

Scientists find city rats are loyal to their 'hoods'

May 26 2009



Rats in Baltimore, and likely other urban areas, are loyal to their neighborhoods. Credit: City of Baltimore

In the rat race of life, one thing is certain: there's no place like home. Now, a study just released in *Molecular Ecology* finds the same is true for rats. Although inner city rodents appear to roam freely, most form distinct neighborhoods where they spend the majority of their lives.

Like any major city, Baltimore has many lively neighborhoods - each with its own personality. But scientists from the Johns Hopkins Bloomberg School of Public Health say humans aren't the only Baltimoreans loyal to their 'hoods. The researchers found that rats

typically stay close to home, rarely venturing more than a city block. In the face of danger, however, some rodents can travel as far as 7 miles to repopulate abandoned areas.

Wild Norway rats - also called wharf rats, sewer rats or brown rats - can weigh nearly 2 pounds and transmit a variety of diseases to humans. Despite expensive eradication efforts, the number of rats in Baltimore has remained unchanged over the past 50 years. To understand why, researchers trapped nearly 300 rats from 11 residential areas of Baltimore and conducted genetic studies to see how the rats were related.

The scientists found that East Baltimore rats are separated from their unrelated West-side counterparts by a large waterway known as the Jones Falls. Within these hemispheres, rat families form smaller communities of about 11 city blocks. Each community is further divided into neighborhoods that span little more than the length of an average alley. And to a [city](#) rat, this is home sweet home.

The findings suggest that while rats rarely migrate, neighborhood eradication efforts may backfire by encouraging the rodents to repopulate other areas and further spread disease. When you smell a rat, the researchers say, the best solution may be to tackle the problem on a much larger scale - perhaps by targeting entire families at once. Rat race won.

More information: Commensal ecology, urban landscapes, and their influence on the genetic characteristics of city-dwelling Norway [rats](#) (*Rattus norvegicus*), L. C. Gardner-Santana, D. E. Norris, C. M. Fornadel, E. R. Hinson, S. L. Klein and G. E. Glass DOI: [10.1111/j.1365-294X.2009.04232.x](https://doi.org/10.1111/j.1365-294X.2009.04232.x)

Source: Wiley ([news](#) : [web](#))

Citation: Scientists find city rats are loyal to their 'hoods' (2009, May 26) retrieved 18 April 2024 from <https://phys.org/news/2009-05-scientists-city-rats-loyal-hoods.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.