Hands-on science
Turtle Cove work helps teachers improve instruction

By BOB ANDERSON

TURTLE COVE — With some trepidation, 31 teachers climbed down from the boardwalks onto the marsh to wade through deer pea vines and chest-high bull brush.

When not watching for snakes, they concentrated on finding grasshoppers marked with fingernail polish a week before.

For these science teachers, this wetland experience provided a feel for some of the rigors and fun that can be involved in scientific research. The scientists instructing them said they hope the teachers return to school with a zest for science to impart to their students.

After gathering the data, the sweaty educators went back to the comfort of Turtle Cove Research Station to analyze the numbers and determine what their tales meant.

The experiment helps to teach the scientific method, designing experiments and analyzing data. It teaches teachers how to have their students conduct hands-on experiments to teach scientific methodology, said Ernest Simonoux, coordinator of Project Cypress.

Instructors had provided the group with the grasshopper experiment, but they quickly moved the teachers into developing their own small research projects as part of the five-week training program.

"I’m having a ball," said Kate Monistere of Tifton Academy in Hammond.

"She said she’d picked up a lot of ideas for entertaining and educational science experiments her fifth-graders can conduct," said Fielding of Albright Middle School.

She, too, is learning to make science more interesting for her students.

"I’m taking my aquarium back to class," Fielding said with a touch of pride.

During the five weeks each teacher prepares an aquarium of wetland flora and fauna. Most agree that collecting aquarium specimens to put in their aquariums provides a lot of fun.

The aquariums are one of many tools the teachers are learning to use to liven up their classrooms.

Graphing calculators, computers and science videos, the Internet are others.

But most of all, they said, they are learning to teach children to become better critical thinkers, able to use science in their everyday lives to solve problems.

Funded by Louisiana Systemic Initiatives Program and run by Southeastern Louisiana University, Project Cypress is in its sixth year.

"Paulette Perrin said going through the project several years ago made her a much better teacher," said Perrin, a seventh-grade science teacher at William Fischer Junior High School in Covington.

"I went from having all the desks in a row to hands on," she said. "It was rejuvenating. I haven’t been the same since."

"While all teachers don’t change their style that dramatically, many do," said Perrin.

"We think we can get kids turned on to science," she said, "by turning teachers on to the subject and showing them ways they can get students involved rather than just lecturing them, she said.

Particularly among elementary school teachers, "many haven’t taken much science," Simonoux said.

"Indeed, some of the teachers said their backgrounds are in other subjects, but they’ve been called upon to teach science."

"This gives them more confidence in their knowledge of the subject and their ability to teach it," Simonoux said.

Although the Project Cypress teachers get weekly field trips like this one, they spend most of their five weeks in classrooms, much like their students will in a couple of months.

But even in the classroom, science can be made interesting by employing good experiments, teaching techniques, audio-visual materials and the Internet, according to Project Cypress instructors.

Most of the instructors are scientists, involved in research themselves.

"We cover a lot of material," by going all day for five weeks, said Gary Shaffer, a wetland researcher who teaches the group biology, with a concentration on Louisiana wetlands.

Shaffer said he concentrates on Louisiana’s wetlands because wetlands are so important to the state, because they are in rapid decline and because they provide such a good tool for teaching science.

Even though the state’s wetlands have become highly fragmented, usually a wetland can be found near a Louisiana school, Shaffer said.

Learning about a wetland in the classroom and then seeing a wetland and the plants and creatures that inhabit it makes a lasting impression, the project’s instructors said.

Project Cypress provides more than just the five weeks of concentrated summer study for the teachers, Simonoux said.

Formal follow up meetings allow the teachers to share how they have used what they learned.

Project Cypress staff members provide continued support to the teachers, including model teaching in their classrooms, Simonoux said.

And the teachers share what they have learned with other teachers when they return to their schools, he said.

They find their students do better in statewide and national tests, particularly on tests that measure analytical thinking, Simonoux said.

Most of important of all, he said, teachers who complete the project report that a lot of their students become "turned on to science."