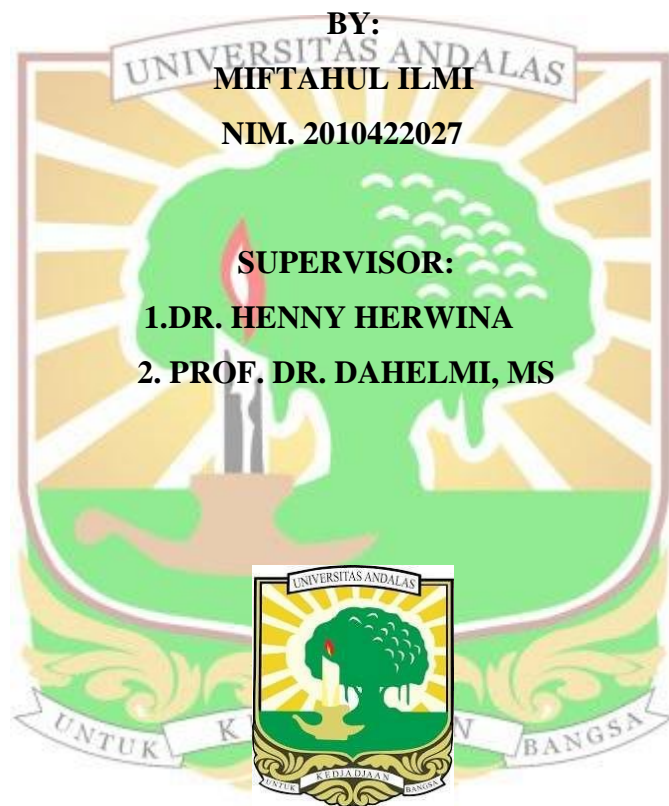


**PEST INVENTORY OF STINGLESS BEE COLONIES IN BIOLOGY
EDUCATION AND RESEARCH FOREST (BERF) AND EDUCATION
FARM (EDUFARM) UNIVERSITAS ANDALAS**

UNDERGRADUATE THESIS

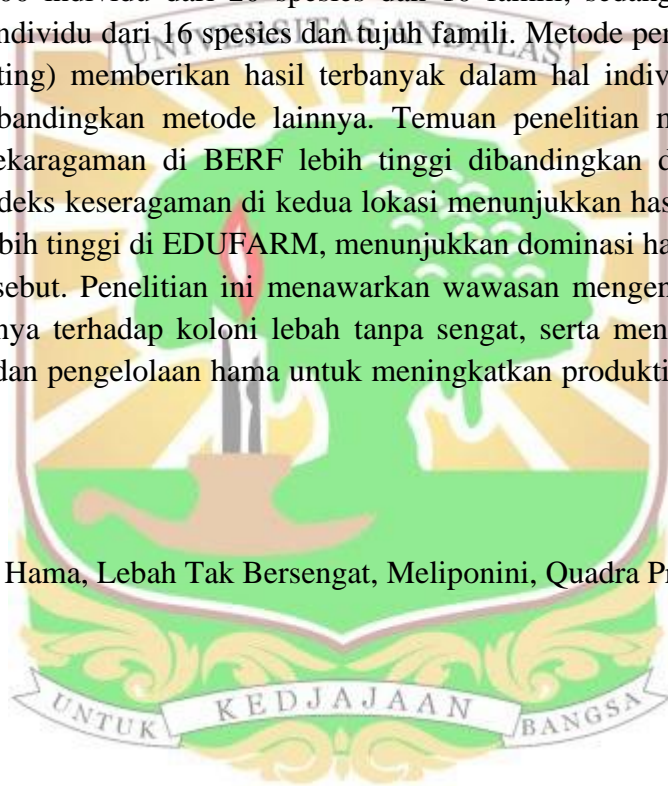


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PADANG
2024

ABSTRAK

Lebah tanpa sengat memainkan peran krusial sebagai penyerbuk di ekosistem tropis, tetapi mereka menghadapi ancaman dari predator dan parasit yang mempengaruhi kelangsungan hidup dan produktivitas koloni mereka. Penelitian ini bertujuan mengidentifikasi spesies hama yang mengganggu koloni lebah tanpa sengat dan mengevaluasi indeks keanekaragaman biologis antara kedua lokasi yaitu Biology Education and Research Forest (BERF) dan Education Farm (EDUFARM) di Universitas Andalas, Padang, Sumatra Barat. Metode penelitian melibatkan pengumpulan data dengan menggunakan metode quadra protokol dan teknik pengumpulan langsung di sekitar koloni. Hasil penelitian menunjukkan bahwa terdapat 23 spesies hama dari 11 famili dan sembilan ordo di kedua lokasi. Di BERF, ditemukan 100 individu dari 20 spesies dan 10 famili, sedangkan di EDUFARM terdapat 57 individu dari 16 spesies dan tujuh famili. Metode pengumpulan langsung (hand collecting) memberikan hasil terbanyak dalam hal individu, spesies, famili, dan ordo dibandingkan metode lainnya. Temuan penelitian menunjukkan bahwa indeks keanekaragaman di BERF lebih tinggi dibandingkan dengan EDUFARM, sementara indeks keseragaman di kedua lokasi menunjukkan hasil yang baik. Indeks dominansi lebih tinggi di EDUFARM, menunjukkan dominasi hama yang lebih besar di lokasi tersebut. Penelitian ini menawarkan wawasan mengenai keragaman hama dan dampaknya terhadap koloni lebah tanpa sengat, serta menekankan pentingnya deteksi dini dan pengelolaan hama untuk meningkatkan produktivitas koloni di masa depan.

Kata Kunci : Hama, Lebah Tak Bersengat, Meliponini, Quadra Protokol



ABSTRACT

Stingless bees play a crucial role as pollinators in tropical ecosystems, but they face threats from predators and parasites that affect the survival and productivity of their colonies. This study aims to identify pest species that interfere with stingless bee colonies and evaluate the biological diversity index between two locations, namely the Biology Education and Research Forest (BERF) and Education Farm (EDUFARM) at Universitas Andalas, Padang, West Sumatra. The research method involved data collection using the quadra protocol method and direct collection techniques around the colonies. The results showed that there were 23 pest species from 11 families and nine orders in both locations. In BERF, 100 individuals from 20 species and 10 families were found, while in EDUFARM there were 57 individuals from 16 species and seven families. The direct collection method (hand collecting) gave the highest results in terms of individuals, species, families, and orders compared to other methods. The research findings showed that the diversity index in BERF was higher compared to EDUFARM, while the evenness index in both locations showed good results. The dominance index was higher in EDUFARM, indicating greater pest dominance at that location. This study offers insights into pest diversity and its impact on stingless bee colonies, and emphasizes the importance of early detection and management of pests to improve colony productivity in the future.

Keyword: Meliponini, Pest, Quadra Protocol, Stingless Bee

