

A summary of the Pondaung fossil expeditions

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Abstract

We briefly summarize the fossil expeditions of the Eocene Pondaung Formation of central Myanmar by the Kyoto University field parties with Myanmar researchers during the field seasons of 1998-2003. We briefly report our contributions to the study on the Pondaung fossils, providing locality data, a list of the Pondaung vertebrate fauna, comments of the repositories of the specimens, and specimen lists, with references of the studies on the Pondaung Formation and Pondaung fossils. The Pondaung vertebrate fauna currently consists of three species of fishes (three orders and three families), 16 species of reptiles (three orders and 10 families), one species of birds, and 53 species of mammals (seven orders and 25 families). The age of the Pondaung fauna is determined as the late middle Eocene by the geological and microfossil evidence. The paleoenvironment of the Pondaung fauna is estimated to be forested/woodland vegetation with humid/subhumid moisture and large rivers, which were located not far from seashore. The Pondaung

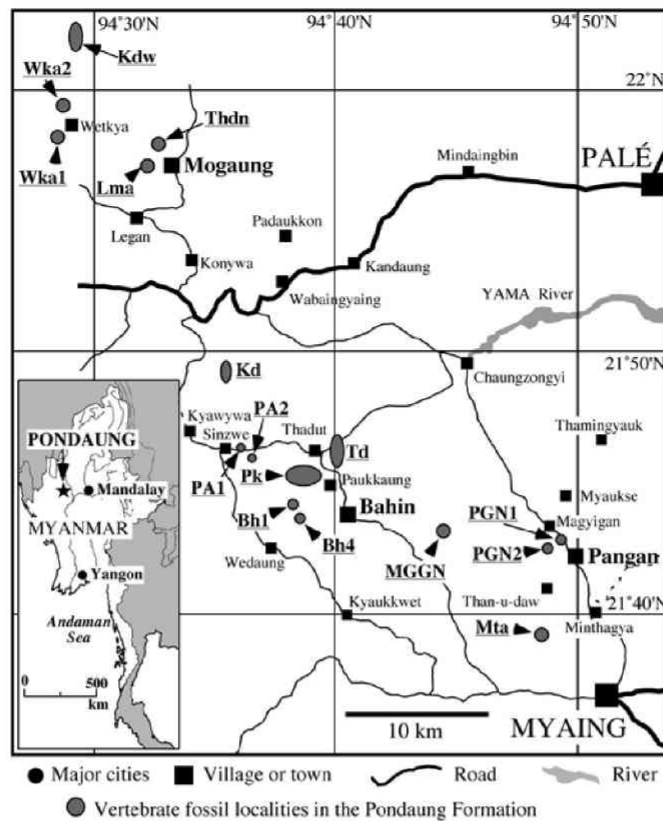


Figure 1. Map of Pondaung, showing several fossil localities of the “Upper Member” of the Pondaung Formation.

mammalian fauna includes many artiodactyl taxa compared to other middle Eocene faunas of East Asia and shows relatively high endemism at the generic level among the contemporaneous mammalian faunas of East Asia. The Pondaung fauna includes several mammalian taxa that indicate migration between Eocene Southeast Asia and Eocene western Eurasia/North Africa.

Introduction

The Pondaung Formation (Pondaung Sandstones) of Myanmar (Cotter, 1914; Aye Ko Aung, 1999) is one of the richest and most famous Eocene fossil-bearing deposits of terrestrial mammals in Southeast Asia. The mammalian fossils from this formation were first described by Pilgrim and Cotter (1916), and primate, artiodactyl, and perissodactyl mammals were described in early 20th century (Pilgrim, 1925, 1927, 1928; Matthew, 1929; Colbert, 1937, 1938). In 1960's and early 1970's, primate fossils were re-studied (Simons, 1963, 1965, 1971; von Koenigswald, 1965; Szalay, 1970, 1972). In late 1970's and 1980's, some primate and crocodile fossils were reported (Buffetaut, 1978; Ba Maw *et al.*, 1979; Ciochon, 1985; Ciochon *et al.*, 1985). In early 1990's, primate fossils were again re-studied (Godinot, 1994; Ciochon and Holroyd, 1994). In late 1990's and 2000's, numerous fossils of mammals and other vertebrates have been reported by the Myanmar, Japanese (Kyoto University), French, and American fossil expedition teams (Holroyd and Ciochon, 1995, 2000; Hutchison and

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Figure 2. Landscape of the Bh1 (Yarshe Kyitchaung) locality.

Holroyd, 1996; Pondaung Fossil Expedition Team, 1997; Tin Thein, 1997, 2004; Jaeger *et al.*, 1998, 1999, 2004; Takai *et al.*, 1999, 2000, 2001, 2003, 2005; Office of Strategic Studies, 1999; Chaimanee *et al.*, 2000; Tsubamoto *et al.*, 2000a, 2000b, 2001, 2002a, 2003a, 2003b, 2004, 2005, 2006; Egi and Tsubamoto, 2000; Ducrocq *et al.*, 2000a, 2000b; Métais *et al.*, 2000; Than Tun, 2000; Tsubamoto, 2001; Ducrocq, 2001; Ciochon *et al.*, 2001; Gunnell and Miller, 2001; Shigehara *et al.*, 2002; Egi *et al.*, 2002, 2004a, 2004b, 2004c, 2005, 2006a, 2006b, in press; Gebo *et al.*, 2002; Gunnell *et al.*, 2002; Ciochon and Gunnell, 2002a, 2002b, 2004; Holroyd *et al.*, 2002, 2006; Beard, 2002; Dawson *et al.*, 2003; Marivaux *et al.*, 2003, 2005; Kay *et al.*, 2004a, 2004b; Hutchison *et al.*, 2004; Shigehara and Takai, 2004; Takai and Shigehara, 2004; Beard *et al.*, 2005; Remy *et al.*, 2005; Head *et al.*, 2005; Stidham *et al.*, 2005; Miller *et al.*, 2005; Métais, 2006).

Among the Pondaung mammalian fossils, in particular, two primate genera *Pondaungia* and *Amphipithecus* have been attracting the attention of many paleontologists, primatologists, and anthropologists because they show several primitive anthropoid (“higher primate”)-like features (e.g., Pilgrim, 1927; Colbert, 1937, 1938; Ba Maw *et al.*, 1979; Ciochon *et al.*, 1985). Recent discoveries of many new primate fossil specimens in the Pondaung Formation, including *Pondaungia*, *Amphipithecus*, *Bahinia*, *Myanmarpithecus*, and *Eosimias*-like primate, are also attracting the attention of many researchers in terms of the anthropoid origins debate (e.g., Pondaung Fossil Expedition Team, 1997; Jaeger *et al.*, 1998, 1999, 2004; Chaimanee *et al.*, 2000; Takai *et al.*, 2000, 2001, 2003, 2005; Ciochon *et al.*, 2001; Shigehara *et al.*, 2002; Gebo *et al.*, 2002; Gunnell *et al.*, 2002; Ciochon and Gunnell, 2002a, 2002b, 2004; Marivaux *et al.*, 2003; Egi *et al.*, 2004b, 2004c, 2006a; Kay *et al.*, 2004a, 2004b; Shigehara and Takai, 2004; Takai and Shigehara, 2004).

Concerning other studies on the Pondaung Formation, micro-fossils (Swe Myint, 1999; Hla Mon, 1999; Thet Wai, 1999), geological studies (Pilgrim, 1910; Cotter, 1914; Stamp, 1922; Chhibber, 1934; Cotter, 1938; Bender, 1983; Holroyd and Ciochon, 1994; Aye Ko Aung, 1999, 2004; Aung Naing Soe, 1999; Tsubamoto *et al.*, 2002b; Aung Naing Soe *et al.*, 2002; Benammi *et al.*, 2002; Soe Thura Tun, 2004; Maung Maung *et al.*, 2005; Suzuki *et*

Table 1. GPS data of the Pondaung fossil localities.

Fossil locality and landmark	Point in the locality	N°	N'	N''	E°	E'	E''
Bahin area: locality							
Td1 (near Thadut)	---	21	45	56.4	94	39	52.2
Td2 (near Thadut)	---	21	45	57	94	40	5.4
	---	21	45	58.8	94	40	4.2
Td3 (near Thadut)	---	21	46	0.6	94	40	13.8
	---	21	45	59.4	94	40	13.2
Td4 (near Thadut)	---	21	45	48.6	94	40	6
Td5 (near Thadut)	---	21	46	41.4	94	40	3.6
	---	21	46	41.4	94	40	4.8
	creodont collected	21	46	40.2	94	40	2.4
Td6 (near Thadut)	siliceous trees	21	46	3.6	94	40	20.4
	amynodont	21	46	3	94	40	21.6
Td6 West (near Thadut)	---	21	46	3.6	94	40	16.2
Td7 (near Thadut)	turtles	21	46	9.6	94	39	42.6
Td8 (near Thadut)	perissodactyl	21	46	28.2	94	39	56.4
Pk1 (Sabapon taung)	---	21	45	8.4	94	38	11.2
	---	21	45	11.46	94	38	12.48
	tuff bed	21	45	10.2	94	38	12
	humerus site	21	45	11.4	94	38	11.4
Pk2 (near Paukkaung)	U Shige (<i>Amphipithecus</i>) site	21	45	15	94	39	12.6
	---	21	45	15.8	94	39	13.5
	---	21	45	13.5	94	39	24.54
	---	21	45	16.8	94	39	12.6
Pk3 (near Paukkaung)	---	21	45	15.8	94	39	21
	---	21	45	17.28	94	39	26.16
	---	21	45	15	94	39	27.6
Pk4 (near Paukkaung)	---	21	45	7.5	94	39	1.2
	---	21	45	10.3	94	38	50.2
	---	21	45	11.76	94	38	50.64
	the field side	21	45	13.2	94	38	50.4
Pk5 (Ayoedawpon taung)	---	21	45	20.3	94	38	32.8
	---	21	45	23.6	94	38	22.2
	---	21	45	26.52	94	38	21.18
	---	21	45	24.6	94	38	21.6
	tuff	21	45	27	94	38	20.4
	top of the Pk5	21	45	26.4	94	38	23.4
	<i>P. cotteri</i> site	21	45	25.8	94	38	27
Pk6	---						(south from Pk1 and Pk5)
Pk7	---						(east from Bh1)
Pk8 (=Pk10) (next to Pk4)	---						(just east from Pk4)
Pk9 (near Paukkaung)	---	21	45	31.2	94	38	37.8
	---	21	45	25.8	94	38	37.8
Pk10 (=Pk8) (next to Pk4)	---						(=Pk8)
Pk11 (near Paukkaung)	---	21	45	6	94	38	58.8
Pk12 (near Paukkaung)	---	21	44	56.4	94	39	13.8
Pk13 (near Paukkaung)	= Myanmar-French "Pk11"	21	45	9	94	41	10.8
Bh1 (Yarshe Kyit-chaung)	---	21	44	13.3	94	38	13.1
	---	21	44	11.8	94	38	14.9
	---	21	44	17.4	94	38	14.4
	---	21	44	13.2	94	38	19.8
	---	21	44	12.6	94	38	13.8

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Table 1 (continued). GPS data of the Pondaung fossil localities.

Bh2 (near Bahin)	---	21	44	23.8	94	38	0.4
	---	21	44	10.5	94	38	15.18
Bh3 (near Bahin)	---	21	44	19.6	94	38	10.4
	---	21	44	10.5	94	38	15.18
Bh4 (near Bahin)	northeast end	21	43	38.9	94	38	30.3
	---	21	43	39	94	38	28.8
	---	21	43	34.2	94	38	30.6
	primate? site	21	43	39	94	38	30.6
Bh5 (near Bahin)	---	21	44	4.2	94	38	19.8
Bh6 (near Bahin)	---	21	44	9.6	94	38	5.4
Szc (Hlamec taung Kyit-chaung)	(replaced by rice field from southern side)	21	46	54	94	36	21
PA1 (Paya Ama Kyit chaung)	south end (became a rice field in 2001 fall)	21	46	24	94	36	3.6
	" <i>Anthracotherium</i> " site	21	46	32.4	94	36	7.8
PA2 (Paya Ama Kyit chaung)	---	21	46	3.2	94	36	30.8
Kd1 (near Kyudaw)	---	21	49	25.2	94	35	24
Kd2 (near Kyudaw)	---	21	49	24	94	35	25.2
Kd3 (near Kyudaw)	---	21	49	2.4	94	35	34.2
Kd4 (near Kyudaw)	---	21	49	7.8	94	35	23.4
Bahin area: landmark							
Paukkaung village	the village chairman's house in 2002	21	44	51	94	39	59.4
Pagoda in Bahin	---	21	43	9.48	94	40	47.94
Primate Resort	(a shop)	21	43	56.4	94	38	37.32
Primate Guest House	---	21	43	32.4	94	40	40.2
Pagoda in Sinzwe	---	21	46	21	94	35	31.8
Pangan area: locality							
Tmk (near Thamingyauk)	---	21	45	28.7	94	50	18.3
MGGN (near Magyigon)	---	21	43	11	94	44	30.8
PGN1 (Myinzainggon)	---	21	42	47.6	94	49	16.3
PGN2 (Taungnigyin)	---	21	42	31.6	94	48	45.6
	creodont site	21	42	31.2	94	48	45.6
	near creodont site	21	42	32.3	94	48	45.2
Tudw (near Than-u-daw)	road side	21	41	21	94	48	8.4
	opposite from road side	21	41	15.6	94	48	4.2
	---	21	41	18.3	94	48	0.9
Mta (near Minthagya)	red bed	21	39	13.2	94	49	11.4
	<i>Indolophus</i> site	21	39	15	94	49	4.2
	---	21	39	11.4	94	49	13.8
Mta2 (near Minthagya)	<i>Anthracotherium</i> found	21	39	6.6	94	49	38.4
Mta2' (near Minthagya)	---	21	39	6	94	49	44.4
Mta2" (near Minthagya)	crocodile found	21	39	8.4	94	49	46.8
Mta3 (near Minthagya)	---	21	39	13.8	94	49	31.2
Pangan area: landmark							
Minthagya village	(approximate)	21	40	24	94	51	0
Myaing base	(a township office building)	21	36	36	94	51	29.4
Maggyigan base	---	21	43	17.1	94	48	46.7
Mogaung area: locality							
UKM1	---	21	56	5.8	94	31	50.9
Lma (Lema Kyit-chaung)	Legan side	21	57	6.6	94	32	9.6

Table 1 (continued). GPS data of the Pondaung fossil localities.

	chert conglomerate point	21	57	9	94	32	15.6
	Mogaung side	21	57	7.2	94	32	12
	---	21	57	6.7	94	32	14.4
	= Myanmar-French "Mgg1"	21	57	10.1	94	32	4.7
Thdn (Thandaung Kyit-chaung)	---	21	57	55.8	94	32	39
	---	21	57	49.6	94	32	37.2
	= Myanmar-French "Mgg2"	21	58	6.4	94	32	43.6
NYG1 (near Nyaunggaing)	---	21	58	26.4	94	30	52.8
NYG2 (near Nyaunggaing)	---	21	58	18	94	30	39
NYG3 (near Nyaunggaing)	---	21	58	18.6	94	31	6
Wka1 (Jagaung)	---	21	58	14.4	94	28	30.6
Wka2 (near Wetkya)	---	21	59	23.4	94	28	44.4
Wka3 (near Wetkya)	---	22	0	5.4	94	28	51
Kdw1 (Kyawdaw)	---	22	1	57	94	29	13.2
Kdw2 (Kyawdaw)	---	22	1	50.4	94	29	19.8
Kdw3 (Kyawdaw)	---						Not available
Kdw4 (Kyawdaw)	---						Not available
Kdw5 (Kyawdaw)	---	22	2	14	94	29	8.9
Kdw6 (Kyawdaw)	---	22	2	19.6	94	29	10.8
Kdw7 (Kyawdaw)	---	22	1	48.4	94	29	19.5
Kdw South (Kyawdaw)	northwest end	22	0	30.6	94	29	4.8
	southeast end	22	0	27	94	29	7.8
Mogaung area: landmark							
Legan base	---	21	55	3	94	31	46.2
Mogaung village	---	21	57	5.4	94	33	14.9
Nyaunggaing village	---	21	58	38.4	94	31	34.2
Kawdang village	---	21	58	40.2	94	31	34.8
Wetkya base	---	21	58	42	94	28	56.4

al., 2006a, 2006b), Jurassic radiolarian fossils from chert pebbles (Suzuki *et al.*, 2004), and freshwater gastropod molluscan fossils (Ugai *et al.*, 2006) have also been reported. Also, many coprolites and occasional leaf fossils have been found in the vertebrate fossil localities of the Pondaung Formation, although they were not yet described.

Since 1998, Kyoto University field parties with Myanmar researchers have continued fossil expeditions in the Pondaung Formation. Our fossil expedition have contributed to the studies of the mammalian fauna, detailed geologic age, and detailed regional geology of fossil localities on the Pondaung Formation. Here, we briefly summarize our Pondaung fossil expeditions, providing: (1) GPS data and several photos of the Pondaung fossil localities that we visited; (2) an updated list of the Pondaung vertebrate fauna by our expedition and by the recent Myanmar, French, and American fossil expedition teams; (3) a comment on the repositories of the Pondaung fossil specimens in Myanmar; and (4) lists of the Pondaung fossil specimens that we catalogued (NMMP-KU list and MGW list) during the field seasons of 1998-2003.

Geological and paleontological setting

The geological structure of Myanmar is divided into four main parts, each of which extends from north to south (Ba Than Haq, 1981). From east to west in order, those are: (1) the Shan-Tenasserim Massif, which consists of the Precambrian to Cretaceous; (2) the Central Irrawaddy Lowland, which is mainly composed of the Cenozoic; (3) the Naga-Arakan Mountain Belt (or Naga-Rakhine Mountain Belt), which consists of the Cretaceous to Miocene; and (4) the Coastal Arakan Lowland (or Coastal Rakhine Lowland), which includes the Cretaceous to Recent (Ba Than Haq, 1981).

The Eocene Pondaung Formation is distributed geographically in the western part of central Myanmar (Figure 1) and geologically in the central part of the Central Irrawaddy Lowland (Cotter, 1914; Cotter, 1938; Ba Than Haq, 1981; Aye Ko Aung, 1999). The Pondaung Formation consists of terrestrial deposits and is about 2,000 m thick at the type section (Aye Ko Aung, 1999). Its thickness decreases toward the south (Stamp, 1922). It consists of alternating terrestrial mudstones, sandstones, and conglomerates, and is subdivided into “Lower” and “Upper” Members (Aye Ko Aung, 1999). The “Lower Member” is about 1,500 m thick at the type section and is dominated by greenish sandstones and conglomerates (Aye Ko Aung, 1999). The “Upper Member” is about 500 m thick in the type section and is dominated by yellowish sandstones and variegated claystones (Figures 2-10; Aye Ko Aung, 1999), including several tuff beds (Figures. 4, 11; Tsubamoto *et al.*, 2000a, 2002b). The Pondaung Formation overlies and partially interfingers with the Tabyin Formation, and is conformably overlain by the Yaw Formation (Stamp, 1922; Bender, 1983; Aye Ko Aung, 1999). Both the Tabyin and Yaw Formations are composed mainly of marine claystones (Stamp, 1922; Bender, 1983).

The “Upper Member” of the Pondaung Formation yields vertebrate fossils mainly in its lower half (Colbert, 1938; Aye Ko Aung, 1999, 2004), and is interpreted as fluvio-deltaic deposits (Aung Naing Soe, 1999; Aung Naing Soe *et al.*, 2002). Currently known fossil sites for Pondaung mammals are distributed at the west side of the Chindwin River extending about 50 km from northwest to southeast (Figure 1; Colbert, 1938: fig. 6). Most of the vertebrate fossils come from mudstones of swale-fill sediments and some of them come from sandy fluvial channels and/or crevasse channels (Aung Naing Soe, 1999; Aung Naing Soe *et al.*, 2002). Although fossils have been collected predominantly by surface prospecting, enough materials remain in place to indicate their original distributions in the sediment matrix. Fossils found in situ (Figure 12) are rare. The washing and screening method was also applied.

Results of the Pondaung fossil expeditions

The scientific papers on the Pondaung Formation by the Kyoto University field parties with collaborative researchers are listed below: Takai *et al.*, 1999, 2000, 2001, 2003, 2005; Tsubamoto *et al.*, 2000a, 2000b, 2001, 2002a, 2002b, 2003a, 2003b, 2004, 2005, 2006; Egi and Tsubamoto, 2000; Tsubamoto, 2001; Shigehara *et al.*, 2002; Egi *et al.*, 2002, 2004a,



Figure 3. Landscape of the Bh4 locality.



Figure 4. Landscape of the Pk1 (Sabapon Taung) locality, showing a tuff bed (arrow).

2004b, 2004c, 2005, 2006a, 2006b, in press; Gebo *et al.*, 2002; Holroyd *et al.*, 2002, 2006; Dawson *et al.*, 2003; Kay *et al.*, 2004a, 2004b; Shigehara and Takai, 2004; Takai and Shigehara, 2004; Suzuki *et al.*, 2004, 2006a, 2006; Stidham *et al.*, 2005; Maung Maung *et al.*, 2005; Ugai *et al.*, 2006).

Fossil localities

The map and GPS data of the Pondaung vertebrate fossil localities that we visited are shown in Figure 1 and in Table 1. Landscape of the fossil localities are shown in Figures 2-10. The fossil localities shown in Figure 1 and in Table 1 have the serial numbers catalogued by the Kyoto University field parties.

The currently known fossil localities of the Pondaung vertebrate fossils distribute narrowly, extending about 50 km from northwest to southeast. The number of fossil localities we investigated is 60 (Table 1). There are three main areas of the fossil localities: Bahin, Pangan, and Mogaung areas (Figure 1; Tsubamoto *et al.*, 2000a). The Bahin and Pangan areas are located about 25 - 30 km northwest and about 5-20 km north from Myaing town, respectively; The Mogaung area is located about 35-40 km west from Palé town (Tsubamoto

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Figure 5. Landscape of the Pk2 locality.



Figure 6. Landscape of the Pk3 locality.

et al., 2000a; Figure 1). These three main areas bearing fossil localities roughly correlate to the lower part of the “Upper Member” of the Pondaung Formation (Aye Ko Aung, 2004). Although the detailed stratigraphic relationships among the fossil localities are almost unclear, the detailed stratigraphic relationships among the fossil localities near the Paukkaung village in Bahin area were studied by Maung Maung *et al.* (2005) and Suzuki *et al.* (2006b).

Determination of the geologic age

The “Upper Member” of the Pondaung Formation is correlated to the uppermost middle Eocene on the basis of stratigraphic, micro-paleontological, and radiometric evidence, not using the faunal comparison of mammals (Tsubamoto *et al.*, 2005).

The Pondaung Formation overlies and partially interfingers with the Tabyin Formation, and is conformably overlain by the Yaw Formation (Stamp, 1922; Bender, 1983; Aye Ko Aung, 1999). The Tabyin Formation, which yields nummulites (benthic foraminifera) (Stamp, 1922; Bender, 1983), has been correlated with the Kirthar Stage of India, which is correlated with the Lutetian (lower middle Eocene) (Eames, 1951; Gingerich and Russell, 1990; Holroyd and Ciochon, 1994). The Yaw Formation has been correlated with the Priabonian



Figure 7. Landscape of the Pk5 (Ayoedawpon Taung) locality.



Figure 8. Landscape of the Pk13 locality.

(upper Eocene) on the basis of foraminiferan and molluscan faunas (Stamp, 1922; Cotter, 1938; Bender, 1983). However, the biozone of a foraminiferan from the Yaw Formation, *Discocyclina sella* D'Archiac (= *Discocyclina dispansa sella*), listed by Bender (1983) is now correlated with the Shallow Benthic Zones (SBZs) 15-18, which correspond to the upper part of the middle Lutetian to the upper Bartonian (about 43.5-37 Ma; middle Eocene) (Serra-Kiel *et al.*, 1998: fig. 5). Therefore, at least the lower part of the Yaw Formation can be correlated with the uppermost Bartonian (= uppermost middle Eocene), and in that case, the Pondaung Formation is automatically correlated with the middle Eocene. The uppermost Bartonian correlation of the Yaw Formation is also suggested by Holroyd and Ciochon (1994, 1995), on the basis of the correlation of the Yaw Formation with the Nanggulan Formation of Java.

On the other hand, nannoplankton assemblages of the vertebrate-fossil-bearing "Upper Member" of the Pondaung Formation at the vertebrate fossil sites suggests a middle Eocene age (Hla Mon, 1999). The fission-track age of the "Upper Member" was determined as 37.2 ± 1.3 Ma (around the middle/late Eocene boundary; Berggren *et al.*, 1995; Gradstein *et al.*, 2004) by Tsubamoto *et al.* (2002b).

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Figure 9. Landscape of the PGN1 (Myinzainggon Kyitchaung) locality.



Figure 10. Landscape of the PGN2 (Taungnigyin Kyitchaung) locality.

On the basis of all these evidence, the “Upper Member” of the Pondaung Formation is correlated with the upper Bartonian (= uppermost middle Eocene).

The precise age determination of the Pondaung Formation (Pondaung mammalian fauna) by geological and microfossil evidence is very important for the study of Paleogene mammals in East Asia (Tsubamoto *et al.*, 2005). As discussed above, this age determination is not based on the mammalian fauna. In contrast, most of the Paleogene terrestrial mammalian faunas of East Asia are dated only by comparison of the included mammalian taxa with fossil mammals of North America and Europe (e.g., Li and Ting, 1983; Russell and Zhai, 1987). Although some faunas are dated by the magnetostratigraphy, radiometric dating, and/or isotope stratigraphy (Meng and McKenna, 1998: fig. 2; Benammi *et al.*, 2001; Bowen *et al.*, 2002), their datings are also based on mammalian faunal correlations. The Pondaung fauna is the only East Asian Paleogene mammalian fauna precisely dated not using mammalian comparison. The late Bartonian age (latest middle Eocene) of the Pondaung Formation corresponds to the age of the Pondaung fauna determined by the ungulate mammalian faunal comparison by previous researchers (e.g., Pilgrim and Cotter, 1916; Pilgrim, 1928; Colbert, 1938; Russell and Zhai, 1987; Holroyd and Ciochon, 1994; Ducrocq, 1999), suggesting that



Figure 11. A tuff bed (arrow) at the Bh1 (Yarshe Kyitchaung) locality.



Figure 12. Mode of occurrence of a lower jaw (*in situ*) of *Anthracotherium* at the PGN1 locality.

such comparison of mammalian faunas is useful for determining the age of Eocene mammal-bearing terrestrial deposits of East Asia when done carefully.

Faunal list and the Pondaung fauna

A list of the Pondaung vertebrate fauna is shown in Table 2. This list is compiled from Buffetaut (1978), Hutchison and Holroyd (1996), Hutchison *et al.* (2004), Tsubamoto *et al.* (2005), Egi *et al.* (2005, in press), Head *et al.* (2005), Marivaux *et al.* (2005), Remy *et al.* (2005), Stidham *et al.* (2005), Métais (2006), Holroyd *et al.* (2006), and our recent discovery.

The Pondaung vertebrate fauna currently consists of three species of fishes (three orders, three families, and three genera), 16 species of reptiles (three orders, 10 families, and 16 genera), one species of birds, and 53 species of mammals (six orders with one indeterminate order, 25 families, and 37 genera) (Table 2). When Colbert published a monograph of the Pondaung fauna in 1938, the reported Pondaung vertebrate fauna consisted only of the three orders of mammals including six families, 11 genera, 26 species: primates including one families, two genera, and two species; perissodactyls including three families, five genera, and nine species; and artiodactyls including two families, four genera, and 15 species. The

currently-known Pondaung vertebrate fauna by the recent studies on the Pondaung fossils (particularly by the Myanmar, Japanese, French, and American paleontologists in late 1990's and early 2000's) contains nearly five times as many species as that by Colbert (1938).

The Pondaung mammal fauna now includes six orders (Primates, Creodonta, Carnivora, Rodentia, Artiodactyla, and Perissodactyla) and an indeterminate ungulate, consisting of 25 families, 37 genera, and 53 species (Table 2). More than half of the mammalian species recorded so far in the Pondaung fauna consists of artiodactyl and perissodactyl ungulates.

In the Pondaung mammalian fauna, only a few small-sized mammals (anomalurid rodents and eosimiid and indeterminate primates) have been discovered so far. This can be explained by sampling bias. Most of the Pondaung fossil materials have been collected by surface prospecting, which is biased against small faunal elements (Winkler, 1983; Gunnell, 1994). In some Eocene faunas of East Asia such as Shanghuang and Heti faunas of central China and in North American Eocene faunas, small mammals such as rodents dominate the fauna (Savage and Russell, 1983; Russell and Zhai, 1987; Tong, 1997; Tsubamoto *et al.*, 2004). Therefore, rodents and other small mammals would be much more abundant and diverse than artiodactyls and perissodactyls in a true picture of the Pondaung fauna.

On the other hand, the sampling and taphonomic biases among the Pondaung ungulates can be considered to be minimal. All the Pondaung ungulates are medium-to-large-sized mammals and have relatively low crowned and robust teeth, so that their habitats are considered to be ecologically close to each other. Such ungulate assemblages would not be so strongly biased by the surface-prospecting sampling method (Winkler, 1983; Gunnell, 1994) or by sedimentological and chemical biases.

Both artiodactyls and perissodactyls are very abundant in the recorded Pondaung mammalian fauna representing more than 90 % of taxonomically identifiable dental specimens at the familial/ordinal levels (Tsubamoto *et al.*, 2005). The two are similar to each other in abundance, but perissodactyls are taxonomically more diversified at the generic level than artiodactyls (Tsubamoto *et al.*, 2005). About 40 % of identifiable dental specimens of mammals from the Pondaung fauna labeled under NMMP-KU serial numbers were referred to anthracotheriid artiodactyls (Tsubamoto *et al.*, 2005), and anthracotheres constitute the major part of the recorded Pondaung mammal fauna (Pilgrim and Cotter, 1916; Colbert, 1938; Tsubamoto *et al.*, 2000a). Most of the dental collections of perissodactyls in the Pondaung fauna belong to brontotheres or amynodontids (Tsubamoto *et al.*, 2005). In addition, the perissodactyls are, as a whole, larger in estimated body size than the artiodactyls in the Pondaung fauna.

The paleoenvironment of the Pondaung fauna is estimated to be forested/woodland vegetation with humid/subhumid moisture and large rivers, which were located not far from the coast of the eastern Tethyan Sea (Tsubamoto *et al.*, 2005). Most herbivorous mammals of the Pondaung fauna have brachyodont teeth, which are adapted to a diet of soft plants, such as buds, young leaves, and fruits, suggesting that their habitats were not open lands but a

Table 2. Vertebrate faunal list of the Pondaung Formation (compiled from Buffetaut, 1978; Hutchison and Holroyd, 1996; Hutchison *et al.*, 2004; Tsubamoto *et al.*, 2005; Head *et al.*, 2005; Egi *et al.*, 2005, in press; Marivaux *et al.*, 2005; Remy *et al.*, 2005; Stidham *et al.*, 2005; Holroyd *et al.*, 2006; our recent discovery).

CHONDR ICHTHY E S	Che lonia
Galeomorpha	Pleurodira
Carcharhinidae	Pelomedusoides
<i>Galeocerdo</i> sp.	?Podo cnemidida e
	Gen. et sp. indet.
OSTEICHTHY E S	Cryptodira
Siluriformes	Testudinoidea
Clariidae	Family indet.
Gen. et sp. nov.	Gen. et sp. indet.
	Testudinidae
Cypriniformes	Gen. et sp. indet.
Family indet.	Trionychoidea
Gen. et sp. indet.	Carettochelyidae
	Anosteirinae
REPT ILIA	<i>Anos teira</i> sp.
Squamata	Carettochelyinae
Lacertilia	<i>Bur memys magnif ica</i>
Agamidae	Trionyichidae
Gen. et sp. indet. 1	Trionyichinae
Gen. et sp. indet. 2	Gen. et sp. indet. (large form)
Gen. et sp. indet. 3	Gen. et sp. indet. (small form)
Gen. et sp. indet. 4	Gen. et sp. indet. (ornate form)
Serpentes	Crocodylia
Paleophidae	Dyrosauridae
cf. <i>Pterosphenus</i> sp.	Gen. et sp. indet.
Colubroidea	Crocodylidae
Family indet.	Pristichampsinae
Gen. et sp. indet.	

forested/woodland environment. There are no herbivorous species with complete hypsodonty, which is regarded to be adapted to a diet of hard and abrasive plants, such as grasses, found in open lands. The amphipithecoid primate postcranial specimens from the Pondaung Formation suggests that the amphipithecoids were an arboreal quadrupedalist (Ciochon *et al.*, 2001; Marivaux *et al.*, 2003; Kay *et al.*, 2004a; Egi *et al.*, 2006a), also implying forested environment. The Pondaung fauna is located at a relatively low latitude (around 20°N at present), implying a warm or hot climate. The “Upper Member” of the Pondaung Formation consists mostly of fluvial sediments (Aung Naing Soe *et al.*, 2002) and yields chondrichthyan, siluriform, and cypriniform fishes and aquatic turtles and crocodiles (Hutchison and Holroyd, 1996) as well as ungulate mammals of semi-aquatic habits like modern hippos such as metamynodontine amynodontids and anthracotheriids (Wall, 1989, 1998; Kron and Manning, 1998), indicating occurrences of large rivers and well-drained flood plain (Hutchison *et al.*, 2004). The formations lying above and below the Pondaung Formation, that is, the Yaw and Tabyin Formations, are marine deposits (Bender, 1983; Aye Ko Aung, 1999), and the southern part of the “Pondaung Sandstones” (Cotter, 1914) consists of brackish to marine deposits (Colbert, 1938; Bender, 1983), suggesting that Pondaung vertebrates lived near the coast of the eastern Tethyan Sea. On the other hand, the cenogram analysis of the Pondaung

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Table 2 (continued).

AVES	Artiodactyla
Ciconiiformes	Family indet. 1
Cf. Threskiornithidae	Gen. et sp. indet. 1
Gen. et sp. indet.	Family indet. 2
	Gen. et sp. indet. 2
MAMMALIA	Dichobunoidea
Primates	Family indet.
Family indet.	Gen. et sp. indet.
Gen. et sp. indet.	Dichobunidae
?Sivaladapidae	Homaodontinae
Gen. et sp. indet.	<i>Asiohomaco don myanm arensis</i>
Anthropoidea	Cf. <i>Asiohomaco don myanm arensis</i>
Eosimiidae	Helohyidae
<i>Bahinia pondaungensis</i>	<i>Pakkokuy us lahir ii</i>
Cf. <i>Eosimias</i> sp.	Anthracotheriidae
Cf. <i>Eosimias paukkaungensis</i>	<i>Anthracotherium pangan</i>
?Anthropoidea	<i>Anthracotherium crassum</i>
Amphipithecidae	<i>Anthracotherium birmanicum</i>
<i>Amphipithecus mogaungensis</i>	<i>Anthracotherium tenuis</i>
<i>Pondaungia cotteri</i>	Ruminantia
<i>Pondaungia savagei</i>	Archaeomerycidae
<i>Myanmarpithecus yarsheensis</i>	<i>Than daungia tini</i>
	Fam. indet.
Creodonta	<i>Indomeryx cotteri</i>
Hyaenodontidae	<i>Indomeryx arenae</i>
Proviverrinae	Cf. <i>Indomeryx cotteri</i>
<i>Yarshea cruenta</i>	
<i>Kyawdawia lupina</i>	Perissodactyla
Gen. et sp. nov.	Brontotheriidae
Gen. et sp. indet.	<i>Sivatitanops cotteri</i>
Hyaenailourinae	<i>Sivatitanops birmanicum</i>
" <i>Pterodon dahkoensis</i> gen. nov.	Cf. <i>Sivatitanops rugosidens</i>
	Cf. <i>Metatelmatherium lahiri</i>
Carnivora	Cf. <i>Metatelmatherium browni</i>
Miacidae	<i>Bunobrontops savagei</i>
? <i>Vulpavus</i> sp.	<i>Bunobrontops</i> sp.
Cf. <i>Chaileyon</i> sp.	Tapiromorpha
Amphicyonidae	Indolophidae
Gen. et sp. indet.	<i>Indolophus guptai</i>
Nimravidae	Ancylopoda
<i>Nimravus</i> sp. cf. <i>N. intermedius</i>	Chalicotherioidea
Gen. et sp. indet.	Eomoropidae
	<i>Eomoropus pawnyunti</i>
Rodentia	Gen. et sp. indet.
Anomaluroidea	Ceratomorpha
Family indet.	Fam. indet.
<i>Pondaungimys anomaluroopsis</i>	Gen. et sp. indet.
Anomaluroidea sp. 1	Rhinocerotoida
Anomaluroidea sp. 2	Rhinocerotidae
	Cf. <i>Teletaceras</i> sp.
Ungulata	Amynodontidae
Order et family indet.	<i>Paramynodon birmanicus</i>
<i>Hsanothrium parvum</i>	<i>Paramynodon cotteri</i>
	Gen. et sp. indet.
	Tapiroidea
	Deperetellidae
	<i>Bahinolophus birmanicus</i>

fauna also suggests a warm and humid climate (Tsubamoto *et al.*, 2005).

The Pondaung mammalian fauna appears to be endemic at the generic level among the Eocene faunas of East Asia, although the fauna is not endemic at the familial level. At the

Table 3. List of the Pondaung fossil specimens stored at the Department of Geology, Magway University (MGW specimens).

MGW	Higer taxa	ID	Material	Locality	Paper
0022	Creodonta	Proviverrinae indet.	left mandibular fragment with lower m1 and alveoli of p4, m2, and half of m3	Mta	16
0023	Perissodactyla	Amyndontidae	left lower p4	Mta	
0024	Artiodactyla	<i>Anthracotherium</i> sp.	upper molar frag.	Mta	
0025	Artiodactyla	<i>Anthracotherium</i> sp.	left mandibular frag. with left lower m3 talonid	10-15 miles west from Myaing	
0026	Artiodactyla	<i>Anthracotherium</i> sp.	left maxillary frag. with left upper P3-4	10-15 miles west from Myaing	
0027	Artiodactyla	<i>Anthracotherium</i> sp.	left mandibular frag. with left lower p4	10-15 miles west from Myaing	
0028	Artiodactyla	<i>Anthracotherium</i> sp.	right lower p4	10-15 miles west from Myaing	
0029	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3 frag.	10-15 miles west from Myaing	
0030	Artiodactyla	<i>Anthracotherium</i> sp.	right upper molar	10-15 miles west from Myaing	
0031	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar	10-15 miles west from Myaing	
0032	Perissodactyla	Amyndontidae	lower molar frag.	10-15 miles west from Myaing	
0033	Perissodactyla	Amyndontidae	upper incisor	10-15 miles west from Myaing	
0034	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M1or2	10-15 miles west from Myaing	

familial level, the Pondaung fauna includes many families widely common with other middle Eocene faunas of East Asia, such as the Hyaenodontidae, Helohyidae, Anthracotheriidae, Brontotheriidae, Eomoropidae, Amyndontidae, and Deperetellidae. At the generic level, on the other hand, the Pondaung mammalian fauna shows a high degree of endemism. Among the 27 identified genera (named genera and unnamed new genera) of the Pondaung mammals, 16 genera (*Bahinia*, *Amphipithecus*, *Pondaungia*, *Myanmarpithecus*, *Yarshea*, *Kyawdawia*, unnamed new proviverrine, *Pondaungimys*, *Hsanotherium*, *Asiohomacodon*, *Pakkokuhyus*, *Thandaungia*, *Sivatitanops*, *Bunobrontops*, *Indolophus*, and *Bahinolophus*) are endemic to the fauna.

Another feature of the Pondaung mammalian fauna is the relative dominance of artiodactyls compared to middle Eocene faunas of Mongolia and northern and central China. In most middle Eocene faunas of East Asia, perissodactyls such as brontotheriids, amyndontids, and deperetellids are much more diverse at the generic level and probably also in abundance than artiodactyls (Russell and Zhai, 1987; Meng and McKenna, 1998; Tsubamoto *et al.*, 2004). In the Pondaung fauna, although artiodactyls are less taxonomically diverse than perissodactyls, they consists of eight families and eight genera (Table 2) and are more diverse compared to other middle Eocene faunas of East Asia (Russell and Zhai, 1987; Tsubamoto *et al.*, 2004). Pondaung artiodactyls are as abundant as perissodactyls in collection size (Tsubamoto *et al.*, 2005).

The Pondaung mammalian fauna includes several taxa that indicate migration between Eocene Southeast Asia and Eocene western Eurasia/North Africa. The proviverrine hyaenodontid creodonts from the Pondaung Formation have close phyletic relationships with

the advanced proviverrines from the upper Eocene to lower Oligocene of Afroarabia (Egi *et al.*, 2005). The anomaluroid rodents from the Pondaung Formation show a dental pattern very similar to that of *Nementchamys* from the upper middle Eocene of Algeria, indicating a closet phyletic relationship (Dawson *et al.*, 2003; Marivaux *et al.*, 2005). The anthracotheriids from the Pondaung Formation have a dental pattern very similar to the species of *Anthracotherium* from the upper Eocene and lower Oligocene of Europe (Ducrocq, 1994, 1999; Tsubamoto *et al.*, 2002a). The eosimiid anthropoid primates (primitive anthropoids) from the Pondaung Formation and from the middle Eocene of China also indicate the anthropoid migration between Southeast Asia and North Africa during the Eocene because several primitive anthropoids have been found from the upper lower or lower middle Eocene of Algeria (*Algeripithecus* and *Tabellia*) and from the upper Eocene to lower Oligocene Fayum deposit of Egypt (a diverse assemblage of early anthropoids such as parapithecids and proteopithecids) (Godinot and Mahboubi, 1992, 1994; Jaeger *et al.*, 1999; Kirk and Simons, 2001; Beard, 2002; Takai *et al.*, 2005).

Comments on the fossil repositories in Myanmar and specimen lists

Most of the fossil specimens collected by the Pondaung Fossil Expedition Team in 1997 (Pondaung Fossil Expedition Team, 1997) are stored at the National Museum of Myanmar in Yangon. Most of the specimens collected by the Myanmar-Japan Pondaung Fossil Expedition Team from 1998 to the present are currently stored at the Department of Geology, University of Yangon in Yangon. Some of the specimens collected by the Myanmar-American Pondaung Fossil Expedition Team from 1997 to 1998 have been studied collaborately by Japanese and American researchers. These specimens are stored also at the Department of Geology, University of Yangon. These specimens are catalogued under the serial NMMP-KU specimen numbers (NMMP-KU specimens) by the Kyoto University field party. NMMP-KU means National Museum - Myanmar - Paleontology - Kyoto University (stored in National Museum of Myanmar and in University of Yangon [Department of Geology], Yangon, Myanmar).

As exceptions, the primate and suspected primate materials are stored separately. Most of the primate materials were kept at the former Brid.-Gen. Than Tun's office in the Office of Chief Military Intelligence (formerly the Office of the Strategic Studies [OSS]), Ministry of Defence, Yangon, Myanmar until 2003. After the dismissal of Brid.-Gen. Than Tun, the depository of the primate specimens has not been identified. Several primate fossils are stored in the exhibition room of the National Museum of Myanmar, Yangon. An NMMP number was given to each primate specimen by the Myanmar governmental researcher. NMMP denotes National Museum of Myanmar, Primates.

Several Pondaung fossil specimens are also stored in Department of Geology, Magway University, Magway City, Magway Division, Myanmar. These fossils are catalogued under the serial MGW specimen numbers (MGW specimens) by the Kyoto University field party. MGW means Magway University.

NMMP-KU and MGW list of the Pondaung fossils are shown in Table 3 and Appendix 1. These lists are compiled based on the fossils collected during the field season of 1998-2003. The NMMP-KU list consists of 1961 specimens. The MGW Pondaung list consists of 13 specimens.

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References

- Aung Naing Soe (1999) Sedimentary facies of the upper part of the Pondaung Formation (in central Myanmar) bearing late Middle Eocene anthropoid primates. p.152-178. In “*Proceedings of the Pondaung Fossil Expedition Team.*” Pondaung Fossil Expedition Team (ed.) Office of Strategic Studies, Ministry of Defence: Yangon.
- Aung Naing Soe, Myitta, Soe Thura Tun, Aye Ko Aung, Tin Thein, Marandat, B., Ducrocq, S., and Jaeger, J.-J. (2002) Sedimentary facies of the late Middle Eocene Pondaung Formation (central Myanmar) and the paleoenvironments of its anthropoid primates. *Comptes Rendus Palevol* 1:153-160.
- Aye Ko Aung (1999) Revision on the stratigraphy and age of the primates-bearing Pondaung Formation. p.131-151. In “*Proceedings of the Pondaung Fossil Expedition Team.*” Pondaung Fossil Expedition Team (ed.) Office of Strategic Studies, Ministry of Defence: Yangon.
- Aye Ko Aung (2004) The primate-bearing Pondaung Formation in the upland area, northwest of Central Myanmar. p.205-217. In “*Anthropoid origins: new visions.*” Ross, C. and Kay, R.F. (eds.) Kluwer Academic/Plenum Press: New York.
- Ba Maw, Ciochon, R.L., and Savage, D.E. (1979) Late Eocene of Burma yields earliest anthropoid primate, *Pondaungia coteri*. *Nature* 282:65-67.
- Ba Than Haq (1981) Metallogenic provinces and prospects of mineral exploration in Burma. *Contributions to Burmese Geology* 1:1-16, fig. 1-5.
- Beard, K.C. (2002) Basal anthropoids. p.133-149. In “*The primate fossil record.*” Hartwig, W.C. (ed.) Cambridge University Press: Cambridge.
- Beard, K.C., Jaeger, J.-J., Chaimanee, Y., Rossie, J.B., Aung Naing Soe, Soe Thura Tun, Marivaux, L., and Marandat, B. (2005) Taxonomic status of purported primate frontal bones from the Eocene Pondaung Formation of Myanmar. *Journal of Human Evolution* 49:468-481.

Summary of the Pondaung expedition

- Bender, F. (1983) *Geology of Burma*. Gebrüder Borntraeger: Berlin. 293pp.
- Benammi, M., Chaimanee, Y., Jaeger, J.-J., Suteethorn V., and Ducrocq, S. (2001) Eocene Krabi basin (southern Thailand): paleontology and magnetostratigraphy. *Bulletin of the Geological Survey of America* 113:265-273.
- Benammi, M., Soe, A.N., Tun, T., Bo, B., Chaimanee, Y., Ducrocq, S., Thein, T., Wai, S., Jaeger, J.-J. (2002) First magnetostratigraphic study of the Pondaung Formation: implications for the age of the Middle Eocene anthropoids of Myanmar. *Journal of Geology* 110:748-756.
- Berggren, W.A., Kent, D.V., Swisher, C.C., III, and Aubry, M.-P. (1995) A revised Cenozoic geochronology and chronostratigraphy. p.129-212. In: "*Geochronology, time scales and global stratigraphic correlation*." Berggren, W.A., Kent, D.V., Aubry, M.-P., and Hardenbol, J. (eds.) *SEPM Special Publication* vol.54.
- Bowen, G.J., Clyde, W.C., Koch, P.L., Ting, S., Alroy, J., Tsubamoto, T., Wang, Y., and Wang, Y. (2002) Mammalian dispersal at the Paleocene/Eocene boundary. *Science* 295:2062-2065.
- Buffetaut, E. (1978) A dyrosaurid (Crocodylia, Mesosuchia) from the Upper Eocene of Burma. *Neues Jahrbuch für Geologie und Paläontologie Monatshefte* 1978(5):273-281.
- Chaimanee, Y., Tin Thein, Ducrocq, S., Aung Naing Soe, Benammi, M., Than Tun, Thit Lwin, San Wai, and Jaeger, J.-J. (2000) A lower jaw of *Pondaungia cotteri* from the Late Middle Eocene Pondaung Formation (Myanmar) confirms its anthropoid status. *Proceedings of the National Academy of Sciences of the United States of America* 97:4102-4105.
- Chhibber, H.L. (1934) *The geology of Burma*. Macmillan: London. xxviii+538pp.
- Ciochon, R.L. (1985) Fossil ancestors of Burma. *Natural History* 94(10):26-36.
- Ciochon, R.L., Gingerich, P.D., Gunnell, G.F., and Simons, E.L. (2001) Primate postcrania from the late middle Eocene of Myanmar. *Proceedings of the National Academy of Sciences of the United States of America* 98:7672-7677.
- Ciochon, R.L. and Gunnell, G.F. (2002a) Chronology of primate discoveries in Myanmar: influences on the anthropoid origins debate. *Yearbook of Physical Anthropology* 45:2-35.
- Ciochon, R.L. and Gunnell, G.F. (2002b) Eocene primates from Myanmar: historical perspectives on the origin of Anthroidea. *Evolutionary Anthropology* 11:156-168.
- Ciochon, R.L. and Gunnell, G.F. (2004) Eocene large-bodied primates of Myanmar and Thailand: morphological considerations and phylogenetic affinities. p.249-282. In "*Anthropoid origins: new visions*." Ross, C. and Kay, R.F. (eds.) Kluwer Academic/Plenum Press: New York.
- Ciochon, R.L. and Holroyd, P.A. (1994) The Asian origin of Anthroidea revisited. p.143-162. In "*Anthropoid origins*." Fleagle, J.G. and Kay, R.F. (eds.) Plenum Press: New York.
- Ciochon, R.L., Savage, D.E., Thaw Tint, and Ba Maw (1985) Anthropoid origins in Asia? New discovery of *Amphipithecus* from the Eocene of Burma. *Science* 229:756-759.
- Colbert, E.H. (1937) A new primate from the upper Eocene Pondaung Formation of Burma. *American Museum Novitates* 951:1-18.
- Colbert, E.H. (1938) Fossil Mammals from Burma in the American Museum of Natural History. *Bulletin of the American Museum of Natural History* 74:259-434.
- Cotter, G. de P. (1914) Some newly discovered coal-seams near the Yaw River, Pakokku District, Upper Burma. *Records of Geological Survey of India* 44:163-185, pl. 5-11.
- Cotter, G. de P. (1938) Geology of parts of Minbu, Myingyan, Pakokku, and lower Chindwin Districts, Burma. *Memoirs of the Geological Survey of India* 72:xl+1-136, pls.1-11.
- Dawson, M.R., Tsubamoto, T., Takai, M., Egi, N., Soe Thura Tun, and Chit Sein (2003) Rodents of the family Anomaluridae (Mammalia) from Southeast Asia (Middle Eocene, Pondaung Formation,

- Myanmar). *Annals of Carnegie Museum* 72:203-213.
- Ducrocq, S. (1994) Les Anthracothères paléogènes de Thaïlande: Paléogéographie et phylogénie. *Comptes Rendus de l'Académie des Sciences (Série II)* 318:549-554.
- Ducrocq, S. (1999) The late Eocene Anthracotheriidae (Mammalia, Artiodactyla) from Thailand. *Palaeontographica Abteilung A* 252:93-140.
- Ducrocq, S. (2001) Palaeogene anthropoid primates from Africa and Asia: new phylogenetical evidences. *Comptes Rendus de l'Académie des Sciences, Paris (Sciences de la Terre et des planètes)* 332:351-356.
- Ducrocq, S., Aung Naing Soe, Aye Ko Aung, Benammi, M., Bo Bo, Chaimanee, Y., Than Tun, Tin Thein, and Jaeger, J.-J. (2000a) A new anthracotheriid artiodactyl from Myanmar, and the relative ages of the Eocene anthropoid primate-bearing localities of Thailand (Krabi) and Myanmar (Pondaung). *Journal of Vertebrate Paleontology* 20:755-760.
- Ducrocq, S., Aung Naing Soe, Bo Bo, Benammi, M., Chaimanee, Y., Than Tun, Tin Thein, and Jaeger, J.-J. (2000b) First record of an Anthracobunidae (Mammalia, ?Tethytheria) from the Eocene of the Pondaung Formation, Myanmar. *Comptes Rendus de l'Académie des Sciences, Paris (Sciences de la Terre et des planètes)* 330:725-730.
- Eames, F.E. (1951) A contribution to the study of the Eocene in western Pakistan and western India: D. Discussion of the faunas of certain standard sections, and their bearing on the classification and correlation of the Eocene in western Pakistan and western India. *Quarterly Journal of the Geological Society of London* 107:173-200.
- Egi, N., Holroyd, P.A., Tsubamoto, T., Aung Naing Soe, Takai, M., and Ciochon, R.L. (2005) Proviverrine hyaenodontids (Creodonta: Mammalia) from the Eocene of Myanmar and a phylogenetic analysis of the proviverrines from the Para-Tethys area. *Journal of Systematic Palaeontology* 3:337-358.
- Egi, N., Holroyd, P.A., Tsubamoto, T., Shigehara, N., Takai, M., Aye Ko Aung, Aung Naing Soe, and Soe Thura Tun (2004a) A new genus and species of hyaenodontid creodont from the Pondaung Formation (Eocene, Myanmar). *Journal of Vertebrate Paleontology* 24:502-506.
- Egi, N., Soe Thura Tun, Takai, M., Shigehara, N., and Tsubamoto, T. (2004b) Geographical and body size distributions of the Pondaung primates with a comment on taxonomic assignment of NMMP 20, postcranium of an amphipithecoid. *Anthropological Science* 112:67-64.
- Egi, N., Takai, M., Shigehara, N., and Tsubamoto, T. (2002) Body mass estimates for Pondaung primates. *Primate Research* 18:1-18. [in Japanese with English summary.]
- Egi, N., Takai, M., Shigehara, N., and Tsubamoto, T. (2004c) Body mass estimates for Eocene eosimiid and amphipithecoid primates using prosimians and anthropoid scaling models. *International Journal of Primatology* 25:211-236.
- Egi, N., Takai, M., Tsubamoto, T., Maung Maung, Chit Sein, and Shigehara, N. (2006a) Additional materials of *Myanmarpithecus yarshensis* (Amphipithecidae, Primates) from the middle Eocene Pondaung Formation. *Primates* 47:123-130.
- Egi, N. and Tsubamoto, T. (2000) A preliminary report on carnivorous mammals from Pondaung fauna. *Asian Paleoprimateology* 1:103-114.
- Egi, N., Tsubamoto, T., and Takai, M. (in press) Systematic status of Asian "Pterodon" and early evolution of hyaenaelurine hyaenodontid creodonts. *Journal of Paleontology* 81.
- Egi, N., Tsubamoto, T., Nishimura, T., and Takai, M. (2006b) Postcranial materials of Pondaung mammals (middle Eocene, Myanmar). *Asian Paleoprimateology* 4:111-136.
- Gebo, D.L., Gunnell, G.F., Ciochon, R.L., Takai, M., Tsubamoto, T., and Egi, N. (2002) New eosimiid primate from Myanmar. *Journal of Human Evolution* 43:549-553.
- Gingerich, P.D. and Russell, D.E. (1990) Dentition of early Eocene Pakicetus (Mammalia, Cetacea).

Summary of the Pondaung expedition

- Contributions from the Museum of Paleontology, The University of Michigan* 28:1-20.
- Godinot, M. (1994) Early North African primates and their significance for the origin of Simiiformes (=Anthropoidea). p. 235-206. In “*Anthropoid origins.*” Fleagle, J.G. and Kay, R.F. (eds.) Plenum Press: New York.
- Godinot, M. and Mahboubi, M. (1992) Earliest known simian primate found in Algeria. *Nature* 357:324-326.
- Godinot, M. and Mahboubi, M. (1994) Les petits primates simiiformes de Glib Zegdou (Eocène inférieur à moyen d’Algérie). *Comptes Rendus de l’Academie des Sciences, Paris (Série II)* 319:357-364.
- Gradstein, F., Ogg, J., and Smith, A. (eds.) (2004) *A geologic time scale 2004*. Cambridge University Press: Cambridge.
- Gunnell, G.F. (1994) Paleocene mammals and faunal analysis of the Chappo Type Locality (Tiffanian), Green River Basin, Wyoming. *Journal of Vertebrate Paleontology* 14:81-104.
- Gunnell, G.F., Ciochon, R.L., Gingerich, P.D., and Holroyd, P.A. (2002) New assessment of *Pondaungia* and *Amphipithecus* (Primates) from the late middle Eocene of Myanmar, with a comment on ‘Amphipithecidae.’ *Contributions from the Museum of Paleontology, The University of Michigan* 30:337-372.
- Gunnell, G.F. and Miller, E.R. (2001). Origin of Anthropoidea: dental evidence and recognition of early anthropoids in the fossil record, with comments on the Asian anthropoid radiation. *American Journal of Physical Anthropology* 114:177-191.
- Head, J.J., Holroyd, P.A., Hutchison, J.H., and Ciochon, R.L. (2005) First report of snakes (Serpentes) from the late middle Eocene Pondaung Formation, Myanmar. *Journal of Vertebrate Paleontology* 25:246-250.
- Hla Mon (1999) Nanopaleontological analysis of the rock samples collected by the Pondaung Fossils Expedition Team. p.94-111. In “*Proceedings of the Pondaung Fossil Expedition Team.*” Pondaung Fossil Expedition Team (ed.) Office of Strategic Studies, Ministry of Defence: Yangon.
- Holroyd, P.A. and Ciochon, R.L. (1994) The relative ages of Asian primate-bearing deposits. p.123-141. In “*Anthropoid origins.*” Fleagle, J.G. and Kay, R.F. (eds.) Plenum Press: New York.
- Holroyd, P.A. and Ciochon, R.L. (1995) A new artiodactyl (Mammalia) from the Eocene Pondaung Sandstones, Burma. *Annals of Carnegie Museum* 64:177-183.
- Holroyd, P.A. and Ciochon, R.L. (2000) *Bunobrontops savagei*: a new genus and species of brontotheriid perissodactyl from the Eocene Pondaung fauna of Myanmar. *Journal of Vertebrate Paleontology* 20:408-410.
- Holroyd, P.A., Ciochon, R.L., Gunnell, G.F., Kay, R.F., Takai, M., and Godinot, M. (2002) What’s in a name? Family-group taxonomy of larger-bodied Southeast Asian Eocene Primates. *Journal of Human Evolution* 43:755-758.
- Holroyd, P.A., Tsubamoto, T., Egi, N., Ciochon, R.L., Takai, M., Soe Thura Tun, Chit Sein, and Gunnell, G.F. (2006) A rhinocerotid perissodactyl from the late middle Eocene Pondaung Formation, Myanmar. *Journal of Vertebrate Paleontology* 26:491-494.
- Hutchison, J.H. and Holroyd, P.A. (1996) Preliminary report on the lower vertebrate fauna of the late middle Eocene Pondaung Sandstones. *Journal of Vertebrate Paleontology* 16:43A.
- Hutchison, J.H., Holroyd, P.A., and Ciochon, R.L. (2004) A preliminary report on Southeast Asia’s oldest Cenozoic turtle fauna from the late middle Eocene Pondaung Formation, Myanmar. *Asiatic Herpetological Research* 10:38-52.
- Jaeger, J.-J., Chaimanee, Y., Tafforeau, P., Ducrocq, S., Aung Naing Soe, Marivaux, L., Sudre, J., Soe Thura Tun, Wanna Htoon, and Marandat, B. (2004) Systematics and paleobiology of the anthropoid

- primate *Pondaungia* from the late Middle Eocene of Myanmar. *Comptes Rendus Palevol* 3:243-255.
- Jaeger, J.-J., Tin Thein, Benammi, M., Chaimanee, Y., Aung Naing Soe, Thit Lwin, Than Tun, San Wai, and Ducrocq, S. (1999) A new primate from the middle Eocene of Myanmar and the Asian early origin of anthropoids. *Science* 286:528-530.
- Jaeger, J.-J., U Aung Naing Soe, U Aye Ko Aung, Benammi, M., Chaimanee, Y., Ducrocq, R.-M., Col. Than Tun, U Tin Thein, and Ducrocq, S. (1998) New Myanmar middle Eocene anthropoids. An Asian origin for catarrhines? *Comptes Rendus de l'Academie des Sciences, Paris, Sciences de la vie* 321:953-959.
- Kay, R.F., Schmitt, D., Vinyard, C.J., Perry, J.M.G., Shigehara, N., Takai, M., and Egi, N. (2004a) The paleobiology of Amphipithecidae, South Asian late Eocene primates. *Journal of Human Evolution* 46:3-24.
- Kay, R.F., Williams, B.A., Ross, C.F., Takai, M., and Shigehara, N. (2004b) Anthropoid origins: a phylogenetic analysis. p.91-135. In "Anthropoid origins:new visions." Ross, C. and Kay, R.F. (eds.) Kluwer Academic/Plenum Press: New York.
- Kirk, E.C. and Simons, E.L. (2001) Diets of fossil primates from the Fayum depression of Egypt: a quantitative analysis of molar shearing. *Journal of Human Evolution* 40:203-229.
- Kron, D.G. and Manning, E. (1998) Anthracotheriidae. p.381-388. In "Evolution of Tertiary mammals of North America. Volume 1: terrestrial carnivores, ungulates, and ungulatelike mammals." Janis, C. M., Scott, K. M., and Jacobs, L. L. (eds.) Cambridge University Press: Cambridge.
- Li, C. and Ting, S. (1983) The Paleogene mammals of China. *Bulletin of Carnegie Museum of Natural History* 21:1-98.
- Marivaux, L., Chaimanee, Y., Ducrocq, S., Marandat, B., Sudre, J., Aung Naing Soe, Soe Thura Tun, Wanna Htoon, and Jaeger, J.-J. (2003) The anthropoid status of a primate from the late middle Eocene Pondaung Formation (Central Myanmar): tarsal evidence. *Proceedings of the National Academy of Sciences of the United States of America* 100:13173-13178.
- Marivaux, L., Ducrocq, S., Jaeger, J.-J., Marandat, B., Sudre, J., Chaimanee, Y., Htoon, W., and Soe, A.N. (2005) New remains of *Pondaungimys anomaluropsis* (Rodentia, Anomaluroidea) from the latest middle Eocene Pondaung Formation of Central Myanmar. *Journal of Vertebrate Paleontology* 25:214-217.
- Matthew, W.D. (1929) Critical observations upon Siwalik mammals. *Bulletin of the American Museum of Natural History* 56:437-560.
- Maung Maung, Thaug Htike, Tsubamoto, T., Suzuki, H., Chit Sein, Egi, N., Zaw Win, Zin Maung Maung Thein, and Aye Ko Aung (2005) Stratigraphy of the primate-bearing beds of the Eocene Pondaung Formation at the Paukaung area, central Myanmar. *Anthropological Science* 113:11-15.
- Meng, J. and McKenna, M.C. (1998) Faunal turnovers of Palaeogene mammals from the Mongolian Plateau. *Nature* 394:364-367.
- Métais, G. (2006) New basal selenodont artiodactyls from the Pondaung Formation (late middle Eocene, Myanmar) and the phylogenetic relationships of early ruminants. *Annals of Carnegie Museum* 75:51-67.
- Métais, G., Benammi, M., Chaimanee, Y., Jaeger, J.-J., Than Tun, Tin Thein, and Ducrocq, S. (2000) Discovery of new ruminant dental remains from the Middle Eocene Pondaung Formation (Myanmar): reassessment of the phylogenetic position of *Indomeryx*. *Comptes Rendus de l'Academie des Sciences, Paris, (Sciences de la Terre et des planètes)* 330:805-811.
- Miller, E.R., Gunnell, G.F., and Martin, R.D. (2005) Deep time and the search for anthropoid origins. *Yearbook of Physical Anthropology* 48:60-95.

Summary of the Pondaung expedition

- Office of Strategic Studies (ed.) (1999) *Proceedings of the Pondaung Fossil Expedition Team*. Office of Strategic Studies, Ministry of Defence: Yangon. 183pp.
- Pilgrim, G.E. (1910) Preliminary note on a revised classification of the Tertiary freshwater deposits of India. *Records of the Geological Survey of India* 40:185-205.
- Pilgrim, G.E. (1925) The Perissodactyla of the Eocene of Burma. *Palaeontol. Indica*, New Series 8:1-28.
- Pilgrim, G.E. (1927) A *Sivapithecus* palate and other primate fossils from India. *Palaeontol. Indica*, New Series 14:1-26.
- Pilgrim, G.E. (1928) The Artiodactyla of the Eocene of Burma. *Palaeontologia Indica*, New Series 13:1-39.
- Pilgrim, G.E. and Cotter, G. de P. (1916) Some newly discovered Eocene mammals from Burma. *Records of the Geological Survey of India* 48:42-82.
- Pondaung Fossil Expedition Team (1997) *Report on work achieved by the Pondaung fossil expedition team*. Office of Strategic Studies, Ministry of Defence: Yangon. [in Burmese, partly in English.]
- Remy, J.-A., Jaeger, J.-J., Chaimanee, Y., U Aung Naing Soe, Marivaux, L., Sudre, J., Soe Thura Tun, Marandat, B., and Dewaele, E. (2005) A new chalicothere from the Pondaung Formation (late Middle Eocene of Myanmar). *Comptes Rendus Palevol* 4:341-349.
- Russell, D.E. and Zhai, R. (1987) The Paleogene of Asia: mammals and stratigraphy. *Mémoires du Muséum National d'histoire Naturelle* (Ser. C, Sciences de la Terre) 52:1-488.
- Savage, D.E. and Russell, D.E. (1983) *Mammalian paleofaunas of the World*. Addison-Wesley Publishing Company: London, 432pp.
- Serra-Kiel, J., Hottinger, L., Caus, E., Drobne, K., Ferràndes, C., Jauhri, A.K., Less, G., Pavlovec, R., Pignatti, J., Samsó, J.M., Schaub, H., Sirel, E., Strougo, A., Tambareau, Y., Tosquella, J., and Zakrevskaya, E. (1998) Larger foraminiferal biostratigraphy of the Tethyan Paleocene and Eocene. *Bulletin de la Société géologique de France* 162:281-299.
- Shigehara, N. and Takai, N. (2004) The morphology of two maxillae of Pondaung Primates (*Pondaungia cotteri* and *Amphipithecus mogaungensis*) (middle Eocene, Myanmar). p.323-340. In "Anthropoid origins: new visions." Ross, C. and Kay, R.F. (eds.) Kluwer Academic/Plenum Press: New York.
- Shigehara, N., Takai, M., Kay, R. F., Aye Ko Aung, Aung Naing Soe, Soe Thura Tun, Tsubamoto, T., and Tin Thein (2002) The upper dentition and face of *Pondaungia cotteri* from central Myanmar. *Journal of Human Evolution* 43:143-166.
- Simons, E.L. (1963) A critical reappraisal of Tertiary primates. p.65-129. In "Evolutionary and genetic biology of Primates." J. Buettner-Janusch (ed) Academic Press: New York.
- Simons, E.L. (1965) New fossil apes from Egypt and the initial differentiation of Hominoidea. *Nature* 205:135-139.
- Simons, E.L. (1971) Relationships of *Amphipithecus* and *Oligopithecus*. *Nature* 232:489-491.
- Soe Thura Tun (2004) The earth that bears the primates: geology of the Pondaung primate areas revisited. *Journal of the Myanmar Academy of Arts and Science* 2 (part 2, no. 5):136-147.
- Stamp, L.D. (1922) An outline of the Tertiary geology of Burma. *The Geological Magazine* 59:481-501.
- Stidham, T. A., Holroyd, P. A., Gunnell, G. F., Ciochon, R. L., Tsubamoto, T., Egi, N., and Takai, M. (2005) An ibis-like bird (Aves: cf. Threskiornithidae) from the late middle Eocene of Myanmar. *Contributions from the Museum of Paleontology, The University of Michigan* 31:179-184.
- Suzuki, H., Maung Maung, and Aung Naing Soe (2006a) Lithostratigraphy of the whole Pondaung Formation (Eocene) along Tabyin-Kyauktakha in the west of Pauk, central Myanmar. *Asian Paleoprimatology* 4:67-74.
- Suzuki, H., Maung Maung, Aye Ko Aung, and Takai, M. (2004) Jurassic radiolaria from chert pebbles of

- the Eocene Pondaung Formation, central Myanmar. *Neues Jahrbuch für Geologie und Paläontologie Abhandlungen* 231:369-393.
- Suzuki, H., Maung Maung, Zaw Win, Tsubamoto, T., Zin Maung Maung Thein, Egi, N., Takai, M., and Shigehara, N. (2006) Stratigraphic positions of the fossil vertebrates localities in the Paukkaung area, central Myanmar. *Asian Paleoprimatology* 4:75-97.
- Swe Myint (1999) Foraminiferal fossil analysis of the rock samples collected by the Pondaung Fossils Expedition Team. p.78-93. In “*Proceedings of the Pondaung Fossil Expedition Team.*” Pondaung Fossil Expedition Team (ed.) Office of Strategic Studies, Ministry of Defence: Yangon.
- Szalay, F.S. (1970) Late Eocene *Amphipithecus* and the origins of catarrhine primates. *Nature* 227:355-357.
- Szalay, F.S. (1972) *Amphipithecus* revisited. *Nature* 236:179-180.
- Takai, M., Chit Sein, Tsubamoto, T., Egi, N., Maung Maung, and Shigehara, N. (2005) A new eosimiid from the latest middle Eocene in Pondaung, central Myanmar. *Anthropological Science* 113:17-25.
- Takai, M. and Shigehara, N. (2004) The Pondaung primates, enigmatic “possible anthropoids” from the latest middle Eocene, central Myanmar. p.283-321. In “*Anthropoid origins: new visions.*” Ross, C. and Kay, R.F. (eds.) Kluwer Academic/Plenum Press: New York.
- Takai, M., Shigehara, N., Aye Ko Aung, Soe Thura Tun, Aung Naing Soe, Tsubamoto, T., and Tin Thein (2001) A new anthropoid from the latest middle Eocene of Pondaung, central Myanmar. *Journal of Human Evolution* 40:393-409.
- Takai, M., Shigehara, N., Egi, N., and Tsubamoto, T. (2003) Endocranial cast and morphology of the olfactory bulb of *Amphipithecus mogaungensis* (latest middle Eocene of Myanmar). *Primates* 44:137-144.
- Takai, M., Shigehara, N., Tsubamoto, T., Egi, N., Aye Ko Aung, Tin Thein, Aung Naing Soe, and Soe Thura Tun (2000) The latest middle Eocene Primate fauna in the Pondaung area, Central Myanmar. *Asian Paleoprimatology* 1:7-28.
- Takai, M., Tsubamoto, T., Kunimatsu, Y., and Shigehara, N. (1999) Pondaung primates and its geological age: late Eocene mammal fauna in Myanmar. *Primate Research* 15:17-38. [in Japanese with English summary.]
- Than Tun (2000) The achievement of Myanmar-Japan Fossil Expedition Team. *Asian Paleoprimatology* 1:1-6.
- Thet Wai (1999) Palynological analysis of the rock samples collected by the Pondaung Fossils Expedition Team. p.112-121. In “*Proceedings of the Pondaung Fossil Expedition Team.*” Pondaung Fossil Expedition Team (ed.) Office of Strategic Studies, Ministry of Defence: Yangon.
- Tin Thein (1997) Primates of Pondaung. *Myanmar Perspectives* 2:66-69.
- Tin Thein (2004) A review of the large-bodied Pondaung primates of Myanmar. p.219-247. In “*Anthropoid origins: new vision.*” Ross, C. and Kay, R.F. (eds.) Kluwer Academic/Plenum Press: New York.
- Tong, Y. (1997) Middle Eocene small mammals from Liguangqiao basin of Henan Province and Yuanqu basin of Shanxi Province, central China. *Palaeontologia Sinica* (Whole no. 186, New Ser. C) 26:1-256, pls. 1-12. [in Chinese with English summary.]
- Tsubamoto, T. (2001) *The Pondaung mammal fauna: an analysis of a terrestrial mammal fauna in the latest middle Eocene of central Myanmar (Southeast Asia)*. D.Sc. dissertation, Kyoto University: Kyoto. 112 pp., pls. 1-20, Appendices 1-4 (58 pp.).
- Tsubamoto, T., Egi, N., and Takai, M. (2006) Notes on fish, reptilian, and several fragmentary mammalian dental fossils from the Pondaung Formation. *Asian Paleoprimatology* 4:98-110.
- Tsubamoto, T., Egi, N., Takai, M., Chit Sein, and Maung Maung (2005) Middle Eocene ungulate

Summary of the Pondaung expedition

- mammals from Myanmar: A review with description of new specimens. *Acta Palaeontologica Polonica* 50:117-138.
- Tsubamoto, T., Egi, N., Takai, M., Shigehara, N., Aye Ko Aung, Tin Thein, Aung Naing Soe, and Soe Thura Tun (2000a) A preliminary report on the Eocene mammals of the Pondaung fauna, Myanmar. *Asian Paleoprimatology* 1:29-101.
- Tsubamoto, T., Holroyd, P.A., Takai, M., Shigehara, N., Aye Ko Aung, Tin Thein, Aung Naing Soe, and Soe Thura Tun (2000b) Upper premolar dentitions of *Deperetella birmanica* (Mammalia: Perissodactyla: Deperetellidae) from the Eocene Pondaung Formation, Myanmar. *Paleontological Research* 4:183-189.
- Tsubamoto, T., Soe Thura Tun, Egi, N., Takai, M., Shigehara, N., Aung Naing Soe, Aye Ko Aung, and Tin Thein (2003a) Reevaluation of some ungulate mammals from the Eocene Pondaung Formation, Myanmar. *Paleontological Research* 7:219-243.
- Tsubamoto, T., Suzuki, H., Egi, N., Takai, M., and Shigehara, N. (2001) Excavation of mammalian fossils in Myanmar. *Journal of the Geological Society of Japan* 107:XVII-XVIII. [in Japanese.]
- Tsubamoto, T., Takai, M., Egi, N. (2004) Quantitative analyses of biogeography and faunal evolution of middle to late Eocene mammals in East Asia. *Journal of Vertebrate Paleontology* 24:657-667.
- Tsubamoto, T., Takai, M., Egi, N., and Shigehara, N. (2003b) Mammalian Faunal Change in Eocene Asia and the Pondaung Mammal Fauna of Myanmar. *Primate Research* 19:43-64. [in Japanese with English summary.]
- Tsubamoto, T., Takai, M., Egi, N., Shigehara, N., Soe Thura Tun, Aye Ko Aung, Aung Naing Soe, and Tin Thein (2002a) The Anthracotheriidae (Mammalia: Artiodactyla) from the Eocene Pondaung Formation (Myanmar) and comments on some other anthracotheres from the Eocene of Asia. *Paleontological Research* 6:363-384.
- Tsubamoto, T., Takai, M., Shigehara, N., Egi, N., Soe Thura Tun, Aye Ko Aung, Maung Maung, Danhara, T., and Suzuki, H. (2002b) Fission-track zircon age of the Eocene Pondaung Formation, Myanmar. *Journal of Human Evolution* 42:361-369.
- Ugai, H., Takai, M., Tsubamoto, T., Egi, N., Maung-Maung, Chit-Sein, Thaug-Htike, and Zin-Maung-Maung-Thein (2006) A preliminary report on the freshwater molluscan fossils from Myanmar. *Asian Paleoprimatology* 4:205-220.
- von Koenigswald, G.H.R. (1965) Critical observations upon the so-called higher primates from the upper Eocene of Burma. *Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen (Series B)* 65:165-167.
- Wall, P.W. (1989) The phylogenetic history and adaptive radiation of the Amynodontidae. p.341-354. In "The Evolution of Perissodactyls." Prothero, D.R. and Schoch R.M. (eds.) Oxford University Press: Oxford.
- Wall, P.W. (1998) Amynodontidae. p.583-588. In "Evolution of Tertiary mammals of North America. Volume 1: terrestrial carnivores, ungulates, and ungulatelike mammals." Janis, C.M., Scott, K.M., and Jacobs, L.L. (eds.) Cambridge University Press: Cambridge.
- Winkler, D.A. (1983) Paleocology of an early Eocene mammalian fauna from paleosols in the Clark's Fork Basin, northwestern Wyoming (U.S.A.). *Palaeogeography, Palaeoclimatology, Palaeoecology* 43:261-298.

Appendix 1. List of the NMMP-KU specimens catalogued during the field season of 1998-2003.

NMMP-KU	Higer taxa	ID	Material	Field No.	Locality	Paper
0001	Primates	<i>Myanmarpithecus yarshensis</i>	maxilla and mandible with teeth		Bh1	6
0002	Primates	<i>Myanmarpithecus yarshensis</i>	mandible with lower m3		Bh1	6
0003	Primates	<i>Pondaungia savagei</i>	upper teeth and maxillary fragments		PGN2	8,14
0004	Primates	cf. <i>Pondaungia</i> sp.	canine		PGN2	8
0005	Perissodactyla	<i>Bahinolophus birmanicus</i>	left maxilla with left upper P1-3	Bhn-1041	Bahin area	5,19
0006	Perissodactyla	<i>Bahinolophus birmanicus</i>	right maxilla with right upper P1-3	Kdw-139	Kyawdaw	5,19
0007	Artiodactyla	<i>Indomeryx arenae</i>	right maxilla with upper right M1-3 (?or DP4M1-2?)	Bhn-915	Bahin area	3,12
0008	Artiodactyla	<i>Indomeryx cotteri</i>	left maxilla with upper left M1-3	mgg-2	Mogaung area	4,12
0009	Artiodactyla	<i>Indomeryx cotteri</i>	left maxilla with upper left M2-3	mgg-14	Mogaung area	4,12
0010	Artiodactyla	<i>Indomeryx cotteri</i>	left maxillary fragment with upper left DP3-4, M1		Lma	4,12
0011	Artiodactyla	<i>Indomeryx arenae</i>	left mandible with left lower p4-m3	Bhn-3	Bahin area	4,12
0012	Artiodactyla	<i>Indomeryx arenae</i>	right mandible with right lower m3	Bhn-4	Bahin area	4,12
0013	Artiodactyla	<i>Indomeryx arenae</i>	right mandible with right lower p4-m3	Bhn-5	Bahin area	4,12
0014	Artiodactyla	<i>Indomeryx arenae</i>	left mandible with left lower m3	Bhn-6	Bahin area	4,12
0015	Artiodactyla	<i>Indomeryx cotteri</i>	left mandible with left lower m1-3	Bhn-913 + 1114	Bahin area	3,4,12
0016	Artiodactyla	<i>Indomeryx cotteri</i>	left mandible with left lower m1-3	Bhn-915 or 1115 + mgg-11	Bahin or Mogaung area	4,12
0017	Artiodactyla	<i>Indomeryx cotteri</i>	right mandible with right lower m3	mgg-5	Mogaung area	4,12
0018	Artiodactyla	<i>Indomeryx cotteri</i>	left mandible with left lower m2-3	mgg-7	Mogaung area	4,12
0019	Artiodactyla	<i>Indomeryx cotteri</i>	right mandible with right lower p3-m3	mgg-8 + 9 + 241	Mogaung area	4,12
0020	Artiodactyla	<i>Indomeryx cotteri</i>	left mandible around left lower p3	mgg-10	Mogaung area	4,12
0021	Artiodactyla	<i>Indomeryx cotteri</i>	right mandible with right lower p4	mgg-12	Mogaung area	4,12
0022	Artiodactyla	<i>Indomeryx cotteri</i>	right mandible with right lower p4		Bh4	4,12
0023	Artiodactyla	<i>Asiohomacodon myanmarensis</i>	right lower molar		PGN1	4,12
0024	Artiodactyla	<i>Indomeryx cotteri</i>	right mandible with right lower m1 or 2		Lma	4,12
0025	Artiodactyla	cf. <i>Indomeryx cotteri</i>	right upper M1 or 2	mgg-6? or 9?	Mogaung area	4,12
0026	Artiodactyla	<i>Asiohomacodon myanmarensis</i>	right upper M3		Bh1	4,12
0027	Artiodactyla	<i>Asiohomacodon myanmarensis</i>	right mandible with right lower m2-3	Bhn-9	Bahin area	4,12
0028	Artiodactyla	<i>Asiohomacodon myanmarensis</i>	right mandible with right lower m3	mgg-3	Mogaung area	4,12
0029	Artiodactyla	<i>Asiohomacodon myanmarensis</i>	right mandible with right lower m1-2	mgg-4	Mogaung area	4,12
0030	Artiodactyla	cf. <i>Asiohomacodon myanmarensis</i>	right mandible with right lower m1 or 2	mgg-6	Mogaung area	4,12
0031	Ungulata	<i>Hsanotherium parvum</i>	right maxilla with right upper M2-3	Bhn-11	Bahin area	2,4,12
0032	Ungulata	<i>Hsanotherium parvum</i>	left mandible with left lower m3	Bhn-7	Bahin area	4,12
0033	Ungulata	<i>Hsanotherium parvum</i>	right mandible with right lower m2		Bh1	4,12
0034	Ungulata	<i>Hsanotherium parvum</i>	taloid of left lower m3		Bh1	4,12
0035	Ungulata	<i>Hsanotherium parvum</i>	right maxilla with right upper M1-3	Bhn-10	Bahin area	2,4,12
0036	Ungulata	<i>Hsanotherium parvum</i>	left mandible with left lower p4-m3	Bhn-8	Bahin area	4,12
0037	Ungulata	<i>Hsanotherium parvum</i>	right mandible with right lower dp4m1-2		Bh1	4,12
0038	Artiodactyla	<i>Pakkokuhyus lahirii</i>	right mandible with right lower m2-3	Bhn-906	Bahin area	4
0039	Artiodactyla	<i>Pakkokuhyus lahirii</i>	right maxilla with right upper M2-3	Kdw-6	Kyawdaw	1,4,9
0040	Perissodactyla	<i>Indolophus guptai</i>	left mandible with left lower m2	Bhn-40	Bahin area	4,12
0041	Perissodactyla	<i>Indolophus guptai</i>	right mandible with right lower m1		Pk2	4,12

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0042	Creodonta	<i>Kyawdawia lupina</i>	skull and others	Kdw-1	Kdw7	16
0043	Creodonta	<i>Kyawdawia lupina</i>	left lower m3	Kdw-2	Kdw7	16
0044	Creodonta	<i>Kyawdawia lupina</i>	left upper I2-3	Kdw-4	Kdw7	16
0045	Creodonta	<i>Yarshea cruenta</i>	right mandible with m1	Bhn-31	Bahin area	13
0046	Creodonta	<i>Yarshea cruenta</i>	right lower m3		Bh1	13
0047	Rodentia	Anomaluridae sp. 1	right lower m2		Wetkya or Kyawdaw	10
0048	Rodentia	Anomaluridae sp.	right maxilla with right upper P3-4		Wetkya or Kyawdaw	10
0049	Rodentia	? <i>Pondaungimys anomaluropsis</i>	left mandible with left lower m2-3?		Wetkya or Kyawdaw	10
0050	Artiodactyla	<i>Indomeryx cotteri</i>	left mandible with left lower m2-3?		Bh1	
0051	Primates	<i>Pondaungia cotteri</i>	upper molar fragment		Lma	
0052	Artiodactyla	<i>Anthracotherium tenuis</i>	right mandible with right lower p1, p4-m3		Bh1	9
0053	Artiodactyla	<i>Anthracotherium birmanicus</i>	right maxilla with right upper P3-M3		Pk1	9
0054	Artiodactyla	<i>Anthracotherium pangan</i>	right lower m3		Bahin area	9
0055	Artiodactyla	<i>Anthracotherium pangan</i>	left mandible with left lower m3		Bahin area	9
0056	Artiodactyla	<i>Anthracotherium pangan</i>	right maxilla with right upper M2-3		Sze	9
0057	Perissodactyla	cf. <i>Teletaceras</i> sp.	rt M1or2		Bahin area	21
0058	Perissodactyla	<i>Ceratomorpha</i> indet.	left maxilla with left upper P3?		Pk2	12
0059	Perissodactyla	<i>Bunobrontops</i> sp.	left upper molar		MGGN	
0060	Perissodactyla	<i>Paramynodon birmanicus</i>	right lower molar		MGGN	
0061	Perissodactyla	<i>Paramynodon birmanicus</i>	left maxilla with left upper M1		Pk2	
0062	Artiodactyla	<i>Anthracotherium pangan</i>	right mandible with right lower m2		Bahin area (2km NE from Paukkaung)	
0063	Artiodactyla	<i>Anthracotherium tenuis</i>	right lower m1		Pk2	
0064	Carnivora	?Miacidae	lower premolar		Bh1	
0065	?Rodentia	?Rodentia	incisor?		Pk4	
0066	Artiodactyla	<i>Anthracotherium tenuis</i>	right upper M1		Bh4	
0067	Artiodactyla	<i>Anthracotherium crassum</i>	left upper P4		Bh1	
0068	Artiodactyla	<i>Asiohomacodon myanmarensis</i>	right mandible with right lower m3		Bh1	
0069	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.		Bh1	
0070	Artiodactyla	<i>Anthracotherium birmanicus?</i>	right upper M3		Bh1	
0071	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P4M1		Bh1	
0072	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.		Bh1	
0073	Perissodactyla	Amynodontid	teeth frags.		Bh1	
0074	Artiodactyla	<i>Anthracothema pangan</i>	left upper P4		Bh1	
0075	Mammalia	mammal	tooth root		Bh1	
0076	?Mammalia	misc.	astragalus, phalange, etc., 3 materials		Bh1	
0077	Artiodactyla	<i>Anthracotherium</i> sp.	upper M2?, right lower m3		Bh3	
0078	Artiodactyla	<i>Anthracotherium birmanicus</i>	left lower m1		Bh4	
0079	Artiodactyla	<i>Anthracotherium birmanicus</i>	left lower p3		Bh4	
0080	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.		Bh4	
0081	Artiodactyla	<i>Anthracotherium birmanicus?</i>	right upper M3		PGN1	
0082	Artiodactyla	<i>Anthracotherium birmanicus?</i>	left upper M3		PGN1	
0083	Artiodactyla	<i>Anthracotherium birmanicus?</i>	left upper M3		PGN1	
0084	Perissodactyla	Amynodontid	teeth frags.		PGN1	

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0085	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m1?	PGN1
0086	Artiodactyla	<i>Anthracotherium crassum</i>	left lower p4?	PGN1
0087	Artiodactyla	<i>Anthracotherium crassum</i>	right lower m3	PGN2
0088	Artiodactyla	<i>Anthracotherium</i> sp.	canine	PGN2
0089	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.	PGN2
0090	Perissodactyla	Brontotheriid	teeth frags.	MGGN
0091	Ungulata	Ungulata	humeral & ulnar shafts	PGN1
0092	Reptilia	Agamidae	lower jaw	PGN1
0093	Artiodactyla	<i>Anthracotherium tenuis</i>	left mandible with left lower m3	Lma
0094	Mammalia	Large mammal	mandibular condyle	Lma
0095	Perissodactyla	Amynodontid	teeth frags.	Lma
0096	Perissodactyla	Brontotheriid?	incisor?	Lma
0097	Perissodactyla	Brontotheriid?	incisor?	Lma
0098	Perissodactyla	Brontotheriid?	incisor?	Lma
0099	Perissodactyla	Brontotheriid	Upper molariform teeth frag.	Lma
0100	Perissodactyla	<i>Paramynodon birmanicus</i>	trigonid of left lower molar	Thdn
0101	Perissodactyla	Amynodontid	teeth frags.	Bh4
0102	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2	MGGN
0103	Artiodactyla	<i>Anthracotherium pangan</i>	right upper P4	MGGN
0104	Vertebrata	misc.	teeth & bone frags.	Tmk
0105	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P4	Tmk
0106	Artiodactyla	<i>Anthracotherium</i> sp.	left upper P3	Tmk
0107	Artiodactyla	<i>Anthracotherium tenuis</i>	left lower p3	Tmk
0108	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Tmk
0109	Perissodactyla	Brontotheriid	incisor?	Tmk
0110	Ungulata	Ungulata (large)	metatarsal	Pk2
0111	Ungulata	Ungulata (large)	metacarpal	Pk2
0112	Carnivora	?Nimravidae	metacarpal frags.	Pk2
0113	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p4	Bahin area (2 km from Paukkaung)
0114	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.	Bahin area (2 km from Paukkaung)
0115	Artiodactyla	? <i>Indomeryx</i>	prox. femur	Pk1
0116	Artiodactyla	<i>Anthracotherium</i> sp.	mandible with teeth	Pk1
0117	Artiodactyla	<i>Anthracotherium tenuis</i>	right mandible with right lower m3 talonid	Pk1
0118	Perissodactyla	?Amynodontid	incisor	Pk1
0119	Perissodactyla	Brontotheriid	incisor	Pk1
0120	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags. and a right mandibular frag.	Pk1
0121	Perissodactyla	Amynodontid	teeth frags	Pk2
0122	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P3-4M1	Pk2
0123	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M3	Pk2
0124	Perissodactyla	Amynodontid	teeth frags.	Pk4
0125	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m2-3, and right mandible with right lower p3-4	Pk5
0126	Artiodactyla	<i>Anthracotherium</i> sp.	dental frags.	Pk5
0127	Artiodactyla	<i>Anthracotherium</i> sp.	right upper molar	Pk5
0128	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar	Pk5
0129	Primates	<i>Bahinia pondaungensis</i>	left mandible with left lower i, c, p, m1 trigonid	Bh1
0130	Artiodactyla	<i>Anthracotherium</i> sp.	incisor	PGN2
0131	Mammalia	small mammal	right lower m3 hypoconulid	PGN2
0132	Vertebrata	misc.	large bones	Pk2

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0133	Vertebrata	misc.	large bones	Bahin area
0134	Perissodactyla	Rhinoceroidea indet.	maxilla with teeth roots	Pangan area
0135	Vertebrata	misc.	bones	Pk2
0136	Ungulata	large ungulate	dist. mesopodial, phalange	PGN1
0137	Vertebrata	misc.	bones and teeth frags	PGN1
0138	Vertebrata	misc.	bones	Bh4
0139	Vertebrata	misc.	two bones	MGGN
0140	Vertebrata	misc.	bones	Bh4
0141	Vertebrata	misc.	large and small bones	Pk2
0142	Perissodactyla	Perissodactyla	dist. tibia, patella	Pk4
0143	Vertebrata	misc.	bones	Bh1
0144	Vertebrata	misc.	bones	Bh1
0145	Vertebrata	misc.	small teeth and bones	Bh4
0146	Vertebrata	misc.	bones	Bh1
0147	Vertebrata	misc.	bones and teeth frags.	PGN2
0148	Reptilia	snake-like reptile (small type)	many vertebrae of a single individual	PGN1
0149	Vertebrata	misc.	bones	PGN1
0150	Vertebrata	misc.	bones	Bh4
0151	Ungulata	large ungulate	carpal or tarsal bone, dist. mesopodial, phalange	Pk2
0152	Vertebrata	misc.	bones	Tmk
0153	Vertebrata	misc.	bones	Lma
0154	Vertebrata	misc.	bones and teeth frags.	Thdn
0155	Vertebrata	misc.	bones and teeth frags.	Lma
0156	Vertebrata	misc.	bones	PGN1
0157	Vertebrata	misc.	large bones	Pk2
0158	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Bh1
0159	Vertebrata	misc.	bones and teeth frags.	Bh1
0160	Vertebrata	misc.	bones and teeth frags.	PGN2
0161	Vertebrata	misc.	bones	Bh4
0162	Vertebrata	misc.	bones and teeth frags.	Pk4
0163	Vertebrata	misc.	three bones and a tooth	Pk3
0164	Vertebrata	misc.	bones	Bh1
0165	Vertebrata	misc.	four bones and a tooth	Bh3
0166	Vertebrata	misc.	bones and teeth frags.	Bh3
0167	Vertebrata	misc.	bones and teeth frags.	Pk1
0168	Vertebrata	?	a large bone	Lma
0169	Vertebrata	misc.	bones	Bahin area

0181	Perissodactyla	Amyndontid	canine	Bhn-115 Bahin area
0182	Perissodactyla	?Amyndontid	?canine or ?incisor	Bhn-116 Bahin area
0183	Perissodactyla	Amyndontid	canine	Bhn-902 Bahin area
0184	Perissodactyla	Brontotheriid	?incisor or ?premolar frag.	mgg-45 Mogaung area
0185	Perissodactyla	Brontotheriid	?incisor or ?premolar frag.	Pgn-2 Pangan area
0186	Fish	fish	bones	Bhn-229 Bahin area
0187	Mammalia	mammal	proximal ulna	Bhn-460 Bahin area

0201	Artiodactyla	<i>Indomeryx cotteri</i>	left mandible with left lower m1-3 (broken)	Lma
0202	Vertebrata	misc.	teeth frags	Lma
0203	Reptilia	misc. (reptiles)	bone frags	Lma
0204	Fish	fish	bone frags.	Thdn
0205	Mammalia	mammal	mandible with teeth roots	Thdn
0206	Reptilia	Reptilia	bones incl. phalanges, turtle femoral frag.	Thdn
0207		misc.	reptile bones, crocodile teeth, corpolites, gastropod molds	Thdn

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0208	Perissodactyla	Perissodactyla	teeth frags	Lma	
0209		misc.	reptilian & fish bone & teeth frags., gastropod nolds, mammalian tooth root	Lma	
0210	Artiodactyla	<i>Anthracotherium</i> sp.	astragalus	Thdn	
0211	Mammalia	mammal	teeth frags	Thdn	
0212	Reptilia	Reptilia	bones & teeth frags	Thdn	
0213	Rodentia	<i>Pondaungimys anomaluropsis</i>	left mandible with left lower m1-3	Bh1	10
0214	Creodonta	<i>Yarshea cruenta</i>	rt. m2 talonid, lt. M2 frags.	Bh1	13
0215	Artiodactyla	<i>Anthracotherium</i>	right upper P3	Bh1	
0216	Artiodactyla	<i>Anthracotherium</i>	right upper M2-3	Bh1	
0217		misc.	bones & teeth frags, gastropod mold	Bh1	
0218	Perissodactyla	Brontotheriid (? Cf. <i>Metatelmatherium lahirii</i>)	left lower p1?	Bh5	
0219	Reptilia	Reptilia	vertebral frags.	Bh5	
0220	Perissodactyla	Brontotheriid?	bone frags incl. dist. femur, prox. tibia, dist. mesopodial, glenoid of scapula, vertebrae	Bh4	
0221	Reptilia	misc. (reptiles)	bone frags	Bh2	
0222	Artiodactyla	<i>Indomeryx arenae</i>	right mandible with right lower m2-3	Pk1	
0223	Vertebrata	misc.	bone frags (reptilian vertebrae, fish jaws), mammalian teeth frag.	Pk1	
0224	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3 frag.	Pk1	
0225	Perissodactyla	? <i>Paramynodon birmanicus</i>	upper teeth	Pk6	
0226	Perissodactyla	Perissodactyla	astragalus (incomplete)	Pk6	
0227	Reptilia	Reptilia	bone frags	Pk7	
0228	Primates	<i>Amphipithecus mogaungensis</i>	right maxilla with right upper P4M1-3	Pk2	14,15
0229	Primates	<i>Amphipithecus mogaungensis</i>	part of skull (frontal bone)	Pk2	11
0230	Mammalia	small mammal	incisor? canine?	Pk2	
0231	Rodentia	Anomaluridae sp. 2	right mandible with right lower m1-3	Pk2	
0232	Perissodactyla	?Brontotheriid or amynodontid	incisor	Pk2	
0233	Perissodactyla	? <i>Paramynodon birmanicus</i>	upper premolar	Pk2	
0234	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Pk2	
0235	Perissodactyla	? <i>Paramynodon cotteri</i>	canine?	Pk2	
0236	Mammalia	mammal	tooth	Pk2	
0237	Mammalia	mammal	teeth	Pk2	
0238	Vertebrata	fish & crocodile	teeth	Pk2	
0239	Artiodactyla	<i>Anthracotherium</i> sp.	right mandibular frag. around right lower p2	Pk2	
0240	Perissodactyla	? <i>Indolophus guptai</i>	lower teeth frags	Pk2	
0241	Mammalia	mammal	mand. frag	Pk2	
0242	Mammalia	large ungulate	dist. mesopodal	Pk2	
0243	Reptilia	Reptilia	bones (vertebral and other bone frags.) from same point	Pk2	
0244	Perissodactyla	amynodontid	prox. tibia	Pk2	
0245	Vertebrata	misc.	bones from U shige point	Pk2	
0246	Vertebrata	misc.	useful bones from U shige point	Pk2	
0247	Mammalia	large mammal	mand. frag	Pk3	
0248	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m1 or 2	Pk3	
0249	Perissodactyla	?Amynodontid or Brontotheriid?	incisor	Pk3	
0250	Vertebrata	misc.	bones & teeth frags	Pk3	
0251	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Pk2	
0252	Perissodactyla	?smaller amynodontid	left upper P2?	Pk2	
0253	Vertebrata	misc.	reptile, fish, and mammal bone frags. & croc. teeth	Pk2	

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0254	Perissodactyla	Amyndodontid	tibia without prox. end, humeral head, pelvic frags., vertebrae, 2 prox. mesopodials	Pk2	
0255	Artiodactyla	<i>Anthracotherium</i> sp.	canine, incisor, and teeth frags.	Pk2	
0256	Creodonta or Carnivora	Creodonta or Carnivora (?Nimravidae)	prox. metacarpal	Pk2	
0257	Reptilia	Reptilia	bone frags., croc. teeth	Pk2	
0258	Mammalia	Mammalia	large bones	Pk2	
0259	Vertebrata	misc.	bone frags	Pk2	
0260	Vertebrata	misc.	bones & teeth frags	Pk2	
0261	Creodonta	" <i>Pterodon</i> " <i>dahkoensis</i>	right mandible with right lower p2-4, m1 talonid	Td5	22
0262	Creodonta	" <i>Pterodon</i> " <i>dahkoensis</i>	trigonids of right lower m1 and 2	Td5	22
0263	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m3	Td5	
0264	Artiodactyla	<i>Asiohomaconon myanmarensis</i>	left mandible with left lower m2-3	Mta	
0265	Perissodactyla	<i>Indolophus guptai</i>	left upper M3	Mta	
0266	Artiodactyla	<i>Indomeryx cotteri</i>	right mandible with right lower m1-2	Mta	
0267	Artiodactyla	<i>Anthracotherium tenuis</i>	left mandible with left lower m1-2	Mta	
0268	Artiodactyla	<i>Indomeryx cotteri</i>	left mandible with left lower m3 talonid	Mta	
0269	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Mta	
0270	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar (broken)	Mta	
0271	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar	Mta	
0272	Perissodactyla	<i>Paramynodon birmanicus</i>	left upper M3	Mta	
0273	Artiodactyla	<i>Anthracotherium</i> sp.	astragalus	Mta	
0274	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower p3-4m1	Mta	
0275	Artiodactyla	<i>Anthracotherium pangan</i>	right upper M3	Mta	
0276	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.	Mta	
0277	Perissodactyla	Perissodactyla	astragalus	Mta	
0278	Reptilia	Reptilia	bone & teeth frags	Mta	
0279	Vertebrata	misc.	large bones	Mta	
0280	Mollusca	gastropods	shell impressions	Mta	
0281	Perissodactyla	smaller amyndodontid	right upper M3	PGN1	
0282	Perissodactyla	? Cf. <i>Metatelmatherium lahirii</i>	right lower p2?	PGN1	
0283	Perissodactyla	Brontotheriid (? <i>Sivatitanops</i>)	upper molar frag.	PGN1	
0284	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3	PGN2	
0285	Perissodactyla	Amyndodontid	incisor	PGN2	
0286	Vertebrata	misc.	bones & teeth frags	PGN2	
0287	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar	Mta	
0288	Perissodactyla	cf. <i>Teletaceras</i> sp.	right upper M3	Mta	21
0289	Artiodactyla	<i>Indomeryx cotteri</i>	right mandible with right lower m3	Mta	
0290	Artiodactyla	<i>Indomeryx cotteri</i>	left mandible with left lower m1-2 or 2-3	Mta	
0291	Perissodactyla	Amyndodontid (! <i>Paramynodon</i>)	upper? incisor	Mta	
0292	Perissodactyla	<i>Paramynodon birmanicus</i>	left lower p3	Mta	
0293	Reptilia	Reptilia	bone frag.	Mta	
0294	Vertebrata	misc.	bones & teeth frags (reptile, fish)	Mta	
0295	Perissodactyla	? <i>Paramynodon birmanicus</i> (large mammal)	large bones & teeth	Mta	
0296	Perissodactyla	<i>Bunobrontops savagei</i>	half of upper molar	Lma	
0297	Vertebrata	misc.	bones	Pk2	
0298	Artiodactyla	<i>Anthracotherium</i> sp.	incisor	Mta	
0299	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags	Mta	

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0301	Creodonta	cf.Hyaenodontidae gen. et sp. nov. 2	C1/	Kdw-3	Kdw7
0302	Creodonta	cf.Hyaenodontidae gen. et sp. nov. 2	C1/	Kdw-5	Kdw7
0303	Carnivora	<i>Nimravus</i> sp. cf. <i>N. intermedius</i>	part of left mandible w/ m1 base	Tudw-1	Tudw
0304	Creodonta	" <i>Pterodon</i> " <i>dahkoensis</i>	left maxilla with left upper M1	mgg-1	Mogaun area 22
0305	Perissodactyla	<i>Paramynodon birmanicus</i>	left maxilla with left upper DP4M1 or M1-2	Bhn-165	Bahin area
0306	Artiodactyla	<i>Anthracotherium</i> sp.	right lower p3 or 2?		?
0307	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p4		?
0308	Artiodactyla	? <i>Anthracotherium</i> sp.	incisor? canine?		?
0309	Perissodactyla	? <i>Sivatitanops</i>	right upper molar frag.		?
0310	Perissodactyla	? <i>Paramynodon birmanicus</i>	trigonid of right lower molar		?
0311	Perissodactyla	Cf. <i>Metatelmatherium lahirii</i>	left mandible with left lower m1-3	Bhn-1120	Bahin area
0312	Perissodactyla	<i>Bunobrontops savagei</i>	left upper M3	Bhn-67	Bahin area
0313	Perissodactyla	<i>Bunobrontops savagei</i>	right upper M1?	Bhn-1080	Bahin area
0314	Perissodactyla	<i>Paramynodon birmanicus</i>	right upper M3	Bhn-142	Bahin area
0315	Perissodactyla	<i>Paramynodon birmanicus</i>	right mandible with right lower p3, m1-3	Bhn-158	Bahin area
0316	Perissodactyla	<i>Paramynodon birmanicus</i>	right upper M2	Bhn-1091	Bahin area
0317	Perissodactyla	<i>Paramynodon birmanicus</i>	right maxilla with right upper M2-3	mgg-24	Mogaung area
0318	Perissodactyla	<i>Paramynodon birmanicus</i>	left mandible with left lower m3	mgg-202	Mogaung area
0319	Perissodactyla	<i>Bunobrontops savagei</i>	left upper M2? or 1?	Kdn-1	Kdn
0320	Perissodactyla	Brontotheriid	left upper P4?	Bhn-140	Bahin area
0321	Perissodactyla	? Cf. <i>Metatelmatherium lahirii</i>	right lower p3?	Bhn-72	Bahin area
0322	Perissodactyla	? Cf. <i>Metatelmatherium lahirii</i>	right lower p4?	Bhn-108	Bahin area
0323	Perissodactyla	? Cf. <i>Metatelmatherium lahirii</i>	left lower p4?	Bhn-136	Bahin area
0324	Perissodactyla	? <i>Svatitanops</i> sp.	right lower p4?	Czn-1	near Chaungzongyi
0325	Artiodactyla	<i>Anthracotherium tenuis</i>	right maxilla with right upper DP3-4, M1-2	Bhn-19	Bahin area
0326	Artiodactyla	<i>Anthracotherium</i> sp.	right maxilla with right upper M3 or 2	Bhn-24	Bahin area
0327	Artiodactyla	<i>Anthracotherium</i> sp.	right maxilla with right upper DP4	Bhn-53	Bahin area
0328	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3	mgg-23	Mogaung area
0329	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper M1-3	Tmk-18	Tmk
0330	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m2-3	Bhn-56	Bahin area
0331	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m2	mgg-20	Mogaung area
0332	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m3	Tudw-30	Tudw
0333	Perissodactyla	<i>Bunobrontops savagei</i>	left lower m1 or 2 frag.	Kdw-136	Kyawdaw
0334	Perissodactyla	? <i>Svatitanops</i> sp.	right lower m3 frag.	Bhn-1114	Bahin area
0335	Perissodactyla	? Cf. <i>Metatelmatherium lahirii</i>	left mandible with left lower molar talonid	Bhn-1087	Bahin area
0336	Perissodactyla	Brontotheriid	right mandible with lower c1, roots of p1-3?	mgg-19	Mogaung area
0337	Perissodactyla	Brontotheriid	upper molar fragment	mta-1	Mta
0338	Perissodactyla	Brontotheriid	upper molar fragment	Tmk-32	Tmk
0339	Perissodactyla	? <i>Svatitanops</i> sp.	right upper P4 or 3 frag.	Sze-5	Sze
0340	Perissodactyla	? Cf. <i>Metatelmatherium lahirii</i>	right upper P3?	Bhn-1061	Bahin area
0341	Perissodactyla	Brontotheriid	trigonid of right lower molar (m1?)	Bhn-1068	Bahin area
0342	Perissodactyla	? Cf. <i>Metatelmatherium lahirii</i>	trigonid or talonid of lower molar	Bhn-1070	Bahin area
0343	Perissodactyla	Brontotheriid	right upper P4? frag.	Bhn-170	Bahin area

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0344	Perissodactyla	Brontotheriid	canine	Bhn-1089	Bahin area
0345	Perissodactyla	? <i>Paramynodon birmanicus</i>	Lower canine	Bhn-1078	Bahin area
0346	Perissodactyla	?Brontotheriid or ?amynodontid	incisor	Bhn-1076	Bahin area
0347	Perissodactyla	?Brontotheriid or ?amynodontid	incisor	mgg-46	Mogaung area
0348	Perissodactyla	Amynodontid	incisor	Bhn-89	Bahin area
0349	Perissodactyla	Amynodontid	incisor	Bhn-1086	Bahin area
0350	Perissodactyla	Amynodontid	incisor	Bhn-1077	Bahin area
0351	Perissodactyla	Amynodontid	incisor	Tudw-176	Tudw
0352	Perissodactyla	Amynodontid	incisor	Tmk-28	Tmk
0353	Perissodactyla	Amynodontid	incisor	mgg-36	Mogaung area
0354	Perissodactyla	Amynodontid	incisor	Bhn-1058	Bahin area
0355	Perissodactyla	Amynodontid	incisor	Wka-2	Wetkya
0356	Perissodactyla	?Brontotheriid or ?amynodontid	incisor	Bhn-1059	Bahin area
0357	Perissodactyla	Amynodontid	incisor	Wka-3	Wetkya
0358	Perissodactyla	?Brontotheriid	incisor??	mgg-35	Mogaung area
0359	Perissodactyla	?Brontotheriid or ?amynodontid	incisor	Bhn-1066	Bahin area
0360	Perissodactyla	Amynodontid	canine	Kdw-189	Kyawdaw
0361	Perissodactyla	Amynodontid	canine	Bhn-1079	Bahin area
0362	Perissodactyla	Amynodontid	canine	Bhn-1090	Bahin area
0363	Perissodactyla	?Brontotheriid or ?amynodontid	tooth root	Bhn-1083	Bahin area
0364	Perissodactyla	?Brontotheriid or ?amynodontid	tooth root	mgg-239	Mogaung area
0365	Perissodactyla	<i>Paramynodon birmanicus</i>	right upper molar (M1?) frag.	Wka-5	Wetkya
0366	Perissodactyla	<i>Paramynodon birmanicus</i>	protocone of ?left upper M2	Tmk-1	Tmk
0367	Perissodactyla	?Rhinoceroidea	upper molar fragment	Tudw-55	Tudw
0368	Perissodactyla	? <i>Paramynodon birmanicus</i>	upper M1?	Bhn-1082	Bahin area
0369	Perissodactyla	<i>Paramynodon birmanicus</i>	lower m1	Bhn-1085	Bahin area
0370	Perissodactyla	Brontotheriid	right upper I3	Bhn-1118	Bahin area
0371	Mammalia	mammal	hypocone of ?right upper molar	Kdw-17	Kyawdaw
0372	Perissodactyla	<i>Paramynodon birmanicus</i>	left lower m2	Bhn-1119	Bahin area
0373	Perissodactyla	<i>Paramynodon birmanicus</i>	left mandible with left lower m1-2	Bhn-1093	Bahin area
0374	Perissodactyla	<i>Paramynodon birmanicus</i>	right mandible with right lower dp3-4, m1	Bhn-1117	Bahin area
0375		?	?	Bhn-155	Bahin area
0376	Perissodactyla	<i>Paramynodon birmanicus</i>	right mandible with right lower dp3-4	Tudw-56	Tudw
0377	Perissodactyla	<i>Paramynodon birmanicus</i>	right upper M3	Bhn-1092	Bahin area
0378	Perissodactyla	<i>Paramynodon birmanicus</i>	right mandible with right lower m2	Bhn-1088	Bahin area
0379	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar or DP4	Bhn-22	Bahin area
0380	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper M1?	Bhn-26	Bahin area
0381	Artiodactyla	<i>Anthracotherium</i> sp.	?canine	Bhn-897	Bahin area
0382	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper M2-3 (or 1-2?)	Bhn-28	Bahin area
0383	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m1 (or 2?)	Bhn-15	Bahin area
0384	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M1 or 2	Kdw-12	Kyawdaw
0385	Artiodactyla	<i>Anthracotherium</i> sp.	right maxilla with right upper M1?	Bhn-21	Bahin area
0386	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m3 (lacking hypoconulid)	Bhn-18	Bahin area

0387	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M1?	Kdw-10	Kyawdaw
0388	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper M1?	Kdw-9	Kyawdaw
0389	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper DP4, M1, and unerupted M2	Bhn-17	Bahin area
0390	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m1 (or m2?)	Bhn-12	Bahin area
0391	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m1 frag.	Bhn-37	Bahin area
0392	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar frag. (buccal part)	Kdw-11	Kyawdaw
0393	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m1 or 2 farg.	mgg-15	Mogaung area
0394	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m2 (or 1)	mgg-16	Mogaung area
0395	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m2 (or 1)	Bhn-30	Bahin area
0396	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2	Bhn-76	Bahin area
0397	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m2 or 1	Bhn-29	Bahin area
0398	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Bhn-57	Bahin area
0399	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m3	Kdw-8	Kyawdaw
0400	Artiodactyla	? <i>Anthracotherium</i> sp.	?right upper P3	(no number)	?
0401	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3?	mgg-240	Mogaung area
0402	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper M1 or 2	Tudw-179	Tudw
0403	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3	Bhn-70	Bahin area
0404	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3	mgg-22	Mogaung area
0405	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2	Tudw-47	Tudw
0406	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3?	Pgn-6	Pangan area
0407	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3	Tudw-46	Tudw
0408	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2	Pgn-153	Pangan area
0409	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3	Bhn-68	Bahin area
0410	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper M2-3	Bhn-895	Bahin area
0411	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper M3	Pgn-7	Pangan area
0412	Artiodactyla	<i>Anthracotherium</i> sp.	right maxilla with right upper M2-3	Tudw-45	Tudw
0413	Artiodactyla	<i>Anthracotherium</i> sp.	right maxilla with right upper P4, M1-2	Bhn-62	Bahin area
0414	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper DP4, M1-2, and unerupted P4?	Tudw-42	Tudw
0415	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3	Pgn-4	Pangan area
0416	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m2-3	Bhn-51	Bahin area
0417	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3	Tudw-28	Tudw
0418	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m2	Tmk-10	Tmk
0419	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with talonid of left lower m3	Wka-1	Wetkya
0420	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Tudw-31	Tudw
0421	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m1	Bhn-39	Bahin area
0422	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m2-3	Bhn-42	Bahin area
0423	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m2 talonid and m3	Bhn-35+36	Bahin area
0424	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m3	Bhn-64	Bahin area
0425	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m3 lacking hypoconulid	Tudw-16+35	Tudw
0426	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m2-3	Tmk-24	Tmk
0427	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m3	mgg-204	Mogaung area
0428	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with right lower m2-3	Tudw-44	Tudw
0429	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m2-3	Bhn-1057	Bahin area
0430	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower p3-4	Bhn-54+58	Bahin area
0431	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Sze-1	Sze
0432	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower p4	Bhn-59	Bahin area
0433	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p4 (or 3?)	Tmk-8	Tmk
0434	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p4	Bhn-96	Bahin area
0435	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower p4	Tudw-12	Tudw
0436	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p2 or 3	Bhn-1046	Bahin area
0437	Artiodactyla	<i>Anthracotherium</i> sp.	right lower p2 or 3	Bhn-1049	Bahin area

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0438	Artiodactyla	<i>Anthracotherium</i> sp.	right lower p2 or 3	Tudw-23	Tudw
0439	Perissodactyla	?Brontotheriid	left mandible with root of left lower c1	Kdw-135	Kyawdaw
0440	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Tmk-4	Tmk
0441	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Pgn-24	Pangan area
0442	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Tmk-58	Tmk
0443	Mammalia	? <i>Anthracotherium</i> or ?Brontotheriid	?canine ?incisor	Kdw-131	Kyawdaw
0444	Artiodactyla	<i>Anthracotherium</i> sp.	incisor	Kdw-127	Kyawdaw
0445	Artiodactyla	<i>Anthracotherium</i> sp.	?canine	Pgn-150	Pangan area
0446	Perissodactyla	Amynodontid	incisor	Kdw-22	Kyawdaw
0447	Perissodactyla	?Amynodontid	incisor (right lower i2??)	mgg-39	Mogaung area
0448	Perissodactyla	<i>Sivatitanops cotteri?</i>	trigonid of left lower molar	Bhn-117	Bahin area
0449	Perissodactyla	Amynodontid	incisor	Bhn-87	Bahin area
0450	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower p1 (or right upper DP1?)	Bhn-13	Bahin area
0451	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower p1	Bhn-14	Bahin area
0452	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M3?	Tmk-15	Tmk
0453	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3	Tmk-9	Tmk
0454	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M3	Tmk-6	Tmk
0455	Artiodactyla	<i>Anthracotherium</i> sp.	right maxilla with right upper P3-4	Bhn-23	Bahin area
0456	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m3 talonid	Tmk-19	Tmk
0457	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m3	Tudw-37	Tudw
0458	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m1-3	mgg-17	Mogaung area
0459	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper M3	Kdw-15	Kyawdaw
0460	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M1 or 2	Bhn-69	Bahin area
0461	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m3 talonid	Bhn-66	Bahin area
0462	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m3 talonid	Bhn-79(A)	Bahin area
0463	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left upper M3	Bhn-63	Bahin area
0464	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m3 talonid	Bhn-1055	Bahin area
0465	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m3	Tudw-26	Tudw
0466	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m1-2	Kdw-7	Kyawdaw
0467	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m1 or 2	Bhn-34	Bahin area
0468	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower p4, m1	Bhn-1053	Bahin area
0469	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m1 or 2	Pgn-3	Pangan area
0470	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m2-3	Bhn-1056	Bahin area
0471	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m1 or 2	Bhn-44	Bahin area
0472	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Bhn-77	Bahin area
0473	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Bhn-25	Bahin area
0474	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Tmk-5	Tmk
0475	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3	Tmk-11	Tmk
0476	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P4	Bhn-74	Bahin area
0477	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m2 talonid, m3	Bhn-52	Bahin area
0478	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m1-2	mgg-13	Mogaung area
0479	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower p4m1 (or p3dp4?)	Bhn-45	Bahin area
0480	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P4	Tudw-20	Tudw
0481	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3	Bhn-1052	Bahin area
0482	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2	Bhn-79(B)	Bahin area
0483	Artiodactyla	<i>Anthracotherium</i> sp.	right upper molar	Bhn-905	Bahin area
0484	Artiodactyla	? <i>Anthracotherium</i> sp.	?canine	Bhn-84	Bahin area
0485	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m1 or 2	Tmk-13	Tmk
0486	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2 (or DP4?)	Tudw-25	Tudw
0487	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of left lower molar	Tudw-9	Tudw
0488	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of left lower molar	Bhn-899	Bahin area
0489	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P4	Tudw-34	Tudw
0490	Artiodactyla	<i>Anthracotherium</i> sp.	talonid of left lower m3	Bhn-71	Bahin area

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0491	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m1 or 2	Bhn-167	Bahin area
0492	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2	Tudw-48	Tudw
0493	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible with right lower m1 or 2 talonid	Bhn-79(C)	Bahin area
0494	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M1 or 2	Pgn-5	Pangan area
0495	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M3	Bhn-79(D)	Bahin area
0496	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Tmk-14	Tmk
0497	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of left lower molar	Tudw-8	Tudw
0498	Artiodactyla	<i>Anthracotherium</i> sp.	talonid of right lower m1 or 2	Tudw-18	Tudw
0499	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Tmk-23	Tmk
0500	Artiodactyla	<i>Anthracotherium</i> sp.	left maxilla with left P3-4	Tmk-12	Tmk
0501	Artiodactyla	? <i>Anthracotherium</i> sp.	?canine	Bhn-86	Bahin area
0502	Artiodactyla	? <i>Anthracotherium</i> sp.	?canine	Tudw-41	Tudw
0503	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar	Bhn-901	Bahin area
0504	Artiodactyla	<i>Anthracotherium</i> sp.	hypoconulid of right lower m3	Bhn-706	Bahin area
0505	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p4	Bhn-896	Bahin area
0506	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m3 talonid	Bhn-65	Bahin area
0507	Artiodactyla	<i>Anthracotherium</i> sp.	left upper P3	Bhn-134(C)	Bahin area
0508	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p1?	Bhn-97	Bahin area
0509	Perissodactyla	Amynodontidae indet. (small amynodontid)	right mandible with right lower m3	Pgn-13	Pangan area
0510	Perissodactyla	<i>Sivatitanops cotteri</i> ?	left lower m3	Bhn-171	Bahin area
0511	Perissodactyla	Amynodontidae indet. (small amynodontid)	left upper M1	Pgn-16	Pangan area
0512	Perissodactyla	? <i>Paramynodon birmanicus</i>	left lower m2? (or 1?)	mgg-33	Mogaung area
0513	Perissodactyla	? <i>Paramynodon birmanicus</i>	right mandible with right lower m3	Bhn-148	Bahin area
0514	Perissodactyla	? <i>Paramynodon birmanicus</i>	right upper P4	Kdw-19	Kyawdaw
0515	Perissodactyla	Amynodontidae indet. (small amynodontid)	left upper M2-3	Pgn-15+19	Pangan area
0516	Perissodactyla	<i>Sivatitanops cotteri</i> ?	left lower m2	Bhn-129	Bahin area
0517	Perissodactyla	? <i>Paramynodon cotteri</i>	right lower p4	Bhn-107	Bahin area
0518	Perissodactyla	? <i>Paramynodon cotteri</i>	right lower p4	Bhn-157	Bahin area
0519	Perissodactyla	? <i>Paramynodon cotteri</i>	left lower m1? (or 2?)	Bhn-121	Bahin area
0520	Perissodactyla	brontothere	trigonid of right lower molar	mgg-32	Mogaung area
0521	Perissodactyla	Amynodontidae indet. (small amynodontid)	right maxilla with right upper M2 (and frag. of 1)	Pgn-14	Pangan area
0522	Perissodactyla	? <i>Paramynodon birmanicus</i>	right mandible with right lower m1? (or 2?)	Tudw-49	Tudw
0523	Perissodactyla	? <i>Paramynodon birmanicus</i>	right upper P3? or 2?	Bhn-75	Bahin area
0524	Perissodactyla	<i>Paramynodon birmanicus</i>	right lower m2? (or 1?)	Bhn-149	Bahin area
0525	Perissodactyla	<i>Paramynodon birmanicus</i>	right lower m3	Bhn-150	Bahin area
0526	Perissodactyla	<i>Paramynodon birmanicus</i>	talonid of left lower m2?	Bhn-151	Bahin area
0527	Perissodactyla	<i>Paramynodon birmanicus</i>	trigonid of left lower m2?	Bhn-152	Bahin area
0528	Perissodactyla	<i>Paramynodon birmanicus</i>	trigonid of left lower m3?	Bhn-153	Bahin area
0529	Perissodactyla	<i>Paramynodon birmanicus</i>	talonid of left lower m3?	Bhn-154	Bahin area
0530	Perissodactyla	? <i>Paramynodon birmanicus</i>	right upper M3? frag.	mgg-25	Mogaung area
0531	Perissodactyla	<i>Bunobrontops savagei</i>	trigonid of left lower molar	Bhn-111	Bahin area
0532	Perissodactyla	Brontotheriid	left upper P4	Bhn-93	Bahin area
0533	Perissodactyla	Brontotheriid	?right upper P4	Bhn-146	Bahin area

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0534	Perissodactyla	Brontotheriid	taloid of ?right lower m3	Bhn-119	Bahin area
0535	Perissodactyla	Rhinoceroidea	right upper molar	Tudw-55(A)	Tudw
0536	Perissodactyla	? <i>Paramynodon birmanicus</i>	right lower m1 or 2 (or dp4?)	Tmk-30(A)	Tmk
0537	Perissodactyla	Brontotheriid	trigonid of left lower molar	Bhn-170(A)	Bahin area
0538	Perissodactyla	Brontotheriid	taloid of left lower m1 or 2	Bhn-118	Bahin area
0539	Perissodactyla	Brontotheriid	right upper P4	Bhn-134(A)	Bahin area
0540	Perissodactyla	? <i>Paramynodon birmanicus</i>	right lower p4	Bhn-134(B)	Bahin area
0541	Perissodactyla	Brontotheriid	upper molar frag.	Bhn-134(D)	Bahin area
0542	Perissodactyla	? <i>Paramynodon birmanicus</i>	trigonid of left lower molar	Bhn-134(F)	Bahin area
0543	Perissodactyla	? <i>Paramynodon birmanicus</i>	left lower molar	mgg-29	Mogaung area
0544	Perissodactyla	Brontotheriid	?incisor ?canine	Bhn-147	Bahin area
0545	Perissodactyla	Amyndontidae indet. (small amyndontid)	left lower m3	Bhn-32+Pgn-11	Bahin or Pangan area
0546	Perissodactyla	? <i>Paramynodon birmanicus</i>	right upper P4	Bhn-122	Bahin area
0547	Perissodactyla	Rhinoceroidea	?right upper P3	Tudw-55(B)	Tudw
0548	Perissodactyla	? <i>Paramynodon birmanicus</i>	left lower p3	mgg-44	Mogaung area
0549	Perissodactyla	? <i>Paramynodon birmanicus</i>	right lower molar	Kdw-24	Kyawdaw
0550	Perissodactyla	? <i>Paramynodon birmanicus</i>	taloid of right lower m1 or 2	Kdw-25	Kyawdaw
0551	Perissodactyla	?Brontotheriid	trigonid of ?left lower premolar	Bhn-170(C)	Bahin area
0552	Perissodactyla	Brontotheriid	left upper P1? (upper premolar)	Bhn-123	Bahin area
0553	Perissodactyla	Brontotheriid	?premolar frag. (right upper P1?)	Bhn-80	Bahin area
0554	Perissodactyla	Brontotheriid	incisor	Bhn-92(A)	Bahin area
0555	Perissodactyla	Brontotheriid	incisor	Bhn-92(B)	Bahin area
0556	Perissodactyla	Amyndontid	incisor	Bhn-85	Bahin area
0557	Perissodactyla	Amyndontid	incisor	Bhn-94	Bahin area
0558	Perissodactyla	Amyndontid	incisor	Bhn-90	Bahin area
0559	Perissodactyla	Amyndontid	incisor	Tbk-2	Tbk
0560	Perissodactyla	Amyndontid or Brontotheriid	incisor	Bhn-98	Bahin area
0561	Perissodactyla	Amyndontid	incisor	Bhn-95	Bahin area
0562	Perissodactyla	Amyndontid	incisor	Bhn-82	Bahin area
0563	Perissodactyla	Amyndontid	incisor	mgg-34	Mogaung area
0564	Perissodactyla	?Brontotheriid ?Amyndontid	?incisor	Bhn-77	Bahin area
0565	Perissodactyla	? <i>Paramynodon birmanicus</i>	upper premolar	mgg-50	Mogaung area
0566	Perissodactyla	Amyndontid	incisor	Bhn-92(C)	Bahin area
0567	Perissodactyla	Amyndontid	incisor	Bhn-92(D)	Bahin area
0568	Perissodactyla	?Amyndontid	incisor	mgg-42	Mogaung area
0569	Perissodactyla	Amyndontid	incisor	mgg-38	Mogaung area
0570	Mammalia	larger mammal (?Amyndontid)	?incisor or ?canine	mgg-43	Mogaung area
0571	Mammalia	larger mammal	?premolar (left upper P2?) or incisor?	mgg-40	Mogaung area
0572	Mammalia	small mammal	mandible	Bhn-1	Bahin area
0573	Mammalia	small mammal	mandible	Bhn-2	Bahin area
0574	Artiodactyla	<i>Anthracotherium tenuis</i>	right mandible without tooth crown	Bhn-27	Bahin area
0575	Perissodactyla	? <i>Sivatitanops</i> sp.	right upper M2?? frag.	Bhn-137 + 145	Bahin area

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0576	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible	Kdw-13	Kyawdaw
0577	Artiodactyla	<i>Anthracotherium</i> sp.	mandible	Bhn-33	Bahin area
0578	Artiodactyla	<i>Anthracotherium</i> sp.	mandible	Bhn-16	Bahin area
0579	Perissodactyla	? <i>Paramynodon</i> <i>birmanicus</i>	canine	Bhn-113	Bahin area
0580	Perissodactyla	Brontotheriid	upper molariform tooth frag.	Bhn-139	Bahin area
0581	Perissodactyla	Brontotheriid	right upper P4 frag.? (lingual part)	Tmk-31	Tmk
0582	Perissodactyla	? <i>Paramynodon</i> <i>birmanicus</i>	canine	Pgn-23	Pangan area
0583	Perissodactyla	Brontotheriid	left upper molar frag. (protocone part)	Sze-2	Sze
0584	Perissodactyla	? <i>Paramynodon</i>	canine	Bhn-162	Bahin area
0585	Perissodactyla	Brontotheriid	lingual half of left upper P4	Bhn-73	Bahin area
0586	Perissodactyla	? <i>Paramynodon</i>	canine	Bhn-170(B)	Bahin area
0587	Perissodactyla	Brontotheriid	Upper molar frag.	Bhn-133	Bahin area
0588	Perissodactyla	Brontotheriid	Upper molar frag.	Bhn-125	Bahin area
0589	Perissodactyla	Brontotheriid (<i>Sivatitanops</i> ?)	upper I3? frag.	mgg-37	Mogaung area
0590	Perissodactyla	? <i>Paramynodon</i>	canine	Tudw-29	Tudw
0591	Artiodactyla	<i>Anthracotherium</i>	taloniid of left lower m3 (without hyld)	Czn-2	near Chaungzongyi
0592	Mammalia	Small mammal (primates??)	left mandible	Bhn-240	Bahin area
0593	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3 frag.	Bhn-7(B)	Bahin area
0594	Perissodactyla	? <i>Paramynodon</i>	canine frag.	Bhn-903	Bahin area
0595	Perissodactyla	Brontotheriid	?incisor or ?premolar frag.	Pgn-31	Pangan area
0596	Perissodactyla	Brontotheriid	?incisor or ?premolar frag.	Bhn-92(E)	Bahin area
0597	?Artiodactyla	? <i>Anthracotherium</i> sp.	?upper premolar frag.	Tmk-2	Tmk
0598	??Artiodactyla	larger mammal	?canine or ?incisor	Tudw-27	Tudw
0599	Artiodactyla	<i>Anthracotherium</i> sp.	right upper jaw frag. around right upper P2	Bhn-20	Bahin area

0601	Ungulata	Ungulate indet.	distal femur		Td1
0602		misc.	bone frag.		Td1
0603	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m3		Td2
0604	Perissodactyla	amynodont (? <i>Paramynodon</i>)	right upper P3-4, and upper incisor		Td2
0605	Artiodactyla	<i>Anthracotherium</i> sp.	dental frags.		Td2
0606	Perissodactyla	cf. <i>Paramynodon</i> sp.	lower jaw fragment including canine roots, astragalus, metatarsal, etc.		Td2
0607	Artiodactyla	<i>Anthracotherium</i> sp.	prox. tibia		Td2
0608	Reptilia	crocodilian	dental & bone frag.		Td2
0609	Vertebrata	misc.	bones		Td2
0610	Perissodactyla	Aminodontid (? <i>Paramynodon</i>)	upper? incisor		Td3
0611	Vertebrata	mammal + corc.	teeth		Td3
0612	Reptilia	croc.	teeth, vertebrae		Td4
0613	Reptilia	croc., turtle	bone frag., teeth		Td4
0614	Reptilia	Agamidae	lower jaw frag.		Td1
0615	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m2 talonid, left lower m3		Td4
0616	Artiodactyla	? <i>Anthracotherium</i> sp.	?right upper molar frag.		Td4
0617	Perissodactyla	perissodactyl	dist.mesopodial		Td4
0618	Perissodactyla	<i>Bunobrontops</i>	right upper premolar or dP?		Td4
0619	Artiodactyla	artiodactyl	distal phalange		Td4
0620	Perissodactyla	Brontotheriid	proximal humerus		Td4
0621	Perissodactyla	cf. Brontotheriid	prox. humerus, prox. tibia, patella		Pk2
0622	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3		Pk2
0623	Perissodactyla	<i>Indolophus guptai</i>	left mandible with left lower p4-m2		Pk2
0624	Mammalia	mammal (??brontotheriid)	teeth frags. (??upper molar frags.)		Pk2

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0625	Rodentia	rodent	incisor frag.	Pk2	
0626	Carnivora	Miacidae (cf. <i>Vulpavus</i> sp.)	right lower m2	Pk2	15
0627	Vertebrata	fish & reptile	teeth, vertebrae, occipital condyle	Pk2	
0628	Reptilia	reptile	skull frag. & tooth (crocodile), vertebrae	Pk2	
0629	Reptilia	crocodile	vertebra	Pk2	
0630	Mammalia	mammal indet.	prox. ulnar articulation, vertebral frag.	Pk2	
0631	Artiodactyla	<i>Anthracotherium</i> sp.	fibula	Pk2	
0632	Perissodactyla	perissodactyl	distal end of mesopodial	Pk2	
0633	Mammalia	mammal indet.	distal shaft of femur	Pk2	
0634	Fish	fish	skeletal elements	Pk2	
0635	Reptilia	crocodile	vertebra, tooth, dist. phalange	Pk2	
0636	Artiodactyla	<i>Anthracotherium</i>	lt. distal humerus (trochlea)	Pk2	
0637	Reptilia	crocodile	distal femur	Pk2	
0638	Reptilia	reptile (croc. or turtle)	2 vertebrae	Pk2	
0639	Artiodactyla	<i>Anthracotherium</i>	distal humerus	Pk2	
0640	Reptilia	reptile	vertebra	Pk2	
0641	Perissodactyla	Brontotheriid	mandibular fragments, dist. humerus, rib, etc.	Pk4	
0642	Perissodactyla	Brontotheriid	metatarsal	Pk4	
0643	Reptilia	crocodile	vertebra, frag. of coronoid process	Pk4	
0644	Vertebrata	misc.	bone fragments	Pk2	
0645	Artiodactyla	? <i>Anthracotherium</i>	right upper P1 or left lower p1 (one root)	Pk2	
0646	Ungulata	large ungulate mammal	dental frag.	Pk2	
0647	Reptilia	crocodile	bone & teeth	Pk2	
0648	Reptilia	Agamidae	lower jaw	Pk2	
0649	Perissodactyla	<i>Bunobrontops savagei</i>	lingual part of right upper molar	Td5	
0650	Perissodactyla	<i>Bunobrontops savagei</i>	right maxilla fragment with right upper M3, M1? frag, and jaw frags.	Td5	
0651	Perissodactyla	perissodactyl	dist. humerus, prox. tibia	Td5	
0652	Perissodactyla	perissodactyl	prox. scapula	Td5	
0653	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p4	Td4	
0654	Reptilia	crocodile	teeth and vertebra	Td4	
0655	Reptilia	crocodile	tail vertebra	Td4	
0656	Perissodactyla	?Brontotheriid	jaw and dental frags.	Td4	
0657	Mammalia	large mammal (??perissodactyl)	dental and bone frags.	Td4	
0658	Perissodactyla	Brontotheriid (<i>Sivatitanops</i> or <i>Metatelmatherium</i>)	right lower molar frags.	Td4	
0659	Perissodactyla	Brontotheriid	right lower premolar	Td4	
0660	Perissodactyla	Amynodontid	bone and dental frags	Td3	
0661		misc.	bones	Td3	
0662	Artiodactyla	<i>Anthracotherium</i> sp.	talonid of right lower m3	Td2	
0663	Artiodactyla	<i>Anthracotherium</i> sp.	right lower p3? (2?), and talonid of left lower m1 or 2	Td2	
0664	Perissodactyla	Amynodontid	dental fragments	Td2	
0665	Artiodactyla	<i>Anthracotherium</i> sp.	right lower molar	Td2	
0666	Artiodactyla	<i>Anthracotherium</i> sp.	dental fragments	Td2	
0667	Reptilia	chelonia	bone plates	Td2	
0668	Perissodactyla	Amynodontid	lower incisor, and dental frags.	Td3	
0669	Artiodactyla	<i>Indomeryx arenae</i>	left mandible with left lower m2-3	Bh1	
0670	Perissodactyla	Brontotheriid	upper premolar frag.	Bh1	
0671	Perissodactyla	Amynodontid	bone frags. (prox. metatarsal etc.)	Bh2	
0672	Perissodactyla	Brontotheriid	assoc. skeleton (mandibular frag., scapularb frag., occipital, dista. humerus, complete rt. femur, pelvics, vertebrae, mesopodial)	PA1	

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0673	Perissodactyla	Amyndodontid?	assoc. bones (dist. tibia, dist. radius, metapodial, phalange)	PA1	
0674	Artiodactyla	<i>Anthracotherium</i> sp.	frags. of humera shaft, dist. humerus, mesopodials	PA1	
0675	Perissodactyla	Amyndodontid	upper molar frags.	PA1	
0676	Reptilia	turtle	bone frags.	PA1	
0677	Reptilia	crocodile	tooth, bone frag.		Sinzwe (exact locality unknown)
0678	Paerissodactyla	Amyndodontid	dental frags.	PA1	
0679		misc.	bone frags.	PA1	
0680	Reptilia	turtle	bone frags.	PA1	
0681	Artiodactyla	<i>Anthracotherium</i> sp.	right lower p2?	PA1	
0682	?Perissodactyla	?perissodactyl	dental frags.	PA1	
0683	Reptilia	Agamidae	lower jaw	PA1	
0684	Reptilia	reptile	bone frags.	PA1	
0685	Mammalia	misc. mammal	bone frags.	PA1	
0686	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible frag. with right lower broken dp4, m1, erupting m2	PA1	
0687	Primates	<i>Amphipithecus mogaungensis?</i>	skull roof (frontal bone)	PA1	11
0688	Reptilia	reptile	humeral frags. (capitulum and shaft)	PA1	
0689	?Carnivora	?Carnivora	bone frags. (humeral shaft & trochlea, radial head)	PA1	
0690	Reptilia	turtle	bone frag.	PA1	
0691	Mammalia	misc. mammal	bone frag.	PA2	
0692	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M1 or 2, distal tibia, calcaneus	PA1	
0693		misc.	bone frag.	SZE	
0694	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3, prox. radius	PA2	
0695		misc.	bone frag.	PA2	
0696	Perissodactyla	?Brontotheriid	teeth frags.	PA2	
0697	Perissodactyla	Brontotheriid	upper molar frags.	SZE	
0698	Reptilia	crocodile	skull and jaw frags.	Kd2	
0699	Reptilia	turtle	bone frags.	Kd2	
0700	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m3? frag.	Kd2	
0701	Reptilia	crocodile	teeth	Kd2	
0702	Reptilia	turtle & crocodile	bone frags.	Kd1	
0703	Perissodactyla	Amyndodontid	dental and bone frags. (calcaneus, phalanges)	Kd1	
0704	Perissodactyla	Brontotheriid (? <i>Bunobrontops?</i>)	upper molar frag.	Kd2	
0705	Perissodactyla	<i>Paramynodon</i> sp.	left lower p4, and teeth frags.	Kd2	
0706	Artiodactyla	<i>Anthracotherium</i> sp.	distal femur	PA1	
0707	Reptilia	Agamidae	2 lower jaw	PA1	
0708	Perissodactyla	<i>Eomoropus pawnyunti</i>	right upper jaw frag. with upper M3, and bone frags.	PA1	
0709	Perissodactyla	Amyndodont	right upper molar	PA1	
0710	Reptilia	crocodile	bone frags.	PA1	
0711	Ungulata	large ungulate	bone elements (tarsal bone, phalange)	Kd2	
0712	Artiodactyla	<i>Indomeryx</i> sp.	prox. humerus, dist. humerus, left lower m1 or 2 talonid.	Kd1	
0713	Artiodactyla	<i>Asiohomacodon myanmarensis</i>	left upper P4-M3	Kd2	
0714	Artiodactyla	<i>Asiohomacodon myanmarensis</i>	right mandibular frag. with right lower m3 frag.	Kd2	
0715	Artiodactyla	<i>Anthracotherium</i> sp.	talonid of right lower m3	Kd2	
0716	Artiodactyla	<i>Indomeryx cotteri</i>	left mandible with lower left m1-2, upper & lower molars and bone frags.	Kd2	
0717	Reptilia	crocodile	teeth & bone frags.		Thidon village (one of the Kd sites)

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0718	Reptilia	Agamidae	anterior part of lower jaw	Kd2
0719	Vertebrata	misc.	mammalian teeth frag., reptile jaw, dist. humera articular surface, & bone frags.	PA1
0720	Artiodactyla	<i>Indomeryx cotteri</i>	right & left maxilla frag. with right upper M1-2 and left upper M1-2 and left upper broken P4	PA1
0721	Mammalia	very small mammal	mandibular corpus frag.	PA1
0722	Primates	cf. <i>Bahinia</i>	prox. tibia	PA1
0723		misc.	bone & dental frags.	PA1
0724	Reptilia	turtle	bone frags.	SZE
0725		shark??	tooth	SZE
0726	Mammalia	mammals	dental frags.	SZE
0727	?Primates	misc. mammal (primate?)	skeletal frags. (skull roof, part of calcaneus, humeral & tibial shafts)	PA1
0728	?Artiodactyla	<i>Anthracotherium</i> sp.	lumber vertebra	PA1
0729	Vertebrata	misc.	crocodile teeth & bone frags., mammal dental frags.	Bh1
0730	Vertebrata	fish & crocodile	fish jaw, vertebra, crocodile teeth & bone frags.	PA1
0731	Ungulata	large ungulate	distal part of femoral shaft, centrum of vertebra	PA1
0732	Ungulata	large ungulate (amynodontid?)	metatarsal, prox. tibia, & other bone elements	Kdw1
0733	Reptilia	Agamidae	lower jaw	Kdw1
0734	Artiodactyla	<i>Anthracotherium</i> sp.	upper incisor	Kdw1
0735	Perissodactyla	Amynodontid	dental frags.	Kdw1
0736	Reptilia	crocodile	teeth & other frags.	Kdw1
0737	Perissodactyla	Amynodontid	dental frags.	Kyawdaw
0738	Artiodactyla	<i>Anthracotherium</i> sp.	right maxilla with right upper P3-4M2-3, and other associated teeth (I, P, etc.)	Kdw2
0739	Artiodactyla	<i>Anthracotherium</i> sp.	associated skeletal frags.	Kdw2
0740	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P3 frag., ?left lower p3 frag., ?incisor, heavily worn upper molar, and associated dental & bone frags.	Kdw2
0741	Reptilia	reptile (turtle)	carpal bone & frag.	Kdw2
0742	misc.	misc.	dist. phalangeal frag., bone frags.	Kdw1
0743	Perissodactyla	Amynodontid	upper molar frag.	Kdw1
0744	Perissodactyla	cf. Amynodontid	bone & dental frags.	Kdw1
0745	Perissodactyla	?Amynodont	?lower incisor?, and associated dental & bone frags.	Kdw1
0746	Pisces	fish	jaw	Kdw2
0747	Perissodactyla	Brontotheriid or Amynodontid	incisor	Kdw2
0748	Ungulata	large ungulate	2 distal parts of mesopodial	Wka (northeast from Wetkya)
0749	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of right lower molar	Kdw1
0750	Reptilia	reptile	vertebra, bone frag.	Kdw1
0751	Reptilia	crocodile & turtle	teeth & bone frags.	Wka1
0752	Artiodactyla	<i>Anthracotherium</i> sp.	upper molar frags.	Wka1
0753	Perissodactyla	? <i>Paramynodon</i> sp.	dental frags.	Wka1
0754	Ungulata	large ungulate	dist. mesodial, phalange	Wka1
0755	Reptilia	reptile	teeth & bone frags.	Wka2
0756	Perissodactyla	Amynodontid (? <i>Paramynodon</i>)	right upper P4, right lower p4, and dental frags.	Wka2
0757	Perissodactyla	Amynodontid	distal humeral frags.	NYG2
0758	Perissodactyla	? <i>Paramynodon</i> sp.	incisor, dental frags.	NYG2
0759	Perissodactyla	large perissodactyl	trochlea, patella, phalange of digit3, vertebral frag.	NYG2
0760	Reptilia	reptile	vertebral frag., croc. teeth	NYG2
0761	Perissodactyla	Brontotheriid	trigonid of right lower premolar, talonid of left lower premolar, and dental & jaw frags.	NYG3

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0762	Pisces	fish	vertebra	Wka1	
0763	Pisces	fish	vertebra	NYG2	
0764	Peridssodactyla	<i>Paramynodon</i> sp.	left upper M3 frag.	NYG2	
0765	Peridssodactyla	Amynodontid	dental frags.	NYG2	
0766		misc.	reptile bone frag., perissodactyl dental frag.	Kyawdaw South	
0767	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible with left lower m1-3	Kdw6	
0768	?Perissodactyla	?Brontotheriid	upper molar frag.	Kdw6	
0769	Perissodactyla	<i>Sivatitanops</i> sp.	upper molar frags.	Kdw6	
0770	Artiodactyla	<i>Anthracotherium</i> sp.	right upper moalr frag.	Kdw5	
0771	Perissodactyla	<i>Paramynodon</i> sp.	canine, a tooth, bone frags.	Kdw5	
0772	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m1 or 2	Kdw5	
0773	Perissodactyla	Amynodontid	a dental frag.	Kdw5	
0774	Perissodactyla	Brontotheriid	associated dental & skeletal frags.	Kdw5	
0775	Reptilia	reptile	bone frags.	Kdw5	
0776	Reptilia	crocodile	scapula, assoc. bones	Lma	
0777		misc.	fish vertepta, croc. & mammalian vertebral frags. bone frags.	UKM1	
0778	Perissodactyla	Amynodontid	incisor	Lma	
0779	Artiodactyla	<i>Anthracotherium</i> sp.	upper P1? (one root)	Lma	
0780	Pisces	fish	jaws, vertebra	Lma	
0781	misc.	misc.	2 bone frags.	Lma	
0782	Reptilia	reptile	croc. teeth & bone frags.	Lma	
0783	Perissodactyla	Brontotheriid	assoc. skeleton (including occipital part of cranium, scapula, mesopodials, astragulus etc.)	near Legan (precise location unknown)	
0784	Creodonta	<i>Kyawdawia lupina</i>	left lower p4, associated bone frags.	Kdw7	16
0785	Creodonta	<i>Kyawdawia lupina</i>	associated bones including jugal bones, cranial frags., humerus, prox. femur, prox. tibia	Kdw7	16
0786	Perissodactyla	?Brontothere or ?Amynodont	incisor	Lma	
0787	Artiodactyla	<i>Anthracotherium</i> sp.	right upper molar frag.	Kdw5	
0788	Perissodactyla	Amynodontid	incisor	Td2	
0789	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p4	Kd2	
0790	Artiodactyla	<i>Anthracotherium</i> sp.	upper P1 or lower p1 (one root)	Kdw2	
0791	Perissodactyla	<i>Paramynodon</i> sp.	canine and incisor	Kd2	
0792	Perissodactyla	Brontotheriid	left lower premolar	Td4	
0793	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M3	Td2	
0794	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of left lower molar (unworn)	Td2	
0795	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of left lower molar (worn)	Td2	
0796	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible frag. with lower dp4	PA1	
0797	Artiodactyla	<i>Anthracotherium</i> sp.	a right upper molar frag.	Kdw1	
0798	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m1 or 2	Kdw1	
0799	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of left lower molar	Kdw1	
0800	Artiodactyla	<i>Anthracotherium</i> sp.	left upepr ¥1	Sze	
0801	Artiodactyla	<i>Anthracotherium</i> sp.	hypoconulid of right lower m3	Td2	
0802	Perissodactyla	Brontotheriid or Amynodontid	?upper incisor	Td2	
0803	Artiodactyla	<i>Anthracotherium</i> sp.	taloid of left lower m1 or 2	Td2	
0804	Perissodactyla	<i>Paramynodon</i> sp.	left upper molar	PA2	
0805	Mammalia	mammal (???)brontotheriid)	teeth frag.	Wka1	
0806	Perissodactyla	Brontotheriid	lower teeth frags. (?lower premolars)	PA1	
0807	Perissodactyla	<i>Sivatitanops</i> sp.	upper molar frags.	Td3	
0808	Perissodactyla	Brontotheriid (? <i>Sivatitanops</i>)	upper molar frag.	Kdw1	

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0809	?Perissodactyla	???Amynodontid	teeth frags.		Sze
0810	Perissodactyla	Amynodontid	5 teeth frags.		Lma
0811	Perissodactyla	Brontotheriid (<i>Sivatitanops</i> or <i>Metatelmatherium</i>)	right lower m1 or 2 frag.		Lma
0812	misc.	misc.	bone frag.		PGN1
0813	Perissodactyla	Amynodontid	teeth frags.		Pk2
0814	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.		Mta
0815	Perissodactyla	Amynodontid	teeth frags.		Mta
0816	?Perissodactyla	???Brontotheriid	a tooth		Mta
0817	Perissodactyla	Brontotheriid	teeth frags.		Mta
0818	Perissodactyla	Amynodontid	teeth frags.		Mta
0819	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.		Mta
0820	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.		Tmk
0821	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.		Pk2
0822	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.		PGN1
0823		misc.	a tooth and a bone		PGN2
0824	Artiodactyla	<i>Anthracotherium</i> sp.	a tooth frag.		Pk4
0825	misc.	misc.	dist. femur?		Pk4
0826	Artiodactyla	indet. 3 very small artiodactyl	left astragalus		Bh1
0827	Mammalia	small mammal	prox. tibia		Bh1
0828	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of right lower molar		Bh1
0829	Perissodactyla	<i>Svatitanops</i> sp.	right mandibular frag. with [right lower m1 taloid and m2] or [right lower p4 taloid and m1]	mgg-30	Mogaung area
0830	Perissodactyla	<i>Paramynodon</i> sp.	right maxilla with right DP4M1	Bhn-164	Bahin area
0831	Artiodactyla	<i>Anthracotherium</i> sp.	hypoconulid of left lower m3	Tudw-21	Tudw
0832	Artiodactyla	<i>Anthracotherium</i> sp.	right mandibular frag. around right loer p1-2	Bhn-439	Bahin area
0833	Artiodactyla	<i>Anthracotherium</i> sp.	taloid of left lower m1 or 2	Tudw-22	Tudw
0834	Artiodactyla	<i>Anthracotherium</i> sp.	right mandibulat frag. around right lower p3-4	Bhn-38	Bahin area
0835	Artiodactyla	<i>Anthracotherium</i> sp.	right mandibulat frag. around right loer p2	Tudw-7	Tudw
0836	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar frag.	Kdw-14	Kyawdaw
0837	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar frag.	Tudw-10	Tudw
0838	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Sze-3	Sze
0839	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Tudw-33	Tudw
0840	?Artiodactyla	? <i>Anthracotherium</i> sp.	? left mandibular frag. around left lower p3-4	Tudw-2	Tudw
0841	Artiodactyla	<i>Anthracotherium</i> sp.	?left upper P2 (two root)	Bhn-47	Bahin area
0842	Creodonta	<i>Kyawdawia lupina</i>	lower canine	Bhn-(415)	Bahin area
0843	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P3	Bhn-908	Bahin area
0844	Artiodactyla	<i>Anthracotherium</i> sp.	upper molar frag.		?
0845	Artiodactyla	<i>Anthracotherium</i> sp.	?left upper P1 (or ?right lower p1) (one root)	Bhn-106	Bahin area
0846	Artiodactyla	<i>Anthracotherium tenuis</i>	left mandiblar frag. with left lower dp4m1		?
0847	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3	mgg-21	Mogaung area
0848	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Tmk-20	Tmk
0849	Artiodactyla	<i>Anthracotherium</i> sp.	left mandible frag. with left lower p3-4	Bhn-46	Bahin area
0850	Artiodactyla	<i>Anthracotherium</i> sp.	?right upper P1 (one root)		?
0851	Artiodactyla	<i>Anthracotherium</i> sp.	?left upper P1 (one root)	Tmk-3	Tmk
0852	Artiodactyla	<i>Anthracotherium</i> sp.	?upper P1	Bhn-101	Bahin area
0853	Creodonta	? <i>"Pterodon" dahkoensis</i>	upper canine frag.		?
0854	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Pgn-12	Pangan area
0855	?Artiodactyla	? <i>Anthracotherium</i> sp.	canine	Kya-4b	
0856	?Artiodactyla	? <i>Anthracotherium</i> sp.	canine	Kya-4a	
0857	Perissodactyla	<i>Sivatitanops</i> sp.	upper molar frag.	Bhn-144	Bahin area
0858	Perissodactyla	<i>Sivatitanops</i> sp.	upper molar frag.	Bhn-143	Bahin area

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0859	Perissodactyla	Brontotheriid (? <i>Sivatitanops</i>)	lower molar frag.	Bhn-168	Bahin area
0860	Perissodactyla	Brontotheriid (? <i>Sivatitanops</i>)	upper molar frag.	Sze-6	Sze
0861	Perissodactyla	Brontotheriid	upper molar frag.	Bhn-133A	Bahin area
0862	Perissodactyla	Brontotheriid	upper molar frag.	Bhn-133B	Bahin area
0863	Perissodactyla	Brontotheriid	lower molar frag.	Bhn-125A	Bahin area
0864	Perissodactyla	Brontotheriid	right lower p2 or 3? frag.	Bhn-904	Bahin area
0865	?Perissodactyla	Amynodontidae	incisor? frag.	mgg-49	Mogaung area
0866	Perissodactyla	Brontotheriid	left lower p1? (one root)	Bhn-898	Bahin area
0867	Perissodactyla	Brontotheriid	incisor	Bhn-900	Bahin area
0868	Perissodactyla	<i>Paramynodon</i> sp.	left mandibular frag. with broken left lower m1 (or 2??)	Tudw-51	Tudw
0869	?Artiodactyla	? <i>Anthracotherium</i> sp.	?canine	Tudw-36	Tudw
0870	Perissodactyla	<i>Paramynodon</i> sp.	right mandibular frag. with right lower m1 or 2	Bhn-159	Bahin area
0871	Perissodactyla	<i>Paramynodon</i> sp.	right lower p3 frag.		?
0872	Perissodactyla	<i>Paramynodon</i> sp.	left upper M3 frag.	Bhn-110	Bahin area
0873	Perissodactyla	<i>Paramynodon</i> sp.	upper molar frag.	Pgn-20	Pangan area
0874	Perissodactyla	Amynodontid	right lower p4? frag.	Tudw-53	Tudw
0875	Perissodactyla	<i>Paramynodon</i> sp.	taloid of left lower m1 or 2	Bhn-134G	Bahin area
0876	Perissodactyla	<i>Paramynodon</i> sp.	upper molar frag.	mgg-25A	Mogaung area
0877	Perissodactyla	<i>Paramynodon</i> sp.	3 upper molar frags.	mgg-31	Mogaung area
0878	Perissodactyla	Amynodontid	upper molar frag.	mgg-25B	Mogaung area
0879	?Perissodactyla	??Amynodontid	a tooth frag.	mgg-33A	Mogaung area
0880	?Perissodactyla	?? <i>Paramynodon</i> sp.	canine	Pgn-9 + 10	Pangan area
0881	Reptilia	Crocodile	a big tooth frag.	mgg-27	Mogaung area
0882	Perissodactyla	<i>Paramynodon</i> sp.	canine	Bhn-114	Bahin area
0883	Perissodactyla	<i>Paramynodon</i> sp.	canine	Bhn-155A + 156	Bahin area
0884	Perissodactyla	<i>Paramynodon</i> sp.	canine	Bhn-81	Bahin area
0885	Perissodactyla	Amynodontid	lower? incisor	Bhn-83	Bahin area
0886	Perissodactyla	Amynodontid	lower? incisor	Bhn-93A	Bahin area
0887	Perissodactyla	Amynodontid	upper? incisor		?
0888	?Perissodactyla	?? <i>Paramynodon</i> sp.	canine	Bhn-88	Bahin area
0889	Perissodactyla	Brontotheriid	upper molar frag.	Tudw-17	Tudw
0890	?Artiodactyla	? <i>Anthracotherium</i> sp.	?canine	Tmk-7	Tmk
0891	Creodonta	<i>Kyawdawia lupina</i>	upper canine	Kdw-18	Kyawdaw 16
0892	Creodonta	<i>Kyawdawia lupina</i>	upper canine	Bhn-100	Bahin area 16
0893	?Perissodactyla	?Amynodontid	incisor	mgg-?	Mogaung area
0894	?Artiodactyla	? <i>Anthracotherium</i> sp.	upper P1 or lower p1 (one root)	Tmk-16	Tmk
0895	Perissodactyla	Amynodontid	teeth frags.	Pgn-32A	Pangan area
0896	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.	Pgn-32B	Pangan area
0897	?Artiodactyla	?? <i>Anthracotherium</i> sp.	??canine frags.	Pgn-32C	Pangan area
0898	Perissodactyla	Amynodontid	teeth frags.	Pgn-25	Pangan area
0899	Perissodactyla	Amynodontid	teeth frags.	Pgn-22A	Pangan area
0900	Artiodactyla	<i>Anthracotherium</i> sp.	upper molar frag.	Pgn-22B	Pangan area
0901	Perissodactyla	Amynodontid	teeth frags.	Tbk-5A	Tbk
0902	Artiodactyla	<i>Anthracotherium</i> sp.	right mandible frag. around right lower p3	Tbk-5B	Tbk
0903	Perissodactyla	Amynodontid	teeth frags.	Tmk-33A	Tmk
0904	Perissodactyla	Brontotheriid	teeth frags.	Tmk-33B	Tmk
0905	Pisces	fish	bones	mgg-59	Lma
0906	Perissodactyla	Brontotheriid (? <i>Sivatitanops</i>)	teeth frags.	mgg-41A	Mogaung area
0907	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.	mgg-41B	Mogaung area
0908	Perissodactyla	Amynodontid	teeth frags.	mgg-41C	Mogaung area
0909		misc.	bones and teeth frags.	mgg-41D	Mogaung area

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0910	Perissodactyla	<i>Amynodontid</i> (? <i>Paramynodon</i>)	teeth frags.	Kdw-17A	Kyawdaw
0911	Perissodactyla	<i>Bunobrontops</i> sp.	upper molar frag. around hypocone	Kdw-17B	Kyawdaw
0912	Perissodactyla	? <i>Brontotheriid</i>	teeth frags.	Kdw-17C	Kyawdaw
0913	Perissodactyla	<i>Amynodontid</i> (? <i>Paramynodon</i>)	an upper molar frag.	Kdw-18A	Kyawdaw
0914	Perissodactyla	<i>Brontotheriid</i>	trigonid of left lower premolar	Kdw-18B	Kyawdaw
0915	Perissodactyla	<i>Brontotheriid</i>	teeth frags.	Kdw-?	Kyawdaw
0916	Reptilia	crocodile	teeth	Kdw-38	Kyawdaw
0917	Perissodactyla	<i>Brontotheriid</i> (? <i>Sivatitanops</i>)	right lower p2?, ?canine, mandible of incisor part, and teeth frags.		0.5 (or 1.5?) mile NE from Paukkaung, Bahin area
0918	Artiodactyla	<i>Anthracotherium</i> sp.	upper molart frag.		0.5 (or 1.5?) mile NE from Paukkaung, Bahin area
0919	Perissodactyla	<i>Amynodontid</i>	teeth frags.	Bhn-153A	Bahin area
0920	Perissodactyla	<i>Brontotheriid</i> (? <i>Sivatitanops</i>)	teeth frags.	Bhn-153B	Bahin area
0921	Perissodactyla	<i>Brontotheriid</i> (? <i>Sivatitanops</i>)	teeth frags	Bhn-171A	0.5 mile NE from Paukkaung, Bahin area
0922	Perissodactyla	<i>Brontotheriid</i>	teeth frags.	Bhn-112	0.5 (or 1.5?) mile NE from Paukkaung, Bahin area
0923	Reptilia	crocodile	teeth frags.	Bhn-214A	Paukkaung NW, Bahin area
0924	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P1 or left lower p1 (one root), trigonid of right lower molar, and ?canine	Bhn-214B	Paukkaung NW, Bahin area
0925	Perissodactyla	<i>Amynodontid</i>	lower? incisor, and teeth frags.	Bhn-101A	Bahin area
0926	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P2?, and a teeth frag.	Bhn-101B	Bahin area
0927	Mammalia	mammal	teeth frags.	Bhn-101C	Bahin area
0928	Perissodactyla	<i>Brontotheriid</i>	lt. lower incisor (or rt. upper incisor), and a teeth frag.	Bhn-101D	Bahin area
0929	Reptilia	crocodile	teeth frags.		?
0930	?Artiodactyla	?? <i>Anthracotherium</i> sp.	2 ?canine frags.		?
0931	Mammalia	large mammal	a tooth root	mgg-206	Mogaung area
0932	Mammalia	large mammal	a mandible frag.	Tmk-25	Tmk
0933	Mammalia	large mammal	a mandible frag.	mgg-18	Mogaung area
0934	Mammalia	large mammal	a tooth root	mgg-47	Mogaung area
0935	Pisces	fish	left dentary with teeth	mgg-56A	Mogaung area
0936	Mammalia	mammal	a tooth root	mgg-48	Mogaung area
0937	Mammalia	large mammal	a mandible frag.	Pgn-18	Pangan area
0938	Mammalia	large mammal	rt. mandible frag.	Pgn-1	Pangan area
0939	Vertebrata	misc.	a bone	Tmk-27	Tmk
0940	Mammalia	large mammal	a mandible frag.	Tmk-26	Tmk
0941	Reptilia	turtle	a turtle shell frag.	Tmk-?	Tmk
0942	Mammalia	mammal	a mandible frag.	Tudw-5	Tudw
0943	Mammalia	mammal	a mandible frag.	Tudw-6	Tudw
0944	?Artiodactyla	mammal (large <i>Anthracotherium</i> ??)	left maxilla frag. around left upper P1 or 2?	Tudw-4	Tudw
0945	?Artiodactyla	mammal (large <i>Anthracotherium</i> ??)	left maxilla frag. around left upper P4?	Tudw-15	Tudw
0946	Mammalia	large mammal	a mandible frag.	Tudw-50	Tudw
0947	Vertebrata	misc.	a bone frag. (?cranial frag.)	Tudw-57	Tudw
0948	Mammalia	mammal	a tooth root frag.	Tudw-24	Tudw
0949	Mammalia	mammal	a tooth root frag.	Tudw-?	Tudw
0950	Pisces	fish	a maxilla frag. with teeth	Bhn-49	Bahin area

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0951	Mammalia	mammal	a mandible frag.	Bhn-32	Bahin area
0952	Mammalia	mammal	a mandible frag.	Bhn-55	Bahin area
0953	Mammalia	mammal	a tooth root	Bhn-103	Bahin area
0954	Mammalia	large mammal	a tooth frag.	Bhn-141	Bahin area
0955	Mammalia	mammal	a tooth frag.	Bhn-163	Bahin area
0956	Pisces	fish	fish bone frag.	Bhn-230	Bahin area
0957	Pisces	fish	dentary frag.	Bhn-464	Bahin area
0958	Vertebrata	misc.	proximal part of distal phalange	Bhn-907	Bahin area
0959	Pisces	fish	dentary	?	?
0960	Mammalia	large mammal	long bone shaft frag.	?	?
0961	Primates	cf. <i>Eosimias</i> sp.	calcaneus		Pk2 (U Shige Point) 7
0962	Perissodactyla	Amynodontidae	right upper P3?, and dental frags.		KDA
0963	Perissodactyla	Amynodontidae	a tooth frag.		Kyawdaw
0964	Reptilia	Crocodylian	teeth		?
0965	Mammalia	? mammals	tooth root of mammals		?
0966	fish	fish	bones, teeth		?
0967	Reptilia	Crocodylian	mandibular & maxillary frags.	Bhn-177, 178, 179, 180, 181, 182, 183	Bahin
0968	fish	fish	bones, teeth frags.	Tmk36	Tmk
0969	Artiodactyla	<i>Anthracotherium</i> sp.	left lower molar trigonid	Bhn-?	Bahin area
0970	Perissodactyla	Amynodontidae	upper teeth frags.		?Pangan (Tmk or Tudw?)
0971	Artiodactyla	<i>Anthracotherium</i> sp.	astragalus	Bhn-471	Bahin area
0972	Artiodactyla	<i>Anthracotherium</i> sp.	astragalus	Bhn-482	Bahin area
0973	Artiodactyla	<i>Anthracotherium</i> sp.	astragalus (half)	Bhn-434	Bahin area
0974	Artiodactyla	?? <i>Anthracotherium</i> sp.	dist.tibia	Tbk-13	Tbk
0975	Artiodactyla	?? <i>Anthracotherium</i> sp.	dist.tibia	Bhn-448	Bahin area
0976	Artiodactyla	?? <i>Anthracotherium</i> sp.	dist.tibia	Bhn-475	Bahin area
0977	Artiodactyla	?? <i>Anthracotherium</i> sp.	dist.tibia	Tudw-177	Tudw
0978	Artiodactyla	?? <i>Anthracotherium</i> sp.	dist.tibia	mgg104	Mogaung area
0979	Reptilia	turtle	bone frags. (carapace), misc.	Wka30, mgg119, kdw40, Tmk?, kdw55, mgg136, kdw56, kya15, Tudw135, Pgn114, kya13	various places
0980	misc.	misc.	bone frags.		Bahin
0981	misc.	misc.	bone frags.	Tudw-212	Tudw
0982	misc.	misc.	bone frags.		Tmk or Tudw
0983	misc.	misc.	bone frags.	Bhn-500	Bahin area
0984	misc.	misc.	long bone frags.	Bhn-415	Bahin area
0985	misc.	misc.	trace fossils, corpolites	mgg200	Lma
0986	misc.	misc.	trace fossils, bone frags., fish teeth	mgg 147	Lma
0987	misc.	misc.	two bone frags.		?Mogaung area
0988	Ungulata	Ungulata	dist. femur	kdw47	
0989	Mammalia	Mammalia	phalange	mgg110	Mogaung area
0990	misc.	misc.	phalange	mgg100	Mogaung area
0991	Mammalia	Mammalia	phalange	Tudw165	Tudw
0992	misc.	misc.	phalange	Bhn470	Bahin area
0993	misc.	misc.	phalange	Bhn466	Bahin area
0994	Mammalia	Mammalia	phalange	Bhn-479	Bahin area
0995	misc.	misc.	phalange	mta-10	Mta
0996	Ungulata	Ungulata	phalange	Bhn-?	Bahin area

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0997	Reptilia	Reptilia	dist. phalange	Tudw40	Tudw
0998	Reptilia	Reptilia	dist. phalange	Pgn8	Pangan area
0999	Ungulata	Ungulata	dist. humeral frag. (capitulum)	Tudw159	Tudw
1000	Ungulata	Ungulata	dist. humerus	Bhn-438	Bahin area
1001	Mammalia	Mammalia	dist. mesopodial	Bhn-395	Bahin area
1002	Mammalia	Mammalia	dist. mesopodial	Tudw-181	Tudw
1003	Mammalia	Mammalia	dist. mesopodial	Bhn-377	Bahin area
1004	Mammalia	Mammalia	dist. mesopodial	Bhn-389	Bahin area
1005	Ungulata	Ungulata	dist. mesopodial	Bhn-483	Bahin area
1006	Ungulata	Ungulata	dist. mesopodial	Bhn-450	Bahin area
1007	Ungulata	Ungulata	carpal or tarsal, 4 phalanges	Tudw-182, 171, 174, 175, ?	Tudw
1008	misc.	misc.	phalange	Bhn-451	Bahin area
1009	Reptilia	turtle?	prox. femur?	mgg-?	Mogaung area
1010	Reptilia	snake or lizard?	vertebra	Tudw58	Tudw
1011	Artiodactyla	<i>Anthracotherium</i> sp.	astragalus	Bhn-478	Bahin area
1012	Perissodactyla	Perissodactyla	lt. astragalus & lt. calcaneus	Bhn-361, Bhn-390	Bahin area
1013	Ungulata	Ungulata	dist. humerus	Bhn-446	Bahin area
1014	Artiodactyla	<i>Anthracotherium</i> sp.?	dist. tibia	Bhn-363	Bahin area
1015	Mammalia	Mammalia	8 dist. mesopodials	Bhn-468, 338, 358, 326, 360, 189, 309, 477	Bahin
1016	Mammalia	Mammalia	3 dist. mesopodials	Tudw-129, 134, 183	Tudw
1017	Mammalia	large mammal	3 dist. mesopodials	mgg-86, 88, 91	Mogaung
1018	Mammalia	large mammal	2 sesamoid bones?	Bhn-433, 437	Bahin area
1019	Reptilia	Reptilia	limb bone frag.	Bhn-348	Bahin area
1020	misc.	misc.	phalange	Bhn-385	Bahin area
1021	misc.	misc.	phalange	Bhn-334	Bahin area
1022	Perissodactyla	??? <i>Paramynodon</i> sp.	mandibular frags.	Bhn-166 (9 pcs.), 128, 130, 167A (4pcs.), 127, 126, 161, 160	Bahin area
1023	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.		PGN2
1024	Perissodactyla	? <i>Amyndontidae</i>	teeth frags.		PGN2

1031	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3, right maxillary frag. with right upper M1 or 2		Bh1
1032	Mammalia	Mammalia (??? primate)	lt. mandibular frag.		Bh1
1033	Artiodactyla	<i>Anthracotherium</i> sp.	right lower molar frag. (mesio-buccal half)		Bh1
1034	misc.	misc.	bone & teeth frag.		Bh1
1035	Reptilia	turtle	scales		Bh1
1036	Reptilia	Reptilia	bone frags.		PMH1
1037	Reptilia	Reptilia	associated bone frags. incl. vertebra		Bh4
1038	Perissodactyla	<i>Amyndontidae</i>	associated postcranial bones incl. humeral head, carpal and tarsal elements, phalange, vertebrae		Bh4
1039	Perissodactyla	<i>Amyndontidae</i>	phalange, carpal bone		Bh4
1040	Perissodactyla	<i>Amyndontidae</i>	right upper P3 or 2, incisor (assoc.)		Bh4
1041	Perissodactyla	<i>Amyndontidae</i>	lower postcanine tooth frag.		Bh4
1042	Reptilia	Crocodylian	teeth		Bh4
1043	Reptilia	Crocodylian	cranial frag.		Bh4
1044	Reptilia	Chelonia	phalange		Bh4

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1045	misc.	misc. (vertebrate)	fragments	Bh4	
1046	Perissodactyla	<i>Bahinolphus birmanicus</i>	left maxilla with left upper P1-M2	Bh4	19
1047	Artiodactyla	<i>Anthracotherium tenuis</i>	left upper P3 and M1	Bh4	
1048	Artiodactyla	<i>Anthracotherium</i> sp.	right mandibular frag. w/ molar frag., a mandibular frag. w/ molar frag., other frags.	Pk1	
1049	Perissodactyla	Brontotheriidae	upper cheek tooth frag.	Pk1	
1050	Artiodactyla	Artiodactyla (? <i>Indomeryx</i>)	distal femur	Pk1	
1051	Perissodactyla	Perissodactyla	distal mesopodial	Pk1	
1052	Perissodactyla	Amynodontidae	lt. upper molar frag. (anterior half)	Pk1	
1053	Mammalia	Mammalia	tooth frag.	Pk1	
1054	Perissodactyla	Brontotheriidae	postcranial bones incl. mostly complete femur & complete metatarsal	Pk2	
1055	Mammalia	Mammalia (?? <i>Anthracotherium</i>)	canine	Pk2	
1056	Artiodactyla	<i>Anthracotherium</i> sp. (<i>A. crassum</i> ?)	left upper P4	Pk2	
1057	Artiodactyla	<i>Anthracotherium</i>	dental fragments	Pk2	
1058	Artiodactyla	<i>Anthracotherium</i> sp. (<i>A. crassum</i> or <i>pangan</i>)	left maxillary frag. with left upper M1 or 2	Pk2	
1059	Perissodactyla	Amynodontidae (? <i>Paramynodon</i>)	upper incisor	Pk2	
1060	Perissodactyla	cf. <i>Teletaceras</i> sp.	right upper M3, ?left upper P4?, other dental frags.	Pk2	21
1061	Artiodactyla	<i>Anthracotherium</i> sp.	rt. upper molar	Pk2	
1062	Mammalia	Mammalia	dental frags.	Pk2	
1063	Artiodactyla	<i>Indomeryx</i> sp.	upper teeth & pelvic frag. (acetabulum)	Pk2	
1064	misc.	misc.	small bone	Pk2	
1065	Perissodactyla	Brontotheriidae	lower teeth frags.	Pk2	
1066	Artiodactyla	<i>Anthracotherium</i> sp.	left P2?	Pk2	
1067	Perissodactyla	Amynodontidae	upper teeth frag.	Pk2	
1068	Perissodactyla	Amynodontidae	canine & teeth frag.	Pk2	
1069	Artiodactyla	<i>Anthracotherium</i> sp.	lower p/2	Pk2	
1070	Artiodactyla	<i>Anthracotherium</i> sp.	left mandibular frag. with incomplete left lower m3, first premolar	Pk2	
1071	fish	fish	bone frag.	Pk1	
1072	Perissodactyla	Brontotheriidae (<i>Sivatitanops</i> or <i>Metatelmatherium</i>)	teeth frags.	Pk1	
1073	Perissodactyla	Amynodontidae	teeth frags.	Pk1	
1074	Mammalia	Mammalia	mandibular frag.	Pk1	
1075	Perissodactyla	Brontotheriidae (? <i>Sivatitanops</i>)	upper teeth frag., distal radius	Pk1	
1076	Mammalia	Mammalia	canine or incisor frag.	Pk1	
1077	Artiodactyla	small artiodactyl	2 prox. mesopodials (canon bone)	Pk1	
1078	fish	fish	bones incl. 7 jaws, 2 teeth	Pk2	
1079	Reptilia	Reptilia	reptile bones, crocodile teeth	Pk2	
1080	Reptilia	Crocodylian	distal femur & shaft	Pk2	
1081	Ungulata	Ungulata	postcranial elements incl. hand & foot bones	Pk2	
1082	Perissodactyla	Perissodactyla	dist. femoral shaft, prox. mesopodial, phalangeal frag. etc.	Pk2	
1083	Mammalia	small artiodactyla	prox. mesopodials (a canon bone), bone frags. (of fish?)	Pk2	
1084	Perissodactyla	Perissodactyla	dist. mesopodial	Pk5	
1085	Ungulata	large ungulate	phalange	Pk5	
1086	misc.	misc.	2 sesamoid bones?	Pk5	
1087	Perissodactyla	<i>Paramynodon</i> sp.	right upper P4, upper & lower molar frags.	Pk5	
1088	Perissodactyla	Brontotheriidae	lower molar frag.	Pk5	
1089	Perissodactyla	Amynodontidae	lower molar frag.	Pk2	

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1090	Artiodactyla	<i>Anthracotherium</i> sp.	upper P2 or lower p2	Pk2
1091	Reptilia	Crocodylian	anterior part of upper jaw (2 pieces)	Pk2
1092	Perissodactyla	<i>Paramynodon</i> sp.	right mandible with right lower m3 & incomplete m2, & mandibular frags.	Pk5
1093	Perissodactyla	Amynodontidae or Brontotheriidae	tooth frag.	Pk5
1094	Mammalia	small mammal	mandibular frag.	Pk5
1095	Ungulata	Ungulata	rt. dist. humerus	Pk5
1096	Perissodactyla	<i>Sivatitanops</i> sp.	left upper M1 or 2	Pk5
1097	Perissodactyla	Brontotheriidae	lower molar frag.	Pk5
1098	Ungulata	Ungulata	tarsal bone	Pk5
1099	Artiodactyla	<i>Anthracotherium crassum</i>	mandibules with right lower p4-m3, left lower p4-m3	Pk4
1100	Artiodactyla	<i>Pakkokuhys lahirii</i>	left mandibular frag. with m1	Pk4
1101	Artiodactyla	<i>Anthracotherium</i> sp.	upper P1 or lower p1	Pk4
1102	Artiodactyla	<i>Anthracotherium</i> sp.	upper molar frag.	Pk4
1103	Perissodactyla	<i>Paramynodon</i> sp.	upper P4	Pk4
1104	Perissodactyla	Amynodontidae	lower molar frag.	Pk4
1105	Reptilia	Crocodylian	teeth	Pk4
1106	Artiodactyla	<i>Anthracotherium</i> sp.	posterior part of left lower p4	Pk4
1107	Artiodactyla	<i>Anthracotherium</i> sp.	right lower p4	Pk4
1108	Reptilia	Crocodylian	associated postcranial bones	Pk4
1109	Creodonta or Carnivora	Creodonta or Carnivora	metatarsal bone	Pk2
1110	Reptilia	Crocodylian	teeth	Pk2
1111	Perissodactyla	<i>Paramynodon</i> sp.	right lower p3 frag.	Pk2
1112	Mammalia	Mammalia	lt. mandibular frag.	Pk2
1113	misc.	? Mammalia	patella?	Pk2
1114	Perissodactyla	Perissodactyla	metacarpal bone	Pk2
1115	Perissodactyla	Perissodactyla	rt. femur w/o ends	Pk2
1116	Perissodactyla	Perissodactyla	dist. mesopodial	Pk2
1117	Perissodactyla	Perissodactyla	dist. mesopodial	Pk2
1118	Artiodactyla	<i>Anthracotherium</i> sp.	rt. upper molar frag.	Pk2
1119	misc.	misc.	phalange	Pk2
1120	misc.	misc.	phalange	Pk2
1121	Reptilia	Crocodylian	teeth	Pk2
1122	fish	fish	assoc. teeth & vertebra	Pk2
1123	misc.	? Mammalia	tooth frag.	Pk2
1124	misc.	misc.	postcranial bones	Pk2
1125	Primates	<i>Amphipithecus mogaungensis</i>	left mandible with left lower p2-m3	Pk3
1126	Mammalia	Mammalia	tibial shaft	Pk1
1127	Artiodactyla	<i>Indomeryx</i> sp.	left mandibular frag. with left lower p3-4	Pk1
1128	Reptilia	Reptilia	unassociated bones	Pk1
1129	Perissodactyla	<i>Paramynodon</i> sp.	incisor	Pk1
1130	fish	fish	unassociated vertebrae	Pk1
1131	Mammalia	Mammalia	teeth frags.	Pk1
1132	Mammalia	Mammalia	tooth frag.	Pk1
1133	Perissodactyla	Amynodontidae	teeth frags.	Pk1
1134	Mammalia	Mammalia	teeth frags.	Pk1
1135	Artiodactyla	<i>Anthracotherium</i> sp.	lower molar frag.	Pk1
1136	Perissodactyla	Brontotheriidae	upper tooth frag.	Pk1
1137	Mammalia	Mammalia	lower jaw frags, and assoc. postcranial bones	Pk1
1138	Mammalia	misc. mammal	dist. mesopodial, prox. ulna, prox. mesopodial, carpal bone, pelvic frag. (juv.), and misc. bone	Pk1
1139	Reptilia	Agamidae	assoc. cranial, lower jaw, & other bones	Pk4
1140	Rodentia	Rodentia	incisor	Pk4

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1141	Mammalia	Mammalia	tooth frag.	Pk2	
1142	Mammalia	Mammalia	humeral frag.	Pk4	
1143	Perissodactyla	Brontotheriidae	lower tooth frag.	Pk4	
1144	Reptilia	Crocodylian	unassoc. teeth	Pk4	
1145	Perissodactyla	Amynodontidae	lower molar frag.	Pk4	
1146	fish	fish	a bone frag.	Pk4	
1147	Mammalia	Mammalia	prox. tibia	Pk4	
1148	Perissodactyla	Amynodontidae	teeth frags.	Pk3	
1149	Reptilia	Reptilia	vertebra	Pk3	
1150	Mammalia	Mammalia	lt. mandibular frag. of incisor part	Pk3	
1151	Artiodactyla	<i>Anthracotherium</i> sp.	rt. upper molar frag.	Pk3	
1152	Artiodactyla	<i>Anthracotherium</i> sp.	rt. upper molar frag.	Pk3	
1153	Perissodactyla	Brontotheriidae	lower molar frags.	Pk3	
1154	Perissodactyla	Amynodontidae	left lower p3	Pk3	
1155	Mammalia	Mammalia	unassoc. 2 dist. mesopodial	Pk3	
1156	Artiodactyla	<i>Anthracotherium crassum</i>	left mandibular frag. with left lower m2 talonid, m3	Pk5	
1157	Creodonta	<i>"Pterodon" dahkoensis</i>	right maxillary frag. with right upper P4 protocone, bone frags.	Pk5	22
1158	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2	Pk9 (200m east from Pk5)	
1159	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3 talonid	Pk9 (200m east from Pk5)	
1160	Artiodactyla	<i>Asiohomacodon myanmarensis</i>	right mandibular frag. with right lower m3	Pk3	
1161	Perissodactyla	<i>Indolophus guptai</i>	trigonid of right lower molar	Pk3	
1162	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M3	Pk3	
1163	Artiodactyla	<i>Anthracotherium</i> sp.	right upper molar	Pk3	
1164	Artiodactyla	<i>Anthracotherium</i> sp.	right mandibular frag. with right lower m1 or 2 & unerrupted m2 or 3	Pk3	
1165	Artiodactyla	<i>Anthracotherium</i> sp.	right mandibular frag. with trigonid of lower molar	Pk3	
1166	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m3 talonid	Pk3	
1167	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m1 or 2 talonid	Pk3	
1168	Mammalia	Mammalia	incisor	Pk3	
1169	Perissodactyla	Amynodontidae	2 frags. of upper molar	Pk3	
1170	Mammalia	Mammalia	incisor	Pk3	
1171	Perissodactyla	Amynodontidae	upper molar frag.	Pk3	
1172	Mammalia	Mammalia	teeth frags.	Pk3	
1173	Perissodactyla	Amynodontidae	right lower p4 frag.	Pk3	
1174	Mammalia	Mammalia	teeth frags.	Pk3	
1175	Artiodactyla	<i>Anthracotherium</i> sp.	upper molar frag.	Pk3	
1176	Perissodactyla	Amynodontidae	teeth frags.	Pk3	
1177	Mammalia	Mammalia	teeth frags.	Pk3	
1178	Mammalia	Mammalia	incisor	Pk3	
1179	Perissodactyla	Brontotheriidae or Amynodontidae	incisor	Pk3	
1180	Mammalia	Mammalia	postcranial bones (2 dist. mesopodial of perissodactyl, astragulus of perissodactyl & others)	Pk3	
1181	Mammalia	Mammalia	teeth frags.	Pk4	
1182	misc.	?Reptilia	rib bone frag	Pk2	
1183	Mammalia	Mammalia	postcranial bones (prox. femur, prox. mesopodial, & others)	Pk5	
1184	misc.	misc.	misc. postcranial bone	Pk4	
1185	Perissodactyla	Amynodontidae	incisor	Pk8	
1186	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Pk8	
1187	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.	Pk8	
1188	Perissodactyla	Amynodontidae	teeth frags.	Pk8	

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1189	Perissodactyla	Amynodontidae	incisor	Pk8	
1190	Reptilia	Crocodylian	teeth	Pk8	
1191	Perissodactyla	Amynodontidae	teeth & mandibular frags.	Pk8	
1192	Perissodactyla	Amynodontidae	teeth frags.	Pk8	
1193	Reptilia	Reptilia	postcranial bones	Pk8	
1194	Mammalia	Mammalia	postcranial bones (2 distal mesopodials, dist. humerus, & others)	Pk8	
1195	Mammalia	Mammalia	phalange	Pk8	
1196	Mammalia	Mammalia (?Perissodactyla)	mandibular frag.	Pk8	
1197	Perissodactyla	Perissodactyla	postcranial bones (femur & others)	Pk8	
1198	Mammalia	Mammalia	tooth frag.	Pk8	
1199	Perissodactyla	<i>Bahinolophus birmanicus</i>	left mandible with broken dentition & left lower p2	Bh4	19
1200	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2	Bh1	
1201	Mammalia	Mammalia (?Artiodactyla)	upper molar & upper molar frag.	Bh4	
1202	Artiodactyla	<i>Indomeryx</i> sp.	rt. & lt. upper molars	Bh1	
1203	Primates	cf. <i>Eosimias paukkaungensis</i>	left mandible without tooth crowns, right mandibular frag. with right lower m3	Pk2	18
1204	Mammalia	Mammalia indet.	rt. mandibular frag. w/ lower molar	Bh4	
1205	Ungulata	<i>Hsanotherium parvum</i>	left mandibular frag. with left lower m1 or 2	Pk5	
1206	Mammalia	Mammalia	tooth frag.	Pk2	
1207	Artiodactyla	<i>Anthracotherium</i> sp.	left upper P4 (three roots)	Pk2	
1208	Artiodactyla	<i>Anthracotherium</i> sp.	left upper P4	Pk2	
1209	Perissodactyla	Brontotheriidae	left lower p2?	Pk2	
1210	Artiodactyla	<i>Anthracotherium</i> sp.	right lower dp4?	Pk5	
1211	Artiodactyla	<i>Anthracotherium</i> sp.	right lower p2 or left upper P2	Pk5	
1212	Reptilia	Reptilia	postcranial bones (vertebrae & phalanges)	Bh4	
1213	Reptilia	Crocodylian	teeth	Bh4	
1214	Mammalia	Mammalia	mandibular frag. w/ a tooth frag.	Bh4	
1215	Perissodactyla	Rinocerotoidae	tooth frag.	Pk1	
1216	Reptilia	Agamidae	lower jaw frags.	Bh1	
1217	fish	fish	3 vertebrae	Bh4	
1218	Artiodactyla	<i>Anthracotherium</i> sp.	left upper P1	Bh4	
1219	fish	fish	2 vertebrae	Bh4	
1220	Mammalia	misc. (Ungulata)	a phalange & 2 sesamoids (?)	Bh4	
1221	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P4	Pk3	
1222	Reptilia	lizard	upper?/lower? jaw frag. w/ teeth	Pk3	
1223	Reptilia	Crocodylian	teeth	Bh4	
1224	Mammalia	misc. (Mammalia)	teeth frags.	Bh1	
1225	Artiodactyla	<i>Anthracotherium</i> sp.	astragalus	Bh4	
1226	Reptilia	Reptilia	3 vertebrae	Pk3	
1227	Mammalia	misc. (Mammalia)	teeth frags.	Bh4	
1228	misc.	misc.	limb bone	Pk3	
1229	Mammalia	<i>Anthracotherium</i> sp.	astragalus	Bh4	
1230	Ungulata	Ungulata	phalange	Pk3	
1231	misc.	misc.	carpal bone	Bh3	
1232	Perissodactyla	Amynodontidae	incisor	Bh4	
1233	Perissodactyla	Amynodontidae	teeth frags.	Bh4	
1234	Artiodactyla	<i>Anthracotherium</i> sp.	left upper P3	Bh4	
1235	Mammalia	misc. (Mammalia)	teeth frags.	Bh4	
1236	Perissodactyla	Amynodontidae	teeth frags. & postcranial bones	Bh3	
1237	misc.	misc.	phalange & other postcranial bones	Bh4	
1238	Mammalia	misc. (Perissodactyla)	postcranial bones (dist. mesopodial, dist. tibia, & others)	Bh4	
1239	Perissodactyla	<i>Paramynodon</i> sp.	lt. lower molar trigonid	base of Pk5	

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1240	Perissodactyla	Amynodontidae	maxillary frag. w/ molar frag.	PA1	
1241	Mammalia	Mammalia	humeral shaft	PA1	
1242	Ungulata	Ungulata	radius w/o prox. end, carpal frag.	Pk2	
1243	Reptilia	Reptilia	vertebrae & other bone frags.	Pk2	
1244	Ungulata	Ungulata	tibia (epiphyses unfused)	Pk2	
1245	Ungulata	Ungulata	3 carpal bones & prox. metacarpal	Bh4	
1246	fish	fish	bone frags.	Pk2	
1247	Reptilia	Crocodylian	teeth	Pk2	
1248	Reptilia	Reptilia	4 vertebral frags.	Pk2	
1249	Mammalia	Mammalia	prox. metacarpal, dist. fibula	Pk2	
1250	Perissodactyla	Perissodactyla	dist. tibia, femoral head, 2 dist. fibulae, prox. metacarpal, 2 dist. mesopodial	Pk5	
1251	Ungulata	Ungulata	dist. ulna, carpal bone, phalange	Pk5	
1252	fish	fish	jaw frag. w/ a tooth	Pk5	
1253	Reptilia	Crocodylian	teeth	Pk5	
1254	Reptilia	Reptilia	3 articulated vertebrae	Pk5	
1255	Reptilia	Reptilia	vertebral frags.	Pk5	
1256	fish	fish	vertebral frags.	Pk5	
1257	Mammalia	Mammalia	femoral head	Pk5	
1258	misc.	misc.	fragments (of mammalian vertebra & rib, crocodile tooth, fish bone, reptilian vertebra & phalange, & 2 others)	Kd1	
1259	Perissodactyla	Brontotheriidae	upper molar frag.	Pk5	
1260	Perissodactyla	<i>Paramynodon</i> sp.	right lower p4, right lower m1	Pk5	
1261	Perissodactyla	Brontotheriidae	lower molar frags.	Pk5	
1262	Mammalia	Mammalia	rt. mandibular frag.	Pk5	
1263	Mammalia	misc. (Mammalia)	teeth frags., & mandibular frag.	Pk5	
1264	Artiodactyla	<i>Anthracotherium</i> sp.	lower molar frags.	Pk2	
1265	fish	fish	teeth	Pk2	
1266	Perissodactyla	<i>Paramynodon</i> sp.	upper molar frag.	Pk2	
1267	Mammalia	Mammalia	teeth frags.	Pk2	
1268	Artiodactyla	<i>Anthracotherium</i> sp.	lower molar frag.	Pk2	
1269	Artiodactyla	<i>Anthracotherium</i> sp.	lower molar frag.	Pk2	
1270	Perissodactyla	"Eomoropidae" gen. et sp. indet.	left upper M3	Kd1	19
1271	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P4	Kd1	
1272	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m3	Kd1	
1273	Perissodactyla	Amynodontidae	right lower p4	Kd1	
1274	Artiodactyla	<i>Indomeryx</i> sp.	left lower molar (m3?)	Kd1	
1275	Artiodactyla	<i>Anthracotherium</i> sp.	right mandibular frag. with right lower p4	PA2	
1276	misc.	misc.	postcranial bones (vertebrae, & others)	PA2	
1277	Perissodactyla	Brontotheriidae or Amynodontidae	teeth frags.	PA1	
1278	Perissodactyla	Brontotheriidae	lower teeth frags.	SZE	
1279	Mammalia	Mammalia	tooth frag.	SZE	
1280	Mammalia	Mammalia	tooth frag.	Kd1	
1281	Artiodactyla	<i>Anthracotherium</i> sp.	upper molar frag.	PGN1	
1282	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3 hypoconulid	PGN1	
1283	Perissodactyla	Amynodontidae	upper molar frags.	PGN1	
1284	Perissodactyla	Brontotheriidae	teeth frags.	PGN1	
1285	Mammalia	Mammalia	tooth frag.	PGN1	
1286	Perissodactyla	Brontotheriidae	tooth frag., maxillary frag., pelvic frag., dist. tibia, prox. metatarsal, dist. mesopodial, and others	PGN1	
1287	Mammalia	misc. (large mammal)	scapula (glenoid part), phalange, 2 dist. radi	PGN1	
1288	Creodonta	<i>Kyawdawia lupina</i>	right lower m3, left & right lower m1, canines, teeth frags, & bone frags.	PGN2	16
1289	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P1, & upper molar frag.	PGN2	

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1290	Artiodactyla	<i>Anthracotherium</i> sp.	talonid of left lower m1 or 2		PGN2
1291	Mammalia	small mammal	rt. mandibular frag.		PGN2
1292	Artiodactyla	<i>Anthracotherium</i> sp.	rt. upper molar		Tudw
1293	Perissodactyla	Brontotheriidae	teeth frags.		Tudw
1294	Perissodactyla	Amynodontidae	upper P4		Tudw
1295	Perissodactyla	<i>Paramynodon</i> sp.	left lower m1 or 2		Tudw
1296	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.		Tudw
1297	Mammalia	Mammalia (misc.)	teeth frags.		Tudw
1298	Mammalia	Mammalia (misc.)	perissodactyl astragulus, dist. tibia, phalange, 2 prox. mesopodials		Tudw
1299	fish	fish	bone frag.		Pk2
1300	Mammalia	small mammal	dist. tibia?		Pk2
1301	Aves	cf. Threskiornithidae	dist. tibiotarsus		Pk2
1302	Reptilia	Reptilia	bone frag.		Lma
1303	Mollusca	gastropods	shell impressions		Thdn
1304	Reptilia	Reptilia	occipital part of skull	Bhn-380	Bahin area
1305	Reptilia	Crocodylian	prox. humerus	Bhn-388	Bahin area
1306	Reptilia	Reptilia	limb bone frags.	Bhn-457, 462, 465	Bahin area
1307	Reptilia	Reptilia	prox. femoral shaft	Wka-20	Wetkya
1308	Mammalia	Mammalia	prox. femur	Bhn-443	Bahin area
1309	Ungulata	Ungulata	prox. radius	Bhn-456	Bahin area
1310	Ungulata	Ungulata	prox. femur	Bhn-496	Bahin area
1311	Ungulata	Ungulata	prox. radius, prox. hmerus	kdw-57, 58	Kyawdaw
1312	Ungulata	Ungulata	dist. humerus	pgn-60	Pangan area
1313	Mammalia	Mammalia	prox. radius	Tudw-151	Tudw
1314	Mammalia	Mammalia	phalangeal frags.	mgg-105, 106	Mogaung area
1315	misc.	misc.	2 phalangeal frags. + dist. phalange	mgg-107, 109, 111	Mogaung area
1316	Mammalia	Mammalia	phalangeal frag.	Wka-26	Wetkya
1317	Mammalia	Mammalia	6 prox. mesopodials	Bhn-321, 426, 367, 359a, 423, 436	Bahin area
1318	Ungulata	large ungulate	prox. metacarpal	mgg-93	Mogaung area
1319	Ungulata	large ungulate	prox. mesopodials	pgn-57, 66, 96	Pangan area
1320	Ungulata	large ungulate	prox. mesopodials	Tudw-114, 121	Tudw
1321	Mammalia	large mammal	tarsal	Bhn-329	Bahin area
1322	Mammalia	large mammal	dist. fibula	Bhn-374	Bahin area
1323	Mammalia	large mammal	carpal	Bhn-381	Bahin area
1324	Mammalia	large mammal	tarsal	Bhn-386	Bahin area
1325	Ungulata	large ungulate	carpal, prox. metacarpal	kdw-46, 48	Kyawdaw
1326	Ungulata	large ungulate	prox. metacarpal, sesamoid, pelvic. frag., carpal bone	kdw-79, 81, 83	Kyawdaw
1327	Mammalia	large mammal	carpal and/or tarsal bones	mgg-85, 89, 95	Mogaung area
1328	Mammalia	Mammalia	cranial frag.?	mgg-96	Mogaung area
1329	Mammalia	large mammal	carpal bone	pgn-74	Pangan area
1330	Ungulata	Ungulata	trochlea of humerus	Tudw-149	Tudw

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1331	Mammalia	Mammalia	vertebral frags.	Bhn-293, 489, 287, 296, 375, 322, 372, 357, 295, 370, 359b, 335, 292, 294, 368, 336, 485	Bahin area
1332	Reptilia	Reptilia	vertebral frags.	Bhn-303, 467a, 382, 376, 399	Bahin area
1333	Reptilia	Reptilia	vertebral frag.	kdw-49	Kyawdaw
1334	Reptilia	Reptilia	vertebral frags.	kya-9, 10	kya
1335	Reptilia	Reptilia	vertebral frags.	mgg-94, 108	Mogaung area
1336	Mammalia	Mammalia	vertebral frags.	Tudw-180, 166, 130, 169, 138, 150, 144, 160, 186, 131	Tudw
1337	Reptilia	Reptilia	vertebral frag.	Tudw-142	Tudw
1338	misc.	misc.	vertebral frags.	Wka-23, 14, 25, 15, 27, 24, 19, 16	Wetkya
1339	Ungulata	large ungulate	calcaneal tuberosity	Bhn-299	Bahin area
1340	Reptilia	Reptilia	frag. of sternum	Bhn-323	Bahin area
1341	Reptilia	turtle	rib?	Bhn-384	Bahin area
1342	misc.	misc. (Mammalia?)	skeletal frags.	Bhn-341, 393, 472, 356, 435, 289, 369, 391, 422, 454, 396, 352, 442, 432, 420, 431, 333, 495	Bahin area
1343	Mammalia	Mammalia	radial shaft?	pgn-73	Pangan area
1344	misc.	misc.	skeletal frags.	Tudw-84, 110, 79, 161	Tudw
1345	misc.	misc.	misc. bone frags.	Bhn-...	Bahin area
1346	misc.	misc.	misc. bone frags.	kya-...	kya
1347	misc.	misc.	misc. bone frags.	mgg-...	Mogaung area
1348	misc.	misc.	misc. bone frags.	Pgn-...	Pangan area
1349	misc.	misc.	misc. bone frags.	Tbk-...	Tbk
1350	misc.	misc.	misc. bone frags.	Tudw-...	Tudw
1351	misc.	misc.	misc. bone frags.	Wka-...	Wetkya
1352	Reptilia	Crocodylian	tooth		Lma
1353	fish	fish	vertebra		Bh3
1354	fish	fish	bone frags.		Pk2
1355	Perissodactyla	Perissodactyla	astragalus		Pk2
1356	Ungulata	Ungulata (Artiodactyla?)	dist. humerus		Pk2
1357	Artiodactyla	Artiodactyla	tibia without proximal end		Pk2
1358	Reptilia	reptile	2 phalangeal frags.		Tmk
1359	Artiodactyla	small artiodactyl	dist. tibia		Pk4
1360	Perissodactyla	Perissodactyla	carpal		Pk4
1361	Artiodactyla	<i>Anthracotherium</i> sp.	femoral shaft		Pk4
1362	Ungulata	large ungulate	dist. mesopodial		Pk4
1363	Ungulata	Ungulate	dist. femur		Bh4
1364	Artiodactyla	Artiodactyla	astragalus frag.		Bh4
1365	Ungulata	large ungulate	dist. mesopodial, phalange		Bh4

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1366	Ungulata	large ungulate	dist. radius, proximal carpal, 3 phalangeal frags.		Bh4
1367	Creodonta	Hyaenodontidae (Proviverrinae)	prox. metatarsal, canine frag.		Mta
1368	Ungulata	small ungulate	dist. humerus		Lma
1369	Creodonta	<i>Kyawdawia lupina</i>	lower canine & tooth frag.		Pk2 16
1370	Artiodactyla	<i>Anthracotherium</i> sp.	astragulus		Pk2
1371	Carnivora	?Amphicyonidae	rt. upper canine?		Mta
1372	Ungulata	Ungulate	prox. radius		Mta
1373	Ungulate	Ungulate	tarsal or carpal bone		Pk2
1374	Ungulate	Ungulate	2 sesamods?		Pk2
1375	Ungulate	? <i>Anthracotherium</i> sp.	phalange		Pk2
1376	Ungulate	<i>Anthracotherium</i> sp.	dst. femur		Pk2
1377	Ungulate	Ungulate	phalange		Pk2
1378	Ungulate	<i>Anthracotherium</i> sp.	dist. tibia		Pk2
1379	Ungulate	<i>Anthracotherium</i> sp.	dst. femur		Pk2
1380	Mammalia	Mammalia	2 phalangeal frags.		Wka1
1381	?Carnivora	?Carnivora	glenoid of scapula		Wka1
1382	Plant	Plant	plant reef		base of Pk5
1383	?Carnivora	?Carnivora	prox. humerus, glenoid of scapula, ulnar frag., carpal bone, phalange		PA1
1384	Ungulate	Ungulate	prox. tibia		Wka1
1385	Reptilia	Crocodylian	humeral frag.		Pk8
1386	Artiodactyla	<i>Anthracotherium</i> sp.	right mandibular frag. with right lower m3 hypoconulid	Bhn-48	Bahin area
1387	Artiodactyla	<i>Anthracotherium</i> sp.	broken right upper M3	Tmk-22	Tmk
1388	Artiodactyla	? <i>Anthracotherium</i> sp.	left mandibular frag. around left lower p4 to m1		?
1389	Perissodactyla	?Brontotheriid	?upper molar frag.		
1390	Perissodactyla	? <i>Sivatitanops</i> sp. (brontotheriid)	dental frags.	Sze-7	SZE
1391	Mammalia	Mammalia	prox. radius	Tmk-	Tmk
1392	Reptilia	lizard?	vertebra		Tmk or Tudw
1393	Artiodactyla	<i>Anthracotherium</i> sp.	dist. humerus, phlange	Bhn-500	Bahin area
1394	Mammalia	Mammalia	femoral condyle		Bahin area
1395	Artiodactyla	<i>Anthracotherium</i> sp.	dist. mesopodial	Bhn-	Bahin area
1396	Mammalia	Mammalia	humeral frag.	kdw-3?	Kyawdaw
1397	Reptilia	Crocodylian	humeral shaft	Bhn-255	Bahin area
1398	Reptilia	reptile	limb frag.	Tudw-90	Tudw
1399	Reptilia	reptile	vertebrae	Bhn-283, 339, 364, 353, 316, 301, 286, 300, 342, 291, 346, 302	Bahin area
1400	Reptilia	reptile	vertebra	Tudw 69	Tudw
1401	Ungulata	Ungulate	femoral condyle		Lma
1402	Reptilia	reptile	bone frags		Lma
1403	Reptilia	reptile	distal phalange		Lma
1404	Artiodactyla	<i>Anthracotherium</i> sp.	femoral frag., prox. tibia, 2 phalanges		Thdn
1405	Ungulata	large ungulate	mesopodial frags., femoral condyle, a carpal element		Thdn
1406	Mammalia	small mammal	skeletal frags. incl. vertebral frag., tarsal		Mta
1407	Mammalia	medium sized mammal	prox. ulna		Mta
1408	Ungulata	large ungulate	tarsal		Bh1
1409	Artiodactyla	small artiodactyl	dist. tibia		Bh1
1410	Reptilia	small reptile	dist. femur		Bh1
1411	Mammalia	small mammal	prox. mesopodial		Bh1
1412	Ungulata	large ungulate	carpal		Bh2

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1413	Reptilia	crocodylian or turtle	bone frags.		Bh4
1414	Ungulata	medium sized ungulate	tibial frag.		Bh4
1415	Ungulata	Ungulata	prox. tibia (distorted), tooth frag.		Pk6
1416	Reptilia	Crocodylian	prox. humerus		Pk3
1417	misc.	misc.	dist. femur?		Pk1
1418	Perissodactyla	Perissodactyla (amynodontid?)	dental and jaw frags., skeletal frags. incl. phalanges and limb bone ends		Pk7
1419	Mammalia	Mammalia	dental frags., prox. phalange		Pk2
1420	misc.	misc.	dist. femur?		Pk2
1421	Reptilia	Reptilia	bone frags.		Pk2
1422	Artiodactyla	<i>Anthracotherium</i> sp.	dist. tibia, prox. ulna		Pk2
1423	Mammalia	Mammalia	bone frags.		Pk2
1424		reptile, fish	bone frags.		Pk2
1425	Reptilia	Reptilia	bone frags.		loc.unk.
1426	Perissodactyla	Perissodactyla	2 dist. femur		loc.unk.
1427	Mammalia	Mammalia	proximal ulnar frag.	Bhn-460	Bahin or Mogaung area
1428		misc. (mostly reptile)	bone frags.	Tudw-87, 76, 128, 100, 99, 115, 112, 117, 83, 122, 124, 123, 96, 82, 54	Tudw
1429	Mammalia	large mammal	maxillary frag.	Tudw-43	Tudw
1430	Mammalia	large mammal	vertebral frag.	Tudw-70	Tudw
1431	Reptilia	Reptilia	bone frags.	mta-7, 8	Mta
1432	Mammalia	large mammal	mandibular frag.	mta-2	Mta
1433	Reptilia	Reptilia	bone frags.	Bhn-332, 467b, 421	Bahin area
1434	Mammalia	large mammal	mandibular frag.	mgg-203	Mogaung area
1435		misc.	bone frags.	pgn-54	Pangan area
1436	Creodonta	cf. <i>Hyaenodontidae</i> gen. et sp. nov. 2	lower canine frag., upper molar protocone	(Kdw-1)	Kdw??

1441	Perissodactyla	Amynodontidae	dental frags.	Tudw-55c	Tudw
1442	Perissodactyla	Amynodontidae	dental frags.	Tmk-30b	Tmk
1443	Artiodactyla	<i>Anthracotherium</i> sp.	right mandibular frag. with right lower m1 or 2 talonid frag.	Bhn-170d	Bahin area
1444	Perissodactyla	Amynodontidae	dental frags.	Bhn-170e	Bahin area
1445	Perissodactyla	Brontotheriid	dental frags.	Bhn-170f	Bahin area
1446	misc.	reptile?/fish?	lower jaw frag.	Bhn-216	Bahin area
1447	Perissodactyla	Amynodontidae	lt. lower molar talonid		
1448	Artiodactyla	<i>Anthracotherium</i> sp.	?right upper P2 frag.	Bhn?	Bahin area
1449	Perissodactyla	? <i>Sivatitanops</i> sp. (brontotheriid)	dental frags.		

1451	Artiodactyla	<i>Indomeryx</i> sp.	right mandibular frag. with right lower m2 talonid and m3, left mandibular frag. with left lower m2 talonid and broken m3		PGN1
1452	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2		PGN1
1453	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M1 or 2		PGN1
1454	Artiodactyla	<i>Anthracotherium</i> sp.	right lower p4		PGN1
1455	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P1?		PGN1
1456	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m1 or 2 talonid		PGN1
1457	Artiodactyla	<i>Anthracotherium</i> sp.	left lower molar trigonid		PGN1
1458	Artiodactyla	<i>Anthracotherium</i> sp.	2 dental frags.		PGN1
1459	Perissodactyla	Amynodontidae	left upper molar frag.		PGN1
1460	Perissodactyla	Amynodontidae	dental frags.		PGN1
1461	Perissodactyla	Brontotheriidae	dental frag.		PGN1

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1462	Reptilia	Chelonia (turtle)	scute frags.	PGN1
1463	Perissodactyla	Perissodactyla	phalange	PGN1
1464	Mammalia	Mammalia	femoral shaft	PGN1
1465	Perissodactyla	Perissodactyla	ulnar frag., carpal, mesopodial frags.	PGN1
1466	Mammalia	Mammalia	phalange, 2 bone frags., femoral condyle of perissodactyl	PGN1
1467	Artiodactyla	<i>Anthracotherium</i> sp.	left upper P4	PGN2
1468	Artiodactyla	<i>Anthracotherium</i> sp.	premolar frag.	PGN2
1469	Reptilia	crocodilian	teeth, bone frag.	PGN2
1470	Artiodactyla	<i>Anthracotherium</i> sp.	left mandibular frag. with m1or2 talonid	Tudw
1471	Perissodactyla	Brontotheriidae	2 dental frags.	Tudw
1472	Perissodactyla	?Amynodontidae	dental frag.	Tudw
1473	Perissodactyla	Perissodactyla	a carpal bone	Tudw
1474	Reptilia	snake-like reptile (small type)	vertebral frag.	Tudw
1475	Mammalia	Mammalia	dental frags.	Tudw
1476	Perissodactyla	<i>Sivatitanops</i> sp.	left lower m3 and dental frags.	PGN1
1477	Reptilia	Chelonia (turtle)	scute frags.	PGN1
1478	Reptilia	snake-like reptile (small type)	many vertebral frags.	PGN1
1479	Artiodactyla	<i>Anthracotherium</i> sp.	2 dental frags.	Mta
1480	Perissodactyla	Amynodontidae	dental frags.	Mta
1481	Perissodactyla	<i>Paramynodon</i> sp.	rt. mandibular frag. w/ a molar	Mta
1482	Mammalia	(? <i>Anthracotherium</i> sp.)	canine	Mta
1483	Mammalia	Mammalia	dental frags.	Mta
1484	Reptilia	crocodilian	teeth	Mta
1485	Reptilia	Chelonia	postcranial bone frags.	Mta
1486	Reptilia	misc.	postcranial bone frags.	Mta
1487	Mammalia	Mammalia	2 mesopodial frags., mandibular frag., etc.	Mta
1488	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p1, p3, p4, m2	Mta2
1489	Artiodactyla	<i>Anthracotherium</i> sp.	left lower m1or2 talonid	Mta2
1490	Artiodactyla	<i>Anthracotherium</i> sp.	left & right lower m3	Mta2
1491	Artiodactyla	<i>Anthracotherium</i> sp.	lower molar frag.	Mta2
1492	Ungulata	Ungulata	dist. humeral frag.	Mta2
1493	Perissodactyla	Perissodactyla	dist. tibia	Bh1
1494	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1or2	Bh1
1495	misc.	misc.	dist. femur?	Bh1
1496	Reptilia	crocodilian	teeth	Bh1
1497	Reptilia	Reptilia	postcranial bone frags. (turtle shell, lizard vertebra etc.)	Bh1
1498	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3	Bh4
1499	fish	fish	bone frags.	Bh4
1500	Artiodactyla	<i>Anthracotherium</i> sp.	left upper molar	Bh4
1501	Mammalia	Mammalia	dental frags., mandibular frag.	Bh4
1502	?plant	?plant	?seed	Bh4
1503	Perissodactyla	Amynodontidae	upper incisor	Bh4
1504	Perissodactyla	Amynodontidae	right lower p3?	Bh4
1505	Perissodactyla	Amynodontidae	incisor, dental frags.	Bh4
1506	Reptilia	crocodilian	teeth	Bh4
1507	Perissodactyla	Perissodactyla	postcranial bone frags. (mesopodial, prox. radius, vertebra)	Bh4
1508	Ungulata	Ungulata	mandibular condyle	Bh4
1509	Ungulata	Ungulata	patella, vertebra, dist. mesopodial, phalange, etc.	Bh4
1510	Perissodactyla	Amynodontidae or Brontotheriidae	incisor	Pk2
1511	Reptilia	crocodilian	teeth	Pk2
1512	Perissodactyla	Amynodontidae	dental frags.	Pk5

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1513	Artiodactyla	<i>Anthracotherium</i> sp.	dental frag.	Pk5	
1514	Perissodactyla	Amynodontidae	right mandible (maxilla?) frag. with right upper M2 and fragment of M1	Pk5	
1515	Perissodactyla	Amynodontidae	maxillary and mandibular frags.	NE of Pk5 (Pk9?)	
1516	Carnivora	?Amphicyonidae	left m1 talonid?	Pk2	
1517	Artiodactyla	<i>Anthracotherium</i> sp.	right upper M3?	Pk2	
1518	Artiodactyla	<i>Anthracotherium</i> sp.	right lower p4	Pk2	
1519	Perissodactyla	Amynodontidae?	incisor	Pk2	
1520	crab	crab	a claw	Pk2	
1521	Artiodactyla	<i>Anthracotherium</i> sp.	dental frag.	Pk2	
1522	Mammalia	Mammalia	dental frag.	Pk2	
1523	Perissodactyla	Amynodontidae or Brontotheriidae	incisor	Pk2	
1524	Reptilia	crocodilian	teeth	Pk2	
1525	Artiodactyla	<i>Anthracotherium</i> sp.	right upper P4	Pk2	
1526	fish	fish	bone frags.	Pk2	
1527	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3	Pk11	
1528	Reptilia	Reptilia	lizard	Pk3	
1529	Ungulata	Ungulata	vertebral centrum, dst. mesopodial	Pk2	
1530	Mammalia	Mammalia	postcranial bone frags.	Pk3	
1531	plant	plant	leaves	sandstone below Pk5	
1532	Artiodactyla	<i>Asiohmacodon myanmarensis</i>	left upper molar	Pk3	
1533	Rodentia	Anomaluridae sp. 2	right mandibular frag. with right lower m1	Pk1	
1534	Artiodactyla	<i>Anthracotherium</i> sp.	lt. upper molar	Pk2	
1535	Artiodactyla	? <i>Anthracotherium</i> sp.	lower molar frag.	Pk9	
1536	Reptilia	crocodilian	tooth	Pk9	
1537	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Pk9	
1538	Perissodactyla	? <i>Paramynodon</i> sp.	mandibular frag. with alveoli of lower p4-m1	Pk9	
1539	Artiodactyla	<i>Anthracotherium</i> sp.	incisor	Pk2	
1540	Artiodactyla	<i>Anthracotherium</i> sp.	dental frags.	Pk2	
1541	Reptilia	crocodilian	teeth	Pk2	
1542	Artiodactyla	? <i>Anthracotherium</i> sp.	mandibular frag.	Pk2	
1543	Perissodactyla	Amynodontidae	incisor	Pk2	
1544	Ungulata	Ungulata	3 mesopodial frags.	Pk2	
1545	Ungulata	Ungulata	femoral condyle, coxal vertebra, zygomatic arch, mandibular frag., etc.	Pk2	
1546	misc.	misc.	vertebral frags., bone frags.	Pk2	
1547	Perissodactyla	Amynodontidae	dental frags.	Pk3	
1548	Reptilia	crocodilian	dental frag.	Pk3	
1549	Reptilia	crocodilian	tooth	Pk5	
1550	Perissodactyla	Amynodontidae or Brontotheriidae	dental frag.	Pk5	
1551	Mammalia	Mammalia	carpal	Pk5	
1552	Perissodactyla	Amynodontidae	canine frag.	Pk1	
1553	Perissodactyla	Amynodontidae	dental frag.	Pk1	
1554	Ungulata	Ungulata	mandibular frag.	Pk1	
1555	Ungulata	Ungulata	glenoid of scapula, vertebral frag.	Pk1	
1556	Artiodactyla	Artiodactyla indet. 1	left maxillary fragment with left upper M2?	Pk5	19
1557	Primates	<i>Pondaungia cotteri</i>	right maxillary frag. with right upper M1-2	Pk5	
1558	Perissodactyla	<i>Bahinolphus birmanicus</i>	right upper P3	Pk5	19
1559	Perissodactyla	Amynodontidae	dental and bone frags.	Pk5	
1560	Perissodactyla	Perissodactyla	dist. femur	Thadut (Td5?)	
1561	Mammalia	Mammalia	dental frags.	Pk5	
1562	Perissodactyla	Amynodontidae	dental frags.	Pk5	

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1563	Perissodactyla	Brontotheriidae	dental frag.	Pk5
1564	fish	fish	vertebra	Pk1
1565	Perissodactyla	Amynodontidae	dental frags.	Pk5
1566	Artiodactyla	<i>Anthracotherium</i> sp.	leftlower m1or2 talonid	Pk5
1567	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Pk5
1568	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p3or4	Pk5
1569	Perissodactyla	Amynodontidae	canine frag.	Pk5
1570	Artiodactyla	<i>Anthracotherium</i> sp.	canine	Thadut
1571	fish	fish	bone frags.	near Bh1
1572	Perissodactyla	Brontotheriidae	dental frags.	Pk5
1573	Artiodactyla	<i>Anthracotherium</i> sp.	dental frags.	near Bh1
1574	Reptilia	crocodilian	teeth	near Bh1
1575	Ungulata	Ungulata	carpal and phalangeal bones	Pk5
1576	Reptilia	Agamidae	lower jaw frags.	Pk5
1577	Perissodactyla	Brontotheriidae	rt. lower premolar frag.	Pk5
1578	Artiodactyla	<i>Anthracotherium</i> sp.	lt. upper molar	near Bh1
1579	Artiodactyla	? <i>Anthracotherium</i> sp.	first premolar?	Pk5
1580	Perissodactyla	?Brontotheriidae	dental frag.	Pk1
1581	Perissodactyla	Amynodontidae	upper molar frag.	near Bh1
1582	Reptilia	crocodilian	tooth	near Bh1
1583	Mammalia	Mammalia	dental frag.	Pk1
1584	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1or2	Bh1
1585	Reptilia	Reptilia	bone frags.	Pk2
1586	Reptilia	Reptilia	vertebral frag.	Pk1
1587	Reptilia	Reptilia	vertebral frag.	Bh4
1588	Reptilia	Reptilia	bone frags.	Bh4
1589	Reptilia	Reptilia	vertebral frag., sternal frag., misc. bone frag.	Pk2
1590	Ungulata	Ungulata	femoral shaft, prox. radius	Pk2
1591	Ungulata	Ungulata	prox. radius	Bh4
1592	Mammalia	Mammalia (carnivore?)	dist. mesopodial	Bh4
1593	Perissodactyla	Brontotheriidae (<i>Bunobrontops?</i>)	left lower m1or2, assoc. mandibular frags.	near Bh1
1594	Perissodactyla	Amynodontidae	dental frags.	Pk2
1595	Perissodactyla	Amynodontidae	dental frags.	Pk5
1596	Perissodactyla	Amynodontidae	dental frag.	Pk4
1597	Artiodactyla	<i>Anthracotherium</i> sp.	upper molar frag.	Pk4
1598	Mammalia	Mammalia	dental frag.	Bh1
1599	Reptilia	Agamidae	lower jaw	Bh1
1600	Mammalia	Mammalia	dental frag.	Pk5
1601	Artiodactyla	<i>Anthracotherium</i> sp.	lower molar frag.	Pk2
1602	Artiodactyla	<i>Anthracotherium</i> sp.	premolar (upper P2, lower p2, or lower p3)	Bh1
1603	Ungulata	Ungulata	calcaneal tuber	Pk2
1604	Reptilia	Reptilia	vertebral and bone frags.	Pk2
1605	Ungulata	Ungulata	mandibular frag., carpal frag., humeral trochlea, 2 vertebral centra, rib frag.	Pk5
1606	Ungulata	Ungulata	prox. tibia	Pk5
1607	Perissodactyla	Perissodactyla	calcaneal body	Pk5
1608	Perissodactyla	Perissodactyla	mesopodial	Pk2
1609	Artiodactyla	? <i>Anthracotherium</i> sp.	dist. tibia	Pk2
1610	misc.	misc.	bone frag.	Pk2
1611	Mammalia	Mammalia (small)	prox. femoral frag.	Pk4
1612	fish	fish	jaw frag.?	Pk4
1613	Reptilia	Reptilia	bone frag.	Pk4
1614	Perissodactyla	Brontotheriidae	right lower p4? frag.	Pk4
1615	Artiodactyla	<i>Anthracotherium</i> sp.	dental frag.	Pk5
1616	Reptilia	crocodilian	teeth	Pk5

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1617	fish	fish	vertebral frag.		Pk5	
1618	Reptilia	crocodilian	teeth		Pk2	
1619	Mammalia	Mammalia	incisor		Pk5	
1620	?Perissodactyla	?Brontotheriidae	canine?		Pk5	
1621	misc.	misc.	bone frags.		Pk5	
1622	Mammalia	Mammalia	dental frags.		Pk5	
1623	misc.	misc.	bone frags.		Pk2	
1624	Mammalia?	small mammal?	phalangeal frag.		Pk2	
1625	misc.	misc.	bone frags.		Pk2	
1626	misc.	misc.	bone frags.		Pk5	
1627	misc.	misc.	bone frags.		Pk5	
1628	Creodonta	? " <i>Pterodon</i> " <i>dahkoensis</i>	prox. metacarpal, dist. mesopodial		Pk5	22
1629	Mammalia	Mammalia	misc. bone frags.		Pk5	
1630	Creodonta or Carnivora	small carnivoran?	prox. metacarpal		Pk5	
1631	Mammalia	Mammalia	dist. mesopodial or phalangeal frag.		Pk5	
1632	Mammalia	Mammalia (small)	vertebral, rib, and misc. bone frags.		Pk5	
1633	Reptilia	Reptilia	2 vertebral frags.		Pk5	
1634	Ungulata	Ungulata (small)	2 humeral frags.		Pk2	
1635	Perissodactyla	? <i>Paramynodon</i> sp.	skull w/o tooth	mgg-201		Mogaung area
1636	Perissodactyla	Brontotheriid (? <i>Sivatitanops</i>)	upper molar frag.	Bhn-169		Bahin area
1637	Perissodactyla	Brontotheriid (? <i>Sivatitanops</i>)	upper molar frag.	Bhn-131		Bahin area
1638	Perissodactyla	Brontotheriid	left lower molar or left lower p4 frag.			
1639	Perissodactyla	Brontotheriid (? <i>Sivatitanops</i>)	upper molar frag. (buccal part)	Bhn-133(C)		Bahin area
1640	Perissodactyla	Brontotheriid	right upper P4 frag. (buccal part)		Sze	
1641	Perissodactyla	Brontotheriid	left lower p2 or 3			
1642	Perissodactyla	Brontotheriid	upper I3 or upper P1?			
1643	Perissodactyla	Brontotheriid	upper I3 or upper P1?			
1644	Perissodactyla	Brontotheriid	right upper P1??			
1645	Perissodactyla	Amynodontidae	canine	Bhn-36(A)		Bahin area
1646	Perissodactyla	Amynodontidae	incisor	Bhn-58(A)		Bahin area
1647	Perissodactyla	Amynodontidae	an upper molar frag.	Bhn-109		Bahin area
1648	Perissodactyla	Amynodontidae	trigonid of left lower m1?	Bhn-134(E)		Bahin area
1649	Perissodactyla	Amynodontidae	an upper molar frag.	Bhn-138		Bahin area
1650	Perissodactyla	Amynodontidae	two upper molar frags.	Wka-4, Wka-6		Wka
1651	Perissodactyla	Amynodontidae	four teeth frags.	Kdw-20, Kdw-21, Kdw-16, Kdw-23		Kdw
1652	Perissodactyla	Amynodontidae	five teeth frags. (mgg-28, lower molar talonid; others, upper molar frags.)	mgg-28, mgg-31A, mgg-31B, mgg-31C, mgg-33B		Mogaung area
1653	Perissodactyla	Brontotheriid	right lower p2?			Bahin area

1661	Creodonta	<i>Kyawdawia lupina</i>	right mandible with right lower p3 frag., p4, m2, m3, left mandibular frags., right upper I3	Kdw-103, 104, 105		Kdw? 16
1662	Perissodactyla	<i>Bahinolphus birmanicus</i>	posterior part of rt. upper cheek tooth		PGN2	19
1663	Artiodactyla	<i>Anthracotherium</i> sp.	right upper molar		PGN2	
1664	Artiodactyla	<i>Anthracotherium</i> sp.	left upper P4		PGN2	
1665	Artiodactyla	<i>Anthracotherium</i> sp.	left lower molar trigonid		PGN2	
1666	Artiodactyla	<i>Anthracotherium</i> sp.	3 teeth frags.		PGN2	
1667	Reptilia	Crocodylia	teeth		PGN2	

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1668	Mammalia	<i>Anthracotherium</i> sp.	teeth frags.	PGN2	
1669	Vertebrata	?shark / ?crocodile	2 teeth	PGN2	
1670	Artiodactyla	<i>Anthracotherium</i> sp.	rt. & lt. mandibles with teeth	PGN1	
1671	Perissodactyla	perissodactyl	distal tibia	PGN1	
1672	Creodonta	<i>Kyawdawia lupina</i>	upper canine	PGN1	16
1673	Mammalia	small mammal	edentulous mandibular frag.	PGN1	
1674	Perissodactyla	perissodactyl	tooth frag.	PGN1	
1675	misc.	misc.	bone frags.	PGN1	
1676	?Carnivora	?Carnivora	dist. radius, humeral shaft	PGN1	
1677	Perissodactyla	Amynodontidae	right lower p4	Mta	
1678	Reptilia	Crocodylia	teeth	Mta	
1679	Mammalia	mammal	2 teeth frags.	Mta	
1680	Perissodactyla	Amynodontidae	teeth frags.	Mta	
1681	misc.	misc.	bone frags.	Mta	
1682	Creodonta	Hyaenodontidae gen. et sp. nov. 2	tooth frag. (lt. molar metastyle)	Mta	
1683	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3 talonid	Mta	
1684	Artiodactyla	<i>Anthracotherium</i> sp.	canine or incisor	Mta	
1685	misc.	misc.	bone frags.	Mta	
1686	Reptilia	Crocodylia	teeth	Mta	
1687	Vertebrata	?shark / ?crocodile	2 teeth	Mta	
1688	Mammalia	large mammal	a maxillary frag.	Mta	
1689	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.	Mta3	
1690	Perissodactyla	<i>Sivatitanops</i> sp.	teeth frags.	Mta3	
1691	Ungulata	large ungulate	prox. radius	Mta3	
1692	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2	Mta3	
1693	Perissodactyla	Amynodontidae	incisor	Mta3	
1694	Mammalia	Mammalia	2 teeth frags.	Mta3	
1695	Reptilia	Crocodylia	2 teeth & a skull bone	Mta3	
1696	Ungulata	ungulate	a phalange	PGN1	
1697	Artiodactyla	<i>Anthracotherium</i> sp.	2 teeth frags.	PGN1	
1698	Mammalia	Mammalia	3 teeth frags.	PGN1	
1699	Perissodactyla	Amynodontidae	incisor	Tudw	
1700	Artiodactyla	<i>Anthracotherium</i> sp.	left upper P3	Tudw	
1701	misc.	misc.	bone frags.	Tudw	
1702	Reptilia	Crocodylia	tooth	Tudw	
1703	Reptilia	reptilia	4 vertebrae	Tudw	
1704	Arthropoda	crab	2 arms	Tudw	
1705	Perissodactyla	Brontotheriidae	teethfrags.	Tudw	
1706	Ungulata	ungulate	hamate, phalange	Tudw	
1707	Primates	?Sivaladapidae	right lower m2	Bh4	
1708	Artiodactyla	<i>Anthracotherium tenuis</i>	left upper P3	Bh4	
1709	Ungulata	ungulate	phalange	Bh4	
1710	Reptilia	Crocodylia	teeth	Bh4	
1711	Vertebrata	fish & turtle	bone frags.	Bh4	
1712	Reptilia	reptile	vertebrae	Bh4	
1713	Perissodactyla	perissodactyls	3 teeth frags.	Bh4	
1714	misc.	misc.	bone frags.	Bh4	
1715	Artiodactyla	<i>Anthracotherium</i> sp.	?lower p2	South of Pk2	
1716	Artiodactyla	<i>Anthracotherium</i> sp.	buccal part of right upper molar	South of Pk2	
1717	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of rt. lower molar	South of Pk2	
1718	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p4 or 3	South of Pk2	
1719	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of right lower molar	South of Pk2	
1720	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of right lower molar	South of Pk2	
1721	Artiodactyla	<i>Anthracotherium</i> sp.	trigonid of right lower molar	South of Pk2	
1722	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M1 or 2	South of Pk2	

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1723	Artiodactyla	<i>Pakkokuhys lahirii</i>	left upper M1 or 2	South of Pk2	
1724	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.	South of Pk2	
1725	Perissodactyla	Amyodontidae	right lower p4	South of Pk2	
1726	fish	fish	bone frags.	South of Pk2	
1727	Reptilia	Crocodylia	teeth	South of Pk2	
1728	misc.	misc.	abone frag.	South of Pk2	
1729	Creodonta	<i>?Yarshea cruenta</i>	a maxillary frag.	Bh1	
1730	? Rodentia	? rodent	?incisor	Bh1	
1731	fish	fish	vertebra	Bh1	
1732	Reptilia	reptile	vertebra	Bh1	
1733	Mammalia	misc. mammal	mandibular frag.	Bh1	
1734	Ungulata	ungulate	bone frags. including mesopodial	Bh6	
1735	Chelonia	Chelonia	femoral or humeral frag.	Bh5	
1736	fish	fish	bone frag.	Bh5	
1737	?Artiodactyla	<i>?Anthracotherium</i> sp.	canine	Bh5	
1738	Reptilia	Crocodylia	teeth	Bh5	
1739	Chelonia	Chelonia	phalange, prox. humerus	Bh5	
1740	Primates	<i>?Myanmarpithecus yarshensis</i>	humeral head	Pk12	20
1741	Perissodactyla	<i>Indolophus guptai</i>	left upper M2	Pk12	
1742	Artiodactyla	Artiodactyla indet. 2	right upper M3	Pk12	
1743	Artiodactyla	<i>Anthracotherium</i> sp.	right upper molar	Bh4	
1744	Perissodactyla	Amyodontidae	incisor	Bh4	
1745	Mammalia	small mammal	2 edentrous mandibular frags.	Bh4	
1746	Perissodactyla	Amyodontidae	upper molar frags.	Bh4	
1747	misc.	misc.	bone frags.	Bh4	
1748	Ungulata	ungulate	phalange, prox. mesopodial	Bh4	
1749	(soil)	(soil)	(soil)	Bh4	
1750	Artiodactyla	<i>Anthracotherium</i> sp.	incisor	Pk12	
1751	Mammalia	small mammal	incisor	Pk12	
1752	Artiodactyla	<i>Anthracotherium</i> sp.	upper P2 or lower p2	Pk12	
1753	Perissodactyla	Amyodontidae	incisor	Pk12	
1754	Perissodactyla	Brontotheridae	upper tooth frag.	Pk12	
1755	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.	Pk12	
1756	Perissodactyla	Amyodontidae	teeth frags.	Pk12	
1757	Mammalia	Mammalia	bone frags. including phalange, 2 dist. mesopodials, etc.	Pk12	
1758	Reprilia	Crocodylia	teeth	Pk12	
1759	Fish	Fish	bone frags.	Pk12	
1760	Reprilia	reptiles	bone frags.	Pk12	
1761	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M3, right lower m3 frag., left upper P4 frag., right lower p3 or 4, bone frags.	Pk12	
1762	Perissodactyla	Amyodontidae	mandibular frags. with teeth frags.	Pk12	
1763	Perissodactyla	Amyodontidae	tooth frags., postcranial bone frags.	Pk12	
1764	Primates	<i>Myanmarpithecus yarshensis</i>	?upper M2 lingual frag.	Pk12	20
1765	Artiodactyla	Artiodactyla indet. 2	right upper M2	Pk12	
1766	Artiodactyla	<i>Indomeryx</i> sp.	right mandibular frag. with right lower m3	Pk12	
1767	Carnivora	Cf. <i>Chailicyon</i> sp.	lt. p3	Pk12	
1768	Carnivora	Cf. <i>Chailicyon</i> sp.	rt. upper P4 and associated bones	Pk12	
1769	Carnivora	Cf. <i>Chailicyon</i> sp.	astragular body	Pk12	
1770	Creodonta or Carnivora	carnivoran?	dist. mesopodial	Pk12	
1771	misc.	misc.	bone frags.	Pk12	
1772	Mammalia	mammal	?upper P1 or lower p1?	Pk12	
1773	Mammalia	mammal	incisor	Pk12	

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1774	Artiodactyla	<i>Anthracotherium</i> sp.	incisor	Pk12	
1775	Mammalia	mammal	teeth frags.	Pk12	
1776	Artiodactyla	<i>Anthracotherium</i> sp.	lt. lower molar trigonid	Pk12	
1777	Artiodactyla	<i>Anthracotherium</i> sp.	teeth frags.	Pk12	
1778	Artiodactyla	? <i>Anthracotherium</i> sp.	rt. upper molar frag.	Pk12	
1779	Mammalia	mammal	teeth frags.	Pk12	
1780	Artiodactyla	<i>Anthracotherium</i> sp.	left lower p4	Pk12	
1781	Vertebrata	?shark / ?crocodile	teeth	Pk12	
1782	Reptilia	Reptilia	vertebrae	Pk12	
1783	Artiodactyla	<i>Anthracotherium</i> sp.	teeth, mandibular frags.	Pk12	
1784	Mammalia	mammal	tooth frag.	Pk2	
1785	fish	fish	bone frags.	Pk13	
1786	Mammalia	mammal	small bone frags. incl. small artiodactyl dist. humerus, ungulate phalangeal frag. & distal phalange	Pk13	
1787	Reptilia	Crocodylia	teeth	Pk13	
1788	Perissodactyla	Amynodontidae	incisor	Pk13	
1789	Mammalia	mammal	teeth frags.	Pk13	
1790	misc.	misc.	bone frags.	Pk13	
1791	Ungulata	ungulate	bone frags. including patella, mandibular condyle, dist. ulna	Pk13	
1792	Ungulata	ungulate	vertebra, scapular frags.	Pk2	
1793	?Perissodactyla	?Amynodontidae	maxillary frag.?	Bh	
1794	Rodentia	Anomaluridae	right mandibular frag. with right lower p4-m2, root of m3	Pk2	
1795	Perissodactyla	<i>Bahinolophus birmanicus</i>	right lower p3? frag.	Pk12	19
1796	Mammalia	mammal	?premolar	Pk12	
1797	Mammalia	mammal	incisor	Pk12	
1798	Mammalia	carnivore or primate	proximal metacarpal	Pk12	
1799	Artiodactyla	<i>Anthracotherium</i> sp.	3 tooth frags.	Pk12	
1800	Mammalia	mammal	tooth frags.	Pk12	
1801	Artiodactyla	<i>Anthracotherium</i> sp.	astragalus	Pk12	
1802	Artiodactyla	<i>Anthracotherium</i> sp.	premolar frag.	Pk2	
1803	Artiodactyla	artiodactyl	dist. humerus, dist. tibia, vertebra	Pk2	
1804	Reptilia	Crocodylia	teeth	Pk2	
1805	Reptilia	Agamidae	lower jaw frag.	Pk2	
1806	Mammalia	mammal	tooth frags.	Pk5	
1807	Reptilia	Crocodylia	tooth frags.	Pk5	
1808	fish	fish	bone	Pk5	
1809	Mammalia	mammal	perissodactyl astragular frag., vertebral frag.	Pk5	
1810	Artiodactyla	<i>Anthracotherium</i> sp.	tooth frag.	Pk12	
1811	?Aves	?bird	phalange	Pk12	
1812	fish	fish	tooth	Pk12	
1813	misc.	misc.	bone & tooth frags.	Pk12	
1814	Mammalia	small mammal	caudal vertebra, dist. mesopodial	Pk12	
1815	Mammalia	mammal	?premolar frag.	Pk12	
1816	Artiodactyla	<i>Asiohomacodon</i> sp.?	right lower m1 or 2 frag.	Pk12	
1817	Artiodactyla	<i>Asiohomacodon</i> sp.?	right lower m1 or 2 frag.	Pk12	
1818	Artiodactyla	<i>Asiohomacodon</i> sp.?	right lower m1?	Pk12	
1819	Mammalia	mammal	canine	Pk12	
1820	Artiodactyla	artiodactyl	left upper molar frag.	Pk12	
1821	Arthropoda	crab	arm	Pk12	
1822	Reptilia	Crocodylia	teeth	Pk2	
1823	fish	fish	bone frags.	Pk3	
1824	Reptilia	Crocodylia	teeth	Pk3	
1825	Reptilia	reptile	vertebra	Pk3	

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1826	Artiodactyla	<i>Anthracotherium</i> sp.	right lower molar trigonid		Pk3
1827	Mammalia	mammal	phalange		Pk3
1828	Perissodactyla	Amynodontidae	tooth frags.		Pk3
1829	Mammalia	mammal	patella, dist. mesopodial, bone frag.		Pk3
1830	Ungulata	ungulate	humeral head		Pk12
1831	Perissodactyla	perissodactyl	prox. tibia, astragalus, bone frags.		Td8
1832	Perissodactyla	?Brontotheriidae	tooth frag.		Td8
1833	Reptilia	reptile	vertebra		Td8
1834	Perissodactyla	perissodactyl	tooth frag.		Td6
1835	Perissodactyla	Amynodontidae	incisor		Td6
1836	Mammalia	mammal	2 vertebrae		Td
1837	Reptilia	Crocodylia	tooth		Td
1838	Perissodactyla	<i>Bunobrontops</i> sp.	upper M1 or 2		Td
1839	Perissodactyla	perissodactyl	tooth frags.		Td3
1840	Mammalia	mammal	phalange, 2 sesamoids		Td3
1841	Artiodactyla	<i>Anthracotherium</i> sp.	right lower molar trigonid		Td3
1842	Artiodactyla	<i>Anthracotherium</i> sp.	left upper P1 ?		Td3
1843	Artiodactyla	<i>Anthracotherium</i> sp.	canine		Td3
1844	Reptilia	reptile	vertebrae		Td3
1845	misc.	misc.	2 bone frags.		Td3
1846	Reptilia	Crocodylia	distal femur		Td3
1847	Perissodactyla	<i>Indolophus guptai</i>	left lower molar trigonid		Pk2
1848	Artiodactyla	<i>Anthracotherium</i> sp.	upper P2 or lower p2		Pk2
1849	Carnivora	?Nimravidae	proximal phalange I		Pk12
1850	Artiodactyla	<i>Anthracotherium</i> sp.	upper P1 or lower p1		Pk12
1851	Mammalia	mammal	tooth frags.		Pk12
1852	Mammalia	mammal	?canine frag.		Pk12
1853	Artiodactyla	<i>Anthracotherium</i> sp.	astragalus		Pk12
1854	Perissodactyla	Brontotheriidae	upper molar frag.		Pk2
1855	Mammalia	mammal	tooth frags.		Pk2
1856	Ungulata	ungulate	prox. tibia		Pk12
1857	Mammalia	mammal	bone frags. including vertebra, dist. tibia, dist. femur, etc.		Pk2
1858	misc.	misc.	3 bone frags.		Pk2
1859	Mammalia	mammal	bone frag/		Pk3
1860	misc.	misc.	2 bone frags.		Pk3
1861	Reptilia	Crocodylia	teeth		Pk2
1862	fish	fish	bone frags.		
1863	misc.	misc.	phalange, bone frag.		
1864	Perissodactyla	Amynodontidae	teeth frags.		
1865	Perissodactyla	perissodactyl	dist. tibia		
1866	Reptilia	reptile	vertebrae		
1867	Reptilia	Crocodylia	phalange		
1868	Primates	<i>Myanmarpithecus yarshensis</i>	right upper ?M1 lingual frag.		Pk12 20
1869	Creodonta	Hyaenodontidae gen. et sp. nov. 2	left maxillary frag. with M1 and frags. of P4 and M2, right maxillary frag. with P4-M2, bone frags.	Bhn-1040	Bahn area
1870	Creodonta	Hyaenodontidae gen. et sp. nov. 2	right upper P4	Bhn-1036	Bahn area
1871	Creodonta	Hyaenodontidae gen. et sp. nov. 2	distorted right lower m2 & lower canine frag.	Bhn-1037, 1038	Bahn area
1872	Primates	Primates indet.	right lower m3		Pk12
1873	(picking)	(picking)	teeth and bones		Pk12
1874	(picking)	(picking)	teeth and bones		Pk12
1875	(picking)	(picking)	teeth and bones		Pk12
1876	(picking)	(picking)	teeth and bones		Pk12

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1877	(picking)	(picking)	teeth and bones	Bh4	
1878	Primates	<i>?Myanmarpithecus yarshensis</i>	upper I1	Pk12	20
1879	Mammalia	misc. mammal	incisor	Pk12	

1881	Ungulata	ungulate	carpal bone	Pk12	
1882	Ungulata	ungulate	prox. radius	Pk12	
1883	Ungulata	ungulate	prox. radius	Pk12	
1884	Artiodactyla	artiodactyl	prox. radius, astragular trochlea, glenoid of scapula?	Pk13	
1885	fish	fish	bone frags.	Mta	
1886	Mammalia	mammal	proximal femur	Pk5	
1887	Ungulata	ungulate	2 carpal bones	Pk12	
1888	Mammalia	small mammal	dist. mesopodial	Pk12	
1889	Reptilia	Chelonia	phalange, phalangeal frags.	Pk12	
1890	Ungulata	ungulate	humeral trochlea	Tudw	
1891	Reptilia	Crocodylia	upper jaw frag. (Bhn-1094), 8 teeth	Bhn-1075, 1100, 1101, 1105, 1106, 1107, 1112, 1113, 1094	Bahin area
1892	Reptilia	Crocodylia	2 teeth	Tmk-55, 57	Tmk
1893	Reptilia	Crocodylia	2 teeth	mgg-234, 237	Mogaun area
1894	Reptilia	Crocodylia	2 teeth	Tudw-172, 173	Tudw
1895	Reptilia	Crocodylia	2 teeth	Pgn-149, 154	Pangan area
1896	Reptilia	Crocodylia	9 teeth	Kdw-112, 118, 120, 121, 124, 125, 126, 129, 130	Kyawdaw area
1897	fish	fish	jaw with teeth	mgg-238	Mogaun area
1898	Ungulata	ungulate	sesamoid	Tudw-178	Tudw
1899	Artiodactyla	<i>Anthracotherium</i> sp. (large)	upper molar frag.	Pgn-147	Pangan area
1900	Artiodactyla	<i>Anthracotherium</i> sp.	3 teeth frags.	Bhn-1045, 1047, 1048	Bahin area
1901	Artiodactyla	<i>Anthracotherium</i> sp.	2 teeth frags.		Kyawdaw area
1902	Artiodactyla	<i>Anthracotherium</i> sp.	3 teeth frags.	Tmk-60, 61, 62	Tmk
1903	Ungulata	ungulate	a tooth root	Tmk-59	Tmk
1904	Ungulata	ungulate	tooth frag.	Bhn-1067	Bahin area
1905	Ungulata	ungulate	a tooth root	Tudw-174	Tudw
1906	Perissodactyla	Amynodontidae	canine frag.	Tudw-175a	Tudw
1907	Perissodactyla	Amynodontidae	2 teeth frags.	Pgn-151, 155	Pangan area
1908	Perissodactyla	Amynodontidae	2 teeth frags.	Kdw-137, 138	Kyawdaw area
1909	Perissodactyla	Amynodontidae	9 teeth frags.	Bhn-1063, 1064, 1065, 1072, 1073, 1074, 1081, 1115, 1116	Bahin area
1910	Perissodactyla	Brontotheriidae	3 teeth frags.	Bhn-1060, 1069, 1071	Bahin area
1911	Perissodactyla	<i>Sivatitanops</i> sp.	lingual half of right upper P4	Pgn-152	Pangan area
1912	Artiodactyla	<i>?Anthracotherium</i> sp.	upper P2 frag.?	Pgn-156	Pangan area
1913	Perissodactyla	Amynodontidae	left lower p3	Bhn-1043	Bahin area
1914	Perissodactyla	Amynodontidae	right lower p3	Bhn-1044	Bahin area

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1915	Perissodactyla	Amynodontidae	incisor	Bhn-1062	Bahin area
1916	Perissodactyla	Amynodontidae	incisor	Pgn-146	Pangan area
1917	Artiodactyla	<i>Anthracotherium</i> sp.	right lower m3 frag.	Bhn-1054	Bahin area
1918	Artiodactyla	<i>Anthracotherium</i> sp.	?left upper P4? or M3?	Bhn-1042	Bahin area
1919	Artiodactyla	<i>Anthracotherium</i> sp.	left lower molar trigonid	Bhn-1051	Bahin area
1920	Artiodactyla	<i>Anthracotherium</i> sp.	left upper M3 frag.	Bhn-1050	Bahin area
1921	Artiodactyla	<i>Anthracotherium</i> sp.	left mandibular frag. with broken left lower m3	Pgn-148	Pangan area
1922	Reptilia	Agamidae (lizard)	lower jaw	Bhn-237	Bahin area
1923	Reptilia	Agamidae (lizard)	lower jaw	Kdw-42	Kyawdaw area
1924	Reptilia	Agamidae (lizard)	lower jaw	mgg-53A	Mogaun area
1925	Reptilia	Agamidae (lizard)	lower jaw	Tmk-34	Tmk
1926	Reptilia	Agamidae (lizard)	lower jaw	mgg-53B	Mogaun area
1927	Reptilia	Agamidae (lizard)	lower jaw	Tmk-35	Tmk
1928	Reptilia	Agamidae (lizard)	lower jaw	Pgn-33	Pangan area
1929	Reptilia	Agamidae (lizard)	lower jaw	Pgn-34	Pangan area
1930	Reptilia	Agamidae (lizard)	lower jaw	Bhn-215A	Bahin area
1931	Reptilia	Agamidae (lizard)	lower jaw	Bhn-215B	Bahin area
1932	Reptilia	Agamidae (lizard)	lower jaw	Bhn-217	Bahin area
1933	Reptilia	Agamidae (lizard)	lower jaw	Bhn-218	Bahin area
1934	Reptilia	Agamidae (lizard)	lower jaw	Bhn-219	Bahin area
1935	Reptilia	Agamidae (lizard)	lower jaw	Bhn-222	Bahin area
1936	Reptilia	Agamidae (lizard)	lower jaw	Bhn-225	Bahin area
1937	Reptilia	Agamidae (lizard)	lower jaw	Bhn-226	Bahin area
1938	Reptilia	Agamidae (lizard)	lower jaw	Bhn-227	Bahin area
1939	Reptilia	Agamidae (lizard)	lower jaw	Bhn-232	Bahin area
1940	Reptilia	Agamidae (lizard)	lower jaw	Bhn-234	Bahin area
1941	Reptilia	Agamidae (lizard)	lower jaw	Bhn-238	Bahin area
1942	Artiodactyla	<i>Asiohomacodon myanmarensis</i>	right mandibular fragment with lower right m3		Bahin area
1943	Creodonta	<i>Kyawdawia lupina</i>	isolated lower rihgt m3		Bahin area
1944	Creodonta	<i>Yarshea cruenta</i>	right mandibular fragment with lower right m3		Bahin area
1945	Creodonta	? <i>Pterodon</i> " <i>dahkoensis</i> "	upper central incisor		Bahin area
1946	Mammalia	? <i>Anthracotherium</i> sp.	incisor		Bahin area
1947	Mammalia	? <i>Anthracotherium</i> sp.	incisor		Bahin area
1948	Artiodactyla	<i>Anthracotherium</i> sp.	left mandibular fragment with lower c1-m2		?
1949	Artiodactyla	<i>Anthracotherium</i> sp.	left mandibular fragment with lower p3-m2		?
1950	Reptilia	Snake-like reptile (large type)	4 cervical vertebrae	Tudw-63	Tudw
1951	Reptilia	Agamidae (lizard)	2 jaw frags. w/ teeth		Pk2
1952	Reptilia	Agamidae (lizard)	lower jaw frag. w/ teeth		Pk2
1953	Reptilia	lizard	upper?/lower? jaw frag. w/ teeth		Pk2
1954	Reptilia	Agamidae (lizard)	lower jaw frag.		Pk4
1955	Reptilia	lizard	jaw and bone frags.		Bh4
1956	Artiodactyla	<i>Anthracotherium</i> sp.	a tooth frag.		Mta
1957	Vertebrata	?lizard / ?fish	lower jaw frag.		NYG2
1958	Reptilia	lizard	jaw frag.		Pk12
1959	Reptilia	lizard	jaw frag.		Thdn
1960	Reptilia	lizard	upper? jaw frag.		Bh4
1961	Reptilia	lizard	upper? jaw frag.	Bhn-233	Bahin area