

## Nota botànica

### First evidences of the naturalization of *Eucalyptus globulus* subsp. *globulus* (Myrtaceae) at Mallorca (Balearic Islands)

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Biological invasions are widely known as one of the major threats to biodiversity and natural ecosystems (Vitousek et al., 1996; Parker et al., 1999; Mack et al., 2000), to the extent of being considered by IUCN as the second cause of habitat destruction (GISP, 2001).

Exotic invasive species have been one of the main forces related to biotic and abiotic alteration processes in island systems (Loope & Mueller-Dombois, 1989). Biological diversity in these ecosystems is highly valued and, generally, a greater number of endemisms are found, together with many species that have evolved in conditions of low interspecific competence and with a minimal predatory pressure (Moragues & Rita, 2005). This results in poor biotic barriers to give resistance in front of naturalizations and invasions (Mack, 1996; Mack & Lonsdale, 2002).

The Balearic Islands are not an exception to this phenomenon. In 2004, 304 introduced species of flora were quantified, which represents 15.9% of the vascular flora of the Islands. Of this, 60% are naturalized species (Moragues, 2010), albeit this number is nowadays probably higher due to the non-stop entering movement of alien species in the Balearics.

*Eucalyptus* L'Hér. is one of the most important taxa widely planted outside their natural ranges in temperate zones (Richardson, 1998). However, the presence of *Eucalyptus* sp. populations can be associated to a number of problems, such as: the increase of fire hazard (Gassó et al., 2009) due to its litter accumulation, the modification of the water balance (Moragues & Rita, 2005), presence of





result of the production of seeds of specimens from reforestation. Consequently, in *Sa Coma de Binifaldó* a reproduction process in a natural ecosystem without the intervention of man has occurred, and therefore, it should be considered as a naturalized population (Moragues, 2010).

The presence of a population of 74 specimens of *E. globulus*, joined to the reproduction process observed in a natural habitat is the first evidence of naturalization of this species in the island of Mallorca. The verified reproduction demonstrates that in favorable conditions, this species can naturalize, and therefore, may become a potential invasive species, as occurs with other *Eucalyptus* species in different geographic areas of the Mediterranean Basin (Arianoutsou et al., 2010), although any invasive behavior has been documented in Mallorca yet.

A monitoring of this alien species, should be carried out in future conservation policies, in order to detect those populations in which a breeding event could take place. In such circumstances, an eradication plan should be designed and executed to avoiding the massive production of seedlings and consequently, the forthcoming impacts on local biodiversity, when they will grow up.

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