

DISTRIBUTION AND DENSITY OF MEDITERRANEAN HARE
(*LEPUS CAPENSIS MEDITERRANEUS*) AND WILD RABBIT
(*ORYCTOLAGUS CUNICULUS*) IN SARDINIA (ITALY)

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Mediterranean hare in Italy occurs only in Sardinia. Wild rabbit in Italy occurs in just a few areas in the North of the country, in Sicily and Sardinia. In spite of the lack of information about the distribution and the population dynamic of these two species, both of them are game species in Sardinia. We investigated the distribution of both species by means of game bag records from 183 game preserves. We also estimated the population density by means of nocturnal spotlight censuses from 2003 to 2005. We performed one-way ANOVA to test significance in density differences between years or seasons, and the Multifactorial Analysis of Variance to test for significant interactions between factors (year-season) possibly influencing population density. Mediterranean hare occurred in the 76.6% of the total surface area of Sardinia. Mean hunting bag densities were low: 2 hares/Km² (min=0; max=30.6; SD=2.75). Taking into account data from all sampled areas, on the whole, spring-summer increase was of 99.4% and the summer-autumn decrease was of 15.3%. According to ANOVA test, no annual and seasonal density variation proved significant.

Wild rabbit range appears slightly smaller as this species is present on 71.8% of Sardinia. Mean hunting bag densities were 8.4 rabbits/ Km² (min=0; max=164; SD=16.95). From spring to summer 2004 wild rabbit population density grew by 106.2% and then decreased by 43.3% in autumn-winter. If we take into account the data from all the study areas over the 3-year period, a progressive decrease by 80.6% in the spring population was recorded from spring to autumn. ANOVA test did not show significant variations between years and seasons.

Both species appeared to be distributed uniformly whereas the range of the mediterranean hare seemed to be larger than that of the wild rabbit. The population density of the Mediterranean hare resulted lower and more variable than the other mainland hare species, and the populations of Mediterranean hare seemed to be in decline. The population density of the Wild rabbit was more variable than that of the hare, and in some areas it was quite high, but on the whole appeared stable.