Study On Radiation To Examine Effects On Area’s Field Mice

By Lisha Gayle
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Put on some leather gloves, pick up a field mouse and get him to show his teeth.

Those are tasks being performed — in the interest of science — by biology students from Lindenwood College in St. Charles.

Students are doing the legwork on a study to see whether the mice have been affected by radioactive contamination left over from a uranium-processing plant off of Missouri Highway 94 at Weldon Spring.

The students’ work has taken them off campus and into the woods and fields of southern St. Charles County. There, the students are trapping and comparing mice from two kinds of places — sites contaminated by radioactive waste and sites considered uncontaminated.

“If there is a difference, it would be very interesting, ecologically,” said William Bethel, who is guiding the students’ work. He is an ecologist and professor of biology at Lindenwood College.

Bethel and government officials want to find out if the mice have been affected “as a result of radioactive stress,” he said.

The study questions whether contamination has changed the population of mice — giving them different numbers, density or gender ratios. The study also indicates some dissection, allowing scientists to check for contaminants in the organs and tissues of the mice.

The 10-month study is being funded by a $42,000 grant from the U.S. Department of Energy. The grant is related to a massive clean-up of the area near the former uranium-processing plant.

The study will help officials determine the extent of the cleanup project, said Steve McCracken, manager of the project for the U.S. Department of Energy.

The $800 million cleanup project began in the 1980s and is expected to last through the turn of the century.

In areas that are only slightly contaminated, “We want to be sure that the cleanup will not be more harmful (to the ecology) than the contamination,” McCracken said.

Officials are especially interested in drainage ways — gullies running away from the plant site, McCracken said.

If the study shows no impact on the mice, it would help officials know where they should avoid removing contaminated soil, McCracken said.

“Mice are good subjects for a study like this,” Bethel said. They’re native to the area “and they’re pretty close to the bottom of the food chain.”

One concern expressed by government biologists was the possibility that radioactive contamination may work its way up the food chain and affect humans or endangered species like bald eagles. Bethel said.