

# Researchers Find DNA Traces of Plague and Anthrax in New York Subway

Boris Djuric February 06, 2015



The research finds Bronx as the most diverse borough in terms of microbial species. Brooklyn claimed second place.

**While mapping the DNA traces in a New York subway, researchers found that half of the samples are of an unknown origin.**

([Newswire.net](http://Newswire.net) -- February 6, 2015) -- The New York subway carries close to a million riders every day, each leaving DNA traces. Researchers at Weill Cornell Medical College released a study on Thursday that mapped the DNA found in New York's subway system. They found DNA of people, animals, insects, viruses, bacteria, even some DNA traces of the bubonic plague. That was, however, only half of the DNA traces – the recognizable half. The other half of the DNA samples are of unknown origin, the report read.

“People don't look at a subway pole and think, 'It's teeming with life,' ” said Dr. Christopher E. Mason, a geneticist at Weill Cornell Medical College and the lead author of the study. “After this study, they may,” he said.

The inspiration for the study struck about four years ago when Mason was dropping off his daughter at day care. He watched his daughter explore her surroundings by popping objects into her mouth, as well as passing them to other children. He wanted to learn “how much is being transferred, and on which kinds of things?” Dr. Mason said. For his project called 'PathoMap', Dr. Mason chose the obvious place with the most possible DNA exchange between people – the New York subway.

According to researchers, over the past 17 months, a team mainly composed of medical students, swabbed DNA from surfaces that included wooden benches, stairway handrails, seats, doors, poles and turnstiles.

The research found the Bronx as the most diverse borough in terms of microbial species. Brooklyn claimed second place, followed by Manhattan, Queens and Staten Island, where researchers took samples on the Staten Island Railway.

Dr. Mason admits that his team could map only the DNA which exist in a DNA databank, however, a lot more DNA is yet to be assigned. For example, researchers isolated DNA of British, Tuscan and Finnish in an area that is typical for Irish residents, DNA that has not yet been assigned.

The research goal, however, was not to map the missing DNA but to show what exists down there. Live, antibiotic-resistant bacteria were discovered in 27 percent of the collected samples, though among all the bacteria, only 12 percent could be associated with disease. Also, researchers discovered DNA traces of bubonic plague and two DNA samples contained fragments of anthrax

“The presence of anthrax is consistent with the many documented cases of anthrax in livestock in the state of New York and the East Coast broadly,” Dr. Mason said.

New York City and transit officials dispute that anything health threatening really exists there, and the city's health department called the study “deeply flawed” and misleading.

“As the study clearly indicates, microbes were found at levels that pose absolutely no danger to human life and health,” Kevin Ortiz, a representative for the Metropolitan Transportation Authority, said in an email.

Dr. Mason responded by saying that they are obligated to report all the findings, and disregarding the quantity, results showed that the plague and Anthrax exist in New York subways.

Source: <http://newswire.net/newsroom/news/00087409-researchers-find-dna-traces-of-plague-and-anthrax-in-new-york-subway.html>