

ABSTRAK

Intan paramitha manurung, Nim 4213220002 (2025), Keanekaragaman serangga polinator pada tanaman Jambu air (*Syzygium aqueum*) di Kebun UPT. Pengembangan Benih Hortikultura Medan Denai.

Jambu air (*Syzygium aqueum*) merupakan komoditas hortikultura bernilai ekonomis tinggi yang produktivitasnya sangat dipengaruhi oleh peran serangga polinator. Keberadaan polinator berperan penting dalam meningkatkan hasil penyerbukan, namun belum ditemukan data spesifik mengenai keanekaragaman serangga pollinator pada tanaman jambu air di UPT. Pengembangan Benih Hortikultura Medan Denai. Penelitian ini bertujuan untuk mengetahui keanekaragaman, dominansi, dan kesamaan serangga polinator pada tanaman jambu air di kebun UPT. Pengembangan Benih Hortikultura Medan Denai. Pengumpulan data dilakukan dengan pengamatan langsung. Identifikasi dan koleksi menggunakan alat *sweep net* dan *yellow sticky trap*, Identifikasi serangga dilakukan di laboratorium. Analisis keanekaragaman didasarkan pada jenis spesies yang ditemukan dan Indeks Keanekaragaman *Shannon-Wiener*, dominansi dengan indeks *Simpson*, dan Indeks kesamaan *Sorensen*. Hasil penelitian menunjukkan terdapat 8 spesies serangga polinator dari tiga ordo (Diptera, Hymenoptera, dan Lepidoptera). Keanekaragaman serangga pollinator dikategorikan sedang pada kebun UPT. Pengembangan hortikultura medan denai ($H' = 2,00$) begitu pula dengan kebun Istana Jambu ($H' = 2,04$) dan Indeks dominansi dikategorikan tinggi pada kebun UPT. Pengembangan Hortikultura Medan Denai ($D' = 0,99$) sedangkan pada kebun Istana Jambu ($D' = 0,13$) dikategorikan rendah. Kesamaan jenis serangga polinator yang mengunjungi bunga tanaman jambu air (*Syzygium aqueum*) di kebun UPT. Pengembangan Benih Hortikultura Medan Denai dan kebun Istana Jambu termasuk kategori tinggi (85%). penelitian ini menegaskan bahwa serangga polinator berperan penting dalam keberhasilan penyerbukan jambu air. Perbedaan dominansi antar lokasi memberikan gambaran bahwa kondisi lingkungan dan ekosistem memengaruhi struktur komunitas polinator, namun tingginya kesamaan spesies menunjukkan bahwa kedua kebun memiliki potensi polinator yang relatif setara dalam mendukung produktivitas jambu air.

Kata kunci: *Dominansi, Jambu air, Kesamaan, Keanekaragaman, Serangga pollinator*

ABSTRACT

Intan Paramitha Manurung, NIM 4213220002 (2025) Diversity of pollinating insects on water apple (*Syzygium aqueum*) plants in the Medan Denai Horticultural Seed Development UPT Garden.

Water apple (*Syzygium aqueum*) is a horticultural commodity of high economic value whose productivity is greatly influenced by the role of pollinator insects. The presence of pollinators plays an important role in increasing pollination results, but no specific data has been found regarding the diversity of pollinator insects in water apple plants at the UPT. Development of Horticultural Seeds Medan Denai. This study aims to determine the diversity, dominance, and similarity of pollinator insects in water apple plants in the UPT garden. Development of Horticultural Seeds Medan Denai. Data collection was carried out by direct observation. Identification and collection used sweep nets and yellow sticky traps. Insect identification was carried out in the laboratory. Diversity analysis was based on the types of species found and the Shannon-Wiener Diversity Index, dominance with the Simpson index, and the Sorensen similarity index. The results showed that there were 8 species of pollinator insects from three orders (Diptera, Hymenoptera, and Lepidoptera). The diversity of pollinator insects was categorized as moderate in the UPT garden. Horticultural development in Medan Denai ($H' = 2.00$) as well as in the Istana Jambu garden ($H' = 2.04$) and the dominance index is categorized as high in the UPT garden. Horticultural Development in Medan Denai ($D' = 0.99$) while in the Istana Jambu garden ($D' = 0.13$) it is categorized as low. The similarity of pollinator insects that visit the flowers of water apple plants (*Syzygium aqueum*) in the UPT garden. Horticultural Seed Development in Medan Denai and the Istana Jambu garden is categorized as high (85%). This study confirms that pollinator insects play an important role in the success of water apple pollination. Differences in dominance between locations provide an illustration that environmental and ecosystem conditions influence the structure of the pollinator community, but the high similarity of species indicates that both gardens have relatively equal pollinator potential in supporting water apple productivity.

Keywords: *Dominance, Water Apple, Similarity, Diversity, Pollinator Insects*