

## ESTIMATION OF THE ECTO- AND ENDOMYCORRHIZAL COLONISATION OF THE BLACK POPLAR - *POPULUS NIGRA*- OF AIT ZIKKI (KABYLIA, ALGERIA)

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### ABSTRACT

Very little work has been done on the mycorrhizal state of the black poplar in Algeria. Therefore, the purpose of our investigation is to make an inventory of the mycorrhizal procession of the black poplar in the region of Kabylia (Algeria). We were interested in seeing the influence of age, position of trees compared to a river and the influence of soil factors on the relative rates of the two types of mycorrhizae. Root samples were collected from four trees of different ages in March 2015. The trees were in different positions in relation to a watercourse. A quantification of the different types of mycorrhizae was performed by means of the method suggested by Giovanetti and Mosse (1980). Physicochemical analyzes were performed on the soils collected around the trees. The results show some morphotypic wealth in ectomycorrhizal and some diversity of mycorrhizal structures. The quantification revealed that endomycorrhizal colonization was superior to ectomycorrhizal colonization, whatever the age of the trees and their position in relation to the watercourse. The youngest tree showed the highest rate in AM. Indeed, we noted negative correlations between the age variable and colonization by AMs. These results are essentially due to the physicochemical factors of the soil.

**KEYWORDS:** Age, Endo- and Ectomycorrhizal, Soil Composition, *Populus nigra*.