

A comment on my recent article on “Middle and Late Villafranchian Vertebrates from Tuscany and Umbria”

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In my article on the “Bollettino della Società Paleontologica Italiana, Vol. 40, No. 3”, I revised my conclusions on the taxonomy of deer from Pietrafitta in Umbria, exposed in an article by myself and P. Mazza on Vol. 80 of *Palaeontographia Italica*, 1993. In that article we assumed the occurrence of two species of cervids: *Eucladoceros* cf. *dicranios* Nesti and *Megaceroides boldrinii* n. sp. I have to apologize and radically revise my older conclusions.

The deer from Pietrafitta are represented by a juvenile antlered skull, in a perfect state in spite of a light deformation, which we took as the type of a new species *Megaceroides boldrinii*, from the name of the mine worker who had collected the fossils, and of a set of rather heterogeneous fragments which we referred in part to *Eucladoceros* cf. *dicranios* (Nesti, 1841) and in part to the new species.

Later L. Abbazzi (1995) united the species *M. boldrinii* with *M. obscurus*, a species I had proposed originally with the name *Cervus obscurus*, based on rather fragmentary fossils from the Forest Bed of East Anglia.

While the conclusions of L. Abbazzi on the cervids of Farneta in Eastern Tuscany, all referred to the species *Megaceroides obscurus*, are fully valid, their union with the Pietrafitta sample, which I accepted in the article on the Bulletin of the Palaeontological Society of Italy, is in fact not warranted. The Pietrafitta sample displays an unusually wide field of individual variation, but this pattern is not fortuitous: it is the expression of a population caught in a process of morphological change, the development from the genus *Eucladoceros* to *Megaceroides*. While the type skull, a perfect juvenile specimen, displays the typical pattern of the latter genus, other fragmental fossils show a variety of changes in their antlers, unfortunately all in a more or less fragmentary state. Compare on

this score the antlers shown in plates 2 to 4. All morphological changes from *Eucladoceros* to *Megaceroides* are expressed in the figures; there is even a specimen with a double beam.

Megaceroides boldrinii is to be considered a valid taxon. Its chronological range was older than the Farneta fauna and was presumably highly restricted: the change from one genus to the following presumably took place within a very short interval. This may explain the fact that no cervids similar to the Pietrafitta sample have been found so far: they emerge, unique in their extravagant variations, and it is to be regretted that the investigation carried out by the present writer and P. Mazza was not continued in this interesting site in recent times.

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(manuscript received February 13, 2002)

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