

RINGKASAN

Kumbang permukaan tanah (Ordo: Coleoptera) merupakan kumbang yang berperan penting sebagai pemakan tumbuhan (herbivora), pemakan jamur, pemakan bangkai (*scavenger*), pemangsa (*predator*), pengurai zat-zat organik yang mengalami pembusukan (dekomposer), parasit, sebagai makanan bagi organisme lain, serta sebagai organisme indikator kualitas lingkungan hutan secara alami. Salah satu habitat alami kumbang permukaan tanah di kota Jambi yaitu Taman Hutan Kota Muhammad Sabki yang merupakan ruang terbuka hijau dan “rumah” bagi berbagai satwa baik secara alami maupun yang ditangkarkan. Sampai saat ini belum dilakukan pendataan tentang jenis-jenis kumbang permukaan tanah di Taman Hutan Kota Muhammad Sabki. Tujuan penelitian ini adalah mengidentifikasi jenis kumbang permukaan tanah, menganalisis indeks keanekaragaman jenis, indeks dominansi, indeks kemerataan kumbang permukaan tanah, dan mendeskripsikan keanekaragaman jenis kumbang permukaan tanah (Ordo: Coleoptera) serta peranannya secara ekologis di kawasan Taman Hutan Kota Muhammad Sabki Kota Jambi. Penelitian ini dilaksanakan mulai bulan April 2025 sampai dengan Juli 2025 di kawasan Taman Hutan Kota Muhammad Sabki Kota Jambi dan Laboratorium Jurusan MIPA, Fakultas Sains dan Teknologi, Universitas Jambi. Metode sampling yang digunakan adalah metode *pitfall trap*, *light trap*, *yellow sticky trap*, *berlese trap*, *monolith*, dan *hand collection*. Pengumpulan spesimen kumbang permukaan tanah dilakukan sebanyak 8 kali dengan interval waktu pengambilan dua hari sekali selama satu bulan. Kumbang permukaan tanah yang terperangkap kemudian diidentifikasi berdasarkan karakter morfologi. Hasil identifikasi menunjukkan terdapat sebanyak 21 famili, 61 genus, 73 jenis dan 3.590 individu kumbang permukaan tanah. Famili Scarabaeidae merupakan famili dengan jumlah jenis yang paling banyak dikoleksi yaitu sebanyak 12 jenis. Jumlah individu yang paling banyak dikoleksi yaitu dari jenis *Scaphisoma* sp.1 (famili Staphylinidae) sebanyak 2.211 individu. Indeks keanekaragaman jenis kumbang permukaan tanah di Taman Hutan Kota Muhammad Sabki termasuk dalam kriteria sedang ($H'=1,48$), indeks kemerataan termasuk dalam kriteria rendah ($E=0,34$), dan indeks dominansi termasuk kategori sedang ($C=0,42$) yang menunjukkan terdapat jenis yang mendominasi. Sampel kumbang permukaan tanah paling banyak dikoleksi dari metode *pitfall trap* yaitu sebesar 90,45%. Berdasarkan hasil analisis data tersebut dapat dinyatakan bahwa Taman Hutan Kota Muhammad Sabki merupakan salah satu habitat alami dari kumbang permukaan tanah yang masih sangat baik untuk mendukung kehidupan kumbang permukaan tanah secara alami. Untuk memperoleh data yang lebih komprehensif terkait keanekaragaman kumbang (Ordo: Coleoptera) di Kawasan Taman Hutan Kota Muhammad Sabki Kota Jambi, masih perlu dilengkapi dengan keanekaragaman jenis kumbang yang memiliki habitat selain di permukaan tanah, seperti di habitat perairan atau kumbang yang berasosiasi dengan tumbuhan.

SUMMARY

Ground Surface Beetles (Order: Coleoptera) are beetles that play an important role as plant eaters (herbivores), fungus eaters, scavengers, predators, decomposers, parasites, as food for other organisms, and as natural indicator organisms of forest environmental quality. One of the natural habitats of ground surface beetles in Jambi City is the Muhammad Sabki City Forest Park, a green open space and home to various animals, both wild and captive. To date, no data has been collected on the ground surface beetle species in the Muhammad Sabki City Forest Park. The purpose of this study was to identify the types of ground surface beetles, analyze the species diversity index, dominance index, evenness index of ground surface beetles, and describe the diversity of ground surface beetles (Order: Coleoptera) and their ecological roles in the Muhammad Sabki City Forest Park area Jambi City. This study was conducted from April 2025 to July 2025 in the Muhammad Sabki City Forest Park area Jambi City and the Laboratory of the Mathematics and Natural Sciences Department, Faculty of Science and Technology, Jambi University. The sampling methods used were pitfall trap, light trap, yellow sticky trap, berlese trap, monolith, and hand collection. The collection of ground surface beetle specimens was carried out 8 times with a collection interval of every two days for one month. Trapped ground surface beetles were then identified based on morphological characteristics. The identification results showed that there were 21 families, 61 genera, 73 species, and 3.590 individuals of ground surface beetles. The Scarabaeidae family was the family with the most collected species, namely 12 species. The largest number of individuals collected was from the *Scaphisoma* sp.1 species (Staphylinidae family), amounting to 2.211 individuals. The diversity index of ground surface beetle species in Muhammad Sabki City Forest Park was included in the medium criteria ($H'=1.48$), the evenness index was included in the low criteria ($E=0.34$), and the dominance index was included in the medium criteria ($C=0.42$) indicated that there were dominant species. The most ground surface beetle samples were collected from the pitfall trap method, namely 90.45%. Based on the results of the data analysis, it can be stated that Muhammad Sabki City Forest Park is one of the natural habitats of ground surface beetles that is still very good for supporting the life of ground surface beetles naturally. To obtain more comprehensive data regarding the diversity of beetles (Order: Coleoptera) in the Muhammad Sabki City Forest Park Area, Jambi City, it is still necessary to supplement it with the diversity of beetle species that have habitats other than on the ground surface, such as in aquatic habitats or beetles associated with plants.