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Students to benefit from alums' gift to 'Learning Island'

A student bucket brigade offloads provisions from the R/V Kingsbury and up a rocky path on Appledore Island, the summer home of Shoals Marine Laboratory. Charitable contributions from alumni of the marine sciences program will soon add a second vessel to the lab's fleet.

By Roger Segelken

Recent charitable gifts from Cornell alumni Henry and Nancy Bartels to Shoals Marine Laboratory are expected enhance the university's academic mission — to create a living and learning environment for all undergraduates —without forgetting those who choose to learn on the self-sufficient island community in the Gulf of Maine.

And for Shoals Marine Laboratory (SML) leaders, accustomed to doing the nearly impossible with next to nothing on the 95-acre Appledore Island, the Bartels' funding will lead to long-awaited improvements at the teaching and research field station.

“This generous gift from the Bartels will enable us build a new multipurpose building and a second research vessel, as well as provide an endowment for building maintenance. What we're most excited about, though, is the opportunity to offer six scholarships per year to deserving undergraduates,” said James G. Morin, professor of ecology and evolutionary biology and the John M. Kingsbury Director of the Shoals Marine Laboratory.

Operated jointly by Cornell and the University of New Hampshire from year-around headquarters in Ithaca, SML also has attracted the attention of the National Science Foundation (NSF). Morin reports that for the next two summers, NSF has designated SML as an official Research Experience for Undergraduates site. This designation will provide funding for nine undergraduates to conduct directed independent research projects under the tutelage of faculty from Cornell, New Hampshire, Brown University, the University of Washington and Merrimack College.

Construction of the multipurpose building, to be known as the Kingsbury House in honor of Shoals Marine Laboratory's founding director, will provide living quarters for the SML director's family during the summer, as well as off-season housing for staff and researchers during the winter. Morin said “The house is going to be an eco-friendly, self-sufficient model for others to follow.”

The founding director's other namesake and the pride of the laboratory fleet, the 47-foot R/V JOHN M. KINGSBURY, will be joined by a somewhat smaller vessel, built in part by funds from the Bartels' gift. According to Island Manager Ross Hansen, the new vessel will have several jobs:

- As a research vessel, the new boat's shallow draft and high speed will allow SML faculty and students access to offshore and coastal habitats that are difficult for the Kingsbury to patrol.

- Equipped with a scuba diving platform, the new vessel will support underwater classes and student research. It will also take groups of students offshore to study oceanic birds and whales.
- Plenty of flat, open deck space and a powerful inboard diesel engine will make the vessel a utilitarian work boat as well.
- Hauling gear and making trips to the mainland to provision the kitchen for the island's famously hearty fare will all be part of the new vessel's vocation.

Looking ahead to island infrastructure improvements from the Bartels' gift, Hansen noted: "When you're six miles out in the Atlantic, island facilities take a beating from the weather, especially in the winter." He said improvements will include expanded saltwater sea tables for marine specimens, a state-of-the-art composting and recycling system, safe drinking water, well-lit paths, sturdy porches and leak-proof dormitories.

For Hank and Nancy Bartels, who graduated from Cornell in 1948, the gift to Shoals Marine Laboratory is only their latest. The couple also are responsible for Bartels Hall, the SML staff living quarters that was renovated from a former Coast Guard lifesaving station on the island, and over the years they have provided more than \$600,000.

Nancy Bartels said their fondness for Shoals Marine Laboratory stems from participation in adult-education programs that the couple enjoyed over the years. (Listings for adult classes for summer 2000 can be found, along with undergraduate-level credit courses ranging from Field Marine Science to Biological Illustration, at the Shoals Marine Laboratory web site www.sml.cornell.edu , and information on registration is available by phone at 607-255-3717).

"I urge everyone to try an adult-education class at this amazing 'learning island,'" Nancy Bartels said. "But watch out! You're going to fall in love with the place and you'll want to help make improvements, too."

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HEADLINE: Shoals marine lab offers a taste of the island life

BYLINE: JODY RECORD Union Leader Correspondent

PORTSMOUTH — Their “office” is an island and their view is of the sea. They wear shorts and tank tops and commute in inflatable boats. When they go to bed at night, the sound of the ocean lapping against the rocks lulls them to sleep. For some people that’s a summer vacation.

For the young workers at the Shoals Marine Lab on the Isles of Shoals off the coast of Portsmouth, it’s just part of the job.

Run by Cornell University and the University of New Hampshire, the marine lab was started on Appledore Island in 1973 by then-Cornell biology professor John M. Kingsbury. Today the summer school offers about 20 courses a season in such topics as Coastal and Oceanic Law and Policy and Underwater Research.

It takes four program staffers, three cooks, three captains and three engineers to keep the island school running. This year, almost all are returning employees. Many were introduced to the marine lab as students and ended up coming back after graduation. Jenn Muscato, the island assistant, came to Appledore as a Cornell freshman; this is her second year on staff. Muscato has found that island life appeals to a certain type of person: easygoing, laid-back but hard-working. You couldn’t be too high-strung and work on the island, she says, because there are too many variables.

Like her temporary position as cook. Because they haven’t been able to fill even one of the three positions, she has taken on the task of feeding 80 people three times a day.

“It’s kind of rewarding. To be able to say at the end of the day that I cooked meals for 80 people feels like I’ve accomplished something,” says Muscato, who majored in animal science at Cornell and will attend the University of Vermont this fall in pursuit of a graduate degree in marine biology aquaculture.

She admits that sometimes she misses the hustle and bustle of Ithaca, N.Y., where Cornell is located. But the tranquility of her days and nights on Appledore far outweigh the loss.

“What’s unique is that this is very small; Cornell is huge. Appledore is very charming. It is so beautiful and secluded,” Muscato says.

Sometimes, however, there is a sense of isolation. It is hard to keep up with everything that is going on in the outside world when you live on an island, she says. They do have television, but with workdays that don’t necessary have a definitive beginning and ending, there isn’t a lot of time to watch it.

Most of the employees leave the island on their two days off and go into Portsmouth, where they get a dose of “city life” and catch up on what is going on.

“You get used to being here, so it’s kind of a culture shock to leave and see all the people and the cars when you go into Portsmouth,” says Ben Low, a program engineer in his second season on the island.

Like Muscato, Low was introduced to the Shoals Lab as a student. If there are things that are given up working in the middle of the ocean, the marine and freshwater biology major doesn’t notice them.

“It’s nice to go into town and go to the food places and things, but I love to come back here. I don’t miss anything that’s not here,” he says.

Not even the spontaneity that comes with living “off island,” where you can decide on the spur of the moment to go out for Chinese food or that you want to visit a local pub after work.

“The lack of spontaneity isn’t a problem because we’re always busy,” says Low, who came to the Shoals Lab in early April and will stay until the first week in October.

Boat captain Ben Klompus is used to not living a spur-of-the-moment life. He spent five years teaching and sailing professionally, a job that had him out to sea for months at a time. Being on an island where he gets a couple of days to go mainland every week is the most stable work environment he has known for some time.

“This is a respite, having the chance to be on land but not so much on land,” says Klompus, who will enter Harvard University in the fall to pursue a graduate degree in education.

“My focus is on the educational objective. I may be captain for the island but I’m looking at the larger picture, the experiential education. To be able to offer this kind of opportunity is an integral part of education.”

Working at the Isles of Shoals provides a sense of community that Klompus says is sacrificed elsewhere. Any sense of isolation or lack of spontaneity that comes with working and living on the 95-acre island is a tradeoff, he says.

“There are little things to miss, but those aren’t things that are very important to me. I enjoy the spontaneity of being affected by the weather. And I enjoy the community atmosphere,” says Klompus.

It is that sense of community that has brought island manager Ross Hansen back to the Shoals Lab for his sixth year. One of a few full-time employees, Hansen works at Cornell University the remainder of the year.

“It’s a different life here. It’s such a small community, you really become aware of everyone’s little quirks,” Hansen says. “And it’s not like you can go home at night and talk to your friends or

your significant other.” Hansen misses a few things during his summer job — not being able to play in a softball league like he used to, for example, and weekend outings with friends. But if he really gets an urge to do something, he just plans ahead and takes a day “off island.”

A biology major in college, Hansen thought it would be great to be in an environment where he could study the subject constantly. April on the island is one of his favorite times. Then there are as few as two people at the marine school.

“It gets a little secluded, quiet, which can be nice,” Hanson says. “I grew up in a small town so I’m not used to a lot of traffic or people. This life suits me.”

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Isle of Education: Shoals Marine Laboratory opens 'window to sea'

By Richard Fabrizio Staff Writer

PORTSMOUTH - Appledore Island is a remote granite slab barely breaking the cool Atlantic Ocean six miles from the coast. It offers little vegetation, less fresh water, hundreds of squealing seagulls and constant wind.

But atop this shoal is North America's largest marine field laboratory focusing on undergraduate level education.

Shoals Marine Laboratory was founded in 1973 as a cooperative venture between Cornell University and the University of New Hampshire. In nearly 30 years of operation, the lab has developed a national reputation for providing college, high school and adult education students one of the most intensive learning experiences around.

James Morin, laboratory director, said Appledore Island is more wild today than at any point during the past four centuries. Its pristine environment is preserved with meticulous care. Few access roads and trails cut across the rocky terrain, and most buildings are dedicated to laboratory functions. New construction is kept to a necessary minimum. Access to the island is limited to one small dock that welcomes visitors with a natural path of sloping granite.

"One marvelous thing about our program is it's so intense," Morin said. "You live it, eat it and breathe it. You get more in a two-week course here than you get in a whole semester course on campus."

Appledore is on the National Register of Historic Places and is a State of Maine Critical Nature Area.

The 95-acre island includes three miles of resource-rich intertidal zone that allows students to figuratively and literally immerse themselves in studies. Appledore, the eight other shoals and surrounding water provide habitat for an array of plants and animals. Seagulls nest on the island, and more than 125 species of pelagic and inland birds use the islands as migratory resting spots.

The water includes lobsters, seaweed flora and several fish species ranging from the occasional cod, the rarely spotted goose fish and the more common pollock.

The lab supplements its island environment with access to surrounding waters via a small fleet of Boston Whalers, a 19-foot sailboat, inflatable boats and the 47-foot R/V John M. Kingsbury, the pride of the fleet. Students also snorkel and SCUBA dive to add to their research.

Students stay at the laboratory for one to eight weeks for various courses. While on the shoal, they sleep in double or quadruple dormitory-style rooms and attend field studies, lab observations, research projects and classroom lectures for as many as 14 hours a day. During their stay, students are limited to only two showers per week in an effort to conserve the island's precious and limited water supply produced by reverse osmosis desalination.

Students say they love it. Alumni of the program prove their affection by returning to the island time and again.

"If you don't have a good attitude, you're not going to make it very long on an island where you can see all sides," said Adam Baukus, a UNH senior attending his second summer course at Shoals Marine Laboratory.

The laboratory is called a "window to the sea," and Appledore is called the "Learning Island." Baukus, 21, of Nashua, is working toward a bachelor's degree in marine biology. He was halfway

through the two-week Ecology of Marine Fishes course at the lab last week.

“I didn’t know what I was getting into last year,” Baukus said. “But after the first year, I couldn’t wait to get back out here. You’re surrounded by ocean - even the best university can’t give you this experience.”

Kevin Sullivan, 21, was also on the island for the Ecology of Marine Fishes course. He is a UNH senior and resident of Nashua. Sullivan and Baukus developed respective research projects as part of their course work. Sullivan studied characteristics of the obscure goose fish in an effort to better understand its feeding effectiveness.

“It moves very slowly,” Sullivan said. “This is a fish that needs to be invisible to eat.”

Baukus’ project was designed around harbor pollock and their age distribution.

“The goal is to see how they interact,” Baukus said. “To see if the 1- and 2-year-olds mix.”

Baukus and Sullivan said their respective projects were designed to end in the writing and submission of grant proposals for continued studies. They will work with Shoals Marine Laboratory instructors to complete the process.

Instructors include professors from schools such as the University of Southern California, UCLA, University of Washington and the University of Virginia Medical School.

“At the university,” Sullivan said, “you take general courses. Out here, you can focus on more of a specific and see what you would like to do for a career.”

Sullivan and Baukus both plan to enroll in graduate studies after their graduations. Enabling students to gain experience to continue their education is the heart and soul of the laboratory.

Dr. John Kingsbury founded Shoals Marine Laboratory after becoming dissatisfied with educational and research opportunities for undergraduate students. Kingsbury, a Cornell University professor of plant biology, brought a group of students to nearby Star Island in June 1966 for a short-term field science program. Five years later, Appledore Island was chosen as the site of the lab, which opened two years later.

UNH originally had a marine zoology laboratory on Appledore from 1928 until World War II when the military seized the shoals for observatory posts.

Kingsbury overcame the bureaucracies of uniting Cornell and UNH together in the project and the red tape of establishing the laboratory on Appledore, which falls across the state border in Maine.

Dr. Jacqueline Webb is an associate professor of biology at Villanova University and an alumnae of Shoals Marine Laboratory. She came to Appledore in 1977 as an undergraduate and again as a teaching assistant in 1980 and 1983. Today, she returns regularly as a guest lecturer.

Webb said the Isles of Shoals opened a new world of research opportunities for her.

“It was my first field experiences outside of Brooklyn,” she said. “This place is amazing. Living on an island carries with it a lot of meaning from an ecological standpoint and a lot of responsibility.”

Webb said the island’s isolation and history contribute to the learning atmosphere. Appledore has a rich history that includes the days of Celia Thaxter and her artist colony of the late 1800s. Thaxter’s renowned garden was re-created to reflect its original design. The lab offers its “A Garden is a Sea of Flowers” course as part of its adult education.

“It becomes more of a valuable experience than the traditional university experience,” Webb said of the overall program. “Having that experience here affirmed my interest in marine biology. It’s the reason why I do what I do.”

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Technology upgrade would make island program less isolated

By Richard Fabrizio Staff Writer

PORTSMOUTH - The isolation of Shoals Marine Laboratory at Appledore Island is considered a great benefit of the learning experience. But lab officials hope to upgrade its technology to stay better connected to the world.

Much of the research in the lab's 17 summer courses is "hands-on" in nature. Students live on the island during their courses and conduct research that takes them down to the water's edge and often into it. Projects continue in several laboratories and classrooms on the island.

James Morin, lab director, calls the hands-on research one of the laboratory's best assets. But the lab is looking to replace outdated technology to improve educational capabilities.

Currently, the laboratory is connected to the mainland by the use of radio telephones that work inconsistently. Internet access is extremely limited as only one user can access the Web at a time.

The lab does feature "LobsterCam," an underwater camera that films the movement of the crustaceans. But a technology upgrade could allow live streaming video to reach laboratories and other users via the Internet.

Improved computer capabilities could also help students transfer project data from the island back to collegiate studies.

The outdated technology is holding back lab efforts to expand its offerings to high school teachers, according to Marjorie Olds, public affairs officer, Shoals Marine Laboratory.

The lab hopes to establish a distance learning program through New Hampshire Public Television. The program would bring teachers to Appledore during the summer for various classes. Curriculum components would then be delivered via television and Internet.

"They'll have access to all the Shoals' experience," Olds said. "Teachers will be able to take that magic and transfer it to their kids."

But Shoals Marine Laboratory simply doesn't have a connection system that would allow the endeavor.

Olds, a former lawyer, judge and employee of the United Nations, is currently writing several grants to raise money. A final price tag on the computer and communications upgrade is unknown at this time, but \$500,000 was set as an initial estimate.

The lab's operating budget is described as "frugal," with 80 percent of all revenue coming directly from student course tuition and other users. Construction and maintenance since the lab's inception in 1973 was funded largely through private contributions and done by volunteers.

"We have a very hands-on environment here," Olds said. "But students have to have access to technology. We want wholeheartedly to extend our program to teachers, but we need the technology."

Olds said the Shoals' experience stretches beyond labs and students and classrooms.

"Students learn how precious water is, how precious their environment is," Olds said. "Everyone becomes stewards of the environment - that's invaluable. That's the best measure of protection."

