NORTH CAROLINA
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The protection status of the southern hognose snake is up for review by the 2001 North Carolina General Assembly. Photo: Jim Page

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MUSEUM HOURS
Monday–Saturday,
9:00 a.m.–5:00 p.m.
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MUSEUM 201

PREREQUISITE: ABILITY TO STRETCH

BY MIRIAM SAULS

When Broughton juniors and seniors signed up for Jim Baker's biology course, "North Carolina Museum of Natural Sciences Internship Program," they expected to learn more about animal and plant life, and maybe the way museums work, but they might not have expected to learn about themselves.

Ian Edwards learned that he has an affinity for little kids and an ability to teach. Lake Newcomb learned that he could never be confined to a job inside a museum all day, although he might like to be the guy who collects the specimens. Cortney Winston learned that she still has the fear she brought with her to the course (snakes!), although she managed to hold a small snake, something she thought she could never do. And Jessie Bunn learned that she needed to cultivate patience when little kids repeatedly asked her less than astute questions.

Last semester these four students and 17 others spent the last period of every other school day at the Museum learning about themselves, the natural world, museum protocol, and interacting with the public. This spring a dozen students from the spring semester class are introducing visitors to learning spaces and special exhibits as well.

Jim Baker, a 14-year veteran at Broughton High School in Raleigh, has had a long relationship with the Museum. Besides studying in Belize with the Museum's Educators of Excellence program, he

JIM PAGE

Broughton High School students Jessie Bunn, Maggie Gulick (in costume), Matt Gardner, and Chris Hodges get in character for dinosaur role-play with visitors.

Ashley Terrell-Rea prepares a Discovery Box for young visitors.

JIM PAGE

brought at-risk ninth grade students to the Museum five years ago to study North Carolina wetlands and give presentations to other students visiting the Museum. And Museum staff came to Broughton to train some of his honor students, who then went to Wiley Elementary School to teach young students there. But this is the first course he has designed to take place entirely at the Museum.

"We knew the course would be experimental in nature," says Mary Ann Brittain, Museum director of school programs. "But we have built a relationship with Jim and Broughton over time, so we had confidence in a program like this. We appreciate Broughton's willingness to try something different."

Baker designed the course to be part research, part journaling, and part experience on the Museum floor. The students ended the semester with PowerPoint multimedia presentations summarizing their work. Students developed research topics that matched their Museum assignments. For example, the nine students assigned to discovery carts—the Whale Cart, the Tropical Cart, the Mountains to the Sea Cart, the Arthropods Cart—had to dig up information about the items on their carts and share it with the public.

After they armed themselves with information, they took to the floors, ready to interact with curious visitors. Over time, Jamie Kolb learned what items were most popular with children and began to stock her cart accordingly. Ian Edwards realized he needed a different script for adults and children. "You might ask a kid what animal he thinks

Tanning a snake skin is a new skill for Lake Newcomb.

JIM PAGE

JIM PAGE

Discovery Room inventory occupies Jamila Bourtid, Ashley Terrell-Rea, Cortney Winston, and Savon Williams.

made the marks on a log, to introduce beavers to him, but you can't engage an adult in the same way. You would just insult an adult if you asked him that," he says.

And at the end of the fall semester, Elizabeth Lee, Sara Saba, and Mary Garber discovered that they could cook up some of their favorite arthropods in a recipe called "cajun crickets" and spice up their exam grades.

Four students were assigned to the Jurassic Park traveling exhibit, so they gathered information about 40 kinds of dinosaurs. In fact they were asked by Albert Ervin, the Museum staff member in charge, to share their findings with six Museum workers stationed at the exhibit. Maggie Gulick notes in her journal that she felt good about this assignment. "I realize that it will be a lot of work, but I am glad that Albert trusts and respects us enough to let us do this job and have us teach the employees," she writes. "It could be that he believes in us a lot, or that it's just too much work for one guy to do by himself! Either way, it's an interesting assignment."

I thought museums were just for learning in a serious way, but now I know learning can be fun.

The Naturalist Center was home base for four other students. On quiet days they did inventory work or worked on specimens that had arrived. They learned that tanning a yellow rat snake skin is a smelly and painstaking process, for example, and that the inventory process, labeling specimens and recording data on the computer, is tedious. They all seemed to prefer the days when the Center was bustling with students.

Both Chris Dawson and Holly Zickefoose found out that they were effective teachers. "We get to teach and talk to people in here. I know now that I want to do something with people," says Dawson. "Kids are surprised when they can touch things in here and that everything is real. The guys all ask for the snakes first thing, and everybody loves birds. I tell them that they can rub the birds, but they have to rub in the direction of the feathers, or the feathers will fall out. We watched the staff for a couple of weeks and we're still being taught stuff, but now we're teaching visitors what we've learned. It's definitely a fun class, talking to people instead of taking notes."

Staff members were impressed with the ability of the students to pick up information. "They caught on quick and stayed on task," says Ed Hajnos, curator of the Naturalist Center. "It was less work for the staff than I expected."

And staff members impressed the students. "One thing I like is that I get to see women who like what they're doing—that's inspiring," says Ashley Terrell-Rea, one of the four female students in the Discovery Room.

"I never realized how much little kids love science," says Jamila Bourtrid, another one of the students assigned to the Discovery Room. "At first I wasn't sure if I would take the course for one semester or for the whole year, but now there's no doubt. I thought museums were just for learning in a serious way, but now I know learning can be fun."

Bourtrid touches on an essential element of museum education. Executive Associate Director of San Francisco's Exploratorium Robert J. Semper, in a 1990 *Physics Today* article called "Science Museums as Environments for Learning," writes, "The role of playing and exploring with objects and ideas as part of the learning process is an important but often overlooked feature of education.… Play is rarely considered a significant part of learning."

But play is a serious part of science education that can lead to the development of observation and experimentation skills and provide an opportunity to discover order in nature, Semper tells us. By providing a showcase of natural phenomena, "a museum can create a playground of science that helps develop the fundamental experiences necessary for later learning," he says.

How might the experience with the high school internship program affect these students' later learning habits and behavior? Several agree they will be much more likely to engage with staff in other museums in the future, certainly enriching their experiences. Others say the experience reinforced their intentions to stay in the field of science. Yet another says that in the past, she always killed a spider whenever she saw one. In the future she will analyze a spider before she kills it. Brittain comments, "We still have her for another semester—there's hope yet!"

What would they change about the biology course or the Museum? They would like to see more behind-the-scenes aspects of the Museum, learn more about how exhibits are made, and have time to explore other areas of the Museum. They would have more things kids could touch and have more interactions with live animals. And they suggest having more things on the carts that engage the senses.

But would these students advise other students to take the course? A unanimous "absolutely!"

Is the Museum satisfied with the outcome of the first semester course? "We are very pleased and excited," say Brittain. "These kids have made a genuine contribution. They are not just window dressing. They were the face of the Museum when they were here and people came in that could identify with them that wouldn't have identified as much with the staff.

"And it reaffirms our belief that kids love hands-on activities, whether they are giving or receiving, and that the natural world is a powerful motivator for us all—kids of all ages and adults, and we're capitalizing on that. These kids have helped inspire and encourage other young people to have a new awareness and respect for the environment, even as their own awareness has grown. And that's an integral part of our mission. We are delighted to have students again this semester and hope visitors will take advantage of their knowledge and enthusiasm."

Visitors can meet the student interns this spring in the Tropical Connections gallery, Discovery Room, Naturalist Center, newly opened Living Conservatory, and in the Extreme Deep traveling exhibit.

JIM PAGE

Holly Zickefoose and Chris Dawson catalog fossil specimens in the Naturalist Center.

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Visitors learn about marine mammals from Ian Edwards and Chris Hodges.