Land snails from Late Glacial and Early Holocene Italian sites

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ABSTRACT

A survey of the literature published over the last 50 years on Late Glacial and early Holocene malacofouna in Italy shows that it is possible to obtain information on taxa, their abundance, chorological categories and palaeoenvironments. However, those aspects are only partly known for Northern Italy, including only a few publications to the end of the 1990s. Thanks to greater interdisciplinary collaboration, those of the past ten years are more useful, providing data on palaeoenvironments and other aspects. Of more than forty caves and rockshelters that contain malacofouna, only about a dozen scattered throughout Northern, Central and Southern Italy proved useful for distinguishing natural deposits from artificial shell middens. Whereas the intentional gathering and transport of marine molluscs to places of consumption is perfectly plausible, it remains problematic to understand what can and cannot be considered food waste in the case of land snails. There are only a few sites for which there is evidence of potentially edible land snails in combination with other important archaeological and palaeontological analyses. A better methodology for future research in Italy is imperative.

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1. Introduction

Many of the published reports on molluscs in Late Glacial and early Holocene archaeological and non-archaeological contexts in Italy lack sufficient information for detailed analyses of population dynamics. Almost 80 publications that appeared between the 1950s and the 1980s mention the presence of ‘marine’ or ‘land’ snails or refer to molluscs listed according to genera but provide no species identification (Radmilli and Tongiorgi, 1958; Palma di Cersola, 1962, 1963, 1964, 1969, 1970; Borzatti von Löwenstern, 1963, 1964, 1965, 1969; Radmilli, 1963; Cardini, 1971; Bartolomei et al., 1975; Tozzi, 1975; Piperno et al., 1980; Vigliardi, 1981, 1982; Cassoli and Tagliacozzo, 1982). The situation has begun to improve in recent years as collaborative work between malacologists, zooarchaeologists (for instance A.C. Colonese, D. Esu, M.M. Giovannelli, A. Girod, F. Giusti, G. Manganelli, M.A. Mannino, A. Tagliacozzo, B. Wilkens), and archaeologists has increased. The publications which have been useful for this work are quoted in the sections which follow.

Recently, the repopulation dynamics of land snails in the Ligurian and South Alpine foothills of Northern Italy from the Bolling-Allerød Interstadial through the Younger Dryas and Early Holocene, periods during which there were Final Epi-Gravettian and Mesolithic occupations in this area, were examined (Girod, 2011). That paper discusses aspects of the past behaviour of the molluscan species and proposes a methodology that could be extended to other regions of Italy. In the present paper, this method is applied to examine the ecological preferences of molluscan species from archaeological locations in northern, central and Southern Italy (Sacchi, 1955; Ložek, 1964; Giusti and Castagnolo, 1982; Girod, 1997) To illustrate the geographical origin and distribution of land snail assemblages, a ring diagram is used (Fig. 1). Archaeological sites discussed in this paper for which data are available are shown in Fig. 2, and more details on uncalibrated 14C ages are listed in the Appendix.

2. Northern Italy

The land snails of Arma dello Stefani at 440 m a.s.l. in upper Val Pennavaira and Arma di Nasino at 150 m a.s.l. at the top of the same valley in Liguria have been the subject of repeated research (Girod, 1987, 2000, 2011; Girod and Maggi, 2005). In contrast, other sites such as Vatte di Zambana at 223 m a.s.l. and Romagnano Loc III at 218 m a.s.l. in the Adige valley are virtually unknown, except for some references to the freshwater bivalve Unio sp. (Broglio, 1971; Boscato and Sala, 1980). Studies are in progress at the Dos della Forca/Galgenbühl site (Salorno, Trento) at 225 m a.s.l. (Girod and Wierer, in press). The malacofoana of the Tagliente rockshelter at 250 m a.s.l. east of Verona in the Lessini foothills is better understood (Giusti and Mantovani, 1979).

On the Asiago Plateau, the Dalmeri rockshelter at 1240 m a.s.l. (Dalmeri et al., 2005, 2006) was occupied by final Epi-Gravettian