

## Phenotypic Features of the Domestic Pigs Bred in the Roman Settlements of Pompeii and Caralis

Paolo Manca<sup>a</sup>, Vittorio Farina<sup>a</sup>, Sergio Gadau<sup>a</sup>, Gianluca Lepore<sup>a</sup>,  
Angelo Genovese<sup>b</sup> and Marco Zedda<sup>a</sup>

<sup>a</sup> Dipartimento di Biologia Animale, Università di Sassari; <sup>b</sup> Dipartimento di Strutture, Funzioni e Tecnologie Biologiche, Università di Napoli Federico II, Italy

*Key words:* Roman period; skeletal and dental remains; osteometrics; pigs; degree of selection.

---

---

### SUMMARY

---

---

A reconstruction of the morphological features of domestic pigs from two Roman settlements is here suggested by means of the study of skeletal and dental remains, with the aim at evaluating their degree of selection in comparison with wild boars. Material was formed by 111 bone and tooth fragments and was uncovered during the excavations of Polybius' House in Pompeii and of Roman buildings in the neighbourhood of Caralis harbour (Sardinia). The remains underwent morphological examination. The eruption of permanent teeth and ossification of epiphyseal cartilages let us establish that most animals were over 18-20 months. When possible, the determination of sex was made by detecting tusk features. The presence of anthropic signs on the bone surface provides some information about slaughtering and cooking procedure in the Roman period and supports the hypothesis that the animal remnants were food remains. Osteometric analysis was carried out on long and short bones and teeth through suitable multiplicative parameters, leading to the assessment of the withers height and other main phenotypic features. Logarithmic deviation pointed out the significant osteometric differences between the domestic pigs from the two Roman settlements. These data were also compared with those from wild boars and modern crossbred wild boars X non-selected pigs. In conclusion, our data show that pigs from Caralis bear much resemblance to wild boars, whereas those from Pompeii appear to be improved, so sharing some phenotypic features of modern improved breeds.

### INTRODUCTION

As is well known, the domestic pig originated from one or more wild ancestors, like all other domestic species. Domestication of wild pigs took place in Eurasia during the 9<sup>th</sup> - 8<sup>th</sup> millennium B.C. (Epstein and Bichard, 1984), yielding a number of