

## CHAPTER 4

# The Pliocene

### 4.1 PLIOCENE MAMMALS

By the Pliocene, all Orders were extant and only four extinct families remained, two in the Proboscidea and one each in the Carnivora and the Perissodactyla (odd-toed ungulates). However, at lower taxonomic ranks, there remained a high proportion of extinct taxa, e.g. 50 per cent of genera and 69 per cent of species in the Carnivora, and 47 per cent and 73 per cent respectively in the Artiodactyla (see Table 7.1). The Tubulidentata (aardvarks) and Soricomorpha were not represented and the number of Rodentia families was at its lowest level. Conversely, the number of Carnivora families increased to seven, its highest at any time, making it the most diverse Order during the epoch. The number of genera rose to 28 and species more than trebled compared to the Miocene, while the number of Artiodactyla genera was double that in the Miocene. Although there were fewer Rodentia families, those present contained far fewer extinct genera, and more species overall.

**ORDER: AFROSORICIDA**  
**Suborder: Chrysochloridea**  
**FAMILY: CHRYSOCHLORIDAE**  
Subfamily: Chrysochlorinae

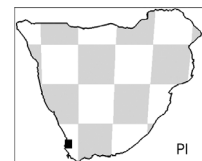
†*Chrysochloris arenosa* Asher and Avery, 2010. *Palaeontol. Electr.* 13(1)  
3A: 5.

Type locality: Langebaanweg.



†*Chrysochloris bronneri* Asher and Avery, 2010. *Palaeontol. Electr.* 13(1)  
3A: 8.

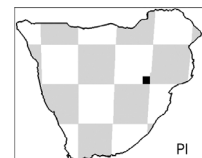
Type locality: Langebaanweg.



Subfamily: Amblyomyinae

†*Amblysomus hamiltoni* De Graaff, 1958. *Palaeontol. Afr.* 5: 22.  
Synonyms: *Chrysosticha*.

Type locality: Limeworks Makapansgat dumps.



**ORDER: MACROSCELIDEA****FAMILY: MACROSCELIDIDAE****Subfamily: Macroscelidinae**

†*Elephantulus antiquus* Broom, 1948. *Ann. Transvaal Mus.* 21(1): 5.

Type locality: Bolt's Farm.

Additional references: Patterson (1965).



*Elephantulus brachyrhynchus* Smith, 1836. *Report of the Expedition for Exploring Central Africa*: 42. Short-snouted elephant shrew.

Synonyms: *Macroscelides*.

Type locality: Kuruman to southern Botswana.

Additional references: Smith (1849).



†*Elephantulus broomi* Corbet and Hanks, 1968. *Bull. Brit. Mus. Nat. Hist. Zool.* 16: 54.

Synonyms: *Elephantomys langi*.

Type locality: Schurveberg.



*Elephantulus fuscus* Peters, 1851. *Reise nach Mossambique, Säugethiere*: 87. Dusky elephant shrew.

Type locality: Boror.



*Macroscelides proboscideus* Shaw, 1800. *Gen. Zool. Syst. Nat. Hist.* 1(2) Mammalia: 536. Short-eared elephant shrew.

Synonyms: *typicus*.

Additional references: Roberts (1933, 1938).



†*Palaeothentoides africanus* Stromer, 1931. *Sitzungsber. Bayer. Akad. Wiss. München. Math.-Nat. Abt.* 1931: 185.

Type locality: Kleinzee.

Additional references: Holroyd (2010a); Patterson (1965).

**Subfamily: Mylomygalinae**

†*Mylomygale spiersi* Broom, 1948. *Ann. Transvaal Mus.* 21(1): 8.

Type locality: Taung.

Additional references: Holroyd (2010a); Patterson (1965).



**ORDER: HYRACOIDEA****FAMILY: PROCAVIIDAE**

†*Gigantohyrax maguirei* Kitching, 1965. *Palaeontol. Afr.* 9: 91.

Type locality: Limeworks Makapansgat.

Additional references: Rasmussen and Gutiérrez (2010).



†*Procavia antiqua* Broom, 1934. *S. Afr. J. Sci.* 31: 472.

Synonyms: *Prohyrax*; *robertsi*.

Type locality: Taung.

Additional references: Broom (1948a); Churcher (1956); McMahon and Thackeray (1994); Rasmussen and Gutiérrez (2010); Schwartz (1997).



†*Procavia pliocenica* Pickford, 2005. *Palaeontol. Afr.* 41: 142.

Type locality: Langebaanweg.



†*Procavia transvaalensis* Shaw, 1937. *J. Dental Res.* 16: 40.

Synonyms: *obermeyerae*.

Type locality: Taung.

Additional references: Churcher (1956); McMahon and Thackeray (1994).

**ORDER: PROBOSCIDEA****FAMILY: †DEINOTHERIIDAE****Subfamily: †Deinotheriinae**

†*Prodeinotherium hobleiy* Andrews, 1911. *Proc. Zool. Soc. Lond.* 1911: 944.

Synonyms: *Deinotherium*; *Dinotherium*.

Additional references: Éhik (1930); Harris (1977); Sanders *et al.* (2010a).

**FAMILY: ELEPHANTIDAE****Subfamily: Elephantinae**

*Elephas* Linnaeus, 1758. *Systema Naturae Regnum Animale*, 10th edition, 1: 33.

Synonyms: *Archidiskodon*; *Palaeoloxodon*.

Additional references: Cooke (1961); Todd (2010).



†*Loxodonta cookei* Sanders, 2007. *Trans. R. Soc. S. Afr.* 62(1): 7.

Synonyms: *Lukeino Stage*.

Type locality: Langebaanweg.

Additional references: Pickford and Senut (1997); Sanders *et al.* (2010a); Todd (2010).



†*Mammuthus subplanifrons* Osborn, 1928. *Nature* 121: 672–673.

Synonyms: *Archidiskodon*; *Elephas*; *Mastodon*; *Stegodon*; *andrewsi*; *milletti*; *proplanifrons*; *scotti*; *vanalpheni*.

Type locality: Sydney-on-Vaal.

Additional references: Dart (1929b); Maglio and Henkey (1970); Meiring (1955); Osborn (1934, 1942); Sanders (2007); Sanders *et al.* (2010a); Todd (2010).



FAMILY: †GOMPHOTHERIIDAE

Subfamily: †Anancinae

†*Anancus capensis* Sanders, 2007. *Trans. R. Soc. S. Afr.* 62(1): 1.

Type locality: Langebaanweg.

Additional references: Sanders *et al.* (2010a).



ORDER: PRIMATES

Suborder: Haplorrhini

FAMILY: CERCOPITHECIDAE

Subfamily: Cercopithecinae

*Cercocebus* Geoffroy Saint-Hilaire, 1812. *Ann Mus. Hist. Nat. Paris* 19: 97.

Additional references: Jablonsky and Frost (2010).

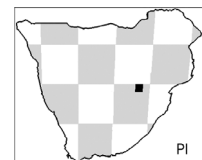


†*Dinopithecus ingens* Broom, 1937. *S. Afr. J. Sci.* 33: 753.

Synonyms: *Papio*.

Type locality: Schurveberg.

Additional references: Freedman and Brain (1977); Gilbert (2013); Gommery and Bento da Costa (2016); Jablonsky and Frost (2010).



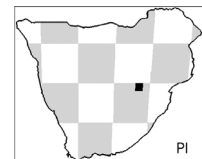
†*Papio izodi* Gear, 1926. *S. Afr. J. Sci.* 23: 746.

Synonyms: *Gorgopithecus*; *Parapapio*; *angusticeps*; *wellsi*.

Type locality: Taung.

Additional references: Adams *et al.* (2013); Cooke (1990); Freedman (1965); Gilbert (2013); Gilbert *et al.* (2015); Gilbert *et al.* (2016b); Heaton (2006); Jablonsky and Frost (2010); McKee (1993b); McKee and Keyser (1994).

Comments: known material from Kromdraai is referred to *Papio (hamadryas) angusticeps* and a new specimen to *Papio hamadryas* ssp. indet. by Singleton *et al.* (2016).



†*Parapapio* Jones, 1937. *S. Afr. J. Sci.* 33: 726.

Type locality: Sterkfontein.

Additional references: Grine and Hendery (1981); Jablonsky and Frost (2010).



†*Parapapio broomi* Jones, 1937. *S. Afr. J. Sci.* 33: 727.

Synonyms: *Brachygnathopithecus peppercorni*; *Gorgopithecus*; *makapani*.

Type locality: Sterkfontein.

Additional references: Freedman (1965, 1976); Freedman and Stenhouse (1972); Gilbert (2013); Gommery and Bento da Costa (2016); Heaton (2006); Jablonsky and Frost (2010); Maier (1970); Thackeray and Myer (2004).



†*Parapapio jonesi* Broom, 1940. *Ann. Transvaal Mus.* 20: 93.

Type locality: Sterkfontein.

Additional references: Freedman and Brain (1977); Freedman and Stenhouse (1972); Gilbert (2013); Heaton (2006); Jablonsky and Frost (2010); Maier (1970); Thackeray and Myer (2004).



†*Parapapio whitei* Broom, 1940. *Ann. Transvaal Mus.* 20: 90.

Type locality: Sterkfontein.

Additional references: Freedman (1965); Freedman and Stenhouse (1972); Gilbert (2013); Heaton (2006); Jablonsky and Frost (2010); Maier (1970).



†*Procercocoebus antiquus* Haughton, 1924. *Trans. R. Soc. S. Afr.* 12: lxxviii.

Synonyms: *Gorgopithecus*; *Papio*; *Parapapio*.

Type locality: Taung.

Additional references: Cooke (1990); Freedman (1965, 1976); Gilbert (2007a, 2013); Gilbert *et al.* (2016b); Gommery and Bento da Costa (2016); Heaton (2006); Maier (1971).



†*Theropithecus darti* Broom and Jensen, 1946. *Ann. Transvaal Mus.* 20: 340.

Synonyms: *Papio*; *Simopithecus*.

Type locality: Limeworks Makapansgat.

Additional references: Gilbert (2013); Jablonsky and Frost (2010); Maier (1970, 1972).

Comments: Gilbert (2013) accepts the case for making this species a subspecies of *T. oswaldi* though Gommery and Bento da Costa (2016) continue to consider it a full species.



†*Theropithecus oswaldi* Andrews, 1916. *Ann. Mag. Nat. Hist.*, Series 8, 18: 417.

Synonyms: *Parapapio coronatus?*; *Simopithecus*; *danieli*; *leakeyi*.

Additional references: Broom and Robinson (1948); Dechow and Singer (1984); Freedman (1957, 1976); Freedman and Brain (1977); Frost *et al.* (2017); Gilbert (2007b, 2013); Heaton (2006); Hopwood (1934); Jablonsky and Frost (2010); Leakey (1943a).



## Subfamily: Colobinae

†*Cercopithecoides williamsi* Mollett, 1947. *S. Afr. J. Sci.* 43: 298.

Synonyms: *molletti*.

Type locality: Limeworks Makapansgat.

Additional references: Freedman (1961, 1965); Freedman and Brain (1977); Gommery and Bento da Costa (2016); Jablonsky and Frost (2010); Kuykendall and Rae (2008); Maier (1970); Von Mayer (1998).



## FAMILY: HOMINIDAE

## Subfamily: Homininae

†*Australopithecus* Dart, 1925. *Nature* 114: 195–199.

Type locality: Taung.

Additional references: Clarke (1999, 2002, 2008).



†*Australopithecus africanus* Dart, 1925. *Nature* 114: 195–199.

Synonyms: *Plesianthropus*; *prometheus*; *transvaalensis*.

Type locality: Taung.

Additional references: Broom (1929, 1939a); Broom and Robinson (1949a, 1949c); Clarke and Tobias (1995); Dart (1929a, 1948a, 1954, 1959); Häusler and Berger (2001); Lockwood and Tobias (1999, 2002); MacLatchy *et al.* (2010); Toussaint *et al.* (2003).



## ORDER: RODENTIA

## Suborder: Myomorpha

## FAMILY: NESOMYIDAE

## Subfamily: Delanyomyinae

†*Stenodontomys darti* Lavocat, 1956. *Palaeontol. Afr.* 4: 71.

Synonyms: *Mystromys*.

Type locality: Limeworks Makapansgat.



†*Stenodontomys saldanhae* Pocock, 1987. *Palaeontol. Afr.* 26(7): 89.

Type locality: Langebaanweg.

Additional references: Denys (1994b).



## Subfamily: Dendromurinae

†*Dendromus antiquus* Broom, 1946. *Mem. Transvaal Mus.* 2: 29.

Type locality: Taung.

Comments: originally named by Broom (1946) but not formally described according to De Graaff (1961a).



†*Dendromus averyi* Denys, 1994. *Palaeovertebrata* 23(1–4): 163.  
Type locality: Langebaanweg.



†*Dendromus darti* Denys, 1994. *Palaeovertebrata* 23(1–4): 163.  
Type locality: Langebaanweg.



*Dendromus mesomelas* Brants, 1827. *Het Geslacht der Muizen door Linnaeus Opgesteld*: 122. Brants' African climbing mouse.  
Synonyms: *ayresi*; *typica*.  
Type locality: Sunday's River, east of Port Elizabeth.  
Additional references: Smith (1849).



†*Malacothrix makapani* De Graaff, 1961. *Palaeontol. Afr.* 7: 86.  
Type locality: Limeworks Makapansgat.



*Malacothrix typica* Smith, 1834. *S. Afr. Quart. J., Series 2*, 2: 148. Large-eared African desert mouse.  
Type locality: Graaff Reinet District.  
Additional references: Roberts (1932).



*Steatomys pratensis* Peters, 1846. *Bericht Verhandl. K. Preuss. Akad. Wiss. Berlin* 11: 258. Common African fat mouse.  
Synonyms: *natalensis*; *opimus*.  
Type locality: Tete.  
Comments: material from Botswana was identified as *Steatomys opimus* but, as currently understood, this species is almost entirely confined to West Africa (Musser and Carleton 2005).

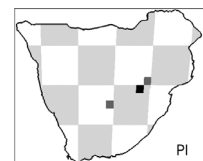


#### Subfamily: *Mystromyinae*

*Mystromys albicaudatus* Smith, 1834. *S. Afr. Quart. J., Series 2*, 2: 148.  
African white-tailed rat.  
Synonyms: *Otomys*; *antiquus*.  
Type locality: Albany District.  
Additional references: De Winton (1898); Grubb (2004); Smith (1849).



†*Mystromys hausleitneri* Broom, 1937. *S. Afr. J. Sci.* 33: 766.  
Synonyms: *hauslichtneri*.  
Type locality: Schurveberg.  
Additional references: Broom (1948a).



†*Mystromys pocockei* Denys, 1991. *C. R. Acad. Sci. Paris, Série IIa*, 313: 1337.

Type locality: Langebaanweg.



†*Proodontomys cookei* Pocock, 1987. *Palaeontol. Afr.* 26(7): 82.

Type locality: Limeworks Makapansgat.



#### FAMILY: MURIDAE

##### Subfamily: Deomyinae

*Acomys* Geoffroy Saint-Hilaire, 1838. *Ann. Sci. Nat. Zool. Paris, Series 2*, 10: 126.

Additional references: Chevret *et al.* (1993a); Dippenaar and Rautenbach (1986).



†*Acomys mabele* Denys, 1990. *Palaeontographica Abt. A* 210(1–3): 82.

Type locality: Langebaanweg.



*Acomys spinosissimus* Peters, 1852. *Naturwissenschaftliche Reise nach Mossambique*: 160. Southern African spiny mouse.

Synonyms: *Cahirinus selousi*; *transvaalensis*.

Type locality: Tete and Buio.

Additional references: Dippenaar and Rautenbach (1986).



##### Subfamily: Gerbillinae

*Desmodillus* Thomas and Schwann, 1904. *Abstr. Proc. Zool. Soc. Lond.* 1904(2): 6.

Synonyms: *Gerbillus*; *Pachyuromys*.

Additional references: Pavlinov (2001).



*Desmodillus auricularis* Smith, 1834. *S. Afr. Quart. J.*, Series 2, 2: 160. Short-eared gerbil.

Synonyms: *Gerbillus*; *brevicaudatus*.

Type locality: Kamiesberg.

Additional references: Griffin (1990); Qumsiyeh (1986); Smith (1849).



†*Desmodillus magnus* Denys and Matthews, 2017. *Palaeovertebrata* 41(1): e1–5.

Type locality: Langebaanweg.





***Gerbilliscus*** Thomas, 1897. *Proc. Zool. Soc. Lond.* 1897: 433.  
Synonyms: *Gerbillus*; *Tatera*.



***Gerbilliscus brantsii*** Smith, 1836. *Report of the Expedition for Exploring Central Africa*: 43. Highveld gerbil.

Synonyms: *Gerbillus*; *Tatera*; *montanus*.

Type locality: Ladybrand.

Additional references: Davis (1949, 1965); Griffin (1990); Qumsiyeh (1986); Roberts (1926); Smith (1849).



#### Subfamily: Murinae

†***Aethomys adamanticola*** Denys, 1990. *Ann. Paleontol.* 76(1): 45.

Type locality: Langebaanweg.

Additional references: Matthews and Stynder (2011a).



†***Aethomys modernis*** Denys, 1990. *Ann. Paleontol.* 76(1): 52.

Type locality: Langebaanweg.

Additional references: Matthews and Stynder (2011a).



***Dasymys incomtus*** Sundevall, 1846. *Vetenskaps-Akademiens Förhandlingar* 3: 120. Common dasymys.

Type locality: Durban.

Additional references: Gordon (1991); Mullin *et al.* (2004).

Comments: much of the material identified as *D. incomtus* was identified at a time when this species was the only one recognised in southern Africa. For this reason, this material should be considered as *D. incomtus sensu lato* until such time as it is re-examined.



†***Dasymys 'lavocati'*** Broom, unpublished.

Type locality: Bolt's Farm.

Comments: *Nomen nudum*.



***Grammomys dolichurus*** Smuts, 1832. *Dissertation Zoologica, Enumerationem Mammalium Capensium*: 38. Common grammomys.

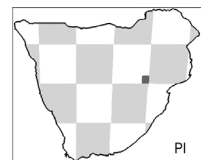
Synonyms: *Thammomys*.

Type locality: near Cape Town.

Additional references: Roberts (1931).



***Lemniscomys*** Troussaert, 1881. *Bull. Soc. Etudes Sci. Angers* 10: 124.



***Mastomys natalensis*** Smith, 1834. *S. Afr. Quart. J.*, Series 2, 2: 146. Natal mastomys.

Synonyms: *Praomys*.

Type locality: Port Natal = Durban.

Additional references: Bronner *et al.* (2007); Dippenaar *et al.* (1993); Green *et al.* (1980); Smit and Van der Bank (2001); Smith (1849).

Comments: this material was identified as *M. natalensis* at a time when *M. coucha* was not recognised as a separate species.



***Micaelamys namaquensis*** Smith, 1834. *S. Afr. Quart. J.*, Series 2, 2: 160. Namaqua micaelamys.

Synonyms: *Aethomys*; *lehocla*.

Type locality: Cape of Good Hope: restricted to Witwater.

Additional references: Chimimba (2001); Chimimba and Dippenaar (1994); Roberts (1926, 1946); Russo (2009); Smith (1849); Visser and Robinson (1986).



***Mus minutoides*** Smith, 1834. *S. Afr. Quart. J.*, Series 2, 2: 147. Southern African pygmy mouse.

Synonyms: *Leggada*.

Type locality: Cape Town.

Additional references: Britton-Davidian *et al.* (2012).

Comments: some of the specimens from the more arid areas may be *M. indutus*, but see comment under that species.



***Myomyscus*** Shortridge, 1942. *Ann. S. Afr. Mus.* 36: 93.

Synonyms: *Praomys*; *Myomys*.

Type locality: Kliphuis.



***Pelomys fallax*** Peters, 1852. *Bericht Verhandl. K. Preuss. Akad. Wiss. Berlin* 17: 275. East African pelomys.

Type locality: Caia District.



***Rhabdomys*** Thomas, 1916. *Ann. Mag. Nat. Hist.*, Series 8, 18: 69.



***Rhabdomys pumilio*** Sparrman, 1784. *K. Svenska Vet.-Akad. Handl.*: 236. Xeric four-striped grass rat.

Type locality: Slangrivier, east of Knysna.

Additional references: Castiglia *et al.* (2012); Le Grange *et al.* (2015); Roberts (1946); Smith (1849); Wroughton (1905).

Comments: samples recorded here should be regarded as belonging to *Rhabdomys pumilio sensu lato* and are very likely to include some material that would currently be regarded as *R. dilectus*.



*Thallomys* Thomas, 1920. *Ann. Mag. Nat. Hist.*, Series 9, 5: 141.



†*Thallomys debruyni* Broom, 1948. *Ann. Transvaal Mus.* 21: 35.

Type locality: Taung Hrdlicka's Cave.



*Zelotomys* Osgood, 1910. *Field Mus. Nat. Hist. Publ. Zool. Ser.* 10: 7.



Subfamily: †Myocricetodontinae

†*Boltimys broomi* Sénégas and Michaux, 2000. *C. R. Acad. Sci. Paris, Sci. Terre Plan.* 330: 522.

Type locality: Waypoint 160.

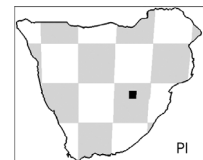


Subfamily: Otomyinae

†*Euryotomys bolti* Sénégas and Avery, 1998. *S. Afr. J. Sci.* 94: 503.

Type locality: Waypoint 160.

Additional references: Sénégas (2001).



†*Euryotomys pelomyoides* Pocock, 1976. *S. Afr. J. Sci.* 72: 58.

Type locality: Langebaanweg.

Additional references: Denys *et al.* (1987).



†*Myotomys campbelli* Broom and Schepers, 1946. *Transvl Mus. Mem.* 2: 29.

Type locality: Taung.



*Myotomys sloggetti* Thomas, 1902. *Ann. Mag. Nat. Hist.*, Series 7, 10: 311. Rock karoo rat.

Synonyms: *Otomys*.

Type locality: Deelfontein.

Comments: it seems unlikely that the Pliocene record is correct.

Additional references: Taylor *et al.* (2004).



†*Otomys gracilis* Broom, 1937. *S. Afr. J. Sci.* 33: 761.

Synonyms: *Palaeotomys*.

Type locality: Schurveberg.



### Suborder: Anomaluromorpha

#### FAMILY: PEDETIDAE

*Pedetes capensis* Forster, 1778. *K. Svenska Vet.-Akad. Handl.* 39: 109.

South African spring hare.

Type locality: Cape of Good Hope.

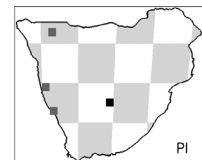
Additional references: Roberts (1946).



†*Pedetes gracilis* Broom, 1934. *S. Afr. J. Sci.* 31: 476.

Type locality: Taung.

Additional references: Pickford and Mein (2011).



†*Propedetes efeldensis* Mein and Pickford, 2008. *Geol. Surv. Namibia Mem.* 20: 242.

Type locality: Elisabethfeld.



†*Propedetes laetoliensis* Davies, 1987. In: Leakey and Harris. *The Pliocene Site of Laetoli, Northern Tanzania*: 172.

Synonyms: *Pedetes*.

Additional references: Pickford and Mein (2011).



### Suborder: Hystricomorpha

#### FAMILY: BATHYERGIDAE

#### Subfamily: Bathyerginae

†*Bathyergus hendeyi* Denys, 1998. *Ann. S. Afr. Mus.* 105(5): 268.

Type locality: Langebaanweg.



†*Cryptomys broomi* Denys, 1998. *Ann. S. Afr. Mus.* 105(5): 280.

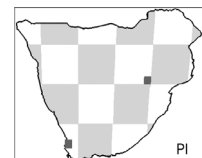
Type locality: Langebaanweg.



*Cryptomys hottentotus* Lesson, 1826. *Zool.* 1: 166. Southern African mole-rat.

Type locality: near Paarl.

Additional references: Avery (2004); Denys (1988a); Roberts (1913, 1946).



Comments: it is possible that some of the material may be referable to *Fukomys damarensis*, which was not recognised as a separate species when many of the samples were identified.

†*Cryptomys robertsi* Broom, 1937. *S. Afr. J. Sci.* 33: 760.

Type locality: Schurveberg.

Comments: it has been suggested that this taxon is inseparable from *Georychus capensis* (Avery, 1998).



†*Gypсорhynchus darti* Broom, 1934. *S. Afr. J. Sci.* 31: 474.

Type locality: Taung.



†*Gypсорhynchus makapani* Broom, 1948. *Ann. Transvaal Mus.* 21: 49.

Type locality: Limeworks Makapansgat.



†*Gypсорhynchus minor* Broom, 1948. *Ann. Transvaal Mus.* 21: 48.

Type locality: Taung.



*Heterocephalus* Rüppell, 1842. *Mus. Senckenbergianum* 3(2): 99.



#### FAMILY: HYSTRICIDAE

##### Subfamily: Hystricinae

*Hystrix africae australis* Peters, 1852. *Naturwissenschaftliche Reise nach Mossambique*: 170. Cape porcupine.

Additional references: Maguire (1976).

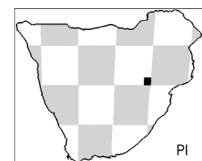


†*Hystrix makapanensis* Greenwood, 1958. *Ann. Mag. Nat. Hist.* 13: 365.

Synonyms: *major*.

Type locality: Limeworks Makapansgat.

Additional references: Adams (2012a); Greenwood (1955).



†*Xenohystrix crassidens* Greenwood, 1955. *Palaeontol. Afr.* 3: 81.  
 Type locality: Limeworks Makapansgat.  
 Additional references: Collings *et al.* (1976).



#### FAMILY: PETROMURIDAE

†*Petromus antiquus* Sénégas, 2004. *J. Vert. Paleontol.* 24(3): 757.  
 Type locality: Waypoint 160.



†*Petromus minor* Broom, 1939. *Ann. Transvaal Mus.* 19: 316.  
 Synonyms: *Palaepetromys*.  
 Type locality: Taung.



### ORDER: LAGOMORPHA

#### FAMILY: LEPORIDAE

*Lepus* Linnaeus, 1758. *Systema Naturae Regnum Animale*, 10th edition, 1: 57.  
 Additional references: Robinson and Dippenaar (1987); Robinson and Matthee (2005).



*Lepus capensis* Linnaeus, 1758. *Systema Naturae Regnum Animale*, 10th edition, 1: 58. Cape hare.  
 Type locality: Cape of Good Hope.  
 Additional references: Roberts (1932).



*Pronolagus* Lyon, 1904. *Smithson. Misc. Coll.* 45: 416.  
 Additional references: Robinson and Matthee (2005).



### ORDER: SORICOMORPHA

#### FAMILY: SORICIDAE

##### Subfamily: Crocidurinae

*Crocidura fuscomurina* Heuglin, 1865. *Nouv. Acta Acad. Caes. Leop.-Carol.* 32: 36. Bicolored musk shrew.  
 Synonyms: *bicolor*.  
 Additional references: Hutterer (1983).



†*Crocidura taungensis* Broom, 1948. *Ann. Transvaal Mus.* 21: 10.

Synonyms: *Suncus*.

Type locality: Taung.

Additional references: Meester (1954).



†*Diplomesodon fossorius* Repenning, 1965. *J. Mammal.* 46(2): 190.

Type locality: Limeworks Makapansgat.



*Suncus infinitesimus* Heller, 1912. *Smithson. Misc. Coll.* 60(12): 5. Least dwarf shrew.



*Suncus varilla* Thomas, 1895. *Ann. Mag. Nat. Hist., Series 6*, 16: 54.

Lesser dwarf shrew.

Type locality: East London.

Additional references: Roberts (1946).



#### Subfamily: Myosoricinae

†*Myosorex robinsoni* Meester, 1954. *Ann. Transvaal Mus.* 22: 272.

Type locality: Swartkrans.

Additional references: Butler (2010); Butler and Greenwood (1979).



*Myosorex varius* Smuts, 1832. *Dissertation Zoologica, Enumerationem Mammalium Capensium*: 108. Forest shrew.

Synonyms: *Sorex*.

Type locality: Algoa Bay: Port Elizabeth.

Additional references: Roberts (1924); Smith (1849).



### ORDER: CHIROPTERA Suborder: Microchiroptera FAMILY: RHINOLOPHIDAE

*Rhinolophus capensis* Lichtenstein, 1823. *Verzeichniss der Doubletten des zoologischen Museums der Königl. Universität zu Berlin*: 4. Cape horseshoe bat.

Type locality: Cape of Good Hope.



*Rhinolophus clivosus* Cretzschmar, 1826. In: Rüppell, *Atlas zu der Reise im nördlichen Afrika Zoologie*: 47. Geoffroy Saint-Hilaire's horseshoe bat.

Synonyms: *geoffroyi*.



***Rhinolophus darlingi*** Andersen, 1905. *Ann. Mag. Nat. Hist.*, Series 7, 15: 70. Darling's horseshoe bat.  
Type locality: Mazoe.



FAMILY: VESPERTILIONIDAE  
Subfamily: Vespertilioninae

***Eptesicus hottentotus*** Smith, 1833. *S. Afr. Quart. J.*, Series 2, 1: 59.  
Long-tailed serotine.

Type locality: Uitenhage.

Additional references: Hill and Harrison (1987); Kearney *et al.* (2002).



Subfamily: Miniopterinae

***Miniopterus*** Bonaparte, 1837. *Iconografia della fauna italica*: 20.

Additional references: Miller-Butterworth *et al.* (2007).



## ORDER: PHOLIDOTA

FAMILY: MANIDAE

Subfamily: Smutsiinae

†***Smutsia gigantea*** Illiger, 1815. *Abh. Phys. Klasse K. Pruess Konigl. Akad. Wiss.* 1804–1811: 84.

Synonyms: *Manis*.

Additional references: Botha and Gaudin (2007); Gaudin (2010).



## ORDER: CARNIVORA

Suborder: Feliformia

FAMILY: FELIDAE

†***Amphimachairodus*** Kretzoi, 1929. *10th International Congress of Zoology*: 1316.

Synonyms: *Homotherium*; *Machairodus*.

Additional references: Sardella and Werdelin (2007); Werdelin and Peigné (2010); Werdelin and Sardella (2006).



Subfamily: Felinae

***Acinonyx*** Brookes, 1828. *A Catalogue of the Anatomical & Zoological Museums of Joshua Brookes, Esq., F.R.S., F.L.S. etc. Part 1*: 16, 33.





***Caracal caracal*** Schreber, 1776. *Die Säugethiere* 3 (16): pl. 110 [1776], see also text 3 (24): 413, 587 [1777]. *Caracal*.

Synonyms: *Felis*.

Type locality: Table Mountain, near Cape Town.

Additional references: Roberts (1926); Werdelin and Peigné (2010).

Comments: citation according to Wilson and Reeder (2005). Volume 3 was published in 1778 according to the version reproduced in the Biodiversity Heritage Library ([www.biodiversitylibrary.org/item/135003#page/141/mode/1up](http://www.biodiversitylibrary.org/item/135003#page/141/mode/1up)) and *Felis caracal* is listed on p. 587. Plate 110 appears in an undated volume containing plates 81–165 ([www.biodiversitylibrary.org/item/97341#page/131/mode/1up](http://www.biodiversitylibrary.org/item/97341#page/131/mode/1up)).



†***Dinofelis barlowi*** Broom, 1937. *S. Afr. J. Sci.* 33: 757.

Synonyms: *Machaerodus*; *Megantereon*; *Therailurus*; *darti*; *transvaalensis*.

Type locality: Sterkfontein.

Additional references: Collings (1973); Collings *et al.* (1976); Cooke (1991); Ewer (1955c, 1957a); Hemmer (1965); Lacruz *et al.* (2006).



†***Dinofelis diastemata*** Astre, 1929. *Bull. Soc. Géol. France* 29: 203.

Additional references: Lacruz *et al.* (2006).



†***Felis issiodorensis*** Croizet and Jobert, 1828. *Recherches sur les ossements fossiles du Département du Puy-de-Dome*: 200.



†***Homotherium crenatidens*** Weithofer, 1889. *Jahrbuch der Kaiserlich Königlich Geologischen Reichsanstalt* 39(1): 65.

Synonyms: *Machairodus*; *altidens*.

Comments: there appears to be disagreement as to which species of *Homotherium* is represented at Sterkfontein: Turner (1987a) considers the material to be *H. crenatidens*, whereas Reynolds (2010b) assigns it to *H. altidens*.



†***Homotherium problematicum*** Collings, 1972. *Palaeontol. Afr.* 14: 87.

Synonyms: *Megantereon*; *eyrnodon*, *nestianus*.

Type locality: Limeworks Makapansgat.

Additional references: Berta and Galiano (1983); Collings (1973); Collings *et al.* (1976); Ewer (1955c).

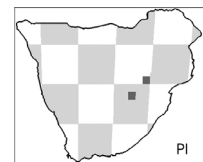


***Leptailurus serval*** Schreber, 1776. *Die Säugethiere* 3 (16): pl. 108 [1776], see also text 3 (23): 407 [1777]. *Serval*.

Synonyms: *Felis*; *spelaeus*.

Type locality: restricted to the 'Cape region of South Africa'.

Additional references: Werdelin and Peigné (2010).



Comments: citation according to Wilson and Reeder (2005). Volume 3 was published in 1778 according to the version reproduced in the Biodiversity Heritage Library ([www.biodiversitylibrary.org/item/135003#page/135/mode/1up](http://www.biodiversitylibrary.org/item/135003#page/135/mode/1up)) and *Felis serval* is listed on p. 587. Plate 107 appears in an undated volume containing plates 81–165 ([www.biodiversitylibrary.org/item/97341#page/125/mode/1up](http://www.biodiversitylibrary.org/item/97341#page/125/mode/1up)).

†*Metailurus obscurus* Hendey, 1974. *Ann. S. Afr. Mus.* 63: 164.

Synonyms: *Felis*; *Adelphailurus*; *Megantereon obscura*.

Type locality: Langebaanweg.

Additional references: Werdelin and Peigné (2010).



Subfamily: †Machairodontinae

†*Megantereon whitei* Broom, 1937. *S. Afr. J. Sci.* 33: 756.

Synonyms: *Felis*; *cultridens*.

Type locality: Schurveberg.

Additional references: Broom (1939c, 1946); Hartstone-Rose *et al.* (2007); Turner (1987b); Werdelin and Peigné (2010).



Subfamily: Pantherinae

*Panthera leo* Linnaeus, 1758. *Systema Naturae Regnum Animale*, 10th edition, 1: 41. Lion.

Additional references: Haas *et al.* (2005); Lacruz (2009).



*Panthera pardus* Linnaeus, 1758. *Systema Naturae Regnum Animale*, 10th edition, 1: 41. Leopard.



FAMILY: HERPESTIDAE

†*Atilax mesotes* Ewer, 1956. *Proc. Zool. Soc. Lond.* 126: 259–274.

Synonyms: *Herpestes*.

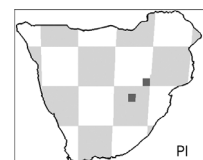


*Cynictis penicillata* Cuvier, 1829. *Le Règne Animal distribué d'après son Organisation*, Nouvelle édition, 1: 158. Yellow mongoose.

Synonyms: *lepturus*; *ogilbyii*.

Type locality: restricted to 'Uitenhage, CP'.

Additional references: Ewer (1956a, 1957a); Lundholm (1954); Roberts (1932); Smith (1849); Taylor and Meester (1993).



## FAMILY: HYAENIDAE

†*Lycyaenops silberbergi* Broom, 1946. *Mem. Transvaal Mus.* 2: 83.

Synonyms: *Chasmaporthetes*; *Lycyaena*.

Type locality: Sterkfontein.

Additional references: Broom (1948a); Werdelin and Peigné (2010).



## Subfamily: Hyaeninae

†*Chasmaporthetes australis* Hendey, 1974. *Ann. S. Afr. Mus.* 63: 91.

Synonyms: *Euryboas*; *Percrocuta*.

Type locality: Langebaanweg.

Additional references: Hendey (1978a); Werdelin and Peigné (2010).



†*Chasmaporthetes nitidula* Ewer, 1955. *Proc. Zool. Soc. Lond.* 124: 842.

Synonyms: *Euryboas*; *Lycyaeon*.

Type locality: Sterkfontein.

Additional references: Hendey (1978a).



*Crocuta crocuta* Erxleben, 1777. *Systema Regni Animalia per Classes*: 578.

Spotted hyaena.

Synonyms: *spelaea*.

Additional references: Broom (1939c); Turner (1984).



†*Crocuta dietrichi* Petter and Howell, 1989. *C.R. Acad. Sci. Paris* 308: 1038.

Additional references: Morales *et al.* (2011).



*Hyaena hyaena* Linnaeus, 1758. *Systema Naturae Regnum Animale*, 10th edition, 1: 40. Striped hyaena.

Synonyms: *striata*.

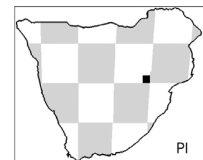
Additional references: Turner (1988).



†*Hyaena makapani* Toerien, 1952. *S. Afr. J. Sci.* 48: 293.

Type locality: Limeworks Makapansgat.

Additional references: Toerien (1955).



†*Hyaenictis hendeyi* Werdelin, Turner and Solounias, 1994. *Zool. J. Linn. Soc.* 111: 214.

Type locality: Langebaanweg.



†*Hyaenictis preforfex* Hendey, 1974. *Ann. S. Afr. Mus.* 63: 125.

Synonyms: *Ictitherium*; *Leecyaena forfex*.

Type locality: Langebaanweg.

Additional references: Ewer (1955a, 1955b); Hendey (1978a).



Comments: Werdelin *et al.* (1994) maintain that this taxon is a synonym of *Ikelohyaena abronia*.

†*Hyaenictitherium namaquensis* Stromer, 1931. *Bayer. Akad. Wiss. München Sitz. Math.-Naturwiss. Klasse* 1931: 26.

Synonyms: *Hyaenictis*; *Hyaena*; *namaquense*.

Type locality: Kleinzee.

Additional references: Hendeby (1978a); Werdelin and Solounias (1991).



†*Ikelohyaena abronia* Hendeby, 1974. *Ann. S. Afr. Mus.* 63: 103.

Synonyms: *Hyaena*.

Type locality: Langebaanweg.



†*Pachycrocuta brevisrostris* Gervais, 1850. *Zool. Paléontol. Françaises* 1: 122.

Synonyms: *Canis*; *Hyaena bellax*.

Additional references: Alba *et al.* (2015); Ewer (1954, 1956b); Mutter *et al.* (2001); Turner and Antón (1996); Werdelin and Peigné (2010).

Comments: according to Alba *et al.* (2015), this taxon has long been incorrectly attributed to Aymard since his 1846 paper neither describes nor names the taxon.



*Parahyaena brunnea* Thunberg, 1820. *K. Svenska Vet.-Akad. Handl.* 8: 59. Brown hyaena.

Synonyms: *Hyaena*.

Type locality: Cape of Good Hope.

Additional references: Grubb (2004); Hendeby (1973a); Mills (1982); Werdelin and Peigné (2010).



#### FAMILY: VIVERRIDAE

##### Subfamily: Viverrinae

*Genetta* Cuvier, 1817. *Le Règne Animal distribué d'après son Organisation*: 156.

Additional references: De Meneses Cabral (1966); Gaubert *et al.* (2005).



*Genetta genetta* Linnaeus, 1758. *Systema Naturae Regnum Animale*, 10th edition, 1: 45. Common genet.

Additional references: Gaubert *et al.* (2005); Larivière and Calzada (2001).



†*Viverra leakeyi* Petter, 1963. *Bull. Soc. Géol. France, Series 7*, 3: 270.

Additional references: Werdelin and Peigné (2010).



**Suborder: Caniformia**

FAMILY: CANIDAE

Subfamily: Caninae

***Canis mesomelas*** Schreber, 1775. *Die Säugethiere* 2 (14): pl. 95 [1775], text 3 (21): 370 [1776], 586 [1777]. Black-backed jackal.

Type locality: Cape of Good Hope.

Comments: citation according to Wilson and Reeder (2005). Volume 3 was published in 1778 according to the version reproduced in the Biodiversity Heritage Library ([www.biodiversitylibrary.org/item/135003#page/98/mode/1up](http://www.biodiversitylibrary.org/item/135003#page/98/mode/1up)) and *Canis mesomelas* is listed on p. 586. Plate 95 appears in an undated volume containing plates 81–165 ([www.biodiversitylibrary.org/item/97341#page/57/mode/1up](http://www.biodiversitylibrary.org/item/97341#page/57/mode/1up)).



***Vulpes*** Frisch, 1775. *Das Natur-System der Vierfüssigen Thiere*: 14.

Additional references: Werdelin and Peigné (2010).



***Vulpes chama*** Smith, 1833. *S. Afr. Quart. J.*, Series 2, 2: 89. Cape fox.

Type locality: fixed as 'Port Nolloth'.



†***Vulpes pattisoni*** Broom, 1948. *Ann. Transvaal Mus.* 21(1): 23.

Type locality: Taung.



FAMILY: URSIDAE

†***Agriotherium africanum*** Hendey, 1972. *Ann. S. Afr. Mus.* 59: 126.

Type locality: Langebaanweg.

Additional references: Hendey (1980); Werdelin and Peigné (2010).



FAMILY: MUSTELIDAE

†***Plesiogulo monspessulanus*** Viret, 1939. *Trav. Lab. Géol. Fac. Sci. Lyon*: 37.

Additional references: Hendey (1978b); Montoya *et al.* (2011); Werdelin and Peigné (2010).

Comments: Viret (1939) not seen, pagination therefore not verified.



## Subfamily: Lutrinae

†*Sivaonyx africanus* Stromer, 1931. *Sitz. Math.-Naturwiss. Klasse Bayer. Akad. Wiss. München* 1931: 19.

Synonyms: *Enhydriodon*.



†*Sivaonyx hendeyi* Morales, Pickford and Soria, 2005. *Rev. Soc. Geol. España* 18(1–2): 56.

Synonyms: *Enhydriodon*.

Type locality: Langebaanweg.



†*Mellivora benfieldi* Hendey, 1978. *Ann. S. Afr. Mus.* 76(10): 343.

Synonyms: *punjabensis*.

Type locality: Langebaanweg.

Additional references: Werdelin and Peigné (2010).



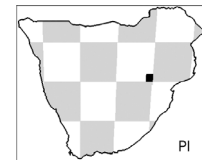
## ORDER: PERISSODACTYLA

## FAMILY: †CHALICOTHERIIDAE

†*Metaschizotherium transvaalensis* George, 1950. *S. Afr. J. Sci.* 46(8): 241.

Type locality: Limeworks Makapansgat.

Additional references: Cooke (1950); Coombs and Cote (2010); Webb (1965).



## Subfamily: Schizotheriinae

†*Ancylotherium* Gaudry, 1863. *Animaux Fossiles et Géologie de l'Attique*: 129.

Additional references: Butler (1965); Coombs and Cote (2010).

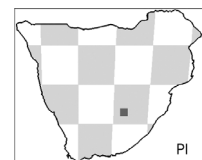


## FAMILY: EQUIDAE

†*Eurygnathohippus* Van Hoepen, 1930. *Paleontol. Nav. Nas. Mus. Bloemfontein* 2(2): 23.

Synonyms: *Hipparion*; *Stylohipparion*.

Additional references: Boné and Singer (1965); Hooijer (1975, 1976).



†*Eurygnathohippus cornelianus* Van Hoepen, 1930. *Paleontol. Nav. Nas. Mus. Bloemfontein* 2(2): 23.

Synonyms: *Hipparion*; *Stylohipparion*; *hipkini*; *libycum*; *sitifense* in part?; *steytleri*.

Type locality: Cornelia.

Additional references: Bernor *et al.* (2010); Churcher (1970, 2000); Churcher and Watson (1993); Franz-Ondendaal *et al.* (2003); Pomel (1897); Van Hoepen (1932a).



†*Eurygnathohippus hooijeri* Bernor and Kaiser, 2006. *Mitt. Hamb. Zool. Mus. Inst.* 103: 148.

Synonyms: *Hipparion baardi* cf.

Type locality: Langebaanweg.

Additional references: Bernor *et al.* (2010); Franz-Odenaal *et al.* (2003); Hooijer (1976); Pickford and Senut (1997).



†*Eurygnathohippus namaquense* Haughton, 1932. *Ann. S. Afr. Mus.* 28: 421.

Synonyms: *Hipparion*; *Notohipparion*.

Type locality: Areb.



†*Hipparion* De Christol, 1832. *Ann. Sci. Indust. Midi France* 1: 181.

Additional references: Boné and Singer (1965); MacFadden (1984).

Comments: there is no certain record of *Hipparion*, as currently understood, from Africa (Bernor *et al.* 2010) and it is therefore most likely that this record should be †*Eurygnathohippus cornelianus*.



#### FAMILY: RHINOCEROTIDAE

##### Subfamily: Rhinocerotinae

*Ceratotherium simum* Burchell, 1817. *Bull. Sci. Soc. Philom. Paris* 1817–1819: 97. White rhinoceros.

Synonyms: *Diceros*; *Rhinoceros*; *simus*.

Type locality: since identified as Chue Spring = Heuningvlei.

Additional references: Geraads (2010a); Gray (1867); Groves (1972); Hooijer (1959, 1973); Hooijer and Singer (1960); Smith (1849).



†*Diceros praecox* Hooijer and Patterson, 1972. *Bull. Mus. Comp. Zool.* 144: 19.

Synonyms: *Ceratotherium*.

Additional references: Geraads (2005, 2010a); Guérin (1987); Hooijer (1972, 1973); Pickford and Senut (1997).



#### ORDER: ARTIODACTYLA

##### FAMILY: SUIDAE

##### Subfamily: †Namachoerinae

†*Cainochoerus africanus* Hendey, 1976. *Science* 192(4241): 789.

Synonyms: *Pecarichoerus?*

Type locality: Langebaanweg.

Additional references: Bishop (2010); Pickford (1988).



## Subfamily: Suinae

†*Kolpochoerus paiceae* Broom, 1931. *Rec. Albany Mus.* 4: 168.

Synonyms: *Notochoerus*.

Type locality: Windsorton.

Additional references: Hendey and Cooke (1985); Pickford (2012).



†*Metridiochoerus andrewsi* Hopwood, 1926. *Ann. Mag. Nat. Hist.* 9: 267.

Synonyms: *Notochoerus*; *Tapinochoerus*; *capensis*; *meadowsi*.

Additional references: Bender (1990); Bishop (2010); Broom (1948a); Cooke (1993a); Ewer (1956b); Harris and White (1979); Herries *et al.* (2006); Hopwood (1926); Keen and Singer (1956); Pickford (2012, 2013a, 2003b); Shaw (1938).



†*Potamochoeroides hypsodon* Dale, 1948. *S. Afr. Sci.* 2(5): 116.

Synonyms: *Metridiochoerus*; *Pronotochoerus*; *shawi*.

Additional references: Bender (1990, 1992); Cooke (1993a, 2005); Ewer (1956b, 1958d); Pickford (2013a); Pickford and Gommery (2016).



*Potamochoerus larvatus* Cuvier, 1822. *Mem. Mus. Hist. Nat. Paris* 8: 447.

Bush-pig.

Synonyms: *Koiropotamus*; *porcus*.

Additional references: Grubb (2004); Hopwood (1934); Leakey (1942).



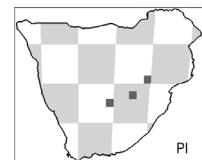
## Subfamily: Tetraconodontinae

†*Notochoerus capensis* Broom, 1925. *Rec. Albany Mus.* 3(4): 308.

Synonyms: *scotti*.

Type locality: Longlands.

Additional references: Harris and White (1979); Pickford and Gommery (2016); Shaw (1938).



†*Notochoerus jaegeri* Coppens, 1971. *C. R. Hebdom. Scé. Acad. Sci. Paris* 272: 3266.

Synonyms: *Nyanzachoerus*.

Additional references: Bishop (2010); Cooke and Hendey (1992); Harris and White (1979).



†*Nyanzachoerus kanamensis* Leakey, 1958. *Foss. Mamm. Afr.* 14: 10.

Additional references: Bishop (2010); Harris and White (1979).





## FAMILY: HIPPOPOTAMIDAE

***Hippopotamus*** Linnaeus, 1758. *Systema Naturae Regnum Animale*, 10th edition, 1: 74.

Additional references: Boisserie (2005).



***Hippopotamus amphibius*** Linnaeus, 1758. *Systema Naturae Regnum Animale*, 10th edition, 1: 74. Common hippopotamus.

Synonyms: *capensis*; *poderosus*.

Additional references: Fraas (1907); Hooijer and Singer (1961); Scott (1907); Smith (1849).



## FAMILY: GIRAFFIDAE

## Subfamily: Giraffinae

***Giraffa*** Brisson, 1762. *Regnum animale in classes IX. Distributum, sive Synopsis Methodica* 2nd edition: 12, 37.



†***Giraffa stillei*** Dietrich, 1942. *Palaeontographica A* 94: 43–133.

Synonyms: *gracilis*.

Additional references: Arambourg (1947); Harris *et al.* (2010).



## Subfamily: †Sivatheriinae

†***Sivatherium*** Falconer and Cautley, 1836. *J. Asiatic Soc. Bengal* 1836: 38.



†***Sivatherium hendeyi*** Harris, 1976. *Ann. S. Afr. Mus.* 69(12): 328.

Synonyms: *Helladotherium*; *Libytherium olduvaiensis*.

Type locality: Langebaanweg.

Additional references: Harris *et al.* (2010); Hopwood (1934).



## FAMILY: BOVIDAE

## Subfamily: Alcelaphinae

***Alcelaphus caama*** Geoffroy Saint-Hilaire, 1803. *Catalogue des Mammifères du Muséum National d'Histoire Naturelle*: 269. Red hartebeest.

Synonyms: *Antilope*; *Bubalus*; *bubalis*; *buselaphus caama*.

Type locality: since restricted to syntype locality Steynsburg.

Additional references: Gray (1850a, 1850b); Grubb (2004); Hoffman (1953); Smith (1849).



†*Alcelaphus robustus* Cooke, 1949. *Mem. Geol. Surv. S. Afr.* 35: 20.

Type locality: Larsen's Main Workings.

Comments: see *Parmularius braini* below.



*Connochaetes taurinus* Burchell, 1824. *Travels in the Interior of Southern Africa* 2: 278 (footnote) [1824]. Blue wildebeest.

Synonyms: *Catoblepas*.

Type locality: apparently 'Kosi Fountain', but lectotype came from 'Chue Spring, Maadji Mtn [Klein Heuningvlei]'.

Additional references: Smith (1849).



†*Damalacra* Gentry, 1980. *Ann. S. Afr. Mus.* 79(8): 264.

Type locality: Langebaanweg.



†*Damalacra acalla* Gentry, 1980. *Ann. S. Afr. Mus.* 79(8): 272.

Type locality: Langebaanweg.

Additional references: Brink and Stynder (2009).



†*Damalacra neanica* Gentry, 1980. *Ann. S. Afr. Mus.* 79(8): 265.

Type locality: Langebaanweg.

Additional references: Brink and Stynder (2009).



†*Damaliscus gentryi* Vrba, 1977. *Palaeontol. Afr.* 20: 143.

Type locality: Limeworks Makapansgat.



†*Megalotragus* Van Hoepen, 1932. *Paleontol. Nav. Nas. Mus.*

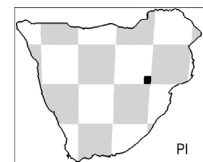
*Bloemfontein* 2(5): 63.



†*Parmularius braini* Vrba, 1977. *Palaeontol. Afr.* 20: 140.

Type locality: Limeworks Makapansgat.

Comments: according to Gentry (2010), *Alcelaphus robustus* from this site is synonymous with this taxon in the Pliocene.



## Subfamily: Antilopinae

†*Antidorcas bondi* Cooke and Wells, 1951. *S. Afr. J. Sci.* 47: 207.

Synonyms: *Gazella*.

Type locality: Chelmer.

Additional references: Gentry (2010); Plug and Peters (1991); Vrba (1973).



†*Antidorcas recki* Schwarz, 1932. *Zentr. Mineral., Geol. Paläontol. B* 1932: 1.

Synonyms: *Gazella*; *wellsi*.

Additional references: Gentry (2010).



*Gazella* De Blainville, 1816. *Bull. Sci. Soc. Philom. Paris* 1816: 75.

Additional references: Gentry (2010).



†*Gazella vanhoepeni* Wells and Cooke, 1957. *Palaeontol. Afr.* 4: 43.

Synonyms: *gracilior?*.

Type locality: Limeworks Makapansgat.



*Oreotragus oreotragus* Zimmermann, 1783. *Geographische Geschichte des Menschen und der Allgemein Verbreiteten Vierfüßigen Thiere* 3: 269. Klipspringer.

Synonyms: *Palaeotragiscus longiceps*; *major*.

Type locality: now known to be False Bay.

Additional references: Broom (1934); Gentry (2010); Gray (1850a, 1850b); Watson and Plug (1995); Wells (1951).



*Raphicerus* Smith, 1827. In: Griffith *et al.*, *The Animal Kingdom Arranged in Conformity with its Organization by the Baron Cuvier* 5: 342.

Additional references: Klein (1976c).



†*Raphicerus paralus* Gentry, 1980. *Ann. S. Afr. Mus.* 79(8): 300.

Type locality: Langebaanweg.



## Subfamily: Bovinae

†*Miotragoceros acrae* Gentry, 1974. *Ann. S. Afr. Mus.* 65(5): 146.

Synonyms: *Mesembriportax*; *Tragoportax*.

Type locality: Langebaanweg.

Additional references: Gentry (1980, 2010).



*Syncerus* Hodgson, 1847. *J. Asiatic Soc. Bengal*, Series 2, 16: 709.

Synonyms: *Bos*; *Bubalis*; *Pelorovis*.

Additional references: Martínez-Navarro *et al.* (2007).



†*Syncerus aceolotus* Gentry and Gentry, 1978. *Bull. Brit. Mus. Nat. Hist. Geol. Ser.* 29: 313.

Additional references: Gentry (2010).



*Tragelaphus* De Blainville, 1816. *Bull. Sci. Soc. Philom. Paris* 1816: 75.

*Tragelaphus angasii* Angas, 1848. *Proc. Zool. Soc. Lond.* 1848: 89.  
Nyala.

Type locality: 'Hills that border: upon the northern shores of St Lucia Bay'.

Additional references: Gray (1850a, 1850b); Grubb (2004); Willows-Munro *et al.* (2005).



†*Tragelaphus pricei* Wells and Cooke, 1957. *Palaeontol. Afr.* 4: 12.  
Synonyms: *Cephalophus*.

Type locality: Limeworks Makapansgat.

Additional references: Gentry (2010).



*Tragelaphus strepsiceros* Pallas, 1766. *P.S. Pallas Medecinae Doctoris Miscellanea Zoologica*: 9. Greater kudu.

Synonyms: *Damalis*; *Strepsiceros*; *capensis*.

Type locality: restricted to eastern part of western Cape Province.

Additional references: Smith (1849); Willows-Munro *et al.* (2005).



†*Ugandax demissum* Gentry, 1980. *Ann. S. Afr. Mus.* 79(8): 233.  
Synonyms: *Simatherium*.

Type locality: Langebaanweg.

Additional references: Gentry (2006, 2010); Geraads (1992); Pickford and Senut (1997).



#### Subfamily: Caprinae

†'*Makapania*' *broomi* Wells and Cooke, 1957. *Palaeontol. Afr.* 4: 26.

Synonyms: *Bos*; *Hippotragus*; *Hippotragoides*; *makapaani*.

Type locality: Limeworks Makapansgat.

Additional references: Gentry (1970, 2010).



## Subfamily: Cephalophinae

†*Cephalophus parvus* Broom, 1934. *S. Afr. J. Sci.* 31: 477.

Additional references: Gentry (2010).



*Sylvicapra* Ogilby, 1836. *Proc. Zool. Soc. Lond.* 1836: 138.



## Subfamily: Hippotraginae

†*Hippotragus cookei* Vrba, 1987. *Palaeontol. Afr.* 26(5): 49.

Type locality: Limeworks Makapansgat.



*Hippotragus niger* Harris, 1838. *Proc. Zool. Soc. Lond.* 1838: 2. Sable antelope.

Synonyms: *harrisi*.

Type locality: since specified as Magaliesberg near Krugersdorp and Rustenburg.

Additional references: Gray (1850a, 1850b); Harris (1838a).



†*Wellsiana torticornuta* Vrba, 1987. *Palaeontol. Afr.* 26(5): 53.

Type locality: Limeworks Makapansgat.

Additional references: Gentry (2010).



## Subfamily: Reduncinae

*Kobus* Smith, 1840. *Illustrations of the Zoology of South Africa*, Part 12: pl. 28, plus text.

Synonyms: *Aigoceros*; *Onotragus*.

Additional references: Birungi and Arctander (2001).



†*Kobus subdolosus* Gentry, 1980. *Ann. S. Afr. Mus.* 79(8): 248.

Type locality: Langebaanweg.

Additional references: Gentry (2010).



*Redunca* Smith, 1827. In: Griffith *et al.*, *The Animal Kingdom Arranged in Conformity with its Organization by the Baron Cuvier* 5: 337.



†*Redunca darti* Wells and Cooke, 1957. *Palaeontol. Afr.* 4: 17.

Type locality: Limeworks Makapansgat.



## 4.2 PLIOCENE SITES

The distribution of Pliocene sites is noticeably broader than was the case in previous epochs (Figure 4.1). There are three particularly important and rich sites that have provided much of the available information. These are Langebaanweg (3218) in the southwest, and Taung (2724) and Limeworks Makapansgat (2429) to the northeast. Praia de Morrugusu (2335) may only have produced a specimen of *Deinotherium bozasi* (Harris 1977), but it is notable for its location in the extreme east of the region.



**Figure 4.1.** Location of Pliocene sites in the region.

**Areb** (2931:1815). Taxa: *Eurygnathohippus namaquense*. References: Cooke (1955); Pickford *et al.* (1999).

**Aves Cave 1** (2627). Taxa: *Canis mesomelas* cf.; *Dinofelis* cf.; *Felis silvestris*; *Notochoerus capensis*; *Panthera leo* cf.; *Panthera pardus* cf.; *Parahyaena* cf.; *Potamochoeroides hypsodon*. References: Gommery *et al.* (2016); Pickford and Gommery (2016).

**Awasib** (2518:1539). Taxa: *Pedetes gracilis* cf. References: Pickford and Mein (2011).

**Bushman Hill (W)** (2509:1544). Taxa: *Pedetes gracilis*. References: Pickford and Mein (2011).

**Daberas Dune** (2808:1639). Taxa: *Pedetes gracilis*. References: Pickford and Mein (2011).

**Ekuma** (1837:1600). Taxa: *Pedetes gracilis* cf.; *Propedetes laetoliensis*. References: Pickford and Mein (2011).

**Etosha Pan** (1816CA). Taxa: *Diceros praecox*; *Hipparion*; *Hippopotamus*; *Loxodonta cookei* cf.; *Propedetes*; *Redunca darti* aff. References: Pickford *et al.* (2014).

**Hoogland** (2549:2800). Taxa: *Acinonyx*?; *Antidorcas bondi*; *Antidorcas recki*; *Felis*?; *Kobus*; *Oreotragus oreotragus*; *Procavia antiqua*; *Procavia transvaalensis*; *Raphicerus*; *Redunca*; *Sylvicapra* cf.; *Theropithecus oswaldi*; *Tragelaphus strepsiceros*. References: Adams *et al.* (2010).

**Jacovec Cavern** (2601:2744). Taxa: *Australopithecus*; *Canis mesomelas*; *Caracal caracal*; *Chasmaporthetes nitidula*; *Connochaetes taurinus*; *Crocota crocuta*; *Cynictis penicillata*;

*Genetta genetta*; *Homotherium crenatidens*; *Lepus capensis*; *Lycyaenops silberbergi*; *Panthera leo*; *Panthera pardus*; *Parahyaena brunnea*; *Parapapio broomi*; *Parapapio jonesi*; *Pedetes capensis*; *Potamochoerus larvatus*; *Syncerus* cf.; *Vulpes chama*. References: Kibii (2006); Reynolds (2010b).

**Kleinze** (2941:1704). Taxa: *Palaeothentoides africanus*. References: Pickford and Senut (1997).

**Langebaanweg** (3258:1809). Taxa: *Acomys mabele*; *Aethomys adamanticola*; *Aethomys modernis*; *Agriotherium africanum*; *Amphimachairodus*; *Anancus capensis*; *Atilax mesotes*; *Bathyergus hendeyi*; *Cainochoerus africanus*; *Chasmaporthetes australis*; *Chrysochloris arenosa*; *Chrysochloris bronneri*; *Cryptomys broomi*; *Cryptomys hottentotus*; *Damalacra acalla*; *Damalacra neanica*; *Dendromus averyi*; *Dendromus darti*; *Desmodillus magnus*; *Diceros praecox*; *Dinofelis diastemata*; *Eurygnathohippus hooijeri*; *Eurytomys pelomyoides*; *Felis issiodorensis*; *Gazella vanhoepeni* aff.; *Genetta*; *Giraffa stillei* cf.; *Hyaenictis hendeyi*; *Hyaenictis preforfex*; *Hyaenictitherium namaquensis*; *Ikelohyaena abronia*; *Kobus subdolosus*; *Loxodonta cookei*; *Mammuthus subplanifrons*; *Mellivora benfieldi*; *Metailurus obscurus*; *Miotragoceros acrae*; *Mystromys hausleitneri*; *Mystromys pocockei*; *Notochoerus jaegeri*; *Nyanzachoerus kanamensis*; *Parapapio*; *Plesiogulo monspessulanus*; *Procavia antiqua* aff.; *Procavia pliocenica*; *Raphicerus paralus*; *Rhabdomys*; *Sivaonyx africanus*; *Sivaonyx hendeyi*; *Sivatherium hendeyi*; *Stenodontomys saldanhae*; *Thallomys*; *Tragelaphus*; *Ugandax demissum*; *Viverra leakeyi*; *Zelotomys*. References: Cooke and Hendey (1992); Franz-Odenaal et al. (2003); Franz-Odenaal and Salounias (2004); Grine and Hendey (1981); Hendey (1969, 1970, 1973b, 1976b, 1978b, 1981, 1984); Hooijer (1972, 1976a); Klein (1974b); Matthews et al. (2007); Pickford (1988); Sardella and Werdelin (2007); Werdelin and Sardella (2006); Werdelin et al. (1994).

**Limeworks Makapansgat** (2408:2911). Taxa: *Acinonyx jubatus*; *Acomys*; *Alcelaphus caama* cf.; *Alcelaphus robustus* cf.; *Amblysomus hamiltoni*; *Australopithecus africanus*; *Caracal caracal*; *Cephalophus*; *Ceratotherium simum* cf.; *Cercocebus* cf.; *Cercopithecoides williamsi*; *Connochaetes taurinus* cf.; *Cryptomys hottentotus*; *Cryptomys robertsi*; *Cynictis penicillata*; *Damaliscus gentryi*; *Dasymys incomtus* cf.; *Dendromus mesomelas* cf.; *Dinofelis barlowi*; *Diplomesodon fossorius*; *Elephantulus brachyrhynchus* cf.; *Elephantulus broomi*; *Elephas* cf.; *Eptesicus hottentotus*; *Eurygnathohippus cornelianus*; *Gazella vanhoepeni*; *Gerbilliscus*; *Gigantohyrax maguirei*; *Giraffa*; *Grammomys dolichurus* cf.; *Gypsorhynchus makapani*; *Herpestes*; *Heterocephalus*; *Hippopotamus amphibius* cf.; *Hippotragus cookei*; *Hippotragus niger*; *Homotherium crenatidens*; *Homotherium problematicum*; *Hyaena hyaena*; *Hyaena makapani*; *Hystrix africae australis*; *Hystrix makapanensis*; *Lemniscomys*; *Leptailurus serval*; 'Makapania' broomi; *Malacothrix makapani*; *Malacothrix typica*; *Mastomys natalensis*; *Megalotragus*; *Metaschizotherium transvaalensis*; *Metridiochoerus andrewsi*; *Micaelamys namaquensis* cf.; *Miniopterus*; *Mus minutoides* cf.; *Myomyscus*; *Myosorex robinsoni*; *Myosorex varius*; *Myotomys sloggetti*; *Mystromys albicaudatus*; *Mystromys hausleitneri*; *Notochoerus capensis*; *Otomys gracilis*; *Pachycrocuta brevirostris*; *Parapapio broomi*; *Parapapio jonesi* cf.; *Parapapio whitei*; *Parmularius braini*; *Pelomys fallax* cf.; *Potamochoeroides hypsodon*; *Procavia antiqua*; *Pronolagus*; *Proodontomys cookei*; *Raphicerus paralus*; *Redunca darti*; *Rhabdomys pumilio* cf.; *Rhinolophus capensis* cf.; *Rhinolophus clivosus* cf.; *Rhinolophus darlingi* cf.; *Steatomys*; *Steatomys pratensis* cf.; *Stenodontomys darti*; *Suncus infinitesimus*; *Suncus varilla*; *Theropithecus darti*; *Tragelaphus pricei*; *Vulpes chama*; *Wellsiana torticornuta*; *Xenohystrix crassidens*; *Zelotomys?*. References: Bender (1992); Boné and Dart (1955); Broom and Robinson (1950a); Brophy et al. (2014); De

- Graaff (1961c); Denys (1999); Ewer (1957a, 1958b, 1958d); Freedman (1970); Hopley *et al.* (2006); Lavocat (1957); Maguire (1985); McKee *et al.* (1995); Reed *et al.* (1993); Turner *et al.* (1999); Vrba (1987a).
- Matjihabeng** (2807:2655). Taxa: *Ancylotherium*; *Damalacra* cf.; *Eurygnathohippus*; *Mammuthus subplanifrons*; *Megalotragus*; *Sivatherium*; *Vulpes* cf. References: De Ruiter *et al.* (2010).
- Meob** (2439:1444). Taxa: *Crocota dietrichi*. References: Morales *et al.* (2011).
- Milo's Pit A** (2602:2743). Taxa: *Hippopotamus* cf.; *Metridiochoerus andrewsi*; *Tragelaphus* cf. References: Gommery *et al.* (2012a).
- Praia de Morrugusu** (2320:3522). Taxa: *Deinotherium bozasi*. References: Harris (1977).
- Rooilepel** (2818:1635). Taxa: *Propedetes efeldensis*; *Propedetes laetoliensis*. References: Lehmann (2009); Pickford (1996b); Pickford and Mein (2011).
- Schurveberg** (2528). Taxa: *Cryptomys robertsi*; *Dinopithecus ingens*; *Elephantulus broomi*; *Mystromys hausleitneri*; *Megantereon whitei*; *Otomys gracilis*. References: Broom (1937a, 1948a); Freedman (1970).
- Skuurwerug** (3319). Taxa: *Kolpochoerus paiceae*. References: Broom (1937a, 1948a).
- Taung** (2737:2437). Taxa: *Acomys spinosissimus*; *Australopithecus africanus*; *Canis mesomelas* cf.; *Cephalophus parvus*; *Cercopithecoides williamsi*; *Crocidura fuscomurina* cf.; *Crocidura taungensis*; *Cryptomys robertsi*; *Dasymys 'lavocati'*; *Dendromus antiquus*; *Desmodillus auricularis*; *Elephantulus antiquus*; *Elephantulus brachyrhynchus* cf.; *Gazella*; *Gerbilliscus brantsii* cf.; *Gypsorhynchus darti*; *Gypsorhynchus minor*; *Hystrix africae australis*; *Lepus* cf.; *Macroscelides proboscideus*; *Malacothrix typica* cf.; *Mastomys natalensis* cf.; *Mylomygale spiersi*; *Myotomys campbelli*; *Mystromys albicaudatus*; *Notochoerus capensis* cf.; *Oreotragus oreotragus*; *Otomys gracilis*; *Panthera leo* cf.; *Papio izodi*; *Parapapio broomi*; *Parapapio whitei*; *Pedetes gracilis*; *Petromus minor*; *Procavia antiqua*; *Procavia transvaalensis*; *Procercocebus antiquus*; *Proodontomys cookei*; *Rhabdomys* cf.; *Rhinolophus capensis* cf.; *Rhinolophus darlingi* cf.; *Suncus varilla*; *Syncerus aceolotus* cf.; *Thallomys debrynyi*; *Tragelaphus angasii* cf.; *Vulpes pattisoni*. References: Broom (1934, 1939b, 1948a); Cooke (1990); Davis (1961); De Graaff (1961a); Freedman (1965, 1970, 1976); McKee (1993a); McKee *et al.* (1995).
- Tree Pan** (2555:1556). Taxa: *Pedetes gracilis* cf. References: Pickford and Mein (2011).
- Tsachab** (2430:1543). Taxa: *Pedetes capensis* cf.; *Pedetes laetoliensis*. References: Pickford and Mein (2011).
- Waypoint 160** (2602:2743). Taxa: *Boltimys broomi*; *Euryotomys bolti*; *Parapapio*; *Petromus antiquus*. References: Gommery *et al.* (2014); Gommery *et al.* (2008c, 2009).