Threatened plant seeks pollinator (or when conservation practices prevent mutualistic interactions)

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Abstract

Island habitats are scenarios where 'rare' plant-animal mutualisms usually occur, and these interactions are key for maintenance of insular flora. However, the importance of mutualistic interactions seems to be overlooked when applying conservation practices. In this talk, we present results on a study about the pollination system of *Lotus maculatus* (Fabaceae), a plant species endemic to Tenerife (Canary Islands) whose pollinators have been unknown (or supposed to be birds) for a long time. This plant has also been object of several plans and actions for its conservation, but unfortunately with no plenty successful results. Here, we present a study on the pollination ecology of this legume that was carried out in both the only natural population and several plantations of *L. maculatus*. After more than 70 hours of direct observation, birds seemed to ignore the plant, whereas insects performed non-legitimate visits to its flowers. In this talk, we show that the Canary lizard *Gallotia galloti* is the most reliable animal for the pollination of these threatened plant. This lizard species not only is its most frequent flower visitor, but also is able to carry pollen grains and promote the fruit production of *L. maculatus*. Lastly, we expose some examples of conservation practices that, far away of helping the plant to recover, have prevented its reproductive success by avoiding almost the unique way for its pollination. Hopefully, increasing our knowledge and understanding of natural history of 'rare' mutualistic interactions on islands will be helpful to apply more efficient conservation practices.

Keywords: conservation practices, endemic lizard, endemic plant, Gallotia galloti, Lotus maculatus, pollination

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