

**An Atlas of southern African Mammalian Fossil
Bearing Sites – Late Miocene to Late Pleistocene**

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The Sites

Dolomitic and Other Cave Deposits

South Africa

Site Number SAAN – 0001

Common names *Gladysvale (Broom and Schepers, 1946), Uitkomst cave (Brain, 1981), John Nash Cave (Martini and Keyser, 1989), Gladysvale (Berger, Keyser and Tobias, 1993)*

First report *Broom and Schepers (1946)*

Coordinates/Location *25 54 S, 27 45 E*

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	various (mostly carnivore accumulations)
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	c200 kyBP – c2.8 myBP
Associated archaeology	rare ESA,MSA,LSA, iron age
Approximate size of collections	> 7000 identifiable fossils

Description

The Gladysvale cave is a large system of dolomitic chambers located within the Eccles Formation of Dolomites and within the World Heritage Site of Sterkfontein, Swartkrans, Kromdraai and environs. The site comprises both *in-situ* breccia deposits and extensive mine dumps. The site is complex but offers horizontally bedded strata that initial dating attempts suggest are preserved in stratigraphic sequence. Contrary to initial suggestions, recent excavation by the University of the Witwatersrand have demonstrated that greater than 20 time periods are represented in the sequence. Besides intrusive iron age and late stone age material, the site preserves levels representing ages between c200 kyBp and c2.8 myBp

with a majority of the deposit representing depositional events occurring between 900 kyBp and 1.5 myBp. The faunal list given for the site is clearly mixed and is based largely on early work in dump material, but work in preparation should clarify the stratigraphy of the site. Faunal material from the Camp-Peabody expedition of 1947/48 is housed at the University of California Berkeley (>300 specimens). Material from sampling conducted in 1990 and 1991 is housed at the Council for Geoscience in Pretoria (>300 specimens) and material from post 1991 excavations is housed in the Bernard Price Institute for Palaeontology, University of the Witwatersrand (>6000 specimens).

Faunal List (Mixed assemblage)

Primates

Cercopithecoides williamsi
Papio angusticeps
Papio izodi
Papio cf. robinsoni
Australopithecus africanus

Rodentia

Hystrix africaeaustralis

Perissodactyla

Equus capensis
Equus burchelli
Hipparion sp.
Diceros bicornis

Proboscidea

Elephas sp.

Hyracoidea

Procavia antiqua
Procavia transvaalensis

Carnivora

Pachycrocuta bellax
Hyaena brunnea
Crocuta crocuta
Dinofelis cf. piveteaui
Panthera pardus
Panthera leo
Lycaon sp.
Canis mesomelas

Artiodactyla

Antidorcus bondi
Antidorcus marsupialis

Aepyceros cf. melampus
Kobus leche
Redunca cf. arundinum
Redunca darti
Redunca fulvorufula
Pelea capreolus
Gazella wellsi
Damaliscus dorcas
Damaliscus lunatus
Damaliscus pygargus
Oreotragus major
Oreotragus oreotragus
Tragelaphus strepsiceros
Tragelaphus angasi
Chonochaetes taurinus
Connochaetes gnou
Alcelaphus buselaphus
Hippotragus broomi
Hippotragus equinus
Taurotragus oryx
Makapania broomi
Syncerus caffer
Pelorovis antiquus
Megalotragus sp.

Potamochoeroides cf. shawi
Kolpochoerus cf. paiceae
Phacochoerus cf. antiquus
Potamochoerus porcus

References

- Berger, L.R. (1992) Early hominid fossils discovered at Gladysvale Cave, South Africa. *S. Afr. J. Sci.* 88, 362
- Berger, L.R. (1993) A preliminary estimate of the age of the Gladysvale australopithecine site. *Palaeont. Afr.* 30, 51-55
- Berger, L.R., Keyser, A.W., & Tobias, P.V. (1993) Gladysvale: first early hominid site discovered in South Africa since 1948. *Am. J. Phys. Anthrop.* 92, 107-111.
- Broom, R. and Schepers, GWH (1946) The South African fossil ape man, the Australopithecinae. *Tvl. Mus. Mem.* 2:1-272.
- Cooke, HBS (1963) Pleistocene mammal faunas of Africa, with particular reference to southern Africa. In FC Howell and F Bourliere (eds.) *African Ecology and Human Evolution*. Chicago: Aldine, pp. 65-116.
- Martini, JEJ and Keyser, AW (1989) the caves of the John Nash Game Reserve. *Bull. S. Afr. Spel. Assoc.* 30: 39-46.
- Mutter, R.J., Berger, L.R. & Schmid, P. (2000) New Evidence of the Giant Hyaena, *Pachycrocuta brevirostris* (Carnivora, Hyaenidae) from Gladysvale Cave Deposit (Plio/Pleistocene, John Nash Nature Reserve), Guatang, South Africa. (In Press)

Site Number

SAAN – 0003

Common names Kemps cave (Henneberg, 1995)

First report Henneberg (1995)

Coordinates/Location 26 04 50 S, 27 42 20E

Reference Keys

Geological Context	Monte Cristo Formation Dolomitic cave
Taphonomic situation	various (mostly carnivore accumulation)
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	various levels – iron age – c1 myBP
Associated archaeology	rare MSA,LSA, Iron age
Approximate size of collections	> 500 identifiable fossils

Description

Kemps cave is a small cave site situated within the Krugersdorp game park. Intermittent low level excavations have taken place beginning with work by the University of the Witwatersrand and the University of Pretoria and presently being undertaken solely by the University of Pretoria. There are a variety of ages of deposits represented within the cave and excavations have revealed considerable mixing within the deposit. Greater than 15 square metres of breccia is exposed. Radiocarbon dates have suggested deposits younger than 25,000 years and later stone age and iron age material is present. Human remains have been recovered from the upper levels of the excavation and are associated with the youngest infill. The presence of cf. *Pachyrocuta sp.* prepared from breccia obtained from the site suggests there may be deposits greater than 1 myBP.

Faunal List (Mixed assemblage)

Homo sapiens

Antidorcus marsupialis

Damaliscus dorcas

Tragelaphus strepsiceros

Connochaetes gnou

Syncerus caffer

Hyaena brunnea

Pachyrocuta sp.

Panthera pardus

Canis mesomelas

Equus sp.

Procavia capensis

Hystrix africae australis

References

Site Number

SAAN – 0004

Common names*Minaars cave?* (Brain, 1981), *Hadeco* (common usage) *This Atlas***First report***Brain (1981) or This Atlas***Coordinates/Location**

25 59' 24" S, 27 46' 23E"

Reference Keys

Geological Context	Dolomitic cave, Monte Cristo Formation
Taphonomic situation	various (mostly carnivore accumulations)
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	1.0 – 2.0 myBP
Associated archaeology	none known
Approximate size of collections	no collections

Description

The Hadeco cave sites are a medium sized series of dolomitic chambers and fossil bearing infills located within the Monte Cristo Formation of Dolomites and within the World Heritage Site of Sterkfontein, Swartkrans, Kromdraai and environs. The site comprises both *in-situ* breccia deposits and at least eight small mine dumps. The site is situated along a fissure and may represent more than a single deposit. Visible on the surface of the in-situ breccias and in the mine dumps are fauna suggestive of an early Pleistocene age. There is some confusion as to whether this cave system is in fact Minaars cave or whether it is a different locality to the one referred to by Brain (1981).

Faunal List (Field Identifications)

Primates

Papio cf. angusticeps

Rodentia

Hystrix africaeaustralis

Perissodactyla

Equus capensis

Hyracoidea

Procavia antiqua

Carnivora

Crocota crocuta
Panthera pardus
Canis mesomelas

Artiodactyla

Oreotragus major
Tragelaphus strepsiceros
Megalotragus sp.

References

Brain, C.K. (1981) *The Hunters or the Hunted*.

Site Number SAAN – 0005

Common names none

First report *This Atlas*

Coordinates/Location 25 59' 17" S, 27 46' 14 E"

Reference Keys

Geological Context	Dolomitic cave, Monte Cristo Formation
Taphonomic situation	possible carnivore accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	Pleistocene
Associated archaeology	none known
Approximate size of collections	no collections

Description

CH-12 is a dolomitic sinkhole with a small fossil bearing area of breccia. It is located within the Monte Cristo Formation of Dolomites and within the World Heritage Site of Sterkfontein, Swartkrans, Kromdraai and environs. The site comprises both an *in-situ* breccia deposit and a single small mine dump. The site is situated along the edge of a small sinkhole or filled cave entrance. Visible on the surface of the in-situ breccias and in the mine dumps are fauna suggestive of a Pleistocene age. Fossil density is medium.

Faunal List (Field Identifications)

Perissodactyla

Equus capensis

Hyracoidea

Procavia antiqua

Artiodactyla

Oreotragus major

Megalotragus sp.

Site Number SAAN – 0006

Common names none

First report *This Atlas*

Coordinates/Location 25 59' 07" S, 27 46' 09E"

Reference Keys

Geological Context	Dolomitic cave, Monte Cristo Formation
Taphonomic situation	cf. carnivore accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	>1.0 myBP
Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0006 is a small (c20m2) fossil bearing infill on the edge of dolomitic cave located within the Monte Cristo Formation of Dolomites and within the World Heritage Site of Sterkfontein, Swartkrans, Kromdraai and environs. The site comprises both *in-situ* breccia deposits and a mine dump with over 100 breccia blocks. Visible on the surface of the in-situ breccia are a small number of fossils including those of primates. There are occasional fossils observable in the mine dumps and the fauna is suggestive of an early Pleistocene age. There is no previous known written record of this locality.

Faunal List (Field Identifications)

Primates

Cercopithecoides cf. williamsi

Carnivora

Panthera cf. pardus

Perissodactyla

Equus sp.

Hyracoidea

Procavia antiqua

Artiodactyla

Oreotragus cf. major
Megalotragus sp.

Site Number SAAN – 0007

Common names none

First report This Atlas

Coordinates/Location 25 58' 2" S, 27 44' 1" E

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	various (mostly carnivore accumulations)
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	Plio-Pleistocene
Associated archaeology	none known
Approximate size of collections	none

Description

The SAAN-0007 site is a small fossil bearing infill on the edge of dolomitic cave located within the Monte Cristo Formation of Dolomites and within the World Heritage Site of Sterkfontein, Swartkrans, Kromdraai and environs. The site comprises both *in-situ* breccia deposits and a mine dump with several dozen breccia blocks. Visible on the surface of the in-situ breccia are a small number of fossils including those of

primates. There are occasional fossils observable in the mine dumps and the fauna is suggestive of a Pleistocene age. There is no previous known written record of this locality.

Faunal List (Mixed assemblage)

Primates

Cercopithecoides sp.
Papio sp.

Hyracoidea

Procavia sp.

Carnivora

Panthera cf. pardus

Artiodactyla

Oreotragus cf. major
Connochaetes sp.

Site Number

SAAN – 0008

Common names

none

First report

This Atlas

Coordinates/Location

25 58' 52" S, 27 46' 35 E"

Reference Keys

Geological Context

Dolomitic cave, Monte Cristo Formation

Taphonomic situation

possible carnivore accumulation

Province

Gauteng

Geographical region

Highveld

Biome

highveld grassland

Age estimate

?Pleistocene

Associated archaeology

none known

Approximate size of collections

no collections

Description

SAAN-0008 is a small series of exposed area of breccia along a fault adjacent the Plovers Lake site. It is located within the Monte Cristo Formation of Dolomites and within the World Heritage Site of Sterkfontein, Swartkrans, Kromdraai and environs. The site comprises both an *in-situ* breccia deposit and a several small mine dumps. The site is situated along the edge of a small cliff face and in several places the entrances to underground caves can be found. Visible on the surface of the in-situ breccias and in the mine dumps are fauna suggestive of a Pleistocene age. Fossil density is good.

Faunal List (Field Identifications)

Primates

Papio sp.

Perissodactyla

Equus sp.

Hyracoidea

Procavia antiqua

Artiodactyla

Antidorcus sp.

Oreotragus major

Megalotragus sp.

Site Number

SAAN – 0009

Common names

none

First report

This Atlas

Coordinates/Location

25 57' 16" S, 27 46' 46 E"

Reference Keys

Geological Context

Dolomitic cave, Monte Cristo Formation

Taphonomic situation

possible carnivore accumulation

Province

Gauteng

Geographical region

Highveld

Biome

highveld grassland

Age estimate

?Pleistocene

Associated archaeology

none known

Approximate size of collections

no collections

Description

SAAN-0009 is a small area of exposed fossiliferous breccia (c2.5 m²) on the edge of a medium-sized cave. It is located within the Monte Cristo Formation of Dolomites and within the World Heritage Site of Sterkfontein, Swartkrans, Kromdraai and environs. The site comprises both an *in-situ* breccia deposit and a several small mine dumps. Visible on the surface of the in-situ breccias and in the mine dumps are fauna suggestive of a Pleistocene age.

Faunal List (Field Identifications)

Perissodactyla

Equus sp.

Rodentia

Hystrix africaeaustralis

Hyracoidea

Procavia antiqua

Artiodactyla

Antidorcus sp.

Megalotragus sp.

Site Number

SAAN – 0010

Common names

none

First report

This Atlas

Coordinates/Location 25 57' 09" S, 27 47' 55 E"

Reference Keys

Geological Context

Dolomitic cave, Monte Cristo Formation

Taphonomic situation

possible carnivore accumulation

Province

Gauteng

Geographical region

Highveld

Biome

highveld grassland

Age estimate

unknown

Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0010 is a small area of exposed fossiliferous breccia (c4 m2) on the edge of a small collapsed cave. It is located within the Monte Cristo Formation of Dolomites and within the World Heritage Site of Sterkfontein, Swartkrans, Kromdraai and environs. The site comprises both an *in-situ* breccia deposit and a single small mine dumps. Visible on the surface of the in-situ breccias and in the mine dumps are fauna suggestive of a Pleistocene age.

Faunal List (Field Identifications)

Hyracoidea

Procavia antiqua

Artiodactyla

Antidorcus sp.
Oreotragus sp.

Site Number SAAN – 0011

Common names none

First report This Atlas

Coordinates/Location 25 49' 39" S, 28 00' 47 E"

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	possible carnivore accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	Plio-Pleistocene
Associated archaeology	none known
Approximate size of collections	>50 specimens

Description

SAAN-0011 is a series of small areas of exposed fossiliferous breccia located around the entrance of a small cave. It is located within the Eccles Formation of Dolomites and within property presently owned by

the Hoogland Health Hydro. The site comprises both *in-situ* breccia deposits and several small mine dumps. Fauna collected by the University of the Witwatersrand since 1996 suggest an early Pleistocene age.

Faunal List

References

Berger, L.R. (1996) Report for the Palaeoanthropological Aspect of the Chronos Project. Report compiled by the University of the Witwatersrand for the Government of the Northwest Province. Pp 1 – 59.

Site Number SAAN – 0012

Common names none

First report This Atlas

Coordinates/Location 25 50' 57" S, 28 00' 48 E"

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	possible carnivore and human accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	?Late Pleistocene
Associated archaeology	LSA possible MSA
Approximate size of collections	no collections

Description

SAAN-0012 is a small area of decalcified breccia eroding from the entrance of a small, filled cave. It is located within the Eccles Formation of Dolomites. Visible on the surface of the *in-situ* breccias and in the decalcified dumps are fauna and archaeology suggestive of a Late Pleistocene age.

Faunal List (Field Identifications)

Carnivora

Hyaena brunnea

Perissodactyla

Equus sp.

Rodentia

Hystrix africae australis

Hyracoidea

Procavia antiqua

Artiodactyla

Antidorcus sp.
Damaliscus dorcas
Connochaetes gnou
Tragelaphus strepsiceros

Site Number SAAN – 0013

Common names none

First report This Atlas

Coordinates/Location 25 48' 13" S, 28 03' 57 E"

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	possible carnivore accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	?Pleistocene
Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0013 is a small area of *in-situ* breccia visible on the edge of a filled, fissure type cave. It is located within the Eccles Formation of Dolomites near the town of Erasmia. Visible on the surface of the *in-situ* breccias and in the dumps are fauna suggestive of a Pleistocene age.

Faunal List (Field Identifications)

Perissodactyla

Equus sp.

Rodentia

Hystrix africaeaustralis

Hyracoidea

Procavia sp.

Artiodactyla

Connochaetes sp.

Megalotragus sp.

Tragelaphus strepsiceros

Site Number

SAAN – 0014

Common names

none

First report

This Atlas

Coordinates/Location 25 48' 12" S, 28 03' 11 E"

Reference Keys

Geological Context

Dolomitic cave, Eccles Formation

Taphonomic situation

possible carnivore accumulation

Province

Gauteng

Geographical region

Highveld

Biome

highveld grassland

Age estimate

? early Pleistocene

Associated archaeology

none known

Approximate size of collections

no collections

Description

SAAN-0014 is a large breccia dump with numerous fossils and a small area of *in-situ* breccia visible on the edge of an open cave. It is located within the Eccles Formation of Dolomites near the town of Erasmia. Visible on the surface of the *in-situ* breccias and in the dumps are fauna suggestive of an early Pleistocene age.

Faunal List (Field Identifications)

Primate

Papio sp.

Theropithecus sp.

Perissodactyla

Equus sp.

Rodentia

Hystrix africaeaustralis

Hyracoidea

Procavia sp.

Artiodactyla

Connochaetes sp.

Megalotragus sp.

Oreotragus sp.

Site Number

SAAN – 0015

Common names none

First report This Atlas

Coordinates/Location 25 48' 14" S, 28 03' 09" E

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	possible carnivore accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	? early Pleistocene
Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0015 is a small *in-situ* area of breccia visible on the edge of what may be a collapsed cave. A very small breccia dump is located adjacent to the site. It is located within the Eccles Formation of Dolomites near the town of Erasmia. Visible on the surface of the *in-situ* breccias and in the dumps are fauna suggestive of an early Pleistocene age.

Faunal List (Field Identifications)

Primate

Papio sp.

Perissodactyla

Equus sp.

Rodentia

Hystrix africae australis

Lepus sp.

Hyracoidea

Procavia sp.

Artiodactyla

Antidorcas sp.

Oreotragus sp.

Site Number

SAAN – 0016

Common names

none

First report

This Atlas

Coordinates/Location

25 48' 28" S, 28 01' 54" E

Reference Keys

Geological Context

Dolomitic cave, Eccles Formation

Taphonomic situation

possible carnivore accumulation

Province

Gauteng

Geographical region

Highveld

Biome

highveld grassland

Age estimate

? early Pleistocene

Associated archaeology

none known

Approximate size of collections

no collections

Description

SAAN-0016 is a large breccia dump with numerous fossils and a several scattered areas of *in-situ* breccia visible on the edge of an open cave. It is located within the Eccles Formation of Dolomites near the town of Erasmia and approximately a kilometer from SAAN-0015. Visible on the surface of the *in-situ* breccias and in the dumps are fauna suggestive of an early Pleistocene age.

Faunal List (Field Identifications)

Primate

Papio sp.
Cercopithecoides sp.

Rodentia

Hystrix africaeaustralis

Hyracoidea

Procavia sp.

Artiodactyla

Antidorcas sp.
Oreotragus sp.
Tragelaphus sp.

Site Number SAAN – 0017

Common names none

First report *This Atlas*

Coordinates/Location 25 48' 58" S, 27 58' 10 E"

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	possible carnivore accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	?
Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0017 is a large breccia dump with sparse fossils and a small area of *in-situ* breccia visible on the edge of a cliff face. It is located within the Eccles Formation of Dolomites near the Pelindaba nuclear plant. SAAN-0017 is the highest fossil bearing cave yet found on the Witwatersrand.

Faunal List (Field Identifications)

Primate

Papio sp.

Rodentia

Hystrix africaeaustralis

Hyracoidea

Procavia sp.

Artiodactyla

Oreotragus sp.

Site Number SAAN – 0018

Common names none

First report This Atlas

Coordinates/Location 25 53' 22" S, 27 46' 34" E

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	possible carnivore accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	? early Pleistocene
Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0018 is a large series of breccia dumps with numerous fossils and several small areas of *in-situ* breccia visible on the edge of small cave entrances and collapsed entrances. It is located across the valley from the Gladysvale site and within the Eccles Formation of Dolomites. Visible on the surface of the *in-situ* breccias and in the dumps are fauna suggestive of an early Pleistocene age.

Faunal List (Field Identifications)

Primate

Theropithecus sp.

Carnivora

Hyeana sp.

Panthera sp.

Canis sp.

Perissodactyla

Equus sp.

Rodentia

Hystrix africaeaustralis

Hyracoidea

Procavia sp.

Artiodactyla

Tragelaphus sp.

Kobus. sp.

Megalotragus sp.

Oreotragus sp.

Site Number

SAAN – 0019

Common names

none

First report

This Atlas

Coordinates/Location

25 50' 93" S, 27 50' 47 E"

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	possible carnivore accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	? Pleistocene
Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0019 is a large decalcified dump with numerous fossils and a large area of calcified and decalcified *in-situ* breccia visible on the edge of an open cave. It is located within the Eccles Formation of Dolomites.

Faunal List (Field Identifications)

Primate

Papio sp.

Carnivora

Panthera sp.

Canis sp.

Perissodactyla

Equus sp.

Rodentia

Hystrix africaeaustralis

Hyracoidea

Procavia sp.

Artiodactyla

Antidorcus sp.

Connochaetes sp.

Megalotragus sp.

Oreotragus sp.

Site Number

SAAN – 0020

Common names *Sterkfontein*
First report *Broom and Schepers (1946)*
Coordinates/Location 26 01' 54" S, 27 44' 06" E

Reference Keys

Geological Context	Dolomitic cave, Monte Cristo Formation
Taphonomic situation	various (mostly carnivore accumulations)
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	various
Associated archaeology	rare ESA,MSA,LSA, iron age
Approximate size of collections	> 25,000 identifiable fossils

Description

Faunal List (Mixed assemblage)

Primates

Cercopithecoides williamsi
Papio angusticeps
Papio izodi
Papio cf. robinsoni
Australopithecus africanus

Rodentia

Hystrix africaeaustralis

Perissodactyla

Equus capensis
Equus burchelli
Hipparion sp.
Diceros bicornis

Proboscidea

Elephas sp.

Hyracoidea

Procavia antiqua
Procavia transvaalensis

Carnivora

Pachycrocuta bellax

Hyaena brunnea
Crocuta crocuta
Dinofelis cf. piveteaui
Panthera pardus
Panthera leo
Lycaon sp.
Canis mesomelas

Artiodactyla

Antidorcus bondi
Antidorcus marsupialis
Aepyceros cf. melampus
Kobus leche
Redunca cf. arundinum
Redunca darti
Redunca fulvorufula
Pelea capreolus
Gazella wellsi
Damaliscus dorcas
Damaliscus lunatus
Damaliscus pygargus
Oreotragus major
Oreotragus oreotragus
Tragelaphus strepsiceros
Tragelaphus angasi
Chonochaetes taurinus
Connochaetes gnou
Alcelaphus buselaphus
Hippotragus broomi
Hippotragus equinus
Taurotragus oryx
Makapania broomi
Syncerus caffer
Pelorovis antiquus
Megalotragus sp.

Potamochoeroides cf. shawi
Kolpochoerus cf. paiceae
Phacochoerus cf. antiquus
Potamochoerus porcus

References

Site Number

SAAN – 0021

Common names Swartkrans
First report Broom and Schepers (1946)
Coordinates/Location 26 01' 00" S, 27 43' 26" E

Reference Keys

Geological Context	Dolomitic cave, Monte Cristo
Taphonomic situation	various (mostly carnivore accumulations)
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	various
Associated archaeology	rare ESA,MSA,LSA, iron age
Approximate size of collections	> 25,000 identifiable fossils

Description

Faunal List (Mixed assemblage)

Primates

Cercopithecoides williamsi
Papio angusticeps
Papio izodi
Papio cf. robinsoni
Australopithecus africanus

Rodentia

Hystrix africaeaustralis

Perissodactyla

Equus capensis
Equus burchelli
Hipparion sp.
Diceros bicornis

Proboscidea

Elephas sp.

Hyracoidea

Procavia antiqua
Procavia transvaalensis

Carnivora

Pachycrocuta bellax

Hyaena brunnea
Crocota crocuta
Dinfolielis cf. piveteaui
Panthera pardus
Panthera leo
Lycaon sp.
Canis mesomelas

Artiodactyla

Antidorcus bondi
Antidorcus marsupialis
Aepyceros cf. melampus
Kobus leche
Redunca cf. arundinum
Redunca darti
Redunca fulvorufula
Pelea capreolus
Gazella wellsi
Damaliscus dorcas
Damaliscus lunatus
Damaliscus pygargus
Oreotragus major
Oreotragus oreotragus
Tragelaphus strepsiceros
Tragelaphus angasi
Chonochaetes taurinus
Connochaetes gnou
Alcelaphus buselaphus
Hippotragus broomi
Hippotragus equinus
Taurotragus oryx
Makapania broomi
Syncerus caffer
Pelorovis antiquus
Megalotragus sp.

Potamochoeroides cf. shawi
Kolpochoerus cf. paiceae
Phacochoerus cf. antiquus
Potamochoerus porcus

References

Site Number

SAAN – 0022

Common names *Kromdraai*
First report *Broom and Schepers (1946)*
Coordinates/Location 26 00' 38''S, 27 45' 01'' E

Reference Keys

Geological Context	Dolomitic cave, Monte Cristo
Taphonomic situation	various (mostly carnivore accumulations)
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	various
Associated archaeology	rare ESA
Approximate size of collections	> 5,000 identifiable fossils

Description

Faunal List (Mixed assemblage)

Primates

Cercopithecoides williamsi
Papio angusticeps
Papio izodi
Papio cf. robinsoni
Australopithecus africanus

Rodentia

Hystrix africaeaustralis

Perissodactyla

Equus capensis
Equus burchelli
Hipparion sp.
Diceros bicornis

Proboscidea

Elephas sp.

Hyracoidea

Procavia antiqua
Procavia transvaalensis

Carnivora

Pachycrocuta bellax

Hyaena brunnea
Crocota crocuta
Dinfolielis cf. piveteaui
Panthera pardus
Panthera leo
Lycaon sp.
Canis mesomelas

Artiodactyla

Antidorcus bondi
Antidorcus marsupialis
Aepyceros cf. melampus
Kobus leche
Redunca cf. arundinum
Redunca darti
Redunca fulvorufula
Pelea capreolus
Gazella wellsi
Damaliscus dorcas
Damaliscus lunatus
Damaliscus pygargus
Oreotragus major
Oreotragus oreotragus
Tragelaphus strepsiceros
Tragelaphus angasi
Chonochaetes taurinus
Connochaetes gnou
Alcelaphus buselaphus
Hippotragus broomi
Hippotragus equinus
Taurotragus oryx
Makapania broomi
Syncerus caffer
Pelorovis antiquus
Megalotragus sp.

Potamochoeroides cf. shawi
Kolpochoerus cf. paiceae
Phacochoerus cf. antiquus
Potomochoerus porcus

References

Site Number

SAAN – 0023

Common names *Coopers*
First report *Broom and Schepers (1946)*
Coordinates/Location 26 00' 46" S, 27 44' 49" E

Reference Keys

Geological Context	Dolomitic cave, Monte Cristo
Taphonomic situation	various (mostly carnivore accumulations)
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	various
Associated archaeology	none known
Approximate size of collections	> 500 identifiable fossils

Description

Faunal List (Mixed assemblage)

Primates

Cercopithecoides williamsi
Papio angusticeps
Papio izodi
Papio cf. robinsoni
Australopithecus africanus

Rodentia

Hystrix africaeaustralis

Perissodactyla

Equus capensis
Equus burchelli
Hipparion sp.
Diceros bicornis

Proboscidea

Elephas sp.

Hyracoidea

Procavia antiqua
Procavia transvaalensis

Carnivora

Pachycrocuta bellax

Hyaena brunnea
Crocuta crocuta
Dinfolielis cf. piveteaui
Panthera pardus
Panthera leo
Lycaon sp.
Canis mesomelas

Artiodactyla

Antidorcus bondi
Antidorcus marsupialis
Aepyceros cf. melampus
Kobus leche
Redunca cf. arundinum
Redunca darti
Redunca fulvorufula
Pelea capreolus
Gazella wellsi
Damaliscus dorcas
Damaliscus lunatus
Damaliscus pygargus
Oreotragus major
Oreotragus oreotragus
Tragelaphus strepsiceros
Tragelaphus angasi
Chonochaetes taurinus
Connochaetes gnou
Alcelaphus buselaphus
Hippotragus broomi
Hippotragus equinus
Taurotragus oryx
Makapania broomi
Syncerus caffer
Pelorovis antiquus
Megalotragus sp.

Potamochoeroides cf. shawi
Kolpochoerus cf. paiceae
Phacochoerus cf. antiquus
Potamochoerus porcus

References

Site Number

SAAN – 0024

Common names

Drimolen

First report

Keyser et. al. (2000)

Coordinates/Location

25 58' 05''S, 27 45' 23'' E

Reference Keys

Geological Context	Dolomitic cave, Monte Cristo
Taphonomic situation	various (mostly carnivore accumulations)
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	various
Associated archaeology	bone tools
Approximate size of collections	> 3,000 identifiable fossils

Description

Faunal List (Mixed assemblage)

Primates

Cercopithecoides williamsi
Papio angusticeps
Papio izodi
Papio cf. robinsoni
Australopithecus africanus

Rodentia

Hystrix africaeaustralis

Perissodactyla

Equus capensis
Equus burchelli
Hipparion sp.
Diceros bicornis

Proboscidea

Elephas sp.

Hyracoidea

Procavia antiqua
Procavia transvaalensis

Carnivora

Pachycrocuta bellax
Hyaena brunnea
Crocuta crocuta
Dinofelis cf. piveteaui
Panthera pardus
Panthera leo
Lycaon sp.
Canis mesomelas

Artiodactyla

Antidorcus bondi
Antidorcus marsupialis
Aepyceros cf. melampus
Kobus leche
Redunca cf. arundinum
Redunca darti
Redunca fulvorufula
Pelea capreolus
Gazella wellsi
Damaliscus dorcas
Damaliscus lunatus
Damaliscus pygargus
Oreotragus major
Oreotragus oreotragus
Tragelaphus strepsiceros
Tragelaphus angasi
Chonochaetes taurinus
Connochaetes gnou
Alcelaphus buselaphus
Hippotragus broomi
Hippotragus equinus
Taurotragus oryx
Makapania broomi
Syncerus caffer
Pelorovis antiquus
Megalotragus sp.

Potamochoeroides cf. shawi
Kolpochoerus cf. paiceae
Phacochoerus cf. antiquus
Potomochoerus porcus

References

Site Number

SAAN – 0025

Common names

Plovers Lake

First report

Brain (1981)

Coordinates/Location

25 59' 37" S, 27 46' 35" E

Reference Keys

Geological Context
Taphonomic situation
Province

Dolomitic cave, Monte Cristo
various (mostly carnivore accumulations)
Gauteng

Geographical region	Highveld
Biome	highveld grassland
Age estimate	various
Associated archaeology	rare MSA
Approximate size of collections	> 1,000 identifiable fossils

Description

Faunal List (Mixed assemblage)

Primates

Cercopithecoides williamsi
Papio angusticeps
Papio izodi
Papio cf. robinsoni
Australopithecus africanus

Rodentia

Hystrix africaeaustralis

Perissodactyla

Equus capensis
Equus burchelli
Hipparion sp.
Diceros bicornis

Proboscidea

Elephas sp.

Hyracoidea

Procavia antiqua
Procavia transvaalensis

Carnivora

Pachycrocuta bellax
Hyaena brunnea
Crocota crocuta
Dinfolielis cf. piveteaui
Panthera pardus
Panthera leo
Lycaon sp.
Canis mesomelas

Artiodactyla

Antidorcus bondi
Antidorcus marsupialis
Aepyceros cf. melampus
Kobus leche
Redunca cf. arundinum
Redunca darti
Redunca fulvorufula
Pelea capreolus
Gazella wellsi
Damaliscus dorcas
Damaliscus lunatus
Damaliscus pygargus
Oreotragus major
Oreotragus oreotragus
Tragelaphus strepsiceros
Tragelaphus angasi
Chonochaetes taurinus
Connochaetes gnou
Alcelaphus buselaphus
Hippotragus broomi
Hippotragus equinus
Taurotragus oryx
Makapania broomi
Syncerus caffer
Pelorovis antiquus
Megalotragus sp.

Potamochoeroides cf. shawi
Kolpochoerus cf. paiceae
Phacochoerus cf. antiquus
Potomochoerus porcus

References

Site Number

SAAN – 0026

Common names

Bones Cave (Brain, 1981), CH-17 (Berger, 1996)

First report

Brain (1981)

Coordinates/Location

25 58' 32" S, 27 46' 42" E

Reference Keys

Geological Context
Taphonomic situation
Province
Geographical region

Dolomitic cave, Monte Cristo Formation
 possible carnivore accumulation
 Gauteng
 Highveld

Biome	highveld grassland
Age estimate	? early Pleistocene
Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0026 is a series of in-situ fossiliferous exposures along the walls and ceiling of an underground cave that were exposed by mining. The deposits may connect with the nearby Plovers lake system. Access to the site is via a hanging ladder that descends some 10 meters underground.

Faunal List (Field Identifications)

Primate

Papio sp.

Carnivora

Hyeana sp.

Panthera sp.

Perissodactyla

Equus sp.

Rodentia

Hystrix africae australis

Hyracoidea

Procavia sp.

Artiodactyla

Antidorcas sp.

Megalotragus sp.

References

Berger, L.R. (1996) Report for the Palaeoanthropological Aspect of the Chronos Project. Report compiled by the University of the Witwatersrand for the Government of the Northwest Province. Pp 1 – 59.

Site Number SAAN – 0027

Common names Wonder Cave (Brain, 1981)

First report Brain (1981)

Coordinates/Location 25 58' 13" S, 27 46' 19" E

Reference Keys

Geological Context	Dolomitic cave, Monte Cristo Formation
Taphonomic situation	possible carnivore accumulation or animal trap
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	? mid to late Pleistocene
Associated archaeology	none known
Approximate size of collections	>50

Description

SAAN-0027 comprises two fossiliferous localities within the single chamber of the Wonder Cave. The main site is a large collection of *Papio ursinus* fossils that appear to have fallen through the present day entrance. The second locality is a single primate skeleton embedded below a debris cone possibly originating at a now sealed entrance. Some collections have been made by the amateur palaeontological society and these are housed at the Council for GeoScience, Pretoria.

Faunal List (Field Identifications)

Primate

Papio ursinus

References

Site Number SAAN – 0028

Common names none

First report This Atlas

Coordinates/Location 25 53' 57" S, 27 47' 54 " E

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	possible owl accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	? Pleistocene
Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0028 is a small *in-situ* area of breccia visible on the edge of what may be a collapsed cave. A very small breccia dump is located adjacent to the site. It is located within the Eccles Formation of Dolomites on the John Nash Nature Reserve.

Faunal List (Field Identifications)

Rodentia

Hystrix africaeaustralis
Lepus sp.

Hyracoidea

Procavia sp.

Artiodactyla

Oreotragus sp.

References

Berger, L.R. (1996) Report for the Palaeoanthropological Aspect of the Chronos Project. Report compiled by the University of the Witwatersrand for the Government of the Northwest Province. Pp 1 – 59.

Site Number

SAAN – 0029

Common names *none*

First report *This Atlas*

Coordinates/Location 25 54' 47" S, 27 49' 41" E

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	possible carnivore accumulation

Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	? early Pleistocene
Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0029 is a miners dump with scattered fossils but no in-situ breccia has been seen to have fossils indicating that it may be buried by mining activities. It is located within the Eccles Formation of Dolomites on the Motsetsi farm.

Faunal List (Field Identifications)

Primate

Papio sp.

Perissodactyla

Equus sp.

Rodentia

Hystrix africaeaustralis

Lepus sp.

Hyracoidea

Procavia sp.

Artiodactyla

Antidorcas sp. .

Megalotragus sp.

Tragelaphus sp.

Oreotragus sp.

Site Number

SAAN – 0030

Common names

Motsetsi (Berger and Lacruz, 2001)

First report

(Berger and Lacruz, 2001)

Coordinates/Location 25 54' 09" S, 27 49' 36" E

Reference Keys

Geological Context

Dolomitic cave, Eccles Formation

Taphonomic situation	possible carnivore accumulation
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	? early Pleistocene
Associated archaeology	none known
Approximate size of collections	no collections

Description

SAAN-0030 is a series of in-situ deposits and miners dumps with fossils. Small scale excavations have been initiated at the site by the University of the Witwatersrand. It is located within the Eccles Formation of Dolomites on the Motsetsi farm.

Faunal List (Field Identifications)

Primate

Papio sp.

Perissodactyla

Diceros bicornis

Rodentia

Hystrix africaeaustralis

Lepus sp.

Hyracoidea

Procavia sp.

Artiodactyla

Antidorcas bondi

Tragelaphus sp.

References

Site Number

SAAN – 0031

Common names *Gondolin (Watson, 198)*

First report *Watson (198)*

Coordinates/Location *25 49' 49" S, 27 51' 49" E*

Reference Keys

Geological Context	Dolomitic cave, Eccles Formation
Taphonomic situation	various (mostly carnivore accumulations)
Province	Gauteng
Geographical region	Highveld
Biome	highveld grassland
Age estimate	various
Associated archaeology	none known
Approximate size of collections	> 1,000 identifiable fossils

Description

Faunal List (Mixed assemblage)

Primates

Paranthropus robustus
Cercopithecoides williamsi
Papio angusticeps
Papio izodi
Papio cf. robinsoni

Rodentia

Hystrix africaeaustralis

Perissodactyla

Equus capensis
Equus burchelli

Hyracoidea

Procavia antiqua
Procavia transvaalensis

Carnivora

Hyaena brunnea
Crocuta crocuta
Panthera pardus
Panthera leo
Canis mesomelas

Artiodactyla

Antidorcus bondi
Antidorcus marsupialis
Aepyceros cf. melampus
Kobus leche
Redunca cf. arundinum
Redunca darti
Redunca fulvorufula
Pelea capreolus
Gazella wellsi
Damaliscus dorcas
Damaliscus lunatus
Damaliscus pygargus
Oreotragus major
Oreotragus oreotragus
Tragelaphus strepsiceros
Tragelaphus angasi
Chonochaetes taurinus
Connochaetes gnou
Alcelaphus buselaphus
Hippotragus broomi
Hippotragus equinus
Taurotragus oryx
Makapania broomi
Syncerus caffer
Pelorovis antiquus
Megalotragus sp.

Potamochoeroides cf. shawi
Kolpochoerus cf. paiceae
Phacochoerus cf. antiquus
Potomochoerus porcus

References

Site Number

SAAN – 0042

Common names

none

First report

This Atlas

Coordinates/Location

27 41 717 S, 024 35 889E

Reference Keys

Geological Context

Tufa cave

Taphonomic situation

? carnivore accumulation

Province

Northwest, South Africa

Geographical region

Kalahari

Biome	Desert
Age estimate	early Pleistocene
Associated archaeology	none
Approximate size of collections	none

Description

Red and pink breccia blocks in large dumps in the site known as Thomeng. Fossils are found in rare blocks scattered among tufa blocks mined after the turn of the century.

Faunal List (field identifications)

Primate

Primate sp. indet.

Rodentia

Lepus sp.
Hystrix sp.

Hyracoidea

Procavia sp.

Artiodactyla

Oreotragus sp.
Med. alcelaphine

Site Number SAAN – 0043

Common names none

First report This Atlas

Coordinates/Location 27 41 899 S, 024 35 798E

Reference Keys

Geological Context	Tufa cave
Taphonomic situation	? carnivore accumulation
Province	Northwest, South Africa
Geographical region	Kalahari
Biome	Desert

Age estimate	early Pleistocene
Associated archaeology	none
Approximate size of collections	none

Description

An *in-situ* area of fossils in the Thomeng quarry. Fossils are rare.

Faunal List (field identifications)

Artiodactyla

Med. alcelaphine

Site Number SAAN – 00

Common names *Blombos Cave (Henshilwood, 1996)*

First report *Henshilwood, 1996*

Reference Keys

Geological Context	Cave
Taphonomic situation	human collected
Province	southern Cape
Geographical region	
Biome	Fynbos
Age estimate	> 40,000 (MSA)
Associated archaeology	MSA and LSA
Approximate size of collections	> 3000 identifiable specimens

Description

Blombos Cave is situated near Still Bay and is important as an MSA site containing artifacts not previously associated with the MSA. Unusual findings include bone points, bone tools and decorated bone. The site comprises LSA overlying MSA. Recent attempts to date the MSA more accurately have resulted in age estimates of around 100,000 Ybp. Excavations have been conducted by the University of Cape Town since 1993.

Faunal List

Primate

Homo sapiens
Papio ursinus

Rodentia

Bathyergus suillus

Perissodactyla

Equus capensis
Rhinocerotid

Carnivora

Canis sp.
Ictonyx striatus
Herpestes pulverulentus

Artiodactyla

Antidorcus sp.
Sylvicapra grimmia
Raphicerus campestris
Raphicerus melanotis
Raphicerus sp.
Pelea capreolus
Hippotragus leucophaeus
Taurotragus oryx
Redunca arundinum

Hippopotamus amphibious

Delphinidae

References

- Henshilwood, C.S. (1996) A revised chronology for the arrival of pastoralism in southernmost Africa: new evidence of sheep at 2000 b.p. from Blombos Cave, South Africa. *Antiquity*, 70 (270), 945-9.
- Henshilwood, C.S. and Sealy, J.C. (1997) Bone artifacts from the Middle Stone Age at Blombos Cave, southern Cape, South Africa. *Current Anthropology*, 38 (5), 890-5.
- Deacon, H.J., Avery, G., Parkington, J.E. and Humphreys, A.J.B. (1998) Excursion guide to sites North and East of Cape Town. Pp. 42-46.

Site Number

SAAN – 00

Common names

Boomplaas Cave (Deacon, H.J., Deacon, J. and Brooker, M., 1976)

First report

Deacon, H.J., Deacon, J. and Brooker, M., (1976)

Reference Keys

Geological Context
Taphonomic situation
Province

Limestone Cave
human collected (LSA and some MSA), Leopard
Eastern Cape

Geographical region	
Biome	Fynbos
Age estimate	> 32,000 (MSA and Leopard)
Associated archaeology	MSA and LSA
Approximate size of collections	> 100 identifiable specimens

Description

Boomplaas cave is an LSA, MSA and carnivore accumulation ranging in age from 1700 Ybp to >40,000 Ybp. Levels OLP, BOL, OCH and LOH are all older than 32 Kybp. Stone artifacts are not numerous in the older deposits and leopards have been suggested as the main accumulating agent of the mammals.

Faunal List (for OLP, BOL and OCH)

Primate

Papio ursinus

Rodentia

Leporidae

Perissodactyla

Equus zebra

Procaviidae

Procavia capensis

Carnivora

Panthera pardus

Hyaena sp.

Herpestres pulverulentes

Artiodactyla

Alcealphus sp.

Damaliscus sp.

Pelorovis antiquus

Redunca fulvorofula

Redunca arundinum

Taurotragus oryx

Redunca arundinum

Pelea capreolus

Oreotragus oreotragus

Raphicerus sp.

References

Deacon, H.J., Deacon, J. and Brooker, M. (1976) Four painted stones from Boomplaas cave, South Africa. South African archaeological bulletin, 31, 141-5.

Deacon, H.J., Avery, G., Parkington, J.E. and Humphreys, A.J.B. (1998) Excursion guide to sites North and East of Cape Town. Pp. 47-58.

Fluvial and Lacustrine sites

Site Number

SAAN – 0032

Common names

Doring River Assemblage (Brink, Berger and Churchill, 1999)

First report

(Brink, Berger and Churchill, 1999)

Coordinates/Location

Reference Keys

Geological Context	Fluvial
Taphonomic situation	Hyena den
Province	Free State
Geographical region	
Biome	Grassland
Age estimate	400,000 – 100,000 (Brink, Berger and Churchill, 1999)
Associated archaeology	none
Approximate size of collections	> 100 identifiable bones

Description

SAAN-0032 is a presumed hyena lair dug into the bank of the Doring River in the central Free State. Collections of bone were first made by the University of the Witwatersrand in 1995 and secondary collections were made in 1996. Material from this work is housed at the National Museum Bloemfontein.

Faunal List

Carnivora

Hyaenidae sp indet.

Rodentia

Lepus capensis

Lepus saxatilis

Bathyergus suillus

Hystrix africaeaustralis

Perissodactyla

Equus capensis

Equus quagga
Ceratotherium simum

Hyracoidea

Procavia capensis

Artiodactyla

Antidorcus bondi
Alcelaphus buselaphus
Damaliscus dorcas
Damaliscus niro
Connochaetes taurinus
Pelorovis antiquus
Megalotragus priscus.

References

Brink, J.S., Berger, L.R. and Churchill, S.E. (1999) Mammalian fossils from erosional gullies (dongas) in the Doring River drainage, central Free State Province, south Africa. In pp 79-89.

Site Number SAAN – 0040

Common names none
First report none
Coordinates/Location 28 09' 58" S, 026 47' 50" E

Reference Keys

Geological Context	Fluvial
Taphonomic situation	?Hyena den
Province	Free State
Geographical region	
Biome	Grassland
Age estimate	400,000 – 100,000
Associated archaeology	none
Approximate size of collections	none

Description

SAAN-0040 is a presumed hyena lair dug into the bank of the Doring River in the central Free State. Fossils are scattered over an area of about 200 meters square. Condition of fossils are good.

Faunal List

Perissodactyla

Equus sp.

Artiodactyla

Antidorcus bondi
Pelorovis antiquus
Alcelaphus sp. .

Site Number SAAN – 0041

Common names *none*

First report *none*

Coordinates/Location *28 10' 14""S, 026 47' 53" E*

Reference Keys

Geological Context	Fluvial
Taphonomic situation	?Hyena den
Province	Free State
Geographical region	
Biome	Grassland
Age estimate	400,000 – 100,000
Associated archaeology	none
Approximate size of collections	none

Description

SAAN-0041 is a presumed hyena lair dug into the bank of the Doring River in the central Free State. Fossils are scattered over an area of about 40 meters square. Condition of fossils are good.

Faunal List

Artiodactyla

Antidorcus bondi

Site Number SAAN – 0033

Common names None
First report This Atlas
Coordinates/Location 20 35' 40".8S, 024 49' 10".8 E

Reference Keys

Geological Context	Lacustrian, Pan edge
Taphonomic situation	human occupation
Country/Province	Botswana
Geographical region	Kalahari
Biome	Desert
Age estimate	250,000 – 1.7 myBP
Associated archaeology	ESA
Approximate size of collections	none

Description

SAAN-0033 is a presumed human occupation site discovered in 1998. It is situated on the edge of Lake Tlale in an erosional bank. There are scattered fragments of unidentifiable bone and scattered ESA tools.

Faunal List(Field Identifications)

No identifiable fauna observed

Site Number SAAN – 0034

Common names Nxazini pans, Makowi pans
First report various informal reports, This Atlas
Coordinates/Location 20 04' 55".3S, 025 22' 21".1 E

Reference Keys

Geological Context	Lacustrian, Pan edge
Taphonomic situation	human occupation
Country/Province	Botswana
Geographical region	Kalahari
Biome	Desert, Mopani
Age estimate	35kyBP – 250kyBP
Associated archaeology	MSA
Approximate size of collections	none

Description

SAAN-0034 is an MSA site on the Northwestern edge of Nxazini pan. It is situated adjacent to an ESA site (SAAN-0035). The SAAN-0034 deposit comprises hundreds of tools and thousands of bone fragments embedded in the calcrete floor of the pan.

Faunal List(Field Identifications)

Perissodactyla

Equus burchelli
Equus sp.

Artiodactyla

Antidorcus sp.
Damaliscus sp.
Connochaetes sp.
Syncerus sp.
Tragelaphus scriptus
Cf. Sylvicapra

Phacochoedrus sp.

Site Number SAAN – 0035

Common names *Nxazini pans, Makowi pans*

First report *various informal reports, This Atlas*

Coordinates/Location *20 04' 55".3S, 025 22' 21"1 E*

Reference Keys

Geological Context	Lacustrian, Pan edge
Taphonomic situation	human occupation
Country/Province	Botswana
Geographical region	Kalahari
Biome	Desert, Mopani
Age estimate	250kyBP – 1.7 myBP
Associated archaeology	ESA
Approximate size of collections	none

Description

SAAN-0035 is an ESA site on the Northern edge of Nxazini pan. It is situated adjacent to the MSA site (SAAN-0034). The SAAN-0035 deposit comprises dozens of tools and hundreds of bone fragments and more complete specimens embedded in the calcrete floor of the pan.

Faunal List(Field Identifications)

Carnivora

Felid gen. and sp. indet.

Proboscidea

Elephas sp.

Hyracoidea

Procavia sp.

Perissodactyla

Equus burchelli
Equus cf. capensis.

Hippopotamus sp.

Artiodactyla

Antidorcas bondi
Connochaetes cf. taurinus
Pelorovis sp.
Tragelaphus sp.

Metridiochoerus sp.
Phacochoedrus sp.

Site Number

SAAN – 0036

Common names

no name

First report

This Atlas

Coordinates/Location

20 32' 52".3S, 025 11' 33"5 E

Reference Keys

Geological Context
Taphonomic situation
Country/Province
Geographical region
Biome

Lacustrian, Pan surface
human occupation
Botswana
Kalahari (Makgadikgadi pan)
Desert

Age estimate	25 kyBp – 50 kyBp
Associated archaeology	MSA
Approximate size of collections	none

Description

SAAN-0036 is an MSA site on the Northern edge of Makgadikgadi pan near Jack's camp. . The SAAN-0036 deposit comprises dozens of tools and dozens of bone fragments and more complete specimens sitting exposed on the surface of the pan. The date is based on the expedient nature of the MSA artifacts.

Faunal List(Field Identifications)

Perissodactyla

Hippopotamus sp.

Artiodactyla

Pelorovis antiquus
Tragelaphus sp.
Hippotragus sp.
Kobus cf. ellipsuprymnus

Site Number SAAN – 0037

Common names no name

First report This Atlas

Coordinates/Location 20 32' 46".4S, 025 11' 33" 1E

Reference Keys

Geological Context	Lacustrian, Pan surface
Taphonomic situation	?natural death
Country/Province	Botswana
Geographical region	Kalahari (Makgadikgadi pan)
Biome	Desert
Age estimate	>50 kyBp
Associated archaeology	none
Approximate size of collections	none

Description

SAAN-0037 is a single distal humerus of a large hippopotamus. Based on its size it is assigned to the species *H. gorgops*.

Faunal List(Field Identifications)

Perissodactyla

Hippopotamus cf. gorgops.

Site Number

SAAN – 0039

Common names

no name

First report

Coordinates/Location

20 29' 53".0S, 025 59' 52"9 E

Reference Keys

Geological Context

Lacustrine, sub surface Pan

Taphonomic situation

unknown

Country/Province

Botswana

Geographical region

Kalahari (Makgadikgadi pan)

Biome

Desert

Age estimate

50 kyBp

Associated archaeology

none

Approximate size of collections

none

Description

SAAN-0039 is a single horn core of *D. niro* recovered during the drilling of soda ash bore holes.

Faunal List (Field Identifications)

Artiodactyla

Damaliscus niro

Coastal and Dune sites

Site Number SAAN – 0002

Common names *Hoedjies punt* (Klein, 1983), *Hoedjiespunt* (Grine and Klein, 1993), *Hoedjiespunt 1 or HDP1* (Berger and Parkington, 1995)

First report Klein, R.G. (1983)

Coordinates/Location 33° 01' 45" S, 17° 57' 37" E

Reference Keys

Geological Context	Coastal Dune
Taphonomic situation	Hyena den
Province	Western Cape
Geographical region	
Biome	Fynbos
Age estimate	78 kyBP (Grine and Klein, 1993); > 78 kyBP (Berger and Parkington, 1995); 303 – 245 kyBP (Churchill, Berger and Parkington, 2000)
Associated archaeology	none
Approximate size of collections	> 1000 identifiable bones

Description

Hoedjiespunt 1 is a presumed hyena lair dug into a fossil dune. The site is located on the southern edge of the Hoedjiespunt peninsula. Collections of bone were first made by Q.B. Hendey, R.G. Klein and G. Avery in the late seventies until 1980 and prior to road grading in the vicinity of the site. Material from this work is housed in the South African Museum. Intermittent excavations have been conducted by J.E. Parkington and L.R. Berger from 1993 onwards following the discovery of a hominid tooth *in-situ*. Material from this work is housed in the Department of Archaeology, University of Cape Town. Major published work is a thesis by D.D. Stynder.

Faunal List

Primates

Homo sapiens (archaic)

Rodentia

Lepus capensis

Lepus saxatilis

Bathyergus suillus

Hystrix africae australis

Perissodactyla

Equus capensis
Equus quagga
Ceratotherium simum

Hyracoidea

Procavia capensis

Carnivora

Hyaena brunnea
Crocuta crocuta
Felis lybica
Felis nigripes
Felis serval
Felis caracal
Pantehra pardus
Panthera leo
Lycaon pictus
Vulpes chacma
Canis mesomelas
Mellivora capensis
Ictonyx striatus
Herpestres ichneumon
Atilax paludinosus
Genetta tigrina
Suricata suricatta

Artiodactyla

Pelea capreolus
Antidorcus australis
Redunca arundinum
Damaliscus dorcas
Tragelaphus strepsiceros
Connochaetes gnou
Alcelaphus buselaphus
Raphicerus sp.
Hippotragus leucophaeus
Taurotragus oryx
Syncerus caffer
Pelorovis antiquus
Megalotragus sp.

Delphinidae gen. et sp. Indet.
Arctocephalus pusillus

References

Grine, FE and Klein, RG (1993) Late Pleistocene human remains from Sea Harvest site, Saldanha Bay, South Africa. *S. Afr. J. Sci.* 89: 145-152.

Berger, L.R. and Parkington, J.E. A new Pleistocene hominid-bearing locality at Hoedjiespunt, South Africa. *Am. J. Phys. Anthrop.* 98: 395-401.

Churchill, S.E., Berger, L.R. and Parkington, J.E. (2000) A middle Pleistocene human tibia from Hoedjiespunt, Western Cape, South Africa. *S. Afr. J. Sci.* 96: 367 – 368.

Klein, R.G. (1983) Palaeoenvironmental implications of Quaternary large mammals in the Fynbos Biome. *South African National Science Progress Report* 75: 116-138.

Stynder, D.D. (1997) The use of faunal evidence to reconstruct site history at Hoedjiespunt 1 (HDP1), Western Cape. M.Sc. Thesis: University of Cape Town.

Site Number SAAN – 0042

Common names *The Melkbos site (Hendey, 1968)*

First report *Hendey(1968) 1st collections Mr. J. Rudner*

Coordinates/Location

Reference Keys

Geological Context	Coastal Dune/ calcrete sandstone
Taphonomic situation	various
Province	Western Cape
Geographical region	
Biome	Fynbos
Age estimate	> 40,000 (Hendey, 1968)
Associated archaeology	MSA and LSA
Approximate size of collections	> 600 identifiable bones

Description

Melkbos is actually a series of sites eroding from calcrete sandstone over an area of about three kilometers by two hundred meters. The “site” is located approximately six kilometers North of the mouth of the Sout River. It is almost certainly not a single fossil occurrence but comprises numerous different accumulations. MSA and LSA material is found among the fossil remains but the LSA is almost certainly derived from deflating shell middens.

Faunal List

Rodentia

Bathyergus suillus

Perissodactyla

Equus sp.

Ceratotherium simum

Diceros bicornis

Proboscidea

Loxodonta africana

Carnivora

Hyaena cf. brunnea

Felis leo

Canis mesomelas

Artiodactyla

Antidorcus sp.

Tragelaphus strepsiceros

Connochaetes sp.

Raphicerus sp.

Hippotragus sp.

Taurotragus oryx

Syncerus sp.

Redunca arundinum

Pinnipedia

Arctocephalus pusillus

References

Hendey, Q.B. (1968) The Melkbos site: an upper Pleistocene fossil occurrence in the South-Western Cape Province. *Ann. S. Afr. Mus.* 52 (4), 1968: 89 – 119.

Site Number

SAAN – 0043

Common names

Swartklip (Singer and Fuller, 1962), The Singer/Fuller Occurrence (Hendey and Hendey, 1968)

First report

Singer and Fuller (1962)

Coordinates/Location

Reference Keys

Geological Context	?Cave/ calcrete sandstone
Taphonomic situation	?carnivore
Province	Western Cape
Geographical region	
Biome	Fynbos
Age estimate	<75,000 (Hendey, 1968)
Associated archaeology	none
Approximate size of collections	> 50 identifiable bones

Description

The Singer/Fuller Occurrence originates from a collapsed block of calcrete sandstone that may have formed part of a fissure or cave fill. Material from the site is housed at the South African Museum in Cape Town.

Faunal List

Perissodactyla

Rhinocerotidae Incertae sedis

Carnivora

Canis mesomelas
Mellivora capensis
Aonyx sp.

Artiodactyla

Antidorcus marsupialis.
Connochaetes sp.
Raphicerus sp.
Redunca arundinum

References

Hendey, Q.B. and Hendey H. (1968) New quaternary Fossils near Swartklip, Cape Province. *Ann. S. Afr. Mus.* 52 (2): 43 – 73.

Singer, R. and Fuller A.O. (1962) The geology and description of a fossiliferous deposit near Swartklip in False Bay. *Trans R. Soc. S. Afr.* 34: 205 – 211.

Site Number

SAAN – 0044

Common names

Site 1 Swartklip (Hendey and Hendey, 1968)

First report

Hendey and Hendey (1968)

Coordinates/Location

Reference Keys

Geological Context	Cave
Taphonomic situation	?carnivore
Province	Western Cape
Geographical region	
Biome	Fynbos
Age estimate	<75,000 (Hendey, 1968)
Associated archaeology	a single undiagnostic flake
Approximate size of collections	> 50 identifiable bones

Description

Site 1 Swartklip originates from what appears to be a fissure or cave fill. It contains high densities of marine shells. Material from the site is housed at the South African Museum in Cape Town.

Faunal List

Perissodactyla

Equus sp.
Rhinocerotidae Incertae sedis

Carnivora

Hyaena brunnea
Felis serval
Panthera leo
Lycaon pictus
Canis sp.
Canis mesomelas
Herpestes ichneumon
Mellivora capensis
Aonyx sp.

Artiodactyla

Antidorcus marsupialis.
Hippotragus cf. leucophaeus
Connochaetes sp.
Raphicerus sp.
Redunca arundinum

Rodentia

Bathyergus suillus

References

Hendey, Q.B. and Hendey H. (1968) New quaternary Fossils near Swartklip, Cape Province. *Ann. S. Afr. Mus.* 52 (2): 43 – 73.

Site Number

SAAN – 0045

Common names

Site II Swartklip (Hendey and Hendey, 1968)

First report

Hendey and Hendey (1968)

Coordinates/Location

Reference Keys

Geological Context	Cave
Taphonomic situation	?carnivore
Province	Western Cape
Geographical region	
Biome	Fynbos
Age estimate	<75,000 (Hendey, 1968)
Associated archaeology	a single undiagnostic flake
Approximate size of collections	> 50 identifiable bones

Description

Site 1 Swartklip originates from what appears to be a fissure or cave fill. It contains high densities of marine shells. Material from the site is housed at the South African Museum in Cape Town.

Faunal List

Perissodactyla

Rhinocerotidae Incertae sedis

Carnivora

Hyaena brunnea
Panthera leo
Canis sp.
Canis mesomelas

Artiodactyla

Antidorcus marsupialis
Raphicerus sp.
Redunca arundinum

References

Hendey, Q.B. and Hendey H. (1968) New quaternary Fossils near Swartklip, Cape Province. *Ann. S. Afr. Mus.* 52 (2): 43 – 73.

Site Number

SAAN – 00

Common names

Site 11 extension Swartklip (Hendey and Hendey, 1968)

First report

Hendey and Hendey (1968)

Coordinates/Location

Reference Keys

Geological Context	Cave/Fissure fill
Taphonomic situation	?carnivore/hyena
Province	Western Cape
Geographical region	
Biome	Fynbos
Age estimate	<75,000 (Hendey, 1968)
Associated archaeology	a single undiagnostic flake
Approximate size of collections	> 10 identifiable bones

Description

Like sites I and II, Site II extension Swartklip originates from what appears to be a fissure or cave fill. It contains high densities of marine shells. Material from the site is housed at the South African Museum in Cape Town.

Faunal List

Artiodactyla

Antidorcus marsupialis.
Redunca arundinum

Rodentia

Bathyergus suillus

References

Hendey, Q.B. and Hendey H. (1968) New quaternary Fossils near Swartklip, Cape Province. *Ann. S. Afr. Mus.* 52 (2): 43 – 73.

Trace Fossil sites

Site Number

SAAN – 0038

Common names

no name

First report

This Atlas

Coordinates/Location

20 13' 41" .1S, 026 10' 12" 5 E

Reference Keys

Geological Context	Riverine mudstone
Taphonomic situation	footprints
Country/Province	Botswana
Geographical region	Kalahari, Nata river
Biome	Desert
Age estimate	>25 kyBp
Associated archaeology	none
Approximate size of collections	none

Description

SAAN-0037 is a mudstone with the imprints of antelope, hippo and large bovines, possibly Pelorovis.

Faunal List(Field Identifications from footprints)

Perissodactyla

Hippopotamus sp.

Artiodactyla

Pelorovis sp.

Bovid gen. et. Sp. indet.