Atti Accademia Nazionale dei Lincei

Classe Scienze Fisiche Matematiche Naturali

Rendiconti

Augusto Azzaroli

A skull of the Giant Deer Megaceros verticornis from Eastern Tuscany

Atti della Accademia Nazionale dei Lincei. Classe di Scienze Fisiche, Matematiche e Naturali. Rendiconti, Serie 8, Vol. **61** (1976), n.5, p. 485–487.

Accademia Nazionale dei Lincei

<http://www.bdim.eu/item?id=RLINA_1976_8_61_5_485_0>

Atti della Accademia Nazionale dei Lincei. Classe di Scienze Fisiche, Matematiche e Naturali. Rendiconti, Accademia Nazionale dei Lincei, 1976.

Paleontologia. — *A skull of the Giant Deer Megaceros verticornis from Eastern Tuscany.* Nota (*) del Corrisp. AUGUSTO AZZAROLI.

RIASSUNTO. — Viene descritto e figurato un interessante cranio di cervide caratteristico della parte più antica del Pleistocene medio (Galeriano), e viene riassunta la diffusione geografica e cronologica della specie in Italia, con l'elenco della fauna che la accompagna.

In 1967 Ambrosetti described a "Cromerian" fauna from the Tiber delta near Rome, and critically revised the nomenclature of giant deer of the genus *Megaceros* Owen. Reference is made to his work for the nomenclature adopted in the present paper.

In 1970 Azzaroli and Ambrosetti recorded the occurrence of "Cromerian" fossils in several localities of central and northern Italy. The use of the name "Cromerian", introduced for a pollen zone in East Anglia, is unwarranted for Italian mammalian faunas and was later replaced by the name Galerian, from a relatively rich fauna at Ponte Galeria in the Tiber delta (Ambrosetti *et al.*, 1972). Galerian deposits in the type area are comprised between two erosional phases, the Cassian (about 1 m.y.) and the Flaminian (about .7 m.y.). They are characterised by a reversed palaeomagnetic field (late Matuyama epoch), while sediments above the Flaminian hiatus have a normal polarity and belong to the Brunhes epoch (F. P. Bonadonna, private information).

Galerian faunas in Italy are characterised by the occurrence, among other species, of the primitive megacerids *Megaceros* (*Megaceroides*) *verticornis dendrocerus* Ambrosetti and *Megaceros* (*Megaceros*) *savini* (Dawkins) (= *Dolichodoryceros*, or *Praedama süssenbornensis* Kahlke), the latter being documented with certainty by an antler fragment from Ponte Galeria. The former species has been identified in the Tiber delta at Ponte Galeria and in the hills of Campo di Merlo (antlers and jaws: Ambrosetti, 1967); at Cortiglione Monferrato, Piedmont (an antler, called *Cervus pliotarandoides* by De Alessandri, 1903) and at Borgonuovo and Petrignano, in eastern Tuscany. Some jaws from Monte Oliveto near San Gimignano (Siena), described by A. Berzi (1972), might either belong to *M. verticornis* or to *M. savini*.

Petrignano is a small village on a hilltop some 7 km west of Lake Trasimeno. Late Villafranchian fossils were collected in the fluviatile sands on the slopes to the north-east of the village. The present writer saw a basal fragment of an antler, rather poor, but unmistakably belonging to *M. verticornis*, in a private collection at Petrignano. It was said to have been collected some years ago in the outskirts of the village, presumably at a higher level than the Villafranchian fossils.

(*) Presentata nella seduta del 13 novembre 1976.

Borgonuovo is a little parish church some 3 km east of the medieval abbey of Farneta and approximately 8 km north-north-west of Petrignano. An antlered skull was found there in 1958 by Mr. G. Morelli and presented to the Palaeontological Museum of Montevarchi. Although the antlers lack the upper portion and the skull has only the cranial part preserved, this is one of the finest specimens of *Megaceros verticornis* found in Italy (Pl. 1, 2). The forehead is characteristically flat between the pedicles; the brow tines are practically complete and there is a very small accessory tine on each antler close to the burr. The preserved upper portion of the left antler shows no palmation but extends in a beam with oval section, so that the specimen may be referred to the subspecies *dendrocerus* Ambrosetti.

The geological relationships of the Borgonuovo deposits to the nearby Farneta deposits are not visible owing to intensive cultivation. Although the cemetery of Borgonuovo, where the fossil was found, lies at the same height as the sand pits around Farneta that yielded the late Villafranchian fossils (Azzaroli, in the press), the fauna is different. A hippopotamus, not better identified, is represented by a fragmental jaw, and several limb bones of a very sturdy elephant have been identified by the present writer as *Elephas* cf. *antiquus*. The deposit is also somewhat different: a rather coarse sand, or fine grained conglomerate with an abundant ochraceous matrix, coarser and more intensely coloured than the whitish and rusty sands of Farneta.

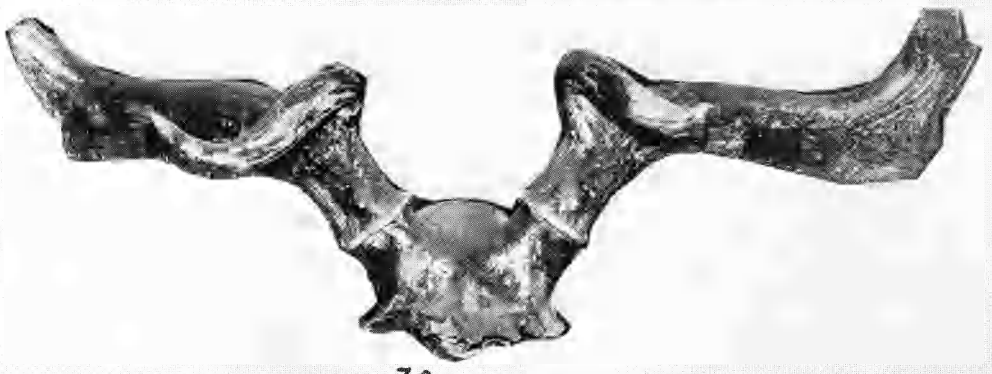
Unlike *Hippopotamus* and *Elephas antiquus*, *Megaceros verticornis*, including its subspecies *dendrocerus*, is restricted to the Galerian, of which it is the most typical representative.

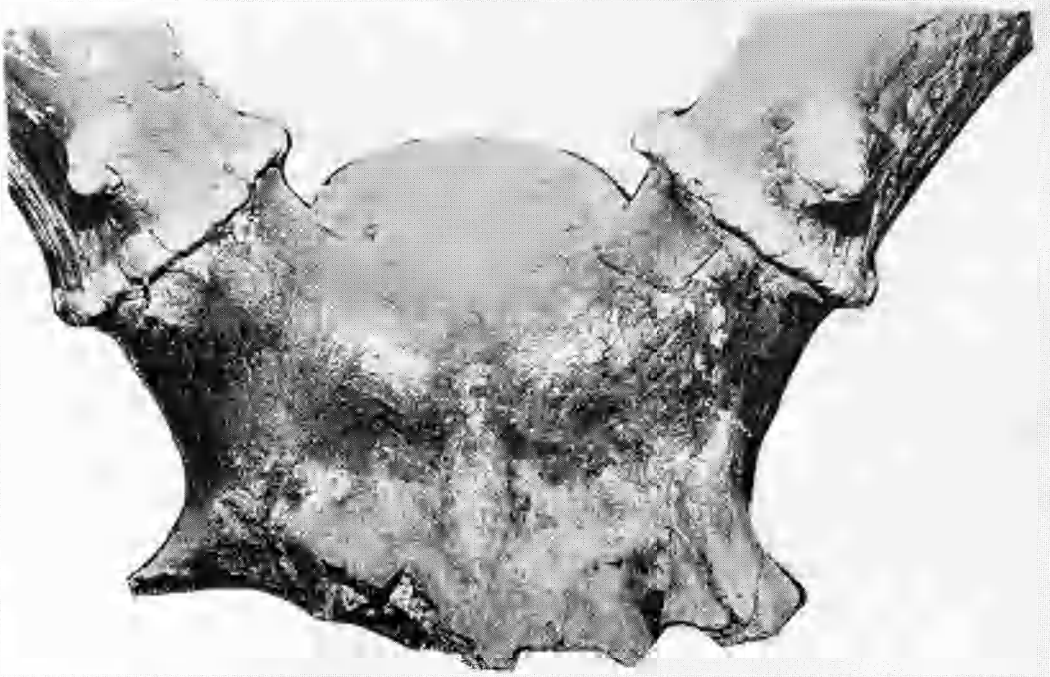
The Borgonuovo and Petrignano fossils are totally different from the late Villafranchian fossils, which they seem to overly without apparent inconformity, and bear witness to the abrupt faunal turnover that took place between the end of the Villafranchian and the Galerian, that is, during the cold phase evidenced by the Cassian retreat of the sea.

Galerian faunas in Italy are all rather poor and fragmentary. The following species have been recorded so far:

Megaceros (*Megaceroides*) *verticornis dendrocerus* Ambrosetti
Megaceros (*Megaceros*) *savini* (Dawkins)
Cervus acoronatus Beninde
Dama sp.
Bos primigenius Bojanus
Hippopotamus sp.
Equus caballus L., subsp. indet. (large)
Elephas cf. *antiquus* Falconer
Mammuthus cf. *armeniacus* (Falconer) (=*Elephas* cf. *trogontherii* Pohlig).

Hippopotamus might perhaps be a survivor from the late Villafranchian. All the other species immigrated with the Galerian and the first three are characteristic of this period, while fallow deer, ox, horse and elephant survived in the late Pleistocene.


70 cm.



REFERENCES

AMBROSETTI P. (1967) – *Cromerian Fauna of the Rome Area*, « Quaternaria », 9: 267–283. Roma.

AMBROSETTI P., AZZAROLI A., BONADONNA F. P. and FOLLIERI N. (1972) – *A Scheme of Pleistocene Chronology for the Tyrrhenian Side of Central Italy*, « Boll. Soc. Geol. Ital. », 91: 169–184.

AZZAROLI A. (in the press) – *Villafranchian Faunas in Italy and the Plio–Pleistocene Boundary*, « Giorn. di Geol. », Bologna.

AZZAROLI A. and AMBROSETTI P. (1970) – *Late Villafranchian and Early Mid–Pleistocene Faunas in Italy*, « Pal. Pal. Pal. », 8: 107–111. Amsterdam.

BERZI A. (1972) – *An Early Middle Pleistocene Fauna at Monte Oliveto (S. Gimignano, Siena, Italy)*, « Palaeontogr. Italica », 68: 28–33. Pls. IV–VI.