

عنوان مقاله:

Tracking switching behavior of *Trichogramma brassicae* (Hymenoptera: Trichogrammatidae) over ۴۵ generations

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خلاصه مقاله:

The effects of long-term rearing of *Trichogramma brassicae* (Bezdenko) on host preference and switching behavior was examined when parasitizing two common factitious hosts, including Mediterranean flour moth (MFM), *Ephestia kuehniella* Zeller and Angoumois grain moth (AGM), *Sitotroga cerealella* (Olivier) over ۴۵ generations. Both host species eggs were offered to the parasitoid over ۲۴ h. Significantly more MFM eggs were parasitized in all generations, but a distinct negative switching behavior was found in all experiments. The parasitoid negatively switched from MFM when they became abundant compared to AGM and vice versa. The preference coefficient (c) estimated using Murdoch's index ranged from ۲.۰۵۶ (in G۵) to ۱.۷۳۴ (in G۴۵) for MFM and ۰.۴۸۶ (in G۵) to ۰.۵۷۷ (in G۴۵) for AGM. The linear regression indicated that despite preferring MFM, the intensity of the preference decreased over ۴۵ generations. Negative switching behavior in *T. brassicae* may be advantageous for this species in controlling pests in given situations.

کلمات کلیدی:

biological control, foraging behavior, host preference, mass rearing, negative switching, *Trichogramma brassicae*

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