

## **BIODIVERSITY AND REGENERATION OF BURN&UNBURN FOREST IN ATROOSH REGION**

Muzahim Saeed Younis\*      Mohammed Younis Al-Allaf\*\*      Ahmed Bahjat Khala\*\*\*

\* Prof-Dept. of Forestry - College of Agric & Forestry - University of Mosul - mzhmyounis@yahoo.com

\*\* Assistant Prof-Dept. of Forestry - College of Agric & Forestry- University of Mosul - moalaf@yahoo.com

\*\*\* Ministry of Agric- Directorate of Diyala Agriculture- ahmad.bagat@yahoo.com

### **ABSTRACT**

This study was conducted on the floor coverings deployed in the Atroosh region in the province of Dohuk ,and an area of 96.58 km<sup>2</sup> . Featuring site Atroosh occurrence within the formations of the mountainous region , has been part of these forests to fires in different periods. For the purpose of knowledge and comparison the biodiversity of burn and unburn forests in the study area, we chose 45 random sample dimensions of 30 m × 30 m, and in this study were compared the diversity of species, structure and composition between two sites, the first burn forests and second unburn. Calculated density, dominance, frequency and importance value index (IVI), as well as family importance value index (FIVI) to assess the composition of plant. We measured diameters and heights for all individual of the two sites and classified into 5 classes, was a class diameter (0.2-5cm) are abundant of the two sites while heights classes the class (0.2-5m) was abundant in both locations. . The study recorded significant differences between the two sites in terms of evidence of biodiversity used in the study Shannon-Wiener diversity index (H') ( $\chi^2=5.42$ ), Shannon evenness index (E) ( $\chi^2=4.08$ ) and Simpson's index (1-D) ( $\chi^2=4.77$ ) additive to Species richness (S) ( $\chi^2=10.43$ ).

**Key words:** Biodiversity index, Forest fire, diversity of species, Forest structure.