



Scientists Discover New Virus Infecting U.S. Honeybees

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ABERDEEN PROVING GROUND, Md. — Scientists at the Edgewood **Chemical Biological Center** (ECBC), located in Edgewood, Md., working with scientists at the University of Montana and industry partners Bee Alert Technology and BVS have discovered in U.S. honeybees a virus only before identified in European honeybees.

The invading bee virus newly discovered in the U.S. is called Varroa Destructor Virus-1 (VDV-1). First definitively identified in Europe in 2006, VDV-1 is carried by both honeybees and the tiny varroa mites that affect them. VDV-1 is related to a family of paralytic viruses that causes a breakdown of some membranes. In silkworms the virus causes flaccid disease, which causes the worms to digest themselves internally.

The virus was discovered using a technology developed for battlefield detection of viruses. This technology, called Integrated Virus Detection System/Proteomic Mass Spectrometry, reveals virus by size and peptide information contained in a sample and compares that information against known genetic sequences. This approach may provide important clues to scientists around the world working to find the cause of Colony Collapse Disorder — a mysterious malady that has caused rapid depopulation of beehives around the globe.

This is the first detection of this virus in North America and will allow beekeepers in the U.S. the possibility of early control and quarantine of affected colonies.

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ECBC is the Army's principal research and development center for chemical and biological defense technology, engineering and services.