

## Environment Chernobyl Taking a Toll on Invertebrates Too



Vasily Fedosenko/Reuters

Population declines suggest invertebrates are very sensitive to radiation.

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Most of the talk about the ecological aftermath of the Chernobyl nuclear accident in Ukraine has been about the impact of the 1986 disaster on animals. Recent research has refuted the idea that the region around the power plant, contaminated by radiation and off limits to most humans, has become a sort of post-apocalyptic Eden for deer, foxes and other mammals and birds.

A new study by the same researchers shows that it's not much of a paradise for invertebrates, either. Anders Pape Moller of the University of Paris-South and Timothy A. Mousseau of the [University of South Carolina report in \*Biology Letters\*](#) that the abundance of insects and spiders has been reduced in the area.

The researchers conducted standard surveys in forests around Chernobyl over three springs from 2006 to 2008, noting the numbers of bumblebees, butterflies, grasshoppers, dragonflies and spider webs at points with radiation levels that varied over four orders of magnitude.

After controlling for factors like height of vegetation and type of soil, they found that abundance declined with increasing radiation intensity. The decline was noticeable even in areas with relatively low levels (about 100 times normal background), which suggests that invertebrates are highly sensitive to radiation.

The researchers note that most of the radiation in the area is in the top layer of soil, and given that many invertebrates spend much time in or near soil — as eggs, larvae or adults — that could explain the decline.