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MUMMIES & MITES: PREDATORY MITES USE APHID MUMMIES AS SHELTER

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Animals use structures for protection against unfavourable climatic conditions and predation. Modified leaves, mollusc shells as well as structures provided by plants are examples of structures that offer shelter for organisms, and can have profound effects on population dynamics of many organisms. We show that empty aphid mummies, from which a parasitoid emerged, serve as shelter for the predatory mite *Amblyseius herbicolus* (Phytoseiidae), protecting them from cannibalism and predation. We found that *A. herbicolus* larvae had higher survival in the presence of cannibalistic adult conspecifics and a bug that attacks the predatory mites when empty aphid mummies were present. Empty aphid mummies also resulted in an increased growth of predator populations on plants. Whereas it has been previously reported that mites use plant-provided shelter for protection, the usage of structures that are by-product of another animal's development is a novel observation. Structures such as these are present in all habitats and could play an important role as shelter for many organisms.

Keywords: phytoseiid, refuge, cannibalism, Anthocoridae, Amblyseius herbicolus.