

研究报告

## 小花蝽对牛角花齿蓟马的捕食作用

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**摘要** 在室内研究了小花蝽(*Orius minutus*)成虫对牛角花齿蓟马(*Odontothrips loti*)3~4龄若虫的捕食作用和种内干扰作用.结果表明,小花蝽对牛角花齿蓟马的捕食功能反应均符合Holling II型方程,在玻璃试管中,捕食量( $N_a$ )符合 $N_a=1.0113N / (1+0.04149N)$ ,在培养皿中为 $N_a=0.6777N / (1+0.03395N)$ ,在笼罩花盆中为 $N_a=0.6417 N / (1+0.03934 N)$ .小花蝽的捕食作用有较强的种内干扰反应,捕食率与个体相互干扰的关系符合Hassell模型.在相同空间条件下,小花蝽的捕食量与猎物密度呈正相关,寻找效应与猎物密度呈负相关;随着空间增大,小花蝽对牛角花齿蓟马若虫的瞬间攻击率( $a'$ )和最大捕食量( $N_a$ )均下降,处置时间( $T_h$ )则延长,但其功能反应类型不变,仍为Holling II型.

**关键词** [小花蝽](#) [牛角花齿蓟马](#) [捕食作用](#) [功能反应](#) [干扰反应](#)

分类号

## Predation of *Orius minutus* on *Odontothrips loti*

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### Abstract

In this paper, a laboratory study was made on the predation of *Orius minutus* on the 3rd~4th instar nymphs of *Odontothrips loti*, and the intraspecific interference within *O. minutus*. The results showed that the functional responses of adult *O. minutus* to *O. loti* nymphs fitted Holling II type equation, i.e.,  $N_a=1.0113N / (1+0.04149N)$  in test tubes,  $N_a=0.6777 N / (1+0.03395N)$  in Petri dishes, and  $N_a=0.6417 N / (1+0.03934 N)$  in enveloped pots. The predation of *O. minutus* had strong intraspecific interference, and the relationship between predation efficiency and individual interference fitted Hassell model. Under the same spatial conditions, the predation rate of *O. minutus* was positively related, while its searching efficiency was negatively associated with the prey density. With the increase of the space, the attack rate ( $a'$ ) and maximum predation ( $N_a$ ) of *O. minutus* decreased, its handling time ( $T_h$ ) increased, while the type of its functional responses to the densities of 3rd~4th instar *O. loti*, still fitted Holling II model.

**Key words** [Orius minutus](#) [Odontothrips loti](#) [Predation](#) [Functional response](#) [Interference response](#)

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