

ABSTRAK

Gua merupakan bagian ekosistem endokarst yang cenderung minim sumber cahaya dan memiliki kondisi ekstrim. Gua menjadi habitat penting bagi beragam makhluk hidup, salah satunya Arthropoda. Sanghyang Kenit merupakan salah satu gua wisata baru di Jawa Barat yang dihuni oleh komunitas arthropoda. Tujuan dari penelitian ini adalah untuk mengetahui struktur komunitas Arthropoda dan keterkaitannya dengan parameter abiotik di Gua Sanghyang Kenit. Metode sampling yang digunakan yaitu *hand collecting*, *pitfall trap*, dan *baited pitfall trap*. Faktor abiotik yang diukur meliputi suhu tanah, kelembapan tanah, suhu udara, kelembapan udara, pH tanah, dan intensitas cahaya. Pengambilan data dilakukan di zona terang, remang, dan gelap gua. Analisis data dilakukan dengan mengukur indeks kekayaan, diversitas, dan kemerataan, serta dilakukan uji korelasi Spearman untuk mengetahui keterkaitan faktor abiotik dengan komunitas arthropoda. Hasil penelitian ini mendapatkan 8 morfospesies dari 2 kelas dan 6 ordo. Morfospesies yang ditemukan meliputi *Heteropoda* sp., *Araneus* sp., *Phangalium* sp., *Periplaneta* sp., *Lasius* sp., *Polistes* sp., *Catageus* sp. dan *Rhaphidophora* sp.. Morfospesies yang paling melimpah keberadaannya adalah *Rhaphidophora* sp. dengan total 100 ekor, diikuti *Periplaneta* sp. dengan 97 ekor, *Polistes* sp. dengan 80 ekor, *Lasius* sp. dengan 27 ekor, *Phangalium* sp. dengan 24 ekor, dan *Heteropoda* sp. dan *Araneus* sp. dengan 2 ekor. Indeks kekayaan spesies di zona terang 0,99, di zona remang 0,21, dan zona gelap 0,23. Indeks Diversitas di zona terang 1,303, remang 0,562, dan gelap 0,170. Indeks kemerataan di zona terang 0,626, remang 0,270, dan gelap 0,081. Suhu tanah, suhu udara, dan intensitas cahaya memiliki korelasi kuat dan berbanding lurus dengan indeks diversitas dan kemerataan. Kelembapan tanah dan kelembapan udara berbanding terbalik kuat dengan indeks diversitas dan indeks kemerataan.

Kata kunci: Arthropoda, Diversitas, Kekayaan, Kemerataan, Karst, Gua, Terrestrial

ABSTRACT

Caves are part of an endokarst ecosystem that tends to have minimal light sources and extreme conditions. Caves are important habitats for various living things, one of which is Arthropods. Sanghyang Kenit is one of the new tourist caves in West Java which is inhabited by an arthropod community. The purpose of this study was to determine the structure of the Arthropoda community and its relationship to abiotic parameters in Sanghyang Kenit Cave. The sampling method used is hand collecting, pitfall trap, and baited pitfall trap. The abiotic factors measured included soil temperature, soil moisture, air temperature, air humidity, soil pH, and light intensity. Data were collected in the light, dim, and dark zones of the cave. Data analysis was carried out by measuring the wealth index, diversity, and evenness, and the Spearman correlation test was performed to determine the relationship between abiotic factors and the arthropod community. The results of this study obtained 8 morphospecies from 2 classes and 6 orders. The morphospecies found included *Heteropoda* sp., *Araneus* sp., *Phangalium* sp., *Periplaneta* sp., *Lasius* sp., *Polistes* sp., *Catageus* sp. and *Rhaphidophora* sp.. The most abundant morphospecies is *Rhaphidophora* sp. with a total of 100 individuals, followed by *Periplaneta* sp. with 97 tails, *Polistes* sp. with 80 tails, and *Lasius* sp. with 27 individuals, *Phangalium* sp. with 24 tails, and *Heteropoda* sp. and *Araneus* sp. with 2 tails. The species richness index in the light zone is 0.99, in the dim zone is 0.21, and in the dark zone is 0.23. The Diversity Index in the light zone is 1.303, the dim zone is 0.562, and the dark zone is 0.170. The evenness index in the light zone is 0.626, the dim zone is 0.270, and the dark zone is 0.081. Soil temperature, air temperature, and light intensity strongly correlate and are directly proportional to the diversity and evenness index. Soil humidity and air humidity are strongly inversely related to the diversity index and evenness index.

Keywords: Arthropods, Diversity, Wealth, Evenness, Karst, Community, Terrestrial