



Harassment-experienced *Tetranychus kanzawai* females skillfully refuse male courtships*

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*In: Zhang, Z.-Q., Fan, Q.-H., Heath, A.C.G. & Minor, M.A. (Eds) (2022) *Acarological Frontiers: Proceedings of the XVI International Congress of Acarology (1–5 Dec. 2022, Auckland, New Zealand)*. Magnolia Press, Auckland, 328 pp.

Because persistent male courtships and multiple mating (*i.e.* male mating harassment) generally impose fitness costs to females (Köhler *et al.* 2011), females are considered to have developed adaptive strategies to avoid such troubles (Breed *et al.* 2015). Although only the first mating is effective for females in the Kanzawa spider mite *Tetranychus kanzawai*, males frequently court already mated females. To examine the effects of previously experienced male mating harassment on mating avoidance by *T. kanzawai* females, we experimentally compared mating avoidance behaviors of mated females that had cohabited with three adult males for three days (harassment+) and mated females that had been isolated for the same period after the first mating (harassment-). We found that significantly more harassment+ *T. kanzawai* females refused male courtships compared to harassment- females, suggesting that *T. kanzawai* females that had experienced male mating harassment learned at least in part how to refuse male courtships. The mechanism by which harassment-experienced *T. kanzawai* females refuse male courtships will be discussed.

Keywords: sexual conflict, mating harassment, kanzawa spider mite

References

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