

Bats identified as hosts of *Bartonella mayotimonensis*

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The modern sequencing techniques have shown that bats can carry a bacterial species previously been shown to cause deadly human infections in USA.

When the research group of Arto Pulliainen at the Department of Biosciences, University of Helsinki, Finland, analyzed an array of bat samples from Finland and UK, one class of identified bacteria turned out to be exceptionally significant. Multilocus sequence analyses of clonal bat *Bartonella* isolates demonstrated that [bats](#) carry *Bartonella mayotimonensis*. This species has previously been shown to cause deadly [human infections](#) in USA.

"We have barely scratched the surface of bat pathogens. Our group and our collaborators are currently focusing on pathogen hunting, environmental toxicology and bat immune responses. We have also identified a novel class of microbial toxins via our *Bartonella* studies and we are going to continue that line of research, too," says Dr. Pulliainen.

There are more than 1,100 species of bats on Earth. The numbers of bats are estimated to outnumber every other group of mammals.

"Bats are also highly mobile and long-lived, so they are ideal as pathogen reservoirs. A plethora of pathogenic viruses such as Ebola are known to colonize bats," Dr. Pulliainen says.

On the other hand, humans are extremely dependent on bats. Bats play a

vital role in natural ecosystems. They pollinate flowers, disperse seeds and eat pests that damage forests and crops. They also play an important role in arthropod suppression.

So what to do when you for example have to move out a bat that has accidentally flown in your apartment?

"Use thick leather gloves when carrying the bat out. Also avoid touching bat faeces or their ectoparasites such as fleas."

More information: Ville Veikkolainen, Eero J. Vesterinen, Thomas M. Lilley, and Arto T. Pulliainen. "Bats as Reservoir Hosts of Human Bacterial Pathogen, *Bartonella mayotimonensis*." *Emerging Infectious Diseases*. Volume 20, Number 6—June 2014

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