber

## Web Portal Highlights Research Activities



A new web site—[www.cals.cornell.edu/research](http://www.cals.cornell.edu/research) presents the full scope of CALS research and makes it much easier for faculty, students, staff, and the public to find information. Initiated as part of the comprehensive redesign of the CALS web site, this new research portal, released in October, leverages the subject expertise of Mann Library's librarians and information management tools through a single point of entry.

"In addition to learning more about any individual faculty member's research," says Susan Riha, director for sponsored research for CALS and professor of earth and atmospheric sciences, "this new research portal will for the first time convey the breadth and depth of CALS research, from long-term international development programs to the most cutting-edge basic science, from the laboratory bench to applications already affecting the lives of New York citizens and people around the world today."

The four academic priority areas of the college—Land-Grant Mission, Applied Social Sciences, Environmental Sciences, and New Life Sciences—and faculty impact statements form the top-level entry points for the portal, with a common database underneath that cross-links content as appropriate. The web site's curators constantly update and add content.

The CALS research portal brings together people, departments, laboratories and other facilities, selected recent publications, and seminars and other training opportunities into a virtual community reflecting the college's dynamic interdisciplinary research connections. Each brief entry links directly to existing web sites throughout the college, assuring users a seamless navigation path to the information they seek.

Jon Corson-Rikert

Who's doing research in CALS on corn borers? What CALS research is funded by the National Science Foundation? Has anyone published an article this year on protein synthesis? Where are the CALS environmental research facilities? How is CALS research being applied to economic and social issues facing New York State?

## Invasion of the Crane Flies



Joe Ogorodnick, NYS Agricultural Experiment Station

Adult European crane flies look like large mosquitoes with extra-long legs.

Mosquitoes on steroids, with oversized bodies and extra-long legs, have invaded Erie and Niagara counties. Despite their intimidating size, these crane flies do not bite. That, however, is the only positive news.

Two exotic species, the European crane fly (*Tipula paludosa*), and a close relative (*T. oleracea*), sometimes called the marsh giant or giant common crane fly, have been discovered in New York State.

While the adults of these species are harmless, the larvae can severely damage all types

of turfgrass and forage grass species. The larvae are also known to attack seedling nurseries and a wide range of vegetable and small fruit crops. These pests feast on roots, causing yellow spots and bare patches in grass.

According to Daniel Peck PhD '96, assistant professor of soil insect ecology and turfgrass entomology at the New York State Agricultural Experiment Station in Geneva, N.Y., "Their arrival here was probably inevitable given that the European crane fly is widespread and firmly established in southern Ontario." He discovered the crane flies with colleagues Richard Hoebeke and Carolyn Klass '71, entomologists at Cornell, and Brian Eshenaur and John Farfaglia '79 of Cornell Cooperative Extension.

The two detrimental insects could pose major problems within the golf industry and other sectors of the turfgrass industry.

Because there are over 1,600 species of crane flies in North America, identifying the two dangerous species can be quite a task. If a homeowner or nursery operator detects damage to grass or crops, or notices a dense population of flies or larvae, Peck recommends taking a sample to a local Cornell Cooperative Extension Office to confirm the species.

By next spring, Peck hopes to have more recommendations; he is currently testing various chemical and biological pesticides.

For the most up-to-date recommendations, visit the Cornell Cooperative Extension web site: <http://cuturfgrass.org>.

Susan Lang

### EDITOR'S CORRECTION

In the "Dean's Message" in the summer issue, we inadvertently omitted reference to former Dean Daryl Lund's trips to Asia. He visited Asia on at least two occasions, once to Hong Kong and once to China. Lund's visit with the Ministry of Agriculture in China led to further relations between Cornell and China through Norm Scott, professor of biological and environmental engineering, and others in the International Program. CALS was a leader in enhancing relations with China, and Lund served on President Rawling's China Initiative Steering Committee.

Currently, Lund serves as the USDA's executive director of the North Central Agricultural Experiment Station Directors, and is on the faculty of the food science department at the University of Wisconsin, Madison. He served as the Ronald P. Lynch Dean of Agriculture and Life Sciences at Cornell from 1995 to 2000.



# Eradicating Mosquito-Borne Illnesses

BY LINDA MCCANDLESS

In June, Laura Harrington and a global team of scientists were offered a \$19.7 million grant from the Foundation for the National Institutes of Health to devise new genetic strategies to control the *Aedes aegypti* mosquito that transmits dengue fever.

**L**aura Harrington's research with the mosquito that carries dengue fever almost cost her life. She contracted the viral disease in 1998, after working with the insects for three years. Like thousands who are infected, she experienced excruciating joint, muscle, and eye pain and a raging fever. Lying under a mosquito net in northern Thailand, too weak to stand, the medical entomologist wondered why there was no vaccine or clinical cure for the disease. Her recovery strengthened her resolve to continue studying the *Aedes aegypti* mosquito that transmits the dreaded disease.

Seven years later, Harrington and the worldwide team of researchers who study *Ae. aegypti* have made great strides in understanding the mosquito's behavior and complex disease transmission patterns. And their work is being noticed in a big way. Under the leadership of Anthony James at the University of California at Irvine, the team was recently offered a \$19.7 million grant from the National Institutes of Health to develop and deploy genetic strategies to deplete or incapacitate the insects that transmit dengue viruses. The grant is part of the Grand Challenges in Global Health Initiative funded by the Bill and Melinda Gates Foundation.

"Our goal is to render *Ae. aegypti* incapable of transmitting dengue," says Harrington, a professor in the Department of Entomology in the College of Agriculture and Life Sciences whose share of the grant is around \$750,000. "My primary role will be to conduct laboratory assessments of mating competitiveness and fitness, establish field sites, and characterize wild populations in the field. The project would end with field-cage releases of successful candidates."

Harrington will collaborate with international leaders in arthropod behavior, epidemiology, ecology, evolutionary biology, genetics, parasitology, and ethics. Some members will optimize genes for population replacement and reduction; some will develop safe and efficient systems for introducing the modified genes into the mosquito; others will concentrate on ethical and public policy dimensions.

By the year 2010, the team expects to have developed control methods that target larvae and adult mosquitoes, altered the mosquito's abilities to transmit dengue viruses, and tested and compared the efficacy of the vectors in secure field cages at sites approved by local communities and relevant government bodies.

"This project is different from others, not just because of the sheer number of scientists working together to tackle the problem, but because the Bill and Melinda Gates Foundation, which is underwriting the grant, is asking us to follow a business



Harrington works in a field laboratory in Thailand.

design of production and accountability," Harrington says. "Within five years, they want deliverable results. Along the way, they want measurable outcomes."

### **The Harrington approach in the field**

Harrington first became fascinated with mosquitoes when she read about mosquito-transmitted diseases as an undergraduate at St. Lawrence University. She pursued a master's degree in entomology at North Carolina State University, went to work as an agricultural biologist, then returned to academia to pursue a Ph.D. in medical entomology at the University of Massachusetts Amherst. There she had the opportunity to study mosquito behavior in Thailand. A postdoctoral position at the University of California–Davis with Tom Scott helped her develop forensic DNA analysis as a way to understand mosquito feeding preferences. She came to Cornell as an associate professor in May 2001.

Harrington is part of the new generation of medical entomologists who have experience in both the laboratory and

the field. The dual experience makes her an essential member of the dengue fever team. Harrington's work in the first year of the grant will be to select field sites and characterize the biology of the wild population. In the second or third year, she will start working with the genetically modified mosquitoes that are being developed by the rest of the team. Harrington will compare the relative fitness of the two populations by looking at the survival, competition, and reproductive output of the modified versus the unmodified mosquito populations.

Harrington is experienced in catching and releasing wild mosquitoes. She and her team catch the mosquitoes with a vacuum, anesthetize them by chilling, mark them behind the head, release them, and recapture them some number of days later. They mark their subjects with fluorescent powder or nontoxic water-based paint applied with a single-bristle paint brush. A team of graduate students and local villagers can mark about 2,000 mosquitoes in four hours.

## What Is Dengue Fever?

For medical entomologists like Laura Harrington who study tropical diseases caused by blood-sucking arthropods, dengue fever (DF) is an occupational hazard. Sometimes called "break-bone fever," dengue occurs most frequently during and shortly after the rainy season in tropical and subtropical areas of the world. The disease is transmitted by female *Ae. aegypti* mosquitoes that feed on human blood to obtain the necessary proteins for breeding and egg-laying.

The symptoms of DF and its more serious forms, dengue hemorrhagic fever/dengue shock syndrome (DHF/DSS), are grim. In addition to pain and fever, some sufferers lose hair and develop rashes, bleeding gums, and lingering depression. In a small percentage of sufferers, DF becomes DHF or DSS, which can be fatal to infants or those with compromised immune systems. Without early and intensive hospital treatment, people bleed to death.

The disease is also complex. DF, DHF, and DSS are caused by four closely related but genetically distinct viruses called "serotypes." And therein is the difficulty, according to Harrington. Once a person's immune system has successfully fought off and "memorized" an infection by one serotype, it can become "confused" with infection by a different serotype, which can result in more severe illness.

*Ae. aegypti* is one of 250 species of mosquitoes in the world that has been "uniquely domesticated." Harrington explains that immature mosquitoes develop primarily in manmade water containers located in or close to human dwellings. Adult females rest indoors and are frequent feeders. Even when hosts like dogs, pigs, rodents, and chickens are available, the females prefer humans. Extended flight is unnecessary because food, mates, and egg-laying sites are readily available.

Like malaria and yellow fever, DF is a socioeconomic disease that targets people in the tropics in developing nations. There, water is stored in open containers and houses are frequently open to the outside, making it easy for mosquitoes to move right in. The increasing urbanization that characterizes developing countries makes transmission worse because poor sanitation conditions make ideal breeding sites.

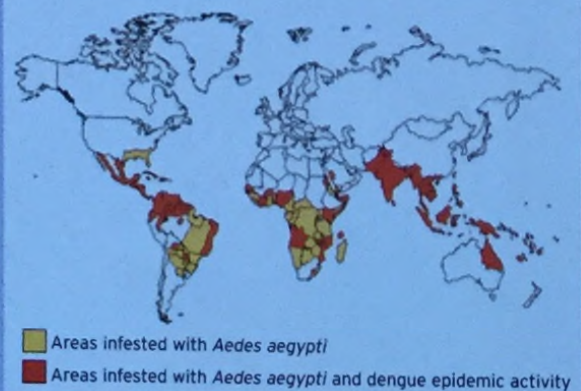
Dengue is not the killer that malaria is, but in some parts of the world, its economic impact in terms of disruption to quality of life and economic productivity rivals the burden of HIV, tuberculosis, or hepatitis. The World Bank measures dengue's impact in "disability-adjusted life years." In Southeast Asia, it is public-health enemy number one.

Once a sporadic illness, dengue is on the rise. The World Health Organization reports 500,000 dengue fever cases each year, but estimates that as many as 50 million people are infected annually. And while it is a largely unknown disease in the United States, 100 to 200 cases are reported annually to the U.S. Centers for Disease Control and Prevention, mostly in people who have recently traveled abroad.

Dengue's comeback has been triggered by a number of factors. Widespread eradication efforts using integrated programs of environmental management and insecticides peaked in the 1940s to 1960s, and were disbanded in the early 1970s. Since then, urbanization, refugee movements, world travel, and trade are spreading vectors and diseases far and wide. Dengue infects millions of people worldwide and millions more are at risk (two-thirds of the world's population), particularly in sub-Saharan Africa, Southeast Asia, China, India, the Middle East, the Caribbean, Central and South America, Australia, and the Pacific.

Over the past 50 years, the incidence of dengue has grown 30-fold.

### World Distribution of Dengue - 2000



"What we discovered was that the mosquitoes themselves don't move very far, and females feed almost daily on people, which is more frequently than we had hypothesized," she says. This dramatically increases the frequency of mosquito contact with human hosts and increases the potential for dengue virus transmission. Harrington's work helps explain why dengue can persist when few mosquitoes are present, and why a small number of infected mosquitoes or people can kick-start an outbreak.

Through other work, Harrington and her colleagues have also shown a fitness advantage for the dengue vector mosquito to feed on humans. Females have the ability to utilize blood for energy as well as successful reproduction and can require several blood meals compared with the single blood meal required by most other mosquitoes for each egg-laying cycle.

### The FNIH grant

In the Foundation for the National Institutes of Health (FNIH) grant, Harrington and the rest of the team will test subsequent generations of mosquitoes for fitness as well as the mosquitoes' inability to transmit the dengue virus—the desired outcome of the project.

"Our team is focusing on a variety of population reduction and replacement strategies such as traditional sterile insect techniques as well as targeting the genes that code for the virus-binding proteins," Harrington says. "If we can knock out the genes that code for these proteins, then we can eliminate the ability of the virus to invade the mosquito, ultimately saving humans from exposure to the disease."

Harrington will assess "survivor" and "dating game" strategies of both the wild and modified mosquitoes. There are no mini treadmills or flight meters to assess mosquito fitness. Instead, she will use life table assessments and mark-release-and-recapture techniques, coupled with DNA analysis, to assess and compare key behavioral characteristics in both populations.

Linda McCandless



Thomas Scott

Dengue fever targets people in tropical developing nations, where water is stored in open containers and houses are frequently open to the outside.

"Survivor" starts in the laboratory. The "dating games" start when she releases wild females in cages with modified and wild males to determine which males the females prefer.

The "cages" will be large biosphere-type structures made of steel and mesh. There will be five of them, each about the size of a football field, that will simulate the field environment as closely as possible. For instance, because the *Ae. aegypti* uses people's houses as resting sites, entire homes will be built and enclosed in the chambers. Both wild and modified mosquitoes will be tested. A double set of airlocked doors will contain them. At the end of the study, the cages may be used by the villagers for horticultural or other purposes.

Harrington is careful to note that the project does not involve releasing any modified mosquitoes into the field. All work with the modified mosquitoes will take place in these controlled, screened, and secure cages in geographically isolated locations. Final site selection is contingent upon national, regional, and local community willingness to consider genetic control as part of an integrated dengue control program. Potential sites include Mexico, Peru, or Trinidad.

Because it is new work—and some of the first on genetic modification of arthropods—officials from the FNIH will be involved in grant administration, protocol, review, and policy. Colleagues and ethicists in host countries will be involved in approval, administration, and review. Local villagers will be hired to help with the project at several levels.

At the end of five years, sufficient progress in caged-field experiments and discussions with stakeholders and regulators could result in limited open-field trials.

"We have a very long way to go before we get to open field releases," Harrington says. "But I'm confident the team will succeed in our ultimate goal, which is to eliminate dengue as a human illness."

## The Bill & Melinda Gates Foundation

The Grand Challenges in Global Health Initiative was launched by the Bill & Melinda Gates Foundation in 2003, in partnership with the National Institutes of Health, with a \$200 million grant to the Foundation for the National Institutes of Health (FNIH). The major international effort to achieve scientific breakthroughs against diseases that kill millions of people each year in the world's poorest countries is funded with a \$450 million commitment from the Gates Foundation, \$27.1 million from the Wellcome Trust, and \$4.5 million from the Canadian Institutes of Health Research (CIHR). The initiative is managed by global health experts at the FNIH, the Gates Foundation, the Wellcome Trust, and the CIHR.

In June, 2005, the Grand Challenges initiative awarded 43 grants totaling \$436.6 million for a broad range of innovative research projects—among them, Harrington's dengue project.

The ultimate goal of the initiative is to create "deliverable technologies"—health tools that are effective, inexpensive to produce, easy to distribute, and simple to use in developing countries.



World Health Organization

[www.entomology.cornell.edu/Faculty\\_Staff/Harrington/default.html](http://www.entomology.cornell.edu/Faculty_Staff/Harrington/default.html)

[www.grandchallengesgh.org](http://www.grandchallengesgh.org)

[www.gatesfoundation.org/default.htm](http://www.gatesfoundation.org/default.htm)

[www.fnih.org](http://www.fnih.org)

For more information

# Integration Is Crucial for New York's Rural Immigrants

More and more of New York's farmworkers are Mexican immigrants who have settled permanently with their families in rural areas. Their potential for success depends on their integration into the social and economic life of their communities.

BY AARON GOLDWEBER



Visit a New York State agricultural community these days and much of what you find will be familiar: the red pickup trucks, the knee-high muck boots in the field, and the long work days. But move in for a closer look and you'll find some dramatic changes have taken place over the last decade. The music playing in the trucks is Monchy y Alexandra's latest hit from Mexico. The people wearing those muck boots are speaking Spanish. And the weekends are given over to soccer—or *fútbol*—matches.

Mexican immigrants now make up 95 percent of the workforce on New York's fruit and vegetable farms. As the farmworkers are increasingly choosing to permanently settle with their families in these rural communities, their year-round presence is also starting to be felt. Cornell researchers Max Pfeffer and Pilar Parra say that while these newly forming populations are a potential boon to areas struggling with post-industrial economic downturn, their ability to integrate into their new communities is a key to their long-term success and, ultimately, the success of the areas they now call home.

"If the communities don't start addressing the needs of the immigrants right now, there's the risk of opening up a cycle of poverty that will be extremely difficult to break," points out Pfeffer, professor of development sociology in the College of Agriculture and Life Sciences. Pfeffer conducted a study of five New York agricultural communities with Parra, a research associate in Cornell's Division of Nutritional Sciences. "The immigrants have had some economic success since

Immigrants often find it difficult to find transportation, because automobile purchase is expensive and drivers' licenses are not available to noncitizens without immigration documents. Taxi services have been organized by immigrants in some of the more urban communities. Immigrants who own autos sometimes subcontract with taxi dispatch services to provide transportation for others, such as the man in the photo.



Lucy Romero

This multigenerational family, which has settled in upstate New York, is gathered with others in a community center after Sunday Mass.

arriving, but there's no guarantee this will continue, and the host communities may find themselves with a population of poor, uneducated immigrants."

### Population shift

Historically, farmworkers in New York were African Americans from the southern United States, working first as migrant laborers and sometimes settling into rural communities. As recently as the early 1990s, African Americans still dominated the migrant farm-labor ranks. Recently, this has changed dramatically, with African Americans getting into different lines of work and moving to urban and suburban areas throughout the state.

"The growing number of Hispanics is related to the changes in the agricultural workforce in New York and nationwide. Increasing numbers of these farmworkers and their families settle in upstate New York communities where they work and then face various challenges and opportunities as they seek to become integrated in the social and economic life of the community," Pfeffer says.

The ethnic composition of New York's farmworker population became overwhelmingly Hispanic in 2000 com-

pared with being predominantly African American in 1989. As a result, according to Pfeffer and Parra, the Hispanic population in the New York communities they studied grew by nearly 70 percent between 1980 and 2000, while the African-American population grew by just under 30 percent, and the nonminority population (i.e., people who identify themselves as "white") declined by 2.3 percent.

"The migration of southern blacks has petered out recently, while the surge in Hispanics is likely just beginning," Pfeffer says. "The growing tendency for Mexican immigrant farmworkers and their families to settle in the U.S. will attract even more Mexicans to established communities. It has a snowball effect. It's just getting started."

Also of note is that the locations in Mexico where the immigrants are coming from have changed. These new, so-called "feeder" locations are sending Mexicans with very different backgrounds than those of people already in the United States.

"The crisis in the Mexican countryside has led to people deciding to head north to the U.S.," Parra says. "In the past, Mexican immigrants mostly came from northern states closer to the border, while many

# Gathering Data: Sociological Research Methods



The following are excerpts from the researchers' explanation of their data collection:

Understanding the integration of immigrants into rural communities is a demanding methodological task. Our research took into account the time sequence of immigrant assimilation, the demographic and cultural characteristics of the immigrant groups, and the destination community. To fully understand these complex factors, we compared former farmworkers who have settled in rural communities with current foreign-born farmworkers.

The qualitative data we draw on come from 41 interviews with key informants and 18 focus groups each with between four and 15 male and female participants (149 total). We conducted seven focus groups with Mexicans (three with groups of migrant workers and four with persons who had settled in our study sites), two groups of Puerto Ricans, two groups of African Americans, and one group of Haitians and Jamaicans. . . . We also conducted seven focus groups with long-term nonimmigrant residents in the communities. . . . The quantitative data include survey data for three target groups: current farmworkers, former farmworkers, and nonfarm community residents.

The examination of the qualitative data provided the general guidelines for the development of our survey instruments. We designed three questionnaires for each target population: current farmworkers, former farmworkers, and nonfarm residents. Altogether we conducted 2,488 interviews with farmworkers, former farmworkers, and other residents in the five communities included in our study.

Additional sources for this study were the U.S. Census of the Population (1980, 1990, 2000) and the Rural Opportunities Incorporated client base data.

Reports based on this research can be obtained at [http://myi.cornell.edu/poverty\\_and\\_social\\_inequality](http://myi.cornell.edu/poverty_and_social_inequality).

today are from traditionally agricultural areas in the central or southern states like the state of Puebla."

The tendency for these new, farmworking immigrants to settle in the United States—not returning to Mexico each winter, as has been the norm—is the result of a number of factors.

"Much of it is because of changing conditions in Mexico like cutbacks in government subsidies to agricultural producers that began in the early 1990s. These cutbacks undermined many livelihood possibilities," Pfeffer says. "So, they've decided to start calling the U.S. 'home.'"

## Cultural obstacles

To gain insights into the cultural differences that populations encounter, the researchers collected anecdotes from residents; these provide a sense of the day-to-day flow of life in these communities.

"Hispanic business owners pointed out that the vast majority of their patrons were also Hispanic. They are also aware that an untapped white population could shop their stores," Pfeffer says. "The Mexican immigrants are doing a great job revitalizing largely abandoned downtowns in a couple of these communities. Businesses are opening. People are spending time in the heart of town."



Young immigrant families with children are settling in upstate New York.

Pfeffer continues: "Hispanic business owners often complained that the white residents would not come to their stores, even though they made efforts to attract new patrons. To promote sales, Hispanic businesses often cover their windows with huge signs touting their products and the excellent prices, but few white customers shop in their stores or eat in their restaurants."

Shop owners are often frustrated, according to Pfeffer. "They don't understand why whites don't shop at their stores, despite the great prices. The answer in this, though, was revealed when we asked white residents about the store and the sale. They said they didn't enter the store precisely *because* the windows were covered with signs! They couldn't see inside, so they didn't know what was in the store. Some were nervous to enter; others simply couldn't tell if they would find what they needed in there," he says.

According to Pfeffer and Parra, these types of misunderstandings—and even more important, general lack of awareness of the cultural differences—lead to confusion, fear, and further isolation that have potential to preclude social and economic advancement for the newly arrived Mexicans.

"The new host communities need to address the potential of the Mexican immigrants hitting an economic plateau. For most Mexican immigrants in rural New York, their first foothold in the U.S. is through agriculture, but the true test for how they fare is what will happen to them after they settle outside the migrant labor stream and into more permanent farm and nonfarm jobs," Pfeffer says. "The potential for these cultural differences to become cultural obstacles is really put to the test in these encounters away from the farms."

## Keys to integration

Pfeffer and Parra say the shift from migrant farmwork—dropping from 85 to 40 percent in the 1990s—to more permanent or seasonal farmwork has resulted in a substantial increase in the number of farmworkers with families in the state. The researchers found that farmworkers with family present are twice as likely



An annual fall festival in an upstate New York community celebrates Mexican culture with traditional dances.

to understand, speak, and write English and are generally more educated when compared with their counterparts without family nearby—both key factors in facilitating the social and economic integration of farmworkers into community life.

To encourage the future success of the new immigrants, and as part of a community-development strategy, the researchers conclude, “English-language training should be a priority aimed at improving the lives of farmworkers. Such training is also likely to benefit communities where farmworkers settle and become self-reliant, productive, and satisfied residents.”

Parra points out, “Farmworkers have overwhelmingly said that they want to learn English and to become more culturally literate about the U.S. They feel they’re at a disadvantage by not knowing these things.”

According to the researchers, the factor that most directly influences the likelihood of farmworkers entering the economic mainstream by working an off-season, nonfarm job and opening a bank account is their English ability. Of the Hispanic farmworkers with family present who had opened a bank account, 65 percent of them are classified as “self-reliant”—a tag largely based on one’s ability to travel, communi-

cate, and attempt to gain services unaided.

While studying social integration (the formation of relationships with community members who are neither Hispanic nor farmworkers), the researchers again found English-language ability the most important factor. Fewer than 20 percent of farmworkers who did not understand English had close American friends, while 60 percent of those able to write English did. Such friendships are an important part of becoming integrated into the communities’ mainstream social and economic life.

### Community development

Ultimately, judgments about how the new Mexican population in New York has fared are directly connected to how they move “out of the migrant stream” and into nonfarm jobs. How to help this process along is the next step now that Pfeffer’s and Parra’s research phase is complete.

“Learning from how small communities have adapted to shifts in population can help other changing communities,” Parra says. “Obviously, what can and needs to be done to accommodate a new, poor immigrant population is not always easily agreed upon. Members of the community don’t

even necessarily agree about what’s happening around them. Schools and churches, for example, see the issue from different angles, and this leads to different ideas.”

One huge influence on the way members of a community choose to approach the issue is simply their awareness of the scale of the population shift. Parra points out that many in the community may not even be aware that settled immigrants are there.

The first move, then, may be heightening visibility—educating the communities about their immigrant population: who they are and what they’re like.

Parra says, “The nonimmigrants in these communities are largely ambivalent toward the immigrants most likely due to a lack of awareness or knowledge about the situation. Simply getting them to think about the issues will likely bring out stronger opinions.”

The communities studied share many characteristics with other post-industrial, struggling communities across the United States. Many of these communities were once booming, so even though the economic downturn has been happening for decades, they don’t see themselves as poor communities with minority populations.

“It’s almost like some community members think that any day things are going to change back to the way they were. They don’t want to see themselves as lesser or diminished,” Pfeffer concludes. “Yet, the immigrants are opening new stores, crime is down, and overall safety has increased. They’re bringing a new vitality to these areas. It’s a wonderful opportunity for economic and community development with potential long-term benefits for long-suffering areas.”



This sea fan is infected with aspergillosis. The purple marks are large zones of induced resistance surrounding fungal lesions.

# the coral killers

Concern about worldwide coral die-offs has propelled Professor Drew Harvell to study the diseases threatening the survival of coral and the habitats they provide.

BY JEANNIE GRIFFITH

For the past 400 million years, coral have endlessly and methodically pulled calcium from seawater and deposited it around themselves as calcium carbonate, or limestone. Inch by painstaking inch, these primitive sea masons have constructed great, sheltering edifices that have allowed a remarkable diversity of life to take hold on the tropical fringes of continents and on the rims of volcanoes submerged in the open ocean.

But for reasons that are not fully understood, the work of eons has been degraded during the past two decades. Coral death from disease is now a regular occurrence, although its true extent is not known. The worst die-off in recent history (there have been mass extinctions in fossil history that were likely worse) took place in 1998, a very warm year with a significant El Niño effect. From the Indian Ocean to Australia to the Caribbean, most of the coral turned white—a phenomenon known as bleaching—and a devastating 16 percent of the world coral population is estimated to have died as a result.

"Bleaching is a sign of stress in coral," explains Drew Harvell, a professor of ecology and evolutionary biology. "It means that they are expelling the symbiotic algae that give them color." These algae also supply coral with the energy needed to crank out calcium carbonate, and their loss has led to the widespread destruction of coral reef habitat.

The Caribbean has been a hot spot for disease since the mid-1980s, when white-band disease began killing staghorn coral, the mainstay of many reefs. Marine scientists estimated that 95 percent of it may have died in some locations. About 10 years later, an outbreak of aspergillosis, a fungal infection, was discovered in sea fans. "The epidemic was Caribbean-wide by the time anyone noticed it," says Harvell, who has since become a leading expert in sea-fan disease resistance. Beyond those waters, she says, most of the world's coral has not yet been assayed for infectious disease.

That is now changing, thanks to a 15-year project, Coral Reef Targeted Research and Capacity Building, launched last year by the World Bank with major support from the Global Environmental Fund. Harvell has been tapped to chair one of six research teams carrying out the unprecedented worldwide initiative, which will receive more than \$20 million in funding for the first five years. "This will be cutting-edge research performed at the highest level possible," she says.



The coral disease working group in Palau included Cornell participants Jessica Ward, PhD student (back row, third from left), Drew Harvell (back row, fifth from right), Laurie Raymond PhD '00 (at Harvell's left), and Sue Merkel MS '88 (front row, third from right).

Harvell's group, which includes micro- and molecular biologists and ecologists from Mexico, Guam, Israel, Puerto Rico, Australia, and the east and west coasts of the United States, has been charged with studying the distribution, causes, and impacts of coral disease worldwide. Other working groups will address coral bleaching, connectivity (the flux of various suspended particles between geographic locations), modeling of human interactions with coral reefs, remote sensing, and restoration.

The largest part of the project for Harvell's team will concern the global assessment, which she says is aimed at identifying the microorganisms that are causing disease in coral and finding out how well the coral are defending themselves. This work should keep the group well occupied: while around 30 coral disease syndromes have been described so far, only five causative pathogens have been linked to those diseases. Many of these syndromes are new discoveries, and there may well be many more left to discover.

Why is disease suddenly such a problem in coral? Harvell and other coral experts have a good idea about some of the causes

of coral stress, beginning with global climate change and the increasing load of nutrients, pathogens, and other pollutants that are flowing down rivers and ending up in the oceans as a result of human activity. "Warmer temperatures are favorable to the growth of many infectious organisms," she says. "And we think that higher temperatures may also weaken the coral, making them more susceptible to infection."

But diseases have also been found to spread more readily in the oceans than on land, both in terms of speed of travel and because of the lack of natural barriers to their transmission. Furthermore, marine sediments, brackish water, and crevices in reefs all appear to serve as reservoirs for certain pathogens. The human intestinal tract is also home to bacteria that ultimately make their way to the oceans. Organisms with reservoirs such as these have the potential to persist in the environment long enough to kill every member of a coral species, according to Harvell. Among the goals for her team will be to determine reservoirs and vectors for specific disease-causing organisms, areas about which virtually nothing is known.



Jason Andras

Diving with Drew Harvell (center) are Krystal Rypien (left) and Jessica Ward, who both are grad students in Harvell's lab.

So far this year, Harvell and other members of her laboratory have spent a total of eight weeks working in Zanzibar, Mexico, Hawaii, and Palau, an island nation at the westernmost edge of the Caroline chain in the Philippine Sea. In these and other locations, they are quantifying nitrogen and sediment loads and assessing the disease status of the coral to detect correlations between numbers of diseased corals and differences in the microbial communities living in the water, in the sediment, and on the coral.

Back in Harvell's laboratory in Corson Hall, her group will use various molecular approaches to analyze changes in the complex, protective microbial communities living in the surface mucous layer of healthy, stressed, and diseased coral. Harvell and colleague Steve Ellner PhD '82, also a

professor of ecology and evolutionary biology, have a large NSF-funded project through the Ecology of Infectious Diseases panel to study and develop models of how coral immunity responds to different environmental stressors. They will begin by using gorgonian sea fans, whose immune responses Harvell has studied extensively, as a study system.

Another important aspect of the World Bank project is the training of scientists in the regions where coral reefs are being studied. The project includes a capacity-building component that will be carried out in Mexico, East Africa, Australia, and the Philippines, the countries where the World Bank has established Centers of Excellence for this project. This year, the project is offering several graduate and postdoctoral fellowships to trainees from

# Cornell Means Business

Undergraduate Business Program  
Enters New Era



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As of 10/28/05

# Cornell Means Business

UNDERGRADUATE BUSINESS PROGRAM ENTERS NEW ERA

"The success of the campaign has significantly elevated the profile of the Undergraduate Business Program across the campus and among industry recruiters, alumni, and prospective students."

**Susan A. Henry, Ph.D.**

The Ronald P. Lynch Dean of Agriculture and Life Sciences

By George Lowery

The recently successful \$20 million capital campaign to strengthen Cornell's Undergraduate Business Program (UBP) promises to vault the program to greater national prominence.

With \$18.6 million for eight new faculty professorship endowments and \$1.4 million in teaching support endowments, "Cornell is poised to compete with the best undergraduate business programs in the United States," says Edward McLaughlin, UBP director and the Robert G. Tobin Professor of Marketing.

"The success of the campaign has significantly elevated the profile of the Undergraduate Business Program across the campus and among industry recruiters, alumni, and prospective faculty and students," says Susan A. Henry, the Ronald P. Lynch Dean of Agriculture and Life Sciences. "The program is now

ranked #12 in the U.S. out of more than 400 programs—an extraordinary position to be in fewer than three years after accreditation, and a clear testament to the strengths of the program and the dedication of Cornellians and friends. The impact of the campaign has been nothing short of wonderful."

Campaign co-chair Stephen B. Ashley '62, MBA '64, president of the Ashley Group, a real estate management firm in Rochester, New York, and an "Ag Econ" major (one of the UBP's predecessor majors), knows the program well. "Cornell offers its undergraduates a multidisciplinary business education that is unique in American higher education. Students take substantive courses in business, economics, and management, while meeting requirements in the biological and physical sciences, and the humanities. The breadth and diver-



## Up Two Spots and Climbing!

In only its second year in the *U.S. News & World Report* rankings of undergraduate business programs,

Cornell's Undergraduate Business Program (UBP) has risen two spots to #12.

Cornell's climb in the rankings, which are based on an annual survey of business school deans and senior faculty at the 430 accredited undergraduate business programs in the U.S., reflects a growing national recognition of the UBP's small, highly selective student body, real-world approach to teaching and research, and flexible, liberal arts-based curriculum.

1. Pennsylvania (Wharton)
2. MIT (Sloan)
3. Berkeley (Haas)
3. Michigan-Ann Arbor (Ross)
5. Carnegie Mellon (Tepper)
5. NYU (Stern)
5. North Carolina-Chapel Hill (Kenan-Flagler)
5. Texas-Austin (McCombs)
9. Southern California (Marshall)
9. Virginia (McIntire)
11. Indiana-Bloomington (Kelley)

## 12. Cornell University

## What Is the Undergraduate Business Program?

The Department of Applied Economics and Management in the College of Agriculture and Life Sciences (CALS) is home to Cornell's Undergraduate Business Program (UBP). With more than 700 students, it is Cornell's second-largest undergraduate major and one of its most selective, yet it is one of the smallest four-year undergraduate business programs in the U.S.

Long considered one of Cornell's best-kept secrets, the UBP is noted for its distinctive character that arises from its strong applied economics tradition and its location in a college that stresses the practical application of science to the solution of critical social problems.

The UBP's 41 full-time faculty hold advanced degrees in business, economics, law, statistics, and accounting. UBP students major in applied economics and management (formerly agricultural economics and then applied economics and business management) and choose among six specializations: business, agribusiness, food industry management, farm business management and finance, environmental and resource economics, and agricultural and applied economics.



"Cornell offers its undergraduates a multidisciplinary business education that is unique in American higher education. The breadth and diversity of the experience is unusual in undergraduate business programs and that's a tremendous strength."

Stephen B. Ashley '62, MBA '64

sity of the experience is unusual in undergraduate business programs and that's a tremendous strength."

Ashley is bullish on the Undergraduate Business Program's future. "While honoring its roots in agricultural economics, the UBP has broadened its scope. We are going to see the development of connections between the program and the life sciences, computing sciences, and nanotechnology. I hope you'll see greater student involvement in this program with the questions of ethics, which are best developed through the study of the humanities and cultural issues. The UBP of the future will provide students with opportunities to learn more about parts of the world that we know less about than perhaps we should. Cornell has so much to offer in interdisciplinary

work to provide students remarkable experiences and strengthen the uniqueness of this program."

The breadth and depth of the UBP prepares graduates who are prized by top recruiters, including global enterprises such as Goldman Sachs, S. C. Johnson, and Lehman Brothers. "These students are really very far along in their maturity, outlook, applied knowledge, and broad base of knowledge," Ashley notes.

Reflecting on the campaign, Ashley says, "We set out to create five endowed professorships and endowed eight. We still have some work to do in raising money for facilities, but the big-ticket item as far as meeting the needs of the accrediting team was endowing faculty positions. Faculty are the heart and core of the UBP."

## Undergraduate Business Program Time Line

### 1910s

The Department of Farm Management is created in 1911. George F. Warren serves as department head. Founding faculty members view farming as a business, not a way of life.

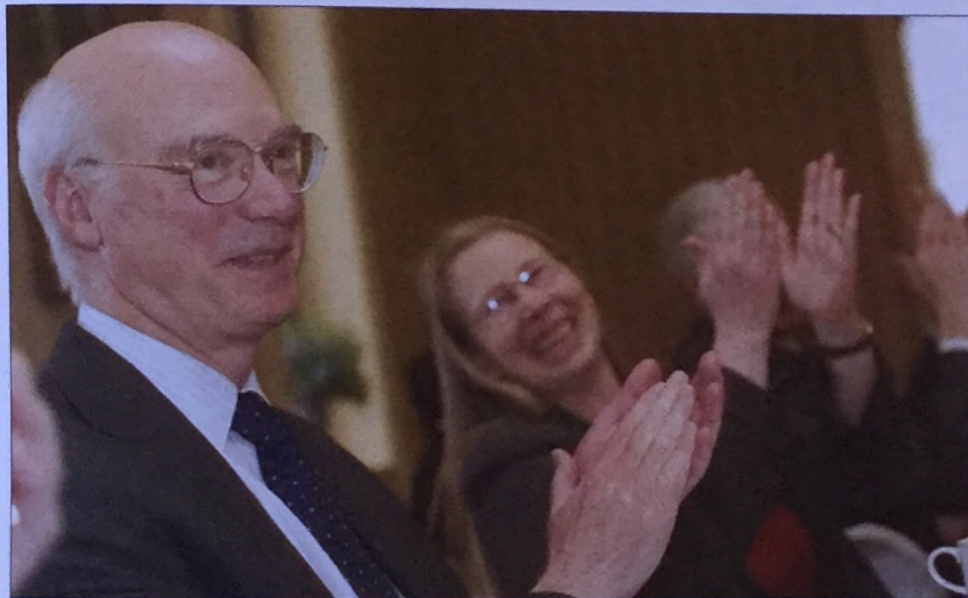
### 1920s

The newly named Department of Agricultural Economics and Farm Management adds faculty and programs in land economics, farm finance, marketing and cooperatives, and local government.

## Eight New Professorships

Of the eight new professorships, two were established early in the campaign, providing invaluable momentum—the John S. Dyson Professorship in Marketing and the Susan Eckert Lynch Professorship in Science and Business.

The **John S. Dyson Professorship in Marketing**, the first to be established following the UBP's accreditation, was endowed by Robert R. Dyson, MBA '74 to honor his brother John '65, a Cornell graduate in agricultural economics, creator of the



John S. Dyson '65 and Dean Susan Henry

"John has given an enormous amount of his time, knowledge, and passion to the university. We are business people. It was a logical step to bring all of our interests together in this professorship."

Robert R. Dyson, MBA '74

## 1930s

Faculty play key government roles during the Great Depression. W. I. Myers is appointed governor of the Farm Credit Administration. George Warren serves as an advisor to President Franklin D. Roosevelt on monetary policy. Construction of Warren Hall is completed in 1934.

## Accreditation and the Capital Campaign

In 1999, a panel of four respected business school deans representing AACSB International—The Association to Advance Collegiate Schools of Business (AACSB) conducted, for the first time ever, a three-day site visit of Cornell's Undergraduate Business Program (UBP). At the end of their visit, Paul Danos, dean of the Amos Tuck School at Dartmouth College, remarked, "I can't believe a program this good has existed so long and so completely escaped my attention." Before final accreditation could be granted, however, the review team asked Cornell to address several concerns.

A primary concern was the faculty's heavy teaching loads—created by high student demand—that left them insufficient time to focus on research and other scholarly activities. The deans also strongly recommended an overall reduction in class size, particularly at the upper-division level, through the development of new courses, and they noted the need to modernize Warren Hall's almost 80-year-old classrooms to facilitate student interaction and enhance learning.

Under the leadership of Susan A. Henry, the Ronald P. Lynch Dean of Agriculture and Life Sciences, the college successfully answered the AACSB's concerns, resulting in the UBP's official accreditation in 2002. Dean Henry's tireless support of the UBP since joining Cornell and the successful completion of the capital campaign have already enabled the program to add 12 new faculty members and 30 new upper-level courses, and ambitious plans are under way to fund and modernize classrooms in Warren Hall.

## Undergraduate Business Program Teaching and Faculty Excellence Endowments

Abner Family Undergraduate Business Program Teaching Excellence Endowment

Timothy and Kelly Joan Brown Visiting Lecturer Endowment

Dallas Business Program Teaching Excellence Endowment

Zed and Cheryl Francis Undergraduate Business Program Faculty Excellence Endowment

Alexandria Galligan Teaching Excellence Endowment

Greenfield/Glassman/Kinzelberg 1967 Endowment

Steven W. Katz and Ruth Katz Undergraduate Business Program Faculty Excellence Endowment

Lauridsen Family Undergraduate Business Program Faculty Excellence Endowment

Peter J. Leslie Teaching Excellence Endowment

Winston Lo Undergraduate Business Program Dean's Excellence Endowment

Malchoff Family Visiting Lecturer Endowment

Thomas and Jill Marino Teaching Excellence Endowment

Joseph P. McManus Faculty Excellence Endowment

J. Patrick Mulcahy Business Program Faculty Excellence Endowment

Henry and Ruth Anne Parker Teaching Excellence Endowment

Seiden Business Program Teaching Excellence Endowment

Ernest L. Stern Undergraduate Business Program Faculty Excellence Endowment

Undergraduate Business Program Visiting Lecturer Endowment

Todaro Family Faculty Excellence Endowment

David J. Watkins Business Program Teaching Excellence Endowment

Gordon J. Whiting '87 Visiting Lecturer Endowment

I ♥ NY tourism campaign, and CEO of Pebble Ridge Vineyards & Wine Estates. "John has given an enormous amount of his time, knowledge, and passion to the uni-



John Rees Photography

"It's important to find someone who can be a bridge. If you can make the business community aware of the applied and social sciences, which fit under this life sciences umbrella, you have a whole, not just two halves."

Susan Eckert Lynch

versity. We are business people. It was a logical step to bring all of our interests together in this professorship," says Robert Dyson.

Recognizing John Dyson's many contributions to the University, including service as a Trustee from 1981 to 2001 and currently as a Presidential Councillor, Dean Henry adds, "Rob Dyson's wonderful gift acknowledges his brother John's selfless generosity and dedicated leadership on behalf of the College of Agriculture and Life Sciences and Cornell."

Susan Eckert Lynch, whose late husband Ronald P. Lynch '58 gradu-

ated from CALS and was vice chair of the Cornell University Board of Trustees, endowed the **Susan Eckert Lynch Professorship in Science and Business** to provide leader-

ship in the research and teaching of emerging science and technology that affect business development, including technology transfer and intellectual property management. "You could have a professor in each field," Lynch notes, "but it's important to find someone who can be a bridge. If you can make the business community aware of the applied and social sciences, which fit under this life sciences umbrella, you have a whole, not just two halves."

"At this exciting juncture in the history of Cornell and the College, when both business and the life sciences are emerging as major priori-

## Undergraduate Business Program Time Line

### 1940s

World War II increases demand for research and outreach related to food production. Agricultural marketing becomes a focus following the war.

ties, this is an inspiring and important gift," remarked Dean Henry. "Susan Lynch's generosity will be felt in our enhanced ability to foster leadership at the interface of business and science where entrepreneurs and emerging technologies meet."

The Dyson and Lynch Professorships have led the way to the establishment of six additional professorships, as well as endowments in support of teaching and faculty excellence. Ashley, in his role as campaign co-chair, was eager to lead the effort from day one. "I have lectured in the program, hired graduates, and been fortunate to stay in contact with faculty. I feel positive about every aspect of my experience there. So when Susan Henry asked me if I would co-chair this campaign with Peter Nolan, I jumped at the opportunity. It was a chance to help move forward with what already was a very valuable part of Cornell's curriculum and give it the underpinning to allow it to really meet its stride."

"The excitement of working on a Cornell campaign comes from the eagerness and enthusiasm of Cornell volunteers," Ashley says. "We had a superb committee that was dogged in their work and creative in their

ideas of how to advance the program. There's a great spirit when you get Cornellians together. I've never had a 'no' from anyone I've talked with regarding Cornell fund-raising. I've had 'maybes.' I've had 'come see me at a later time.' But I've never had a 'no,' whether it was asking somebody to volunteer or to think about a gift."

Stephen Ashley's contribution did not stop with his campaign leadership. He and his wife Janice have endowed the **Stephen B. Ashley Professorship**. "My wife and I are excited about the gift that we've made," says Ashley. "This will enable a faculty member to be named to an endowed chair that will allow them to do what I hope will be the very best of teaching and research, and make a contribution, not just to the Cornell community, but to business and leadership education."

The Undergraduate Business Program's identity was a focus of co-chair Peter J. Nolan '80, MBA '82. "Most people had no clue whatsoever that Cornell ran what was essentially a business school in the College of Agriculture and Life Sciences," he recalls. "This past couple of years, for the first time, it's been marketed as a business program.



## Undergraduate Business Program Campaign Committee

**Stephen B. Ashley** '62, MBA '64, co-chair

**Peter J. Nolan** '80, MBA '82, co-chair

**Kelly J. Brown** '88, MBA '92

**J. Thomas Clark** '63, MBA '64

**Glenn T. Dallas** '58

**Cheryl Parks Francis** '76

**Andrew J. Galligan Jr.** '91

**George G. Gellert** '60, MBA '62, JD '63

**Susan R. Holliday** '77

**J. Michael Holloway** '73

**Harvey Kinzelberg** '67

**Kevin R. Malchoff** '74, MBA '75

**Nancy C. Neuman** '90

**Celia E. Rodee** '81

**Meredith Clark Shachoy** '91

**Ernest L. Stern** '56

**Elwyn G. Voss** '64, MS '72

**Gordon J. Whiting** '87

## 1950s

The number of New York State farms declines significantly. The Food Distribution Program is established, building on the department's programs in marketing and its strong relationships with food processors and retailers.

## 1960s

The Department of Agricultural Economics establishes teaching and research programs in international agricultural development.

Now with the accreditation and the rankings, the world is discovering it. Competition among potential students will increase dramatically."

Like many graduates of the program, Nolan, managing partner of Leonard Green & Partners, a private equity firm in Los Angeles, went on to a very successful career. "We had a very strong agricultural foundation when I was in the program, even though the vast majority of the students never had anything to do with agriculture," he says. "A lot of people went into banking, to Wall Street, to marketing, and all sorts of endeavors. Today, it's a much broader program. As a result, it has become much more competitive."

"The program is visionary and changes with the times," Nolan says. "A lot of us who were graduates of Ag Econ have some mixed emotions about the program's new name, but, in the long term, it's good for everyone—and it's going to be very good for Cornell. The accreditation process set off a chain reaction in the evolution of the program that is unstoppable."

Today's clear identity for the UBP in the Department of Applied Eco-



"I was fortunate to go to graduate school and fortunate to work on Wall Street, but without the foundation that started in the UBP, I don't think I would have been able to do what I've done. It was a catalyst for my career."

Peter J. Nolan '80, MBA '82

nomics and Management might have been helpful to Nolan when he came to Cornell. "One had to be particularly lucky or insightful to discover the Ag Econ major," he says. "I went into it not really knowing very much about it, and I thought it was tremendous."

Inspirational professors and the ability to take courses throughout the university added richness to Nolan's experience. "I was a teaching assistant for three great professors, Daniel Sisler, Bruce Anderson, and Dick Aplin. Bruce then invited me back to Ithaca to guest lecture in his class when I was an investment banker, and I would talk about taking companies public, junk bonds, those sorts of things."

Stephen Ashley also admires the UBP faculty. "This program and its

predecessors have traditionally had a very strong student-faculty connectivity," he notes. "The faculty go out of their way to engage students, not just in the classroom but on a personal level. That was my experience 45 years ago. I look at how some of the great teachers there have extended themselves in so many ways to the undergraduate community. There's a rapport and genuineness about the relationship that is unusual. It's certainly one of the strengths of the program and puts this program among a handful of institutions that offer students that kind of experience."

Because he feels so strongly about the program, Nolan and his wife, a 1984 Hotel School graduate, have endowed the **Peter J. and Stephanie J. Nolan Professorship in Finance**. "I was fortunate to go to graduate

## Undergraduate Business Program **Time Line**

### 1970s

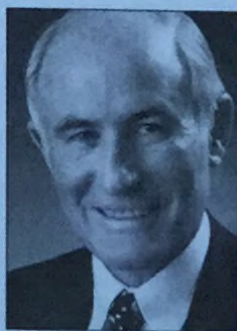
Demand for the department's courses increases dramatically. The foundation of an undergraduate business program with an initial emphasis on food and agricultural industries becomes well established. Environmental and resource economics faculty join the department.

### 1980s

The undergraduate curriculum continues its evolution from a focus on agricultural business to general business.

school and fortunate to work on Wall Street," he notes. "But without the foundation that started in the UBP, I don't think I would have been able to do what I've done. It was a catalyst for my career."

Dean Henry appreciates Ashley's and Nolan's campaign leadership. "I would like to express my heartfelt appreciation to the many alumni, parents, corporate sponsors, and friends who have shared our vision for the Undergraduate Business Program through their support of the campaign," she says. "I am especially grateful to campaign co-chairs



"My undergraduate business degree at Cornell gave me a lot of practical experience. I had the opportunity to really learn the basics of the industry beyond theory, and it's been a very useful background for my business career. Cornell's practical, hands-on approach works."

George G. Gellert '60, MBA '62, JD '63

Steve Ashley and Peter Nolan, whose dedication and leadership were critical to our success in achieving our \$20 million goal."

With an impressive 13 members

of the Gellert clan who have graduated from the UBP or its precursors, the **Gellert Family Professorship in Applied Economics and Management** more than lives up to its name.

According to George G. Gellert '60, MBA '62, JD '63, the success of the campaign "presents an opportunity for Cornell to have the finest quality undergraduate business program in the nation. The program's accreditation is a key factor. Outstanding students want to go to a program that's accredited. In its first year in the rankings, it became one of the top-ranked business schools, which is amazing."

George Gellert grew up in the food business. Today, as president of Atalanta Corporation, a large food importer based in New Jersey, he



Members of the extended Gellert family, including four brothers and numerous children, celebrate the graduation of Stephen Gellert from the Undergraduate Business Program in 2003. Dean Susan Henry is holding a T-shirt, a Gellert tradition, listing the family's Cornell graduates and degrees that now number 24.

## 1990s

The department changes its name to Agricultural, Resource, and Managerial Economics (ARME) to reflect its shifting teaching, research, and outreach missions.

In 1999, the department's undergraduate business specializations are included for the first time in the Association to Advance Collegiate Schools of Business accreditation review of Cornell University's business degree programs.

travels the world on business. "My undergraduate business degree at Cornell gave me a lot of practical experience. I had the opportunity to really learn the basics of the industry beyond theory, and it's been a very useful background for my business career. Cornell's practical, hands-on approach works."



"We hope that countries around the world can develop much faster if we prioritize international trade. It is not a matter of developing at the expense of other countries, but developing with the help of other countries."

Nandlal P. Tolani MS '47, PhD '64

Since graduation Gellert has been in constant touch with the program, lecturing, providing scholarships, sponsoring overseas travel and

trade shows, and updating what has become one of Warren Hall's most popular classrooms. Gellert is also a top recruiter for the program, and he extolls the virtues of Cornell and CALS to children of family friends, starting while they're still in elementary school. He has encouraged dozens of students to attend Cornell, who became exceptional students and successful alumni.

He has high hopes for the Gellert Family Professorship. "With the competition from other universities, you really have to provide financial incentives for a professor to teach," he notes. "The program's ability to secure an outstanding professor or recognize an existing professor will significantly strengthen the program. I'm in the international food area, and I'd like to see the UBP further

expand its emphasis on international business and perhaps invite professors from other countries to teach. We're in a global economy, and I think there's room for tremendous growth in the scope of the program."

Nandlal Tolani shares George Gellert's international vision, endowing a new professorship with global reach, the **Nandlal P. Tolani Senior Professorship in International Trade Policy**.

"The establishment of the Tolani Senior Professorship in International Trade Policy will ensure that future graduates of our college have the opportunity to gain unique perspectives on international business and trade," notes Dean Henry. "This endowment will be especially helpful in providing for a senior professorship and also for recruiting an outstanding gradu-

## Newly Endowed Faculty Chairs

Stephen B. Ashley Professorship

Dake Family Assistant Professorship in Applied Economics and Management

John S. Dyson Professorship in Marketing

Gellert Family Professorship in Applied Economics and Management

Susan Eckert Lynch Professorship in Science and Business

Ruth and William Morgan Assistant Professorship in Applied Economics and Management

Peter J. and Stephanie J. Nolan Professorship in Finance

Nandlal P. Tolani Senior Professorship in International Trade Policy

## Undergraduate Business Program Time Line

### 2000s

The Undergraduate Business Program receives AACSB accreditation in 2002, making it one of only two accredited Ivy League undergraduate business programs. The department changes its name to Applied Economics and Management.

Twelve new faculty and more than 30 new courses are added to the curriculum. Freshman applications reach record numbers. The Undergraduate Business Program's capital campaign exceeds its \$20 million goal.

ate fellow from India. Both can be expected to establish significant and lasting ties with academic, business, and government leaders in India."

Founder of the Tolani Group, based in Mumbai, Tolani has conducted business across the Indian economy, including construction, shipping, river transportation, engineering, property development, garment manufacturing, and diamond exporting. Tolani hopes that the distinguished educator holding this new chair will develop academic contacts with and regularly travel to India. As a result of the new graduate fellowship, Tolani says, "I hope Indian education will profit from interaction with Cornell. We hope that countries around the world can develop much faster if we prioritize international trade. It is not a matter of developing at the expense of other countries, but developing with the help of other countries."

"Cornell has one of the best agriculture programs in the country," says Tolani, who earned his M.S. and Ph.D. degrees in CALS. "It also has stellar research facilities. We thought this kind of professorship in trade and international policy would help our country *and* help the U.S."

On the domestic front, when Phyllis "Philly" Dake '48 learned that Cornell had identified the UBP as a high priority, she was delighted to help. "Generations of my family are Cornellians, and we share a deep love of the university." Dake family members who are Cornell graduates include Philly and her late husband Charles Dake '50, William

Dake '57, Laura Dake Roche '81, John Roche '81, Glen Dake '87, and Renee Dake Wilson '92.

The **Dake Family Assistant Professorship in Applied Economics and Management** is the first professorship endowment in CALS to support an outstanding junior faculty member. This support for young scholars and teachers will help the college attract and retain



"We want graduates of the program to be prepared to succeed, just as a Cornell education has helped so many of our family succeed. We know the impact the Cornell experience and the friends and networks you develop there can have throughout one's life."

Phyllis E. Dake '48

the most accomplished junior faculty to continually rejuvenate the UBP by pursuing new lines of research, developing new courses, and establishing new relationships and educational opportunities with businesses, stakeholders, and friends.

"We want graduates of the program to be prepared to succeed, just as a Cornell education has helped so many of our family succeed," says Dake. "We know the impact the Cornell experience and the friends and networks you develop there can have throughout one's life. It is our great pleasure to help make that experience an even better one for future generations of students."

As New York State business

owners, the Dakes are particularly pleased to make a gift that so directly invests in developing future industry leaders who will contribute to New York's continued economic vitality and growth. The Dake family owns Stewart's Shops, based in Saratoga Springs, and operates more than 300 convenience stores in upstate New York and Vermont. This highly successful family owned business,

founded in 1921, has transitioned into an even stronger one-third employee-owned business model. The company has community partners in more than 30 counties within a 150-mile radius of its headquarters, and it employs more than 3,800 people and annually donates 5 percent of profits to charity.

The eighth endowed professorship, the **Ruth and William Morgan Assistant Professorship in Applied Economics and Management**, came from a friend of the UBP, who wishes to remain anonymous, to honor the late William Morgan, a pioneer in the New York State dairy industry, and his wife, Ruth.

"My dad set up co-ops all over the

"My mother was an educator and dad was a vital force in New York agriculture. We consider the gentleman who is bestowing this honor part of our family. We are all very touched that he has remembered them in this way at Cornell."

**Matt Morgan**

state and continued to consult for dairy cooperatives until his death in 1982," says Matt Morgan. "He was involved in the creation of the milk laws in the 1930s that offered dairy farmers an opportunity to make a better living. Nobody worked harder than he did."

Bill Morgan was also a force in state politics for decades and served as Cortland County Democratic Party chair and as a state and national committee person. He held appointments as Civil Service Commissioner and Liquor Authority Commissioner, was close to New York governors starting with Al Smith, and maintained friendly relationships with

successive CALS deans.

Widely known as "Uncle Bill," Morgan throughout his life went out of his way to serve people in his native Cortland. "My father was a very warm and humorous guy," Matt says. "People respected him but they also loved him. He was quite a hero to the community. He provided many scholarships and anonymously gave away turkeys at Christmas. He was just a really wonderful guy."

Matt Morgan and his three siblings are touched to have their parents recognized by the professorship. "I find it a great honor for me and my family," he says. "My mother was an educator and dad was a vital force in

New York agriculture. We consider the gentleman who is bestowing this honor part of our family. We are all very touched that he has remembered them in this way at Cornell."

## Solid Advancement in Store for the UBP

Reflecting on the overall success of the campaign, Stephen Ashley says, "I think that we can all be pleased with the recognition that deans of undergraduate programs around the country give to Cornell. I expect solid advancement in the *U.S. News & World Report* rankings as we continue to be broadly known and our new faculty hires come to be recognized as outstanding."

The Undergraduate Business Program continues to pay him dividends, Ashley says. "Hardly a day goes by that I don't draw on something that was imparted to me. That doesn't necessarily mean classroom learning. It could be something from that broader realm that I refer to as the 'Cornell experience.' My undergraduate work developed my appreciation for the multicultural world that we live and work in. It gave me self-confidence. It gave me an ability to think in a critical way that I never would have had otherwise. It really is so much a part of what I am today that I would attribute a good deal of any professional success or life success to my Cornell undergraduate experience in the Undergraduate Business Program." ♦

*This article is adapted from one that originally appeared in Communiqué.*



Cornell's Undergraduate Business Program is highly regarded for its hands-on, team-based curriculum. This student team in Food Industry Strategy, one of the program's senior-level capstone courses, applies their analytical, communication, and leadership skills to solve real-world business challenges.

## More Bad News for Caribbean Corals

**A**s Katrina-ravaged New Orleans soberly ponders its future, and Hurricane Wilma claims the title as briefly the most powerful Atlantic hurricane on record, the prophets of global warming are gaining followers.

Add coral reef destruction to the litany of scientific evidence that a warmer world is not a better world. The record-setting Caribbean coral-bleaching event of 1998 has been eclipsed.

"This year's coral bleaching is a really major, sustained event," said Drew Harvell, professor of ecology and evolutionary biology, in October. "Puerto Rico is taking the brunt of it, with almost 100 percent bleaching, and Panama is also seeing very severe bleaching. It still hasn't peaked, as far as we know. As the weeks go by, it really gets more critical. There could be substantial mortality."

Harvell's laboratory group is primed to gather data as the consequences of a warming Caribbean unfold. Her team has been monitoring sites in the Florida Keys and the Mexican Yucatan for the past eight to 10 years to examine the correlation between sea water temperature and the response of gorgonian sea fans to infection with *Aspergillus sydowii*, a common soil fungus that took hold in the Caribbean in the mid-1990s. How it got there is hotly debated, but there is no question that aspergillosis has bloomed into an epizootic that appears to be fueled by abnormal warming of the sea surface. "Aspergillosis is a disease of resistance-compromised hosts," Harvell said, "and *A. sydowii* has a higher optimal temperature than coral do. We expect disease outbreaks to follow this level of temperature-induced bleaching."

Harvell has been particularly intrigued by the novel immune response of sea fans and other gorgonian corals to aspergillosis, which is visible in the formation of purple rings of melanin around sites of infection. These corals also deploy enzymes called chitinases that break down chitin in the cell walls of fungal invaders. Still to determine, among many questions, is whether these responses are produced by the corals or by their symbiotic algae. Harvell has found that these responses initially increase resistance to infection, but that temperature stress persisting for more than seven days lowers resistance. This year's temperature stress lasted for months, not days.

Asked what she would say to those who dismiss global warming, Harvell replied, "I try not to argue the technical side of global warming, since the climate experts are now in consensus that it is underway, but what we've been seeing fits the climate models very well. If anything, what we're seeing is worse than predicted." What this will mean to Caribbean reef life remains to be seen.

Jeannie Griffith



Drew Harvell

these areas. Harvell's team will run a workshop next summer in Zanzibar to train scientists from the East African region in microbiology, coral taxonomy, and coral diseases.

Solving the problems threatening coral reef ecosystems and the many coastal communities whose livelihoods depend on them will require hard choices and unprecedented international cooperation. Consider the management tools for infectious disease on land: vaccination, quarantine, and culling of diseased individuals. None of these are available in the ocean, so new approaches are needed for management. Harvell thinks this lack of immediate solutions means it is particularly important to trace the origins of new inputs to turn off the "pathogen pollution" spigot before it ever enters the ocean. It is vital to

Top: Sundromes from corals of Palau. The dark band is a cyanobacterium currently being studied to determine if it poses a threat to other corals. Bottom: Bleached corals in the Caribbean.

understand if runoff from human or agricultural sewage or aquaculture practices is contributing infectious organisms capable of infecting marine life. In the longer term, Harvell and her colleagues hope to develop more tools to enhance immunity and make corals less susceptible to disease.



# Turfgrass's Cutting Edge

Applying fewer chemicals, improving management, and enhancing environmental compatibility on New York's 3.43 million acres of turf are the major goals of the Cornell University Turfgrass Team, led by Frank Rossi.

BY LINDA MCCANDLESS

**F**ranks Rossi has never seen a blade of grass either dead or alive that he didn't like. And whether he is working from the back of a tractor, a lawnmower, or a pick-up truck, he is quick to tell you the Cornell University Turfgrass Team is committed to improving the environment one turf at a time. The associate professor of turfgrass science likes being outdoors. He also likes the kind of work where he can let grass die and not sweat it. "In fact, sometimes I encourage it," he says.

The fast-talking New Yorker from the Bronx starting mowing lawns when he was 11, got his first job at the Leewood Golf Course in Westchester County when he was 15, and became the superintendent of the Greenwich Country Club when he was 25. He has always spent a lot of time on golf courses, and although he has a serious tan, he says he has no golf game. Don't even bother asking him about his handicap. The fact is, Rossi, who has a Ph.D. in plant science with an emphasis on weed science and plant biology from Cornell (1992), rarely frequents the front of the house or swings a nine iron. He is more likely to be found behind the clubhouse, talking with the superintendent about putting greens, fixed-head mowers, and annual bluegrass.

Rossi's work doesn't just cover golf courses—which is what most people think when they hear the word "turf" Rossi and the other members of the team also focus on major league stadiums, parks, public school grounds and playing fields, cemeteries, sod farms, public landscaping projects, and home lawns.

"Because the turfgrass industry in New York is the largest in the United States, it is incredibly significant from both an economic and an environmental stewardship point of view," notes Rossi, who served on the faculty of Michigan State (1990–1992), and the University of Wisconsin-Madison (1992–1996), prior to returning to Cornell in 1996.

Turfgrass covers 3.43 million acres in New York, while farm fields and woodlots take up 7.4 million acres. In 2003, landscap-

ers, golf courses, and other turf-related businesses employed 43,000 people and spent \$5 billion on labor, equipment, and supplies.

Rossi's main message is that New York's turfgrass industry is driven primarily by homeowners, scholastic athletes, and golfers. "Homeowners spend more money every year than the professionals do," he says, citing statistics from a survey conducted in 2003 that homeowners spent \$88 million for fertilizer and \$37 million for pesticides. "Private residents control six times the turf acreage of either golf courses or lawn care companies, and most of them are not trained to make applications and assess the lawn's needs."

The Cornell Turfgrass Team develops efficient turfgrass management systems based on sound scientific research from five academic departments in the College of Agriculture and Life Sciences. Agronomists, horticulturists, plant pathologists, entomologists, human resource specialists, and toxicologists improve cultural management of turfgrass systems by increasing stress tolerance and providing a greater understanding of turfgrass pest ecology. The primary focus of the interdisciplinary group is to educate homeowners and professionals on the most environmentally responsible research-based information that improves resource efficiency.

In collaboration with a network of turfgrass extension field staff located around the state, the Turfgrass Team also delivers an impressive educational curriculum of newsletters, informational bulletins, diagnostic services, and workshops. The cornerstone of the extension education program is the week-long Turfgrass Management Short Course, which has trained more than 1,500 turf professionals from around the world since its inception in 1985.

Other educational opportunities include the quarterly research newsletter *CUTT*, which has 2,500 subscribers, and a weekly e-newsletter—*ShortCUTT*—which Rossi calls "just in time education." The weekly e-newsletter is the direct result of a conference call, during which Rossi chats with

turf, weather, and industry specialists from around the Northeast. The conversation is then transcribed, edited, and electronically delivered to members of the New York State Turfgrass Association (NYSTA) and over 500 professionals around the country.

The Turfgrass Team is a strong advocate for the golf turf industry, but is also engaged with citizen action groups and policy makers who rely on good science for decision-making. In the past, they have worked closely with the Breast Cancer Environmental Research Fund (BCERF) on controversial issues that involve pesticide use.

## **CUTTING edge projects**

Cornell turfgrass researchers work on a wide range of projects. They include the use of reclaimed water for irrigation on golf courses on eastern Long Island that feed into the Peconic Estuary; weed programs that rely on natural products produced by plants to control weeds; and the ecology of the annual bluegrass weevil, the most significant insect pest on golf courses in metropolitan New York.

One high-profile project involves the Bethpage State Park Green Course, in Farmingdale, N.Y., a project that is in its fifth year. There, Rossi and Jennifer Grant PhD '01, assistant director of the NYS Integrated Pest Management Program (IPM), are conducting a systems comparison of conventional, IPM, and nonchemical management of golf course greens under both standard and alternative (stress-reducing) cultural practices. The project aims to maximize playability while minimizing chemical use.

"In the first year, we managed six greens with no chemicals and all six died," Rossi says. But, six years later, the research is beginning to pay off. "We aren't able to go with no chemicals," he says, "but by careful management, we have been able to cut traditional pesticide use on those greens by 70 percent."

One invention from Rossi has made a real impact on community soccer clubs, and schools and colleges with multi-use fields: a turfgrass paint that acts like invisible ink. The Remarkable Paint system of paint and paint removers can be used to mark lines

## The Cornell Turfgrass Team

**Eric B. Nelson**, professor of plant pathology, disease control

**A. Martin Petrovic**, professor of horticulture, soil management

**Daniel C. Peck PhD '96**, assistant professor of entomology, soil insect behavior

**Frank S. Rossi PhD '92**, associate professor of turfgrass science, turfgrass ecology

**Jennifer Grant PhD '01**, assistant director, NYS IPM program

**Joann Gruttadauro '73, MPS '79**, senior extension associate, horticulture, educational programs

**Thomas R. Maloney '74, MPS '84**, senior extension associate, applied economics and management, human resources

**Ronald A. White '78**, field research laboratory manager, research demonstration plots

## Diagnostic Services

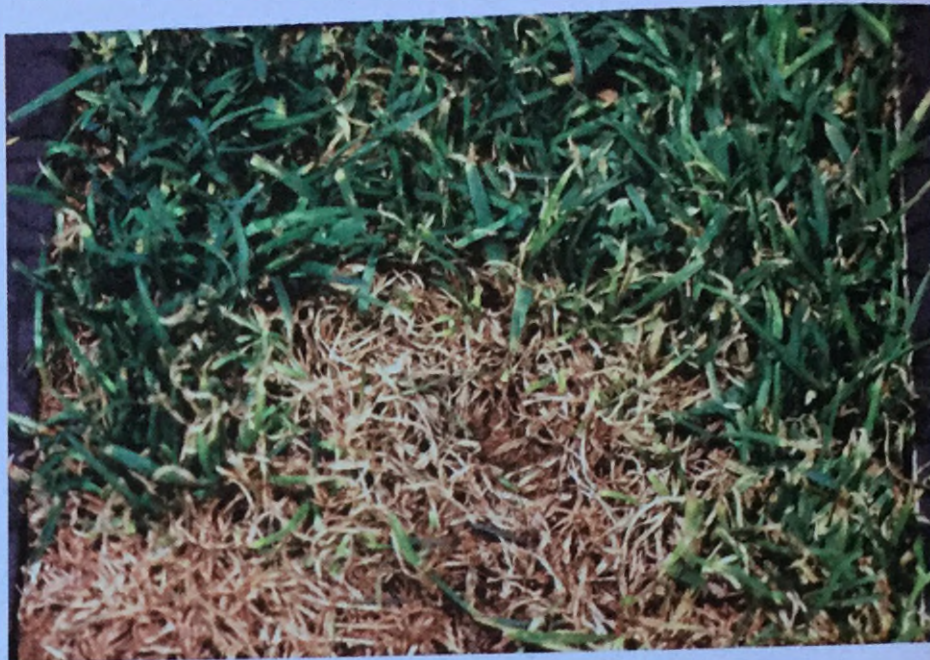
Several important diagnostic services are available to the turfgrass owner through Cornell:

**Insect Diagnostic Laboratory**  
[www.entomology.cornell.edu/Extension/DiagnosticLab](http://www.entomology.cornell.edu/Extension/DiagnosticLab)

**Plant Disease Diagnostic Clinic**  
<http://plantclinic.cornell.edu>

**Cornell Nutrient Analysis Lab**  
[www.css.cornell.edu/soiltest/newindex.asp](http://www.css.cornell.edu/soiltest/newindex.asp)

These Cornell Cooperative Extension services provide valuable pest identification and management information for the general public and turfgrass professionals. The labs offer accurate diagnostics information, reliable analysis, and current pest and nutrient management recommendations essential for the successful management of turfgrass problems.



Turfgrass infected by anthracnose

on playing fields and other turf and does not damage the grass when applied or removed. This means a field can be marked for soccer, used for a game, then "erased" by the grounds crew, and remarked for a different sport, repeatedly and easily during the same playing season.

A more controversial project involves a 2004 mower study that links greens mower type to putting green performance. Preliminary data indicated significant difference in turf quality and percentage incidence of anthracnose on putting green plots that were mowed by two brands of professional mowers. "It all had to do with floating vs. fixed heads, and how much difference an extra 0.15 of an inch makes in a green's susceptibility to anthracnose," said Rossi, who plans to expand the study in 2005 and 2006.

Serving the needs of today's turf industry would not be complete without addressing the future of golf turf managers. The undergraduate turfgrass program at CALS addresses the increased interest in sustain-

able golf course development and management, both nationally and internationally. Rossi sees unlimited opportunities for turfgrass professionals in China, Vietnam, Thailand, and the Philippines, where thousands of people are taking up golf, and new golf courses are being built daily.

Bachelors and professional masters degrees in golf and environmental management at Cornell offer an alternative to traditional turfgrass programs. Rossi notes there are currently seven students enrolled in the program, but numbers are expected to grow in the next few years as environmental pressures increase and more turfgrass courses are available. "CALS students will be able to function successfully in diverse arenas from legislative affairs to natural resource protection on golf courses," he says.

Rossi and the turfgrass team conduct their research at the 28-acre Turfgrass Field Research Laboratory adjacent to the Robert Trent Jones Golf Course at Cornell.

# People

## Marketing the Philadelphia Eagles Keeps Tim McDermott '95 Rushing

**T**im McDermott, senior director of marketing for the Philadelphia Eagles, is busy bringing new ideas to the gridiron. McDermott and his staff have masterminded "fully-integrated" marketing campaigns that infiltrated not only the living rooms, e-mail in boxes, and clothes closets of Eagles fans but their kids' schoolrooms as well.

"It was really rewarding to get letters from teachers describing how they used the concept of the *One Team, One City, One Dream* campaign," he says. "It gave them a way to have students discuss bridging differences, coming together, and working as one."

The Eagles also launched a "Tackling Breast Cancer" campaign whereby they turned their web site pink in honor of breast cancer awareness month. Players, cheerleaders, and media promoted pink Eagles caps, and fans bought 32,000 of them in 19 days. Five dollars from each sale went to the Abramson Cancer Center of the University of Pennsylvania. Coming up with these kinds of ideas for fanning the passions of Philadelphians and others occupies McDermott a lot of the time.

The bottom line is that the revenue streams of sports organizations—national TV rights, ticket sales, corporate sponsorships, clubs and suite sales, merchandising, and local radio and television—have been around a while.

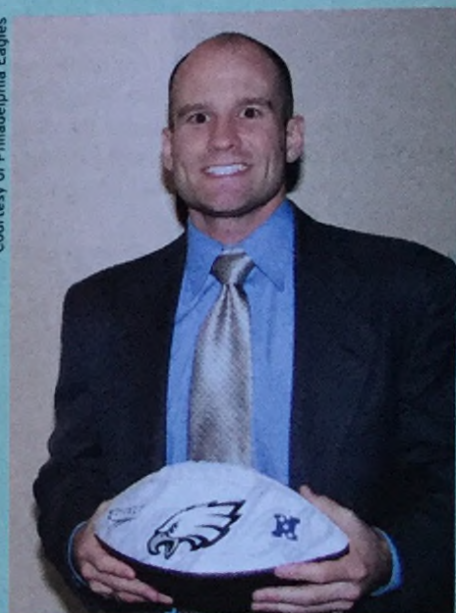
So McDermott is always asking, what's next? "The challenge for sports marketers right now is to be on the lookout for what will define the industry," he says.

During college, McDermott was a punter and kicker for the Big Red. With a degree from the Department of Applied Economics and Management, McDermott first went south to Florida as an intern with the Jacksonville Jaguars. At the time, they were an expansion team; in the sports industry that is analogous to a start-up company. In the three years to follow, McDermott watched the business grow and flourish. Then he went west to join the San Diego Chargers as assistant director in the marketing department. But it had become clear to McDermott that if he wanted the president's box, he would need to go to business school to get the bigger picture.

At Harvard Business School, McDermott got the book learning, then he took an intense dip into corporate America, spending three years at Comcast. In March of 2004, the top marketing spot opened up with the Eagles, where his brother Sean now coaches the secondary (defensive backs).

For now, he's very happy. But down the line, McDermott wants to be the one who sets the goals and vision for a company, the person who "creates an organization based on the highest

Courtesy of Philadelphia Eagles



McDermott's goal is to one day be the president of a sports team. For now, though, he's very happy marketing the Eagles.

level of integrity, where you motivate people and create an environment where they love to come to work."

*Metta Winter*

## Dudley Appointed Director of Cornell Migrant Program



**M**ary Jo Dudley MRP '96 (Arch) is the new director of the Cornell Migrant Program (CMP). Dudley, who also is a senior extension associate in the Department of Development Sociology in the College of Agriculture and Life Sciences, began her duties Sept. 6.

Cornell's Migrant Program is a collaboration involving Cornell Cooperative Extension and the colleges of Human Ecology and Agriculture and Life Sciences. As CMP director, Dudley's focus will be to evaluate how Cornell can address farmworker needs through research and extension in the communities where they live and work. Dudley is looking forward to the challenges of her new job, which she described as a "real balancing act" among the needs of farm workers, their families, and farmers in upstate New York.

"I am also excited about working with faculty and students across Cornell to promote research and to explore opportunities for students to directly interact with farm workers," Dudley said. Much of Dudley's experience is in Mexico and Latin America, where many of upstate New York's farm workers come from.

Dudley served as associate director of the Latin American Studies Program at Cornell from 1990 until 2004. She has worked closely with the university's faculty, graduate students, and undergraduates on issues related to Latin America.

"We are confident that Mary Jo Dudley can provide the kind of leadership the Cornell Migrant Program needs to sponsor, conduct, and disseminate research that contributes to the improvement of the living and working conditions of migrant, seasonal, and year-round farmworkers and their families," said Susan A. Henry, the Ronald P. Lynch Dean of Agriculture and Life Sciences. "Mary Jo has excellent experience working with farm workers, farmworker advocacy organizations, policymakers, and the broader farm community."

*Joe Schwartz*

# People

## Half a Century Later, Elizabeth Earle Restates Her Beliefs on NPR Radio Show

**F**ifty-one years ago, as a 16-year-old high school junior, Elizabeth Earle won an essay contest and read her words on the CBS radio show *This I Believe*. Hosted by famed journalist Edward R. Murrow, the daily program featured luminaries and ordinary people reading essays about the "core beliefs that guide their daily lives."

A resurrected version of the show now airs weekly on National Public Radio's (NPR) *All Things Considered* and *Morning Edition*. This past June 19, Earle, a CALS professor of plant breeding and genetics, read her new essay that recalls the original.

Earle's original essay followed the show's guidelines asking for personal views on individual beliefs. "My main point was I did not have a fixed religious philosophy, but I had general guidelines I tried to follow on being a good person," she said. Her essay explained that she was "freelancing" in religion and that she considered it her duty to expose herself to

all forms of religion. A member of a Unitarian youth group, she wrote, "If I were to discover there is no afterlife, my motive for moral living would not be destroyed. I have enough of the philosopher in me to love righteousness for its own sake."

In considering her new essay, Earle said she wondered whether she still agreed with her earlier beliefs. "I concluded I am pretty much the same person," she said. "But I have new input after a lifetime. I realize that while I have personally had a good life, for others, life is often unfair."

At Cornell, Earle teaches and researches plant tissue culture and plant biotechnology. She was chair of the Department of Plant Breeding from 1993 to 2001. She is also a faculty-elected member of the Cornell board of trustees.

Go to [www.npr.org/templates/story/story.php?storyId=4706135](http://www.npr.org/templates/story/story.php?storyId=4706135) for reprints and audio of Earle's essays.

Krishna Ramanujan



A 16-year-old Elizabeth Deutsch meets famed journalist Edward R. Murrow.

Courtesy of Elizabeth Earle

## Jerald and Jeffrey Chau Share Their Culture with Cornell Community



Robert Barker/University Photography

dent) puts on three campuswide events each year: Little Saigon and Café Saigon are lavish cultural shows presented in the fall and spring. In between, there's Pho Night, when club members make authentic pho—a spicy beef and rice noodle soup—and serve it to the Cornell community.

When not promoting the cuisine and arts of their ancestral home, the Chau twins, who spent their childhoods in the South Pacific, have the Annual Lu'au on their minds. As co-presidents of the Hawai'i Club, they're the organizational energy behind a spring evening of hula dancing and aloha singing that accompanies a four-course meal topped off with haupai, a traditional coconut pudding.

The brothers came to Cornell after spending four years in a private military high school in Taegu, South Korea, where their father, a U.S. Army engineer, had been posted.

Jerald entered the college as a biology major and then switched to the Undergraduate Business Program after becoming intrigued with the workings of biotechnology companies. The summer after his sophomore year, Jerald spent an internship with Porous Materials, Inc., a biotech company that designs and manu-

factures computer-controlled scientific instruments.

"It's a small business, and I mainly did consumer research and database management to figure out how to reach more customers," says Jerald, whose concentration is marketing with a minor in information science.

Jeffrey, who is also in the Undergraduate Business Program, especially enjoyed the course Management Case Analysis.

"We studied cases of actual companies, even one in Ithaca started by Cornell faculty," Jeffrey explains. "We had to find solutions to real problems." He's taken advantage of a summer internship with the Cornell Office of Intellectual Property Management and Licensing where he conducted market analysis on products developed by Cornell faculty members.

Jeffrey has sharpened his wits as a competitor in the first-ever elevator pitch competition sponsored by the Cornell Entrepreneurship Organization, where contestants are given two minutes to secure a potential investor. A jury of faculty, alumni, and venture capitalists awarded Jeffrey, who pitched his design of a peripheral device to boost the power of a laptop computer, fifth place.

Metta Winter

**B**udding entrepreneurs Jerald and Jeffrey Chau, both Class of 2007, play just as hard as they work. By junior year they had both become officers of not one but two student organizations whose cultural offerings draw a sell-out crowd.

The Cornell Vietnamese Association (Jerald was elected president and Jeffrey vice presi-

# OUTSTANDING ALUMNI AWARDS

## OUTSTANDING FACULTY/STAFF AWARDS

The College of Agriculture and Life Sciences and the ALS Alumni Association proudly recognized the following individuals at a banquet held at the Statler Hotel on November 4, 2005. Of more than 80,000 CALS alumni, since 1977, only 168 have been recognized with this awards program. The winners represent a wide range of interests and accomplishments, and each has strong roots in the College of Agriculture and Life Sciences. Each has achieved success in business, professional, or other vocational endeavors; shown leadership on behalf of the College of Agriculture and Life Sciences and Cornell University; and made a significant contribution to the betterment of society through community service.

### Daniel G. Sisler, PhD

'62, is the Liberty Hyde Bailey Professor Emeritus of Agricultural Economics. He joined the CALS faculty in 1961 and retired in 1995. Professor Sisler taught Introduction to Global Economic Issues, Research Methods in Agricultural Economics, Economics of Agricultural Geography, and seminars on agricultural trade policy and economic development. He devoted his long and distinguished career to preparing students to tackle the most difficult issues surrounding world hunger and nutrition in developing nations.

Sisler taught the introductory course on agricultural geography for 32 years, touching the lives of more than 12,000 undergraduates. He was always a much-sought-after adviser, refusing to limit student time to set office hours. Under his guidance, more than 70 graduate students have conducted groundbreaking research on world food problems that prepared them to become leaders in international agriculture.

Sisler has conducted research in Bangladesh, Botswana, India, Indonesia, Iran, Kenya, Malawi, Mexico, Nepal, Pakistan, the Philippines, Tanzania, and Thailand. He has advised government officials, reported on research results, and helped to organize research programs conducted by local people.

Sisler has been awarded the Professor of Merit award in 1964; the Chancellor's Award for Excellence in Teaching from the State University of New York in 1975; Distinguished Teaching Award of the American Agricultural Economics Association in 1978; Edgerton Career Teaching Award in 1992; NASULGC Regional Teaching Award in 1993; and National Association of State Universities in 1995.

He has been a member of the Cornell board of trustees, currently as trustee emeritus; the Cornell Football Association; and Alpha Zeta Fraternity. Outside Cornell, he is currently chairman of the Helen Keller International board of trustees, and is chair (since 1980) of the Helen Keller International advisory committee on prevention of nutritional blindness. Sisler also served as an adviser for the U.S. Veterans Association on program planning for seriously disabled veterans from 1977 to 1984.

Sisler lives in Ithaca, N.Y., with his wife, Carol. They have two sons, Peter '83 (A&S) and Stephen, and three grandsons.



### Ray J. Wu

is the Liberty Hyde Bailey Professor of Molecular Biology and Genetics and the International Professor of Molecular Biology and Genetics. Wu is also a former chair (1976–1978) of the Section of Biochemistry, Molecular and Cell Biology. He has served in various positions at the following institutions as well: the Biochemistry Department at Stanford University; the MRC Laboratory in Cambridge, England; the Department of Biology and Chemistry at the Massachusetts Institute of Technology; the Institute of Molecular Biology of Academia Sinica in Taipei, Taiwan; and Peking University.

Wu has been an exceptionally influential person in developing U.S./Chinese cooperation in biological science and education. He founded the China–United States Biochemistry and Molecular Biology Examination and Application (CUSBEA) program, which brought over 400 of the top Chinese students to the U.S. for graduate training and produced over 100 faculty members in major universities or key members in industry. These scientists, with colleagues from the Chinese Academy of Sciences, formed the *Ray Wu Society* to promote advancement of the frontiers in life sciences. Wu was instrumental in establishing the Institute of Molecular Biology, the Institute of Bioagricultural Sciences of Academia Sinica in Taiwan, and the National Institute of Biological Sciences in Beijing.

Wu is a pioneer in genetic engineering. He developed the first method for sequencing DNA and some of the fundamental tools for DNA cloning. Following a prominent career in genetic engineering recombinant DNA research, Wu focused his research on world food production and hunger. In 1988, he was one of the first groups to succeed in producing transgenic rice plants. In 1996, he published a method for the production of drought- and salt-tolerant rice plants.

Wu has been a loyal and generous ambassador and supporter of Cornell University. He has accompanied President Rawlings on trips to China and donated personal funds to endow a graduate fellowship in the field of Biochemistry, Molecular and Cell Biology.

Wu lives in Ithaca with his wife, Christina. They have two children: Albert Wu '80 (A&S), MD '84, and Alice Wu '82, MS '86.



**The Honorable Gordon J. Whiting '87**

is a managing director of Angelo, Gordon & Co., L.P. He founded and leads the AG Net Lease Realty Group. Prior to joining Angelo, Gordon, he was an executive director and deputy director of acquisitions with W. P. Carey & Co., LLC. Early in his career, Whiting started his own business, Stapenhurst Limited, an import/export company based in Hong Kong, where he was the founder and managing director. In 1992 he returned to the United States, sold the business, and earned an MBA from the Columbia University Graduate School of Business. After receiving his MBA, he joined W. P. Carey & Co. where he gained extensive experience in credit analysis and sale-leaseback financing of real estate. There, he increased in roles and responsibilities, leaving the firm in 2004 with the title of executive director and president and portfolio manager of its affiliate, Corporate Property Associates 14, Incorporated, which was its largest income-producing REIT.

Whiting has gained success in the world of sale-leaseback financing of real estate and management, quickly rising to be among the most respected managers and investors. He has shared his success by actively volunteering for CALS and Cornell through the Undergraduate Business Program (UBP); his fraternity, Sigma Chi; and his class. Whiting was a strong advocate and supporter of the accreditation of the Undergraduate Business Program. He has served as a frequent guest lecturer and served on the UBP Capital Campaign Committee. He has also established a Visiting Lecturer Fund to bring guest speakers into classes to interact with students and share their practical business knowledge. Whiting has worked to increase awareness of the program's developments and the need for alumni support and involvement.

In 2002, Whiting was nominated by President George W. Bush to serve on the Federal Retirement Thrift Investment Board. After confirmation by the U.S. Senate, he joined four other recognized leaders in overseeing the Thrift Savings Plan, the largest defined contribution plan in the world.

An Eagle Scout, he has continued his involvement with the Boy Scouts of America. He is also the vice president of the Camp Fire Conservation Fund and a board member of United Neighbors of East Midtown.

Whiting lives in New York City with his wife, Cornelia ("Nina"); they are awaiting the birth of their first child.



**C. Morton Bishop III '74** is president of Pendleton Woolen Mills in Portland, Ore. For five generations, the Bishop family has owned and operated Pendleton, which produces woolens of incredible beauty and quality, including American Indian blankets and men's and women's sportswear. The company owns and operates over 50 Pendleton stores and has recently developed a catalog/Internet division, which has grown quickly to 8 million apparel and home catalogs. Unlike most apparel manufacturers, Pendleton still performs the myriad steps of the manufacturing process for many of its products, starting with processing the raw wool.

Since 2002, Bishop has served as an alumni-elected trustee on Cornell's board of trustees. He is the co-vice chairman of the Student Life Committee and is a member of the Alumni Affairs and Development and Finance Committees and a member of the Alumni Affairs Steering Committee. Additionally, Bishop is a member of the Presidential Search Committee.

Bishop has served three terms as a member of the Cornell University Council. He is scholarship chair and former president of the Cornell Club of Oregon; a member and former chair of the Cornell Alumni Admissions Ambassador Network (CAAAN); and a member of the Undergraduate Business Advisory Council. He has served as a director of the Sigma Chi Alumni Association for over 20 years. Bishop provides "Wearer of the C" blankets for senior captains of Cornell athletic teams and Native American blankets for Indian students to carry during Cornell commencement.

In addition to his Cornell activities, Bishop is a trustee of Willamette University and a former trustee and chair of The Nature Conservancy, Oregon Chapter.

Bishop's greatest public service accomplishment is his company's contribution to the American Indian College Fund. The American Indian College Fund provides scholarship and other support for the nation's 34 tribal colleges. Since 1909, the Bishop family has produced Indian blankets, robes, and shawls which are highly prized by the Native American population. Today, Pendleton Woolen Mills produces a blanket line of authentic American Indian designs exclusively for the American Indian College Fund, with proceeds to benefit the fund.

Bishop lives in Portland, Ore., with his wife, Mary Lang. They have two children: daughter, Elizabeth '07, is an Applied Economics and Management major and a leader of the Ivy League Champion Big Red volleyball team; their son, Mac, attended the Cornell Summer College High School honors program.



# OUTSTANDING ALUMNI AWARDS

## James J. Byrnes '63, MBA

'64, is chairman and CEO of Tompkins Trustco, Inc. Tompkins Trustco is a \$2 billion three-bank holding company based in Ithaca, N.Y., which includes Tompkins Trust Company, The Bank of Castile, and Mahopac National Bank. Byrnes was president and CEO of Tompkins Trust Company from 1989 to January 2003. He remains chairman of the Trust Company. Prior to that, he served in management positions with Citibank and The Bank of Montreal.



Byrnes has shown great vision and leadership for the bank, for Ithaca, for the greater Cornell community, and for the agricultural industry and rural development in New York State. He is a strong advocate for the importance of promoting the town-gown relationship between Ithaca and Cornell University. He serves or has served as a member of the Tompkins County Area Development, Ithaca Sciencenter, United Way of Tompkins County, Ithaca Neighborhood Housing Services, Cayuga Chamber Orchestra, Tompkins County Chamber of Commerce, Ithaca Rotary Club, and Friends of Ithaca College.

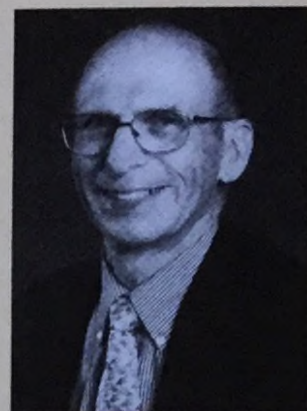
Byrnes's Cornell involvement includes being chair of the University Council Committee on the Arts; and a member of the Undergraduate Business Program Advisory Council, the University Council Administrative Board, the University Council Technology Transfer Committee, the Cornell Alumni Association of Ithaca Area, the Presidential Event Committee, and the board of Entrepreneurship and Personal Enterprise Program from founding to 2005.

Within the banking industry, Byrnes has served on numerous committees and boards at a time of unprecedented change and expansion. Tompkins Trustco has kept pace with this change, outdistancing many other firms with its strong earnings, expanding product line, and continued growth. In his work, Byrnes has proven adept at forging practical solutions that balance the interests of the most diverse industry in the nation with those of the public. Upon his election as chair of the New York Bankers Association, Byrnes received the highest endorsement from his fellow leaders from both upstate community banks, and the largest banks in the world, such as Citigroup and J.P. Morgan Chase. He is the chairman-elect of New York Business Development Corporation; chair for 2004-2005 of the New York Bankers Association; and board member of the Independent Bankers Association of New York State (serving as president from 1993 to 1995). Byrnes was selected for the Distinguished Citizen of the Year Award by the Boy Scouts of America in 2002.

Byrnes and his wife, Terry, live in Ithaca. They have one son, James Andrew Byrnes.

## Robert W. Herdt '61, MS

'63 retired from the Rockefeller Foundation as vice president for program administration for the overall grant-making and budget for the foundation's program from 2000 to 2003. As the foundation's director for agricultural sciences from 1987 to 1999, he was responsible for its program in agriculture throughout the world. Herdt has also been a scientific adviser in the Secretariat of the Consultative Group on International



Agricultural Research (World Bank) and was an economist at the International Rice Research Institute (IRRI) in the Philippines from 1973 to 1983. Herdt currently is an adjunct international professor in the CALS Department of Applied Economics and Management.

Herdt is an adviser to the management team of ABSPII (Agricultural Biotechnology Support Project II), which is coordinated by the CALS International Programs. ABSPII is a USAID-funded consortium of public and private sector institutions that support scientists, regulators, extension workers, farmers, and the general public in developing countries to make informed decisions about agricultural biotechnology.

For Cornell, Herdt continues to serve on the External Advisory Committee of the Cornell Institute for Food Agriculture and Development (CIIFAD), and has been a trusted adviser of countless students. Herdt recently oversaw a global evaluation of TEEAL/AGORA, the Internet-based portals that provide to institutions in low-income countries free access to over 3,000 refereed journals in biomedicine, health science, agriculture, fisheries, food, nutrition, veterinary science, and related biological, environmental, and social sciences. The Rockefeller Foundation funded Mann Library's development of the AGORA portal in 2003, with Herdt playing a catalytic role in its establishment.

Herdt also serves on the U.S. Department of Agriculture Advisory Committee on Biotechnology and 21st Century Agriculture, and on the External Evaluation Panel of the Bean/Cowpea Collaborative Research Support Program (CRSP). Since 2004, Herdt has served as a trustee and chairman of the board for the Asia Rice Foundation USA, Inc.

Herdt continues to do research and publish in his field. He was a 2004 guest speaker in Mann's "Chats in the Stacks" series, lectures on campus, and is a lifetime member of the ALS Alumni Association. He received the American Agricultural Economics Association (AAEA) Outstanding Journal Article award in 1977 and was elected a Fellow of the American Association of the Advancement of Science (AAAS) in 1983. He received the AAEA award for outstanding quality of communication in research in 1986 for *The Rice Economy of Asia*, co-authored with Randy Barker '53.

Herdt and his wife, Lorna '62 (HuEc), live in Freeville, N.Y., and have two daughters, Jennifer and Lisa.

# OUTSTANDING ALUMNI AWARDS

## Ernest L. Stern '56

retired in 2003 as chairman and CEO of Thales Components Corporation (TCC), a wholly owned subsidiary of Thales (formerly Thomson-CSF), Europe's largest professional and defense electronics company. TCC specializes in the distribution of microwave and power grid tubes and devices, x-ray image intensifiers, digital detectors, SAW filters, ultrasound probes, video and film lenses, lasers, and laser diodes. Stern's leadership was recognized by the French government in 2001 with the Chevalier de la Legion d'Honneur (Knight of the Legion of Honor). The award was created in 1802 by Napoleon Bonaparte, and is considered France's highest award for outstanding service to the country.

Stern's commitment to Cornell really knows no bounds; he has demonstrated his visionary leadership for the Class of '56, Mann Library, College of Agriculture and Life Sciences, Olin Library South Asia Collection, Schwartz Performing Arts Center, Cornell Association of Class Officers (CACO), and the Undergraduate Business Program.

During Cornell's previous comprehensive campaign, Stern served tirelessly as chair of the college's campaign committee. Concerned about reduced funding to Mann Library, he provided direct major gift support to Mann Library and was a core leader of the \$4 million Mann Library endowment campaign. When the college's Undergraduate Business Program needed additional resources to accomplish its accreditation in 2001, Stern stepped forward again to lead with his time, efforts, and resources.

With fellow classmate Curtis S. Reis '56, Stern founded Cornell's Adult University (CAU), which has brought back thousands of Cornellians, friends, children, and grandchildren for more than thirty years. This program has been copied at universities and colleges all over the country. A long-time CACO director and board member, he was also instrumental in its founding. Stern is a life member of the University Council and member of the Cornell Club of New York, the Cornell University Alumni Association of New York City, and the Tower Club Committee. In recognition of Stern's service to Cornell, he was recognized in 1996 with the Frank H. T. Rhodes Exemplary Alumni Service Award—Cornell's greatest honor for volunteer leadership and service. Stern has been president of the Class of '56 and chaired their reunion campaigns since the 25th reunion in 1971. Stern is fondly known as the "PFL" (President for Life) for the Class of 1956. The class has continually set higher benchmarks for succeeding classes in reunion giving. In recognition of his leadership, a number of his classmates honored him by endowing the Ernest L. Stern '56 Library Curatorship for Asia Collections.

Stern lives in New York City with his wife, Barbara Lang Stern '56 (A&S).



**Craig Yunker '72** is the owner and managing partner of CY Farms, LLC, in Elba, N.Y. Recognized as one of the largest, innovative, and progressive farm operations in New York State, CY Farms has 7,000 acres under cultivation. Today, the business includes large acreage of processing and fresh vegetables, a turf farm, a heifer-rearing facility, and a custom vegetable harvesting business. CY Farms operations are located in several western New York State counties.

Under Yunker's leadership, CY Farms has seized upon opportunities in production agriculture and dealt with the setbacks that usually accompany such entrepreneurial ventures. One of Yunker's greatest attributes is his skill in managing people; Yunker has been referred to as the best human resource manager in Northeast agriculture.

In his continuing search for knowledge, Yunker attended the Executive Program for Agricultural Producers (TEPAP) at Texas A&M University. After completing the program, Yunker became the president of the alumni group, AAPEX: The Association of Agricultural Production Executives. In early 2004, and again in 2005, he and another alumnus of the program traveled to South America to better understand agricultural issues and opportunities from a global perspective.

Yunker is a member of the Cornell board of trustees and served as co-chair of the Committee on Land Grant and Statutory Affairs and as a member of the Executive Committee. He is an ex officio member of the Dean's ALS Advisory Council, having served as chairman from 1997 to 1999; member of the Cornell Alumni Association of Greater Rochester; and member of Cornell Club of Genesee-Orleans. Yunker has frequently lectured both on and off campus on the agricultural industry at Empire Farm Days, 2003; Celebration of Cornell's Undergraduate Business Program, 2002; New York State Agri-Business Association, 2001; 2000 Agri-Marketing Conference and Trade Show; and The National Council for Farmer Cooperative's director's Leadership Forum, 1999.

In addition to the Spirit of Cornell Award, Yunker received the Hugh E. Cumming Cooperator of the Year Award in 2001 from Agrilink Foods and the Genesee County Agricultural Business of the Year Award in 2000 from the Genesee County Chamber of Commerce. He also received the Empire State Agricultural Human Resource Award from the New York State Department of Labor in 1996 and the Outstanding Young Farmer Award (national winner) from the U.S. Jaycees in 1986.

Yunker and his wife, Kimberly, live in Elba, N.Y., and have three children: Cyrus '01, Christian '02, and Katherine '05. His father is also a CALS alumnus, Carl Yunker '44.



## Faculty Obituaries

**Frederick H. Buttel**, formerly a Cornell professor, died Jan. 14, 2005. He was 56.

Buttel's career in teaching and research took him to Michigan State University, Ohio State University, and eventually to Cornell (1978-1992), where he spent 14 years as a professor of rural sociology and science and technology studies before joining the UW-Madison faculty.

Buttel was devoted to four major areas of study including the sociology of agriculture, environmental sociology, technological change in agriculture, and national and global activism relating to environmental and agricultural policies. At Cornell, Buttel directed the Biology and Society Program.

**William E. Drake, Sr.**, formerly a professor of education, died April 17, 2005. He was 77.

Drake was loved and distinguished as a teacher of teachers and was well known among teachers of agriculture in New York State's secondary schools.

He began his career as a high school teacher of agriculture in the Michigan school system from 1950 to 1960. He joined the Cornell faculty in 1960 and taught for 30 years until his retirement in 1990.

**Richard B. Fischer PhD '53**, professor emeritus of environmental education, who instilled in students a deep appreciation for the natural world during 32 years of teaching, then continued to lead Cornell Adult University tours after his retirement in 1985, died Aug. 7, 2005. He was 86 years of age.

"Dick" Fischer's outspoken advocacy for returnable beverage container legislation in the 1970s and 1980s made the state's highways a cleaner place, while his habitat restoration work for migrating birds, especially the eastern bluebird, helped return diversity to the byways. Readers of his articles in the popular press, including *Conservationist* and *Audubon* magazines, discovered as much about nature as scholars did from his scientific publications.

Fischer was one of the creators and the first science editor of *Ranger Rick* magazine and the science editor of the World Book Encyclopedia's "Our Living World of Nature" series.

**Edward H. Glass**, professor emeritus of entomology at the Geneva Experiment Station, who specialized in the biology and control of fruit insect pests and was instrumental in developing the use of sex pheromones for insect monitoring and control, died Jan. 6, 2005. He was 87.

Glass played a major role in moving crop protection from a science of conquest to a science of sustainability. He served as the first project leader (1975-1980) for the Integrated Pest Management (IPM) Program at Cornell and served on many national and international committees that focused on issues of pesticide resistance and IPM.

**Bente Starcke King MS '75**, teacher of botanical illustration at Cornell Plantations for 25 years and formerly a scientific illustrator at the Bailey Hortorium, died July 15, 2005. She was 79.

King spent 15 years working at the Bailey Hortorium, leaving in 1995 to begin a successful career as an independent artist. Her work has been exhibited at Cornell's Johnson Museum; locally in Ithaca; in Washington, D.C., at the National Academy of Sciences; in London at the Westminster Gallery; in Copenhagen, Denmark; and at many national and international meetings of the Guild of Natural Science Illustrators.

In 2004, King published an educational book and video, entitled *Beautiful Botanicals*.

**Maurie Semel '49, PhD '54**, professor emeritus of entomology, whose research work bolstered the Long Island, N.Y., potato and vegetable industries, died Feb. 10, 2005. He was 82.

Semel was the insect expert at the college's Long Island Agricultural Research Laboratory in Riverhead, N.Y., from 1954 to 1988. In the heyday of vegetable farming on Long Island, Semel conducted insect-pest research that helped move farmers away from a heavy reliance on pesticides to trying biological controls.

His work helped to contain the Colorado potato beetle, a major pest of fresh-market potatoes. Semel's research also helped fresh-market sweet corn and cauliflower.

**John P. Tomkins PhD '50**, formerly a professor of pomology for many years, died in December, 2004.

Tomkins specialized in strawberries, grapes, and other small fruits. During his career, he advised many of the strawberry and grape growers throughout New York State. He wrote many articles on the culture of small fruits, and even advised growers troubled by birds eating their crops to plant extra so that the birds would be able to have their share and still leave enough for the producer.

## Cornell Sheep Program Blanket



Created from the wool of Cornell Dorset and Finnsheep breeds and their crosses, these blankets are ideal for football games and cold nights, and as gifts for holidays, graduation, wedding, birthday, and other occasions. Red stripes near each end and red binding accent the 100% virgin wool. Your purchase of blankets helps to support the Cornell Sheep Program, and \$10 from each sale goes to an undergraduate scholarship fund.

Each blanket is individually serial-numbered on the Cornell Sheep Program logo label and comes with a certificate of authenticity. The current serial numbers correspond to recent and future class years. See the web site (below) to reserve a particular number through our ongoing Internet auction.

The blankets come in four reasonably priced sizes:

Lap robe (60 x 48 inches, 1 stripe)	\$69
Single (60 x 90 inches, 3 stripes)	\$94
Double (72 x 90 inches, 3 stripes)	\$105
Queen (78 x 104 inches, 3 stripes)	\$129

Add 8% New York State sales tax and \$8 per blanket for shipping.

Additional information about the blankets is available at: [www.sheep.cornell.edu](http://www.sheep.cornell.edu) (click on "blankets")

Purchase at the Cornell Orchards, the Cornell Dairy Store, or from the Department of Animal Science in 114 Morrison Hall, Cornell University, Ithaca, NY 14853-4801 or by telephone (607-255-7712), fax (607-255-9829), or email [csblankets@cornell.edu](mailto:csblankets@cornell.edu).

## Introducing Jim Ward '90, New Alumni Association President

Jim Ward has a long history with the ALS Alumni Association, serving the organization in some capacity since 1988. He earned his B.S. in Animal Science in 1990. In 1995 he completed his J.D. from the University at Buffalo Law School.

He has served as a regional director for the ALS Alumni Association for the Saratoga and Binghamton areas. Ward served many years on the Events Committee, helping to plan ALS Alumni Forum, Leadership Conferences, and most recently, serving as the vice president of programming during the college's centennial year. Ward began his term as president in June 2005 following the CALS Reunion Breakfast.



Ward is an active alumnus with Alpha Gamma Rho, has been president of the Cornell Club of the Southern Tier, and participated in various Cornell phonathons. He also is a member of the Cornell Alumni Admissions Ambassadors Network. In his community, Ward is currently serving as president of Vestal Rotary and as a member of the Binghamton Renaissance Board.

A resident of Vestal, N.Y., Ward is an attorney in Binghamton, specializing in litigation, personal injury, and matrimonial law. He also has a law office in Hancock, N.Y., serving clients in real estate and estate law.

In his free time, Ward continues to pursue his interest in animal science, showing his Ayrshire dairy cattle at state and national shows. He also loves to travel and ski.

### PRESIDENT'S COLUMN

#### Building Alumni Connections—from the Suspension Bridge to the Golden Gate Bridge

In September I had the opportunity to travel to Northern California with our college alumni affairs director, Sharon Detzer '88. Over the course of seven days, we met with more than 20 alumni. In addition, we attended the annual winery event planned by the ALS Alumni Association regional district, and we hosted two open receptions, one in Davis and one in San Francisco. The alumni we visited with are all respected leaders in their chosen endeavors—in biotech, business, real estate, wineries, consulting, government, healthcare, and more—representing the vast diversity of the CALS education.

I learned firsthand how pleased alumni are with the current programs and priorities of the college and our Alumni Association. Visit after visit, we felt the enthusiasm our alumni have for CALS, even living so far away from campus. How energizing to meet alumni, hear your feedback, and learn about your interest in networking with each other and helping students explore careers.

Dick Jones '71, MS '77, PhD '78 was the ALS Alumni Association president last year. He advocated the importance of building relationships. I'm proud to be serving as your president this year, and I plan to continue to travel to meet as many alumni as possible and to encourage our board members to make personal connections, too. It's beneficial to hear your ideas for programs, to learn about the faculty members who most influenced your experiences, and to give you the opportunity to become more involved—in voice, volunteerism, and giving to the college.

The ALS Alumni Association provides more than \$50,000 in funding to the college for student scholarships, alumni programming, and student programming. We also provide a subsidy to help publish the CALS News magazine. Our priority is to help you get connected to the exciting activities of the college.

The College of Agriculture and Life Sciences is at the heart of the university, and its priorities are clearly representative of Cornell's most important initiatives. I encourage you to allocate your Annual Fund gift to the college to help support its mission, especially as state funding sources decrease.

We've come a long way as an association. Thank you to the incredible legacy of volunteers who have built our association to its distinguished standing today. We have built upon the strong foundation of leadership and programming in New York State and now are gaining more and more momentum in many metropolitan areas. We are the model for other colleges at Cornell and envied by many of our fellow land grant universities throughout the country. Join us!

Ideas, comments, and questions may be sent to Jim Ward via email at [alsaa@cornell.edu](mailto:alsaa@cornell.edu)

*Jim Ward '90*

#### 1930s

**George R. Goetchius '35, MS '36** of Mt. Vernon, N.Y., recently celebrated 65 years of wedded bliss with wife, Mildred. The couple has four children, six grandchildren, and two great-grandchildren.

**Dorothy Vera Kley '38** of New York City, has retired after 28 years as a medical microbiologist at the Jewish Hospital and Medical Center in Brooklyn, N.Y.

**Diana Dibblee Carroll '39** of Newtown Square, Pa., has retired and is now living in Dunwoody Village, a retirement community. Carroll spent four years working for Union-Carbide at the Mellon Institute in Pittsburgh and received an MS degree at the University of Pittsburgh. She then spent five years as a microbiologist studying onyx, oil, and chemicals in Jersey City, N.J. She is the mother of four.

**James C. White '39** of Ithaca, N.Y., has retired from the Cornell Hotel School where he taught sanitation. Since 1982, he has worked with international groups on the issues of acid rain and climate change. He likes to keep active by playing tennis and hiking.

## ALUMNI NOTES

### 1940s

**Claire Herrick Yetter '40** of Englewood, Colo., keeps young by digging flower and vegetable gardens by hand instead of going to the gym for exercise. She has hundreds of seedlings that she starts under the lights in the basement each year waiting for spring.

**Gretchen A. Gagnon '41** of Cohoes, N.Y., is busy keeping up with her three great-grandchildren: Jonathan (6), Lauren (3), and Joshua (1).

**Werner Robert Schroeder '41** of Haines City, Fla., and his wife of 62 years have spent the past three decades traveling and visiting people in 47 states, nine Canadian provinces, and seven European nations. They have three daughters and four grandchildren, and enjoy nature, fishing, and attending jazz festivals.

**John M. Bishop '42** of Venice, Fla., farms gladioli, snapdragons, statice, and Florida sweet onions and keeps 15 hives of bees. He invites all to visit Florida to enjoy the sunshine without the hurricanes.

**Regina Machata Thompson '42** of Ithaca, N.Y., retired after working at the Meat Institute in Chicago. Prior to that, she worked at the U.S. Plant, Soil, and Nutrition Laboratory, focusing on vitamin and enzyme assays as well as the identification of microorganisms in the rumen of the cow. She and her husband, John, have five children and now live in Kendall of Ithaca.

**Abraham J. Brook '43** of Piscataway, N.J., and his wife, celebrated their 60th wedding anniversary in 2005.

**E. W. Kellogg '43** of Cape Canaveral, Fla., and his wife **Faye Deleider '48**, spend summers at their family marina in the 1000 Islands of New York State, which their son **Mark Kellogg '80** operates. Their two grandchildren hope to attend Cornell.

**Helen J. Coach Darling '44** of Odessa, N.Y., retired after 16 years of working as a medical technologist at the Arnot Ogden Hospital. She now enjoys volunteering, traveling, and spending time with her grandchildren. She and her husband have four children: Tom, Jody, Jack, and Anne.

**Charles H. Mosley '44** of Lake Placid, Fla., retired from Key Bank in 1981. He continues to be an active volunteer with his church, Masons, Boy Scouts, Habitat for Humanity, and Heifer Project International. He now lives full-time in South Central Florida where he cares for his wife, Gertrude.

**John A. Wenrich '45** of Pittsford, N.Y., retired from the Eastman Kodak Company near Rochester, N.Y. He recently moved to a senior citizen apartment complex.

**Jeannette Snyder Brown '46** of Menlo Park, Calif., is now a volunteer editor at the Carnegie Department of Global Ecology at Stanford University. She spent 28 years as a microbiologist at the Carnegie Department of Plant Biology where she studied photosynthetic pigments in micro-algae. She has three children. She writes of her Cornell education, "It was the best education in science an undergraduate could get anywhere at that time."

**William F. Eberle '47** of Salem, N.Y., is a retired patent and trademark attorney. He now lives on a farm in Washington County on the Vermont border, where he and his wife, Barbara, are frequently visited by their four children and their grandchildren. He volunteers for various causes, including the county and town planning boards.

**Allen H. Benton '48, MS '49, PhD '52** of Fredonia, N.Y., recently published a book, *Birding Through Life*. Having spent 20 years as a columnist for southwestern New York newspapers, his latest work recounts his birding experiences in many parts of the world and includes some memories of his years at Cornell.

**Albert L. Brown '48, MS '49, PhD '51** of Lincoln, Neb., has been retired since 1990. He has lost contact with many of his friends from the James A. Baker Institute for Animal Health. He writes, "I hope I was helpful to them as they were to me."

**Anne Colm Repaske '48** of Star Tannery, Va., retired after a 20-year microbiology career at ATCC. Prior to that, she worked as a microbiologist with the Wisconsin State Dept. of Health and at the National Institutes of Health. She and her husband now tend to their farm in Shenandoah Valley, Va., where they breed cashmere goats.

**William M. Seymour '48** of Hillsdale, N.Y., spends his time traveling with his wife, Helen. The couple spends their winters in Myrtle Beach, S.C., and travel with a senior group on a cruise to Bermuda each summer and take day trips to New Hampshire and Pennsylvania Dutch Country. He and his wife are officers in the local Grange. They also garden and tend 14 beehives, producing nearly 600 pounds of honey.

### 1950s

**Lewis E. Clark '51** of Orono, Maine, has retired from his foreign service for the U.S. Agency for International Development.

**Conrad J. Kercher '52** of Laramie, Wyo., and his family were recognized as outstanding donors to the University of Wyoming College of Agriculture on "Agriculture Appreciation Day," October 2, 2004.

**Irene Y. Mazer '52** of Lakewood, Wash., is now a dispute resolution mediator after retiring from a career as a clinical and forensic psychologist.

**Carlton J. Porter '52** of Byron, N.Y., is grieving the death of his youngest son, Stephen, who passed away on June 24, 2004, from brain tumor complications. He was diagnosed in October 2002. He and his brother, Michael, were partners at Porter Farms in Elba, N.Y. Stephen was a member of the National Organic Research Foundation located near Santa Cruz, Calif.

**Robert W. Silman '52** of Brimfield, Ind., is a chemical engineer who, five years ago, switched from fermentation technology to designing, building, and operating small plant growth chambers. He and his wife, Anita, have four children and nine grandchildren.

**Virginia Jackson Browning '53** of St. Louis, Mo., is the mother of three daughters and the grandmother of eight—seven girls and one boy! Her appreciation for the fine arts is evident as she holds positions on the boards of the Repertory Theatre of St. Louis, the St. Louis Shakespeare Festival, as well as the Central Institute for the Deaf. She and her husband, **Larry Browning '51**, are involved with the Opera Theatre of St. Louis, Webster University, and the St. Louis Symphony Orchestra.

**Janet Copeland Ciegler '53** of West Columbia, S.C., has published two books since her retirement: *Ground Beetles and Wrinkled Bark Beetles of South Carolina* (2000) and *Water Beetles of South Carolina* (2003).

**Ernest E. Hardy '53** of Ithaca, N.Y., retired from Cornell's Department of Natural Resources in 1985. He worked on the Gorilla Project in Rwanda with Diane Fosse for one year. He then served as a special consultant to the World Bank Environment Department until 1991.

**Merle R. Decker '55** of Murrells Inlet, S.C., decided to move to a warmer area after retiring in Tennessee in 1996. He has moved to Garden City, S.C., which is in the Myrtle Beach area.

**Charles David Goldstein '55** of Port St. Lucie, Fla., has retired to Florida with his wife of 40 years, Arlene. His sons, **Hal Goldstein '90** and **Paul Goldstein '91**, are both married with children and live in New York City and Los Angeles, respectively.

**Barbara A. O'Connor Kenny '55** of Brewster, N.Y., retired after 15 years of teaching. She had previously been a bacteriologist in the Hoffman La Roche Chemotherapy Department in Nutley, N.J. She and her husband have five children and 10 grandchildren, and enjoy playing golf in Vero Beach, Fla., during the winter and in Brewster, N.Y., during the summer.

## ALUMNI NOTES

**Judith Kanthor Rosenbaum '55** of Rochester, N.Y., is presently a docent at the Rochester Museum and Science Center. She and her husband, **Richard '55**, keep busy with their four children and 12 grandchildren.

**Susanne Kalter Dewitt '56** of Berkeley, Calif., has retired after working nearly 27 years at the University of Berkeley's Donner Lab, Cetus Biotechnology, and Xoma Biotechnology. Dewitt is currently the chairwoman of the Israel Action Committee of the East Bay (IACEB). She has three children (Ralph, Joel, and Laica) and has recently traveled to Cuba, Peru, the Galapagos, Spain, Israel, and Central America. She enjoys gardening, folk dancing, Hadassah, and pro-Israel activism.

**Morton L. Mallin PhD '56** of Westchester, Ohio, retired in 1997 after working as an NIH fellow at Johns Hopkins University and at Brandeis University's graduate Department of Biochemistry. He now enjoys spending time with his four grandchildren, reading, and using e-mail.

**Joseph V. Scaletti '57** of Albuquerque, N.M., is an emeritus professor of microbiology at the University of New Mexico School of Medicine. He has held several positions since graduating from Cornell including professor/chairman of the microbiology department and vice president of research at the University of New Mexico and professor at the University of Minnesota.

**Robert W. Eltz PhD '58** of Chesterfield, Mo., is a consultant for Eltz Consulting after retiring from the Monsanto Company as a bioprocess technology director. He has also worked for Pfizer, Sun Oil Company, Bristol-Myers Squibb Company, and Krause Milling Company.

### 1960s

**Willard L. Reed '61** of Ocala, Fla., is the leader of the Oak Run Community Emergency Response team and a member of the Marion County medical team. He also serves as a trail master and is responsible for 10 miles of greenway trails.

**Thomas R. Corner '62, MS '64** of East Lansing, Mich., is a professor, associate chair, and director of undergraduate education in the Department of Microbiology and Molecular Genetics at Michigan State University. He is a five-time winner of the Teacher-of-the-Year Award and was twice recognized by the College of Natural Science as Outstanding Advisor for Undergraduates.

**David S. Palmer '62** of Jekyll Island, Ga., is working part-time on the *RV Anna*, which is a research vessel for the Department of Natural Resources in Brunswick, Ga. He is evaluating the shrimp and the blue crab. Palmer has also taken up making pottery as a new hobby.

**Barbara B. Engle '63** of Clintondale, N.Y., retired in December 2002 from the Ulster City Department of Health. She is now working with Care Van, which outreaches to seniors. Engle is also a part-time counselor in a substance abuse facility. She enjoys spending time with her four-year-old grandson.

**Edward F. Hoerning '63** of Gastonia, N.C., is working for the U.S. Department of Agriculture's AGR Marketing Service in Gastonia, N.C., as a laboratory manager of the National Science Laboratory.

**Renda Lindley McCaughan '63, MS '66** of Dunwoody, Ga., and her husband Pete just returned from a visit to New Zealand, where they toured both the North and South Islands. The couple visited the country to attend

their nephew's wedding, but also explored an organic hazelnut orchard.

**Lorain M. Schultes '63** of Columbus, Ind., is partially retired and self employed as a consultant in microbiology and immunology. He previously worked at St. Lukes Pathology Associates in Milwaukee, Wis.

**Judy Alpern Intraub '65** of Killington, Vt., has retired from her position as a science coordinator for a school district in New York City and now spends summers in Vermont and winters in Florida. She enjoys walking, playing tennis, and kayaking and would love to find fellow Aggies in the Killington or Palm Beach area.

**Jeffrey J. Collins '66** of Chapel Hill, N.C., is the vice president of the transaction advisory group at A.M. Pappas and Associates, LLC. He has had a long and diverse career in various fields including academic research, research administration, clinical research, and drug development, working at the Duke University Medical Center, the National Institution of Environmental Health Science, and Glaxo Inc., respectively.

**Richard H. Weldgen '67** of Rochester, N.Y., was recently honored by the New York State Nurseryman's Association and the Genesee Finger Lakes Nursery/Landscape Association for his 25-year contribution as a certified nurseryman. He is the first recipient of this honor in the Rochester area. His company, Weedman, specializes in lawn care and landscape lighting.

**Claire Herrick Yetter '67** of Englewood, Colo., enjoys tending to her flower and vegetable gardens, and also has many nonagricultural hobbies.

**Peter R. Shank '68** of Rumford, R.I., is now a professor of medical science at Brown University, after spending 12 years as associate dean for research and graduate studies in Brown's Division of Biology and Medicine.

**Andrew S. Goldstein '69** of Portland, Ore., is the co-founder and vice president of Artielle Immuno Therapeutics, Inc., a biopharmaceutical company developing a novel class of drugs for treating autoimmune diseases. He hopes to begin clinical trials with a drug for treating multiple sclerosis later this year.

**Diane E. King '69** of Brewerton, N.Y., is a medical technologist at the Lab Alliance of CNY in Liverpool, N.Y. She has been in the medical field since 1970, focusing on microbiology. King has seen tremendous changes in the technology used to identify pathogenic organisms. To relax, she enjoys canoeing, hiking, reading, and going to flea markets and plays.

**Bonnie A. Seeley '69** of High Bridge, N.J., is writing children's Chincoteague pony stories.

## Moving?

Stay in touch with your alma mater through uninterrupted delivery of *CALS News* by returning the change-of-address form. Mail to Cornell University, College of Agriculture and Life Sciences, Office of Alumni Affairs, 274 Roberts Hall, Ithaca, NY 14853-5905.

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Class Year \_\_\_\_\_

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☐ Alum ☐ Faculty ☐ Friend

Former Address \_\_\_\_\_

New Address \_\_\_\_\_

Phone \_\_\_\_\_

## ALUMNI NOTES

### 1970s

**David M. Barbano '70, MS '73, PhD '78** of Dryden, N.Y., is the first recipient of the William C. Haines Dairy Science Award for his contribution in the dairy science field. The award was presented by the California Dairy Research Foundation at the 7th Cal Poly Symposium on Advances in Dairy Product Technology, held in Shell Beach, Calif.

**Dr. Marc C. Levine '71** of Woodmere, N.Y., is currently practicing periodontics in Hewlett, N.Y. He is also the chief of periodontics at North Shore University Hospital in Manhasset, N.Y.

**James E. Ashton '72** of Orono, Maine, has retired from Cornell Cooperative Extension and is working as a consultant to the FarmNet program.

**Lorraine Marnell '73** of Albuquerque N.M., has returned to Albuquerque after 10 years in Tucson, Ariz. Her son, Alexander George, is a sophomore at New Mexico Tech, working toward a joint computer science/electrical engineering degree.

**Vickie Lund Pryor '74** of Tallahassee, Fla., is a registered nurse and works in a hospital emergency room. She and her husband, who works for the Florida Department of Health, are the proud parents of a 19-year-old son who is currently in college and wants to become a firefighter/paramedic.

### 1980s

**Joseph P. Kirk Jr. '86** of Paris, France, moved to Paris in February 2004 to provide patent litigation support for his company's subsidiaries in the intercontinental region (Asia, Africa, Russia, Middle East, and South America). In September 2004, he married Janelle Bryant in Brisbane, Australia, who left her position as an attorney in Queensland to join him in France.

**Randi Fuhr Carmichael '87** of Merrick, N.Y., is a private practice dentist. She is married to Paul Carmichael, son of Dr. Leland Carmichael, who is a retired emeritus professor in Cornell's College of Veterinary Medicine. The couple has two children: Sarah (7) and Benjamin (5).

**Nimat Hafez Barazangi PhD '88** of Ithaca, N.Y., recently published a book, *Women's Identity and the Qur'an: A New Reading*, the product of a 10-year pedagogical study of the Qur'an and extensive research with Muslim women's groups and nonMuslim feminist groups in Syria, Canada, and the United States. As a research fellow in Cornell's Feminist, Gender, and Sexuality Studies Program, she has been the recipient of a multiyear Fulbright Scholarship, and has received fellowships from both the International Council for Adult Education and the United Nations Development Program.

**Kelly J. Brown '88** of Cincinnati, Ohio, and her husband, Tim, welcomed their daughter, Sarah Grace, born in February 2004, into their family. They also recently built a new house.

### 1990s

**Dr. John J. Lucia '90** of Fairport, N.Y., is practicing dentistry in Rochester, N.Y., alongside his wife, Dr. Mariana Olivares. The couple has three children: Matthew (4) and twins, Noah and Olivia (1).

**Mary Weise Purcell '90** of River Vale, N.J., is a semi-retired research scientist, raising two children in New Jersey.

**Jon D. Erickson '91, MS '93, PhD '97** of South Burlington, Vt., is an associate professor at the University of Vermont Rubenstein School of Environment and Natural Resources.

**Dr. Julie Howson '91** of Tampa, Fla., is now an emergency medicine resident at Tampa General Hospital, after obtaining an MD from the University of South Florida Medical School in May 2005. She welcomed her daughter, Kylie Michelle, to her family in December 2004.

**Jeannine Centanni '92** of Charlotte, N.C., and her husband relocated to the Charlotte area, where they welcomed their third child in March 2005.

**Tricia N. Oney '92** of Valencia, Calif., is teaching vocal jazz and pursuing a musical arts doctorate degree at the University of Southern California Thornton School of Music. In 2004, she released her first CD, which earned national promotion, a SAMMY award nomination, and a contract with Rhombus Records. Friends can stay updated on her performances and musical activities at: [www.tishoney.com](http://www.tishoney.com).

**Dr. Leonard ("Lee") James '93** of Chicago, Ill., recently finished training in internal medicine at the University of Chicago. In July 2005, he began an oncology fellowship at Memorial Sloan Kettering in New York City.

**Dr. Lynn L. Hickey '95** of Clifton Park, N.Y., is practicing internal medicine and pediatrics at Ellis Hospital in Schenectady, N.Y. She has two children: Tara Rose (1) and Daniel (2).

**Jessica Elsinger '96** of New York, N.Y., was married in August 2004 and now goes by **Jessica Lynn Somerfeld**.

**Kerry A. O'Brien '96** of Washington, D.C., is teaching at The Maret School in Washington, D.C.

**Linda L. Scheu '96** of Tucson, Ariz., spent almost a year in Brazil on a Boven Fellowship studying Dengue Fever Education Programs for an MPH, which she received this past spring from the University of Arizona.

**Thevaki Thambirajah Chrzanowski '97** is working at Analytic Partners, a marketing consulting company focused on consumer product companies, where she evaluates the marketing effectiveness of specific brands. Previously, Chrzanowski worked at Coty, LLC and Revlon. She recently got married.

**Bridget E. Doyle '97** of Hoboken, N.J., has married and now goes by **Bridget Doyle Grbic**. She is working at Marsh USA.

**Dr. Stephanie O. Omokaro '97** of Baltimore, Md., has been a pediatric resident at Johns Hopkins Hospital since 2002. She will begin a pediatric hematology-oncology fellowship at Johns Hopkins Hospital/National Institute of Health this year.

**Dr. Michael H. Tunick '97** of Johnson City, N.Y., is a family practice resident at Wilson Memorial Hospital in Binghamton, N.Y. He also works at the Osteopathic Manipulation Technique Clinic several times a month.

### 2000s

**Morgan E. Hartman '00** of Berlin, N.Y., and **Rebekah Hartman '00** are excited to have just purchased their first home in Berlin, N.Y.

**Andrea S. Yowpa '00** of Cheektowaga, N.Y., married Dr. John Yowpa III on May 22, 2004. She began working as an associate veterinarian at Grand Island Small Animal Hospital in June 2004.

**Jacqueline Gallo '01** of Manhasset, N.Y., is the senior writer at *In Touch Weekly* magazine.

**Melanie R. Hawver '03** of Loudonville, N.Y., is a first-year medical student at SUNY Upstate Medical University.

**Will Salcido '03** of Walnut Creek, Calif., is working for the San Francisco branch of Nestlé USA.

**Natalie J. Walleiser '03** of Viroqua, Wis., received a master's degree in public affairs from the University of Wisconsin at Madison in May 2005.

**Michael A. Wilson '03** of Melbourne, Fla., is attending the School of Veterinary Medicine at Ross University.

**Jessica R. Woodcock '03** of Spearville, Kan., married Robert Blackman on October 16, 2004, and now goes by **Jessica Blackman**.



Emily A. Réjouis '08  
Alumni Notes student writer

# End Note

**D**ead things can be beautiful, and their return can make for a good story.

Cornell's Fungi of China collection was the star of a special summer exhibition in Mann Library, with 20 colorful and dramatic digital photographs by Kent Loeffler, a Cornell plant pathology staff photographer whose work has been shown and published worldwide.

"It takes a special eye to see beauty in a 70-year-old fungus specimen, in bits of crumbly fungus," Kathie T. Hodge MS '93, PhD '98, Cornell assistant professor of mycology and director of the Plant Pathology Herbarium, said during a joint Reunion Weekend lecture with Loeffler, June 10 in Mann Library.

The lecture's title was "Mushroom Alumni: Remarkable Fungi and Their Return to China," because, as part of the Cornell-China New Century Initiative, some of the collection will be delivered back to China. Hodge said that for most of the specimens—those that can be cut up without destroying their research value or uniqueness—part of each will be sent to the Chinese Academy of Sciences Institute for Microbiology in Beijing and the other portion kept at Cornell.

The collection is largely the legacy of former Cornell College of Agriculture graduate student Shu-Chun Teng '26. When he left his doctoral studies unfinished here, Teng traveled across China on horseback in the late 1920s and 1930s, collecting and cataloging some 2,000 specimens, which he sent to Cornell for safekeeping after the Japanese invaded China in 1937.

During the same time, another College of Agriculture alumnus, Fang Lan Tai, also sent fungi samples to Cornell via Washington, D.C., smuggling them out by ox cart and then by boat, before parts of the Chinese National Herbarium and other significant research libraries were destroyed by wartime vandalism.

Loeffler detailed the aesthetic beauty of the fungi using a Fuji S2 digital camera. He focused on different areas or angles of each small specimen over multiple exposures and then combined the images with photo-editing software. Since many of the samples he was given were drained of color, he used brightly colored gels for the backgrounds. Some of Loeffler's photographs may be seen at <http://ppathw3.cals.cornell.edu/PhotoLab>.

There are more than 300,000 fungus specimens in Cornell's Plant Pathology Herbarium, the fourth largest such facility in North America. Data for the collections is being digitized, Hodge said. So far there are more than 24,000 specimens cataloged on the Internet, including more than 7,000 type specimens—the first of their kind to be found and named.

Daniel Alai

## The Return of the Chinese Fungi



Oyster mushroom shedding spores

Kent Loeffler © Cornell University, Dept. of Plant Pathology, 2004

# CALS Creative Ways to Give

**C**haritable gifts provide essential support for the College of Agriculture and Life Sciences each year. The following department and program funding needs provide a direct opportunity to support the college by addressing tangible needs such as equipment, travel funds, scholarship, furniture, and more.

For further information or to make a gift in support of these priority needs, please contact Anne C. DiGiacomo, Director of Development, at (607) 255-7833 or [adb7@cornell.edu](mailto:adb7@cornell.edu).

## Dean's Discretionary Fund:

Dean Susan Henry relies upon unrestricted gifts to allocate funds where they have the greatest impact.

## Undergraduate Research Scholars:

CALS undergraduates are often a part of the college's research, and funding is needed to support their endeavors.

- A \$25,000 endowment supports the minimum annual grant (\$350) for at least three students enrolled in the Research Honors Program.

- \$2,000 provides annual support for at least one student's summer research stipend.

- \$1,000 provides annual support for at least two students' academic year research.

## Food, Glorious Food!

Sponsor a student to attend the Food Marketing Institute's annual convention in Chicago. \$750 Applied Economics and Management

## What's Up?

Purchase an electronic stock reporting board in the Warren Hall lobby. \$10,000 Applied Economics and Management

## Got Books?

You can make it easier for students to start the semester off on the right foot with an Undergraduate Book Award. \$5,000 American Indian Program

## Best Summer Ever!

Help a Native American high school student experience life at an Ivy League Institution by sponsoring a Summer College Scholarship. \$7,100 each American Indian Program

## Take the Key and Lock 'er Up!

A livestock trailer or other towable, lockable, weatherproof trailer is needed to store educational resources used at multiple sites around the state. \$5,000-\$10,000 Animal Science

## A Hub of Activity:

Help build facilities that allow students and faculty to collaborate and connect via "wireless" classrooms. 6 wireless hubs. \$5,000 Communication

## An Apple a Day:

The Cornell Orchards need a new forklift. \$25,000 Horticulture

## Grow! Grow! Grow! Your Garden:

Cultivation equipment is needed for the new organic farm at Freeville. \$8,000 Horticulture

## How's the Weather Out There?

Purchase a weather station with web cam for Oneida Lake to help scientists understand links between fish production and weather. \$5,000 Natural Resources

## Case in Point:

Support the development of real-world case studies of environmental issues for use in undergraduate natural resources courses. \$2,000 each Natural Resources

## Ticket to India, Please?

Help students go on the field trip for the CALS International Programs' course Agriculture in Developing Nations. Cost per student: \$2,800 International Programs

## Microbes on the Move!

A traveling microscope, video camera, and LCD projector will bring the excitement of the plant microbe world to large groups of K-12 students. \$4,500 Plant Pathology—Geneva

## Ithaca: Center of Design World?

Fund an interdisciplinary symposium at the new Cornell design center in Manhattan to explore opportunities for Cornell landscape architecture in New York City. \$5,000-\$10,000 Landscape Architecture

## Cultivate a collection:

The Mann Library collections would benefit from additional support. \$100 funds one book, \$500 helps cover a journal subscription. \$5,000 or more sustains growth in the library's research resources. Mann Library

## Operator, Can You Help Me Please?

Students with well-developed computer skills give high-quality support to students at Mann's John L. Stone Computing Center. \$5,000 funds one student computer operator for the year Mann Library

## Wild Outings:

Fund a summer of field behavioral research for a graduate student, such as mating systems in birds in Africa or social interactions among insects in Costa Rica. \$6,000 Department of Neurobiology and Behavior

## Seeds and Blights:

Purchase a controlled-environment seed germination chamber for studying seed transmission of fungal diseases in plants. \$12,000 Plant Pathology

## Get Me There!

Fund travel fellowships for undergraduate students to attend scientific/professional conferences to present results. \$500-\$1,000 each. Nutritional Sciences

## Environmental Exploration:

Student Environmental Research grants provide funds to graduate students to conduct their research. \$5,000 per student Center for the Environment

## BioExpo:

This annual event, sponsored by the student group Institute for Biological Engineering, brings industry and students together. Help develop a rolling fund of \$25,000 to cover annual costs of \$4,000. Biological and Environmental Engineering

## Be a Poster Child:

Fund the printing of 10,000 posters for school cafeterias to help kids improve sanitation and decrease pests and pesticides. \$5,000 Integrated Pest Management

## Wanted: Student Help!

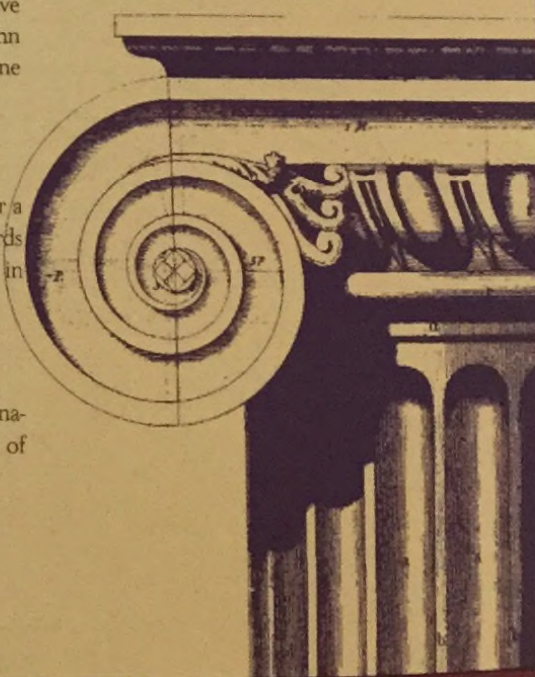
Cornell Plantations' fall lecture series coordinator needs student assistance to manage the logistics. Fund one student, part-time: \$1,200 Cornell Plantations

## Controlling Insects with Sex

Help fund a specialized mini-blast sprayer for applying sex pheromones and fruit-fly baits for alternative methods of controlling fruit pests. \$12,000 Entomology—Geneva

## Moving Images

A digital video and two still digital cameras are needed to record student projects and community presentations. Video: \$1,500, cameras: \$350 each Landscape Architecture





University Photograph

## STAY CONNECTED VIA E-MAIL!

- Are you interested in receiving our monthly e-mail newsletter with the latest news from CALS and Cornell?
- Would you like to receive invitations to local alumni events via e-mail?

If so, please send an e-mail to us at [alsaa@cornell.edu](mailto:alsaa@cornell.edu) and request to be signed up for the alumni list-serv.

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