

STRUCTURAL AND FLORISTIC CHARACTERIZATION OF THE OULED BECHIH FOREST (ALGERIA)



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Introduction

In Algeria, cork oak and zea oak forests are particularly important, as they constitute an essential element of the physical, climatic and especially socio-economic balance in rural areas. From an ecological point of view, the cork oak and the zeen oak are the most important forest formations in Algeria and cover more than 278.000 ha ; their abundance, importance, distribution and their relatively unknown ecological value are major assets for their conservation. The present study focuses on the Ouled Bechih open forest, located in eastern Algeria. As this forest is used for cork production, the local populations cannot help but illegally take the various forest resources they need. Its conservation is thus compromised. In the context of the development and sustainable management of natural forest ecosystems in general and the Ouled Bechih clear forest in particular, this study is therefore necessary.

Table 1. Characteristics of species studied.

Plots	D(cm)	H(m)	N/ha	G (m ² /ha)	V (m ³ /ha)
P1	78.07	14.19	89	49.17	369.81
P2	40.34	10.91	200	29.77	172.18
P3	38.30	9.38	178	26.14	129.97
P4	42.04	13.54	167	25.71	184.50

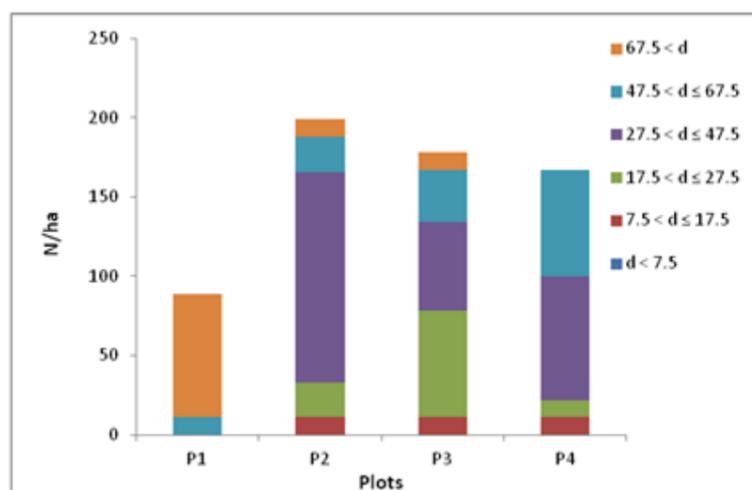


Figure 2. Density by diameter classes.

Conclusion

The structural study and the floristic composition of the forest allowed knowing the diversity of the plant groups of this ecosystem. The forest of Ouled Bechih functions today as an isolated ecosystem undergoing pressures at its periphery and justifies the need to conserve this ecosystem. The evaluation of the specific diversity by the index of Shannon index and equitability shows a certain relationship with the disturbance of the environment. In spite of a relatively average density of woody plants, the woody flora of the forest massif presents species with a strong socioeconomic use that is a priority for revalorization. These assets militate in favor of strengthening the strategies of development and sustainable management of the forest massif.

Results

- * The inventory of the Ouled Bechih forest revealed 32 species belonging to 22 families.
- * Angiosperms form the most important systematic group; they are presented by: *Quercus suber* and *Quercus fagina*.
- * The most common families are the Asteraceae, Fabaceae and Fagaceae. These families represent 50% of the total number of species encountered
- * The results obtained show that basal areas vary from 25.71m²/ha in plot 4 to 49.17m²/ha in plot 1. The lowest average DBH of all living trees was found in plot 3 (d_{1.3} = 38.30cm) and the highest in plot 1 (d_{1.3} = 78.07cm). The highest average height was also found for cork oak in plot 1 (14.19m) and the lowest in plot 3 (Table 1).

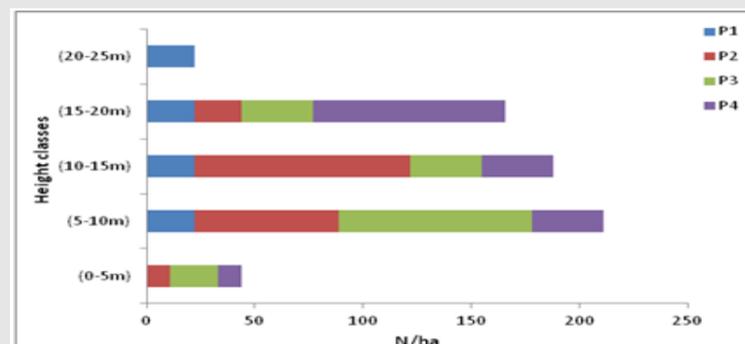


Figure 3. Density by height classes.

Research 1. Forest of Ouled Bechih is located north of Souk Ahras (Algeria). The study area is located between the coordinates 36°21'26" north latitude and 7°50'08" East longitude (Figure 1).

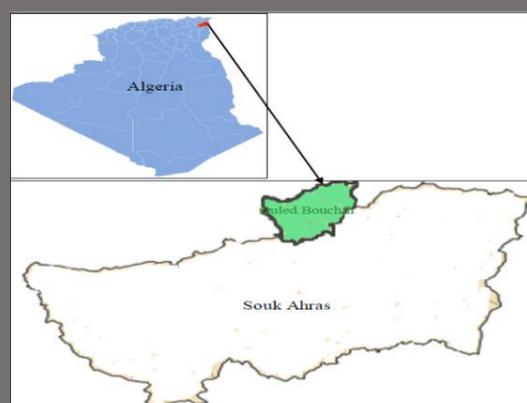


Figure 1. Area study.

- The plots chosen for this work have dimensions of 30 m x 30;
- Measurements were made of trees with a diameter (at 1.30 m above ground level);

Acknowledgements

I want to thank the Forest Conservation of Souk Ahras (Algeria) for their support and permission to access the sites.