

**OPTIMALISASI PERBANYAKAN PARASITOID *Hadronotus leptocorisae*
SEBAGAI AGENS PENGENDALI HAYATI WALANG SANGIT
(*Leptocorisa oratorius* F.) DENGAN REKAYASA EKOLOGI**

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ABSTRACT

Temperature and host suitability in the laboratory are the determining factors in parasitoid rearing activity in order to the fitness individual and can able introduce the field. The objectives of the study were to obtain the best temperature and density of the host for the development of *Hadronotus leptocorisae* parasitoid in laboratory. The result of the testing of the maintenance room temperature against adult parasitoid *H. leptocorisae* showed that the temperature 25°C gives the longest longevity. It was significantly different with the parasitoid adult which placed at temperature of 20°C, 30°C or the room temperature (control). The average longevity are 22.6, 11.1, 10.5, and 12.6 days respectively. Testing of maintenance tube variation as follows (diameter ratio; tube height): A(1;7), B(1;9.5), C(1.5;12.5), D(1.5;12.5), E(2;14), F (2;17) and G(2.5;20) at 25°C temperature showed the effect of tube size for the longevity of the adult parasitoid. Conversely, at room temperature, there was a difference between A, C, and E, F, G tube. There is a correlation between the size of the tube and the longevity of parasitoid adult *leptocorisae* at room temperature ($R = 0.8$). The density test of host resulted that density of host of 20 grains differed by the density of 5 in finding a host within 1 minute, but there was no difference in parasitization to the host. It is recommended to conduct rearing activity at 25°C with 20 egg density.

Keywords: optimum temperature, fitness, host, density

