



Antioxidant, Antimicrobial and Pediculicidal Activities of *Eucalyptus benthamii* Essential Oil

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SUMMARY. In this work the antioxidant, antimicrobial, and pediculicidal effects of essential oil from *Eucalyptus benthamii* Maiden et Cabbage were investigated in order to enlarge the use of this species of high timber potential. Considering the phosphomolybdenum method, the volatile oil of *E. benthamii* showed a total antioxidant activity higher than that achieved for rutin. However, a low antioxidant potential was observed for DPPH method. The essential oil of *E. benthamii* provided an antimicrobial effect against Gram-positive, Gram-negative and *Candida albicans* strains. In the insecticidal activity against *Pediculus humanus capitis* De Geer, the investigated volatile oil showed both fumigant and repellent effects.

RESUMEN. En este trabajo fueron investigados los efectos antioxidantes, antimicrobianos y pediculicidas del aceite esencial de *Eucalyptus benthamii* Maiden et Cabbage con el fin de ampliar el uso de esta especie de alto potencial maderero. De acuerdo al método del fosfomolibdeno, el aceite volátil de *E. benthamii* mostró una actividad antioxidante total mayor que la conseguida para la rutina. Sin embargo, se observó un bajo potencial antioxidante por el método DPPH. El aceite esencial de *E. benthamii* posee efecto antimicrobiano contra cepas de bacterias Gram positivas, Gram negativas y de *Candida albicans*. En relación a la actividad insecticida contra *Pediculus humanus capitis* De Geer, el aceite volátil investigado mostró tanto efectos fumigantes como repelentes.

KEY WORDS: antioxidant, antimicrobial, essential oil, *Eucalyptus benthamii*, *Pediculus humanus capitis*, α -pinene.

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