

Why climate change won't cause rat booms in most cities—But new risks remain

SAN FRANCISCO, CA, UNITED STATES, July 15, 2026

/EINPresswire.com/ -- An international team of researchers from the US, Poland, and Italy has worked together to clarify how climate change affects urban rat populations, showing that the relationship is more complex than commonly assumed.

“

The narrative that climate change is causing widespread rat increases may do more harm than good by diverting warm weather cities from the real concerns they should be preparing for.”

Michael H. Parsons

In a new publication in Nature Health Global's peer-reviewed journal EcoHealth, the researchers show why warming has little effect on rat numbers in cities that are already warm. But in cold temperate cities like New York City, Chicago, or Berlin, warmer winters can boost rat activity by reducing the cold-season constraints that normally keep them confined to burrows. Those increases don't last, however. Once rat numbers rise, competition, food limitation, predation and disease push populations back down — sometimes resulting in a population crash.

The full study is available in EcoHealth: <https://rdcu.be/ftUke>

Instead, the authors argue that warm-temperate cities such as Vancouver, San Francisco, or London, should prepare for a different climate driven risk, such as the expansion of arthropod vectors. As warming temperatures allow fleas, ticks, mites and other vectors to expand their ranges, the rats already present in these cities may become reservoirs for a greater diversity of pathogens. Tropical cities such as Singapore or Hong Kong may not experience rodent population changes at all, unless typhoons or flooding accompany warming.

Lead author and senior research scientist Dr. Michael H. Parsons of the Centre for Urban Ecological Solutions explains: “The narrative that climate change is causing widespread rat increases may do more harm than good by diverting warm weather cities from the real concerns they should be preparing for”.

The authors caution that the popular idea of climate-driven “rat explosions” can mislead policymakers and the public. By challenging this assumption, the study shifts attention to the climate-linked risks cities are actually more likely to face, many of which have received

comparatively little attention.

Senior author, Prof. Rafał Stryjek of the Polish Academy of Sciences and the international, urban ecological thinktank, EUREKA, adds: “Effective urban risk planning depends on understanding regional differences rather than assuming a single global pattern.”

Parsons concludes: “Ultimately, human social hygiene remains the strongest predictor of rats.”

Funding:

This project was supported by EUREKA, an international applied urban ecological think tank based in San Francisco.

Direct correspondence to:

Dr. Michael H. Parsons Centre for Urban Ecological Solutions (CUES) Houston, Texas
Parsons.HMichael@gmail.com

Press inquiries:

Contact Dr. Michael H. Parsons Parsons.HMichael@gmail.com

About EUREKA:

EUREKA is an applied urban ecological think tank based in San Francisco, focused on applied research in urban wildlife, ecological solutions, and public facing science. Bringing together industry partners, rodentologists, and public health professionals, EUREKA advances data driven, ecologically based rodent management and supports science-based solutions for urban wildlife, public health, and sustainable pest management. <https://eurekalliance.org/>

Dr. Michael H. Parsons

Centre for Urban Ecological Solutions (CUES)

[email us here](#)

Visit us on social media:

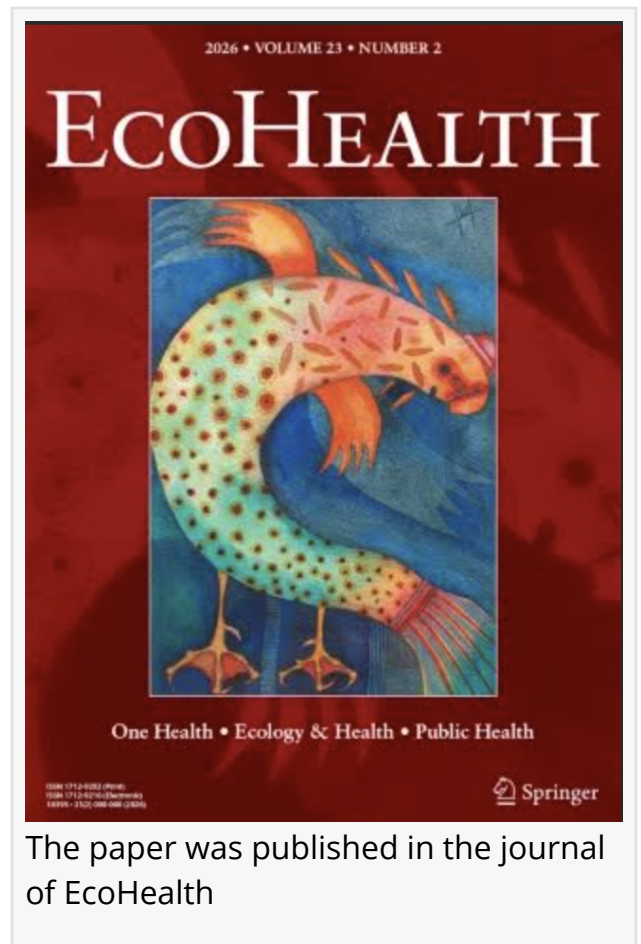
[LinkedIn](#)

[Bluesky](#)

[Other](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/926903903>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something



we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2026 Newsmatics Inc. All Right Reserved.