

What kinds of sharks live off the Grand Strand? Students go hands-on to find out

BY MICHAELA BROYLES

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Coastal Carolina students tag sharks in Winyah Bay as part of a Marine Sciences research program.
BY JASON LEE

“Shark, hook seven!” yelled Coastal Carolina University graduate student Matt Larsen, right before he grabbed a 40-pound Finetooth shark with gloved hands and pulled it on the boat Wednesday morning.

Students studying marine science at CCU get real hands-on experience when they study sharks — they learn how to properly hold them, tag them and release them back into the sea.

For the past 15 years, CCU professor and shark expert Dan Abel has been taking his undergraduate and graduate students out on cruises to Winyah Bay to research sharks traditionally found along the Carolinas.

“Getting students on the water, especially early in their academic career at Coastal Carolina, can change the entire trajectory of their education,” Abel said. “They begin to see why they’re in the classroom doing what they’re doing.”

Just off Georgetown, S.C., Winyah Bay has several rivers flowing into it— the Waccamaw, Sampit, Black, and Pee Dee rivers.

“Winyah Bay is one of the biggest estuaries on the East Coast,” Abel said. “It’s got a very large watershed, about 18-thousand square miles.”

Graduate students learn how to do research and how to conduct themselves on a research vessel, while undergraduate students observe and learn how to collect data in the real world.

“It’s so far better than teaching them facts in a classroom,” Abel added. “They’ll also learn to appreciate their surroundings and learn why it’s important to have sharks in ecosystems and why it’s important to keep a clean Winyah Bay.”

“I can teach them in a classroom and it goes in one brain and out the other, but if you teach them out here, they remember,” he explained.

But catching and tagging sharks also takes a lot of work — on the students’ end, of course.

“It can be hard, and it entails several hours of preparation for each cruise to make sure we have our longlines set, the bait cut,” Abel said. “When we get out here we have to go on site and set our longlines and retrieve them, we come back we have to make sure that all our gear is put away and cleaned and that the boat is cleaned, so yeah, it’s a lot of work, and that’s before we begin to do anything with the data which is the academic part of what we do.”

During the process, Abel and his students bait 25 hooks on longlines that are each 500 feet long. The lines have an anchor and a float on both ends, and once the lines are in the water, they soak for 30 to 45 minutes.

“We had to bait all of the hooks with fish and squid, got inked a lot, got a lot of fish blood and guts all over myself, but that’s just part of it, gotta get used to it,” said Katie Kalenick, a junior at CCU.

When it’s time to retrieve the lines, the students pull them in by hand, hoping to find a shark hooked along the line.

“If we have something on there we bring it in and we identify it, we measure it, determine what its gender is, sometimes we take a tissue sample of it, put a tag in it,” Abel said.

“We do this for several reasons,” he said. “One of which is that sharks are not in great shape worldwide. Some populations are recovering, but many of them are still over-fished, so we want to get an indicator of what their health is in local ecosystems, cause sharks as you know, mostly are at the top of the food chain and they have an important role there in controlling the population of organisms below them in the food chain.”

Abel and his students use two different types of tags — rototags and acoustic tags. Rototags are put on dorsal fins and acoustic tags are placed in their abdomens. But don’t worry, Abel said, tagging doesn’t hurt the sharks.

The number of sharks they catch on a trip can vary widely. Abel said sometimes they catch none and other times they can get up to a dozen.

On Wednesday’s cruise, the team managed to catch five sharks — a Finetooth, a Blacknose, a Blacktip, and two Sandbar sharks.

Abel said locally, there are about 12 different species of sharks in our waters, but only 10 of those species are there during the summer.

“This was a super awesome first experience, I couldn’t imagine having a better day, better weather, a better outcome,” Kalenick said. “We caught five sharks, four different species, it was really great. Being able to have these opportunities is definitely a big deal for me.”

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