

European Caprinae (Ovibovini, Caprini) from the Plio-Pleistocene: new interpretations

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The Caprinae (Artiodactyla, Bovidae) are an important component of the Eurasian mammal fauna from the end of Pliocene to the beginning of Holocene. The critical revision and study of members of the Ovibovini and Caprini tribes from about 200 sites, provides new insights concerning their immigration into Western Europe, their origins and their evolution. Neodiagnoses for most of the taxa have been recently proposed and some determinations corrected, particularly those of the Pliocene and Lower Pleistocene taxa previously attributed to *Capra* (CRÉGUT-BONNOURE 2002). Seven genera and nineteen species are now identified: *Megalovis latifrons*, *Megalovis* n. sp., *Soergelia* sp., *Soergelia* nov. sp., *S. minor*, *S. brigittae*, *S. elisabethae*, *Praeovibos mediterraneus*, *P. priscus*, *Ovibos pallantis*, *Ovis* sp., *O. ammon*, *Hemitragus orientalis*, *H. albus*, *H. bonali*, *H. cedrensis*, *Capra ibex*, *C. caucasica* and *C. pyrenaica*.

Current knowledge indicates that five taxa were present at the end of the Pliocene: *M. latifrons*, *Soergelia* sp., *O. a. antiqua*, *Ovis* sp. and *H. orientalis*. Diversity subsequently increases, such that the end of the Lower Pleistocene is characterised by nine species: *Megalovis* sp., *Megalovis* nov. sp. (CRÉGUT-BONNOURE & DIMITRIJEVIĆ in prep.), *S. minor*, *S. brigittae*, *Soergelia* nov. sp. (CRÉGUT-BONNOURE & DIMITRIJEVIĆ in prep.), *P. mediterraneus*, *O. a. antiqua*, *H. cf. orientalis* and *H. albus*.

At the beginning of the Middle Pleistocene, an important turnover occurs in the Ovibovini and Caprini faunas: all Lower Pleistocene species become extinct. They are replaced by three new immigrants: *S. elisabethae*, *P. priscus* and *O.*

pallantis suessenbornensis. An increase in biodiversity occurs later, during the Mindel (Elster), indicated by the appearance of *H. bonali* and the re-immigration of *O. a. antiqua*. During this turnover, the genera are affected by an important evolutionary transformation connected to global cooling and a change in the physical environment:

- Upper Pliocene and Lower Pleistocene *Megalovis*, *Soergelia* and *Praeovibos* have moderately hypsodont cheek teeth with a thick base and lingually pinched lobes; the metapodials are elongated and slender. Middle Pleistocene *Soergelia* and *Praeovibos* have more hypsodont teeth with thinner bases. In *P. priscus* and *Ovibos* the lingual lobes become more rounded. The metapodials are more robust, and in *O. moschatus* get shorter. In *S. elisabethae* the metatarsals get longer.
- Upper Pliocene and Lower Pleistocene *Hemitragus* have moderately hypsodont teeth with thick bases that become very hypsodont and thin based in Middle Pleistocene species.

Capra immigrated into the Alps at the end of the Middle Pleistocene (Riss/Saale: *C. camburgensis*, *C. ibex macedonica*). The occurrence of *C. caucasica* in France is now confirmed, as the validity of its ancestry to *C. pyrenaica*.

Between the Upper Pliocene and the end of the Pleistocene, there is a progressive decrease in the number of taxa. A precise lifespan for each species is established and new chronological and geographical charts are proposed.

CRÉGUT-BONNOURE, E. (2002): Les Ovibovini et Caprini (Mammalia, Artiodactyla, Bovidae, Caprinae) du Plio-Pléistocène d'Europe: systématique, évolution et biochronologie. - Thèse de Doctorat d'Etat ès Sciences n° 1-2002: 441 pp., 1 vol. 686 figs., XXXIII pls., 1 vol. 212 tabs.; Université de Lyon I.

CRÉGUT-BONNOURE, E. & DIMITRIJEVIC (in prep.): The Carnivora and Bovidae from Trlica (Pljevlja, Montenegro).