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Does the ability of *Blattisocius* species to prey on mites and insects vary according to the relative length of the cheliceral digits?

¿Varía la habilidad de especies de *Blattisocius* para predar en ácaros e insectos de acuerdo a la longitud relativa de los dígitos de los quelíceros?

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Species of *Blattisocius* Keegan (Acari: Blattisociidae) are commonly found in storage facilities, seemingly feeding on mites or insects. Two species of this genus, *Blattisocius keegani* Fox and *Blattisocius everti* Britto, Lopes and Moraes, were recently found coexisting in a sample of a commercial dog food in southern Brazil. Although very similar, the species have rather different cheliceral structures, the first with the fixed digit distinctly shorter than the movable digit and the second with both digits of similar lengths. It was hypothesized that they coexisted because of their different feeding habits, the first assumed to perform better on insect prey and the second, on mite prey. A comparative study was conducted in the laboratory offering a mixture of all postembryonic stages of a mite and eggs of three insect species. *B. everti* had a better performance on the mite *Thyreophagus* sp. than *B. keegani*, but both species had about the same predation rate on *Thyreophagus* sp., and very low ovipositon rates on insects. The results corroborate the hypothesis of a better performance of *Blattisocius* with cheliceral digits of similar lengths (*B. everti*) on mite prey, but did not indicate that the possession of a short fixed digit is sufficient for the predator to feed on insect eggs.*B. everti* was shown to be able to develop and reproduce when offered *Thyreophagus* sp. as prey, with calculated R0 and rm of 16.95 and 0.13, respectively, at 25.0 ± 0.5°C, 80 ± 5 % of relative humidity and in the dark. The biotic potential of *B. everti* was comparable to what has been reported in previous work for other *Blattisocius* species offered acarid mites as prey.