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EPILEPTOBOS GEN. NOV. FOR LEPTOBOS GROENEVELDTII DUBOIS FROM THE MIDDLE PLEISTOCENE OF JAVA

by

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For a study in progress on the fossil Bovidae collected in Java by Eug. Dubois the necessity was felt to create a new genus for the inclusion of the species described as *Leptobos groeneveldtii* by Dubois (1908, p. 1261). The diagnosis is presented in this place in order that the name may be made available.

Epileptobos gen. nov.

Diagnosis: Large Bovinae with relatively broad and low skull. Horns in both sexes. Parietal extremely short, forming a sagittal crest that begins opposite the centre of the horn cores, and passes backward into a strong triangular parieto-occipital eminence, much raised above the fronto-parietal suture and overhanging the occipital. Temporal crests prominent. Occiput triangular in back view, the top of the triangle being formed by the parieto-occipital eminence. Hinder ends of temporal fossae approximating to one another to a distance about two-thirds the width of the brain case. Horn cores long, circular in cross section, placed well behind the orbits, curved backward and outward, then upward and forward. There is a slight anti-clockwise torsion (right horn core). Molars hypsodont, palate not united to vomer.

Genotype: *Leptobos groeneveldtii* Dubois. The diagnosis of this, the only known species, is that of the genus.

Horizon: Djetis beds of Java, early post-Villafranchian, Middle Pleistocene (Hooijer, 1952, p. 439; 1955, p. 5).

The holotype of *Epileptobos groeneveldtii* (Dubois) is the back part of a skull from Wadegan (Coll. Dub. no. 2766), with both horn cores entire. In his brief description of two skulls of "*Leptobos*" *groeneveldtii* in the Dubois collection (nos. 2765 and 2766) Pilgrim (1939, p. 307) notes that the divergence of the horn cores is much greater than in *Leptobos falconeri* Rütimeyer from the Upper Siwaliks. This is not so; in all the skulls of *groeneveldtii* the cores diverge at less than a right angle, 65° - 70° , just as in *L. falconeri*.

The horn cores in the two skulls mentioned differ in degree of curvature, those of Coll. Dub. no. 2765 being more recurved forward than those of Coll. Dub. no. 2766. Other skulls, however, are intermediate in this respect, and the variation is clearly of an individual nature only. The back part of a skull with portions of the horn cores from Djetis figured by Von Koenigswald (1934, p. 193, pl. III figs. 1-2) as *Leptobos cosijni* resembles the skull Coll. Dub. no. 2766 so very closely as to leave no doubt as to their conspecificity, whereby *Leptobos cosijni* Von Koenigswald becomes a synonym of *Epileptobos groeneveldtii* (Dubois), as already stated by Pilgrim (1939, p. 303).

Leptobos dependicornus Dubois (1908, p. 1262), which Dubois considered the female of *groeneveldtii*, needs not concern us in this place, as it is the female of *Bibos palaesondaicus* Dubois (l.c.).

The following are the principal differences between *Leptobos* and *Epileptobos*. In *Leptobos*, confined to the Villafranchian of Europe and to the likewise Villafranchian Pinjor zone of the Upper Siwaliks, the females are hornless. The parietal is less shortened than that in *Epileptobos*; the supra-occipital is deflected out of the plane of the parietal toward that of the occipital (to a less extent in the European species than in *L. falconeri* of the Pinjor zone: Pilgrim, 1939, p. 307); it never forms part of a protuberance overhanging the occiput as it does in *Epileptobos*. The occiput in *Leptobos* is semicircular (Rütimeyer, 1878, pl. VI fig. 9) instead of triangular. The temporal fossae in *L. falconeri* approach one another on the occiput more closely than in *Epileptobos*, to a distance less than one-half the braincase width. The horn cores in *Leptobos* are shorter, and shifted less far behind the orbits than in *Epileptobos*. In some species of *Leptobos* (*L. vallisarni*: Merla, 1949, p. 67) the molars are termed brachyodont; in others they are hypsodont, although not to the degree seen in *Epileptobos* and in the Taurina.

In the sum of its characters *Epileptobos* shows an advance on the European and Pinjor species of *Leptobos* toward *Bos* and *Bibos*. It differs so much more from the species of *Leptobos* than these species differ from one another as to make a generic distinction desirable. *Epileptobos* occupies a

position intermediate between the Leptobovina and the Taurina of Pilgrim (1939, p. 253). *Leptobos* is nowadays considered not to have been ancestral to any of the later Taurina (Pilgrim, 1939, p. 252; Merla, 1949, p. 146), and *Epileptobos* likewise does not seem to have given rise to these forms. Its occurrence in the Djetis beds of Java, in association with both *Bibos* and *Bubalus*, is later than that of *Leptobos*, which is the only bovine in the Villafranchian of Europe (Pilgrim, 1938, pp. 451, 466; 1944, p. 29).

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