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## NUTRIENT RETRANSLOCATION INTO THE SOIL IN PURE AND MIXED STANDS OF PARROTTIA PERSICA, CASE STUDY: PATOM DISTRICT OF KHEYROUD FOREST

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### ABSTRACT

In forest ecosystems nutrient cycling is a constant process that is carried out in different stages. Biological parts of this process begin with intake of nutrients from soil by trees, and continue until litter fall and litter decomposition. Nutrient retranslocation into the soil in pure and mixed stands of *Parrotia persica* (case study: Patom District of Kheyroud forest) was studied in this research. The nutrient level such as Carbon, Nitrogen, Phosphorous, Calcium, Magnesium and Potassium as well as several physical soil characteristics and biomass production was identified. Results indicated that nutrient retranslocation is quicker (in mixed stands of *Parrotia persica*, than pure stands, and nutrient retranslocation (With the exception of K), are significantly different between the stands. Additionally, it was observed that biomass production in pure stands is higher than mixed stands, indicating that decomposition in mixed stands is faster than pure stands. Furthermore, soil sample analysis results showed that the amount of all nutrients except Nitrogen and Potassium, in pure stands is more than mixed stands.

**Key words:** Nutrient retranslocation, pure stand, mixed stand, *Parrotia persica*, leaf, soil.