

## Abstract

The bionomics of *Stethorus tridens* Gordon fed *Tetranychus evansi* Baker & Pritchard were studied in the laboratory. The number of prey consumed by *S. tridens* increased with increasing instar levels and the total mean number consumed during immature development was  $184.1 \pm 18.02$  *T. evansi* nymphs per individual. For adult male and adult female, the daily consumption was  $41.3 \pm 0.80$  and  $67.8 \pm 1.69$  nymphs, respectively. *Stethorus tridens* successfully developed to adulthood between 20 and 30°C but failed at 10, 15 and 35°C. The lower thermal threshold for egg-to-adult development estimated via linear regression and the modified Logan model was 9.2 and 8.1°C, respectively. The optimum and maximum temperatures for egg-to-adult development were around 29–31 and 32.9°C, respectively. Egg to adult development time was  $23.8 \pm 0.24$ ,  $17.4 \pm 0.22$ ,  $16.2 \pm 0.22$  and  $12.1 \pm 0.16$  days at 20, 24, 27 and 30°C, respectively. At 27°C, the sex ratio, expressed as the proportion of females, was 0.54 and the mean preoviposition, oviposition and postoviposition periods were  $10.3 \pm 0.67$ ,  $31.2 \pm 4.74$  and  $30.2 \pm 5.24$  days, respectively. The oviposition rate was  $4.0 \pm 0.16$  eggs/female/day with a female mean longevity of  $71.6 \pm 6.19$  days and an intrinsic rate of natural increase of 0.104. The potential of *S. tridens* as a candidate natural enemy of *T. evansi* is discussed.