Tulane-led Katrina study to examine people, plants and rats

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More than eight years after Hurricane Katrina devastated New Orleans, a team of Tulane University ecologists, sociologists and geographers is joining forces with other national experts to better understand how rebuilding after a disaster can effect human and ecological well-being.

The study will examine how the incidence of potentially deadly pathogens carried by rats, such as leptospirosis, bartonella and hantavirus, corresponded with Katrina"s flooding. It will also examine how post-Katrina interventions, such as debris removal and management of vacant lots, have influenced the distribution of rodent-borne pathogens and perceptions of disease risk across the city.

“The overarching principle is, can we improve the way cities are managed after disasters,” said project leader Michael Blum, associate professor of ecology and evolutionary biology at Tulane. “We want to deliver some decision-making tools that will enable the city and other agencies to better understand how and what they do influences physical risk and the environment.”

The work will include one of the largest ecological studies of urban rats ever undertaken. The study, which will be carried out in the urban core of New Orleans, will also include mailed surveys and in-person interviews, along with plant inventories and geographical analysis.

The project is one of 21 across the nation being funded this year by the National Science Foundation"s Coupled Natural and Human Systems program, which addresses how humans and the environment interact. Tulane"s share of the $19.4 million program is $1.4 million.

Team members from Tulane are geographer Richard Campanella, sociologist Kevin Gotham and ecologist Caz Taylor. The team also includes researchers from Dillard University, the Yale School of Public Health, the U.S. Forest Service and the New

Orleans Mosquito, Termite and Rodent Control Board.