

S A I P A N		INDONESIAN FAUNAL ZONATION (van Bemmelen, 1949, p. 79-103, 108)			EUROPEAN EQUIVALANTS AS PUBLISHED				PROBABLE SERIES AND ZONE EQUIVALENTS (this report)	TENTATIVE EUROPEAN STAGE EQUIVALENTS (this report)
Nature of rocks and sediments	Formation or unit	Mammals (after von Koenigswald)	Mollusks (after Martin and Oostingh)	Foraminifera (after van der Vlerk, Umbgrove, and others)	Umbgrove 1931, p. 73	Glaessner 1943	van der Vlerk 1948	van Bemmelen 1949, p. 108		
Limesand, alluvium, etc.	Post-Tanapag sediments	Recent Sampong fauna			RECENT			HOLOCENE	QUATERNARY	RECENT
Coral-algal reef limestone	Tanapag limestone, less than 50 feet	Ngandong fauna			PLEISTOCENE			PLEISTOCENE	QUATERNARY	PLEISTOCENE
Reworked volcanic sediments on terrace surfaces	Post-Mariana terrace deposits	Trinil fauna								
Clastic and coral-algal limestone	Mariana limestone, 500± feet maximum above sea level	Djetis fauna	Bantamian		PLIOCENE			Astian Plaisancian Pontian	PLIOCENE	Sicilian Astian Plaisancian
Reworked volcanic sediments on highest terrace surfaces	Older terrace deposits(?) (a veneer)	Kali-Glagah fauna	Sondian							
		Tji-Djulung fauna	Cheribonian	h						
?	?				MIOCENE	Pontian		Sarmatian Vindobonian Burdigalian Aquitanian Aquitanian	MIOCENE	Pontian Sarmatian
		MIOCENE MAMMAL ZONES OF JAPAN (Takai, 1939)	Tjiodengian (restricted)	g						
		Preangerian (Njalindung and Tjilang)	f <sub>3</sub>							
		Togarian	f <sub>2</sub>							
		Rembangian (Glaessner 1943, restricts to f <sub>1-2</sub> )	f <sub>1</sub>							
		Hiramakian	e <sub>5</sub>							
			e <sub>4</sub>							
			e <sub>3</sub>							
			e <sub>2</sub>							
			e <sub>1</sub>							
Clastic orbitoidal limestones in six facies, and Machegit conglomerate and Donni sandstone members	Tagpochau limestone, 1000 feet maximum above sea level				MIOCENE			Aquitanian	MIOCENE	Aquitanian
					OLIGOCENE			Stampian Sannosian	OLIGOCENE	Chattian Rupelian Tongrian
Interbedded andesitic flows and marine tuffs	Fina-sisu formation, more than 400 feet			d						
				c						
Clastic camerinid limestones	Matansa limestone, 500± feet				EOCENE			Ludian Bartonian Lutetian Ypresian	EOCENE	Ludian Bartonian Lutetian Ypresian
Conglomerate, sandstone, breccia, tuff, and minor limestone	Densinyama formation, 800± feet	Nanggulan		b						
Conglomerate, sandstone, tuff, breccia, and andesitic lava	Hagman formation, 1500± feet									
				a						
Dacitic breccia, tuffs, and flows	Sankakuyama formation, more than 1800 feet				EOCENE			(Missing)	PALEOCENE	Thanetian Montian
Paleocene not recognized. Here to be considered loosely as part of Eocene						Thanetian				Thanetian
						Montian				Montian

STRATIGRAPHIC UNITS OF SAIPAN COMPARED WITH STANDARD FAUNAL AND STAGE ZONATION