

Can Virus Hunters Stop the Next Pandemic Before It Happens?

Health/Science

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A global project is looking to animals to map the world's disease hotspots. Are they going about it the right way? Photo: Dr. Kevin Olival releasing a bat after collecting samples for virus testing in Thailand.

By [Jim Morrison](#) for Smithsonian.com, Jan 25, 2018 Last summer, [Dr. Kevin Olival](#) joined a group of Indonesian hunters as they ventured deep into the mangrove forests of South Sulawesi island. The hunters were looking for roosting bats, mainly fruit bats and flying foxes—for them, a lucrative prize that can be shipped to villages in the north as part of the bushmeat trade. For Olival, the bats were a prize of a different sort. Olival is a virus hunter. For more than 15 years, the ecologist and evolutionary biologist has scoured the globe for samples from animals that harbor some of the scariest undiscovered viruses as part of the global nonprofit [EcoHealth Alliance](#). His goal: to find the next undiscovered virus in animals that harbors the ability to jump to humans and cause the next killer pandemic. He and his team are in Indonesia for two weeks, swabbing feces, urine and saliva and taking blood samples from bats; freezing them in liquid nitrogen; and shipping them to an Indonesian laboratory for testing. [EcoHealth Alliance](#) is partnering with a larger collaboration known as [USAID PREDICT](#), a \$200 million global project aimed at detecting, preventing, and controlling infectious emerging diseases before they become full-blown pandemics. The idea is fairly straightforward. If scientists can identify the places where viruses are most likely to jump from animals to humans, then they can warn people, get them to change any behaviors that increase risks, and contain any emerging infection. The difficulty is in the identification. That's why Olival and others are trying to build an early warning system—one that's still very much in its infancy. "We're trying to improve the crystal ball, which is very murky," says [Jonna Mazet](#), the global director of PREDICT and a professor of epidemiology at the University of California at Davis. The question is: is targeting animal vectors the best way to achieve that goal? [⋮] <https://www.smithsonianmag.com/science ... 7908/#t1gQtV1X2DM87mdV.99>