

# Biology professor still digs dinosaurs

BY SARA HOWARD

Staff Writer

Robert Ross hasn't let go of one of his childhood fascinations.

As a kid, he often went with his neighbors to their cabin in the Allegheny Mountains. Each time, he would venture out to rocky areas to look for fossils.

"I loved the treasure hunt of it," said Ross, lecturer of biology at Ithaca College and Cornell University and the director of education at Ithaca's independent Paleontological Research Institute (PRI). "I passed through a dinosaur phase like most kids do, but I just never grew out of it."

Since those days exploring the Allegheny hills, Ross has been trained as a paleontologist, specializing in the diversity of organisms on tropical Pacific islands.

"The shallow marine island faunas we typically think of as being very biologically stable because of the stable temperatures through the year," Ross said. "From the geological standpoint, they're very dynamic, with a lot of change and variety."

This not only fascinates Ross, but it also allows him to participate in a variety of study and travel opportunities. He focused his doctorate research at Harvard University on the evolution of life on the Pacific island Enewetak, the first island used to test atomic bombs during World War II.

Ross explained that the government studied the effects of the bomb on the island during the 1980s.

"They used cores, long thin tubes stuck into the blast site, to judge how much disruption of the rocks occurred," he said. "This is judged by the disruption of fossils. I studied the evolution of organisms through these reference cores."

Ross also spent two years researching climate change at the University of Kiel in Germany and more than four years at Shizuoka University in Japan studying the fossils of small crustaceans called ostracodes. This lat-



**ROBERT ROSS**, lecturer of biology at Ithaca College and Cornell University, teaches in his *History of Life on Earth* class Feb. 22. The class meets Tuesdays and Thursdays.

ter position took Ross to the islands of Fiji, Micronesia and to study local fossils.

Ross now spends his time thinking about how to make science, especially the history of the earth, more accessible to the average person.

Sophomore William Nye, who currently takes *History of Life on Earth* and works at the front desk of PRI's Museum of the Earth, said he is fond of Ross' use of movies in the classroom in order to connect to the students.

"We watched 'Jurassic Park' as a case study," Nye said. "[Ross] pointed out how a lot of the dinosaurs in the movie aren't even from the Jurassic period, and that some of them may not walk correctly because they didn't take the time to study the bones. He uses ideas that people already have in order to teach the science."

Senior Cheryl Haner also takes Ross' class and works at the front desk of PRI. Despite being "science-illiterate," Haner learned

about everything from the history of the earth to sustainability through these two programs.

"I guess it's the idea that knowing these concepts is part of being a well-rounded individual and a responsible citizen," Haden said of Ross' passion for the accessibility of science.

As the director of education at PRI, Ross is involved in programs that allow students to take part in paleontological research.

"Paleontologists have studied these fossils for over 100 years," Ross said. "Simply because there aren't that many paleontologists, we haven't been able to accomplish the kind of detailed research that we need."

The solution is bringing the science into the classroom, creating hands-on education for students as well as a large base of working researchers, Ross said.

The PRI Mastodon Matrix Project is one such program. The goal of the project is to study the mud located around the bones of two mastodon fossils found in New York state in order to create an inventory of what the environment was like during the periods of these mastodons.

The first mastodon surfaced just south of Watkins Glen, about 30 miles southwest from Ithaca. Mud samples from that site were sent to schools as close as Syracuse and Elmira and as far as Alaska and Europe. Students from the second grade to the college level participated in the research.

"Students have found beaver-chewed sticks and small insect parts and small muskrat bones," Ross said.

One Ithaca College student in his *History of Life on Earth* class even found a piece of mastodon bone.

Ithaca is the treasure trove of fossils that Ross always looked for as a child. Located slightly below the equator about 360 million years ago, Ithaca was once the base of a shallow, tropical sea that preserved the skeletons that sank to the sea floor.

"I always encourage anyone to just go out and look for fossils," Ross said. "Just take a hike and see what you can find."