

ABSTRACT

Lusi Maysara Siagian, NIM 4213220036 (2025). Ecological Study of Spiders (Araneae) on Guava Plants (*Psidium guajava* L.).

Spiders (Araneae) are natural predators that play an important role in maintaining ecosystem balance by suppressing the population of insect pests on plants. Environmental conditions and vegetation structure can affect the distribution of spiders in a habitat. This study aims to determine the diversity, abundance, importance value index (IVI), and distribution patterns of spiders on guava plants (*Psidium guajava* L.) in Tanjung Anom Village, Pancur Batu District, Deli Serdang Regency. The research was conducted from June to August 2025 using the census method, which involves recording all spiders found on sample plants. Sample plants were selected using *purposive sampling*. Specimen identification was carried out at the Biology Laboratory of Medan State University. Data analysis included the *Shannon-Wiener diversity index* (H'), relative abundance, importance value index (IVI), and distribution patterns using the *Dispersion Index* (DI). The results showed that there were 15 spider species from 7 families, with moderate diversity ($H' = 2.68$). The species with the highest abundance were *Cheiracanthium mildei* and *Hasarius adansoni* (8.52%), followed by *Plexippus petersi* and *Uloborus plumipes* (8.07%). The species with the highest INP values were *Cheiracanthium mildei* (72.04%) and *Hasarius adansoni* (72.04%), indicating an important ecological role in the spider community on guava plants. The distribution patterns of most species.

Keywords: Spiders, Guava, Diversity, Importance value index (IVI), Distribution patterns.