

## INTISARI

*Helopeltis bradyi* merupakan salah satu hama pencucuk penghisap (Hemiptera: Miridae) pada perkebunan kakao dengan populasi naik turun yang dipengaruhi oleh faktor lingkungan dan faktor internal seperti rasio jantan-betina dan durasi berpasangan. Penelitian ini bertujuan untuk mengetahui pengaruh perlakuan rasio jantan-betina dan durasi berpasangan *Helopeltis bradyi* terhadap kemampuan reproduksi imago berupa; jumlah telur, jumlah nimfa, persentase penetasan, usia jantan-betina, dan dinamika oviposisi. Perlakuan terdiri dari tiga variasi rasio yaitu 1J:1B, 1J:3B, 1J:5B dikombinasikan dengan tiga durasi berpasangan satu hari, lima hari, dan seumur hidup, masing-masing sebanyak lima ulangan. Penelitian menggunakan Rancangan Acak Lengkap (RAL) dan dianalisis menggunakan faktorial 3x3. Penelitian dilakukan di laboratorium dengan cara memasang imago jantan dan betina sejak berumur satu hari dan diberi pakan buah mentimun, diletakan dalam stoples plastik yang beraerasi. Hasil yang diperoleh menunjukkan bahwa jumlah telur paling banyak hingga paling sedikit berdasarkan rasio yaitu 1J:3B, 1J:1B, 1J:5B, dan berdasarkan durasi yaitu lima hari, satu hari, seumur hidup. Jumlah nimfa paling banyak hingga paling sedikit berdasarkan rasio yaitu 1J:3B, 1J:1B, 1J:5B, dan berdasarkan durasi yaitu lima hari, seumur hidup, dan satu hari. Persentase penetasan paling besar yaitu pada perlakuan rasio 1J:3B dengan durasi lima hari. Dinamika oviposisi mengalami puncak peletakan telur pada imago berumur 5 hingga 20 hari. Perlakuan rasio jantan-betina dan durasi berpasangan yang paling banyak menghasilkan telur dan nimfa *Helopeltis bradyi* adalah rasio 1J:3B dengan durasi berpasangan lima hari.

Kata kunci: *Helopeltis bradyi*, rasio jantan-betina, durasi berpasangan, kemampuan reproduksi.

## ABSTRACT

*Helopeltis bradyi* is one of the important pest (Hemiptera: Miridae) attacking cocoa plantations. *Helopeltis bradyi* populations was influenced by both of environment and internal factors such as; sex ratio and pairing durations. The aim of this study was to determine the effect of sex ratio and pairing duration on *Helopeltis bradyi* reproduction performances in the form of; number of eggs, nymph numbers, percentage of hatching, male and female adult lifespan, and oviposition dynamics. Three variations of the sex ratio were carried out consisted of 1M: 1F, 1M: 3F, 1M: 5F combined with three pairing durations 1 Day, 5 Days, and entire lifespan with five replications each. The experiment designed was completely randomized (CRD) and was analyzed with factorial 3x3 Two Ways ANOVA. The experiment was initiated by combining newly emerged male and female imago of *Helopeltis bradyi* provided with cucumber for feeding. Perforated plastic jar was utilized during the experiment. The results showed that the highest number of eggs based on the ratio were 1M: 3F, 1M: 1F, and 1M: 5F, while based on the pairing durations were 5 days, 1 day, and entire lifespan. The highest number of nymphs based on the ratio were 1M: 3F, 1M: 1F, and 1M: 5F, while based on the pairing durations were 5 days, entire lifespan, and 1 day. The highest hatchability percentage was 1M: 3F with 5 days pairing duration. The peak of ovipositioning was occurred from 5 to 20 days old of imago, while highest number of eggs and nymphs was produced by 1M: 3F ratio with 5 days pairing duration.

**Keywords:** *Helopeltis bradyi*, sex ratio, pairing duration, reproduction performance.