

ZOOLOGISCHE MEDEDELINGEN

UITGEGEVEN DOOR HET

RIJKSMUSEUM VAN NATUURLIJKE HISTORIE TE LEIDEN
(MINISTERIE VAN CULTUUR, RECREATIE EN MAATSCHAPPELIJK WERK)

Deel 42 no. 12

21 juni 1967

THE STATUS OF ACERATHERIUM LEAKEI DERANIYAGALA

by

D. A. HOOIJER

Rijksmuseum van Natuurlijke Historie, Leiden

In a paper on Miocene Congo mammals (Hooijer, 1963) I described and figured a number of rhinoceros specimens, including a P⁴, an M¹ and an M³ from the Karugamania region, Lake Albert, Western Rift Valley (pl. 6 fig. 1-3, pl. 7 fig. 1, 3, 4, 5, 8, pl. 8 fig. 2) as *Aceratherium acutirostratum* (Deraniyagala), an upper incisor from the same region (pl. 7 fig. 2) as *Rhinocerotidarum* gen. et spec. indet., and an M² from the Sinda-Mohari region, Lower Semliki area (pl. 8 fig. 4-6) as *Aceratherium* cf. *tetradactylum* (Lartet). Later, with rich collections from the East African Miocene available through the courtesy of Dr. L. S. B. Leakey, I corrected some of these identifications, referring the Lake Albert and Sinda upper I and M² to *Brachypotherium heinzelini* Hooijer, 1963 (Hooijer, 1966: 142-143).

Now I find that Deraniyagala (1965: 8) has created a new species, named *Aceratherium leakei*, listing all of the above mentioned teeth as "cotypes", no holotype having been designated among this heterogeneous lot. I hereby designate the P⁴ from Karugamania (Hooijer, 1963, pl. 6 fig. 1-3) as lectotype. Fortunately, Deraniyagala's naming does not invalidate my new specific name *Dicerorhinus leakeyi* Hooijer (1966: 122) as it was proposed in a different genus. However, in the present case the creation of a new species appears to be totally unjustified. Let us for convenience tabulate the various identifications as follows:

	Hooijer, 1963	Deraniyagala, 1965	Hooijer 1966
P ⁴ :	<i>Aceratherium acutirostratum</i>	<i>A. leakei</i>	<i>A. acutirostratum</i>
M ¹ :	<i>Aceratherium acutirostratum</i>	<i>A. leakei</i>	<i>A. acutirostratum</i>
M ³ :	<i>Aceratherium acutirostratum</i>	<i>A. leakei</i>	<i>A. acutirostratum</i>
I sup.:	Rhin. gen. et spec. indet.	<i>A. leakei</i>	<i>Brachypotherium heinzelini</i>
M ² :	<i>A. cf. tetradactylum</i>	<i>A. leakei</i>	<i>Brachypotherium heinzelini</i>

The Lake Albert P⁴, M¹ and M³ do agree in all visible characters with their homologues in the holotype skull of "*Turkanatherium*" *acutirostratus* Deraniyagala repeatedly figured by Deraniyagala (lastly in 1965) as listed (Hooijer, 1966: 136). The differences between the Congo teeth and those of "*Turkanatherium*" (an unnecessary synonym of *Aceratherium*) alluded to by Deraniyagala (1965: 8), as the good photographs of *A. acutirostratum* I have the disposal of show, are more apparent than real, and of no significance. Deraniyagala (1965: 8) writes: "The close resemblance of teeth to each other in two different species is no guarantee that they cogenetic as has been seen in Pleistocene elephants such as *Palaeoloxodon*, *Hypselephas* and *Elephas*", and I could not agree more. The skull of Deraniyagala's species, however, is a characteristic *Aceratherium* skull. It is claimed to be of the female sex, having slender hornless nasals and lacking the upper incisors; the skull remains from R. 1, Rusinga, are those of a hornless individual as well, but the male may have carried horns as shown in Deraniyagala's reconstruction (Deraniyagala, 1965, fig. 2). The Turkana *Aceratherium* combines the shallow naso-maxillary notch found in the Aquitanian *Aceratherium lemanense* (Pomel) of Europe with the elevated occiput found in the Pontian *Aceratherium incisivum* (Kaup) of that continent. Its teeth are structurally more advanced than those in the European Oligocene *Aceratherium lemanense* (known under various names, vide Hooijer, 1966: 140). As I concluded (Hooijer, 1966: 186) Burdigalian or Vindobonian, at any rate Miocene, would seem the most fitting age for this species.

Originally, Deraniyagala (1951: 134) held the age of "*Turkanatherium*" to be Pliocene, but in 1955 he records a bovine horn core from the surface at Moruaret Hill and suggests that the Turkana fossils "are not Miocene as is generally believed but Pleistocene and of the same age as those of Olduvai gorge" (Deraniyagala, 1955: 15). Later again (Deraniyagala, 1965: 7) "*Turkanatherium*" is stated to be of Pliocene age, a statement that has been refuted by Arambourg (1959: 74).

The area of Moruaret Hill is complicated geologically, and the surface find of a bovine horn core does not prove that the Turkana rhinoceros is post-Miocene, although it may well be somewhat later than those of most of the Rusinga sites. The consensus of opinion is that horned bovids did not appear in Africa before the end of the Miocene, that is, in the Pontian (early Pliocene in the sense of most authors except for the French ¹)).

¹) Cooke (1963) said that Arambourg had found antelopes with incipient horns in the "Upper Miocene" of Wad el Hammam in Algeria, but this is Lower Pliocene in our opinion.

In conclusion, I still hold that the upper teeth from the Karugamania region, Lake Albert, Western Rift Valley in Congo (Hooijer, 1963: 43), as well as the remains from Rusinga Island (R. 1, R. 2-4, Rs. 91, R. 107, Gumba, Kamasengere, and S. of Kiahera Hill), from Ngira, Karungu, all in Kenya, and from Napak I in Uganda (Hooijer, 1966: 136-142) represent *Aceratherium acutirostratum*, first described by Deraniyagala from the Turkana Beds at Moruaret Hill near Losodok, W. of Lake Rudolf in Kenya. The newly proposed "*Aceratherium leakei*" of Deraniyagala's, the hypodigm of which is a mixture of *Aceratherium acutirostratum* (Deraniyagala) and *Brachypotherium heinzlini* Hooijer, by the present type designation becomes a subjective synonym of the former of the two. The erection of *Aceratherium leakei* has not served any useful purpose.

REFERENCES

- ARAMBOURG, C., 1959. Vertébrés continentaux du Miocène supérieur de l'Afrique du Nord. — Publ. Serv. Carte Géol. de l'Algérie, n.s., Paléontologie, Mém. 4: 1-161, pl. 1-18, fig. 1-52.
- COOKE, H. B. S., 1963. (Discussion). In: F. C. HOWELL & F. BOURLIÈRE (editors), African Ecology and Human Evolution: 554, Chicago (Aldine Publ. Co.).
- DERANIYAGALA, P. E. P., 1951. A hornless rhinoceros from the Mio-Pliocene deposits of East Africa. — Spolia Zeylanica 26: 133-135, pl. 1.
- , 1955. Some extinct elephants, their relatives and the two living species: 1-161, pl. 1-48, fig. 1-13. Colombo (Ceylon Nat. Mus. Publ.).
- , 1965. A stone-age human and a fossil rhinoceros from the Turkana district, East Africa, that are in the Colombo Museum. — Spolia Zeylanica 30: 1-8, pl. 1-3, fig. 1-2.
- HOOIJER, D. A., 1963. Miocene Mammalia of Congo (with a chapter by A. GAUTIER and J. LEPERSONNE). — Ann. Mus. Royal de l'Afrique Centrale, Tervuren, Belgique (Sci. Géol.) 46: I-IX, 1-77, pl. 1-10, fig. 1-8.
- , 1966. Miocene rhinoceroses of East Africa. — Bull. Brit. Mus. (Nat. Hist.) (Geol.) 13: 117-190, pl. 1-15.