

## The Structure and Composition of Plant Communities in Ajluon Forest Reserve in Jordan

**Authors :** Maher J. Tadros, Yaseen Ananbeh

**Abstract :** The study area is located in Ajluon Forest Reserve northern part of Jordan. It consists of Mediterranean hills dominated by open woodlands of oak and pistachio. The aims of the study were to investigate the positive and negative relationships between the locals and the protected area and how it can affect the long-term forest conservation. The main research objectives are to review the impact of establishing Ajloun Forest Reserve on nature conservation and on the livelihood level of local communities around the reserve. The Ajloun forest reserve plays a fundamental role in Ajloun area development. The existence of initiatives of nature conservation in the area supports various socio-economic activities around the reserve that contribute towards the development of local communities in Ajloun area. A part of this research was to conduct a survey to study the impact of Ajloun forest reserve on biodiversity composition. Also, studying the biodiversity content especially for vegetation to determine the economic impacts of Ajloun forest reserve on its surroundings was studied. In this study, several methods were used to fill the objectives including point-centered quarter method which involves selecting randomly 50 plots at the study site. The collected data from the field showed that the absolute density was (1031.24 plant per hectare). Density was recorded and found to be the highest for *Quercus coccifera*, and relative density of (73.7%), this was followed by *Arbutus andrachne* and relative density (7.1%), *Pistacia palaestina* and relative density (10.5%) and *Crataegus azarulus* (82.5 p/ha) and relative density (5.1%),

**Keywords :** composition, density, frequency, importance value, point-centered quarter, structure, tree cover

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