

Bed bugs grow faster in groups

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This is a group of bed bugs (*Cimex lectularius* Linnaeus). Credit: Allen Szalanski, Bugwood.org



Researchers have previously observed that certain insects—especially crickets, cockroaches and grasshoppers—tend to grow faster when they live in groups. However, no research has ever been done on group living among bed bugs until now.

A new study published in the January 2014 issue of the *Journal of Medical Entomology* called "Group Living Accelerates Bed Bug (Hemiptera: Cimicidae) Development" is the first ever to document the effects of <u>aggregation</u> on bed bug development. Researchers from North Carolina State University found that bed bug nymphs developed 2.2 days faster than solitary nymphs—a significant 7.3% difference.

"Now that we found this social facilitation of growth and development, we can start asking what sensory cues are involved and how they contribute to faster growth," said corresponding author Dr. Coby Schal. "This should lead to some interesting experimental research on what sensory cues <u>bed bugs</u> use to grow faster in groups."

In addition, the researchers found that the effects of grouping are the same regardless of the age of the individuals in the group. The results of the study suggest that newly hatched bed bugs do not require interaction with older bed bugs to achieve maximal developmental rates.

"The observations that adults do not appear to contribute to nymph development suggests that eggs can survive and found new infestations without any adults," Dr. Schal said.

More information: dx.doi.org/10.1603/ME13080

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