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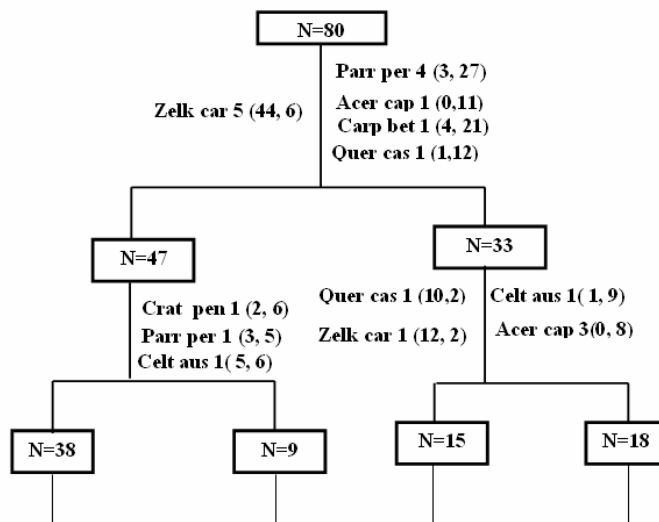
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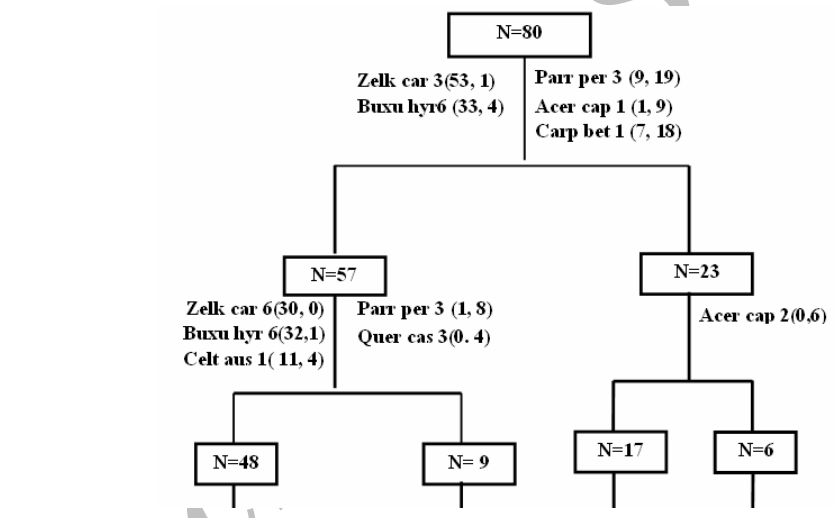
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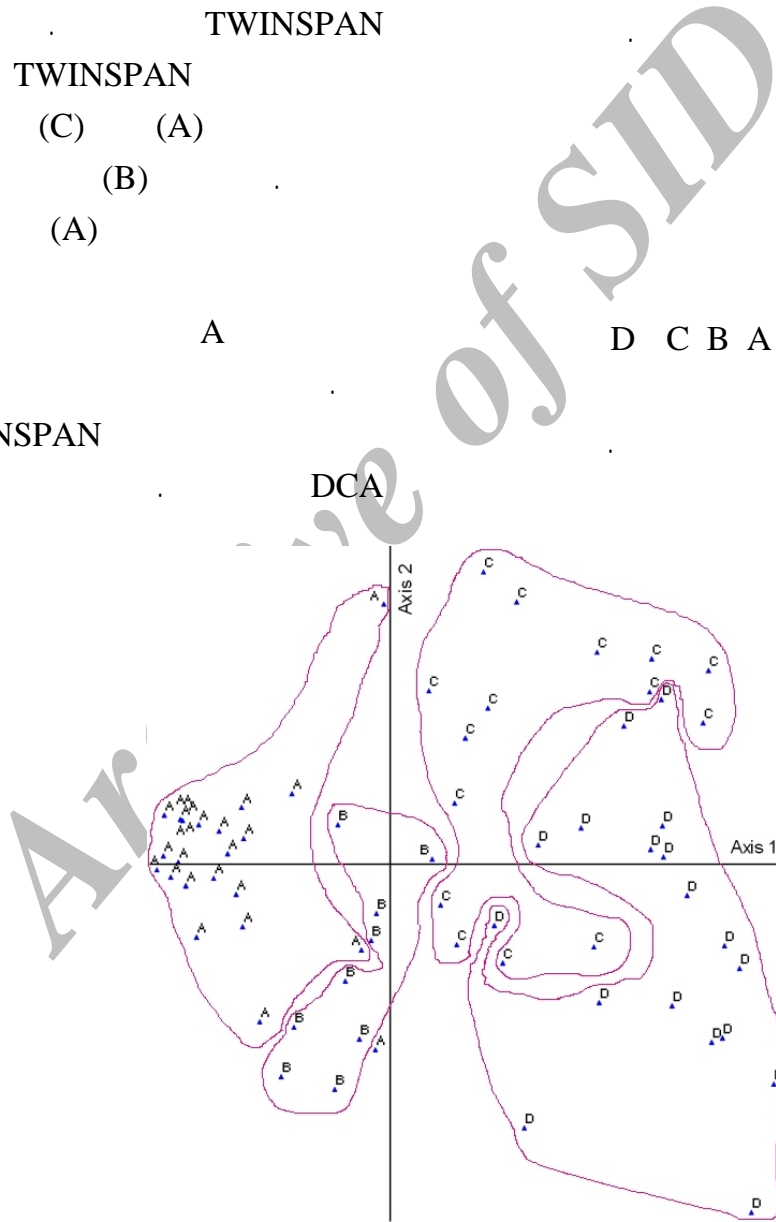
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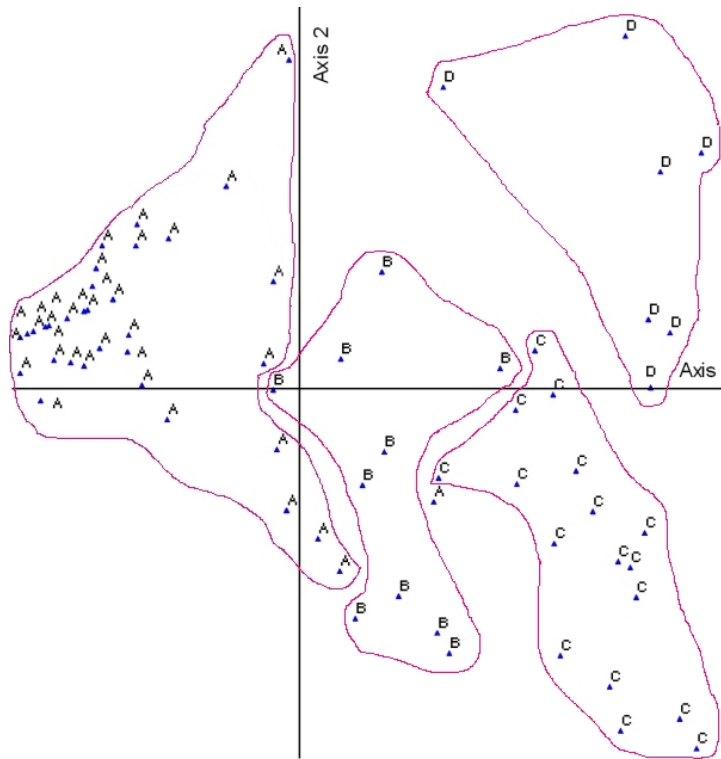
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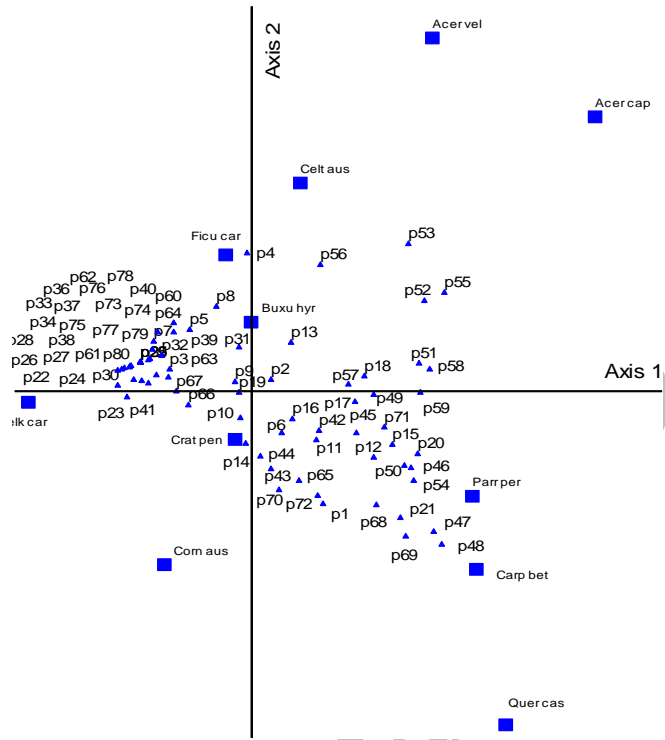
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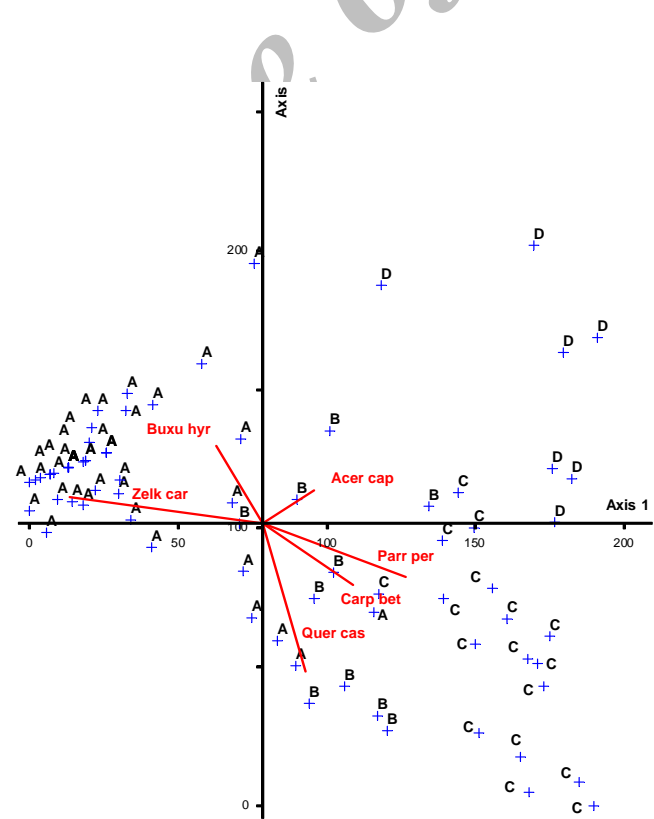
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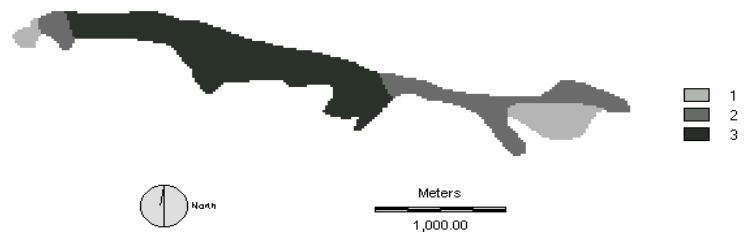
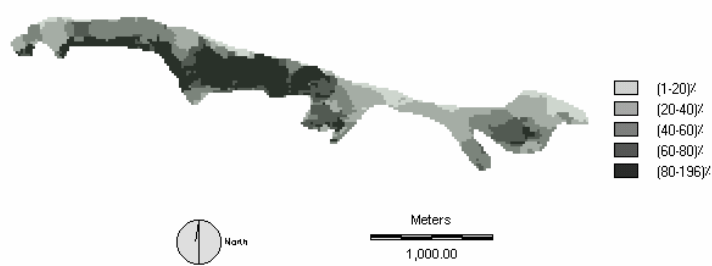
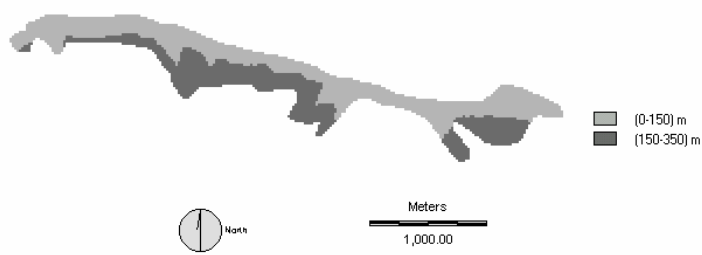
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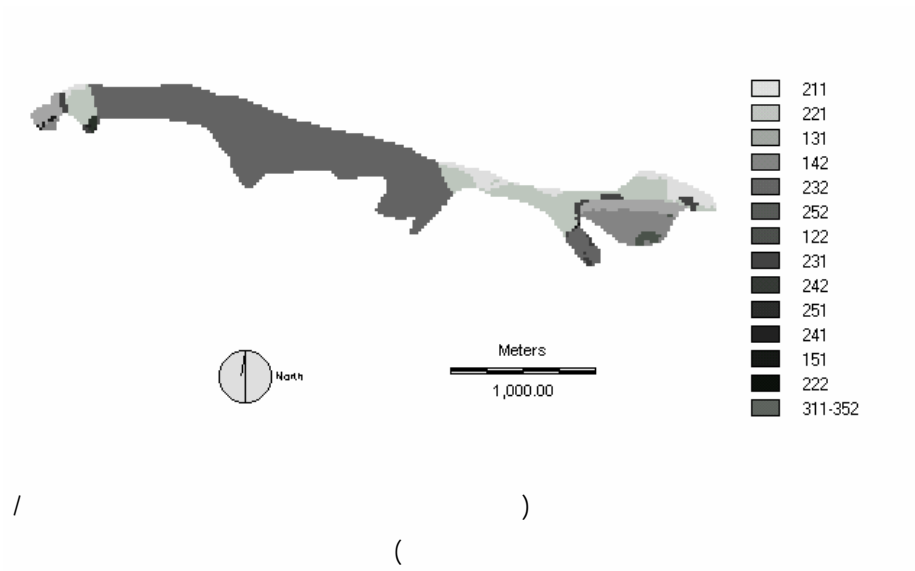
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Investigation and classification of tree and shrub covers in Cheshmehbolbol Box tree Community

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Abstract

Cheshmehbolbol Box tree Community with an area of 200 hectares is located in the protected part of Livan-Banafstappeh Forest management plan, within the territory supervised by the Golestan Province Natural Resources General Department. The aim of this research was to identify and introduce ecological groups of trees and shrubs in the habitat. Sampling for this study was based on slope, elevation and tree dominant species. For identification and classification of vegetation covers, 10 grid plots of 225 m² area (based on minimum area method) for tree-shrub layer were randomly sampled in each preliminary unit. Canopy cover and diameter at the breast height of woody species were measured in 80 plots in the study area. Classification analysis was performed using TWINSpan. As TWINSpan analysis based on basal area led to better results as compared to the analysis based on canopy cover, other stages of analysis was carried out based on basal area, and four ecological plant groups were determined in the study area. Similarity indexes of the four ecological groups revealed susceptible difference between them. This index also confirmed the existence of the four distinguished groups. Ordination analysis was performed by DCA in order to detect the floristic composition of ecological groups and samples and the result agreed results of TWINSpan analysis.

Key words: Cheshmehbolbol Box tree Community, Tree and shrub cover, Stratified sampling, Ecological groups, Classification, Ordination

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