Foliar Nitrogen (N), Phosphorus (P) Dynamics, and Foliar Resorption of Corylus avellana var. avellana

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ABSTRACT
Corylus avellana var. avellana (Corylaceae) has a widespread distribution in the Central Black Sea Region of Turkey and is very valuable in the food industry and plays an important role in the economy of the Black Sea Region of Turkey. In this study, nitrogen (N) and phosphorus (P) concentrations along a topographical gradient (from sea level to 550 m) and through the growing season (from April to October) were investigated. In addition to this, foliar resorption was also studied as resorption efficiency (RE) and resorption proficiency (RP) which is defined as the proportion of nutrients withdrawn from leaves and the N and P concentrations in senesced leaves, respectively. Statistically significant differences were not found with respect to leaf N concentration and SLA during the growing season although leaf P concentration, leaf N/P ratio and SLA were significantly changed during the growing season. Except for NRE, PRE, ARP, and PRP all of the leaf traits were significantly changed along the topographic gradient. The N/P ratio which is an indicator of N- and P- limitation decreased during the growing season and along the topographic gradient. The N and P concentrations in the senescent leaves of C. avellana was below 50 µg cm-2 and 3 µg cm-2, respectively along the topographic gradient and this species is N and P-proficient according to the threshold values. Soil properties along the topographic gradient also changed.

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