Endemic lizards and exotic plants. The unique interaction of the dead horse arum and the Balearic lizard

[ORAL PRESENTATION]

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From 1999 to 2005 we studied the population of the dead horse arum, *Dracunculus muscivorus* (Araceae) and its relationship with the Balearic lizard, *Podarcis lilfordi* (Lacertidae, Squamata). In Aire, a coastal islet of Menorca (Balearic Islands, Spain), the dead horse arum is extremely abundant. During blooming period, several lizards exhibited an intense foraging behaviour focused on open inflorescences, also employing them as basking sites. Lizards were able to capture flies attracted by the plants and those trapped in tubules as pollinators. The exploitation of pollinators was principally made by largest males of the population that actively excluded females and smaller males from plants, skewing lizard's sex-ratio in areas of maximum plant density, where it was a significant correlation between the density of lizards and plants. In addition, the use of dead horse arum as a foraging and basking site influenced the pattern of spatial organization of lizards, precluding territorial behaviour and leading to a large home range overlap among individuals.

During ripening period, lizard's distribution at areas of high plant density matched the distribution of individual plants. Lizards consumed fruits following the progressive fruit maturation. In two germination experiments, we detected an enhanced germination of seeds from lizards' faeces in comparison with those directly taken from ripening fruits. Hence, the Balearic lizard is the main legitimate disperser of the dead horse arum. In addition, site fidelity of lizards seems to be affected by plant distribution more than by any other habitat feature. From 1999 to 2005, the density of the dead horse arum increased from 4800 ind./ha. to more than 25.000 ind./ha. at some optimal areas of Aire Island, indicating a very positive balance of this unique interaction between plants and lizards.