

RINGKASAN

Heterotrigona itama merupakan spesies lebah tak bersengat berukuran tubuh 4 – 9 mm yang mampu menghasilkan madu dengan baik. Budidaya lebah ini banyak dilakukan oleh masyarakat karena mudah dilakukan dan hasil budidayanya relatif banyak. Terdapat beberapa faktor yang harus diperhatikan dalam budidaya yaitu ketersediaan pakan dan kesesuaian faktor lingkungan sekitar tempat budidaya seperti suhu dan kelembapan. Faktor lingkungan tersebut berhubungan dengan kemampuan beraktivitas dalam mengumpulkan pakan seperti nektar dan polen. Salah satu jenis tanaman sebagai sumber pakan lebah *H. itama* adalah tanaman air mata pengantin (*Antigonon leptopus*). Tanaman tersebut memiliki kualitas dan kuantitas nektar cukup baik. Namun demikian ketersediaan nektar dan polen dipengaruhi oleh pewaktuan seperti pagi, siang, dan sore hari. Diduga terdapat perbedaan kualitas dan kuantitas produksi polen dan nektar antara pagi, siang, dan sore hari. Tujuan penelitian ini adalah untuk mengetahui pengaruh dari pewaktuan terhadap frekuensi kunjungan dan lama kunjungan lebah *H. itama* pada bunga air mata pengantin dan mengetahui korelasi antara frekuensi kunjungan dan lama kunjungan lebah *H. itama* dengan faktor lingkungan.

Penelitian ini dilaksanakan di Kelurahan Pabuaran, Purwokerto Utara dengan menggunakan metode survey dengan teknik sampling secara *random sampling*. Waktu pengamatan dilaksanakan selama bulan Desember hingga Juni. Pengambilan data aktivitas harian lebah *H. itama* pada tanaman air mata pengantin dilakukan selama 12 hari pengamatan yang mana sekaligus sebagai pengulangan. Waktu pengamatannya per harinya sebanyak 4 kali yaitu pukul 06.00 – 09.00, 09.00 – 12.00, 12.00 – 15.00 dan 15.00 – 18.00. Pengamatan kunjungan lebah pada bunga didokumentasikan melalui kamera *handphone* dan perhitungan lama kunjungan menggunakan *stopwatch*. Analisis data dilakukan menggunakan uji F dan korelasi regresi berganda menggunakan bantuan *software SPSS*.

Hasil penelitian menunjukkan bahwa terdapat perbedaan frekuensi kunjungan dan lama kunjungan antar waktu pengamatan ($p = 0,00002$ dan $p = 0,00705$). Kelembapan berkorelasi terhadap frekuensi dan lama kunjungan, kenaikan kelembapan akan menyebabkan penurunan frekuensi kunjungan dan lama kunjungan. Suhu tidak berkorelasi terhadap frekuensi dan lama kunjungan. Kesimpulan dari penelitian ini adalah waktu pengamatan berpengaruh terhadap frekuensi dan lama kunjungan lebah *H. itama* pada bunga air mata pengantin dan terdapat hubungan antara frekuensi dan lama kunjungan dengan kelembapan sebagai faktor lingkungan.

Kata kunci : *Bunga air mata pengantin, frekuensi kunjungan, Heterotrigona itama, korelasi, lama kunjungan*

SUMMARY

Heterotrigona itama is a species of stingless bee with a body size of 4 – 9 mm which is capable of producing honey well. Many people do bee cultivation because it is easy to do and the results from cultivation are relatively large. There are several factors that must be considered in cultivation, namely the availability of feed and the suitability of environmental factors around the cultivation site such as temperature and humidity. These environmental factors are related to the ability to collect food such as nectar and pollen. One type of plant as a food source for *H. itama* bees is the *Antigonon leptopus* plant. This plant has quite good quality and quantity of nectar. However, the availability of nectar and pollen is influenced by timing such as morning, afternoon and evening. It is suspected that there are differences in the quality and quantity of pollen and nectar production between morning, afternoon and evening. The aim of this research was to determine the effect of timing on the frequency of visits and duration of visits by *H. itama* bees to the *A. leptopus* flower and to determine the correlation between the frequency of visits and duration of visits by *H. itama* bees and environmental factors.

This research was carried out in Pabuaran Village, North Purwokerto using a survey method with random sampling techniques. The observation period was carried out from December to June. Data on the daily activity of *H. itama* bees on *A. leptopus* plant was carried out for 12 days of observation which was also a repetition. The observation time is 4 times per day, namely 06.00 – 09.00, 09.00 – 12.00, 12.00 – 15.00, and 15.00 – 18.00. Observations of bee visits to flowers were documented using a cellphone camera and the duration of the visit was calculated using a stopwatch. Data analysis was carried out using the F test and multiple regression correlation using SPSS software.

The results of the study showed that there were differences in the frequency of visits and duration of visits between observation periods ($p = 0.00002$ and $p = 0.00705$). Humidity is correlated with the frequency and duration of visits, an increase in humidity will cause a decrease in the frequency of visits and duration of visits. Temperature does not correlate with the frequency and duration of visits. The conclusion of this research is that observation time influences the frequency and duration of visits by *H. itama* bees to *A. leptopus* flower and there is a relationship between the frequency and duration of visits and humidity as an environmental factor.

Keyword: *Antigonon leptopus*, correlation, duration of visits, frequency of visits, *Heterotrigona itama*