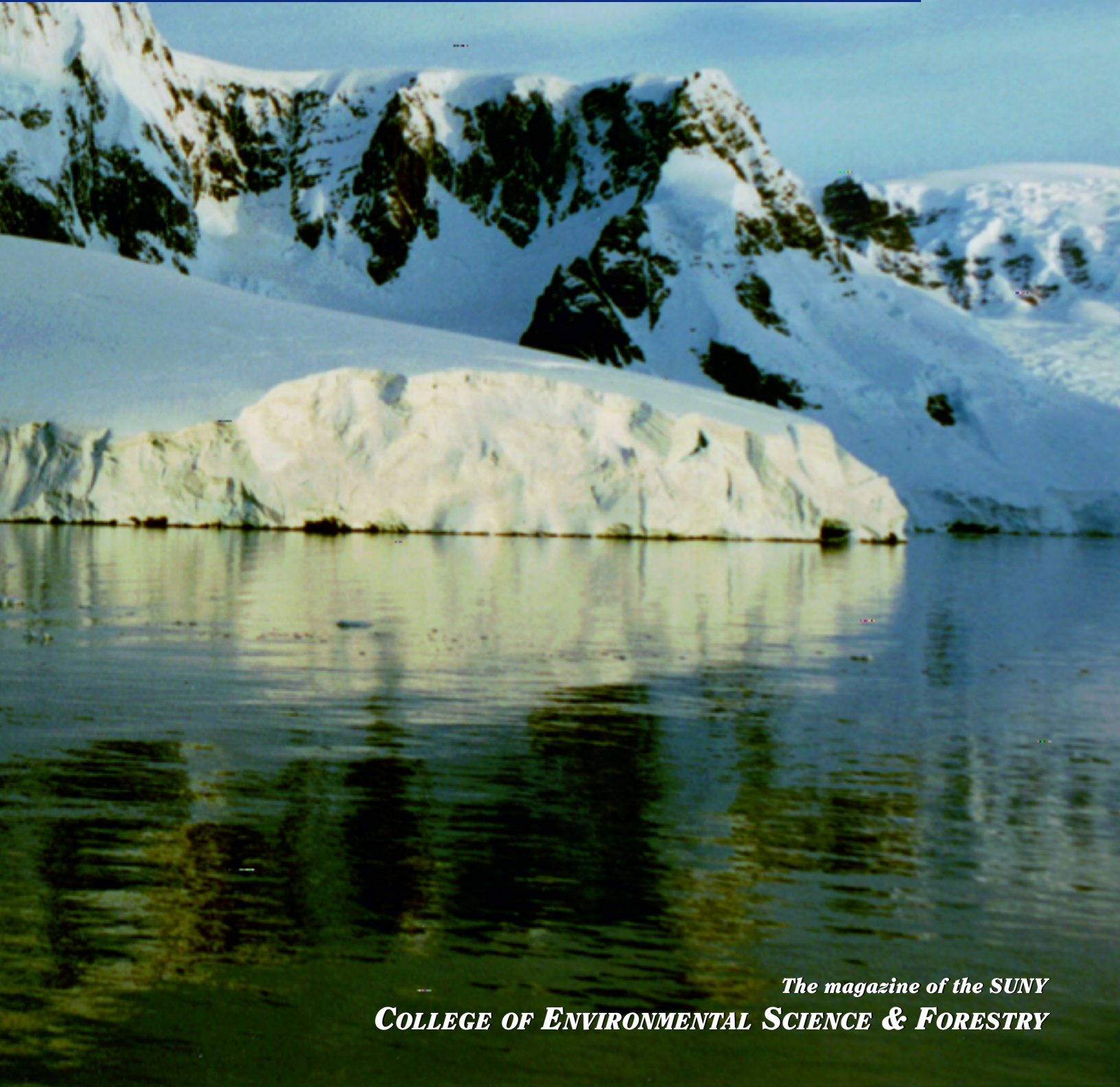


INSIDE E·S·F

Winter 2000



The magazine of the SUNY
COLLEGE OF ENVIRONMENTAL SCIENCE & FORESTRY

In This Issue

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On The Cover

Oooh, baby, it's cold out there! Cover photographer David Kieber, Faculty of Chemistry, shares a view of Antarctica's Gerlache Strait, which he took during a research expedition in 1994. Ice cores from Greenland and the Antarctic are instrumental to the work of John Castello, Scott Rogers and William Starmer. See page 8 for the story.

The State University of New York College of Environmental Science and Forestry offers a diverse range of accredited programs and degree options in chemistry, construction management and wood products engineering, environmental and forest biology, environmental resources and forest engineering, environmental studies, forest resources management, forest technology, landscape architecture, and paper science and engineering.

The College's mission is to be a world leader in instruction, research, and public service related to: understanding the structure and function of the world's ecosystems; developing, managing, and using renewable natural resources; improving outdoor environments ranging from wilderness, to managed forests, to urban landscapes; and maintaining and enhancing biological diversity, environmental quality, and resource options. As such, ESF has maintained its unique status within SUNY's 64-school system as one of only five specialized colleges and one of only eight doctoral-granting institutions.

ESF takes affirmative action to provide equal opportunity for all people and to build a campus community that reflects a wealth of diversity.

Defining 'The Good Life'

by Jack P. Manno



Jack P. Manno

The meeting of the World Trade Organization in Seattle — and the protests it stirred — provide an excellent opportunity to raise awareness about environmental and social issues associated with trade and globalization.

It's too bad that the debate is routinely cast as being between advocates of "free trade" and those labeled "protectionists," or enemies of trade. There is no such thing as com-

pletely free trade. The benefits of trade can be realized only if there are rules of behavior in place among the trading partners. These rules are needed to prevent abuses and deceptive practices and to protect those who are vulnerable to exploitation.

The question in Seattle is not about free trade vs. protectionism, but about who makes the rules, what is protected, and whose interests are served. The World Trade Organization operates under the assumption that what benefits big business necessarily benefits everyone. Most of the rest of the world is not so naïve. Most people understand that there are noncommercial values fundamental to the quality of human life and that these also need to be considered when making the rules of behavior for the international economy. People ask their governments to protect things they value which may not necessarily have value in the global trade economy; things like fairness, justice, natural beauty and self-reliance in basics like food and clothing. The problem is that the misnamed "free trade advocates" tend to see all such considerations as trade barriers to be overcome.

The goal of the WTO and its advocates is continual growth in the global economy. We see the consequences of this growth obsession in serious threats to the viability

and health of the planet. The most critical threat to continued human development and improvement is that the scale of human use and waste of material and energy resources threatens to disrupt the Earth's life support systems. This makes the natural environment unstable and less hospitable to the forms of life, including human, which have developed under Earth's present conditions.

According to the United Nations *Human Development Report 1998*:

"Runaway growth in consumption in the past 50 years is putting strains on the environment never before seen.

- The burning of fossil fuels has almost quintupled since 1950.
- The consumption of fresh water has almost doubled since 1960.
- The marine catch has increased fourfold.
- Wood consumption, both for industry and for household fuel, is now 40 percent higher than it was 25 years ago.ⁱ"

These figures must be considered in light of who's doing the consuming. Consider the following facts from the same report:

"Inequalities in consumption are stark. Globally, the 20 percent of the world's people in the highest-income countries account for 86 percent of total private consumption expenditures — the poorest 20 percent a miniscule 1.3 percent. More specifically, the richest fifth:

- Consume 45 percent of all meat and fish, the poorest fifth 5 percent.
- Consume 58 percent of total energy, the poorest fifth less than 4 percent.
- Have 74 percent of all telephone lines, the poorest fifth 1.5 percent.
- Consume 84 percent of all paper, the poorest fifth 1.1 percent.
- Own 87 percent of the world's vehicle fleet, the poorest fifth less than 1 percent.ⁱⁱ"

Continued on next page

The poorest fifth of the world's population aspire to live like the wealthiest fifth. The impact of that level of consumption on the Earth's environment and resources would be staggering.

Can we figure out how to build communities and individual lives that thrive and prosper without damaging the ecological life support systems upon which all health and prosperity ultimately depends? Is it possible for large numbers of human beings, perhaps all human beings, to live prosperous lives without destroying the Earth? Can we design and carry out such an economy?

These challenges are largely ignored by the WTO, whose goal is to significantly increase levels of economic activity. There are alternatives, however, and thinking about them starts with questioning the benefits of growth for growth's sake.

When crime rises, people purchase increased security and alarm services and replace goods that are stolen. Municipalities hire additional police. All these purchases are added to GNP. When you are well, you add little to the medical goods and services category of GNP, but get sick and your tests and pills do their part for economic growth. When a hurricane blasts southern Florida, the repair and recovery contributes; when an oil spill slicks Alaska, cleanup registers as a blip in GNP.

The cleanup of toxic sites in the United States has cost billions of dollars and added those billions to GNP. First, the products of manufacturing add to GNP. Then, the cleanup of any wastes associated with that manufacturing process are also added. As a result, pollution-generating industries end up being counted twice. Unlike basic business accounting, depreciation is not subtracted from income, and the depreciation and loss of natural resources fail to turn up in the calculations.

Not only does a rise in GNP fail to adequately reflect improving the quality of life, it can do just the opposite by tallying all the "regrettable necessities" — goods and services people buy in response to their declining quality of life or lack of personal and family time. It confuses ecological and social loss with economic gain.

Think about what can be readily packaged and sold and what cannot be. Televisions can be, friendship cannot be. Pesticides and fertilizers can be, a farmer's knowledge of her or his own piece of land cannot be. Drugs can be, kindness cannot. Toys can be, playtime cannot be. Coal can be, clean air cannot. Machinery can be, workers cannot.

When we make a world that places the highest value on trade and tradable goods, we risk forgetting that the most important things in the world are not tradable. When citizens ask their government to put their attention on protecting these non-commercial matters of importance, they are told that their concerns are barriers to trade. An unelected committee of trade bureaucrats overrules their elected government. This is why the WTO is a threat to democracy as well as the environment.

If we are to have a global economy, then we also must have democratically accountable institutions at the local, national and global levels. These institutions must have the capacity to protect the rights of workers to organize and the rights of everyone to live in a clean, healthy environment. We are currently a long way from this. Until we have it, further trade liberalization should be delayed.

ⁱ United Nations Development Program, *Human Development Report 1998*, Oxford University Press, New York, 1998, p. 2.

ⁱⁱ United Nations Development Program (1998), p. 2.

Manno is adjunct assistant professor of environmental studies at ESF and executive director of the Great Lakes Research Consortium, a group of colleges and universities in New York and Ontario headquartered at ESF. His recent book, Privileged Goods: Commoditization and Its Impact on Environment and Society, was published by Lewis Press and the International Society for Ecological Economics.

Four Finalists Chosen For ESF Presidency

A national search for a new ESF president resulted in the selection of four finalists who will visit the campus beginning in January.

The candidates are:

- William G. Cale Jr., executive vice president for academic affairs at Lamar University in Beaumont, Texas.
- Stephen B. Jones, director of the Alabama Cooperative Extension System.
- Cornelius B. Murphy Jr., chairman of the board of O'Brien & Gere Limited in Syracuse.
- Larry A. Nielsen, director and professor in the School of Forest Resources at The Pennsylvania State University.

The new president will replace Dr. Ross S. Whaley, who announced his intention to leave the presidency after 15 years. He will continue to serve SUNY as a University Professor.

Curtis Bauer, who chairs both the ESF board of trustees and the 15-member search committee, said the finalists were chosen after an exhaustive search. The process of seeking and selecting a new president was established by the SUNY board of trustees and is set forth in a detailed set of guidelines.

"The committee is pleased to present these four highly qualified candidates to the community," Bauer said. "Each member of the committee was dedicated to conducting a search that would result in the finest pool of candidates available, and I think we have reached that end. Each member contributed a great deal of hard work to the result."

The committee received resumes from more than 40 applicants, Bauer said, including prospective candidates suggested by members of the ESF community.

A systems ecologist, Cale has held progressively responsible teaching and administrative positions at the University of Texas at Dallas, Indiana University of Pennsylvania and Lamar. At Lamar, Cale has created a number of degree programs, two lecture series and a university writing center. He also spearheaded the university's high-tech, Internet and distance-learning programs.

Jones received both his baccalaureate and doctoral degrees from ESF. He is a tenured professor at Auburn University's School of Forestry and Wildlife Science and an adjunct professor at Alabama A&M. The cooperative extension system he leads is a comprehensive education network with offices in all of Alabama's 67 counties.

Murphy, who joined the firm in 1970, holds several other leadership positions at O'Brien & Gere affiliates. He has been the driving force in establishing the company as a dominant player throughout the region in hazardous waste management and remediation.

In addition to administrative roles, Nielsen is a respected scholar in sustainable resource management, community-based management and ecosystems management issues. At Penn State, he raised some \$12 million in funding for the school, received authorization for a new building and created several academic programs.

Following the campus interviews and constituent feedback process, the search committee will make recommendations to the ESF board of trustees, which will present its recommendation to the chancellor of the State University of New York. The chancellor then makes his recommendation to the SUNY board of trustees, which will make the presidential appointment.

The committee was aided by executive search firm Isaacson Miller of Boston.



ESF Foundation Honors Professor

An ESF dendrologist received a \$1,000 award from the ESF College Foundation, Inc.

Dr. Donald J. Leopold is the recipient of the first Foundation Award, established to recognize excellence in teaching, mentoring and research.



Donald J. Leopold

The \$1,000 is earmarked for use in his teaching or research pursuits.

Leopold has been a member of the ESF Faculty of Environmental and Forest Biology for 14 years, and last year was named a Distinguished Teaching Professor by the SUNY board of trustees. He teaches dendrology, freshwater wetland ecosystems and Adirondack ecosystems.

Leopold's research focuses on forest and wetland ecology. In the last five years, he has worked on research grants totaling almost \$1 million.

Leopold's work has been widely published. He is the co-author of the recently published *Landowner's Guide to State-Protected Plants of Forests in New York State*.

Couple Donates \$20,000 To Help Equip Jahn Laboratory

A husband and wife who earned degrees from ESF in 1951 contributed \$20,000 to help support the college's renowned chemistry program.

The gift from Jim and Lancy Jen means a lab in ESF's state-of-the-art chemistry building will bear the couple's names. The lab is used by Dr. William Winter, whose field is polymer biochemistry.

Both Jens, who now live in Savannah, Ga., were students in the college's Faculty of Paper Science and Engineering. Jim Jen is business director with Harima Chemicals, a Japanese company with a major interest in naval stores products. Lancy Jen had a long career in teaching and recently retired from the faculty of Savannah State University.

Jim Jen said the gift was a way for the couple to give something back to the country they adopted after they left their homeland of China before the communist takeover. The couple's gift is the latest in a series of donations they have made to several educational institutions.

"We are grateful for this country, for this school. We were able to make a decent living. We just wanted to repay what they have so graciously given us," Jim Jen said.

Lancy Jen said she and her husband were both students of Dr. Edwin C. Jahn, for whom ESF's new chemistry building is named. The Jens, who have two daughters, have lived in Savannah since 1973.

ESF Professor, Graduates Honored For Work On Roosevelt Home

George W. Curry, a Distinguished Teaching Professor in the college's Faculty of Landscape Architecture, received a 1999 Merit Award in Research from the American Society of Landscape Architects.



George W. Curry

Curry won the award along with two of his former students who helped prepare a

cultural landscape report for the Home of Franklin D. Roosevelt National Historic Site. The two graduates are Gina Bellavia, who received her bachelor's and master's degrees from ESF in 1991 and 1994, respectively; and Kristin Baker, who received her bachelor's and master's degrees from ESF in 1991 and 1999, respectively.

The award was bestowed for a 550-page report centered on the landscape of Springwood, the estate in Hyde Park that was Franklin D. Roosevelt's lifelong home. When he died in 1945, Roosevelt deeded Springwood to the National Park Service.

In the report, Curry, Bellavia and Baker analyzed the site's history and its existing condition. The National Park Service funded the project. Curry's specialty is historic preservation and urban design.

ESF's December Convocation Recognizes Students

Nearly 100 undergraduates and about 60 graduate students received their degrees Dec. 10 during December Convocation.

The mid-year ceremony was held in Hendricks Chapel on the Syracuse University campus.

Ninety-seven students were eligible to receive bachelor of science

degrees, with one student earning a bachelor's degree in landscape architecture.

Some 45 students were expected to complete the requirements for the degrees of master of science, master of professional studies and master of landscape architecture. About 15

more were expected to receive doctor of philosophy degrees. Some of the students completed their course requirements in August.

Dr. Ross S. Whaley, ESF president, was the keynote speaker during the ceremony.

Following convocation, there was an informal reception in Alumni Lounge in Marshall Hall. At 6 p.m., the college held its annual December Soiree dinner-dance at the Hotel Syracuse in downtown Syracuse.

Christmas Trees Don't Present Fire Hazard, Study Says

Scores of evergreens that spent the 1997 holiday season in a makeshift laboratory at the New York State Fairgrounds have given fans of natural Christmas trees a reason to be jolly.

Dr. Russell Briggs, an associate professor of forestry, said his study of 184 fresh-cut trees dispels the notion that natural trees are a fire hazard.

"The bottom line is if you keep your fresh-cut trees in water, the moisture content stays at 100 percent or more," said Briggs, who worked on the project with Dr. Lawrence Abrahamson, a senior research associate, and then-graduate student Sara Stebbins. "If you put an open flame up to a tree, you can't burn it when the moisture content is up that high. The flame goes out."

Briggs is completing a report on his \$5,500 study, which was funded by the New York Christmas Tree Growers Association, with help from the Mid-Atlantic Christmas Tree Growers Alliance and the Massachusetts Christmas Tree Growers Association.

"The study proved what we thought were the facts," said Robert Norris,

executive director of the New York growers group. "We knew trees that we culled out, or surplus trees, wouldn't burn. We had to wait several months sometimes before we could burn them when they were stored outside."

For six weeks during the early winter of 1997-98, Briggs kept 184 trees in the Youth Building at the fairgrounds. They represented five species that are popular as Christmas trees: balsam fir, Fraser fir, Douglas fir, Scotch pine (sometimes called Scots pine), and white spruce. Some trees were in buckets of water and others sat on the floor.

"If you bring something off the lot and you don't take care of it, you're asking for trouble,"

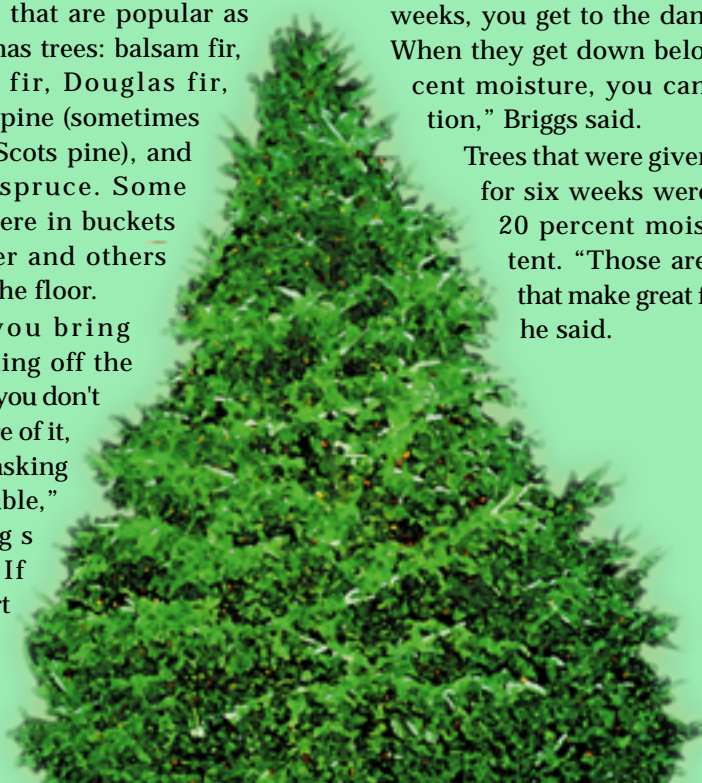
Briggs said. "If you start with a

fresh-cut tree and take care of it, you're golden. It will take a flame thrower to set that thing off."

Some of the trees were actually budding after spending six weeks in buckets of water inside the heated building.

On the other hand, lack of water clearly presents a problem. "If you bring them inside and don't give them any water, in two or three weeks, you get to the danger point. When they get down below 65 percent moisture, you can get ignition," Briggs said.

Trees that were given no water for six weeks were down to 20 percent moisture content. "Those are the ones that make great firewood," he said.



Ice cores drilled from the polar regions contain invaluable information about climate and natural history.

Catranis mentioned to Starmer that by using molecular techniques, they might discover other microorganisms, including those that were not detectable by culture techniques. She suggested contacting Scott Rogers, associate professor of molecular biology at ESF, to help with the study. Castello, a specialist in plant pathology, joined the ice study after finding the tomato mosaic virus in samples from trees, soil and stream water in the Adirondacks, and from clouds collected from the summit of Whiteface Mountain. It was even discovered in fog off the coast of Maine.

"We were the first to report the presence of a virus — any virus — in clouds and fog," Castello says.

A stable virus and one that is hard to destroy, tomato mosaic virus affects plants by spreading through the soil to plant roots.

"Because it is so stable, so ubiquitous, my reasoning was that if there's any virus that is likely to be found preserved in ice, this would be the one," Castello says. "That's why we concentrated our efforts on this particular virus. Now the question becomes: Are there other viruses? That's what we want to address with our NSF grant."

Rogers, who studies fungi, says the results of their study may be important in finding new drugs to fight diseases or pathogens of plants and animals. One of the biggest challenges to the researchers is making sure the ice samples are not contaminated by present-day organisms. They originally used a process involving ultraviolet light, but have since changed methods and now disinfect the outside of the ice core with Clorox bleach.

"We want to be sure we have only the internal organisms and that we are not dealing with external contaminants," Rogers says. "In any ancient DNA work, we're never 100 percent certain of that. We go out of our way to do contamination controls on every aspect of the work, but in the end, there's no way to be absolutely certain. But we feel that the vast majority of what we are getting out is ancient."

The scientists have obtained melt waters from ice ranging in age from 500 years to 140,000 years old. The virus was detected

in both the young and the old ice. New ice core samples from Antarctica, estimated to be up to 250,000 years old, are the latest to be studied by the researchers.

The NSF panel sponsoring the work, LEXEN (Life in Extreme Environments), funds research that examines the capacity of life to exist in the harshest environments on Earth, including glacial ice, hot springs, volcanoes and salt marshes. They want researchers to develop technology to search the harsh environments on Earth for life, in hopes that the same techniques might be used to search for life on other planets.

"If we can find life in ice that old here on Earth, maybe there is the possibility that life can be detected or exists in ice recently discovered on the moon, on Mars or on the Jovian moon Europa," Castello says. "That raises some intriguing possibilities. It would be a dream come true if I could work on something like that."

Meseroll is a free-lance writer based in Syracuse.



Scott Rogers shows off some cultures of organisms from ice core melt waters. Left to right, they are the yeast *Rhodotorula sp.* from a sample dated 700 years before present (ybp), the fungus *Penicillium sp.* dated 500 ybp and an unknown bacterium with a corresponding age 1,500 ybp.

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Mosquito Chasers

ESF adjuncts battle NYC-area
encephalitis outbreak

by Claire B. Dunn

JoAnne Oliver thought she was settled in for a three-day weekend in Pennsylvania, where she could observe the unofficial end of summer in peaceful solitude.

Then the phone rang.

It was her colleague in Syracuse, John Howard, with some disturbing news: An outbreak of encephalitis had killed several people and sickened scores of others in New York City and the nearby suburbs.

Authorities needed help — quickly.



John called me and said they were going to need warm bodies in Westchester County,” Oliver said.

Specifically, the state Department of Health needed warm bodies with expertise in mosquitoes and the diseases they transmit: people like Oliver and Howard.

Oliver rushed back to Syracuse. She and Howard, who works next door to her on “the bug floor” in ESF’s Illick Hall, drove hurriedly to a trailer-turned-laboratory at Toad Harbor Swamp in Oswego County, where they store much of their equipment.

“We raced up there and packed up our mosquito traps. We came back to ESF and packed some more stuff. We were all done about 2 in the morning,” Oliver said. “I went home and packed the clothes I would need for a few days. I got a couple hours sleep and I left early in the morning. That was Labor Day.”

When Oliver and Howard jumped into action that holiday weekend, they set into high gear the longstanding relationship between New York’s Department of Health, which employs them, and the SUNY College of Environmental Science and Forestry, which is the headquarters for their work.

Howard, a medical entomologist with the health department, has been based at ESF for more than 20 years. He serves ESF as an adjunct associate professor in the Faculty of Environmental and Forest Biology, teaching general medical entomology. He also has acted as adviser to several graduate students.

Although the health department has offices in downtown Syracuse, Howard spends nearly all his time in the field or in Illick Hall, where a small laboratory complements his office space. The lab provides a place for him and Oliver to house mosquitoes and to hold and process specimens, including deer ticks, for the presence of Lyme disease bacteria.

“This room is worth its weight in gold. The equipment belongs to the health department, the space is the college’s,” Howard said. “I can keep my little creepy crawlies here.”

Howard and Oliver’s boss, Dennis J. White, director of the health department’s Arthropod Disease Program, said ESF is a critical factor in the state’s effort to learn more about arthropods — mosquitoes, ticks, fleas and lice — and the diseases they transmit to humans.

“Over the years, we could not have accomplished as much as our program has without the ties to ESF,” said White, himself a college alumnus. “It’s rare to find the kind of people ESF can produce.”

White said many health department programs are tied to academic institutions throughout New York. But ESF, with its variety of ecology-based programs, offers a benefit not found at many colleges and universities, he said.

“ESF is unique among those locations. ESF has one of the most unusual and supportive programs for the kinds of things our people do,” said White, who studied medical entomology as a graduate student and earned his Ph.D. from ESF in 1984.

The encephalitis outbreak in the New York City area at the end of the summer highlighted the value of the arthropod program’s ties to ESF, White said.

“All these physicians were saying, ‘This is St. Louis encephalitis. We have to do something about it.’ Clearly we had to do something about it. But why were all these birds dying? St. Louis doesn’t kill birds. You have to be able to sit back and look at the big picture,” he said.

“It was a rude awakening in the field of public health. We discovered the need for people who can look at the big picture. There are very few schools that do

that anymore, produce the type of people who look at the global issues.”

White knew Oliver was one of those people. And he knew she had no commitments that would prevent her from spending an undetermined amount of time in

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JoAnne Oliver, left, Dennis J. White and John Howard met on the ESF campus in the fall to discuss plans for monitoring mosquito-borne disease for the coming summer.



Westchester County, where the most help was needed.

So he put her in charge of monitoring the mosquito population in the county, which sits on the northern edge of New York City.

"I had to coordinate the Northeastern response. I couldn't be sitting in a lab in the woods of Westchester County. JoAnne could. She was of critical importance in a county that has never had a mosquito issue before," White said.

Although it was originally thought the victims were suffering from St. Louis encephalitis, the virus was later discovered to be West Nile encephalitis, which had never before been seen in the United States. It is transmitted to humans by the species *Culex pipiens*, commonly known as the northern house mosquito. It has killed thousands of birds in the New York City area.

Howard called the encephalitis outbreak a once-in-a-lifetime experience for a field scientist because of the intensity of the outbreak, the number of people mobilized to fight it and the scramble to equip them during a holiday weekend.

Oliver, a research scientist with the health department, was fresh from completion of her Ph.D. in ecology. She finished the program at ESF in September 1998, with Howard as her adviser. She didn't know what to expect when White put her in charge of the Westchester County operation.

"I was gung-ho to do that kind of experience. But I didn't know what I was supposed to do, and that was scary. All I knew was they wanted me to go to Westchester County. I didn't know what they wanted me to do once I got there," she said.

Her instructions were simple: She was to catch as many mosquitoes as she could and submit them for tests.

"We needed somebody in Westchester County to go out and collect mosquitoes," Howard said. "And collect mosquitoes. And collect mosquitoes."

Oliver quickly fell into a routine of 14-hour days.

Supplies had to be obtained. Each mosquito trap needs dry ice every night. Each trap needs four D batteries to operate its fan and tiny light, and Oliver didn't trust a batch of batteries to last more than two nights. She and her crew had to be out in the field early each evening,



JoAnne Oliver used traps like this to catch mosquitoes in two parks in Westchester County. Dry ice lures the insects to the trap, and a small fan sucks them into the net.

setting the traps so they were fresh for the nocturnal species the researchers were seeking.

Mosquito traps hang from a tree, about five feet off the ground. On top is a metal dome. Hanging below the dome is a net bag with a narrow neck. Right above the trap hangs a piece of dry ice, a concentrated source of carbon dioxide. As the dry ice sublimates, the familiar, cloudy carbon dioxide gas wafts down and around the net. The mosquito senses the carbon dioxide, which is also emitted by the animals upon which mosquitoes usually feed. The smell means one thing to a mosquito: suppertime.

"It thinks it's going to get a blood meal. Once it gets close, a little fan sucks it into a collection bag and keeps it alive. It sucks the mosquito in without shredding it," Oliver said.

She and her crew set traps in two Westchester County parks. One was in Tibbets Park, on the southwest side of the county near the Hudson River. The other was in Marshlands Conservancy, in the southeast side of the county near Long Island Sound. The sites were chosen because they both contain water the mosquitoes could use for breeding. Also, researchers had collected mosquitoes in both parks previously, giving Oliver a helpful set of pre-existing data.

The trap nets, which capture moths and other bugs as well as mosquitoes, were collected each morning and taken to a temporary laboratory at Fordham University. The roughly 80 insects in each net were euthanized before being painstakingly sorted so only mosquitoes were packed up and sent to the federal Center for Disease Control (CDC) lab in Colorado so they could be examined for the virus. Another cycle was set in motion each evening as the traps were set again.

Then there were daily conference calls convened by state health department officials. The conferences included representatives of the New York City and Westchester County health departments. There was a lot to talk about: Were there any new suspected cases of encephalitis? Where were they located? Were any other animals affected? Was there news from the CDC?

"It's a minute-by-minute situation where you get new information constantly," Oliver said.

The realization that it was West Nile virus created a whole new set of questions.



"Aside from how it got here, what's it going to do now that it's here? How fully are birds involved? What does the virus do to them? Will it reappear? In Europe it overwinters in adult mosquitoes. Will it do that here too?" she said. "We don't know what other mammals are going to be involved. We're already thinking about next year."

Howard admitted researchers don't know what to expect from West Nile next year.

"Good question," he said. "Frightening question."

"We might not see it again for five or 10 years. And where it goes during the winter we have no idea," Howard said. "Whether it will happen again, whether it can happen again, where it came from are all unknowns."

Oliver spent most of her time in Westchester County from Sept. 6 to Oct. 8. In addition to trapping mosquitoes, she headed the search for their breeding sites. She took the first helicopter flight of her life Sept. 24 in a search for potential breeding sites: sewage treatment plants, swimming pools, tire dumps and industrial plants.

The flight took her over exclusive neighborhoods in the well-to-do New York suburbs. Of special interest were the many swimming pools in the area: some a sparkling blue, others a nasty green. County health officials promptly ordered pool owners to cover, drain or treat pools so they would be less hospitable to mosquitoes.

"You can have lots of mosquitoes coming out of unmaintained backyard swimming pools," Oliver said.

Ironically, the summer-long drought, which normally means fewer mosquitoes, might indirectly have caused the population of northern house mosquitoes to skyrocket. The drought led to restrictions on water use in the New York City area. Residents stopped adding water to their backyard pools and turned off the filtration systems. The water stagnated, giving this species a fine opportunity to breed.

"It's odd that in a drought you could make a mosquito problem worse," Howard said. "This is a mosquito that has adapted to breeding in urban areas, in catch basins, in storm sewers, at sewage treatment plants. It loves human organic polluted water."

After the summer encephalitis outbreak, local governments began spraying at a cost of \$15 million. "It's

the only response you have to this type of activity," Howard said.

Spraying to control mosquitoes is a subject in which Howard has immersed himself during his years in Illick Hall. For more than 10 years, he studied the spraying of Cicero Swamp in Onondaga County, one of the areas where eastern equine encephalitis has occurred in the past. His conclusions — that repeated spraying over time actually increased the potential for spreading EEE, perhaps because it eliminated all the potential competitors, but not the target species — rankled some public officials and raised questions about the wisdom of routine spraying.

Despite the flurry of activity and attention-grabbing headlines generated by the West Nile outbreak, encephalitis has not been the major focus of Howard's work recently.

"Our biggest thing right now is this," Howard said. He popped the top off a small plastic vial, similar to a film canister, and tipped it over. One little insect dropped into his hand: a deer tick.

"There have been 4,000 human cases of Lyme disease in New York," he said. "The tick has walked its way across New York state. This one was taken off a dog in Onondaga County."

Although Lyme disease can be quite unpleasant — its symptoms include fever, nausea, fatigue and, in extreme cases, arthritis and neurological disorders — it can be treated with antibiotics and is not considered fatal. There is no pesticide that is effective against ticks. The best control is environmental sanitation: clearing brush away from homes and making an area inhospitable to the mice that act as the ticks' hosts.

"It's time for us to start learning to check dogs and children for ticks," Howard said. "That's the only thing we can do, is educate."

And for that, White is likely to depend on his department's link with ESF.

"If for some reason we had to pull out of Albany, ESF would be the place for us to centralize," White said. "It's just a critical link to our program. And I can't imagine what our program would be like without it."

Dunn is assistant director of news and publications at ESF.



A helicopter flight helped JoAnne Oliver locate unmaintained swimming pools, like the one in the foreground. The murky water is a potential breeding site for mosquitoes.

A Visit From Santa

by Carol Boll

Campus Profile

When a child climbs onto Bob McDonald's lap, the eyes invariably go to the beard.

"Are you really Santa Claus?" he asks shyly, eyeing the snow-white whiskers.

Blue eyes twinkling from behind his spectacles, McDonald assures the child that he is, and he lets the tot give his beard a good tug. The child's eyes widen, and McDonald smiles.

Nothing livens up this annual Christmas gig like converting a non-believer.

"Everybody should believe in Santa, shouldn't they?" asks McDonald, clearly expecting no argument.

A janitor with ESF's physical plant and a friendly presence along the corridors of Bray Hall, McDonald has played the part of Santa Claus at ShoppingTown mall for the past eight years. It's a role that comes easily to a man who clearly loves children and enjoys making people smile.

Among his Bray Hall associates, he's known for his upbeat personality, T-shirt witticisms, and, on the occasional lucky day, the communal luncheon he serves up from his utility closet off the main floor rotunda.

But this time of year, McDonald probably is most famous for those white whiskers.

"Hi, Santa," somebody calls to him as he heads for Marshall Hall for some coffee.

"When I'm dressed up as Santa, it looks so real," McDonald admits. "Especially with the real beard. Kids tug on it all the time."

While he grows his hair and beard throughout the year, McDonald completes his transformation into Santa Claus with a five- to seven-hour visit to Ultimate Creations hair salon in Mattydale three days before Santa's scheduled arrival at the mall. By the

time McDonald leaves, his naturally brown hair, beard and eyebrows are a silvery white and ready for the scrutiny of even the most inquisitive toddler.

His stint as Santa makes for long days over the four-week holiday stretch. Always an early riser, McDonald is up every morning by 3:45 a.m. and out the door by 4:30. His first stop is the Mobil station at James Street and Stafford Avenue in Eastwood, where he and three or four buddies congregate before heading for work. They've been meeting there daily for about 10 years, McDonald says.

From there, he heads to the campus, where he works the 6 a.m. to 2:30 p.m. shift at Bray Hall. After work, he dons his red-and-white Santa Claus suit and works the mall from 4 to 9 p.m. most weekdays and occasional Saturdays and Sundays as well. Recently he did double duty at the mall after being summoned from his ESF job to fill in for an ailing Santa on the afternoon shift. He took personal time and worked a nine-hour Santa shift.

Obviously, this is a labor of love.

"I get along really good with kids — whether they're 10 years old or one year old," McDonald says. "This job has been tremendous. I love it. I love the looks on the kids' faces when they come up to me."

He sought the job after taking his grandson, Stephen, for a visit with Santa and finding the Jolly Old Elf surprisingly dull.

"He didn't put anything into it," McDonald says, still fuming at the memory. "I know Stephen was just a baby, but you've got to at least try to talk to the kids."

I told that guy afterwards, 'Next year I'm going to have your job here, and I'll show you how it's done.'

True to his word, McDonald the following year persuaded the sponsoring photography company to hire him, and he's presided over Santa's workshop at ShoppingTown ever since.

McDonald, who says he has few childhood recollections of Santa Claus himself,



Santa and Friend

grew up on Woodbine Avenue in Eastwood, where he still lives today with his wife, Kathy, and son, Scott, 26. He lived in the same house for 31 years — one block away from his childhood home — before moving the family seven months ago to another home — back on his parents' block.

"I wanted a little change," he shrugs when asked about the move.

The couple's older son, Shawn, 29, father of grandson Stephen, and a '94 graduate of ESF, also lives in Eastwood.

After graduating from Henninger High School in 1966, McDonald joined the Navy and served four years on the USS McKean in the Pacific during the Vietnam War. He returned to the old neighborhood in 1970 for a while then worked with the Syracuse Developmental Center. In 1996, he came to ESF, where his personality has endeared him to staffers in Bray Hall.

"Bob is just a wonderful guy," says Donna Rogala, Alumni Association secretary, who sees McDonald during his daily rounds on the job. "It's just the little things he does that make him special."



Bob McDonald

And sometimes, the not-so-little things. Like when he brings in a couple hundred meatballs in marinara sauce and lets them simmer the morning away in his utility closet before inviting everyone within mouth-watering distance to join him for lunch.

Recalls Rogala, "He has everything there: soda, potato chips, napkins, dishes. How many people would do something like that?"

His devotion to children, particularly 9-year-old grandson Stephen, is evident, Rogala says. And at McDonald's request, she's always on the lookout for unusual stamps that can be added to the collection that McDonald helped Stephen begin.

His willingness to undergo the rigorous bleaching process every Christmas season is another testament to McDonald's fondness for children, says Rogala.

"My face is a little tender," concedes McDonald. "But it's nothing you can't live with. It's only for 34 days or so."

And besides, the smiles of the kids make the ruse all worthwhile — particularly when the opportunity comes to sway a youngster starting to question the existence of Santa.

"Sometimes kids I know in the neighborhood will come out to ShoppingTown, and they don't know who I am," McDonald says. "I'll try to convince them that I've seen them. That makes them believe."

"You go to Huntington School?" he asks one recent visitor of about 7. "Isn't that on Sunnycrest Road? I've known Mr. Sweeney, the guidance counselor there, for years. I check in with him to make sure you kids have been good."

The child's eyes sparkle. McDonald's eyes twinkle. He doesn't mention that he's lived nearly his whole life just three blocks away.

Since his dye job, McDonald says, the children of his new neighbors are convinced that Santa lives next door. He tries to protect this secret. "I try to stay away from them," he says. "If I see them coming, I'll go the other way."

While most children who visit Santa come prepared with a wish list, McDonald says he's always careful to avoid making any promises.

"I always say, 'I'll see what I can do,'" he says. "'I'll see if my elves can make that item.' Because I don't know if the parents are going to come across with it or not."

He recalls one 8-year-old about three years ago whose request nearly broke his heart.

"He asked for a clean set of sheets for Christmas," McDonald says softly. "I mentioned other things, but all he wanted was a clean set of sheets. I've heard a lot, but that was the worst thing I'd ever heard. It brought tears to my eyes."

After Christmas, McDonald heads back to the Mattydale salon to have his bleached hair cropped close to his head and his beard trimmed back to about one-eighth of an inch. Throughout the year he'll get "a few shaping trims," but that's all.

For next year, he has a tip for parents. Stop by first and slip Santa a little information on the sly — "Give me her name, where she goes to school ... that sort of thing," he says conspiratorially. "Then she'll believe."

After all, he asks, "The longer you believe, the better it is, isn't it?"

Boll is a veteran newspaper reporter who now works as a free-lance writer. She lives in DeWitt, N.Y.

On Campus

Books and Monographs

Manno, Jack P., *Privileged Goods: Commoditization and Its Impact on Environment and Society*. 240 pages. CRC Press, Boca Raton, FL. 2000.

Turner, J. Scott, *Beyond the Organism, The Functional Biology of Animal-Built Structures*. Harvard University Press, Cambridge, Mass. 2000.

Awards and Honors

Culkowski '73, Justin F., diploma, Air University, Maxwell Air Force Base, U.S. Air Force. Fall, 1999.

Campus Calendar

January 18	Classes begin. Syracuse campus.
January 20-21	Presidential Search Candidate Interview: Cornelius B. Murphy Jr. Additional information: Office of the Vice President for Administration, 315-470-6622.
January 24-25	Presidential Search Candidate Interview: Stephen B. Jones. Additional information: Office of the Vice President for Administration, 315-470-6622.
January 27-28	Presidential Search Candidate Interview: William G. Cale Jr. Additional information: Office of the Vice President for Administration, 315-470-6622.
February 2-3	Presidential Search Candidate Interview: Larry A. Nielsen. Additional information: Office of the Vice President for Administration, 315-470-6622.
February 4	College Information Session for High School Students. Also February 25, March 10 and 24, and April 7 and 17. Additional information: Office of Undergraduate Admissions, 315-470-6600.
February 11	Symposium on Teaching, Learning and Technology. Additional information: IDEaS, 315-470-6627 or www.esf.edu/ideas/sympos.htm .
March 12-19	Spring Recess. Syracuse campus.
March 17-18	10th Annual Student/Faculty Conference. Additional information: Great Lakes Research Consortium, 315-470-6816 or www.esf.edu/glrc/Conf.htm .
March 20	Accepted Student Reception. Syracuse campus. Also March 31 and April 10. Additional information: Office of Undergraduate Admissions, 315-470-6600.
March 25-April 2	Spring Break. Ranger School.
April 9-11	Wood and Cellulose: Building Blocks for Chemicals, Fuels and Advanced Materials Conference. Additional information: K. Lambrych, 315-470-6853 or www.esf.edu/cellulose .
April 17	Ranger School Spring Open House for prospective students. Wanakena campus. Additional information: Office of Undergraduate Admissions, 315-470-6600.
April 29	ESF Spring Open House for prospective students. Syracuse campus. Additional information: Office of Undergraduate Admissions, 315-470-6600.