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DATA REPOSITORY

Paleontology of the BAR 20 section

Ostracods

All taxa are represented by both adult and juvenile valves, although small larval stages (A-4 and A-5) of *C. (N.) neglecta* and *P. marchica* prevail on very few adult broken valves, suggesting their displacement from nearby, coeval waterbodies (Whatley, 1988; Boomer et al., 2003). The remaining species are part of an autochthonous thanatocoenosis in which *I. bradyi* dominates (65.9%), accompanied by *P. zschorkei* (14.1%), *E. pigra* (8.2%), *E. dulcifrons*, and *P. messanai* (5.9%).

C. (N.) neglecta, *P. marchica*, *I. bradyi*, *P. zschorkei*, and *P. messanai* are living in the Italian inland waters as well as in other Mediterranean regions and in central Europe (Martens, 1992; Meisch, 2000; Pieri et al., 2015). *E. pigra* is a typical central European species that occurs only in northern parts of Italy, mainly in Alpine localities (Ghetti and McKenzie, 1981; Rossetti et al., 2006; Pieri et al., 2009, 2015; Stoch et al., 2011). *E. dulcifrons* is a fossil species recovered up to present only in the Pleistocene cold intervals of Germany, the Slovak Republic, and the UK (Griffiths, 1995). Its presence in the L'Aquila Basin represents the first Italian occurrence.

Large Mammals

The horse molar is a left M^3 [Length (L) = 30.97 mm, Width (W) = 24.40 mm]. The tooth is totally unworn, so it is impossible to observe the morphology of the protocone. The presence of grooves (cfr. Alberdi and Palombo, 2013) and the dimensions of the fossil (Lister et al., 2010) seems to exclude the attribution to *Equus altidens* and make possible an attribution to *E. suessenbornensis*. However, because the material consists of only a single molar, a classification at the genus level is more realistic.

A fragment of a left maxillary bearing M^1 and M^2 and a small fragment of M^3 (the teeth are slightly displaced) belongs to a small-sized cervid (M^1 : L = 18.33 mm, W = 18.43 mm; M^2 : L = 17.72 mm, W = 18.92 mm). The teeth are very brachydont, although not very worn. The morphology is identical to the species-group "Axis" erected by Azzaroli (1947) and assigned in a first moment to the genus *Dama*. Different opinions have been advanced about the systematics of the Italian small-sized cervids of the Early Pleistocene (Azzaroli, 1992; Di Stefano and Petronio, 2002; Croitor, 2006a, 2012). The main diagnostic characteristics at the species level are based on the morphology of antlers, as the teeth of all these forms are rather homogeneous. However, the morphology and dimensions of the teeth under study are identical to those of Pirro Nord (Petronio et al., 2013) and Capena (Petronio, 1979), both referred to *Axis eurygonos* by Petronio et al. (2013). The material is scanty, but make possible an attribution to an advanced form of the late Villafranchian Italian small cervids, that is *Axis eurygonos* (*sensu* Di Stefano and Petronio,

2002) (= *Pseudodama farnetensis* sensu Azzaroli, 1992 = *Dama vallonetensis* sensu Croitor, 2006a).

A proximal fragment of a left radius (proximal maximum transverse diameter = 71.05 mm, proximal transverse diameter of the articular face = 67.58 mm, proximal antero-posterior diameter = 41.86 mm) belongs to a large-sized cervid. The Plio-Pleistocene large cervids of the Italian Peninsula have been assigned to six different genera: *Eucladoceros*, *Cervalces*, *Praemegaceros*, *Arvernoceros*, *Megaloceros* and *Alces*. The fossil of the BAR 20 section is more similar to the radii of *Praemegaceros* and *Arvernoceros* (*sensu* Croitor, 2009). However, the ratio of the transverse diameter/antroposterior diameter of the populations of *Arvernoceros giulii* from Untermassfeld (Germany) (Kahlke, 1997) and from Selvella (Italy) (classified as *Eucladoceros dicranios* by De Giuli, 1986 and Azzaroli and Mazza, 1992 but assigned to *A. giulii* by Petronio and Pandolfi, 2011) indicates a more slender cervid [ratio of the Untermassfeld specimens (8) 1.78–1.88, of the Selvella specimens (2) 1.83–1.84, ratio of our specimen 1.60]. Among the members of the genus *Praemegaceros* (see Azzaroli and Mazza, 1993; Abbazzi, 2004; Croitor, 2006b), the strongest morphological affinities (besides some minor details) are with those of Pirro Nord, assigned tentatively by Abbazzi (1996) to *Praemegaceros* cfr. *P. obscurus*. However, the paucity of the material suggests a classification as cfr. *Praemegaceros obscurus* vel *Arvernoceros giulii*.

Palethnology

In the area of the L'Aquila intermontane basin, findings of Mousterian tools or other evidence of human settlement are rare. In the Abruzzi region, lower and middle Paleolithic industries were found at high altitude localities. These human settlements contain Mousterian industry mainly correlated to MIS 3 (Grottoni di Calascio; Tozzi, 2003). At Pagliare di Sassa, within the *Fosso di Genzano Synthem* (lower Middle Pleistocene), Palombo et al. (2010) described a flake found at the bottom of the mammalian bearing deposits. In the ASB intermontane basin, evidence for more continuous settlement is from the Ponte Peschio locality, where lower and middle Paleolithic industries, as well as upper Paleolithic and Mesolithic ones, were found (Tozzi, 2003). From the same area, we found Mousterian industry within the Upper Pleistocene *Campo di Pile Synthem*.

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Figure DR1. (A) Panoramic view of the Gelasian marine deposits of the Tiber Valley to the west of the Mesozoic carbonate succession of the Fara in Sabina Mts. The Gelasian coastline corresponds to well-developed lithophaga borings in Middle Liassic deep-water limestones. (B) Panoramic view of the Belvedere surface of the Rieti Basin. The Belvedere surface corresponds to the Gelasian abandonment surface of the Rieti basin-filling (top of the Paleo-Farfa Synthem). (C) Panoramic view of the Valle Daria surface (L’Aquila Basin). The Valle Daria surface (850 m a.s.l.) represents the abandonment surface of the San Demetrio Synthem (upper Piacenzian-Gelasian).



Figure DR1 - Cosentino et al.