

Assessing the conservation status of three plant species endemic to Chile.

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Abstract

South-central Chile has been identified as one of the world's key 25 biodiversity hotspot. It is estimated that to contain 3892 vascular plant species of which 1,957 (50%) are endemic. The exploitation, conversion and decline of the native forest, along with other factors such as climate change, increase the reason of extinction of many plant species. In this study we assessed the current conservation status of *Citronella mucronata*, *Eucryphia glutinosa* and *Orites myrtoidea* which has been recently evaluated as not threatened plants by the Chilean Government. We determined the extent of occurrence (EOO) and number of mature individuals as well as we characterised the habitat of each site visited in the field. We also generated a spatial data base of point of occurrence validated and updated through field campaigns. Our results revealed that the three species exhibited EOOs that are within the minimum value (10,000 km²) to be classified as threatened species. For *P. andina* and *E. glutinosa* the EOO was of 9,232 and 13,857 km² respectively. For *O. myrtoidea* the EOO was of 498 km². *P. andina* and *E. glutinosa* were evaluated as Vulnerable while *O. myrtoidea* as Endangered. These results suggest the need to re-evaluate these three species using updated and validated data, and excluding unsuitable habitat in the estimate of the EOO. This was ignored in the last assessment conducted by the Chilean government for these species.

Key word: temperate forest, extent of occurrence, IUCN criteria and categories, threatened plants.