

Acacia mearnsii De Wild-A New Scourge on Cork Oak Forests of El Kala National Park (North-Eastern Algeria)

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Abstract : Nowadays, more and more species are introduced outside their natural range. If most of them remain difficult, some may adopt a much more dynamic behavior. Indeed, we have witnessed in recent decades, the development of high forests of *Acacia mearnsii* in El Kala National Park. Introduced indefinitely, this leguminous intended to make money (nitrogen supply for industrial plantations of *Eucalyptus*), became one of the most invasive and more costly in terms of forest management. It has crossed all barriers: it has acclimatized, naturalized and then expanded through diverse landscapes; entry into competition with native species such as cork oak and altered ecosystem functioning. Therefore, it is interesting to analyze this new threat by relying on plants as bio-indicator for assessing biodiversity at different scales. We have identified the species present in several plots distributed in a range of vegetation types subjected to different degrees of disturbance by using the braun-blauquet method. Fifty-six species have been recorded. They are distributed in 48 genera and 29 families. The analysis of the relative frequency of species correlated with relative abundance clearly shows that the *Acacia mearnsii* feels marginalized. The ecological analysis of this biological invasion shows that disruption of either natural or anthropogenic origin (fire, prolonged drought, cut) represent the factors that exacerbate invasion by opening invasion windows. The lifting of seeds of *Acacia mearnsii* lasting physical dormancy (and variable) is ensured by the thermal shock in relation to its heliophilous character.

Keywords : *Acacia mearnsii* De Wild, El Kala National park, fire, invasive, vegetation

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