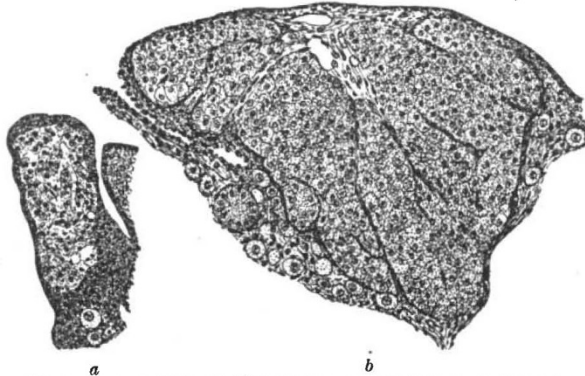


of the numerous eggs⁴ present in the uterus after ovulation.

Ancestrus in *Elephantulus* extends from March or April until the end of July or the beginning of August.

Recently in examining our series No. 428 of an animal killed in April 1939, we found that both the ovaries and uterus presented an appearance typical



TWO CORPORA LUTEA OF *ELEPHANTULUS* ASSOCIATED WITH EGGS IN THE UTERUS IN APPROXIMATELY THE SAME STAGE OF DEGENERATION.

(a) From an animal in early ancestrus; (b) from an animal in the menstrual cycle. ($\times 125$.)

of ancestrus. To our surprise, however, we discovered degenerating eggs in the uterus. In an œstrous animal such eggs are normally associated with well-developed corpora lutea in the ovary and the stage of dense stroma in the uterus. On carefully re-examining the ovaries we discovered curious cellular bodies which were neither corpora lutea of the normal menstrual cycle nor corpora lutea of a remote or recent pregnancy (see accompanying illustrations).

Obviously this animal ovulated just a little while before the precipitous onset of ancestrus inhibited the whole post-ovulatory process and the normal development of the corpora lutea.

From these facts we venture to conclude the following:

(a) Ancestrus inhibits the pituitary in respect of its gonadotropic hormones.

(b) The continued development of the menstrual corpus luteum after ovulation is dependent upon the presence of a gonadotropic hormone from the pituitary.

(c) This hormone maintaining lutein growth is acutely inhibited by the factor or factors responsible for ancestrus.

(d) The onset of ancestrus in any individual animal is a relatively acute process.

C. J. VAN DER HORST.
JOSEPH GILLMAN.

University of the Witwatersrand,
Johannesburg.
Dec. 31.

¹ *S. Afr. J. Med. Sci.*, 5, 73 (1940).

² *S. Afr. J. Med. Sci.*, 6, 27 (1941).

³ *Anat. Rec.*, 80, 443 (1941).

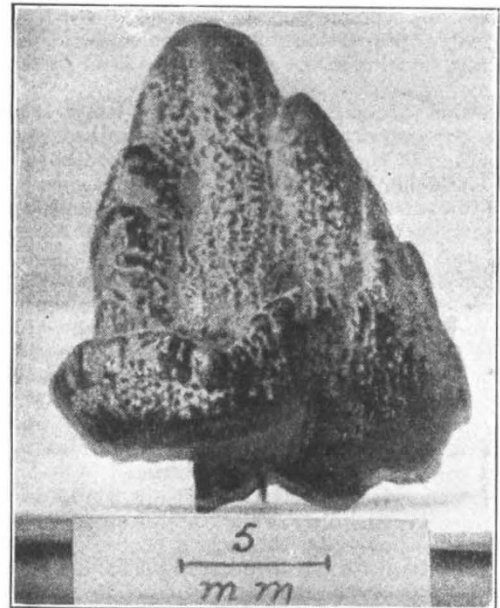
⁴ *S. Afr. J. Med. Sci.*, 7 (in the press) (1942).

Anthracotheriidae in Ceylon

In 1941 a collection of fossils made by Mr. M. C. Wickremasekera from the Ratnapura beds near Kuruvita in Ceylon was sent to the Colombo Museum by Mr. D. N. Wadia, Government mineralogist. Examination revealed the premolar tooth of a member of the family Anthracotheriidae of the order

Artiodonta. Dr. E. H. Colbert, of the American Museum of Natural History, to whom sketches and photographs of the tooth were afterwards sent, agrees with my identification and this confirms a discovery of considerable importance to Ceylon geology. In the first article¹ describing mammalian fossils from Ceylon it was suggested that they were of late Pliocene or early Pleistocene age.

The subsequent discovery that remains of a race of the most recent member of the Proboscidea, namely, *Elephas maximus* Linné, occur with those of the hippopotamus, suggested that the Ceylon fossil beds are much younger, but the more advanced mineralization of the present discovery suggests that the age of these deposits dates back to the Pinjor or even farther. A feature of unusual interest is that in Ceylon fossils of anthracothere, hippopotamus, *Elephas maximus* and bovines occur in the gem-bearing bed which ranges in thickness between six inches and three feet, whereas in the Siwaliks the last of the Anthracotheriidae occurs in association with the hippopotamus over a thickness of about seven thousand feet of fossiliferous beds, after which the hippopotamus survives alone in later beds which are about another three thousand feet thick. The Siwaliks are separated from Ceylon by nearly 25° of latitude and should the Ceylon tooth prove to belong to a local subspecies of *Merycopotamus dissimilis* (F. et C.) it will be of importance in correlating the fossil deposits of the Pinjor horizon of India, the Upper Irrawaddy beds of Burma, the Tji Djoelang horizon of Java, and the Ratnapura deposits of Ceylon.



The dimensions of the tooth are as follows: length of base 32 mm., width of base 18 mm., height above root 30 mm. The specimen was obtained from the debris at the mouth of a gem pit where the gem-bearing bed, which is usually also fossiliferous, lay at sixteen feet below the surface.

P. E. P. DERANIYAGALA.
Colombo Museum,
Ceylon. Jan. 1.

¹ Deraniyagala, P. E. P., *Geol. Mag.*, 73, 316 (1936).