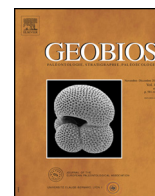




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Palaeontology of the upper Miocene vertebrate localities of Nikiti (Chalkidiki Peninsula, Macedonia, Greece) Rhinocerotidae[☆]



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ABSTRACT

Although the Nikiti 2 (NIK) mammal collection is rich in large fossil vertebrates, rhinocerotid's remains are restricted to both tooth rows of a mandible. The teeth are heavily worn and the preservation quite well. The morphology of the teeth indicate close similarities to the horned-rhinoceros “*Diceros*” *neumayri* (Osborn, 1900). The metrical comparison of the NIK teeth with the two well-known rhinocerotids from the late Miocene of Greece, “*D.*” *neumayri* and *Dihoplus pikermiensis*, confirms its attribution to the first one. “*D.*” *neumayri* is well known from the Vallesian and Turolian of Greece and adjacent countries. The geographic extension of “*D.*” *neumayri* indicates that it is mainly known from the Balkan Peninsula and Asia Minor; it is also referred from Moldova and Ukraine as well as from Iran.

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1. Introduction

Since the beginning of the 1990s the locality of Nikiti 2 (NIK; Macedonia, Greece) provided a rich mammal fauna which includes a number of specimens and taxa, mainly equids and bovids. Although the long-time excavations in NIK, rhinocerotid specimens remained very scarce. This article is dealing with the description, comparison and determination of the rhinocerotid material found in NIK. More information about the stratigraphy, fauna and age of the NIK locality is given in Koufos (2016) and Koufos et al. (2016).

2. Material and methods

The measurements were taken using a digital caliper; all are given in mm with an accuracy of 0.1 mm. The dental nomenclature follows Peter (2002). The studied material is housed in the Laboratory of Geology and Palaeontology, University of Thessaloniki (LGPUT).

Abbreviations: **AMPG**, Athens Museum of Palaeontology and Geology; **HLMD**, Hessisches Landesmuseum, Darmstadt, Germany; **IPUW**, Institut für Paläontologie der Universität Wien; **LGPUT**, Laboratory of Geology and Paleontology, University of Thessaloniki; **PIK**, Pikermi; **MRG**, Maragheh; **NHMW**, Naturhistorisches

Museum Wien; **NIK**, Nikiti 2; **NKT**, Nikiti 1; **PMMS**, Palaeontological Museum Mytilinii, Samos; **PNT**, Pentalophos 1; **SAM**, Samos.

3. Systematic palaeontology

Order Perissodactyla Owen, 1848
 Family Rhinocerotidae Owen, 1845
 Subfamily Rhinocerotinae Owen, 1845
 Genus *Diceros* Gray, 1821
 “*Diceros*” *neumayri* (Osborn, 1900)

Locality: Nikiti 2 (NIK), Chalkidiki, Macedonia, Greece.

Age: Early Turolian, MN 11, late Miocene.

Material: Right and left lower tooth row of the same mandible, NIK-1669.

Measurements: See Table 1.

Description: The available material includes the two lower tooth rows of the same mandible, without the mandibular bone (Fig. 1). The mandible was found near the surface, just below a lentisk shrub, the roots of which crushed and destroyed the bone. The mandible belongs to an old individual and the teeth are heavily worn (Fig. 1(b, d)).

p2. The two p2 are well preserved, having triangular occlusal outline. The paraconid is well developed and acute. The talonid is wider than the trigonid. The occlusal surface is entirely worn and the enamel restricted to its borders.

p3. Both p3 are heavily worn and lack part of their distal end. The trigonid and talonid are slightly angular and the previous is

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Table 1

Measurements and indices for the lower teeth of various rhinocerotids. L: length; W: width.

	<i>C. simum</i>		<i>"Diceros" neumayri</i>				<i>Dihoplus pikermiensis</i>			<i>Dihoplus schleimacheri</i>
	Recent	Nikiti 2	Samos, ?Mytilinii 1, MTLA	Pentalophos 1	Maragheh	Kerassia	Pikermi	Pikermi	Eppelsheim	
		NIK-1669	PMMS-106	PMMS-108	PNT-34	MRG-A4791, TYPE	K4D-387	IPUW-PIK-342	AMPG-PIK-3691/91	HLMD-DIN-1929
	Guérin (1980)	This work	Giaourtsakis (2009)		Geraads and Koufos (1990)	Giaourtsakis et al. (2006)				
Lp2	35.8	28.6	–	30.8	26.6	31.7	–	–	33.2	31.2
Lp3	41.1	38.2	34.7	38.1	36.1	41.5	37.3	37.5	37.4	36.5
Lp4	44.6	41.5	41.3	40.7	39.3	46.0	40.2	38.2	44.3	42.3
Lm1	49.2	46.2	43.2	45.5	44.6	49.1	46.0	43.2	46.5	45.4
Lm2	55.5	52.2	50.2	50.9	48.2	54.1	48.4	47.9	52.3	47.8
Lm3	57.8	50.1	53.3	52.4	52.1	56.2	47.6	44.3	51.3	46.9
Wp2	22.2	18.3	21.5	21.5	19.1	16.7	–	–	22.9	21.0
Wp3	26.7	29.0	27.5	29.2	31.5	28.2	29.5	24.2	–	27.2
Wp4	29.2	32.2	31.2	32.95	33.9	31.0	33.1	28.5	33.5	30.2
Wm1	30.8	35.4	33.9	31.6	32.9	33.3	37.2	29.8	35.8	33.6
Wm2	30.8	34.3	37.5	35.9	33.3	35.3	35.5	34.3	35.4	34.8
Wm3	30.1	30.5	33.6	33.5	29.8	33.8	30.3	31.4	32.6	30.8
Lp2-p4	114.7	104.8	102.0	106.2	102.5	116.3	110.0	–	116.8	109.6
Lm1-m3	153.1	137.0	144.9	150.8	143.1	158.9	141.4	135.8	150.4	143.8
Lp2-m3	264.3	241.0	247.0	256.0	243.7	278.0	252.0	–	270.5	250.1
Lp2/Lp3	–	74.9	–	80.8	73.6	76.4	–	–	88.8	85.48

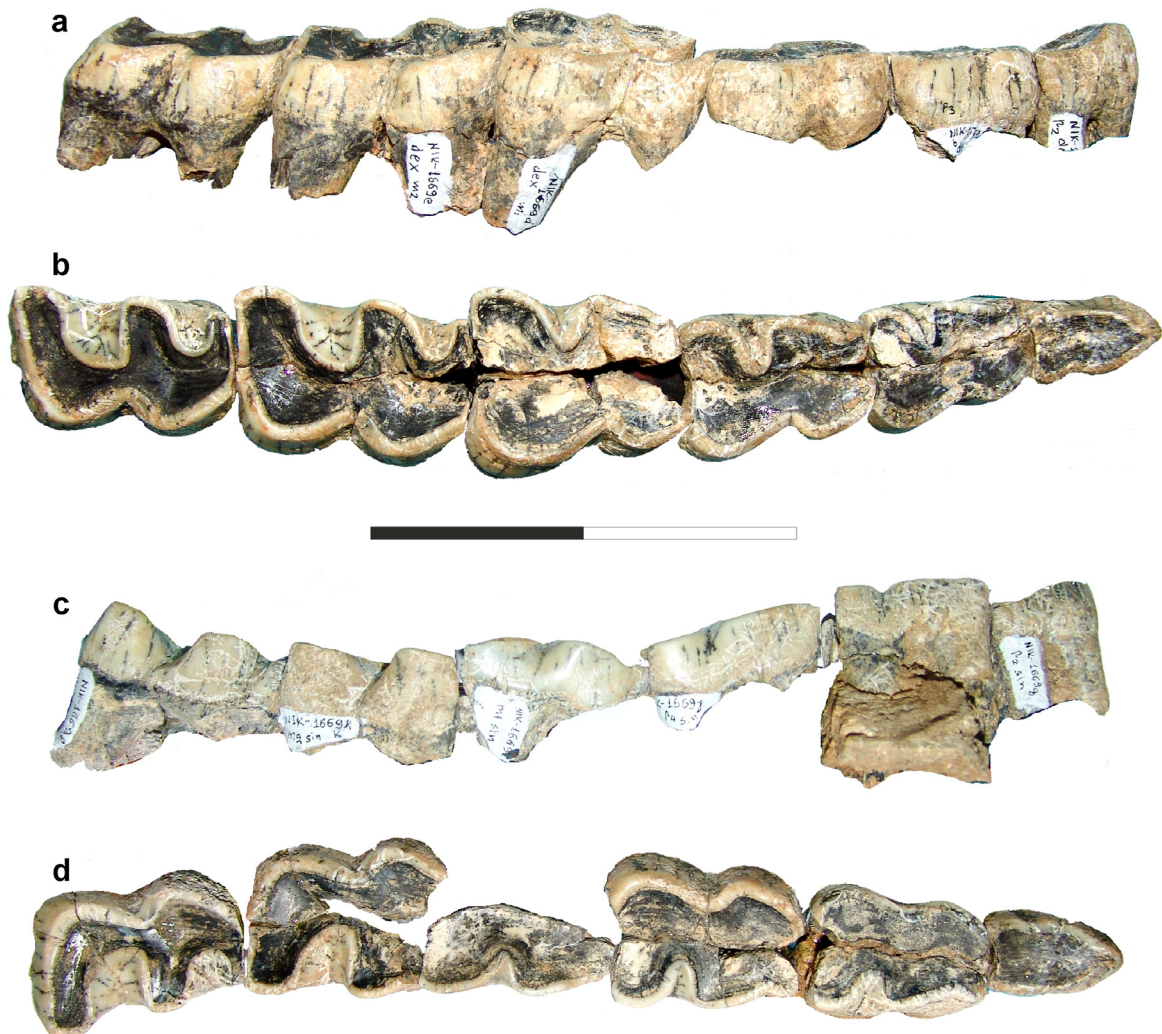


Fig. 1. *"Diceros" neumayri*, Nikiti 2 (NIK), Chalkidiki, Macedonia, Greece; Early Turolian, MN 11. **a, b.** Right lower tooth row, NIK-1669; **a:** buccal view; **b:** occlusal view. **c, d.** Left lower tooth row, NIK-1669; **a:** lingual view; **b:** occlusal view. Scale bar: 10 cm.

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