

# The Guardian

## Crafty island plants use lizards to disperse their seeds

**Lizards eat fruits? Well, they do on some islands, where food is scarce. But instead of being threatened by this, the crafty plants have evolved to rely on the lizards to disperse their seeds into unoccupied areas**

**GrrlScientist**

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Islands are nature's evolutionary laboratories. This is where mammals evolve into dwarfs whilst birds evolve into flightless giants. On islands, there are few competitors, so nature experiments with the range of morphological, physiological and behavioural possibilities available to plants and animals. One such "natural experiment" is represented by the ocellated lizard, *Timon lepidus*. This, the largest lizard in Europe, can be found throughout Spain and Portugal, where it preys primarily on insects. However, it also occurs on small islands where food is limited. There, the ocellated lizard adds other items to the menu, including small birds, other lizards and even small mammals -- such as young rabbits. The most unusual food item that these island reptiles consume is fruits -- unusual because lizards are mainly insectivorous.



But the story is more complex than this because island plants are faced with a number of challenges as well. One of these is seed dispersal. But in this situation, the crafty island plants have evolved to rely on the resident hungry lizards to disperse their seeds away from the mother plant.

In this animated video, scientists explain a little of what they've learned about the evolution of this lizard's ecological role in Spain's Atlantic Islands of Galicia National Park:

The laboratory of Ecology and Evolution and the Divulgare Group at the University of Vigo created this animation to show the role, unknown to the general public, of lizards as seed dispersers in island ecosystems. The video shows research findings made in the National Park of the Atlantic Islands of Galicia (Spain) with funding from the Autonomous National Parks Organism.

Filmmaker: Luis Navarro Etxeberria

Team members: José María Sánchez, Esther Bernárdez, Iván Rodríguez

This video was an entry in the 2011 Evolution-Themed Film Festival. All entries were (supposed to be) three minutes or less, and either explain a fun fact, key concept, compelling question, or explore an exciting area of evolution research. Entries were intended to be



suitable for use in a classroom and so had to be both informative and entertaining. This film festival was organised and hosted by the National Evolutionary Synthesis Center (NESCent), an NSF-funded science nonprofit dedicated to cross-disciplinary research in evolution. NESCent can be found on twitter: @NESCent

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