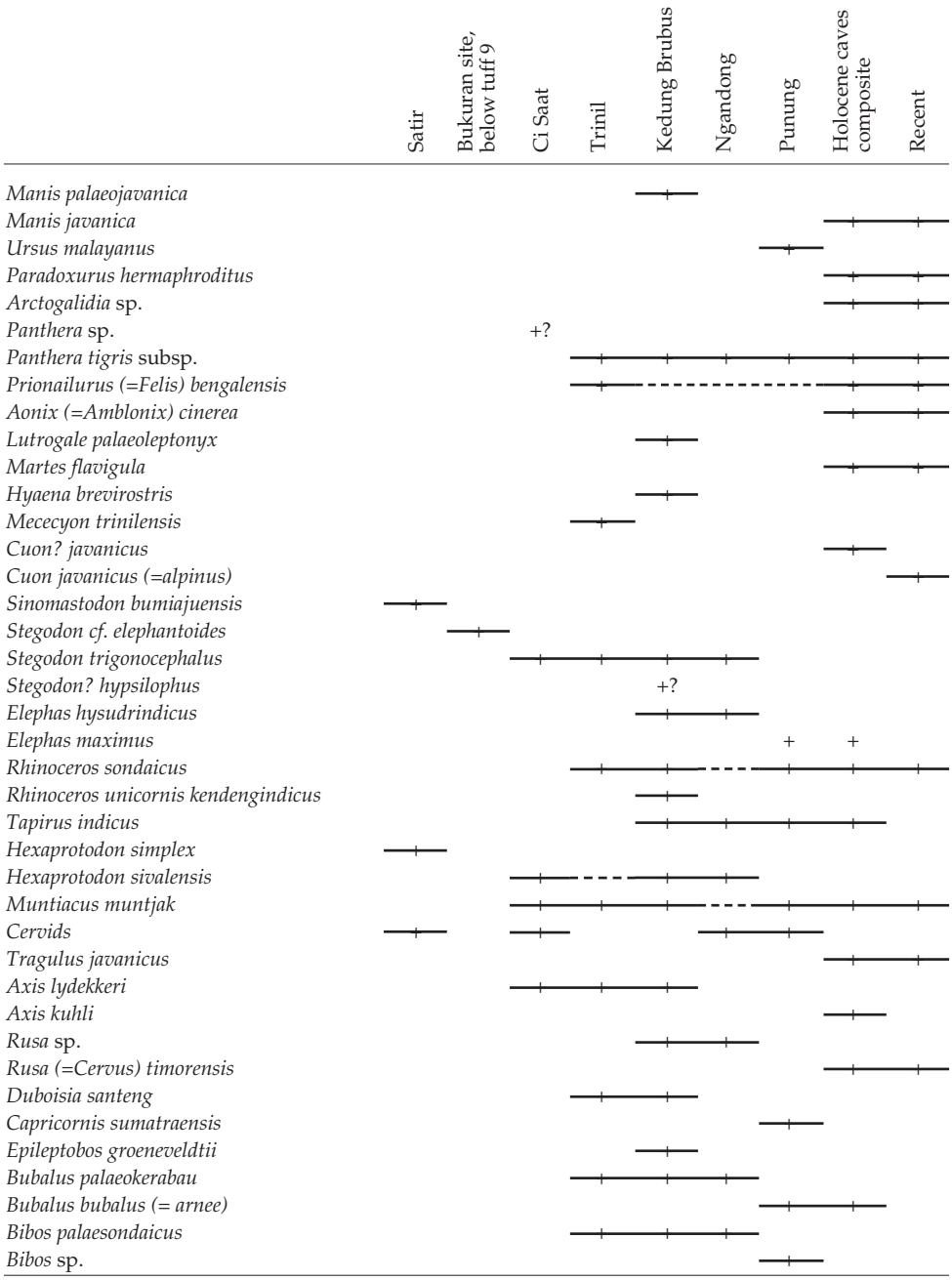
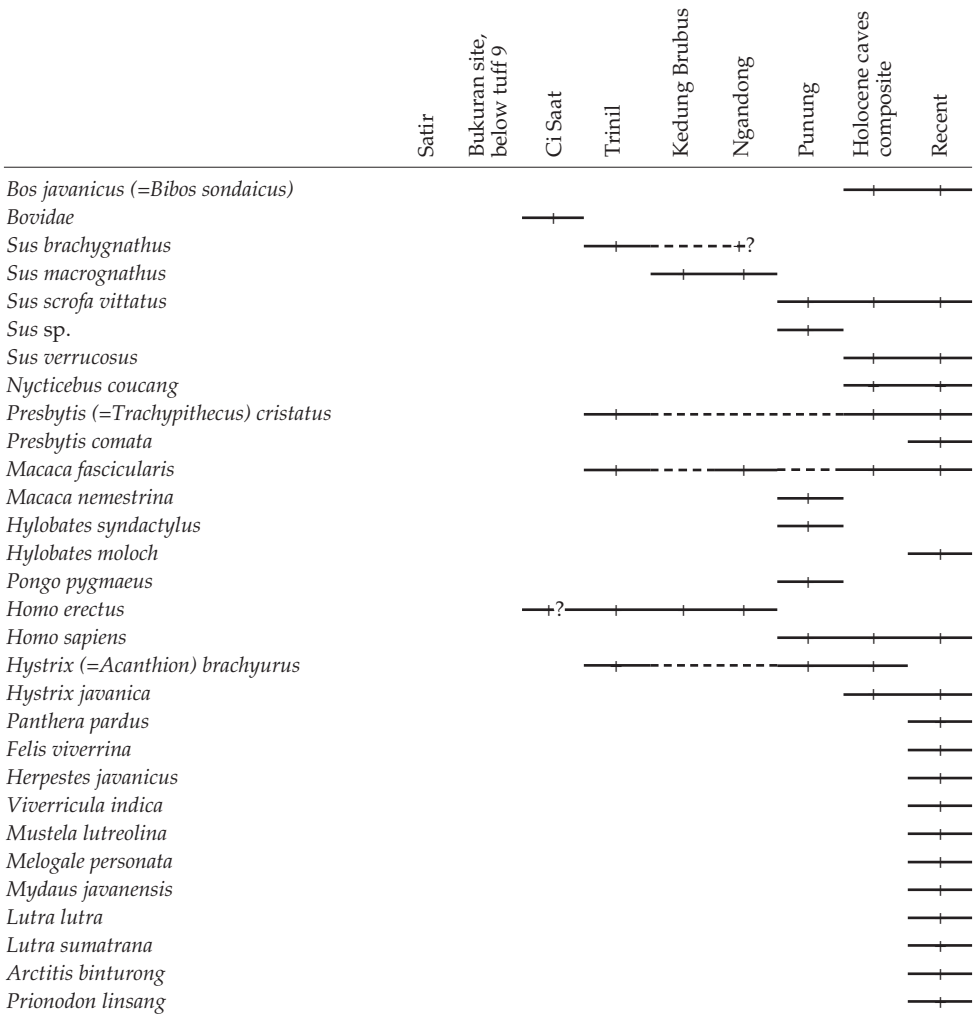
13. Tables 1-5, 38-42 (other tables on disc)

Table 1. Faunal lists of the fossil vertebrate localities from Java discussed in this paper. The localities are placed in chronological order from old (left) to young (right) (based on de Vos et al., 1982, Sondaar, 1984, Cranbook, 1987, and own data).





Fossil species lacking stratigraphical information:
Hystrix gigantea
Hemimachairodus zwierzyckii
Megantereon sp.
Homotherium ultimum
Panthera pardus
Lutrogale robusta
Megacyon sp.
Nestoritherium cf. *sivalense*
Merycopotamus dissimilis
Leptobos? problematicus+
"Elephas" indonesicus

Table 2. Pointcount results of 22 sandstone samples of the Walanae Fm. And Tanrung Fm. Of pebbly sandstone samples only grains smaller than 2 mm have been counted. "-" indicates "not present; "+" indicates "traces present". Feldspar includes all K-Feldspar and plagioclase without albite twinning.

sample	section/ locality	stratigraphic unit	cement type	% cement	grain size	sorting	volcanic	pyro-xene	plagioclase (albite)	feldspar	magne-tite	mono quartz	undulous + polyquartz	chert	biotite	bioclast	siliciclast. sediment.	calcareous sediment.	granite/ perthite	weathered	others
S-49	III	Burecing Mb.	calcite	29	coarse	poor	34	3	2	11	-	-	1	+	+	23	2	8	-	4	12
S-29B	Puncakoro	Bur. Mb?	calcite	30	coarse	good	39	2	1	9	-	-	1	1	1	30	4	8	-	2	1
S-43	III	Samaoling Mb. base	siderite	30	medium	good	36	2	2	15	-	5	8	3	4	-	17	-	2	6	-
S-37	XI	Samaoling Mb.	siderite	35	very fine	good	20	1	9	9	1	27	14	1	3	-	5	-	7	-	3
S-39	XI	Samaoling Mb. middle	siderite	31	fine-med.	good	27	3	5	8	-	18	7	1	15	-	2	-	8	5	1
S-46	III	Samaoling Mb. top	siderite	35	fine-med.	good	57	11	3	6	2	4	4	2	1	-	-	-	3	4	3
S-34	I	Samaoling Mb. top	micrite matrix + calcite	36	coarse	poor	53	23	3	4	6	1	1	2	2	-	1	1	-	3	-
S-30	I	Beru Mb. base	siderite	30	coarse	good	68	15	+	5	1	7	1	3	+	-	-	-	+	-	-
S-41	IV	Beru Mb. base	siderite	25	coarse	good	21	43	1	8	19	-	1	1	-	-	-	-	-	5	1
S-42A	II	Beru Mb, Subunit A	siderite	43	very coarse	poor	45	8	4	1	2	8	6	4	-	-	1	1	6	11	3
S-42B	II	Beru Mb, Subunit B	calcite	26	very coarse	poor	45	32	3	-	2	-	-	2	-	-	3	-	-	12	1
S-50	VIII	Base? Beru Mb.	siderite + limonite	49	very coarse	poor	48	30	3	3	1	6	-	-	-	-	4	-	-	4	1
S-70	IX	Beru Mb. Subunit B, base	siderite + limonite	30	pebbly sst.	poor	44	33	-	3	+	1	-	1	-	-	-	12	3	2	1
S-71	IX	idem	siderite + limonite	28	pebbly sst.	poor	38	42	-	-	3	-	-	1	-	-	-	12	3	1	-
S-17	IX	idem	siderite + limonite	51	very coarse	poor	54	15	2	11	4	-	-	2	3	-	2	-	1	-	6
S-23	V	Beru Mb. Subunit B, Middle	calcite	38	very coarse	good	43	24	1	2	3	10	+	-	-	-	2	-	2	10	3
S-24	V	idem	siderite	24	very coarse	good	54	21	+	-	1	6	-	3	1	-	1	-	3	9	1
S-6	Lenrang (FVL-8)	Beru Mb.	siderite	40	fine-medium	good	70	4	2	7	+	1	2	2	1	-	1	-	1	6	2
S-57	Paroto (FVL-14)	Beru Mb. Subunit B, top	siderite	37	fine	good	47	20	1	9	5	6	1	2	-	-	-	-	2	4	3
S-27	Bulu Cepo (FVL-13)	Beru Mb. Subunit B	siderite	48	fine	good	28	16	2	7	15	12	9	2	1	-	1	-	-	6	1
S-54	Tanrung River	Tanrung Fm.	calcite	23	pebbly sst (granules)	poor	4	-	2	5	-	10	11	-	-	17	2	43	-	3	3
S-64	Tanrung River	Tanrung Fm.	calcite	25	pebbly sst.	poor	16	-	7	6	-	38	9	6	-	3	5	8	-	+	2

Table 3. Short description of microscopic samples not included in Table 2.

Sample	Section/Locality	Stratigraphic Unit	Type of Sample	Short Description
S-55	Tanrung River	Tanrung Fm	Very coarse calcareous sandstone	Similar as sample s-54
S-65	Tanrung River	Tanrung Fm	Calcareous conglomerate	Similar as sample s-64
S-12	Lakibong FVL-6	Beru Mb., Subunit B	Very coarse sandstone	Containing volcanic rock fragments, pyroxene, magnetite, plagioclase, feldspar; siderite cement
S-21	Vi	Beru Mb, Subunit B	Fine sandstone	Containing volc. Rockfragm., Pyroxene, quartz, feldspar; with siderite cement
S-36	I	Beru Mb, Subunit A	Claystone	Calcareous clayey micrite with cliachite lumps (bauxite)
S-33	I	Samaoling Mb, Top	Claystone	Calcareous clayey micrite
S-60	Ciangkange (FVL-21)	Colluvium	Caliche concretion in fossil bone	Bone: colorless collophane bundles; caliche: micrite and microsparite lumps. Silt-sized siliciclastic grains and clay lumps with sparitic rim. Tubulous cavities with sparite-lath rims (rootlets). Irregular limonite crusts around bone, micrite lumps and tubules. Sparite in cracks in bone and matrix
S-25	Lakibong (FVL-5)	Beru Mb., Subunit B	Caliche concretion from fossiliferous clay	Micritic lumps with microsparite patches and opaque hematite patches. Some micrite lumps with admixture of clay, others partly replaced by sparite with micritic islands. Clear blocky sparite infill of cavities, cracks and tubules, and around detrital silt-sized grains
S-61A & B	Bulubarere (FVL-28)	Beru Mb., Base	Fossiliferous gravel with clayey micrite matrix	Gravel: volcanic rock fragm., Chert, bone, shells. Matrix: brownish clayey micrite with sand and silt-sized detrital grains. Bioclasts strongly alterated to micrite. Bone: colorless apatite aggregates with brown adsorption rims
S-62	Marale (FVL-19)	Beru Mb., Subunit B	Fossilized Wood	Calcified wood; original cell structure poorly preserved. Cell walls visible as brownish ferrogenous inclusions in large irregular calcite crystals. Each calcite crystal covers many cells
S-63	Bulu Cepo (FVL-11)	Beru Mb., Subunit A	Fossilized Wood	Silicified wood; original cell structure perfectly preserved. Cells replaced by micro-crystalline chert, cell wall visible as colored bands
S-64)	Paroto (FVL-14)	Beru Mb., Subunit B	Fossilized Wood	Silicified wood; original cell structure perfectly preserved. Quartz crystal size variable from micro-crystalline chert to single crystals filling cells. Opaque crystal at cell boundaries. Bladed quartz crystals in cavities

Table 4A. Microfossil analysis of samples from marine layers of the Walanae Formation, Sengkang Anticline area, South Sulawesi (sections I and III). Stratigraphic position of the samples is indicated in Fig. 40. Foraminifera were determined by Sudijono, nannofossils by A. Priadi.

A: Foraminifera (Biozones according to Berggren, 1995)

Sample	Stratigraphic Unit	Contents	Biozonation/Age	Environment
F-9B:	Section III, Burecing Member; near the base of exposed sequence at the core of the Sengkang Anticline	**Planktonoic foraminifera:** *Globigerina bulloides*, *Ga. Decoraperta*, *Ga. Venezuelana*, *Globoquadrina altispira*, *Globorotalia (Turborotalia) acostalensis*, *Globorotalia (Globorotalia) menardii*, *Gt. (Gt.) margaritae*, *Gt. (Gt.) tumida*, *Gt. (Gt.) plesiotumida*, *Globigerinoides extremus*, *Gds. Conglobatus*, *Gds. Obliquus*, *Gds. Immaturus*, *Gds. Trilobus*, *Hastigerina aequilateralis*, *Orbulina universa*, *Sphaeroidinellopsis seminulina*, *Sp. sphaeroides*, *Pulleniatina primalis*, *Globorotalia flexuosa.* **Benthonic foraminifera:** *Planulina wuellerstorfi*, *Lenticulina* sp., *Gyroidina* sp., *Oridorsalis umbonatus*, *Pleurostomella alternans*, *Pleurostomella* sp., *Bulimina striata*, *Uvigerina hispida*, *Uvigerina peregrina*, *Uvigerina proboscidea*, *Sphaeroidina* sp., *Textularia flinti*, *Melonis* sp., *Stilostomella* sp.	PL1-PL2 (latest late Miocene to early Pliocene)	open sea, outer sublittoral to upper bathyal
F-13	sandstone underlying Tanrung Formation (Walanae Formation?), 3 km west of Manciri village.	reworked assemblage with amongst others: *Sphaeroidinella dehiscens*	early Pliocene or younger	

A: Foraminifera (continued)

Sample	Stratigraphic Unit	Contents	Biozonation/Age	Environment
F-1	Section I, Samaoling Member, 3 m below basal fluvialsandstone of the Beru Member	ostracods, echinoderm fragments **Benthonic foraminifera:** *Elphidium advenum*, *Ammonia* spp., *Ammonia gaimardi*, *Lenticulina* spp., *Florilus* spp., *Rectobolivina* sp., *Operculina ammonoides*	?	lagoonal
F-6	Section I, Beru Member, 35 m above basal fluvial sandstone layer of Beru Member	similar as sample F-1	?	lagoonal
F-4B	Puncakoro, marine interval of clays and sandstones (Burecing Member?), Walanae Formation.	**Planktonic foraminifera:** similar as sample F-9B. **Benthonic foraminifera:** *Lenticulina* spp., *Heterolepa praecinctus*, *H. subhaidingeri*, *Cyclammina* sp., *Quinqueloculina* sp., *Martinottiella* sp., *Textularia* sp., *Dentalia* sp., *Cibicides ungerianus.*	PL1-PL2	open sea

Table 4B: Calcareous nannoplankton (Biozones according to Okada & Bukry, 1980).

Sample	Stratigraphic Unit	Contents	Biozonation/Age
SF1/211091	Section I, Samaoling Member, 390 m below the basal fluvial sandstone layer of the Beru Member.	*Reticulofenestra minuta*	?
SF3/211091	Section I, Samaoling Member, 415 m below the basal fluvial sandstone layer of the Beru Member.	*Helicosphaera selli*, *Pontosphaera japonica*, *Reticulofenestra minuta*	?
SF11/211091	Section I, Burecing Member, 850 m below the basal fluvial sandstone layer of the Beru Member.	*Poatosphaera japonica*, *Calcidiscus leptoporus*, *Discoaster brouweri*, *Discoaster decorus*, *Discoaster* sp., *Helicosphaera carteri*, *Helicosphaera selli*, *Rhabdosphaera procera*, *Sphenolithus moriformis*.	CN12 (late Pliocene)
SF1/221091	Section I, Burecing Member, 1200 m below the basal fluvial sandstone layer of the Beru Member.	*Discoaster brouweri*, *Helicosphaera carteri*, *Helicosphaera wallichi*, *Reticulofenestra minuta*, *Sphenolithus abies*.	CN12 (late Pliocene)
SF3/221091	Section I, Burecing Member, 1430 m below the basal fluvial sandstone layer of the Beru Member	*Calcidiscus macintyrei*, *Discoaster brouweri*, *Helicosphaera carteri*, *Helicosphaera selli*, *Pontosphaera* sp. *Reticulofenestra minuta*, *Sphenolithus abies*.	CN12 (late Pliocene)
SF5/221091	Section I, Burecing Member, 1650 m below the basal fluvial sandstone layer of the Beru Member	*Discoaster brouweri*, *Discoaster decorus*, *Discoaster tristellifera*, *Helicosphaera carteri*, *Helicosphaera wallichi*, *Rhabdolithus* sp., *Reticulofenestra minuta*.	CN12 (late Pliocene)

Table 5. Number of identifiable fossil specimens, attributable to one of the taxa distinguished, for the most important fossil vertebrate localities (FVL). The FVL are ordered per stratigraphic unit, roughly in chronological order from old (left) to young (right). Numbers without brackets refer to the amount of in situ collected fossils attributable to a certain taxon, whereas the number of surface collected fossils for a certain taxon are indicated between brackets. Except otherwise indicated, the fossil specimens were collected in the course of this study between 1990 and 1994. Fossils collected earlier, but of which the original stratigraphic level (= loc.) could be ascertained are designated with the following symbols: * = fossils collected by Aziz in 1985/86; # = fossils which are rolled (only indicated for FVL-21 and FVL-29); + = fossils from the MPC.

Stratigraphic Unit	Beru Member, Base Subunit A						Beru Member, Base?					Beru Member, Subunit A				Beru Member, Subunit B											Tanrung Formation	Colluvium
Locality	1a	23	25a	25b	26	1b	24a	24b	24c	30	28	11	22	9	3/4/4a	14	2	5	6	7	19	15	10	13	16	17	12	29	21
Taxon																													
Elasmobranchii		-	(3)	-	-	-	65	-	-	-	(7)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trionychidae	-	-	(7)	-	-	-	(1)	-	4 (2)	-	-	(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Geochelone atlas	-	-	(1)	-	-	-	(1)	-	6 (2)	-	-	(2)	(1)	-	1 (2,2*)	-	-	13 (22)	(3)	1*	(2)	(5)	-	(4)	-	-	(1)	-	(2#)
crocodile	-	-	(7)	-	-	-	9	-	12 (5)	-	(26)	(1)	-	-	(2)	-	-	27 (27)	(1)	-	-	-	-	-	-	-	-	-	-
Celebochoerus heekereni	-	4	2 (102)	5	(3)	(8)	5 (6)	(18)	148 (84)	(19)	(33)	1 (43)	(2)	-	12 (51)	(1)	-	324 (448)	(33)	-	-	(3, 1*)	-	(5)	(2)	-	-	4(3)	(4#)
Celebochoerus derived sp. with short metapodials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1)	-	-	-	-	-	-	-
Elephas celebensis	1	-	1 (12)	(1)	(2)	1	2 (6)	(1)	1	(1)	-	(1)	-	-	(4)	-	-	3	(2)	1* (12)	-	(1*)	-	(1)	-	-	-	-	-
Stegodon sompoensis	-	-	-	-	-	-	-	-	(1)	(1)	(1)	(1)	-	1	-	-	1	(1)	(1)	-	-	(1+)	1	(1)	(1)	(2+)	(1,1+)	-	(1#)
Stegodon cf. *sompoensis*	-	-	-	-	-	-	-	(1)	-	(4)	-	(1)	-	-	(1)	-	-	(4)	(1)	-	-	-	-	(1)	-	(1)	-	-	-
pygmy Elephantoidea (postcranial elements)	-	-	(2)	-	-	-	-	- (6)	13	-	-	(1)	-	-	1 (2)	-	(2)	2 (20)	(3)	-	-	1+ (2+)	-	(1)	-	(2+)	(2)	-	-
Stegodon sp. B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Large-sized Stegodon sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1+)	(1)	4	-
Stegodon sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
large-sized Elephantoidea (postcranial elements)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7(2)	-
high-crowned *Elephas* sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1)	-
Anoa sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(2)	(15)
Total fossils in situ	1	4	3	5	0	1	81	0	184	0	0	1	0	1	14	0	1	371	0	2	0	1	1	0	0	0	0	21	0
Total in situ + surface	1	4	137	6	5	9	95	20	284	25	67	52	3	1	82	1	3	905	44	2	2	15	1	13	3	6	6	29	23

Table 38. Ridge-crest formulas of selected *Stegodon* species. Incompletely developed halfridges are not included in the formulas. Notes: 1) *S. ganesa* (Falconer & Cautley, 1846) and *S. insignis* (Falconer & Cautley, 1846) are distinct species based on differences in skull morphology, but their molars cannot be distinguished (Saegusa, 1987). 2) *S. shinshuensis* from Japan is by some authors considered to be a synonym of *S. zdanskyi* from China (Saegusa, 1996). The M^3 of *S. shinshuensis* bears 7 to 9 ridges, whereas the M_3 bears 8 to 9 ridges (Taruno, 1991). Its plateformula is thus slightly more advanced than the Chinese species. 3) The M3s of *S. orientalis* from Japan bear 10 ridges, both the lowers and uppers (Taruno, 1991). This is less than in the mainland variety listed in the table.

Species		dP2	dP3	dP4	M1	M2	M3	Source
S. elephantoides (Clift, 1828)	upper	-	-	-	6	6	-	Osborn, 1942
	lower	-	-	-	-	-	10	
S. zdanskyi Hopwood, 1935	upper	-	4	5	5	5-6	6-7	De Chardin &
	lower	-	4	6	5	6	7-8	& Trassaert, 1937
S. aurorae (Matsumoto, 1918)	upper	-	-	-	-	-	11-13	Taruno, 1991
	lower	-	-	-	8	10	12-13	
S. orientalis Owen, 1887	upper	3	5-6	6-7	6-7	6-8	11-12	Colbert & Hooijer, 1953;
	lower	2	5-6	7	7-8	7-9	12	Hopwood, 1935; this thesis
S. bombifrons (Falc. & Cautley, 1846)	upper	-	4	6	6	7	9	Osborn, 1942
	lower	-	4	6-7	7	8	9	
S. insignis (Falc. & Cautley, 1845)	upper	2	5-6	7	7-8	7-8	10-11	Osborn, 1942; this thesis
	lower	2	6	7-9	7-10	9	11-13	
S. trigonocephalus Martin, 1887								
subspec. *S. t. trigonocephalus*	upper	3	6	7-8	7	9	11	this thesis
	lower	2-3	6-7	8	8-9	10	13	
subspec. *S. t. ngandongensis*	upper	-	-	-	8	-	-	this thesis
	lower	-	7	9	9+	-	-	
S. florensis Hooijer, 1957	upper	-	-	-	7	-	12	this thesis
	lower	-	-	7+	9	10	14	
S. sondaari nov. sp.	upper	-	6-7	6	6-7	-	-	this thesis
	lower	-	6	-	-	8	8	
S. sompoensis Hooijer, 1964	upper	-	-	7	-	8	8-9	this thesis
	lower	-	-	-	-	8	9-10	
S. timorensis Sartono, 1969	upper	-	-	-	-	7	-	Hooijer, 1969, 1972a
	lower	-	-	-	-	9	10	

Table 39. Mean directions of the Natural Remanent Magnetization of the samples from the two sections shown in Fig. 65. n = number of samples; D = mean declination; I = mean inclination; k = Fisher's precision estimate; α95 = semiangle of cone of 95% confidence; N = Normal magnetization; R = Reversed magnetization.

Sample	Lithology	n	D	I	k	α95	Polarity
01	very fine sandstone	5	147	14	13.1	17.1	R
02	silty sandstone	5	238	-20	10.1	14.1	R
03	silty sandstone	4	189	-10	10.2	13.0	R
04	very fine sandstone	4	14	-5	9.3	23.0	N
05	tuff	6	160	-20	9.6	18.1	R
06	siltstone	6	234	-39	12.1	16.1	R
07	tuff	5	34	-13	5.1	23.0	N
08	silty sandstone	5	40	-24	4.3	20.0	N
09	siltstone	5	59	-80	173.8	4.7	N
10	siltstone	4	7	-19	4.0	35.0	N
11	siltstone	4	213	-23	15.7	17.6	R
12	siltstone	5	188	-14	4.7	22.0	R
13	sandstone	4	253	-7	104.1	6.9	R/N
14	siltstone	5	322	-65	6.1	25.3	N
15	very fine sandstone	4	36	-27	6.8	25.7	N
16	silty sandstone	4	2	-33	38.3	11.3	N
17	silty sandstone	5	350	-24	318.5	4.7	N
18	limestone	6	-	-	-	-	-
19	very fine sandstone	6	341	-30	66.9	7.0	N

Table 40. Body mass estimations of adult individuals of various Indonesian *Stegodon* species, based on total length of femur or humerus, or based on midshaft circumference of femur or humerus. Femur CD-4315 bears a label indicating that it originates from Trinil, but not from the 'Haupt-Knochenschicht'. The label states that it comes from a layer at an elevation 4 to 5 m above the lowest waterlevel of the Soloriver, whereas the fossils from the 'Haupt-Knochenschicht' were excavated from below the lowest waterlevel (de Vos & Sondaar, 1982). Unlike the brown-coloured fossils from the 'Haupt-Knochenschicht', femur CD-4315 has a reddish colour and a red sandstone matrix attached to it. For further explanation of the mass estimation methods see text. Mass estimates based on shaft circumference are more than twice as large as estimates based on length. These discrepancies are caused by the relatively sturdy built limbbones of *Stegodon*. The length-based bodymass estimates are thought to approach the true bodymass closer. In addition, the circumference-based bodymass estimate for a humerus of *"Elephas" celebensis* is given.

species	element	specimen	length (mm)	circumference (mm)	mass estimate based on length (kg)	mass estimate based on circumf. (kg)
S. sondaari sp. nov.	femur diaphysis	TT-4083	460e ± 50	151.5	207 +65/-54	553
S. florensis	humerus	CV-72 (Hooijer, 1972a: 23)	630	-	852	-
S. florensis	humerus	(Hooijer, 1957a: 125)	530+	273e-280e	-	2169-2317
S. t. trigonocephalus	femur	CD-2890	922	307	1310	4072
S. t. trigonocephalus	femur	CD-4315	838	296	1017	3673
S. t. trigonocephalus	femur	CD-2889	1020	358	1713	6287
S. sompoensis	humerus	LR-3707	452e ± 8	199	350 +17/-12	950
"*Elephas*" *celebensis*	humerus	PL-3736	-	187	-	807

Table 41. Successive stages which can be distinguished in a single, progressing elephantoid molar (after Beden, 1979). 11 stages were defined, designated with the combination of a letter (A-D) and a number (except for stage C). To the right the alveolar states, corresponding with the successive molar stages, are indicated. For further explanation, see chapter 8.

State of the molar							State of the alveole
					(0)	opening of the alveole	
	new	A	1	posterior ridges not yet consolidated	(A)	molar crown partly visible	
			2	entire molar consolidated	(A)		
	progressive wear of molar	increasing number of ridges in function	B	1	cementum worn	(B1)	
				2	a few ridges worn	(B2)	
				3	half of the ridges worn	(B3)	
				4	most of the ridges worn	B4 (B4)	
		all ridges in function	C		all ridges worn (except in some cases the posterior halfridge)	C (C)	
		progressive destruction of ridges	D	1	anterior border of the first ridge partially broken away	(D1) D1	molar crown visible
				2	first ridges gone	D2	
				3	half of the ridges gone	D3	
				4	remnant of a few ridges left	D4	
					0	rootmass still visible	

Table 42. Five age groups that are here distinguished for reconstructing mortality profiles of elephantoid dental assemblages. Each age group represents a lifespan of approximately 12 AEY. The dental wear age classes of Beden (1979) were used for aging individual elephantoid dentitions and certain classes define the boundaries of the age groups (see also Figs. 75-76). The corresponding dental wear age classes of Laws (1966) are also given.

age group	social status	range of dental wear classes after Beden (1979)	after Laws (1966)
1	juveniles	0 - M1A	I - XI
2	young adults	M1A′ - M2A	XII - XVII
3	prime adults	M2B - M2/M3B′	XVIII - XXI
4	senior adults	M2/M3C - M3B	XXII - XXIV
5	senile	M3C - M3E′	XXV - XXX

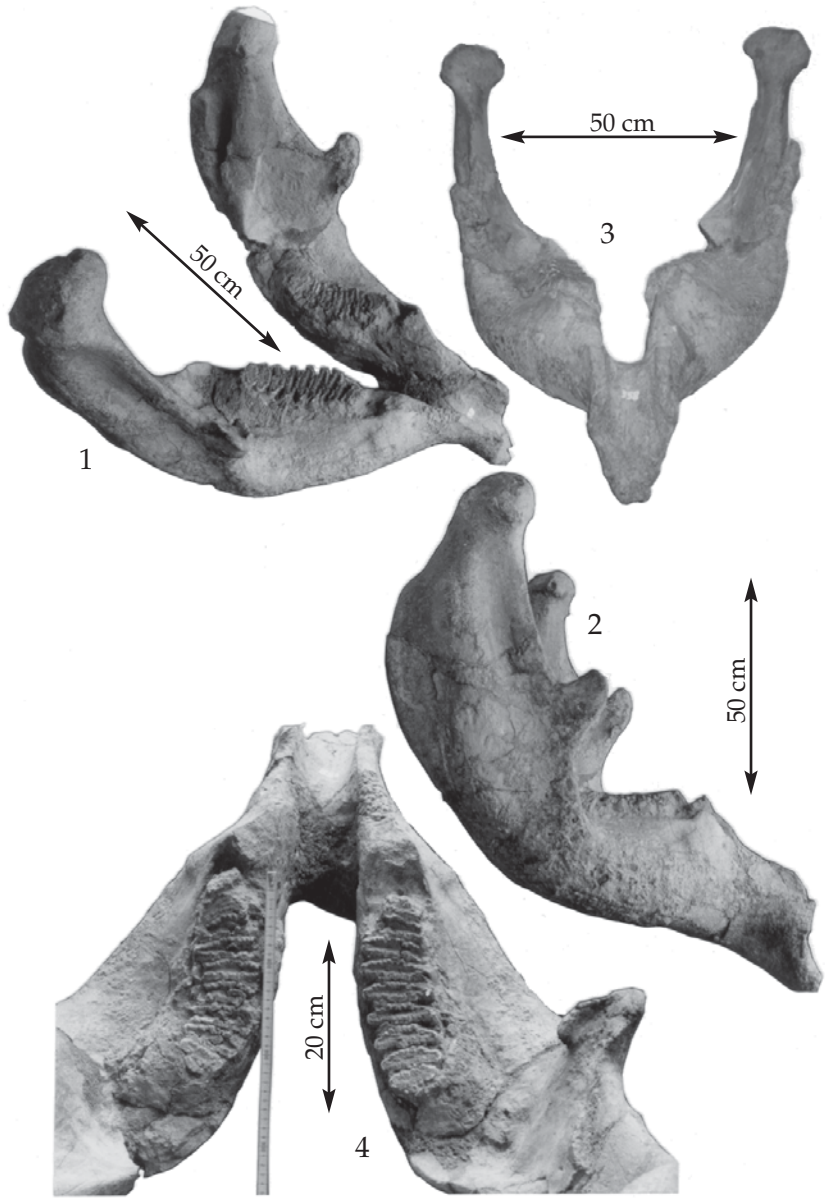


Plate 1

Figs. 1-4. *Stegodon elephantoides* (Clift, 1828)
MPS-358, Bukuran, Central Java; Lower Pleistocene; mandible with both M_3s; 1: oblique occlusal view; 2: lateral view; 3: frontal view; 4: occlusal view.

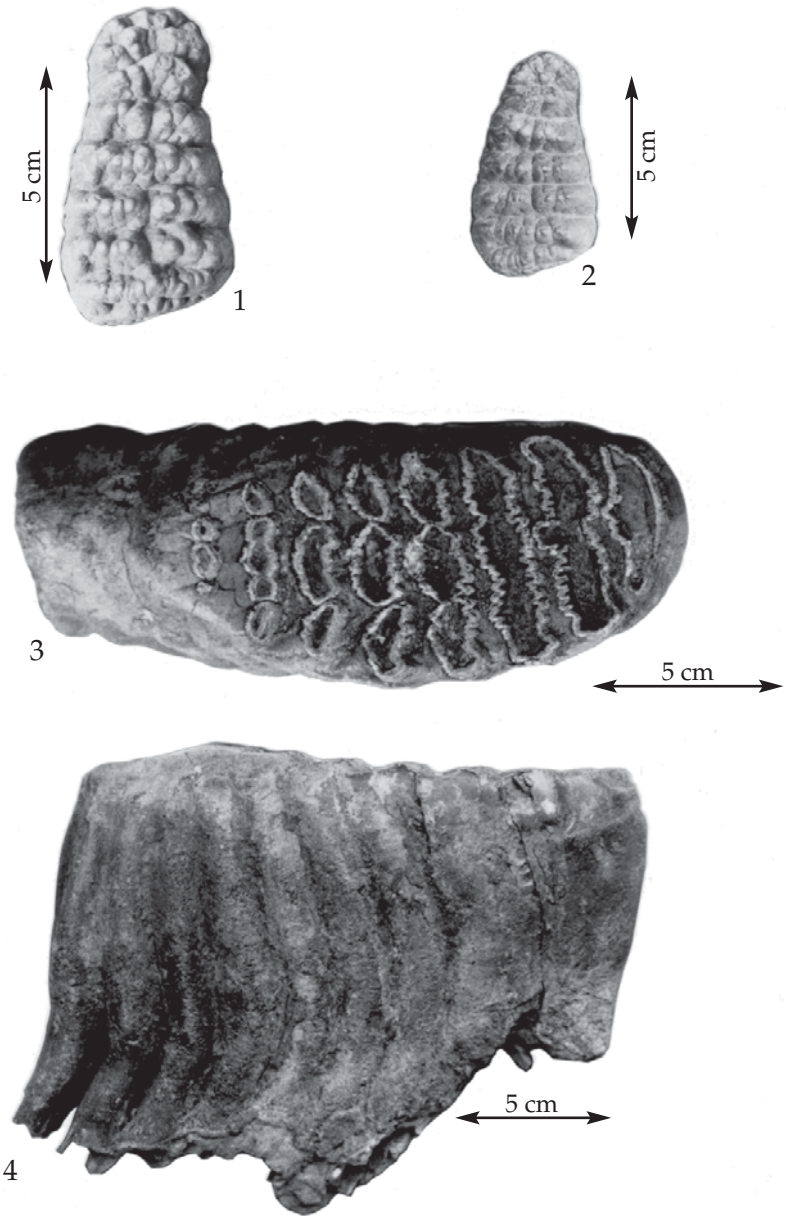


Plate 2

Figs. 1-2. *Stegodon trigonocephalus ngandongensis* subsp. nov.
1: GRDC/K-330B, Ngandong excavation; Upper Pleistocene; dex. dP_3 occlusal view.
2: GRDC/K-330A: dex. dP_3, Watualang excavation, occlusal view.

Figs. 3-4. *Elephas maximus* Linnaeus, 1758
GRDC CPD90-1, sin. M_2, Cipeundeuy sand quarry, West Java; Upper Pleistocene; 3: occlusal view; 4: medial view.

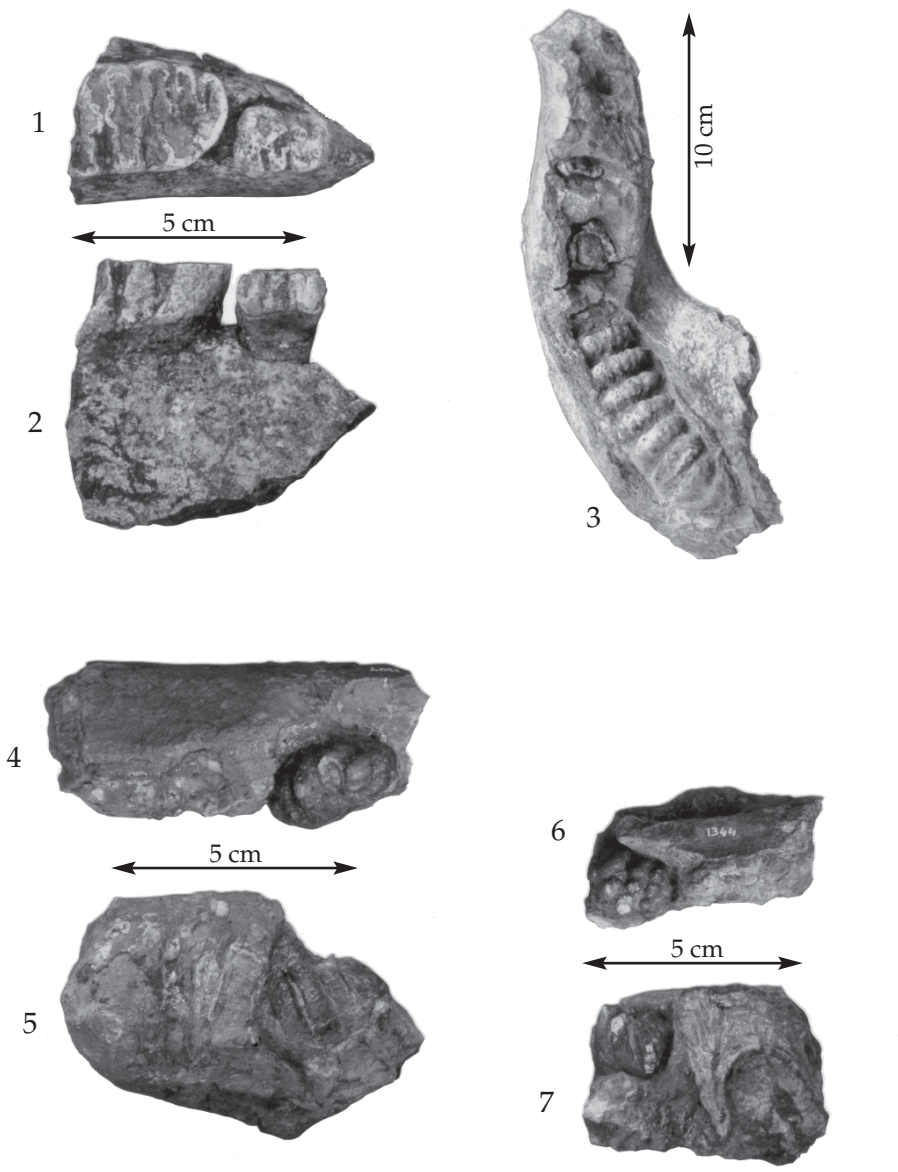
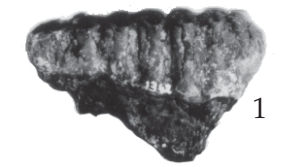
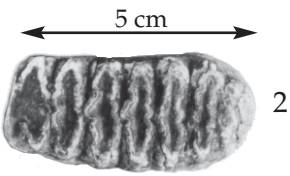
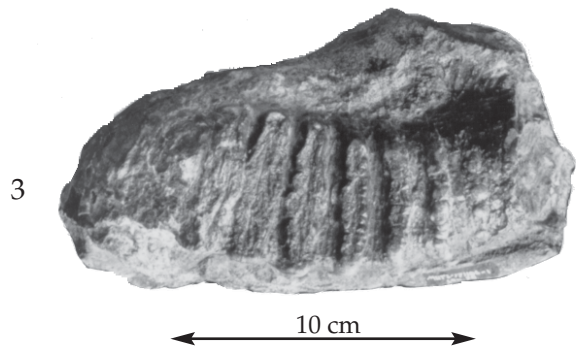


Plate 3

Figs. 1-7. *"Elephas" celebensis* (Hooijer, 1949)
1-2: GRDC S-3949; loc.: FVL-25 (Sompe), South Sulawesi; Upper Pliocene; mandible fragment with dP_3 and anterior dP_4 fragment; 1: occlusal view; 2: lateral (buccal) view.
3: GRDC Lp-3192; loc.: FVL-1 (Lepangeng), South Sulawesi; Upper Pliocene; dextral mandibular ramus with roots of dP_4 and P_3 and the M_1 in the alveole.
4-5: GRDC 1307; loc.: FVL-5 (Lakibong), South Sulawesi; Lower Pleistocene; sinistral mandibular ramus with P_4; 4: occlusal view; 5: lateral view; 6-7: GRDC 1344; dextral maxilla fragment with P^3; 6: occlusal view; 7: lateral view.







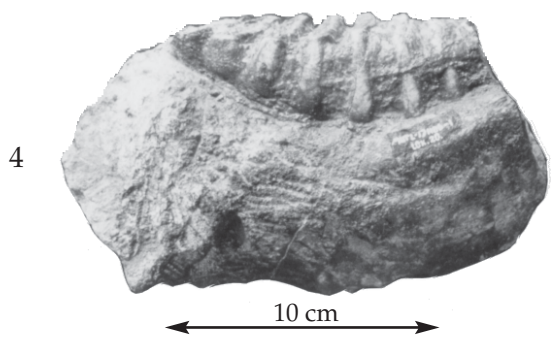


Plate 4

Figs. 1-4. *"Elephas" celebensis* (Hooijer, 1949)
1-2: GRDC 1342; loc.: FVL-5 (Lakibong); dextral dP^4; 1: occlusal view; 2: lateral view.

Figs. 3-4. *Stegodon sompoensis* Hooijer, 1964
GRDC MUTL/171186-1; loc.: c. 1 km east of FVL-17 (Alupang), South Sulawesi; dextral mandibular ramus fragment with M_3 fragment; Upper Pliocene or Lower Pleistocene; 3: occlusal view; 4: lateral view.

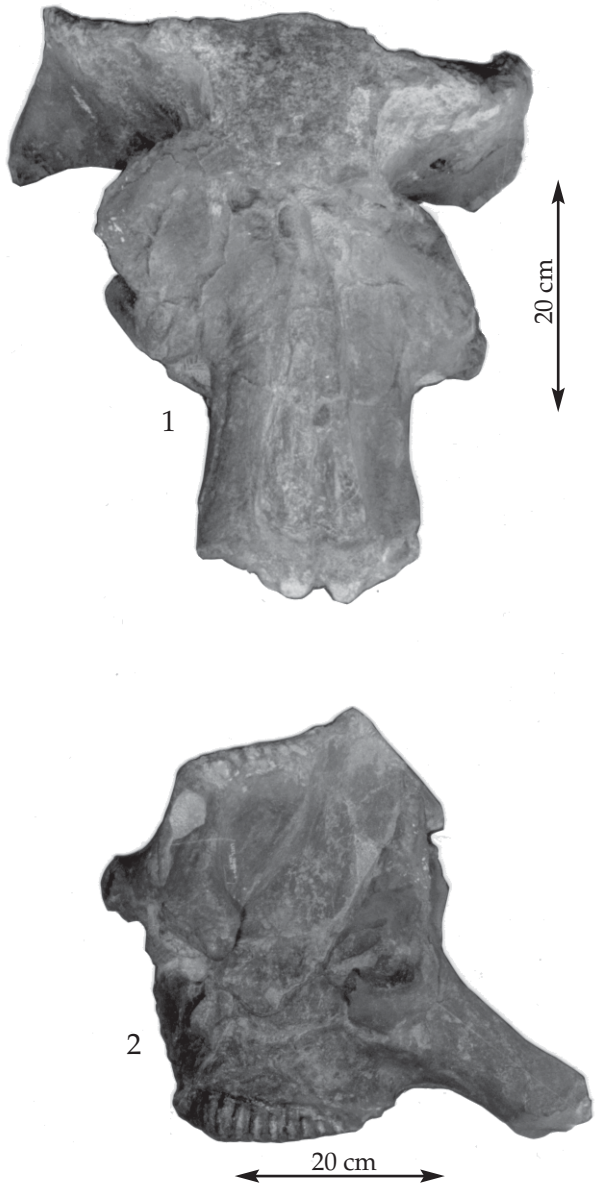


Plate 5

Figs. 1-2. *"Elephas" celebensis* (Hooijer, 1949)
GRDC LWTL/151186-1; loc.: FVL-7 (Lakibong), South Sulawesi; Lower Pleistocene; skull with M_3; 1: frontal view; 2: lateral view.

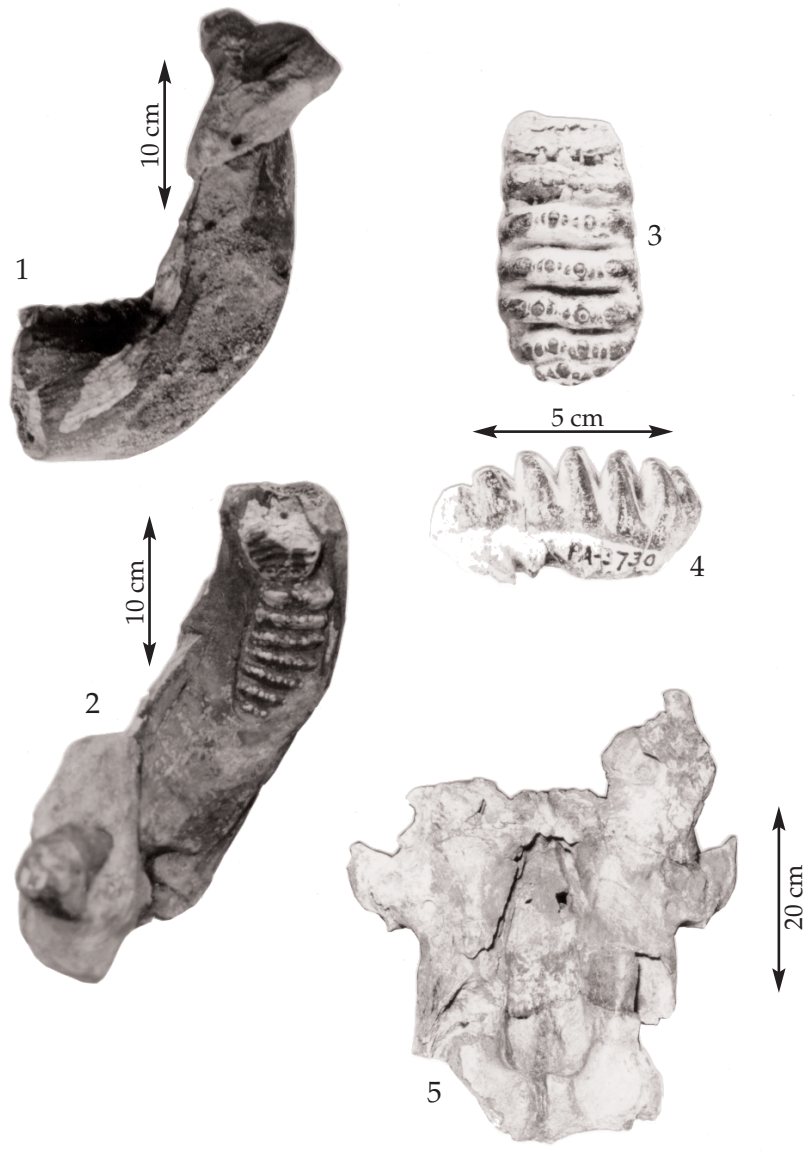


Plate 6

Figs. 1-5. *Stegodon sompoensis* Hooijer, 1964
1-2: PMC C3/2/79; loc.: FVL-17 (Marale), South Sulawesi; Lower Pleistocene; sin. mandible with posterior M_2 fragment and M_3 in alveole; 1: lingual view; 2: occlusal view.
3-4: GRDC PA-3730; loc.: FVL-9 (Paroto) South Sulawesi; Upper Pliocene or Lower Pleistocene; dextral dP^4; 3: occlusal view; 4: buccal view.
5: GRDC L/III-3036; loc.: FVL-2 (Palangiseng); Lower Pleistocene; premaxilla, dorsal view.

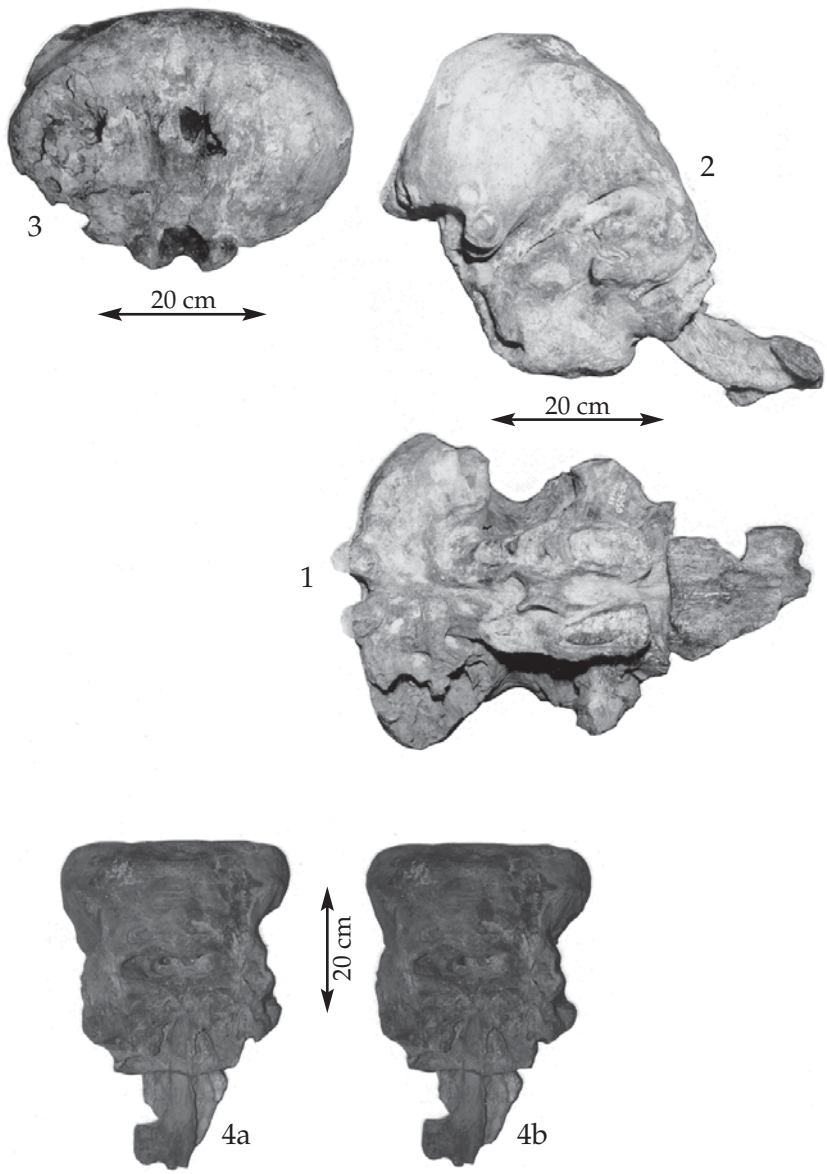


Plate 7

Figs. 1-4. *Stegodon sompoensis* Hooijer, 1964
GRDC BC-3050; loc.: FVL-10 (Pajalela), South Sulawesi; adult skull lacking dentition; 1: ventral view; 2: lateral view; 3: occipital view; 4a, b: frontal view.

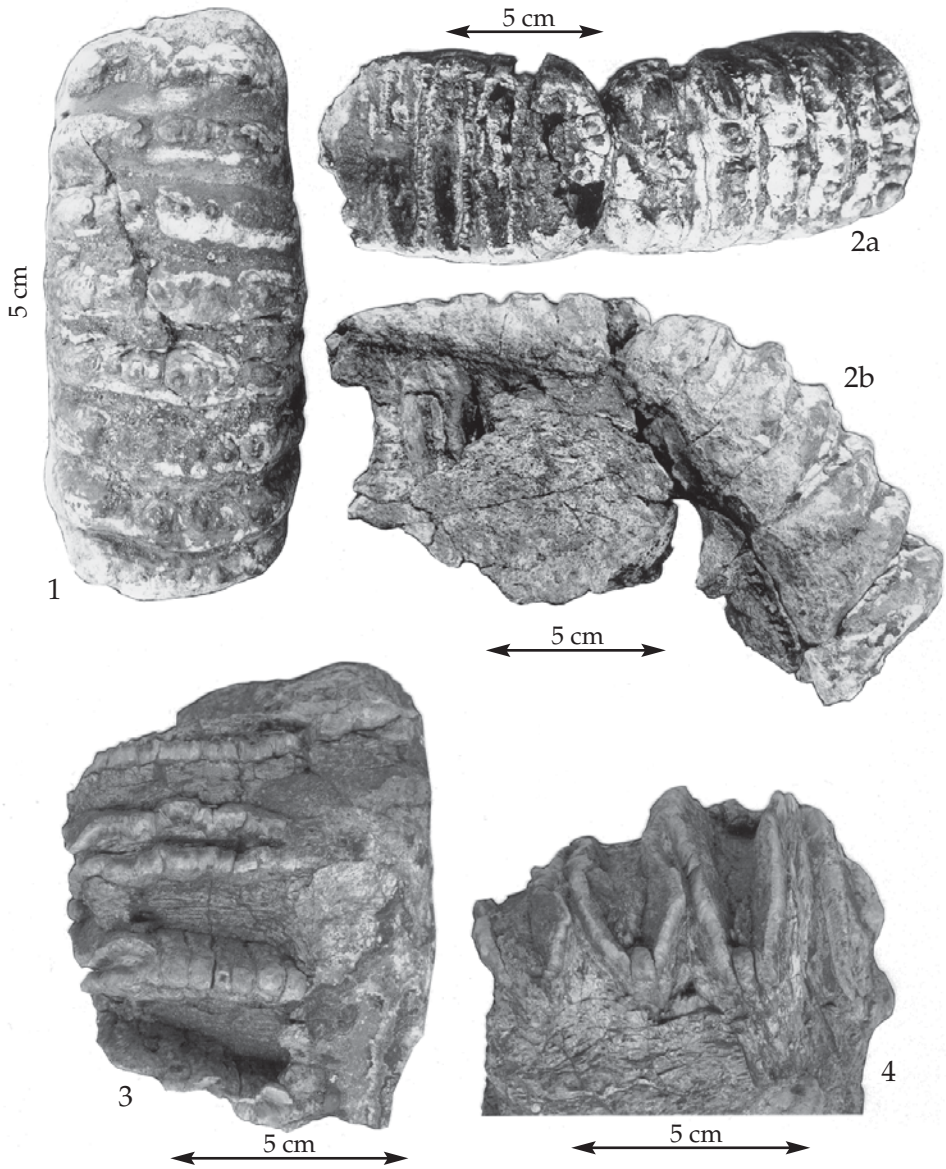


Plate 8

Figs. 1-2. *Stegodon* sp. B
Loc.: FVL-29 (Tanrung River), South Sulawesi; Middle Pleistocene; 1: GRDC TA-3711; M^1 sin; occlusal view.
2: GRDC TA-3712; dP^4 remnant and M^1; 2a: occlusal view; 2b: buccal view.

Figs. 3-4. large-sized *Stegodon* sp.
GRDC L/III-3040; loc.: FVL-2 (Palangiseng), South Sulawesi; Lower Pleistocene?; sinistral lower molar fragment; 3: occlusal view (lingual side partly embedded in matrix; 4: buccal view.

Plate 9

Figs. 1-3. *Stegodon sompoensis* Hooijer, 1964
Loc.: FVL-24 (Lonrong), South Sulawesi; Upper Pliocene; 1: GRDC LR-3707; dextral humerus; anterior view; 2-3: GRDC LR-3546; dextral radius; 2: posterolateral view; 3: anteromedial view.

Plate 10

Figs. 1-2. pygmy Elephantoidea
GRDC LR-3552; loc.: FVL-24 (Lonrong), South Sulawesi; Upper Pliocene; dextral metatarsus III; 1: anterior view; 2: lateral view.

Figs. 3-6. *Elephas* sp.
Loc.: FVL-29 (Tanrung River), South Sulawesi; Middle or Late Pleistocene; 3-4: GRDC TA-3061; dextral metacarpus III; 3: posterior view; 4: lateral view; 5-6: GRDC TA-3062: dextral metacarpus V; 5: posterior view; 6: lateral view.

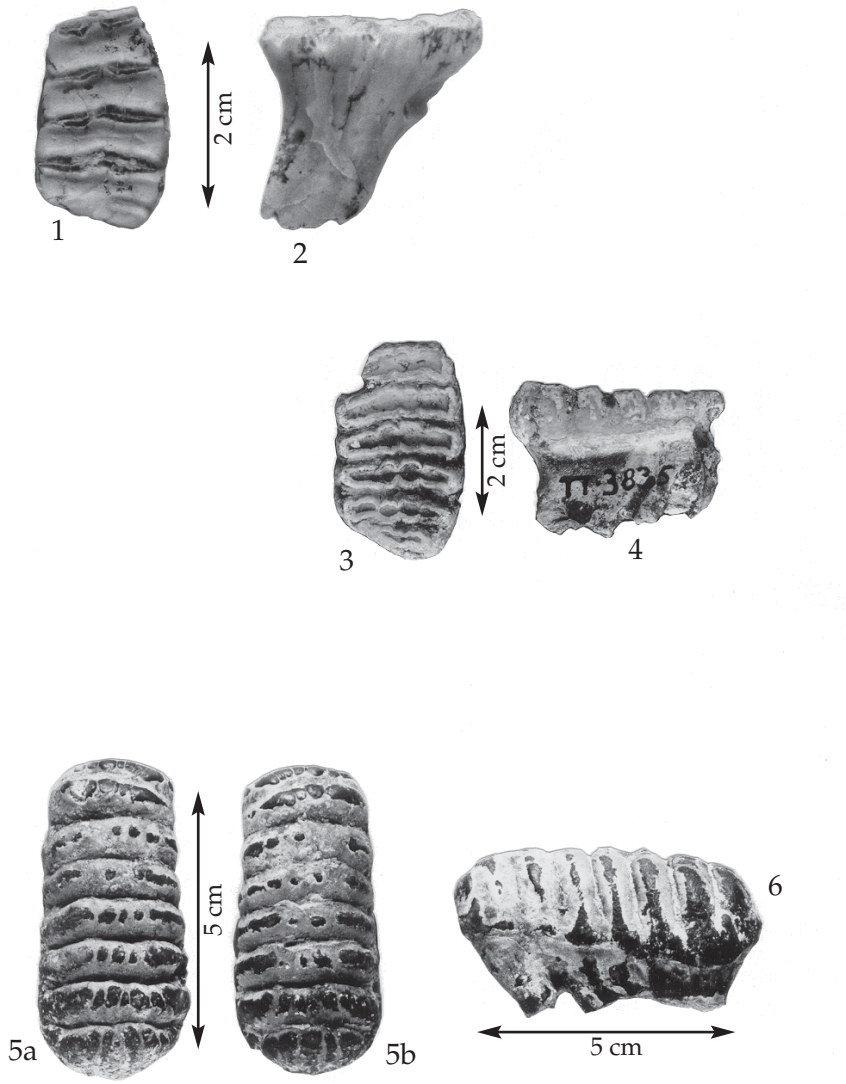


Plate 11

Figs. 1-6. *Stegodon sondaari* sp. nov.
Loc.: Tangi Talo, west Central Flores; Lower Pleistocene (c. 0.9 Ma); 1-2: GRDC TT-4044; dP_3 sin.; 1: occlusal view; 2: lingual view; 3-4: GRDC TT-3835; dP_4 sin.; 3: occlusal view; 4: lingual view; 5a: GRDC TT-4033; dP^4 dex, and 5b: GRDC TT-4034; dP^4 sin.; both dP^4 constitute a pair; occlusal view; 6: GRDC TT-4034; dP^4 sin., lingual view.

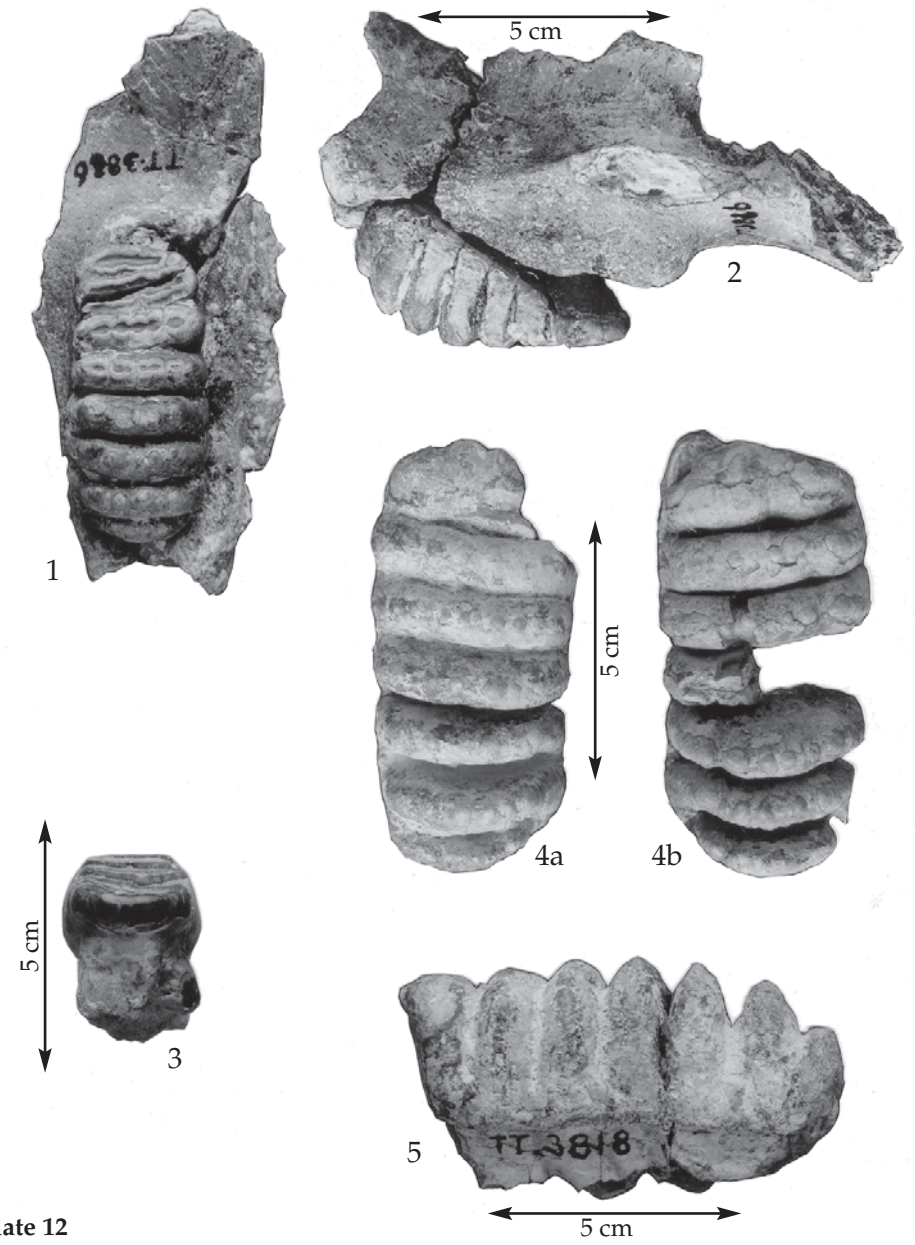


Plate 12

Figs. 1-5. *Stegodon sondaari* sp. nov.
Loc.: Tangi Talo, west Central Flores; Lower Pleistocene (c. 0.9 Ma); 1-2: GRDC TT-3836; dex. maxillary fragment with dP^4; 1: occlusal view; 2: lateral (buccal) view; 3: GRDC TT-4032; dP^4 sin., mesial view; 4a: GRDC TT-3814; M^2 sin.; 4b: GRDC TT-3818; M^2 dextral, both M^2 constitute a pair; occlusal view; 5: TT-3818: M^2 dextral, buccal view.

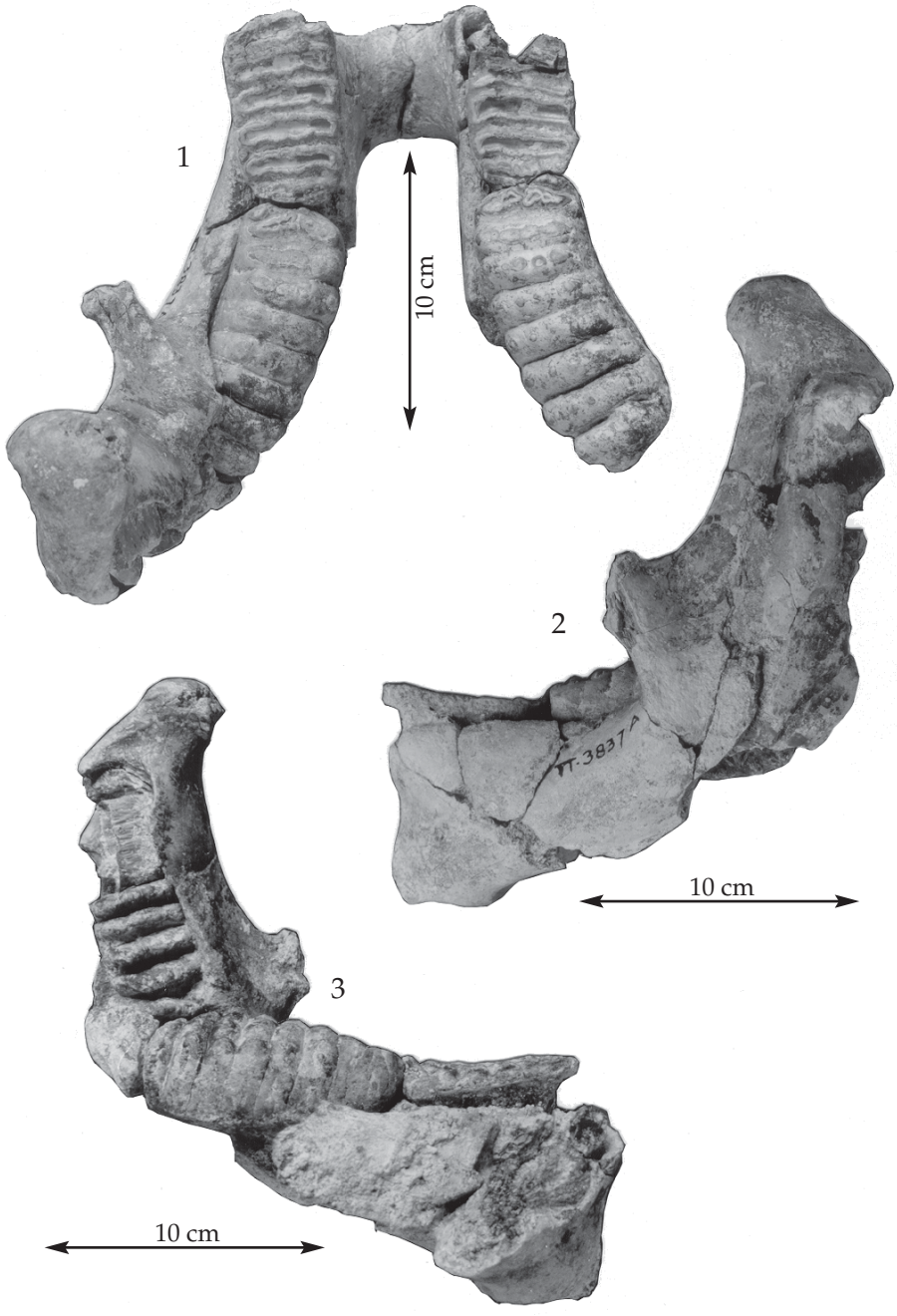


Plate 13

Figs.1-3. *Stegodon sondaari* sp. nov.
Loc.: Tangi Talo, west Central Flores; Lower Pleistocene (c. 0.9 Ma); holotype; GRDC TT-3837; mandible with both worn M_1, slightly worn M_2 and the uncompleted sinistral M_3 still in the alveolar cavity; 1: occlusal view; 2: lateral view; 3: medial view of the sinistral ramus.

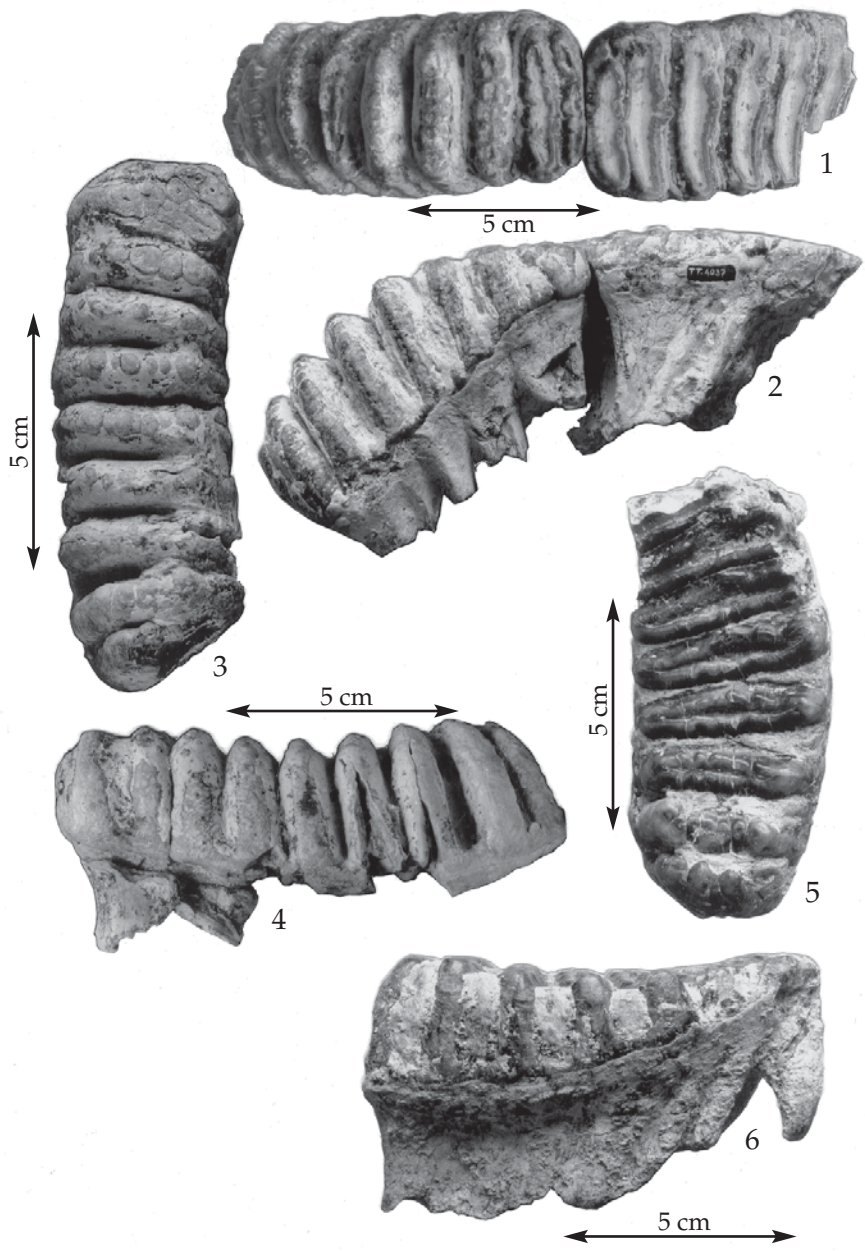


Plate 14

Figs.1-6. *Stegodon sondaari* sp. nov.
Loc.: Tangi Talo, west Central Flores; Lower Pleistocene (c. 0.9 Ma).
1: GRDC TT-4035; M^1 dex., and GRDC TT-4031: M^2 dex.; occlusal view; 2: GRDC TT-4037; M^1 sin., and GRDC TT-4030: M^2 sin.; buccal view; (teeth figured in figs. 1-2 belong to the same individual as figured in Pl. 13); 3-4: GRDC TT-3816; M_2 dex.; 3: occlusal view; 4: lingual view; 5-6: GRDC TT-4029; M_2 sin.; 5: occlusal view; 6: lingual view.

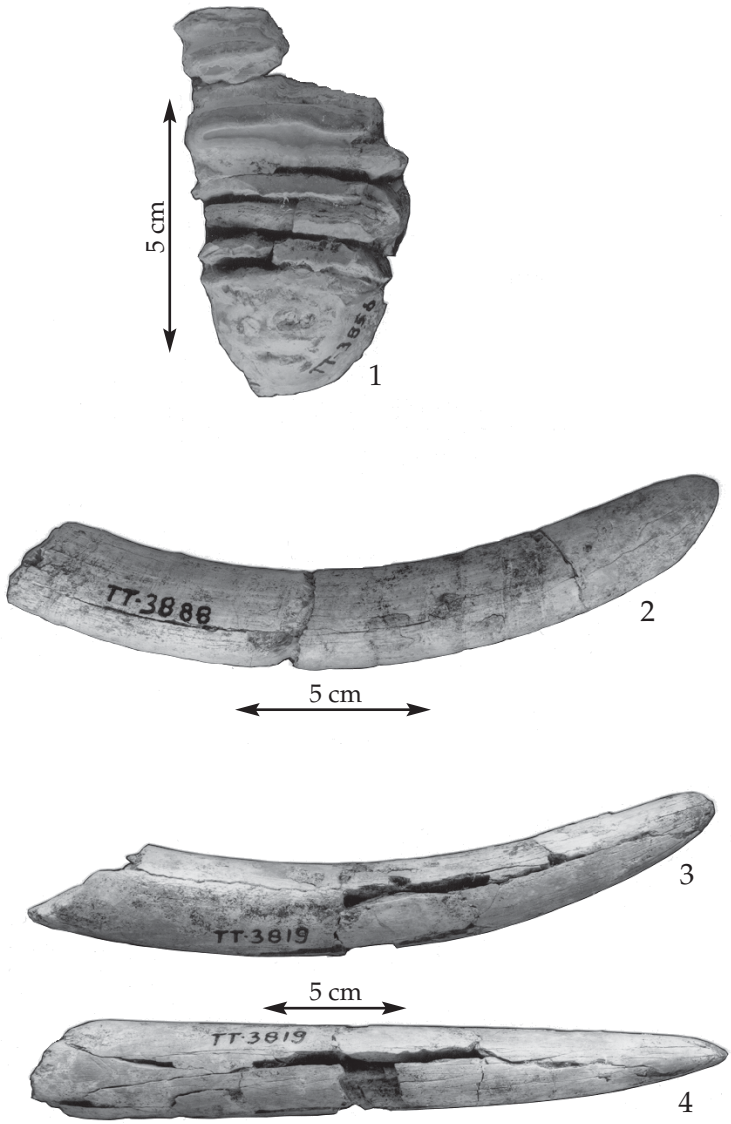


Plate 15

Figs.1-4. *Stegodon sondaari* sp. nov.
Loc.: Tangi Talo, west Central Flores; Lower Pleistocene (c. 0.9 Ma); 1: GRDC TT-3856; M^3 sin. fragment, occlusal view; 2: GRDC TT-3887/88; sin. tusk; dorso-medial view; 3-4: GRDC TT-3819; sin. tusk; 3: dorso-medial view; 4: ventro-medial view.

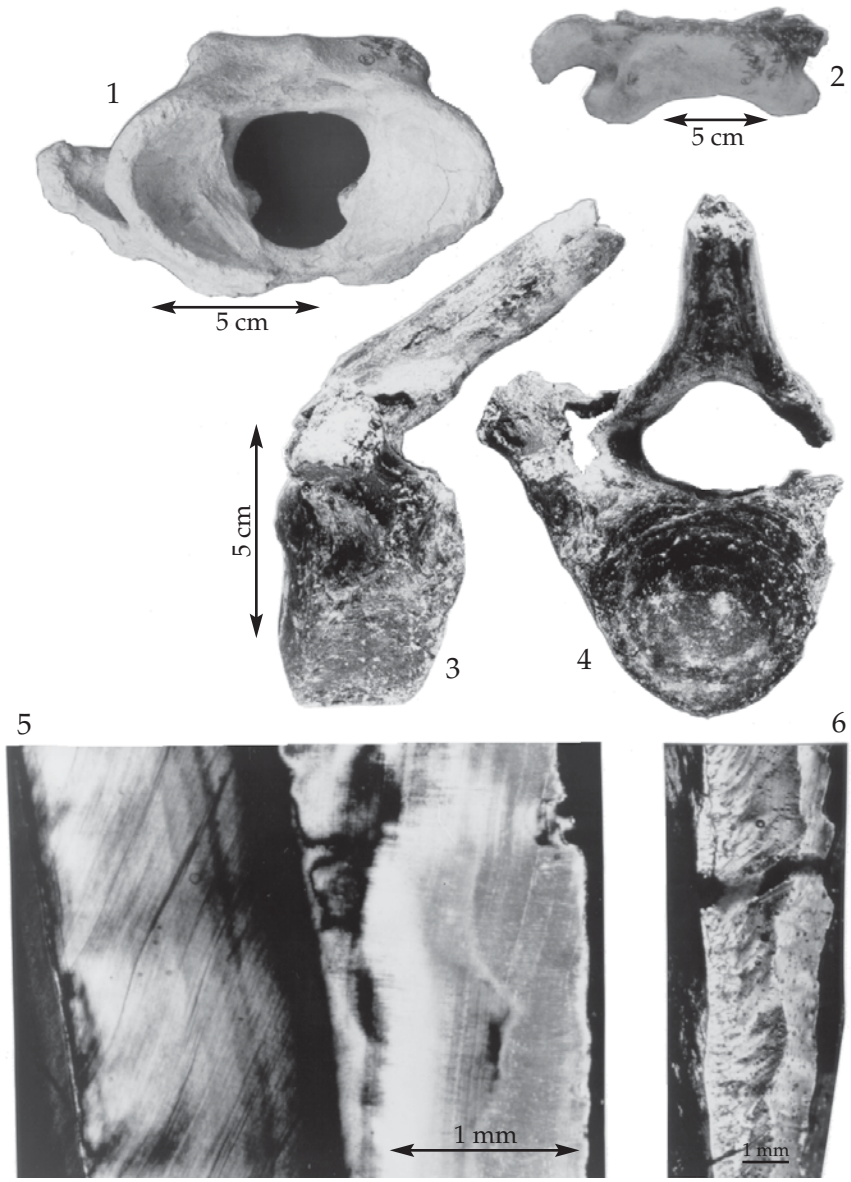


Plate 16

Figs.1-5. *Stegodon sondaari* sp. nov.
Loc.: Tangi Talo, west Central Flores; Lower Pleistocene (c. 0.9 Ma); 1-2: F.BS 3.1; atlas; 1: caudal view; 2: dorsal view; 3-4: GRDC TT-4086; vertebra thoracale IV or V; 3: lateral view; 4: caudal view; 5: inner enamel layer (IEL) and outer enamel layer (OEL). enamel/dentine junction (EDJ) to the left; polarizing microscope.

Fig. 6. *Stegodon sompoensis* Hooijer, 1964
IEL and OEL. EDJ to the left; polarizing microscope.

Plate 17

Figs. 1-6. *Stegodon sondaari* sp. nov.
Loc.: Tangi Talo, west Central Flores; Lower Pleistocene (c. 0.9 Ma); 1-2: GRDC TT-4082; vertebra thoracale (XVI - XIX ?); 1: lateral view; 2: caudal view; 3-4: GRDC TT-4083; sinistral femur diaphysis; 3: anterior view, 4: posterior view; 5-6: GRDC TT-4065; phalanx I; 5: lateral view; 6: palmar view.

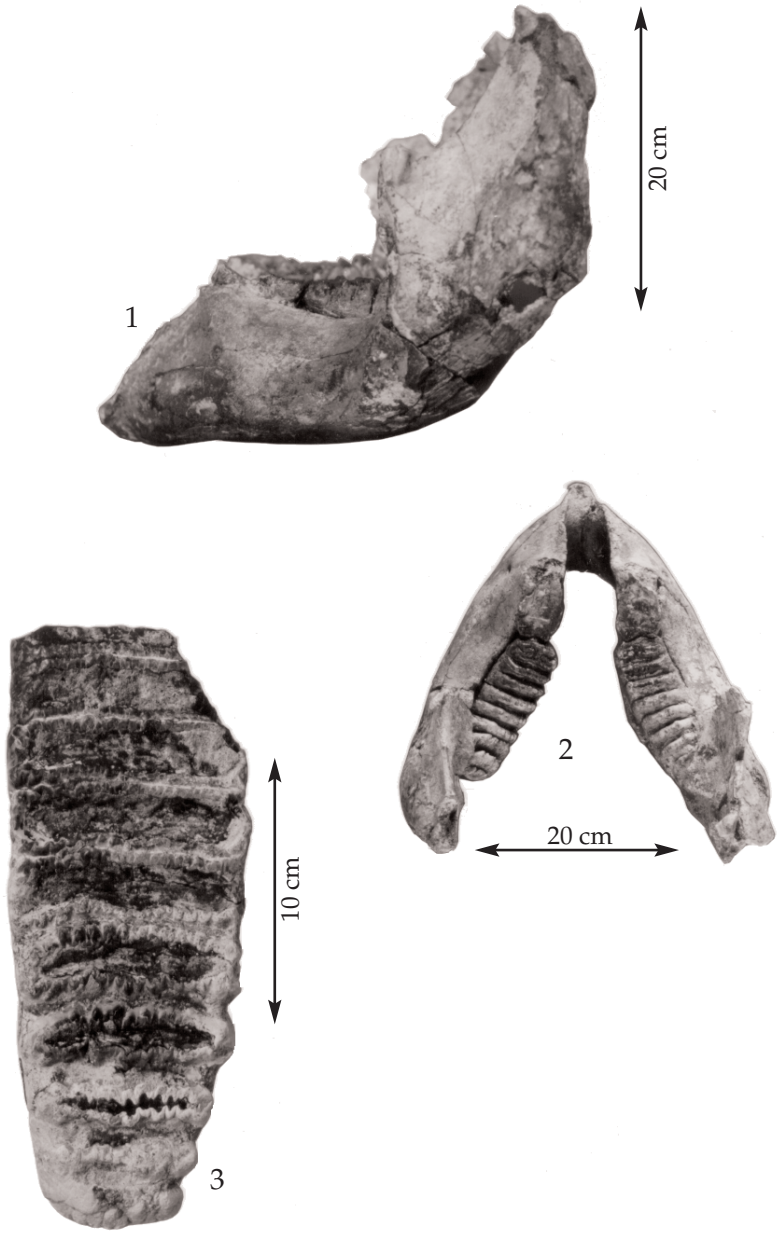


Plate 18

Figs. 1-3. *Stegodon florensis* Hooijer, 1957; west Central Flores.
1-2: GRDC DD-4160; loc.: Dozo Dhalu; mandible with M_1 remnants and both M_2s; 1: lateral view; 2: occlusal view.
3: GRDC MM-4118; loc.: Mata Menge; dextral M^3; 3: occlusal view.