

# Repulsive smell could combat bed bugs

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In recent years, bed bug infestations have become increasingly common in Swedish homes. There are two different species of bed bug that suck blood from humans – the common bed bug and the tropical bed bug. Increased foreign travel has meant that tropical bed bugs frequently accompany travellers to Sweden.

A team of researchers from Lund University and Mid Sweden University in Sundsvall have now identified and quantified a type of smell that bed bugs produce, known as alarm pheromones. The researchers have studied these smells in both adult bed bugs and nymphs (immature bed bugs). The research team observed that the smells given off by the two species are surprisingly similar. Moreover, nymphs give off a different smell from adult bed bugs.

Behavioural tests show that the nymphs' smell is repulsive to both adult individuals and other nymphs. The researchers believe that this repellent effect could be used in control systems where alarm pheromones make the bed bugs more mobile and therefore increase the effectiveness of drying agents to kill them. However, this type of possible environmentally friendly control method requires greater understanding of how bed bugs' pheromone system works.

**More information:** The research results are presented in the latest issue of the scientific journal *PLoS ONE*.

[dx.plos.org/10.1371/journal.pone.0018156](http://dx.plos.org/10.1371/journal.pone.0018156)

Provided by Lund University

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