# Parasite infecting Florida snails poses health danger

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(AP)—A rare parasite found in snails and rats that can cause serious health problems in humans and animals is more pervasive in South Florida than previously thought, a new study has found.

University of Florida scientists say the nightmarishly named "rat lungworm" has been found in multiple species of snails in the Miami area, including the invasive giant African snail.

The scientists, who published their results in the *Journal of Parasitology*, made the discovery while investigating the death of an orangutan that died after eating snails and falling ill. It was the second primate to die from ingesting infected snails in Florida since 2004.

The Angiostrongylus cantonensis parasite is already a public health issue in Hawaii and throughout Asia, and it's been found previously in Louisiana and Florida. But until now was not considered common in the continental U.S.

Becoming infected with the lungworm is as bad as it sounds: once consumed, the parasites eat their way to the central nervous system, where they eventually die. While in rare cases the infection can be fatal, the worms often cause severe headaches, and sometimes even paralysis in people.

In Hawaii, the infected snails have caused dozens of people to fall ill, mostly from accidentally ingesting tiny snails on salad greens or other

produce that had not been properly washed.

Robert Cowie, a research scientist at the University of Hawaii who studies the lungworm and was not involved in the Florida paper, said the research shows the worm thrives in subtropical climates. Whether it recently spread here or is just now being found is difficult to say.

"It's taken hold in the most consistently warm parts of the U.S.," Cowie said. "People are becoming more aware of it and scientists are looking for it and finding it."

Figuring out how pervasive the worm is in Florida was important because of the human health hazards. Still, humans who don't eat snails are safe.

"Humans can't become infected with this parasite unless they eat an undercooked or raw snail," said Heather Walden, the study's lead author and a professor of parasitology at University of Florida's College of Veterinary Medicine. "As long as food is cooked and you wash your produce, you will most likely never ingest it."

The rat lungworm was first reported in humans in Taiwan in 1945, according to the report, and about 3,000 cases have since been reported worldwide, mostly in China, Thailand and the Pacific Islands. Most of the cases involved snails being ingested by humans.

In the continental U.S. there has been only one confirmed case of infection from the parasite in the 1990s, when a boy was sickened in Louisiana after eating raw snails.

The parasite flourishes because of the symbiotic relationship between snails and rats—rats eat the infected snails, and the snails in turn feed on the rat feces. Since rats and snails are easily transported on ships, the

parasite has had ample opportunity to move.

Of the five species of snails tested by University of Florida, three tested positive as hosts for the rat lungworm.

One of the snail species identified by Florida researchers with lungworm was a first, which shows how many different snail species can become infected, Cowie said.

"It's not just one snail species, in my view any snail is a potential host of this parasite," Cowie said.

Walden said she often warns pet owners not to let them eat lizards or catch mice to avoid potential infections.

"If you know you have a snail problem, try to keep your pet away from that area," Walden said.