

## Bird flu, pig flu, now bat flu? Human risk unclear

February 27 2012, By MIKE STOBBE , AP Medical Writer

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In this undated photo provided by the Centers for Disease Control and Prevention, a *Sturnira lilium*, the host species of bat that the influenza virus has recently been detected in, is shown in Guatemala. The surprising discovery of genetic fragments of a flu virus is the first well-documented report of it in the winged mammals. Scientists suspect some bats caught flu centuries ago and the virus mutated within the bat population into this new variety. (AP Photo/Centers for Disease Control and Prevention, Amy Gilbert)

(AP) -- For the first time, scientists have found evidence of flu in bats, reporting a never-before-seen virus whose risk to humans is unclear.

The surprising discovery of genetic fragments of a [flu virus](#) is the first well-documented report of it in the winged mammals. So far, scientists haven't been able to grow it, and it's not clear if - or how well - it

spreads.

[Flu](#) bugs are common in humans, birds and pigs and have even been seen in dogs, horses, seals and whales, among others. About five years ago, Russian virologists claimed finding flu in bats, but they never offered evidence.

"Most people are fairly convinced we had already discovered flu in all the possible" animals, said Ruben Donis, a [Centers for Disease Control and Prevention](#) scientist who co-authored the new study.

Scientists suspect that some bats caught flu centuries ago and that the virus mutated within the [bat population](#) into this new variety. Scientists haven't even been able to grow the new virus in [chicken eggs](#) or in human cell culture, as they do with more conventional [flu strains](#).

But it still could pose a threat to humans. For example, if it mingled with more common forms of influenza, it could swap genes and mutate into something more dangerous, a scenario at the heart of the global [flu epidemic](#) movie "Contagion."

The research was posted online Monday in the journal [Proceedings of the National Academy of Sciences](#).

The CDC has an international outpost in Guatemala, and that's where researchers collected more than 300 bats in 2009 and 2010. The research was mainly focused on rabies, but the scientists also checked specimens for other germs and stumbled upon the [new virus](#). It was in the intestines of little yellow-shouldered bats, said Donis, a veterinarian by training.

These bats eat fruit and insects but don't bite people. Yet it's possible they could leave the virus on produce and a human could get infected by taking a bite.

It's conceivable some people were infected with the virus in the past. Now that scientists know what it looks like, they are looking for it in other bats as well as humans and other animals, said Donis, who heads the Molecular Virology and Vaccines Branch in the CDC's flu division.

At least one expert said CDC researchers need to do more to establish they've actually found a flu virus.

Technically, what the CDC officials found was genetic material of a flu virus. They used a lab technique to find genes for the virus and amplify it.

All they found was a segment of genetic material, said Richard "Mick" Fulton, a bird disease researcher at Michigan State University.

What they should do is draw blood from more bats, try to infect other bats and take other steps to establish that the virus is spreading among the animals, he continued. "In my mind, if you can't grow the virus, how do you know that the virus is there?"

Donis said work is going on to try to infect healthy bats, but noted there are other viruses that were discovered by genetic sequencing but are hard to grow in a lab, including hepatitis C.

**More information:** "A distinct lineage of influenza A virus from bats," by Suxiang Tong, et al. <http://www.pnas.org>

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