Conference on Mediterranean populations of the genus *Alectoris*

ABSTRACT BOOK
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Oral communication
Abundance of Rock Partridge (*Alectoris graeca*) in relation to the multi spatial structure of habitat and food availability.

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In the Prealpi Giulie Natural Park the distribution and abundance of the Rock Partridge *Alectoris graeca saxatilis* have been studied in 5 sample areas using the play-back technique, and related to habitat availability (Vegetation Map of the park, 1:25.000) at different spatial scales. The UTM 1x1 kilometer regional grid has been used for a large scale approach, assigning the number of partridges counted to each quadrant. The mean geo-morphological aspects, the herbaceous and shrub vegetation characteristics (density, height, colour, etc), the abundance of insects (pitfall traps), and management applied on the area (pasture, mowing, etc) have also been measured for each quadrant. Buffer surfaces of 500 and 100 meters of radius from the detection-points of the animals have been used respectively as medium and small scale approaches and compared to randomly selected buffer areas. GIS analysis has been carried out to determine habitat coverage in each quadrant and buffer. Different parameters seem to describe properly the ecological requirements of this species in the study area. Its abundance was correlated at all scales to grasslands widely colonized by *Genista radiata*. This element, together with high herbaceous vegetation at large scales, could provide shelter from flying predators. At medium to small scales species-rich mesophile hay meadows seem to enhance the presence of Rock Partridges, locally providing a large stock of food resources and together with xeric grasslands representing the optimal mixture of habitats for this phasianid. In contrast pastures colonized by shrubs and trees (high density, large diameter) seem to have a negative effect on the species presence at large to small scales. This multiscale approach allows to detect more appropriately the ecological requirements of this animal.