

CHAPTER 2

The Eocene

2.1 EOCENE MAMMALS

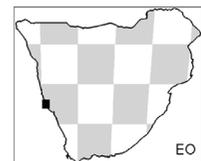
The Eocene mammalian fauna is notable for its high proportion of extinct forms. Of the eight Orders represented, Cimolesta, Embrithopoda and Creodonta are extinct, as are all of the genera and species and most of the families. Many new species were recently described from the region (Pickford 2015a–2015f, 2018a), thereby adding significantly to the known fauna of the epoch. Despite this, the diversity of taxa known from each Order is much lower than is the case with younger material. Whether this results from the paucity of sites (see below) remains to be seen. The Order Rodentia (rodents) is by far the most diverse, with eight families. Only Afrosoricida (tenrecs and golden moles) and Hyracoidea (hyraxes) have more than one, and, at three each, this is the most diverse at the family level they have been in the region. A fruit bat possibly belonging to the subfamily Propottininae has been described from Black Crow (Pickford 2018b) but not assigned to genus or species. It is significant in that it is the only member of the suborder Megachiroptera so far recovered from the region, although it cannot be included in the lists until a full identification has been published.

ORDER: †CIMOLESTA

FAMILY: †TODRALESTIDAE

†*Namalestes gheerbranti* Pickford, Senut, Morales, Mein and Sanchez, 2008. *Geol. Surv. Namibia Mem.* 20: 468.

Type locality: Black Crow.



ORDER: AFROSORICIDA

Suborder: Tenrecomorpha

FAMILY: POTAMOGALIDAE

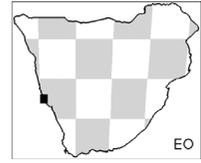
†*Namagale grandis* Pickford, 2015. *Comm. Geol. Surv. Namibia* 16: 119.

Type locality: Eocliff.



FAMILY: TENRECIDAE

†*Arenagale calcareus* Pickford, 2015. *Comm. Geol. Surv. Namibia* 16: 140.
Type locality: Eocliff.



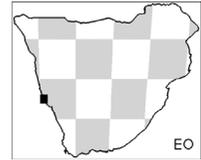
†*Sperrgale minutus* Pickford, 2015. *Comm. Geol. Surv. Namibia* 16: 130.
Type locality: Eocliff.



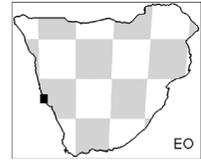
Suborder: Chrysochloridea

FAMILY: CHRYSOCHLORIDAE

†*Diamantochloris inconcessus* Pickford, 2015. *Comm. Geol. Surv. Namibia* 16: 109.
Type locality: Black Crow.



†*Namachloris arenatans* Pickford, 2015. *Comm. Geol. Surv. Namibia* 16: 148.
Type locality: Eocliff.



ORDER: MACROSCELIDEA

FAMILY: MACROSCELIDIDAE

Subfamily: †Myohyracinae

†*Myohyrax* Andrews, 1914. *Quart. J. Geol. Soc. Lond.* 70: 171.



ORDER: †EMBRITHOPODA

FAMILY: †ARSINOITHERIIDAE

†*Namatherium blackcrowense* Pickford, Senut, Morales, Mein and Sanchez, 2008. *Geol. Surv. Namibia Mem.* 20: 479.

Type locality: Black Crow.

Additional references: Gheerbrandt *et al.* (2018); Sanders *et al.* (2010b).



ORDER: HYRACOIDEA

FAMILY: †GENIOHYIDAE

†*Namahyrax corvus* Pickford, Senut, Morales, Mein and Sanchez, 2008.

Geol. Surv. Namibia Mem. 20: 474.

Type locality: Black Crow.

Comments: this taxon was originally assigned to Namahyracidae but is now placed in Geniohyidae by Pickford (2018c).

Additional references: Pickford (2015e).

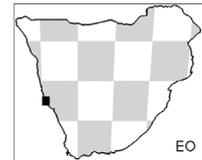


FAMILY: PROCAVIIDAE

†*Rupestrohyrax palustris* Pickford, 2015. *Comm. Geol. Surv. Namibia*

16: 206.

Type locality: Eoridge.

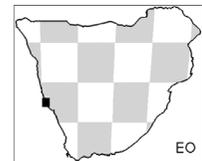
**ORDER: PRIMATES**

†*Notnamaia bogenfelsi* Pickford, Senut, Morales, Mein and Sanchez, 2008. *Geol. Surv. Namibia Mem.* 20: 487.

Type locality: Black Crow.

Synonyms: *Namaia*.

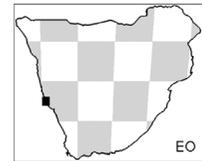
Additional references: Pickford and Uhen (2014).

**Suborder: Strepsirrhini**

FAMILY: LORISIDAE

†*Namaloris rupestris* Pickford, 2015. *Comm. Geol. Surv. Namibia* 16: 196.

Type locality: Eocliff.

**ORDER: RODENTIA**

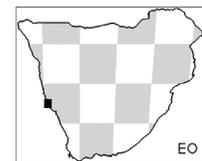
FAMILY: †PARAMYIDAE

Subfamily: †Reithroparamyinae

†*Namaparamys inexpectatus* Mein and Pickford, 2018. *Comm. Geol.*

Surv. Namibia 18: 40, 41.

Type locality: Black Crow.

**Suborder: Sciuroida**

FAMILY: †CHAPATTIMYIDAE

Subfamily: †Protophiomyinae

†*Protophiomys algeriensis* Jaeger, Denys and Coiffait, 1985. In: Lockett and Hartenberger, *Evolutionary Relationships Among Rodents*: 569.

Comments: these *Protophiomys* specimens may be Oligocene (Sallam and Seiffert 2016) or even Miocene in age (Marivaux *et al.* 2014).



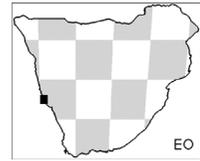
Suborder: Anomaluromorpha

FAMILY: †ZEGDOUMYIDAE

†*Glibia namibiensis* Pickford, Senut, Morales, Mein and Sanchez, 2008.
Geol. Surv. Namibia Mem. 20: 488.

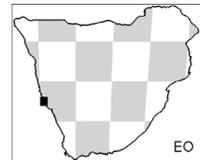
Type locality: Black Crow.

Comments: this species is considered to belong to the genus *Zegdoumys* by Marivaux *et al.* (2011, 2015).



†*Tsaukhaebmys calcareus* Pickford, 2018. *Comm. Geol. Surv. Namibia* 18: 50, 51.

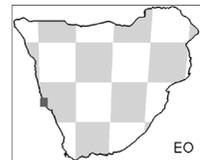
Type locality: Black Crow.

**Suborder: Hystricomorpha**

FAMILY: †DIAMANTOMYIDAE

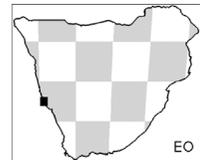
Subfamily: †Metaphiomysinae

†*Metaphiomys schaubi* Wood, 1968. *Bull. Peabody Mus. Nat. Hist.* 28: 58.



†*Prepomonomys bogenfelsi* Pickford, Senut, Morales, Mein and Sanchez, 2008. *Geol. Surv. Namibia Mem.* 20: 490.

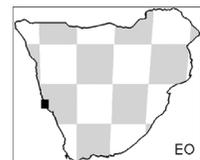
Type locality: Silica North.



FAMILY: †BATHYERGOIDIDAE

†*Bathyergoides* Stromer, 1923. *Sitz. Math.-Physik. Klasse Bayer. Akad. Wiss. München* 1923(II): 263.

Type locality: Sperrgebiet.



FAMILY: †MYOPHIOMYIDAE

Subfamily: †Phiocricetomyinae

†*Silicamys cingulatus* Pickford, Senut, Morales, Mein and Sanchez, 2008.
Geol. Surv. Namibia Mem. 20: 489.

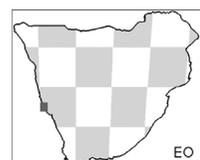
Type locality: Silica North.



†*Talahphiomys lavocati* Wood, 1968. *Bull. Peabody Mus. Nat. Hist.* 20: 45.

Synonyms: *Phiomys*.

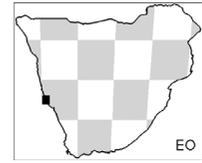
Additional references: Jaeger *et al.* (2010).



FAMILY: THRYONOMYIDAE

†*Apodecter stromeri* Hopwood, 1929. *Amer. Mus. Novit.* 344: 3.

Type locality: Lüderitz Bay (south of) (?Langental: Mein and Pickford [2008c]).



†*Gaudeamus* Wood, 1968. *Bull. Peabody Mus. Nat. Hist.* 20: 68.



†*Namaphiomys* Mein and Pickford, unpublished.

Comments: *Namaphiomys* is a *nomen nudum*, awaiting publication, according to M. Pickford (pers. comm. 2016).



†*Phiomys phiomyoides* Wood, 1968. *Bull. Peabody Mus. Nat. Hist.* 20: 41.



FAMILY: †TUFAMYIDAE

Comments: Pickford (2018f) places this family within the Infraorder Hystricognathi (Suborder Ctenohystrica according to Huchon *et al.* [2000, 2002]) but Hystricognathi is included in the Suborder Hystricomorpha by Wilson and Reeder (2005), whose arrangement is followed here.

†*Efeldomys* Mein and Pickford 2008. *Geol. Surv. Namibia Mem.* 20: 257.

Type locality: Elisabethfeld.

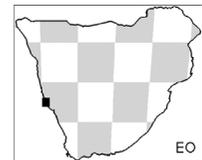
Additional references: Pickford (2018f).

Comments: this genus was originally placed in Bathyergidae but is now transferred to Tufamyidae (Pickford, 2018f).



†*Tufamys woodi* Pickford, 2018. *Comm. Geol. Surv. Namibia* 19: 75.

Type locality: Eocliff.



ORDER: †CREODONTA

FAMILY: †HYAENODONTIDAE

Subfamily: †Hyainailourinae

†*Pterodon* De Blainville, 1839. *Ann. Franç. Etran. Anat. Physiol.* 3: 23.

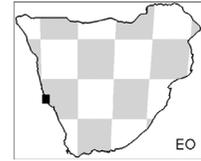
Additional references: Holroyd (1999); Lewis and Morlo (2010).



ORDER: ARTIODACTYLA**FAMILY: †ANTHRACOTHERIIDAE**

†*Bothriogenys gorringei* Andrews and Beadnell, 1902. *A preliminary note on some new mammals from the Upper Eocene of Egypt: 7.*

Additional references: Holroyd *et al.* (2010); Lihoreau and Ducrocq (2007); Pickford (2015f).

**2.2 EOCENE SITES**

Eocene sites (Figure 2.1) so far discovered in southern Africa have a very restricted distribution, all four of them being within the 2715-degree square. These earliest sites are also the most recent to have been discovered in the region.

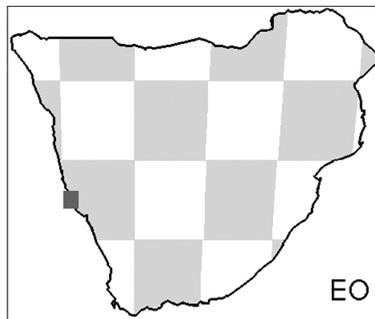


Figure 2.1 Location of Eocene sites.

Black Crow (2723:1528). Taxa: *Diamantochloris inconcessus*; *Glibia namibiensis*; *Namahyrax corvus*; *Namalestes gheerbranti*; *Namaparamys inexpectatus*; *Namatherium blackcrowense*; *Notnamaia bogenfelsi*; *Pterodon*; *Tsaukhaebmys calcareus*. References: Pickford (2015a, 2018a–2018d); Pickford *et al.* (2008, 2014).

Eocliff (2721:1536). Taxa: *Arenagale calcareus*; *Efeldomys*; *Gaudeamus*; *Metaphiomys schaubi* cf.; *Myohyrax* aff.; *Namachloris arenatans*; *Namagale grandis*; *Namaloris rupestris*; *Namaphiomys*; *Phiomys lavocati* aff.; *Phiomys phiomyoides* aff.; *Prepomonomys bogenfelsi*; *Protophiomys algeriensis* cf.; *Silicamys cingulatus*; *Sperrgale minutus*; *Talahphiomys*; *Tufamys woodi*. References: Pickford (2015b, 2015c); Pickford *et al.* (2008, 2014).

Eoridge (2721:1537). Taxa: *Bothriogenys gorringei*; *Rupestrohyrax palustris*; *Silicamys cingulatus*; *Sperrgale minutus*. References: Pickford (2015e, 2015f); Pickford *et al.* (2014).

Silica North and South (2715:1525; 2716:1525). Taxa: *Apodecter stromeri* cf.; *Bathyergoides* cf.; *Prepomonomys bogenfelsi*; *Protophiomys algeriensis* cf.; *Silicamys cingulatus*; *Talahphiomys*. References: Pickford *et al.* (2008, 2014).