



Letter From the Director: Stories of Success

At first glance the stories of our successes might appear unrelated. A man repairing a tire at a local repair shop recognizes Tony as the “nature guy” from Coastal Kingdom. Members of the Sea Island Fly Fishers club who had taken the Master Naturalist class are now working with Kristen to conduct an osprey nesting survey. Teachers who took the Master Naturalist class for educators are also those who are helping lead curriculum reform in their schools. The Jasper County Planning Department now views LCI as an important partner in their efforts to improve their stormwater ordinance. But these successes are not independent; they fit together and build on each other in a strategic way.

LCI’s strategy is to develop a culture of environmental stewardship in our community. Members of the same culture share stories that they pass on to future generations and these stories help

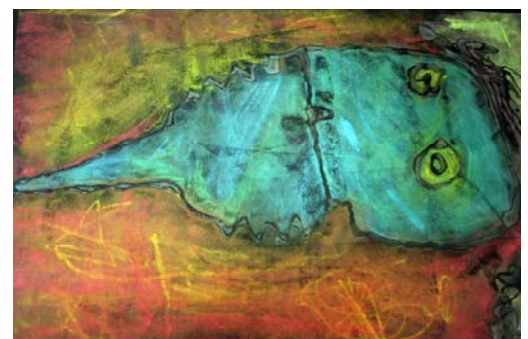
determine the values that their leaders use to make their decisions. Creating such a culture involves identifying “what is the body of information and stories that everyone in the culture must be taught and which must be passed on to future generations?” and “what are the most effective ways to communicate this information to as many people in the community as possible?”

The Master Naturalist course embodies the information that everyone in the Lowcountry should know to be a good environmental steward. The course also models how best to transfer this knowledge through experiential learning. The Coastal Kingdom programs use this same approach—the viewer participates in outdoor experiences where they discover and learn many of the same lessons as the Master Naturalists. When people participate in citizen science projects such as the osprey nesting sur-

vey they are continuing to learn experientially about their environment. The content of the Master Naturalist course also serves as the basis for the environmental education curriculum that is being introduced into schools throughout the region through the Master Naturalist Course for Teachers.

Creating a community with a culture of environmental stewardship also requires understanding what kinds of decisions are being made that impact the environment, who the people involved in making these decisions are, and how to engage them in conversations that will help them make better decisions. In our region important decisions are made by the staff of the Planning Departments of local county government, by elected officials and by individuals in the school districts who determine what curriculum will be taught to the students. LCI has worked diligently to get

(Continued on page 8)



Student success: Student art work produced as part of the River of Words Program. LCI partnered with Beaufort County Schools and the Port Royal Sound Fund to provide Beaufort County students with an intimate knowledge of their local watershed. From left to right: by Scottie House, HE McCracken Middle School; “Dinnertime” by Natalie Rose Kelly; “Horseshoe Crab” by Virginia McAvo, 1st grade at Hilton Head Island School for Creative Arts.



EDUCATION AND OUTREACH

LCI Joins in *River of Words* Program

I blow in the wind.
 I soak in the water.
 I root in the pluff mud.
 I withstand nature's worst storms.
 I am spartina grass.

Pearce Randal, 7th grade Robert Smalls Middle

Creeping through the grass,
 Moon glinting in the distance,
 The water trickles as the creature floats in.
 So quiet no one notices its
 Eyes float above the water,
 The rest of it hidden
 As it sweeps through the night.
 A silent predator
 The American Alligator.

Katie Hanley, 7th grade Bluffton Middle School

At the beginning of the 2010 school year, LCI began a collaboration with the Port Royal Sound Fund, founded by Dick and Sharon Stewart, to help protect the Port Royal Sound system. One of their goals is to introduce local school children to the Port Royal Sound watershed and help them learn how to protect it.

The *River of Words* program is an international program designed to connect students to their local watershed through poetry and art and was introduced in Beaufort County

Schools as a voluntary program this past school year. Through this partnership, LCI offered a workshop for teachers who chose to participate in the *River of Words* program. The purpose was to educate teachers about what *they* needed to know in order to teach their students about the Port Royal Sound watershed. Students then produced poetry, paintings, and photography about what they learned. The students' works are displayed in exhibits throughout the county. LCI staff will provide further workshops during the Beaufort County School's Summer Institute.

Learning Expedition Schools Program Provides Students with Field Experiences

A natural outcome of LCI's Master Naturalist Class for Teachers was for LCI to become actively involved in designing learning experiences as part of the curriculum at the schools where these teachers taught. Since teachers are already overwhelmed by the amount of material they are expected to cover due to standardized testing, the goal of these learning experiences is to use environmental science as a theme to integrate learning about science, social studies, math, and language arts. Many local students have never travelled out of their neighborhoods so field trip experiences are essential to their ability to relate to the information they see in their textbooks.

Chris Marsh worked closely with the principals of Shanklin and Shell Point Elementary Schools to create the "Learning Expeditions Schools" program and brought in Clemson's Youth Learning Insti-

tute as a partner. Working with the teachers, Chris designed a series of experiences that allowed students to develop a "sense of place" of the region, understand how the land provided economic opportunities for past generations and discover the diversity of career opportunities available locally. Two field trips were designed for each grade, one to be taken early in the fall and a second to be taken during the latter half of the school year. LCI wrote and published a curriculum guide

used by the 4th graders at Clemson University's Camp Sewee that is now used by all schools that attend the camp.

LCI curriculum specialist Sulatha Shetty coordinated day to day activities for this program, which included developing lessons for classes before, during and after these field trips. The design of these field trips will be completed in spring 2011 and will be available to other schools during the 2011-2012 school year.



Learning Expeditions: Left, Students exploring the salt marsh at Camp Sewee. Right, learning about fish adaptations at the SC Aquarium.

Coastal Kingdom now available to all Beaufort County Schools

“Sharks and Rays” was completed in the winter of 2010 and is now part of the show’s rotation on The County Channel and Comcast 2 in Charleston. This particular episode includes a segment with Tony Mills and Captain Michael Perry catching sharks and sting-rays in Port Royal Sound. The following episode, “Winter in the Lowcountry” will air in spring 2011.

In the fall, Tony, Sulatha Shetty and Rob Lewis from Beaufort County TV gave a presentation for all of the Beaufort County Media specialists to showcase *Coastal Kingdom*. At the meeting, copies of each episode were provided to

the 40 schools represented. With the help of Cory Tressler from the Beaufort County School District, each media professional can now make the program available digitally to any classroom.

Teachers were also provided with teaching materials to accompany each episode. Much of the content in *Coastal Kingdom* addresses South Carolina science standards, so educators can utilize the DVDs to teach students about our local environment more effectively. In addition, LCI provided DVD sets to Beaufort County public library branches so patrons have access to the show



Coastal Kingdom: Beaufort County Administrator Gary Kubic (3rd from left) presents the Telly awards won by *Coastal Kingdom* to chairman of the Trustees Larry Fuller (2nd from left) at the LCI board meeting in November 2010.

as well.

Master Naturalist Program Impacts Local Community

LowCountry Master Naturalists contributed over **5,000** volunteer hours to a variety of citizen science, education, and public projects in 2010.

Master Naturalists go on to provide volunteer service for a number of causes and organizations throughout the area. There are now 414 graduates of the Master Naturalist program, and their volunteer service means that LCI’s mission and message are exponentially disseminated throughout the lowcountry. Master Naturalists work with school children, act as docents for nature centers, help care for nature trails, count birds, make land use decisions, conduct citizen science, educate others, and lead many local organizations. Through the Master Naturalist program, LCI can efficiently and effectively communicate the message of our region’s unique characteristics, the importance of our waters and salt marsh, and the ethic of conservation.

The Master Naturalist program is an essential part of LCI’s education initiatives, educating local professionals, volunteers, and teachers about nature in the lowcountry. But the impacts of the Master Naturalist program do not end when class participants finish the course. Master Natural-



Photo by Sandy Koulichkov

What’s down there?: Master Naturalists study the organisms that colonize floating docks.

Native Plant Grant

Through a partnership with the Spring Island Trust Native Plant Project, LCI funded grants of native plants to five local schools to create native plant meadows on the school campuses. The meadows are planted with native bunch grasses and wildflowers which will attract insects and provide food and shelter for birds.

Teachers will use the meadows as an outdoor classroom where students can learn about habitats, catch butterflies and other insects, observe the life cycle of plants, and study nature. Master Naturalists volunteered to help install the plants, and local companies supplied site prep and topsoil.



Planting Party: 1st grade students at Shell Point Elem. work with Master Naturalist Beverly Jennings to plant native meadow plants.

Photo by Patti Merritt



Conserving the Port Royal Sound Watershed

While Beaufort County worked on implementing its revised Stormwater Ordinance that was passed in late 2009, LCI conducted a workshop for local engineers in February. Recognizing that the winter months would be exceptionally wet because of the 2009-2010 El Niño, Director Chris Marsh organized a tour for engineers to low-lying sites approved for development. There, engineers saw sites that were normally dry covered with standing water, and Chris challenged them to determine how they would handle stormwater volume under these conditions. The goal of the exercise was to show engineers why these areas must have very low residential development with minimal impervious surface.

LCI also expanded its efforts to the upper reaches of the Port Royal Sound watershed through a partnership with the Port Royal Sound Fund. Together, these two organizations provided matching funds to Jasper County so they could receive funds from the State to create a new stormwater ordinance that included volume control, similar to Beaufort County's new ordinance. The ordinance is expected to go before the Jasper County Council in early fall 2011. Chris also worked with Applied Technology Management, a local engineering firm, to provide a stormwater management workshop to members of the Jasper County Council.

Breeding Bird Habitat and Golf Courses

Clemson University Master's stu-

dent Jessica Gorzo has completed her research project on the breeding birds found on lowcountry golf courses. The LowCountry Institute helped support her research for the past three summers. Preliminary data analysis shows that the highest bird diversity was found in ecotone habitats—areas in the environment where one habitat grades into another. These areas often exist where a water feature meets an intact natural vegetation stand. Therefore, courses that have a variety of habitat types and maintain stands of native vegetation will support the greatest bird species richness. The threatened painted bunting was found only on courses that had marsh edge. Those with buffers had higher bunting densities, suggesting that maintenance of vegetation along the marsh edge is essential to supporting populations of these birds. Many courses supported rookeries, which represented the highest bird densities recorded during the study.

Ospreys as Indicator Species

For the second year, LCI partnered with the Sea Island Fly Fishers, the LowCountry Master Naturalist Association, the Fripp Island Audubon Club and Parris Island Natural Resources to conduct a survey of the ospreys nesting in Beaufort County. Educator Kristen Marshall Mattson coordinates the survey, and works with

volunteers from the partner organizations who observe the nests through the breeding season. 108 total nests were observed in 2010, with 83 of those nests (77%) being active. Of the active nests, 46 produced at least one chick during the season, a 55% success rate.

More than half of the nests (60 out of the 108 observed) were constructed on platforms, and man-made structures (whether platforms, bridges, channel markers, water towers, etc.) represent a significant portion of the nesting sites (only 21 of the nests were constructed in live or dead trees).

Nesting success was not higher on platforms compared to other nest locations. Compared to 2009, the rate of nest success (nest success being defined as producing at least 1 or more chick during the season) was higher in 2010. There are a variety of possible reasons for this, and data from upcoming seasons will help provide important information about the relationship of population numbers to the health of the Port Royal Sound system.



The Port Royal Sound Watershed



2010 ANNUAL FUND

The important work of the LowCountry Institute is 100% funded by tax-deductible contributions. We are grateful for the support of 244 donors in 2010 whose gifts totaled \$459,389. We were especially pleased to welcome four new members to our Leadership Circle. Fund-raising in 2010 is used to meet the 2011 LCI budget. Thanks to the strong support by our donors in 2010 the LowCountry Institute will be increasing its efforts in the areas of water quality protection, the Spring Island habitat management partnership and environmental curriculum development for local schools during the 2011 budget year. The Institute's work is increasingly important as the pressure of development in the Low Country continues to threaten our precious natural resources.

Many thanks to our donors and our solicitors whose generosity and hard work resulted in the wonderful success of the 2010 Annual Fund. The LowCountry Institute is committed to forward-funding its programs and develops its annual budget based on funds raised the previous year. The great success of our 2010 fundraising efforts will allow us to expand our work in 2011.

Ann Baruch and Ginger Mitchell, LCI Fundraising Co-chairs

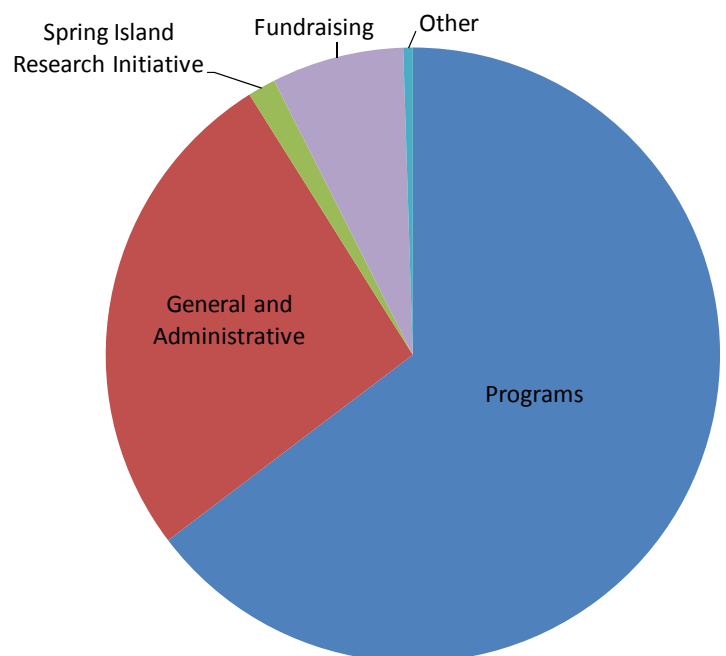
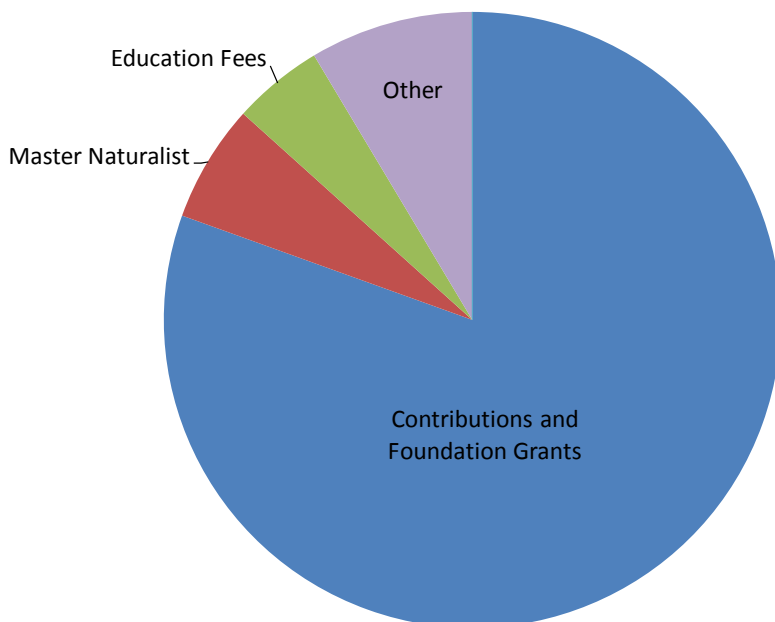
2010 FINANCIALS

REVENUE* (*represents funds for 2011 budget)

Contributions and Foundation Grants	\$459,389
Master Naturalist	\$35,256
Education Fees	\$27,145
Other	\$48,921
TOTAL	\$570,711

EXPENSES

Programs	\$305,861
General and Administrative	\$124,866
Spring Island Research Initiative	\$6,959
Other	\$2,377
Fundraising	\$32,885
TOTAL	\$472,948





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Please excuse any errors and contact Lisa Gravid at 987-7008 with corrections

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Guideline Criteria for LCI's Work

The year 2011 promises to be a very productive year for LCI thanks, in large part, to the generous support of our donors. LCI's success at having a far reaching impact with limited staff is due to the collaborative relationships we have developed with Beaufort County, state agencies and other non-profits. We have four criteria that we use when evaluating possible projects and prioritizing them.

1. All projects must address one of LCI's four major goals and supporting strategies: (a) educate adults who have the ability to impact others through their careers or their volunteer efforts, (b) provide information not currently available that is needed to make important environmental policy decisions, (c) promote environmental education efforts that reach a large audience including schools, and (d) use Spring Island as a showcase for effective habitat management practices.
2. Projects that simultaneously address more than one of LCI's three goals are given higher priority.
3. Projects which have a majority of their funding from another source, but need LCI staff expertise or matching funds to be accomplished.
4. Projects that address an environmental issue that will influence a municipality or county's implementation of a law or ordinance that will improve environmental protection and stewardship.

These guiding principles help ensure that LCI acts in a fiscally responsible manner by funding the programs and projects that have the greatest positive impact on the Lowcountry environment.

(Continued from page 1)

to know individuals from all these areas and, in many cases, enroll them in the Master Naturalist class. As a result LCI is now seen as the authority for accurate information about key environmental issues, especially because LCI's reputation is backed up by the success of Spring Island as a showcase of exemplary environmental stewardship.

When county council members, teachers, TV shows and neighbors are all telling the same stories about the uniqueness of their environment and how they should protect it, then we know that we have indeed changed the culture. This is when synergism of effort creates a community culture that values environmental stewardship and raises leaders to perpetuate these values in the next generation.



The mission of the LowCountry Institute is to provide responsible leadership in the conservation and use of Low-country natural resources – its biodiversity, pristine waters and ecological landscapes – by fostering learning opportunities and helping local policymakers, landowners and residents make informed decisions.

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