

UConn receives grant to exhibit collection of 2 million ants

April 13 2016, by By Pat Eaton-Robb

A federal grant will bring new life to decades of work by a University of Connecticut biologist who made more than 20 expeditions with his wife to the jungles of Central and South America following, studying and collecting millions of army ants.

The [university](#) will use a \$500,000 grant from the National Science Foundation to give students, researchers and the [public access](#) to the collection of Carl Rettenmeyer and his wife Marian. The collection includes about 2 million specimens of ants and other [critters](#) that also live in [army ant](#) colonies.

The Department of Ecology & Evolutionary Biology, where Carl Rettenmeyer worked from 1971 to 1996, will begin digitally cataloging the dead insects this summer, creating an electronic database of the collection and research notes that will be available online.

"We have bulk samples of many colonies, thousands of vials with preserved things in them, and quite a few cabinets with pinned insects in them as well," Jane O'Donnell, the biologist who is managing the collection, said Wednesday.

The ant colonies also are documented in 5,000 Kodachrome slides and about 30 hours of digital videotape.

O'Donnell said the idea is to make the work accessible to everyone from elementary school students to the world's top ant researchers.

The school is planning two exhibits, one about the ants and another about the Rettenmeyers. Carl, who died in 2009, also founded the Connecticut State Museum of Natural History at UConn.

The school plans to build a large-scale model of an army ant that will welcome visitors to school's biology and physics building. There also will be 4-foot-long model ants placed on the side of the building to publicize the collection.

The Rettenmeyers painstakingly documented the complex life of foraging army ant colonies. They became the first to discover many of the other organisms that live there, such as a special mite that attaches to the end of an ant's leg and serves as a sort of hiking boot for the insect, O'Donnell said.

The school expects the additional research on the ants will uncover new details about colony life. The [collection](#), O'Donnell said, also will be a valuable source of DNA for those studying the history of [ants](#) and their symbiotic systems.

"We don't even know what some of the relationships with some of these other organisms are," she said. "We're hoping that by putting all of these details together and making it easier to study, some patterns will emerge."

The school hopes to have the initial exhibition ready by early 2017.

"We share billions of years of evolutionary history with these organisms, and we don't even really have an accounting of what's on the planet with us yet," O'Donnell said. "That's part of this."

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