INTISARI

Proses suksesi vegetasi pada bekas perladangan perlu dipelajari agar dapat dimanfaatkan untuk kepentingan pemulihan kondisi lingkungan dan kesuburan tanah dengan biaya murah. Hal ini dapat dilakukan dengan mempelajari tahap-tahap perkembangan suksesi pada areal tersebut sehingga pengaturan siklus perladangan dapat diatur agar kondisi lingkungan dan kesuburan tanah dapat tetap dipertahankan.

Penelitian ini bertujuan mempelajari perubahan struktur, komposisi dan keragaman vegetasi pada beberapa umur areal bekas perladangan serta mempelajari hubungan antara kelimpahan jenis vegetasi dengan beberapa komponen faktor lingkungan tanah. Penelitian ini dilakukan dengan cara membandingkan antara areal bekas perladangan umur 1, 2, 3 dan 4 tahun di sekitar desa Polanto Jaya, Kecamatan Dolo, Kabupaten Donggala Sulawesi Tengah. Pengamatan dilakukan terhadap semua jenis tumbuhan bawah, tingkat semai, sapihan, tiang dan pohon. Parameter vegetasi yang diamati adalah biomas tumbuhan bawah, jumlah jenis, jumlah individu tiap jenis dan diameter sapihan, tiang dan pohon. Data yang diperoleh dianalisis berdasarkan metode analisis vegetasi, metode ordinasi komunitas dan metode analisis regresi linear sederhana.

Hasil penelitian menunjukkan bahwa areal bekas perladangan mengalami proses suksesi yang ditandai oleh perbedaan komposisi, struktur dan keragaman jenisnya. Komposisi tumbuhan bawah terdiri dari 29 spesies (12 famili), tingkat semai 41 spesies (29 famili) dan tingkat sapihan sebanyak 43 spesies (30 famili). Jumlah jenis dan keragamannya meningkat dari 1 tahun hingga 4 tahun setelah ditinggalkan. Berdasarkan ordinasi komunitas, tumbuhan bawah dapat dibagi menjadi 2 kelompok komunitas, tingkat semai 3 kelompok komunitas dan tingkat sapihan 2 kelompok komunitas, sedangkan tingkat tiang dan pohon tidak dijumpai. Hubungan antara kelimpahan jenis tumbuhan bawah maupun tingkat semai dengan faktor lingkungan tanah dipengaruhi oleh komponen kelengasan, bahan organik, kandungan karbon dan nitrogen dalam tanah, sedangkan tingkat sapihan tidak dipengaruhi oleh satupun dari ke tujuh komponen faktor lingkungan tanah yang diamati.

ABSTRACT

It is necessary to study the succession process of vegetation on formerly cultivated area which could be used for recovering the environment condition and soil fertility at a low price. This could be done by studying the development stage of the succession process in that area so that the cycle of shifting cultivation can be arranged to maintain the environment condition and soil vertility.

This study has the objectives of examining the changes in structure, composition and variability of vegetation on areas which has been abandoned for different period of time, and finding out the relationship between vegetation diversity and several soil environment factors. It was done using side by side comparison in the formerly cultivated areas which had been abandoned for 1, 2, 3, and 4 years, in surrounding areas of Polanto Jaya, District of Dolo, Regency of Donggala, Central Sulawesi Province. All species found in the area were recorded, and stratified as ground cover, seedlings, saplings, pole, and tree. Measurements were made for biomass, number of species, frequency of each species, and diameter of saplings, poles and trees. The data obtained were analized using vegetation analysis, community ordination and simple linear regression method.

The result showed that succession process of grond covers, seedlings, saplings, pole, and tree has taken place in formerly cultivated area but now abandoned, as indicated by differences in species composition, structure and diversity. Ground cover consists of 29 species (12 families), seedling of 41 species (29 families) and saplings of 43 species (30 families). The number of species and its diversity was increasing the longer the areas were abandoned. Based on the community ordination analysis, ground cover can be divided into two community clusters, three community clusters for seedlings and two community clusters for saplings, while no community cluster were found in pole and tree stage. The relationship between species diversity of ground cover as well as seedlings with soil environment factors were influenced by soil moisture, organic matter, carbon and nitrogen content of the soil, whereas the diversity of saplings was not affected by soil factors, even one of the seventh components of the soil factors being considered.