KELIMPAHAN DAN KEANEKARAGAMAN JENIS PADA AREA SUKSESI DI PETAK 7 KHDTK WANAGAMA I, GUNUNGKIDUL, YOGYAKARTA

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INTISARI

Petak 7 KHDTK Wanagama I, Gunungkidul, Yogyakarta merupakan area suksesi yang masih jarang diteliti. Sudah ada penelitian sebelumnya terkait suksesi di Petak 5, 7, 14 dan 16 pada tahun 2008, pada penelitian tersebut Petak 7 tergolong pada sere awal (*bare land*). Penelitian dilakukan guna memperoleh informasi terkait Kelimpahan dan Keanekaragaman Jenis serta tingkatan suksesi sehingga dapat digunakan untuk pengelolaaan keberlanjutan. Lokasi yang diteliti merupakan kawasan yang masih belum dilakukan perencanaan rehabilitasi dengan luas 33,26 ha, dari keseluruhan total luas Petak 7 yaitu 86,1 ha. Pengambilan data dilakukan menggunakan metode *Line Plot Systematic Sampling* (LPSS) dengan jenis petak ukur *nested sampling*. Intensitas Sampling yang digunakan yaitu sebesar 4%, sehingga diperoleh 8 jalur penelitian dan 32 petak ukur dengan ukuran 20 m x 20 m.

Data yang diambil berupa data jumlah jenis, keliling, dan ukuran tinggi pada tingkat semai, pancang, tiang, dan pohon. Penelitian dilakukan dengan menggunakan 4 metode analisis data yaitu Kekayaan Jenis (S*pecies Richness*), Indeks Keanekaragaman Jenis (S*hannon Index*), Indeks Nilai Penting (INP), dan *Plant Functional Attribute* (PFA). Hasil penelitian menunjukkan bahwa jalur 7 memiliki Kelimpahan dan Keanekaragaman Jenis tertinggi diantara 7 jalur lainnya.

Hasil analisis dengan menggunakan Kekayaan Jenis (S*pecies Richness*) yaitu 2,36 dan Indeks Keanekaragaman Jenis (S*hannon Index*) yaitu 1,91. Hasil analisis dengan nilai tertinggi pada metode Indeks Nilai Penting (INP) tingkat pertumbuhan semai yaitu jenis *Leucaena leucocephala* 71,48%, pancang *Melaleuca cajuputi* 109,76%, tiang *Melaleuca cajuputi* 153,39%, dan pohon *Tectona grandis* 112,53%. *Plant Functional Attribute* (PFA) menunjukkan bahwa Petak 7 tergolong pada tahap suksesi lanjutan karena memiliki variasi *modus* yang tergolong tinggi, yaitu 15 *modus* berbeda dari total 21 individu.

Kata kunci: Petak 7 KHDTK Wanagama I, Kelimpahan, Keanekaragaman, suksesi, *Plant Functional Attribute* (PFA)

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ABUNDANCE AND SPECIES DIVERSITY IN THE SUCCESSION AREA IN PLOT 7 KHDTK WANAGAMA I, GUNUNGKIDUL, YOGYAKARTA

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ABSTRACT

Plot 7 KHDTK Wanagama I, Gunungkidul, Yogyakarta is a succession area that is rarely studied. There has been previous research related to succession in Plot 5, 7, 14 and 16 in 2008, in this study Plot 7 was classified as bare land. The research was conducted to obtain information related to the abundance and diversity of species and levels of succession so that it can be used for sustainability management. The locations studied areas where rehabilitation planning had not yet been carried out with an area of 33,26 ha, out of the total area of block 7 which was 86,1 ha. Data collection was carried out using the Line Plot Systematic Sampling (LPSS) method with nested sampling plot types. The sampling intensity used was 4%, so that 8 research lines and 32 plots with a size of 20 m x 20 m were obtained.

The data collected included the number of species, circumference, and measure of seedlings, saplings, poles, and trees. The research was conducted using 4 data analysis methods, namely Species Richness, Species Diversity Index (Shannon Index), Important Value Index (IVI), and Plant Functional Attribute (PFA).

The results of the analysis showed that Line 7 had the highest species abundance and diversity among the other 7 lines. The results of the analysis using the Species Richness was 2.36 and the Species Diversity Index (Shannon Index) was 1.91. The results of the analysis with the highest value on the Important Value Index (IVI) method of seedling growth were *Leucaena leucocephala* 71.48%, *Melaleuca cajuputi* saplings 109.76%, *Melaleuca cajuputi* poles 153.39%, and *Tectona grandis* trees 112.53%. The Plant Functional Attribute (PFA) indicates that Plot 7 belongs to the advanced succession stage because it has a relatively high mode variation, namely 15 different modes out of a total of 21 individuals.

Keywords: Plot 7 KHDTK Wanagama I, Abundance, Diversity, Succession, Plant Functional Attribute.

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