

The Palaeontomological record of Cavallo island (Lavezzi archipelago, southern Corsica): 7000 years of a complex environmental history

Yoann POHER^{*}, Philippe PONEL, Frédéric GUITER, Frédéric MÉDAIL

Aix Marseille Université, Institut méditerranéen de biodiversité et d'écologie (IMBE) and Labex OT-Med, Objectif Terre - Bassin Méditerranéen, FRANCE

*Email: yoann.poher@imbe.fr

Since at least Antiquity, Mediterranean islands have been particularly vulnerable to human activities. Therefore, these regions are of particular interest to better understand interactions through time between human activities, landscape dynamics and ecosystems. Recent advances in palaeoecological studies allowed reconstructing the complexity of these past interactions, especially through multidisciplinary studies involving both archeological and paleontomological data (Ponel *et al.*, 2014). A multiproxy study, including a palaeontomological approach, was carried on a sedimentary profile cored at Greco pond on the small island of Cavallo in the Lavezzi archipelago (southern Corsica). The palaeontomological and anthracological records allowed us to reconstruct in detail local environmental changes and to identify the major forces behind these changes on a local scale for the last 7000 years. Combined with archaeological evidences of local human settlement since Neolithic times, our results reveal two phases of fires potentially induced by man. The first phase dates back to the Middle Neolithic (6900 to 6200 cal BP), the other one dates back to the Chalcolithic (4000 to 5000 cal BP). Consequential openings in the landscape were accompanied by a grazing phase, as testified by the presence of coprophilous Coleoptera. At the same time, it must be noticed that a general lowering of entomological diversity occurred during the last 4500 years, which might have partly been driven by a Mediterranean sea-level rise. It is expressed by local or regional disappearance of some Coleopteran species. Finally, our results shed light on the complexity of ecological and human history of Cavallo Island and the need to adopt a multidisciplinary approach to better understand ecological dynamics and cultural history of Mediterranean islands.

