

Biologist: Rabbits and skunks can pass bird flu to ducks

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In this Aug. 10, 2015 file photo, turkeys stand in a barn on a turkey farm in Manson, Iowa. A government wildlife researcher says he's found that rabbits and skunks can become infected with the bird flu virus and shed it enough to infect ducks, evidence that small mammals could contribute to the spread of bird flu on farms. (AP Photo/Charlie Neibergall File)

A government wildlife researcher has found that rabbits and skunks can become infected with the bird flu virus and shed it enough to infect ducks—offering scientists one more clue about how bird flu may move in the environment and spread between farms, the U.S. Department of Agriculture said.

Experiments done last year demonstrated that striped skunks and cottontail rabbits in a laboratory transmitted a strain of [bird flu](#) to mallard ducks after they shared food and water sources, National Wildlife Research Center biologist Jeff Root said in a statement.

"When wildlife and poultry interact and both can carry and spread a potentially damaging agricultural pathogen, it's cause for concern," he said.

Last year bird flu resulted in the death of 48 million birds in 15 states, sending egg prices soaring to record highs, increasing turkey meat prices and hurting exports of poultry products. Scientists hope to find how the virus gets from wild birds to farms and spreads, and Root said it's now important to figure out how likely it is that such transmission across species happens in the wild.

His study results offer the first significant confirmation that mammals can transmit the virus to birds. Skunks and rabbits are common visitors to farms across the country. They also are frequently found at the riverbanks and wetlands where waterfowl gather.

Scientists studying bird flu who weren't involved in the research said it's a noteworthy finding, but more study is needed about how transmission is occurring.

"These viruses, we've always known that they get very eagerly into turkeys. Turkeys and ducks exchange viruses but skunks and rabbits? Who knew? So this is really exciting that way," said Carol Cardona, an avian health professor at the University of Minnesota who studies domestic poultry viral disease. "It tells us little bit more about an ecosystem we weren't fully understanding."

Iowa State University veterinary microbiology professor James A. Roth said it's an unexpected development, but it's not clear whether these animals can spread [bird flu virus](#) into commercial turkey and chicken barns.

"Those animals would have to pick it up from an infected waterfowl and then have contact with domestic poultry," he said. "It's an important experimental observation that needs to be followed up on."

Scientists have been studying how the virus gets from wild birds into largely enclosed commercial

chicken and turkey farms and then spreads between farms miles apart. Studies have concluded the virus is introduced to an area by migrating wild birds then likely spread by vehicles or workers moving between barns on neighboring farms. The belief has been that the risk of small mammals carrying the disease into commercial bird flocks is small.

In his research, Root inoculated skunks and rabbits with a low pathogenic version of the bird flu—a milder strain that could make a bird sick but not kill them. He kept skunks in one set of pens and kept mallard ducks identical pens. After several days the skunks and the ducks switched pens. One out of four ducks became infected.

In another experiment, rabbits were housed in pens with ducks sharing food and [water sources](#). One of five ducks living with rabbits became infected.

Root said the rabbits and [skunks](#) most likely shed the virus through their oral and nasal secretions, which contaminated food, water and the environment shared with the ducks.

The discovery also helps farmers understand another risk they may be able to minimize by finding ways to keep small mammals away from poultry barns.

Poultry and egg producers are still recovering and restocking barns with new birds after last year's bird flu, which hit Minnesota's turkey population and Iowa's egg-laying hen flocks hardest. The USDA said the outbreak cost the federal government more than \$950 million, making it the largest U.S. animal health disaster on record.

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