# Spatial Pattern of Trees in *Parrotia persica-Carpinus betulus* and *Parrotia persica-Quercus castaneifolia* Types in Chafrood Forests, Guilan, Iran

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**Abstract:** The aim of this study was to determine the trees spatial pattern in *Parrotia persica – Carpinus betulus* and *Parrotia persica – Quercus castaneifolia* types in Chafrood forests, Western Guilan. For doing the purpose, one- hectare (100 m×100 m) plot was established in each type. Diameters at breast height (DBH) of all trees > 7.5 cm were measured, azimuth angle and distance of trees was also recorded in the plot. Spatial pattern was analyzed using Ripley's K- function. Our results indicated that spatial pattern of trees to a distance of 19 m was clumped distribution, and higher from this distance was a random pattern in *Parrotia persica – Carpinus betulus* type. In addition, in *Parrotia persica – Quercus castaneifolia* type, clumped distribution pattern was found within 37 m distance, and after this distance found random pattern. Awareness of spatial pattern of forest trees is effective on the design of suitable management pattern for protection, reforestation of forest stands, and determining inventory method in forest ecosystems.

**Keywords:** *Parrotia persica - Carpinus betulus*, *Parrotia persica - Quercus castaneifolia*, Ripley's K function, Spatial pattern, Guilan Chafrood.