

Trends in Biodiversity and Evolution

Program and abstract book



**Biodiversity, Ecology and Evolution
in Mediterranean ecosystems**
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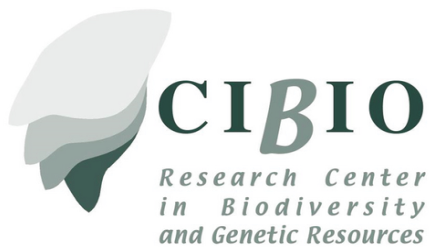
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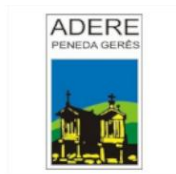
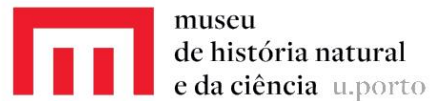
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***Poster session &
flash talks***

THE RED-LEGGED PARTRIDGE (*Alectoris rufa*) FROM ELBA ISLAND: CONSERVATION PERSPECTIVES FOR A LAST RESORT RESOURCE IN ITALY

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The red-legged partridge (*Alectoris rufa*, Galliformes) is listed as Species of European Conservation Concern (SPEC 2) and evaluated as threatened under the European legislation. Although introgressed with the exotic chukar partridge (*A. chukar*), the conservation value of the Elba Island population (Tuscan Archipelago National Park, central Italy) is not under question, as it represents the ultimate wild repository of at least part of the otherwise extinct Italian *A. r. rufa* genome. Moreover, its comparatively long natural history, self-sustainability and lack of restocking over the last 25 years represent additional valuable features. Nevertheless, the alleged affiliation of this population to the nominal subspecies has not been investigated yet, though it would provide key information for its management within an adaptive conservation framework. In this study, we collected 113 fecal samples across Elba and genotyped the joint Cytochrome-b and Control Region genes (ca. 2,250 nucleotides) for comparison with 149 conspecifics from all over the species distribution range. Other than confirming extensive *A. chukar* mitochondrial DNA introgression in Elba partridges, their assignment to the nominal subspecies from Italy and France was disproved by haplotypes ascribed to its Iberian counterpart. Moreover, after 30 years of steady demographic decrease of local partridges, our analyses show very limited connectivity between western and eastern subpopulations due to conifer reforestation, which made the habitat in central Elba unsuitable for the species. These data call for the creation of ecological corridors to restore connectivity and evaluate the possible adaptive introgression in this overtly admixed yet irreplaceable landbird island population.