RINGKASAN

Produktivitas hutan mangrove yang tinggi sangat dipengaruhi oleh aktivitas organisme dekomposer. Polychaeta merupakan salah satu organisme infauna dekomposer, yaitu bentik yang menggali lubang dan hidup di dalam sedimen. Keberadaan organisme ini dipengaruhi oleh kondisi habitatnya, adapun faktor lingkungan habitat yang mempengaruhi yaitu suhu air, salinitas, kandungan bahan organik, serta nilai pH tanah atau sedimen disekitarnya. Laguna Segara Anakan terletak di Kecamatan Kampung Laut, Kabupaten Cilacap pada koordinat 7°35'-7°50' Lintang Selatan dan 108º45'-109º03' Bujur Timur.

Penelitian dilakukan dengan metode *survey* menggunakan teknik *purposive sampling*. Pengambilan sampel berdasarkan plot yang dibuat mewakili hutan mangrove bagian tepi, tengah, dan dalam, dengan jarak antar plot sepanjang 50 m dan diambil sampel 2 kali ulangan pada lokasi berbeda dalam satu plot, ulangan satu untuk pengambilan sedimen menggunakan *corer* sedalam 5 cm dan ulangan dua sedalam 10 cm. Sedimen yang sudah didapat langsung disaring dengan menggunakan air, serasah yang didapat di berikan larutan alkohol 70%. Polychaeta yang didapat diawetkan dengan direndam larutan formalin 4%. Pengamatan dilakukan menggunakan mikroskop stereo dan hasil penemuan individu Polychaeta diidentifikasi. Polycaheta yang ditemukan, yaitu dari familia Capitellidae, Neredidae, Opheliidae, Euncidae, Syllidae, dan Spionidae. Faktor lingkungan yang memengaruhi keberadaan polychaeta yaitu salinitas dengan rentang normal 17 sampai 24 ppt dan kandungan bahan organik dalam tanah dalam rentang normal 20,87 sampai 23,71 %.

Kata Kunci : Polychaeta, Kelimpahan dan keanekaragaman, Mangrove, Segara Anakan

SUMMARY

The high productivity of mangrove forests is strongly influenced by the activity of decomposer such as Polychaeta. Polychaeta is an infauna; a benthic organism lives in the sediments by digging a hole. The existence of these organisms is influenced by the environmental factor of its habitats including the water temperature, the salinity, the organic content of sediment, and the pH of sediment. The lagoon of Segara Anakan is located in Kampung Laut, Cilacap Regency at the coordinates of 7°35'–7°50' S and 108º45'–109º03' E.

This research was conducted by survey method using a purposive technique to collect samples. Samples were collected using plots representing the edge, the middle, and the interior zones of mangrove forests, distance of plots were 50 m, and depth was applied as replicates at 5 cm and 10 cm. Sediments were collected using corer; sediment obtained were directly washed and filtered, the mangrove leaf litter obtained were preserved in a 70% alcohol. The Polychaeta obtained were preserved in a 4% formaldehyde solution. The observations and identification of Polychaeta were conducted using a stereo microscope. Polychaeta found in this research were composed of the family of Capitellidae, Neredidae, Opheliidae, Euncidae, Syllidae, and Spionidae. Environmental factors that affect the presence of polychaeta is the salinity with range 17 up to 24 ppt and the content of organic matter in the soil with range 20,87 up to 23,71 %.

Keywords: Polychaeta, Abundance and diversity, Mangrove, Segara Anakan.