

**Keanekaragaman Arthropoda Pada Agroekosistem Padi Sawah Dengan
Rekayasa Ekologi Melalui Penanaman Bunga Kenikir
(*Cosmos Caudatus Kunth*)**

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui keanekaragaman arthropoda pada 2 lahan budidaya tanaman padi dengan perlakuan lahan pertama di tanami refugia bunga kenikir dan lahan kedua tanpa ditanami refugia bunga kenikir. Penelitian dilakukan pada tanggal 09 Mei 2018 sampai 16 Agustus 2018 pada 2 lokasi areal tanaman padi varietas membramo di Desa Sentong, Kecamatan Krejengan Kabupaten Probolinggo . Penelitian ini menggunakan 2 area lahan budidaya tanaman padi dengan perlakuan rekayasa ekologi dan tanpa rekayasa ekologi. Rekayasa ekologi menggunakan bunga kenikir sebagai pengendalian hama secara hayati. Data hasil pengamatan diversitas arthropoda dianalisis dengan menggunakan rumus Shannon – wiener (H') dan data indeks dominasi di analisis menggunakan rumus indeks dominasi simpson (C). Data dianalisis menggunakan uji non parametrik statistik spss 15.0 membedakan antar perlakuan. Hasil penelitian menunjukkan bahwa Indeks Diversitas dilahan rekayasa ekologi bunga kenikir yaitu 1,89 , Indeks Dominasi yaitu 0,168 dan untuk bobot gabah kering panen yaitu 43,88. Pada lahan tanpa rekayasa ekologi Indeks Diversitas yaitu 1,73, Indeks Dominasi 0,179 dan untuk bobot gabah kering yaitu 30,96.

Kata Kunci: *Indeks Diversitas, Refugia , Diversitas Arthropoda, Non Refugia.*

**The Diversity of Arthropods in Lowland Rice Agroecosystems with
Ecological Engineering through Kenikir Flower Cultivation**
(*Cosmos Caudatus Kunth*)

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ABSTRACT

This research aims to determine the diversity of arthropods on 2 rice cultivation fields with the first land treatment planted with kenikir flower refugia and the second land without planting kenikir flower refugia. The research was conducted on May 9, 2018 to August 16, 2018 at 2 locations of rice field area with *membramo* variety in Sentong Village, Krejengan District, Probolinggo Regency. The research uses 2 areas of rice cultivation land with ecological engineering and without ecological engineering treatment. The ecological engineering uses kenikir flowers as a biological pest control. The data from observations of arthropod diversity was analyzed using the Shannon-Wiener (H') formula and dominance index data was analyzed using the Simpson dominance index formula (C). The data analyzed using non parametric test statistics spss 15.0 to distinguish between treatments. The results showed that the Diversity Index in the ecological engineering area of kenikir flowers was 1.89, the Domination Index was 0.168 and for dry grain weights were 43.88. On land without ecological engineering the Diversity Index is 1.73, the Domination Index is 0.179 and for dry grain weight is 30.96.

Keywords: *Diversity Index, Refugia, Arthropod Diversity, Non Refugia*