10-29-2013

Press release : 2013 : 10 : 29 : Biology professor and students examine and document rare squid

Tom Scherberger

USFSP News Center »

Biology professor and students examine and document rare squid

Posted October 29, 2013 at 9:20 am by Tom Scherberger

Students (left to right) Rob Cuba, Laura Wiggins and Krista Austin with Assistant Professor of Biological Sciences Heather Judkins, Ph.D., with the rare Asperoteuthis squid.

Christmas came early for Heather Judkins, Ph.D.

Two large species of squid, so rare they are destined for the Florida Museum of Natural History, made their way by cruise ship from the Caribbean Sea off Grand Cayman to the University of South Florida St. Petersburg last week to be examined by Judkins, assistant professor of biological sciences at USFSP.

The squid were not only rare but huge, measuring more than six feet in length each. The squid – an *Asperoteuthis* and a *Megalocranchia* – dwell thousands of feet below the surface. Adult

specimens are so rare only a few have been examined by scientists. The specimens scientists usually examine are under a foot long.

"We don't get them as big as this or in as good a condition,'' Judkins said as one of the squid lay on a lab table at the Florida Fish and Wildlife Research Institute. "It's like Christmas!"

Both were found floating on the surface by fishermen. The *Megalocranchia* was found in July and the *Asperoteuthis* four years ago.They were frozen by the Cayman Islands Department of Environment and shipped to Judkins in a chest freezer aboard the Royal Caribbean Freedom of the Seas cruise ship to Port Canaveral. Judkins then drove them in the freezer to USFSP.

Little is known about the biology of these deep-sea species of squid, including how they reproduce and their role in deep-sea food webs Judkins said. "This adds pieces to the puzzle,'' she said of the specimens.

Judkins specializes in cephalopod research. She has published five articles in scientific journals, presented at scientific conferences and teaches a course in marine invertebrates, including squid. She was drawn to squid partly because of the mystery that surrounds them, she said.

"We don't know much about the deep-sea squid," she said. "I think it's important to know the diversity differences for ecosystem and fisheries management.We need to know what we are looking at."

The Asperoteuthis *was so rare that the specimen Judkins examined was the first found in the Caribbean. The* Megalocranchia *is so gelatinous, and had gotten twisted in transit, that she could not determine if it was male or female.*

Frank Biafora, Ph.D., Dean of the College of Arts and Sciences, said the fact that these rare specimens were entrusted in Dr. Judkins' care underscores her standing in the scientific community. "We are fortunate to have Dr. Judkins at USF St. Petersburg,'' Biafora said. "As our newest full time biology member, Dr. Judkins' exciting and recognized research enhances our emerging reputation as an important resource for applied marine research and marine biology training.''

Judkins weighed, dissected, measured and documented the squid in minute detail with the help of three students in her marine invertebrate class — Krista Austin, Rob Cuba and Laura Wiggins.

Now that the squid have been examined, both specimens will be added to the squid collection at the Florida Museum of Natural History in Gainesville.

The examinations took nearly four hours. Water dripped off the examination table and the room filled with the pungent odor of dead squid. None of that dampened Judkins' excitement. "I really was like a kid in a candy store,'' she said.

Measuring the Megalocranchia.

Related News

Posted in:
College of Arts & Sciences
Faculty Highlights
For Faculty & Staff
Research
USFSP News

Tags:
Biology
Frank Biafora
Heather Judkins
marine biology
squid