

TerranearPMC Safety Share

Week of November 27, 2017 – You Dirty Rat!

Movie aficionados may recall the iconic James Cagney and his most mimicked phrase, “You Dirty Rat.” But the fact is, Cagney never said that! (Also, Hamlet never said, “Alas poor Yorick, I knew him well,” and Ingrid Bergman in Casablanca never said “Play it again, Sam”). Yes, Cagney said something similar, but not quite “You Dirty Rat.” Obviously, the line was not meant as a compliment. Nevertheless, ever since the bubonic plague wiped out one third of Europe, rats have gotten a bad name. And maybe deservedly!

Diseases transmitted by rats fall into one of two categories: diseases transmitted directly from exposure to rat-infected feces, urine or bites and diseases indirectly transmitted to people by an intermediate vector such as fleas, ticks or mites. While there is a plethora of diseases and medical conditions associated with rats, most are not commonly encountered in the United States.

One of the most historically dangerous rat-borne diseases is the bubonic plague, also called “Black Plague.” Transfer of this disease occurs when fleas from the rats bite human beings. Fleas transported on rats are considered responsible for this plague during the Middle Ages. Historians have pointed out that it was during this time that biological warfare may have started as armies of the 14th century were recorded catapulting diseased corpses over the walls of towns and villages to spread the pestilence. Without a doubt, history has shown that rats have been associated with devastating consequences to humans.

Rat bites and scratches can result in disease and rat-bite fever. Rat excretion (urine and droppings) is responsible for the spread of leptospirosis: a viral infection of the membranes surrounding the brain and spinal cord and of the cerebrospinal fluid. Leptospirosis can result in liver and kidney damage as well as cardiovascular problems. Some individuals experience long-term effects while others experience only temporary discomfort. Rats also are a potential source of allergens as their droppings, dander and shed hair can cause people to sneeze and experience other allergic reactions.

Experts and officials are documenting growing numbers of rats across the United States, a trend that shows no signs of slowing down. Bobby Corrigan, who holds a doctorate in rodentology (is there really such a degree?), and is one of the nation’s leading experts on rats, told Healthline (an online journal that focuses on human health) that if you spoke to health departments in across the country, they would confirm that the US has more rats now than ever before.

Corrigan attributes growing rat populations around the world to milder winters and growing human populations. Rats tend to reproduce less during the winter as cold weather makes it harder for the rodents to survive. But, as winters have become milder over the past decade, rats have been able to produce extra litters. So is America on the verge of a “ratpocalypse?”

The pest-control company, Orkin, has published its Top 50 Rattiest Cities List for 2017. The metro regions are ranked by the number of rodent treatments Orkin performed from Sept. 15, 2016, to Sept. 15, 2017. The ranking includes commercial and residential properties.



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Topping the list is Chicago, followed by New York, Los Angeles, San Francisco-Oakland, and Washington, DC. This past July, New York Mayor, Bill de Blasio, pledged \$32 million to combat the rodents, vowing “more rat corpses.”

According to Orkin, fall is the start of rodent season as rats seek warmth and food indoors. These animals can cause a surprising amount of damage buildings as they chew on wood and electrical wires, causing fire hazards. It’s estimated about 25% of unexplained fires start from rodent chewing.

Rats don’t need a whole lot of space to get inside a building or dwelling as they can squeeze through a hole the size of a quarter (mice can fit through an opening the size of a dime). Once inside they can contaminate food and transmit pathogens through urine, feces and bites. To keep rodents from becoming indoor pests, the following simple measures should be practiced:

- Inspect inside and outside for rodent droppings, burrows and rub marks along baseboards and walls.
- Look for possible entry points and seal them.
- Install weather strips around entryways.
- Store food properly by keeping it tightly sealed.
- Clean up food spills as soon as they happen so that sugary substances don’t attract rodents, and
- Cut back trees and bushes to at least three feet away from buildings to avoid giving rodents a place to access gutters and roofs.

But maybe we are being a little too critical of rats. After all, medical science has realized that rats have a number of physiological and genetic similarities to humans as well as possessing some social behaviors for which science has used to benefit mankind.

Rats have been called the “mirror species” of humans. When we thrive, they thrive. They share and inhabit the same cities that we do. More people, more trash, more trash, more pests. That means the solution to the rat problem begins with the human problem of waste management. The fact is, rats need the same things humans need such as food and water every single day. The implication is clear: Rats are getting all the food they need from humans.

To keep rats out of your home and help control populations, it comes down to two things: First, ensure that all doors, including garage doors, leading into and out of your home are tightly closed. You should not be able to roll a number two pencil under a door. The second is securing garbage appropriately. Taking out the garbage with a secure lid is imperative. So maybe instead of hiring an exterminator or putting out poison bait, using a better garbage may be the answer!

In our work environments, many projects and facilities have designated staff to assess and mitigate areas where visible signs of rats (as well as other rodents) have made their presence. It is important that S&H procedures be adhered per verbatim compliance. This means removing personnel from the immediate infested area and contacting those that have been trained to assess and perform clean-up. In many instances this may mean work needs to be suspended until cleanup has been completed. PPE, such as disposable coveralls, gloves, booties and respiratory protection are typically worn during cleanup and disposal work tasks.

Play it once, Sam. For old times' sake – Ingrid Berman as Ilsa (from Casablanca)