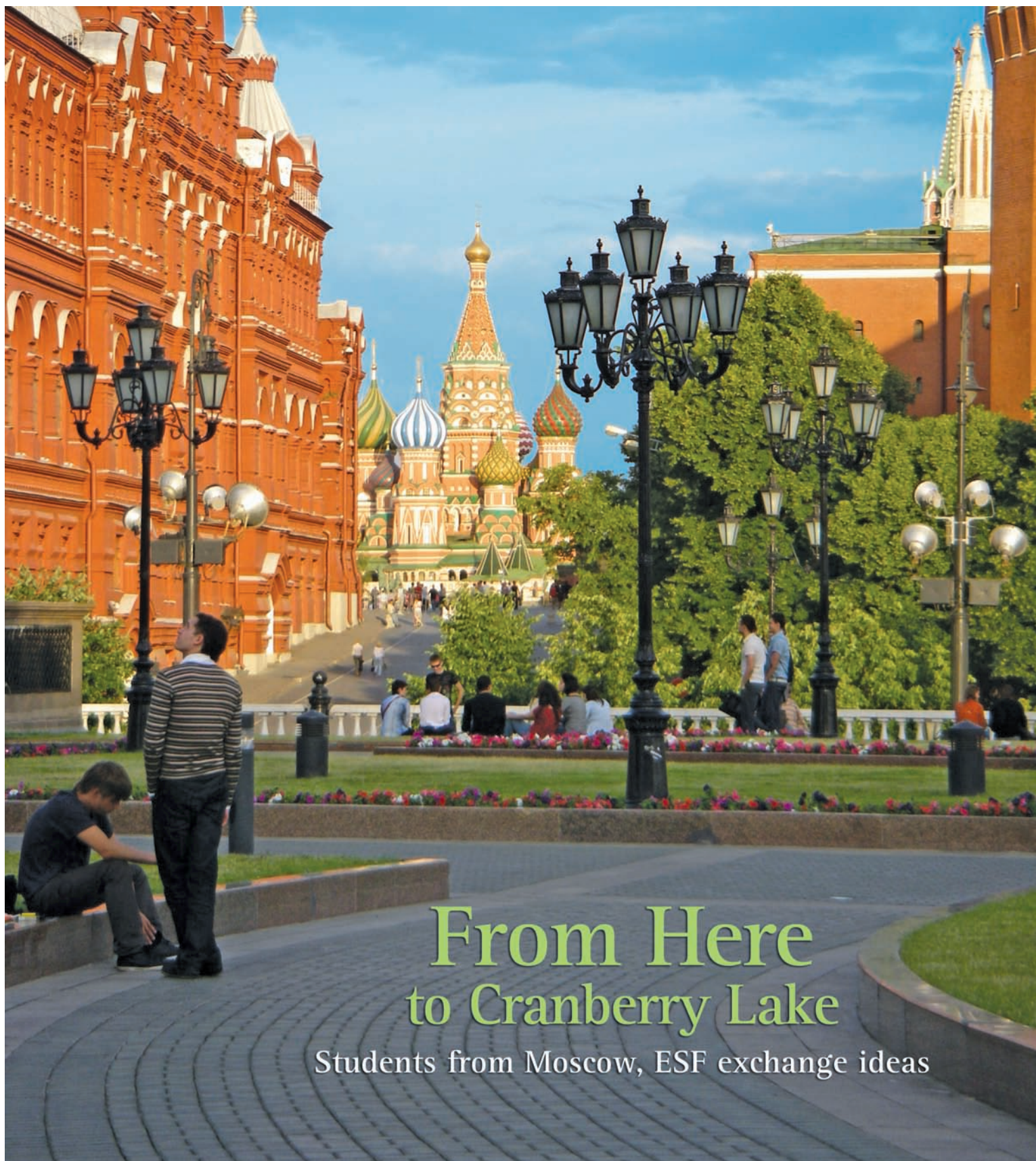


InsideESF

The Magazine of the SUNY College of Environmental Science and Forestry



From Here to Cranberry Lake

Students from Moscow, ESF exchange ideas



Now it Begins: Balloons spell out the starting place for incoming students and their families as the members of ESF's freshman class arrive on campus Aug. 22.

Contents

2 Campus Update



5 A Rare Species of Teacher

An encounter in Galapagos helped determine Dr. James Gibbs' career path.

8 Moon Rises to a New Level

ESF's 'academic living room' gets an extreme makeover.

10 Cultivating Awareness

Students from opposite sides of the world find out they share common problems.

15 Head Master Planners

Landscape architecture students know the questions to ask when considering the future of ESF's campus.

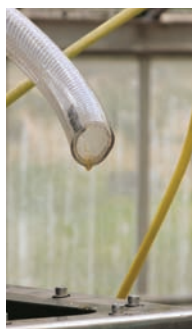
16 In Good Hands

A gift from an alumnus gives ESF faculty and students a chance to learn science in a new setting.



20 From Fast Food to Fast Cars

Student Greg Boyd finds a new use for old oil.



On the cover: St. Basil's Cathedral, with its distinctive onion domes, sparkles on the edge of Red Square in Moscow. The cathedral was constructed in 1555. Photo by Oksana Untilova.



Dr. Alexander Weir, seen above during a trip with students to Russia, said the College's exchange program with Moscow State University melds scientific and cultural education. To read more, see Page 10.

InsideESF

SUNY College of Environmental Science and Forestry

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ESF, Salt City Fly to New Heights.

Syracuse is dubbed the "Emerald City" in the September 2007 edition of US Airways' in-flight magazine.

A 60-page spread that profiles the city and region includes an article on Syracuse's efforts to increase its environmentally friendly practices. ESF's president, Dr. Cornelius B. Murphy, Jr., is featured in the article, discussing the College and its "green practices."

The magazine can be seen online at http://usairwaysmag.com/2007_09/profiles.php.

ESF also, for the seventh year in a row, earned a place among the top universities in America, as ranked by U.S. News & World Report.

The College is ranked at 38 in the list of the top 50 public national universities, and at 85 in the list of best national universities, which includes both public and private institutions.

In the "Great Schools, Great Prices" category for national universities, ESF is ranked 33. Last year the College was ranked 43 in this category. ESF is the only SUNY institution listed in this category. The formula used balances a school's academic quality with the cost of attendance.

ESF also was ranked highly in the category of colleges and universities with the highest proportion of classes with fewer than 20 students. The College was tied for third place, at 76 percent.

In addition, the College was also recognized in the 2008 edition of "You Are Here," a college guide by Kaplan Publishing. The College was listed among 25 "Cutting-Edge Schools." The cutting-edge schools are tied to what are described as "50 of today's hottest career paths." Those paths include several ESF specialties: chemistry, environmental engineering, environmental science and hydrology, and landscape architecture. ■

2007 Feinstone Program Highlights Journalists' Work

ESF presented the 2007 Sol Feinstone Environmental Awards Sept. 13 to New York Times reporter Andrew Revkin and two other journalists whose work helped lead to the improvement of environmental problems.

Revkin, who has spent 25 years covering subjects ranging from Hurricane Katrina to climate change at the North Pole, received the honorary Feinstone Award.

The first-place recipient in the competitive category was John Upton, who wrote a series of stories about an air pollution permit that had been awarded to federal weapons researchers in California. Upton's work was published in the Tracy Press of Tracy, Calif.

The second-place recipient was Jeff Kart, whose stories about pollution in a freshwater marsh were published in the Bay City Times in Bay City, Mich.

The competitive category this year was for journalists whose work highlighted a

local environmental issue and led to improvement of that issue. Journalists at newspapers with a circulation of less than 100,000 were eligible to participate.

Upton wrote about an air pollution permit that had been awarded to federal weapons researchers in California. He reported that the permit allowed the Lawrence Livermore National Laboratory to triple the size of open-air military test blasts at the Superfund-listed explosives test site. Air pollution regulators now plan to hold community meetings to discuss the lab's proposal and more studies are planned on the tests' impacts.

Kart's subject was Tobico Marsh, considered one of the finest freshwater marshes in the Great Lakes region. His work uncovered information about a landfill that was leaking into the marsh and led to cleanup efforts. ■



Discovery at Pack Forest

ESF's Charles Lathrop Pack Demonstration Forest provides the stage for part of a documentary series that is under production for the Discovery Channel.

Tentatively titled "First Nations," the series is scheduled to air in 2009. It will combine dramatization of Iroquois legends with explanation of recent scientific discoveries about the time periods in which the legends are set.

Pack Forest was chosen because it is an old growth forest that provided easy access for the film crew. The crew spent two days at Pack in September.



Dr. Susan E. Anagnost



Dr. Gary M. Scott



Dr. David A. Sonnenfeld



Dr. David H. Newman



Dr. Arthur J. Stipanovic

Five New Academic Chairs named at ESF

Five of ESF's academic departments have new leadership.

Dr. Susan E. Anagnost was named chair of the Department of Construction Management and Wood Products Engineering (CMPWE). She took over from Dr. Robert Meyer who resumed full-time teaching, research, and outreach duties.

Anagnost completed her undergraduate work in biology at Gettysburg College in Pennsylvania. She received her master's degree and Ph.D. in environmental and resource engineering from ESF. She has been a faculty member in CMWPE for 15 years and is associate director of ESF's N. C. Brown Center for Ultrastructure Studies.

Dr. Gary M. Scott is the new chair of the Department of Paper and Bioprocess Engineering. He had been associate chair and professor.

Scott completed his undergraduate work in paper and bioprocess engineering

at the University of Wisconsin-Stevens Point and his graduate work in computer science and chemical engineering at the University of Wisconsin-Madison. He came to ESF in 1998 following five years as a research chemical engineer at the USDA Forest Products Laboratory in Madison, Wis.

Dr. David A. Sonnenfeld was named chair of the Department of Environmental Studies. Sonnenfeld was a professor in the Department of Community and Rural Sociology at Washington State University and is a research associate with the Environmental Policy Group at Wageningen University in The Netherlands.

He holds a bachelor's degree from the Honors College at the University of Oregon and a master's degree and Ph.D. in sociology from the University of California, Santa Cruz.

Dr. David H. Newman joins ESF as chair of the Department of Forest and

Natural Resources Management. Newman was associate dean and professor of forest economics at the Warnell School of Forestry and Natural Resources at the University of Georgia.

He completed his undergraduate work in forest management at the University of California—Berkeley and his graduate work in forest and resource economics at Duke University.

Dr. Arthur J. Stipanovic was named chair of the Department of Chemistry. Stipanovic will also continue in his post as director of Analytical and Technical Services at ESF.

He completed his undergraduate and graduate work in chemistry at ESF. For nearly 20 years he worked in the private sector as a research chemist and research manager, first for St. Regis Paper Company and then for Texaco, before returning to ESF to teach in 1998.

Family Ties

ESF's first dean, a widely known botanist and conservationist, probably would have been pleased to see energy-saving photovoltaic panels being installed on the roof of Walters Hall.

He might have been downright delighted to know that two of his family members were involved in the project.

William Bray, whose name graces the College's oldest building, has a great-grandson, Coley Fudge, who is a regional project manager for Solar Works Inc., the company that did the installation. One of the company's principals is Ron French, whose late wife, Sherry, was second cousin

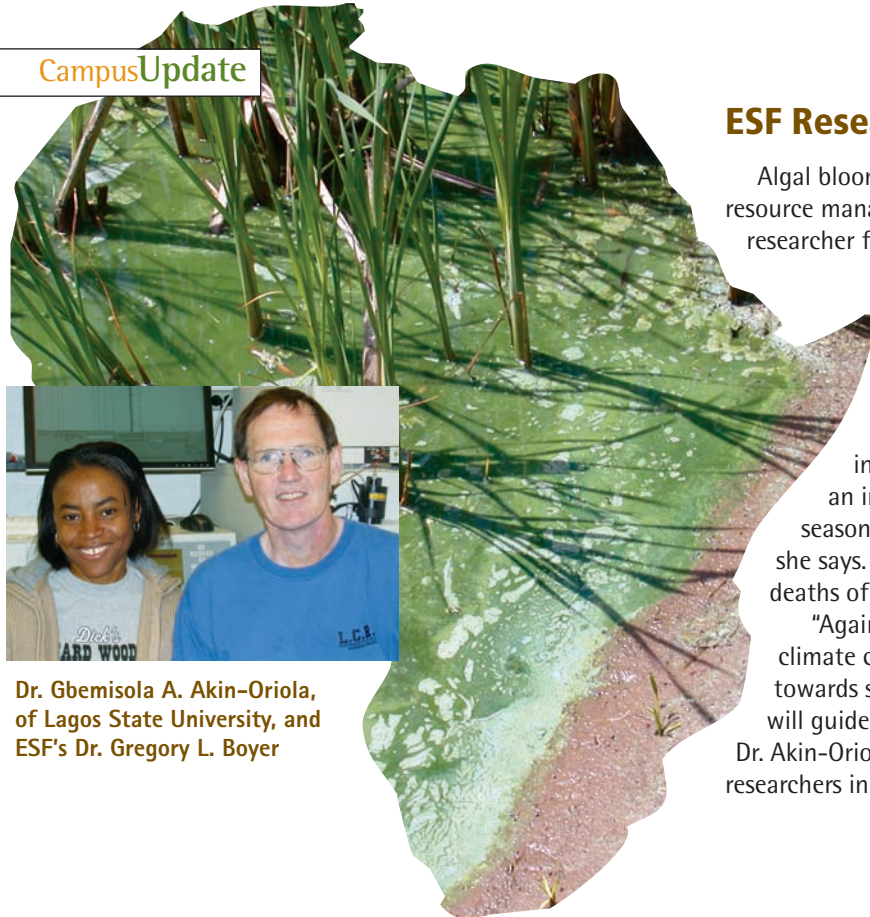
to Fudge and another of Bray's great-grandchildren.

William Bray's daughter, Florence, is Fudge's paternal grandmother.

"It's pretty cool. I knew there was a Bray building, but I had never visited it," said Fudge, who had been in the neighborhood for lacrosse games in the Carrier Dome when he attended Hobart College.

William Bray died in 1953, long before Fudge could have had a chance to meet him. But like his ancestor, Fudge has a penchant for the outdoors. He taught biology and mentored children in environmental science before joining Solar Works.





Dr. Gbemisola A. Akin-Oriola,
of Lagos State University, and
ESF's Dr. Gregory L. Boyer

ESF Researchers Study Saharan Water Issues

Algal blooms and toxins are a largely unrecognized danger in water resource management in most of sub-Saharan Africa, according to a researcher from Nigeria who is visiting ESF as a senior Fulbright scholar.

Dr. Gbemisola A. Akin-Oriola, of Lagos State University, and ESF's Dr. Gregory L. Boyer are studying the detection and characterization of algal toxins in Nigeria's blooms, fish and shellfish.

Many communities depend exclusively on surface water sources for irrigation, aquaculture, fishing, and domestic and industrial water supplies. But the region's tropical climate and an increase in eutrophication provide ideal conditions for the seasonal or year-round proliferation of toxic algae in water bodies, she says. These toxins have been linked to tumors, liver cancer and the deaths of animals and humans.

"Against a backdrop of drought, desert encroachment and other climate change issues in Africa, I firmly believe that research geared towards safeguarding the quality of water is of prime importance and will guide risk assessment and policy decisions in water management," Dr. Akin-Oriola said. She has worked in collaboration with other researchers in this area in Greece, India and Scotland. ■

On the River: Muskellunge Face a Threat

When ESF fisheries researchers compiled data on muskellunge in the St. Lawrence River in 2003, they had more than 40 of the keystone predators to measure and tag.

This year, they had six.

Researchers at ESF's Thousand Islands Biological Station on Governor's Island in the St. Lawrence River believe that viral hemorrhagic septicemia (VHS), a highly contagious illness that has already killed thousands of fish in the river, is the culprit.

"We want to send out an alarm that VHS is killing muskellunge," said Dr. John Farrell, station director. "But there has definitely been a change."

There are other changes in the St. Lawrence River ecosystem to consider:

- The invasive round goby has quickly evolved from newcomer to an abundant, invasive species, found in great numbers both dead and alive.
- Adult smallmouth bass, a popular sport fish that is a dominant predator in the ecosystem, are growing in size as they prey on the abundant gobies. But in an interesting twist within the food web, the gobies prey on young smallmouth bass,

which could affect the bass' ability to thrive in the future.

ESF scientists are studying the problem in partnership with researchers at Cornell University, who are studying aspects directly related to fish health.

Before 2005, Farrell said, he and his colleagues typically saw one dead muskellunge once every five years. The muskellunge is the largest predator in the ecosystem, and there are naturally fewer of them than other fish in the river, much as there are fewer wolves than rabbits in the forest.

In 2005, the researchers came across 25 muskellunge carcasses. In 2006, they found about a dozen. That year, all the dead fish were large females, and tests later showed that several of them died from VHS. One of them was nearly 59 inches long.

"They were all females with eggs that had not spawned. Now we're looking into the impact of losing large mature individuals from the population," Farrell said. "We haven't seen mortality events like this in the past."

As of the end of June, about a half-dozen muskellunge had turned up dead in the river, including two in one week in

mid-June. In addition, the biological station's monitoring efforts show there are fewer young muskellunge in the river this year, and fishermen are reporting fewer catches than in the past.

About five years ago, researchers had believed that the muskellunge population was on the rebound. ESF researchers credited changes in fishing regulations, increased habitat protection and public education as the keys to the muskellunge's success.

Although their size and value as a sport fish draw attention to it, the muskellunge is only one species affected by VHS. The round goby is particularly susceptible to the bullet-shaped virus. The goby has proven to be a popular meal for the small-mouth bass, which are getting plump feasting on the abundant gobies. But at the same time, the gobies are munching on the young bass, which could mean trouble for the long-term survival of the bass.

"We're interested in the role VHS is playing in all this," Farrell said. "Because it's new to the system, there are a lot of questions." ■



A Rare Species of Teacher

by Karen B. Moore

A connection 150 years in the making shaped Dr. James Gibbs' perception of life. "Once I gazed upon a giant tortoise in Galapagos and realized that that very turtle may well have gazed upon young Charles Darwin when he passed through the islands some 150 years previously, it changed my sense of time and life span," Gibbs said.

Gibbs, an associate professor in ESF's Department of Environmental and Forest Biology (EFB), is at the forefront of biodiversity preservation. He has dedicated much of his career to working to save the giant tortoises in the Galapagos and turtles in New York.

"These creatures go about their daily business in a methodical fashion. Many individuals live for over 100 years, and as a group they haven't changed much physically over 200 million

years," Gibbs said. "They have a very patient demeanor and a constant, watchful eye. All this is possible because of the long-term protection provided by the shell."

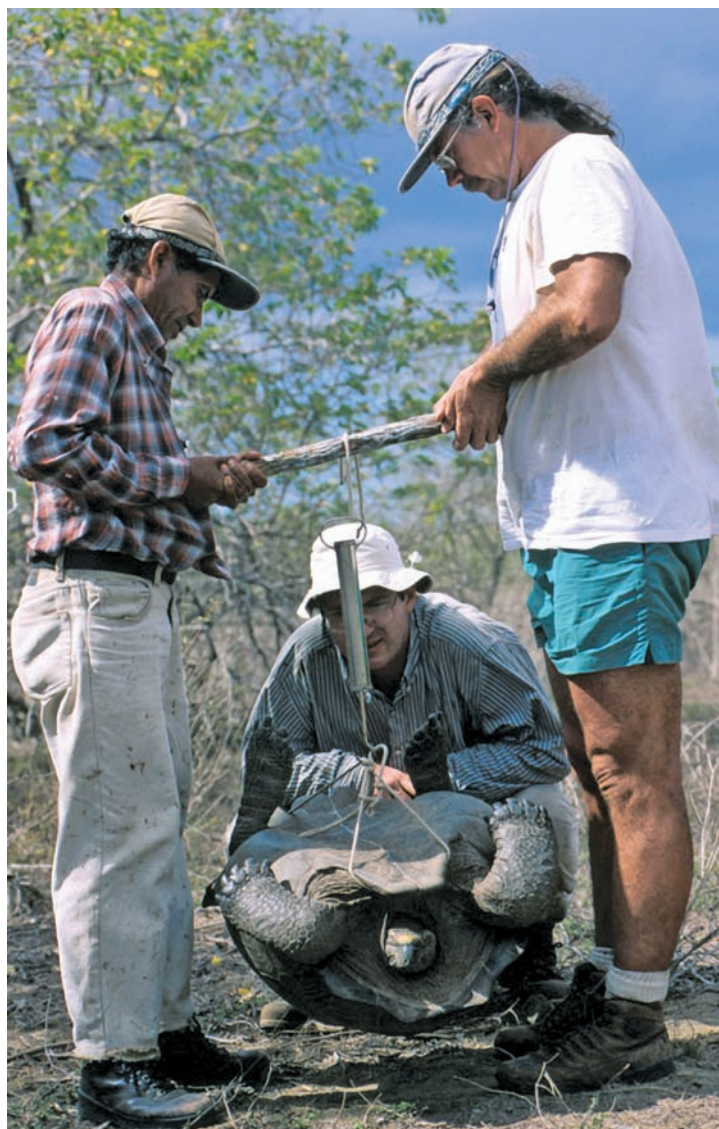
Despite the different locales, there are similarities between the tortoises in the Galapagos and the snapping turtles of Central New York.

"All turtles are somewhat the same," Gibbs said. For example, many turtles don't start to reproduce until they are at least 10 years old. They spend that first decade growing their shell so they can live for a long time.

"The species can't tolerate much mortality to the older individuals," he said.

Because turtles and tortoises play an important role both in the environment and culturally – as in *Aesop's The Tortoise*

continued on next page



Dr. James Gibbs, center, reads the Pesola scale to determine the weight of a giant tortoise. He is aided by Cruz Marquez, left, herpetologist with the Charles Darwin Research Station, and Howard Snell of the University of New Mexico. Photo by Heidi Snell

While studying the snapping turtles, Gibbs and his team observed mostly males in roadside wetlands. “We didn’t know what to make of it and thought it was a very strange pattern. Then we realized that it likely had to do with the mortality of the nesting females on roads, and that lead to an entire research program.”

Gibbs is now working with the New York State Department of Transportation to develop underpasses on roads where turtles are found to keep the females from being killed by vehicles.

In the Galapagos, poachers who kill tortoises for food pose the greatest threat to the tortoise population.

Gibbs has made 17 trips to the Galapagos, where he and colleague Steve Gulick are helping to develop remote poaching sensors so park rangers can intercept poachers before they kill the tortoises.

Gibbs is also part of a team based at Yale University that is playing matchmaker for Lonesome George, a tortoise in Galapagos who is the last of his species. On his next trip to the islands, Gibbs and scientists from partnering universities plan to go hunting for relatives of Lonesome George with hopes they can eventually inspire George to go forth and multiply.

Gibbs’ dedication isn’t limited to turtles and tortoises. He shows equal commitment to his students.

“The term superstar is overused, but in James’ case it is true,” said Dr. Donald Leopold, chair of the EFB department.

Gibbs was honored in 2006-07 with an Excellence in Research and Scholarship award by the SUNY Research Foundation and with a College Foundation Award for Exceptional Achievement in Teaching by ESF. He has also received the Distinguished Teacher Award, voted on by the student body, twice in the last four years.

It was Gibbs’ dedication in the classroom to more than 200 students each year, his accessibility to students, his extraordinary efforts to help students succeed, and his professional scholarly activities that earned him these special honors in both research and teaching.

His teaching style is highly valued by his students, as he teaches from personal experience.

“You can’t get two or three of those awards without something special,” said Leopold.

“He’s brilliant. He’s the perfect person to think outside of the box and to throw things in a new dimension,” said Dr. Jacqueline Frair, once a post-doctoral student of Gibbs’ and now a member of the EFB faculty.

and *The Hare*, Dr. Seuss’ *Yertle the Turtle*, and creation stories from numerous cultures – humans need to let them live long enough to reproduce.

“They are very important to people as symbols of the virtues of peace, patience and longevity,” Gibbs said.

In the environment, tortoises are major seed dispersers, grazers and bulldozers, and have a major effect on vegetation.

“Probably more than any other species in Galapagos, tortoises have a major impact on the structure and composition of their environment,” Gibbs said. Tortoises increase germination rates for plant seeds and disperse seeds long distances as they travel. Their grazing maintains open areas within forests, which keeps the areas from becoming crowded with vegetation.

“Without tortoises, areas become a dense thicket, to the significant detriment of the many kinds of light-demanding plants, insects and birds,” he said.

Turtles that dwell primarily in water present a different challenge.

“As for aquatic turtles, we don’t know much about their role in ecosystems,” said Gibbs.

Gibbs has been instrumental in finding ways to keep the turtle populations strong.

“He’s brilliant. He’s the perfect person to think outside of the box and to throw things in a new dimension,” said Dr. Jacqueline Frair, once a post-doctoral student of Gibbs’ and now a member of the EFB faculty.

“In his conservation classes he tells stories from all around the world,” said Leopold. “You can listen to him forever.”

Along with turtle preservation, he also designs ecological monitoring programs for U.S. national parks and researches the ecology of endangered species.

With his knowledge, Gibbs could be at any university in the country, said Leopold. “His expertise is sought by conservation organizations worldwide,” he said, and is evidenced by his work in different corners of the world.

Gibbs is helping plan a future for the Kihansi spray toad in Tanzania. Currently, the toad is found only in zoos in the United States, but Gibbs and his partners are developing plans to get the toad back to Tanzania and perhaps release it back into the wild.

“The Kihansi has the smallest range of any four-legged vertebrate,” said Gibbs. “It lives at the base of one waterfall where the river flow was disrupted by hydrodevelopment.” Gibbs helped develop the rehabilitation plan and will return to Tanzania to implement it.

Locally he partnered with Honeywell International to do an ecological/conservation assessment of a parcel of land on Nine Mile Creek, on the edge of the Solvay Settling Basins. The plan looks at the tract of land from the angle of making it a wildlife area.

“It’s got wonderful wetlands, waterfowl, beavers, turtles and plants,” he said. “Plus, aesthetically it’s very attractive land. It’s a nice partnership.”

During the summer, he and graduate student Kevin Shoemaker were in the Cicero swamp looking for rattlesnakes, in particular the massasauga or pygmy rattlesnake. They will be estimating the snake population and see how the species is faring.

“The snake is very rare and somewhat protected by the mosquitoes and wet footing of the swamp,” he said.

Gibbs said the massasauga presents little danger. The snakes grow to between two and three feet in length and, although their venom is toxic, a bite involves only a small amount of venom and rarely presents a serious danger to adults. Their shy behavior means humans rarely see them.

“It’s poisonous but given its size and habits you really have to try to be bitten,” he said.

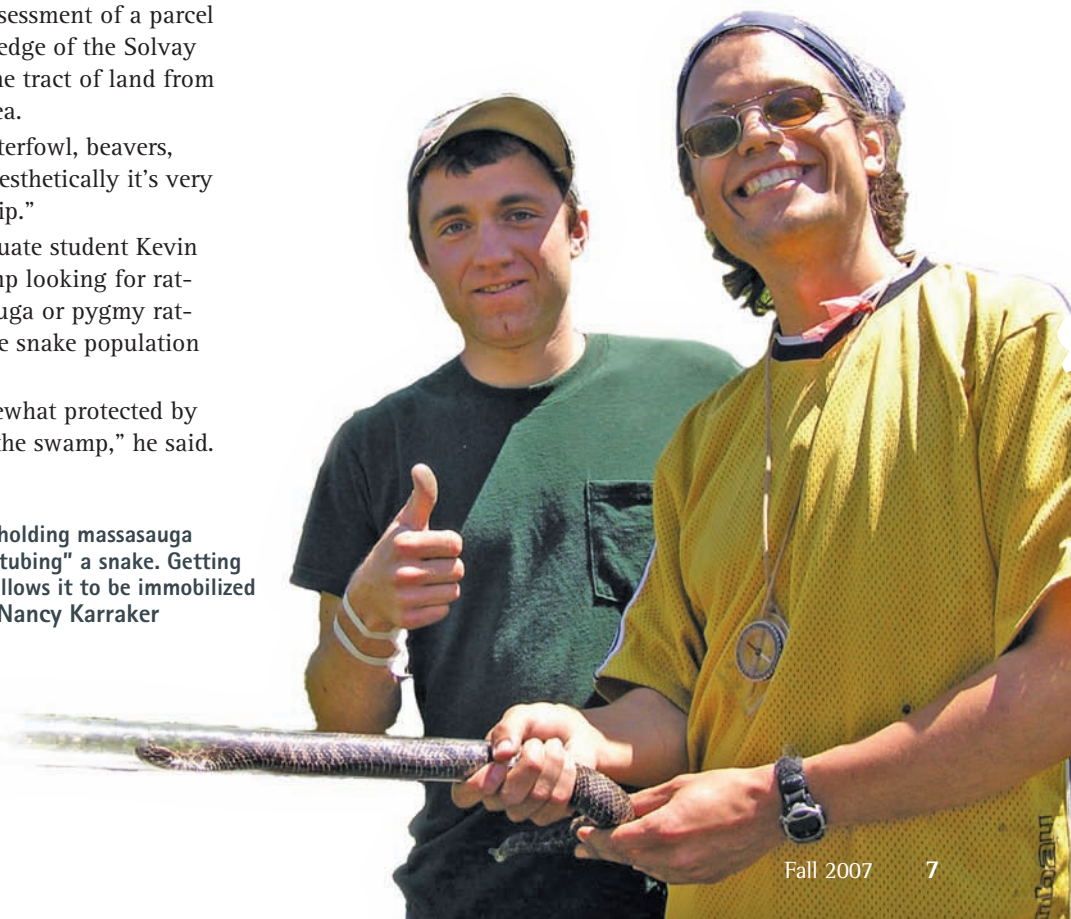
Such diversity of research and locales has practically become a signature of Gibbs’, Frair said.

“He’s involved with local long-term research,” she said. “You’ll see his whole crew out in Cicero looking for salamanders late at night, setting up tubes to see which ones they will go through. And if you caught him a week earlier he was probably in Russia.”

But in the end, for Gibbs it comes back to the tortoises and what we can learn from them.

He said, “We have much to learn about these creatures in terms of patience and the value of initial investment in a good sturdy shell to get us through an extended, pleasant and productive life.”

Students of Dr. Gibbs', Kevin Shoemaker (holding massasauga rattlesnake) and Alex Krofta, succeed in "tubing" a snake. Getting the snake to seek refuge inside the tube allows it to be immobilized momentarily for measurement. Photo by Nancy Karraker





MOON RISES

TO A NEW LEVEL



Elizabeth Elkins

by Karen B. Moore

The moon is a little fuller on the ESF campus — Moon Library, that is — following an extreme makeover during the summer. The renovation marked the first time since the library opened in 1968 that any major work was done there.

The new design enhances the library's reputation as the academic living room of campus with new computer workstations, new tables and chairs that students can arrange to best suit their needs, and "living spaces" with comfortable chairs and couches, said Elizabeth Elkins, director of college libraries. And since their return to campus in August, students have made themselves at home.

"I really like it. It's more comfortable and more inviting to study," said Erica Hansen, a senior biochemistry major.

The library's mission, vision and values statement focuses on providing a user-friendly environment, and Elkins noted this renovation fits those ideas.

"The excitement now is that the students love it," said Elkins. Students are

enjoying the new comfortable couches and chairs in the "living areas," but have also taken to moving the octagon and rectangular tables to suit their study needs.

"They're pushing them together in configurations that work for them and that's the beauty of it," Elkins said.

"Libraries today are much different than they were in the past," she said. They are no longer places where people get "shushed" for talking or banished for having a beverage with them. Today's students gravitate to the library for research, group study sessions, tutoring, class projects and socializing.

The redo has solidified Moon's reputation as the heart of campus. "This is the place to hang out," said Travis Smith, a senior biochemistry major, while reclining in one of the plush new chairs.

"We joke that the comfortable furniture was delivered with students already in it," said Elkins.

She noted the returning students are very appreciative of the new Moon.



Students gather to study, relax and read in the refurbished Moon Library.

"It's a lot more comfortable," said Amanda Saralegui, a senior conservation biology major. "It used to be drab and plain-old, same-old. Now it has a nicer atmosphere."

"I like the new, open modern look," said Smith. "When I first came in, I thought, 'Wow.'"

The open look was achieved by knocking out the old reserves room, opening the library's storefront and moving the service desk to the middle of the library.

The new service desk was designed by the library staff and handles circulation, reserves and reference. "We call it *The Desk*," said Elkins.

The project falls in line with the College's commitment to sustainability. The furniture was made by Artistry in Wood of East Syracuse, N.Y. The company follows green manufacturing practices, such as using wood from managed timberlands, using machinery that reduces the amount of dust particulates released into the air, and working with vendors who also follow green manufacturing practices.

"It was a great project to be involved in as sustainability is something we try to practice every day," said Gregory McCartney of Artistry in Wood. McCartney said he's seeing more institutions

incorporating green building practices in their projects. "It's definitely becoming more of a trend."

Students have expressed an interest in some of the choices made during the project. One student questioned the use of leather furniture. Elkins explained that the staff wanted something that would look good and stand up to the wear and tear of constant student use. The staff also weighed the use of leather against plastic furniture coverings, which are produced with numerous chemicals. "We felt for sustainability the leather would hold up better and have less of an impact on the environment. We did look at all the options, though," she said.

While choosing the fabrics for the new furniture, the library staff was aided by Georgia Raynal of GPR Designs.

"She helped with the fabric choices and put together really intriguing and wonderful fabrics to mix and match all over the room," Elkins said. "It's become a very comfortable and very classy space on campus."

With the final touches being put on the library, Elkins said she is thinking ahead to Phase II. "I dream of more enhancements. We're in a continuous improvement mind-set."





CULTIVATING AWARENESS

Students in the Moscow State-ESF Exchange Program Learn About More Than Science





Katya Kravchenko packed a lot into a two-week visit to ESF's Cranberry Lake Biological Station: an all-night stint keeping honeybees awake, a close encounter with a common loon, and closer encounters with the smallest of Adirondack mammals in her cabin.



here was also a splashy race across the lake's placid waters in one of the station's storied "war canoes," a homemade borscht dinner for 50 Cranberry Lake colleagues, and some rushed shopping in two disparate retail hubs: folksy Old Forge in the southwestern Adirondacks and the more upscale Carousel Center in Syracuse.

"I'm really glad that I'm here," Kravchenko said. "We thought the U.S.A. was an absolutely different planet. It was really surprising for us that boys and girls all laugh at the same things. We can communicate quite freely."

Kravchenko was one of seven students from Russia's Moscow State University who participated this year in their university's exchange program with ESF. In June, then-postdoctoral associate Brent Murray took four students to Russia for a two-week visit. In turn, the Russian students, along with a Moscow State professor and his wife, came to Cranberry Lake in August. This was the program's fourth year. It is part of a broader exchange between Moscow State University and the State University of New York.

As Kravchenko's experience demonstrates, the exchange of ideas, both educational and cultural, is the basis for the program.

Continued on next page

Different Cultures, Same Problems

Oksana Untilova brought an unusual perspective when she participated in ESF's exchange program with Moscow State University.

Untilova, a native of Brest, a Russian city near the Polish border, emigrated to Syracuse with her family at the age of 14. Fifteen years later, as an environmental and forest biology major at ESF, she returned to her homeland for a summer study session at the White Sea Biological Station.

"It was interesting to see they have the same problems over there," she said. "Here, we have fish dying in some of our lakes. They do, too. They are two different countries, but the environmental problems are similar to ours. I had a very good experience over there. I was happy that I went."

She particularly enjoyed studying marine animals alive in their natural environment, as opposed to learning about preserved specimens in a laboratory.

Juggling her two cultures was not a problem, Untilova said.

"I've lived half my life over there, half here," she said. "I really didn't feel the difference."

She gladly served as translator for her classmates, easing their way through the long train ride from Moscow to the biological station and helping them deal with logistical problems during the three-week trip. It was her second journey back to Russia, but her first to the White Sea. Seven years ago, she returned for a visit to her hometown.

Back at ESF this fall, Untilova is in her senior year, focusing on biology and planning to move on to medical school to study pediatric medicine.



Opposite page: At top, students from Moscow State University, with help from one ESF classmate, paddle the bio station's red "war canoe" in a race against an all-ESF team. At bottom, ESF and Moscow State students learn about biology during a boat trip on the White Sea.

Above, Katya Kravchenko keeps a close eye on a honeybee at Cranberry Lake while helping with a research project about sleep deprivation in honeybees. **At right,** ESF student Oksana Untilova checks out starfish in a shallow pool at the White Sea Biological Station in Russia.



"This is a very good place to be and very interesting for an ecologist or a botanist, or anyone who works in the field of biology. It is very important to visit different places, to visit different climate zones to see different communities of plants and animals,"

**— Artem Sinev,
Moscow State Professor**

"It creates opportunity for faculty and students to experience not only different science, but different cultures. People become more patient with other people's cultures," said Dr. Olga Zinovieva, a SUNY employee who is program director of the Center on Russia and the United States.

"It prepares students for a more global society, and it exposes them to different experiences," Zinovieva said during a visit to ESF earlier this year. "And if it is institutionalized, it gives them a high-quality, well-organized experience and it is done more efficiently. Credits transfer easily so they are not wasting their time."

In addition to the cultural exchange, this year's visitors got a close look at the differences in teaching between their native Russia and ESF. As exchange students in an ESF summer class, they were able to choose their own research projects, instead of taking on an assignment from a professor. And the students participated in the research, instead of simply learning about the results.

"We never came across such experiments," said one of the Russian students, Sasha Savchenko. "Our practice at the White Sea Biological Station and other biological stations in Russia is that they

are more for learning; they are not really for doing science." (To read about a research project that kept Savchenko and Kravchenko up all night, see below.)

For Savchenko's classmate Den Basyrov, the trip marked his first departure from Russian soil.

"I'm very interested in science. I want to see the international face of science, to see how I can connect to it," Basyrov said.

The more he talked, the more he homed in on his specific passion: mycology; in particular, edible mushrooms, especially the ones known as oyster mushrooms. Even more narrowly, he is interested in the chemistry that affects their taste and smell, and which might have other uses.

Basyrov was at the station the evening that Dr. Alexander Weir, director of the Cranberry Lake station, indulged his own interest in creative cuisine, by harvesting a variety of mushrooms from around the station and cooking a tasty mushroom soup.

"First, I'm interested in communicating with people," Basyrov said. "And second, I'm interested in nature. I love the Adirondacks. It's very beautiful. I've never seen such a place before. This camp is a perfect world."



ESF student Carol Thomas shows off a starfish in Russia.

Where All-nighters Don't Seem Like All-nighters

Carol Thomas didn't let a daylong train ride and twice-weekly showers detract from her "once-in-a-lifetime experience."

"It was absolutely wonderful," she said of her three weeks in Russia with the ESF-Moscow State University exchange program.

Thomas and three other ESF students were in Russia from June 24 to July 13 with Brent Murray, an ESF grad student who was the trip's leader.

After a couple of days sight-seeing in Moscow, they boarded a train for the White Sea Biological Station, on the Arctic Circle. The station is on the White Sea's Gulf of Kandalaksha, more than a day's train ride from Moscow and more than nine miles from the nearest railroad station.

The students studied the biology of the White Sea, particularly botany, marine biology, cell physiology and immunology. And they coped with rationed showers and buildings without electricity, and learned to not drink the water unless it had been boiled for tea.

They were also disoriented by the 24-hour-a-day sunlight.

"You would think it was about 7 p.m. and you would ask someone the time and find out it was 3 a.m. It's a little hard, but you adjust," Thomas said.

At ESF, Thomas studies botany and participates in the Undergraduate Mentoring in Environmental Biology program. And she grabs opportunities to travel whenever they arise.

"I enjoy very much traveling to another country and I love learning about people's cultures," she said.

Thomas' interests have brought her to Baffin Island, off the coast of Greenland, where she spent part of the summer of 2006 living with an Inuit family; and to Japan, where she attended a conference on history and religions. Next up: Australia with ESF's Dr. William Shields during the upcoming semester break. ■

The Cranberry Lake facility and Moscow State's biological station on the White Sea have some similarities, Weir said. Visitors arrive at both facilities by boat. The stations resemble each other at first glance, with spruce and birch trees surrounding the cabins and islands dotting the water. But the animal life in the manmade Cranberry Lake is vastly different from that of the White Sea, which is an arm of the Arctic Ocean, and much of the vegetation differs greatly in detail.

The Moscow State University professor who accompanied the students, Artem Sinev, had helped organize the Americans' visit in June.

"This is a very good place to be and very interesting for an ecologist or a botanist, or anyone who works in the field of biology. It is very important to visit different places, to visit different climate zones to see different communities of plants and animals," he said.

"For the students, this trip will broaden their view. They will get accustomed to new research methods," he said. "Here, all the courses are deeply connected to the forest."

Sinev, who teaches in the department of invertebrate biology, planned to collect some Cranberry Lake water fleas to study when he returned to Moscow State.

Sinev's SUNY counterpart, Weir, pointed out that despite the array of international experience available to ESF students, this program is the only one that allows them to interact with students from another country.

"They get to live with the Russian students, and vice versa, and they get to interact culturally with them," he said. "They take their classes and meals together and really have to spend a lot of time together because of the isolation."

Zinovieva said the informal time together is a key element of the exchange. Americans learn, for instance, that in Russia, a man will not shake hands with a woman

Continued on next page



Above, at left, ESF Associate Professor Stephen Teale and Moscow State Professor Artem Sinev plan their strategies for the canoe race at Cranberry Lake. At right, a beluga whale pops up to greet ESF student Oksana Untilova during her visit to the White Sea Biological Station in Russia.

unless she extends her hand first, and they can avoid the embarrassment that could result from a misunderstanding.

"These are small things, but sometimes they are critical," she said. "When you see Russian students and American students sitting together, talking, drinking, and playing guitars, you can't imagine them later writing bad stories about each other in the media. The Russian students see "this particular America, not the America on the TV screen."

Weir played tour guide for the Russian delegation, escorting its members on a weekend jaunt to Niagara Falls and back to Cranberry Lake via touristy Old Forge and the Adirondacks' scenic High Peaks region.

Savchenko enjoyed the shopping as well as the more rustic experiences. During a canoe outing on Cranberry Lake, she and her classmates got close enough to a loon that she could see fishing line tangled in its mouth.

"It's amazing that there are so many mammals around the station. And right at the station, really," she said. "And in the cabins," she added with a laugh, referring to the mice that scoot through the students' quarters.

"It is a good experience to look at other ways of sharing and learning," Sinev said. "It just broadens a person's views. Everything that happens to you will affect you somehow. It just takes time to realize what's important." ■



Bee Alert

Observing sleepless honeybees might teach us about our own society

2 a.m.: Student researchers gather in the chilly darkness of an Adirondack night, knowing they won't sleep until after the sun is up.

Their target: a honeybee hive.

Their mission: disturb the bees' sleep relentlessly, every 20 seconds for four hours.

The result of their work: remains to be seen.

This is the 2007 "bee team," taking the next step in decades of honeybee research at the Cranberry Lake Biological Station.

ESF's isolated field station is a perfect place to study the bees, known formally as *Apis mellifera*, because, interestingly, it is not a perfect place for the bees to live naturally. The severe cold and lack of nectar-producing flowering plants makes this corner of the Adirondacks inhospitable for them. That means a scientist who establishes a research hive here can observe bees' behavior and be sure they are all from the same hive.

"The adaptive function of sleep is a hot topic in science right now," said Barrett Klein, a doctoral student at the University of Texas, who managed the bee study this summer. His connection to Cranberry Lake began during his undergraduate days at Cornell University.

Sleep is better understood in mammals and birds than in invertebrates. Klein is particularly interested in the role of sleep among social organisms like honeybees that live in colonies.

His Cranberry Lake bees feed on a sugar solution that he provides along a quiet section of trail about a 15-minute walk from the dining hall. A crew member slips a plastic bag over a visiting bee, chills it in a cooler to slow it down, then marks the bee with two or three dots of artist's dry pigment mixed with shellac.



Russian students Nastya Zykova (left), Sasha Savchenko and Katya Kravchenko discuss sleepy honeybees with ESF student Greg Cocquyt.

Each dot is a different color and imbues the bee with a unique identity. The researchers also glue a tiny stainless steel tag on each bee — one one-thousandth of an inch thick and three thirty-seconds of an inch wide — that causes them to react at night when a magnetic bar is run across the hive by a member of the bee team. Control bees are marked with a copper tag.

"We induce at least partial sleep deprivation," Klein said. "Then we observe the bees' behavior to see what effect it had. We hope to learn about the role sleep plays in social communication."

Part of the observation is watching the bees' foraging behavior after a sleepless night.

ESF student Greg Cocquyt sat by the feeder for six hours after the bees had a night of sleep deprivation. As he timed and recorded their arrivals and departures, he was joined by Russian students Nastya Zykova, Sasha Savchenko and Katya Kravchenko, who had been up with the bees the previous night.

"I sit here and get eaten by mosquitoes and watch bees," Cocquyt said. "So it's fun."

"The Russians and Greg saved the day," Klein said. "They came at just the right time and they were at least as serious about the data collection as I was."

In the long term, Klein believes, studies such as this one might help researchers learn more about genetic and hormonal factors that influence sleep. "If we find out more about the fundamentals of sleep, it could help us address sleep disorders such as apnea and narcolepsy," he said. ■

Head Master Planners

Students take the lead as ESF examines the future of the campus

A defining moment occurred for Nicole Formoso, LA '07, when, in her final days as an undergraduate, she slipped into the role of expert during discussions about the future of the ESF campus.

"It's really exciting when people actually pay attention to what you do and they act like, 'Well, you're not just a student, are you?'" she said.

Formoso, who's now working in the urban planning studio at KCI Technologies, an engineering firm in Baltimore, Md., was one of several then-fifth-year students in a Department of Landscape Architecture community planning and design workshop who helped lead the first steps of the ESF campus master plan process.

She and her classmates ran workshops, open to all members of the campus community, last spring. They drew 150 participants, ranging from freshmen and sophomores to President Cornelius B. Murphy, Jr., and the college vice presidents, who shared their thoughts about the College's identity, maintenance and spatial organization.

"The College was looking to the people who actually inhabit the campus for input and that rarely happens," Formoso said.

One of the most thought-provoking questions the LA students asked was about "sacred places" on campus, the places participants most value and want to protect. Formoso said participants at all 17 discussion tables identified the ESF quad as sacred because it presents a traditional gathering spot with a collegiate feel. People at 12 tables said the Robin Hood Oak between Bray and Walters halls is sacred to them; 10 treasure the miniature hardwood forest created by Dr. Donald J. Leopold's class north of Moon Library; six mentioned the greenhouses on top of Illick Hall.

Some results were surprising. Formoso and her classmates expected the Gallery snack bar in Marshall Hall, to be mentioned as sacred because it is one of the few places on campus specifically designed for socializing. However, it lost to the quad.

That was especially intriguing because the quad is subjected to Central New York winters and the students are gone for much of the warm weather.

"We knew one of the issues we were going to have to tackle was the eight-month winter here," Formoso said.

Several workshop participants liked the variety of vegetation on campus, and many value the campus' small size.

"Although its first an academic center, second it really is a social center," Formoso said.

She and her classmates, studying with LA Associate Professor Cheryl Doble, the director of the Center for Community Design Research, presented their findings to the campus master plan committee. Doble's colleague, Assistant Professor Timothy R. Toland, worked with two graduate students through the summer to further refine and develop the input from the campus community.

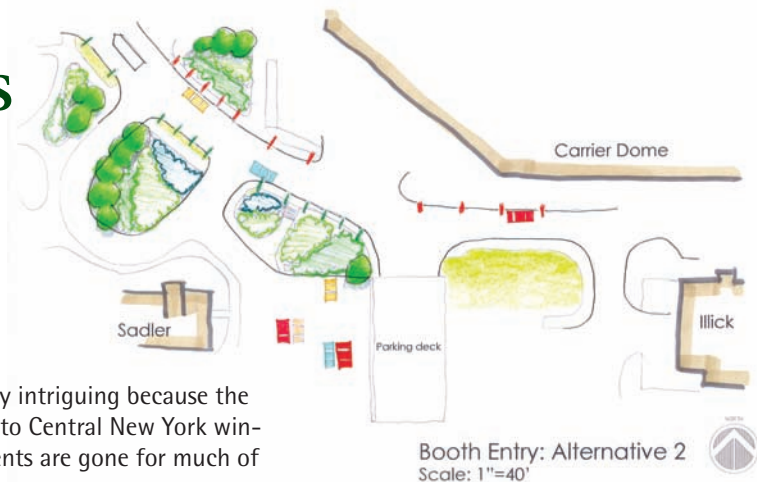
"We have a conceptual master plan that illustrates the opportunity for improvements," Toland said.

The students' work is included in the overall master plan process, which is continuing on campus this fall with the help of professional consultants.

"This project translated into what I want to do for my career" Formoso said. "I like design that's grounded in something real. It's one thing to be able to design something beautiful, but if it doesn't fit the space, it loses some of its value."

And this work, she said, could be of value to future ESF students.

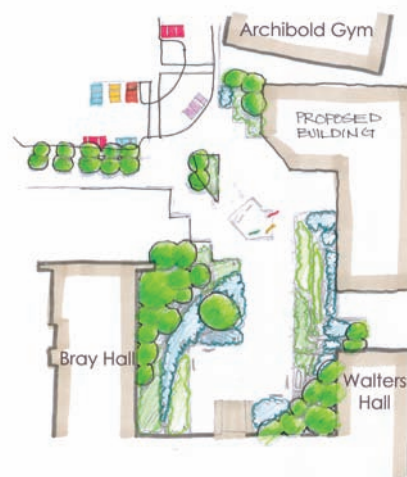
"At the workshops, we had some freshmen, we had some sophomores," she said. "So hopefully, they'll be able to see some of these changes." ■



Booth Entry: Alternative 2
Scale: 1"=40'



Nicole Formoso, LA '07



Upper Quad: Alternative 2
Scale: 1"=40'



Marshall/Bray Hill Accessibility Alternative 2
Scale: NTS



The Sundts' Finca

In good hands

by Claire B. Dunn

Just a mile from the Pacific Ocean, a 30-acre site in northwestern Costa Rica that is home to raucous howler monkeys and 150-foot-tall trees with seed pods the size of pears, is host to ESF's first international field station.

Donated to ESF by alumnus Arthur Sundt '59 and his wife, Mary, the property gives students an opportunity to study tropical ecology at a College-owned facility.

The property is fondly known as "the farm" — or in Spanish, "finca" — by the Sundts, who bought it in 1982 to provide a respite from the winters in Alaska, where they settled after Arthur Sundt graduated from ESF.

"It's a very special place," said Arthur Sundt. "It's beautiful, for one thing. It has a little bit of everything: A stream meanders through it; it has hills and pasture. It's just a lovely place. It has all the local fauna, including snakes and all that kind of stuff you don't want to hear about."

"There's so much there. I miss a lot about it," Mary Sundt said. "We wanted to get that finca into the hands of someone like the university. We knew it would be protected."

The field station is a 15-minute drive from the Gulf of Nicoya on Costa Rica's west coast, and a three-hour drive from San Jose, the nation's capital. The property includes hills, dry tropical forest, a creek, pastureland, and a wealth of vegetation and animal life.

Among those animals, Mary Sundt said, are howler monkeys, the world's loudest animals, whose guttural yowls can be heard three miles away; green parrots that sound as if they are crooning as they nibble ripening fruit;

ring-tailed coatiundi that spend their days snoozing in trees, draped over branches so high they can't be seen from the ground; and four-foot iguanas known locally as "tree chickens."

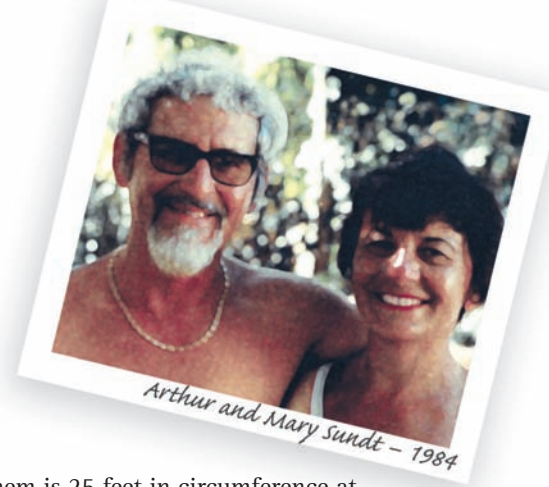
Mary Sundt expects the flora, too, to catch the interest of ESF researchers.

"Allen Drew is going to be delighted by the size of the trees," Mary Sundt said, referring to the forest ecologist who serves as ESF's coordinator of international programs. Drew has begun to survey the trees on the property. In June, he logged 26 species, but he said the final tally could be four times that number.

Mary Sundt described trees called ojoches that grow along the creek. One

of them is 25 feet in circumference at shoulder height, and close to 40 feet at the bottom. Drew said the tree is formally known as *Brosimum alicastrum*, a multipurpose tree that was cultivated by the Maya.

Mary Sundt said the biggest trees on the farm are the kapok, which grow to more than 150 feet tall. Their pear-sized pods contain seeds that are surrounded by a cottony white fiber that was once used to stuff life jackets. When the seeds and fiber are released to the wind, it looks as if a snowstorm has descended on the tropics.



Arthur and Mary Sundt - 1984



Photos depict some of the finca's fauna: a tarantula (top) and a coatiundi. Below, interpreter Fernando Leon takes a break on the porch.



Student Angela Wright and Dr. Alexander Weir sample coconut milk.

The species became a familiar image to readers of children's literature in 1990, with the publication of Lynne Cherry's book, *The Great Kapok Tree: A Tale of the Amazon Rain Forest*, which used the tree as the focal point of a story about conservation.

The facility is the first international field station to be owned by ESF. The College operates field stations on 25,000 acres of property across New York state and has students and researchers working on all seven continents, but has never before established a permanent field station outside the United States.

The new station will serve as a base of research and teaching operations as it focuses on tropical studies.

"It gives our students, whose exposure to natural systems through our field stations has largely been the northern forests of North America, a chance to study the equatorial forest," said ESF President Cornelius B. Murphy, Jr.

The Sundts, both natives of Long Island, lived in Syracuse from 1955 to 1959 while Arthur Sundt attended ESF and Mary worked at Aetna Insurance Co. They spent a year at Yale University while Arthur Sundt worked on his master's degree in forestry, and then moved to California, where he worked for the U.S. Forest Service in Shasta-Trinity National Forest. Their last stop was Eagle River Valley, Alaska.

In Alaska, Arthur Sundt worked as a state forester and for private loggers before he went to work for the city of Anchorage. He retired from Anchorage Water & Wastewater Utility in 1987. Mary Sundt worked at a gift shop and

for the Anchorage School District before she retired in 1985.

In recent years, as the two-day trip from Alaska became more difficult for them, they contemplated selling the property, but worried about what prospective buyers might eventually do with it.

"We knew they were going to log it and cut it up into lots. It would have become a rural ghetto. We could just envision it," Mary Sundt said. "Now, we are just elated. We didn't want it to slip away and be abused. They (at ESF) all had the same thought and we're thankful it's being preserved."

The Sundts have asked that the facility be named for two ESF professors who were instrumental in Arthur Sundt's education: Wilford A. Dence and John L. Morrison.

"Land is meant to be used or preserved," Arthur Sundt said. "I didn't want it sold. I'm so happy there are people (at ESF) who appreciate it and I'm happy with what they are going to do with the property. That property is a gem and I'm sure it's going to be used well."

Murphy said the station supports ESF's historical ties to Costa Rica. Dr. Charles A. Hall, a systems ecologist in the Department of Environmental and Forest Biology, wrote a book synthesizing environmental, agricultural and economic information about Costa Rica. And Scott Shannon, a member of the Department of Landscape Architecture, just spent a sabbatical leave at the Monteverde Institute, a non-profit educational association located in a cloud forest community in the Tilaran mountain range.

"It's in good hands now and we feel like a million bucks," said Mary Sundt. "I'm so glad we made this decision."

At top, ESF students explore Monteverde with Dr. Charles Hall. In the middle, student Lauren Goldman collects flies in search of new species of parasitic fungi. Bottom, coatiundi crowd around the photographer in search of food.



The Great Kapok — and much more

Dr. P. Allan Drew just started to survey the trees at ESF's field station in Costa Rica, but he already knows a lot of interesting things:

- The ojoche tree is more than six feet in diameter.
- The kapok, known locally as ceiba, was sacred to ancient cultures. A generation of children has come to know the tree through *The Great Kapok Tree: A Tale of the Amazon Rain Forest* by Lynne Cherry.
- The mango trees drop fruit the size of cantaloupe, which lures hungry monkeys and butterflies with its sweet pulp.
- The guanacaste is the national tree of Costa Rica and drops pods that look just like human ears.

"There are a lot of really huge trees on the property," said Drew, whose work is funded by a grant from New York State United University Professions.

Some of the trees are more than 100 feet tall, nurtured by a climate that provides a nine-month-long growing season and virtually no punishing winter weather.

"We have 26 species listed now. There could easily be 100," Drew said. "This is just the beginning."

He is establishing a dendrology trail and mapping the property so ESF researchers can measure the trees periodically and calculate growth rates. Drew said the variety and size of the trees have tremendous ecological value, providing habitat and food for a rich array of wildlife.

"The howler monkeys start about 4:30 a.m., right at the light of day. And there's an amazing array of birds," Drew said.

The field station will also support Drew's previous work in the tropics, which includes the Tropical Forest Initiative in Costa Rica, a class in tropical ecology in Dominica, West Indies, and work in Puerto Rico with subtropical forest communities.

Other ESF researchers are working at the field station.

- Dr. Alexander Weir is involved in a five-year project, funded by the National Science Foundation, involving the discovery of new species of insect-parasitic fungi.
- Dr. Charles A. Hall took a group of ecology students to the station last spring.

Drew, Hall, Scott S. Shannon and Weir form a faculty advisory group for the station. ESF expects to partner in use of the field station with the educational Monteverde Institute and the non-profit Neotropica Foundation.

At right, Dr. Charles Hall (in baseball cap) talks to a group of students in Monteverde.



FROM Fast Foods to Fast Cars

One day it's glistening vegetable oil, giving crunch to a mound of French fries. A few days later, it's in the gas tank of a pickup truck, powering the vehicle along a city street and reducing its carbon emissions.

In between the cooking and the traveling, it spends a few days at the biofuels demonstration facility at ESF, where waste cooking oil from a neighboring university's dining hall is turned into environmentally friendly biodiesel fuel.

"There are a lot of benefits to it," said ESF senior Greg Boyd, who brought the process with him when he arrived at the College as an undergraduate. "You're not using a foreign oil source, it's sustainable in the United States and it has 70 percent less emissions than petroleum diesel."

Boyd works with a bioprocessor installed in a former greenhouse on the ESF campus. He collects the used fryer oil in a 55-gallon drum from Sadler Hall, a residence hall at Syracuse University, adjacent to the ESF campus.

He strains the oil and pumps it into the automated bioprocessor. In goes methanol, a form of alcohol that attacks the fat molecules and severs them from the carbon chains in the oil. He adds sodium hydroxide, which acts as a catalyst, and sulfuric acid, which neutralizes the three free fatty acids in the oil.



Greg Boyd fills the ESF bioprocessor with the waste cooking oil collected at Sadler Dining Hall.

"We add it all, turn it on and wait 24 hours," he said.

A device like a boat propeller churns the oil, and a chemical reaction takes place, turning the vegetable oil into power-producing biodiesel.

The byproduct glycerol settles to the bottom of the processor and can be separated out for other uses. ESF researchers are using it to develop biodegradable plastics. Glycerol is already used in the manufacturing of soap and makeup products.

The final step is to wash the biodiesel with water to remove any impurities and to flush out any particles that would attract water and interfere with the fuel's ability to run an engine.

"Then you have fuel ready for use. You can run it in any diesel engine, or use it for home heating," the student said.

Seventeen percent of ESF's fleet now operates on biodiesel, including buses, trucks and bulldozers. A third of the fleet runs on some kind of alternative fuel. By contrast, throughout the rest of the 64-campus SUNY system, about 6 percent of the fleet operates on biodiesel.

Boyd, who started making biodiesel in his garage as a high school student, modified the fuel lines in his 1989 Mercedes-Benz so the car would run on biodiesel.

He participated in the 2007 Green Grand Prix Rally in Watkins Glen in July. The third annual rally was hosted by the International Motor Racing Research Center and featured hybrid- and alternative-fueled vehicles competing on a 78-mile course around Seneca Lake. The event emphasizes energy independence and includes educational activities.



Boyd is interviewed by Laura Hand of WSTM television for their evening newscast.



Books & Awards

Books and Monographs

Auwaerter, John and John F. Sears, *Historic Resource Study for Muir Woods National Monument, Golden Gate National Recreation Area* Boston: National Park Service, Olmsted Center for Landscape Preservation, 2006. 454 pages

Beal, Richard, contributing author and Hall, Charles A., editor, *Making World Development Work: Scientific Alternatives to Neoclassical Economic Theory*, University of New Mexico Press, 576 pages, October 2006

French, Sara L. & Kay Etheridge, editors, *Origins of Scientific Learning in Early Modern Europe*, Edwin Mellen Press, Lewiston, N.Y., 208 pages, August 2007

Kirkman, L.K., C.L. Brown, and Leopold, Donald J., *Native Trees of the Southeast: An Identification Guide*, Timber Press, Portland, Ore., 370 pages, June 2007

Ramarao, Bandaru V., and Chi Tien, *Granular Filtration of Aerosols and Hydrosols, Second Edition*, Elsevier Science, 512 pages, June 2007

Turner, Scott J., (Japanese language edition) *The Extended Organism. The Physiology of Animal-Built Structures*. Translated by Y Shiga and T Fukatsu, Misuzu Shobo. 333 pages, 2007

Honors and Awards

Schulz, Kimberly L., sabbatical fellowship, National Center for Ecological Analysis and Synthesis, Santa Barbara, Calif., August 1, 2007 to July 31, 2008

Schuster, Rudolph M., Jr., Dwight A. Holder award for outstanding work as a doctoral student sustained achievement after graduation in the management, wise use, and conservation of natural and cultural resources, from the Clemson Parks Recreation and Tourism Management Department

Carter, Emanuel, selected as Fulbright senior specialist

Deming, M. Elen, President's Award from the Council of Educators in Landscape Architecture

Flynn, Leah, 2007 SUNY Chancellor's Award for Excellence in Professional Service

Fusco, Paul, elected 2007-2008 student representative, American Society of Landscape Architects board of trustees.

Kieber, David J., Exemplary Researcher Award from SUNY-ESF.

Kimmerer, Robin, 2007 ESF Foundation Award for Excellence in Teaching from the ESF College Foundation, Inc.

Leopold, Donald J., 2007 SUNY Chancellor's Award for Excellence in Faculty Service

Mitchell, Myron, appointed to New York State Higher Education Commission

Smardon, Richard C., appointment as chair of the National Association of Environmental Professionals Committee on Education and Research

White, Emily, invited to attend SOLAS (Surface Ocean – Lower Atmosphere Study) Summer School in Corsica, France.

Zuckerberg, Benjamin, Best Student Paper Award at the annual meeting of the U.S.-International Association of Landscape Ecology

In Memoriam

Curtis H. Bauer, 80, an ESF alumnus who went on to lead the College as chair of the board of trustees, died Aug. 29 in WCA Hospital, Jamestown.

Mr. Bauer was a member of the ESF board of trustees for more than 30 years, earning him the distinction of being the longest-serving trustee in the SUNY system. His tenure spanned that of all three ESF College presidents. He served as chair of the board of trustees from 1995 to 2000.

Contributions may be made to Holy Trinity Lutheran Church, 825 Forest Ave, Jamestown, N.Y., 14701; or the Bauer-Forecon Scholarship Fund at the State University of New York College of Environmental Science and Forestry, 1 Forestry Drive, Syracuse, NY, 13210.

Conrad Schuerch, ESF Distinguished Professor Emeritus, died July 15. He was 88.

He was renowned for his work in polymer, carbohydrate and wood chemistry. He wrote more than 160 scientific publications.

Dr. Schuerch was known in particular for his work on the chemistry of lignin, the reaction of ammonia with wood, vinyl polymers with optically active centers, stereospecific polymers, the synthesis of anhydrosugars and their polymerization, and glycoside synthesis.

Dr. Schuerch was one of the founding members of the College's Department of Chemistry in 1952. He served as department chair from 1956 to 1972. He was named Distinguished Professor in 1978. He retired in 1984.

Tore E. Timell, 86, a longtime ESF professor who was known internationally for his work on the evolution, physiology, growth and chemical properties of trees, died July 11.

Dr. Timell was a professor of forest chemistry at ESF and formerly was the director of the Cellulose Research Institute. He did extensive research on cellulose, hemicelluloses and reaction wood.

He chaired numerous international conferences on wood science and published more than 200 research papers; he also authored the three-volume book *Compression Wood in Gymnosperms* (Springer). Dr. Timell received the American Chemical Society's Anselme Payen Award for outstanding research in 1971.

On the Calendar

To see the full ESF calendar, go to <http://web.esf.edu/calendar.asp>

November 16

Transfer Day at ESF, 9:30 a.m. to 3 p.m., Alumni Lounge, Marshall Hall. Additional information: Office of Undergraduate Admissions, (800) 777-7373 or (315) 470-6600; rjfeola@esf.edu

November 30

College Information Session, 1 to 3 p.m., Alumni Lounge, Marshall Hall. Additional information: Office of Undergraduate Admissions, (800) 777-7373 or (315) 470-6600; rjfeola@esf.edu

December 7

ESF December Convocation, 3 to 5 p.m., Hendrick's Chapel, Syracuse University. Additional information: Office of Student Life and Experiential Learning, 315-470-6658

January 13

January Orientation, 11 a.m. to 5 p.m., Alumni Lounge, Marshall Hall. Additional information: Office of Student Life and Experiential Learning, 315-470-6658



ESF T-shirts are \$15 each (\$16.50 for XXL). To order, visit Small Stores on line at www.esf.edu/alumni/sstores/ or call the Alumni Office at (315)470-6632 between 8 a.m. and 4:30 p.m. Monday through Friday.

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