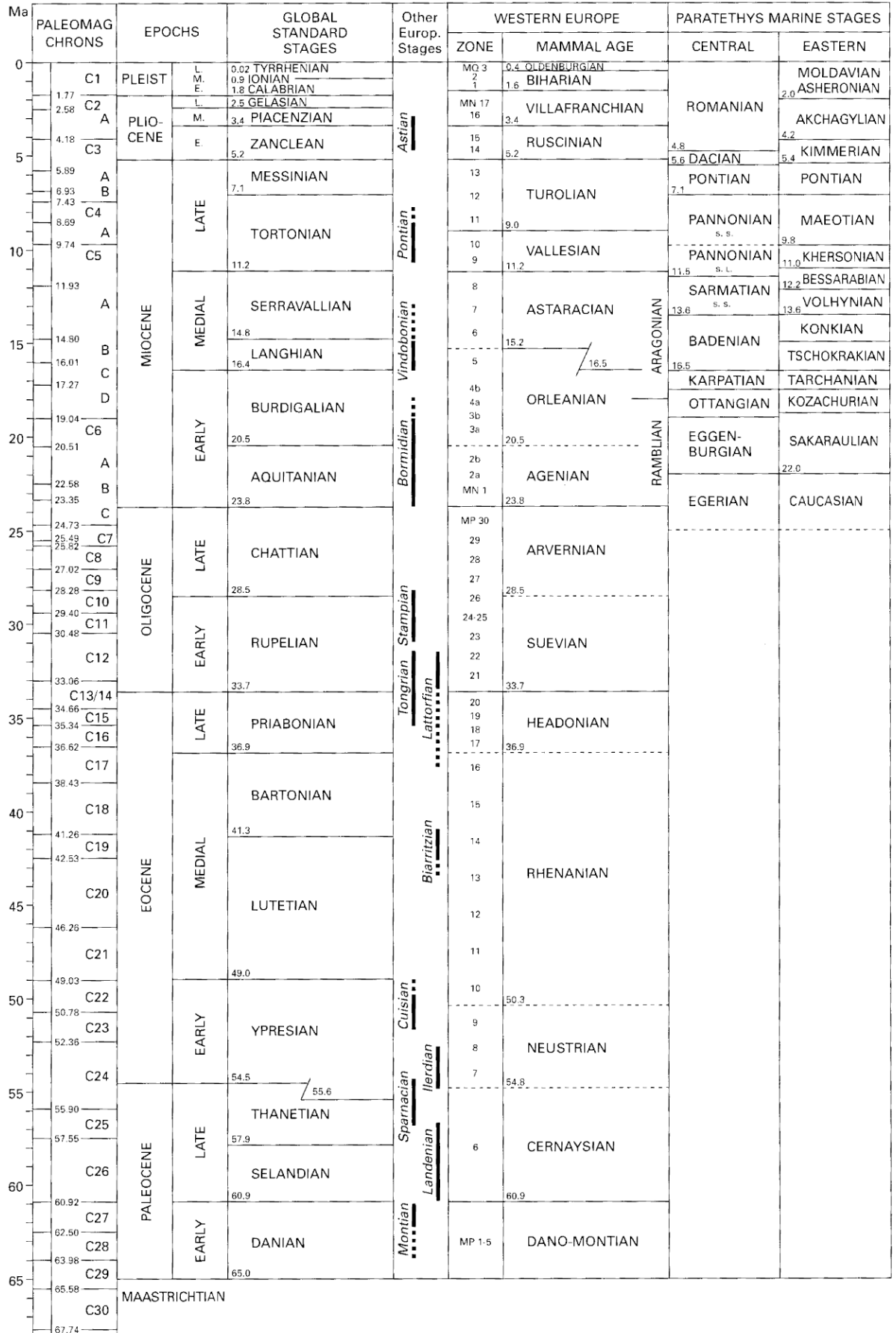


Time Chart



Eric Delson

John A. Van Couvering

ASIA		AFRICA		AMERICAS		PALEOMAG CHRONS
SOUTHERN	EASTERN	MAMMAL AGE	Example sites	NORTH	SOUTH	
1.5 NARMADA	0.9 ZHOUKOU	0.15 NAIWASHAN	Kibish	1.8 R'LABREAN	0.8 LUJANIAN	C1
2.5 PINJOR	2.5 NIHEWANIAN	1.0 NATRONIAN	Bodo	1.8 IRVINGTONIAN	1.2 ENSENADAN	C2
3.4 TATROT		2.52 TURKANAN	Narikotome		3.0 UQUIAN	A
	YUSHEAN	4.0 AFARIAN	Oiduval	4.7 BLANCAN	4.0 CHAPADMALALAN	C3
DHOK PATHAN	5.2	5.0 KERIAN	Hadar, Maka		6.8 MONTE-HERMOSAN	A
		7.0 BARINGIAN	Laetoli	9.0 HEMPHILLIAN	9.0 MONTE-HERMOSAN	B
7.8 NAGRI	BAODEAN	9.0 SUGUTAN	Kanapoi, Aramis		9.74 CHASICOAN	C4
9.8		11.2 TUGENIAN	Lothagam	11.5 CLARENDONIAN	11.8 MAYOAN	A
		12.8 TINDERETIAN	Lukeino		13.8 LAVENTAN	C5
13.5 CHINJI	11.2	15.3 KISINGIRIAN	Nakali	15.9 BARSTOVIAN	15.5 COLLONCURAN	A
	TUNGGURIAN	19.0 XIEJIAN	Samburu		16.3 FRIASIAN	B
KAMLIAL-MANCHAR	15.2	23.8 TABEN-BULUKIAN	Ch'orora	20.0 HEMING-FORDIAN	17.5 SANTACRUCIAN	C
16.0		33.7 SHANG-DOLIAN	Ngorora A-C		19.0 COLHUEHUAPIAN	D
18.0 DERA BUGTI	19.0	36.9 SHARA-MURUNIAN	Berg Aukas	30.0 WHITNEYAN	21.0	C6
		41.3 IRDIN-MANHAN	Fort Ternan	32.0 ORELLAN	24.73 DESEADAN	A
		49.0 BUMBANIAN	Maboko	33.7 CHADRONIAN	25.49	C8
		54.8 GASHATAN	Arrisdriift	37.0 DUCHESNIAN	25.82	C9
		55.5 NONGSHANIAN	Moghara	40.5 UINTAN	27.02	C10
		56.0 SHANGUAN	Muruarot	46.0 BRIDGERIAN	28.28	C11
			Rusinga	49.0 WASATCHIAN	29.40	C12
			Songhor	50.3	30.48	C13/14
			Napak	54.8	31.5	C15
			Songhor	55.5	33.06	C16
			Songhor	56.0 CLARKFORKIAN	34.66	C17
			Songhor	57.0	35.34	C18
			Songhor	57.5	36.62	C19
			Songhor	59.0	38.43	C20
			Songhor	60.7	41.26	C21
			Songhor	61.0 "PELIGRAN"	42.53	C22
			Songhor	62.5	46.26	C23
			Songhor	63.0	49.03	C24
			Songhor	64.0	50.78	C25
			Songhor	64.5	52.36	C26
			Songhor	64.5	55.90	C27
			Songhor	64.5	57.55	C28
			Songhor	64.5	60.92	C29
			Songhor	64.5	62.50	C30
			Songhor	64.5	63.98	
			Songhor	64.5	65.58	
			Songhor	64.5	67.74	

Time scale used in this encyclopedia. The Global Standard Stages are formal subdivisions of Cenozoic epochs defined in western European stratotypes; vertically oriented terms refer to marine stage names used incorrectly (but often) in the literature as mammalian zones. The age-calibration of the stage boundaries and of the paleomagnetic record follows Berggren, W.A., Kent, D.V., Swisher, C.C., III, and Aubry, M.-P. 1995 (in W.A. Berggren, et al., eds., SEPM Society for Sedimentary Geology, Special Publication 54). Normal and reversed intervals within the paleomagnetic chrons are not indicated. The correlation of North American, South American, European, and (Eastern) Asian Land Mammal Ages to this time scale is that of M.C. McKenna and S.K. Bell, 1997. Classification of Mammals Above the Species Level, Columbia University Press. For Europe, the set of numbered MN (Mammalian Neogene) and MP (Mammalian Paleogene) zones subdivides the Cenozoic even more finely. Land Mammal Ages for Africa are based on characterizations summarized in the entry AFRICA. For Africa and the Paleogene of Southern Asia, specific sites with primates are shown as well. Oblique broken lines represent uncertainty as to the boundary between successive time units. Shaded intervals indicate gaps in the local stratigraphic record. The PLEISTOCENE time scale is shown in greater detail in that entry.

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Editors

Eric Delson

Lehman College, City University of New York
American Museum of Natural History

Ian Tattersall

American Museum of Natural History

John A. Van Couvering

American Museum of Natural History

Alison S. Brooks

George Washington University
National Museum of Natural History