

**The effect of mating on the eggs' fertility and fecundity of *Helopeltis antonii*  
(Heteroptera: Miridae)**

ABSTRACT

*Helopeltis antonii* is the major pest affecting cashew plants in Indonesia and causes potential damage to the plant. The development of the population was influenced by the fecundity and fertility of their eggs. The effect of mating on the eggs' fecundity and the fertility of *H. antonii* was studied. Laboratory studies at Wonogiri Estate Service in Ngadirojo District, Wonogiri, Indonesia investigated the sexual maturity, the influence of female to male sex ratio on the females' fecundity and longevity, and the influence of mating frequency to fecundity and the eggs hatchability of *H. antonii*. The study reveals that *H. antonii* females and males are ready to mate when they are two days old. The number of eggs laid and the longevity of the females' lives were not significantly affected by the sex ratio; however, female to male sex ratios of 2:1 and 1:2 tended to produce a greater number of eggs. The fecundity of the female was not significantly influenced by the number of times the female mated. Unmated females laid fewer eggs than females paired with a mature male. The study shows that females need to mate to produce fertile eggs.

**Keyword:** *Helopeltis antonii*; Fecundity; Fertility; Mating