

SEMINAR

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The potential of historical ecology to understand present-day biodiversity: the case of the black francolin (*Francolinus francolinus*) in the Mediterranean

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About the Speaker

Giovanni Forcina received his PhD (2014) in Biology from the University of Pisa (Italy), where he worked on the conservation genetics of Galliformes. He later held postdoctoral fellowships at Doñana Biological Station (EBD-CSIC) in Seville (Spain), the National University of Singapore (where he joined the Avian Evolution Lab under the leadership of Prof. Frank Rheindt), the Wildlife Research Center of Kyoto University (Japan) and BIOPOLIS/CIBIO in Porto (Portugal) working on the population and evolutionary genetics of different vertebrate species. He is now affiliated with the University of Alcalá (Spain), where he is leading a project on the genomic characterization and gut microbiomics of wild rodents in the Mediterranean Region. His studies rely on using molecular tools to address the risks posed to wildlife by short-term socio-economic and long-term climate change factors within an adaptive conservation framework. His current research interests include biogeography, museomics, archaeozoology and historical ecology.

Addressing the past patterns, dynamics and events is an ambitious but essential task to gain a thorough understanding of present-day biodiversity. Historical ecology is the emerging field of research which is rising to this challenge. Its markedly multidisciplinary nature is crucial in providing convincing answers to questions that would otherwise remain unsolved. I present here the paradigmatic case of the black francolin (*Francolins francolinus*), a prized gamebird presently ranging from Cyprus to India but historically also distributed along the European and African coasts of the Mediterranean. The combined use of museomics, archaeozoology, historical documentation - both textual and pictorial - allowed to ultimately assess the yet contentious nonnativeness of the black francolin to both Europe and Africa, while unveiling the extinct populations as originary from the Near East and the Indian subcontinent. If, on the one hand, the methodological advances of the last decades and archival DNA knowhow of molecular biologists were key, the information provided by historians about past diplomatic relationships, aesthetics and economics were equally important to confirm the trade of this gamebird along information long-distance trade routes. Remarkably, citizen science may play an important role in similar studies by helping to identify privately-owned and often neglected resources.