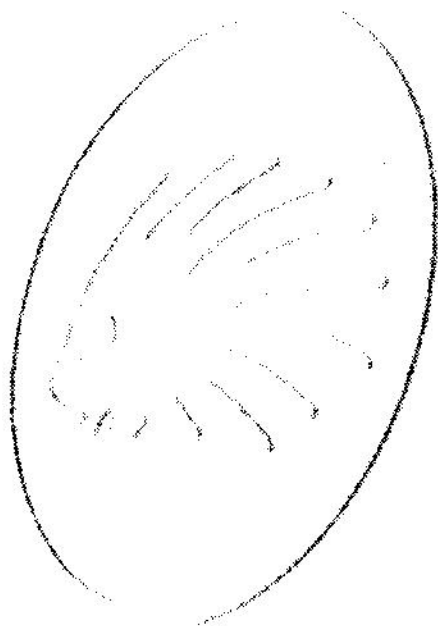


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# ***HYSTRIX***

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INTERSPECIFIC HABITAT SELECTION OF EUROPEAN HARE  
(*LEPUS EUROPAEUS*) AND WILD RABBIT (*ORYCTOLAGUS*  
*CUNICULUS*) IN WESTERN TUSCANY (ITALY)

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Scattered wild rabbit populations are presents in central and western Tuscany. Most of them were probably originated by releases carried out for hunting purposes. In some cases these populations lives in sympatry with the native European hare. In this contribution we present a preliminary study on habitat selection by these two species living in sympatry in a farmland area near the western coast of Tuscany.

The occurrence of hare and rabbit was checked during night using spotlights in December 2009. Indirect survey was also carried out by faecal pellet counts in the habitats were cover prevented spotlight observations. Each detection was georeferenced and recorded in a spatial database. We considered a buffer area of 100m radius around each detection and habitat variables were described inside these plots. Furthermore we identified plots were both species were not recorded. Habitat selection was assessed by Jacob's index (JI), and Discriminant Function Analysis between plots with presence and absence of the lagomorphs combined with the stepwise selection of the main variables (DFA). One way analysis of variance was also performed to compare the habitats of plots with presence and absence of the two species.

Rabbit selected winter cereals (JI +0.48), raw areas (JI +0.17), sea buckthorn plantations (JI +0.56), olive tree groves (JI +0.31) and avoided ploughed fields (JI -0.85), meadows (JI -0.31), stubbles (-0.22) and grasslands (JI -1.0). Vineyards were used according to their availability (JI 0.0). Hare selected stubbles (JI +0.53) grasslands (JI +0.67), sea buckthorns (JI 0.04) and avoided raw areas (JI -1.0), ploughed fields (JI -0.14), olive tree groves (JI -0.18) and vineyards (JI -0.49). The differences between the two species were significant ( $P < 0.05$ ) for ploughed fields, sea buckthorn, stubbles and grasslands. The main habitat variables (stepwise selection) contributing to the discrimination (DFA) between plots with rabbit or hares alone, resulted ploughed fields, meadows and woods (more present in hare plots) and winter cereals (more present in rabbit plots).

Even if the habitat use of the two species was similar, rabbits seem more selective than hares, preferring areas with higher cover, such as sea buckthorn plantations and uncultivated fields, and avoiding ploughed and stubble fields.