

Guide

This website will eventually contain over 300 field notes on a variety of features and natural processes in different locations within the Study Area. For ease of navigation in the site, the field notes have been installed in twenty-seven chapters. In every chapter the field notes were grouped in sections according to certain subjects (the site is continuously populated, and field notes are added from time to time).

The first six chapters (A to F) are introductory. The order of the next twelve chapters (G to R) is, generally, from the west (Cape Agulhas) to the east (Cape Infanta). The next chapter (S) is about the area (Rûens) north of the Hard Dunes. The next three chapters (T to V) are about the coastal area and the adjacent sea. The next chapter (W) contains discussions on various subjects, followed by two chapters of appendices, which contain notes (some of which are archival) about the fauna and flora (X) and about other subjects (Y) of the Study Area. The last chapter (Z) contains bibliography lists and information sources.

When readers click the 'Table of Contents' button, only the names of the chapters are shown. The following is a breakdown of the chapters into sections and into individual field notes, which will help readers to find the subject they want to read about (only highlighted field notes can be accessed):

A. INTRODUCTION

1. Geography
2. Geology
3. Morphology
4. Hydrology
5. Archaeology

B. NATURE RESERVES

1. Overview
2. Public nature reserves
 - a. De Mond Nature Reserve
 - b. Soetendals Vlei Nature Reserve
 - c. Waenhuiskrans Nature Reserve
 - d. Heuninberg Nature Reserve
 - e. De Hoop Nature Reserve and Marine Protected Area
3. Private nature reserves
 - a. Andrewsfield Nature Reserve
 - b. Heunings River Nature Reserve
 - c. Ancient Milkwood Tree (National monument)
 - d. Vogel Rivier Nature Reserve
 - e. Haarwegskloof Renosterveld Reserve
 - f. Hasekraal Nature Reserve
 - g. San Sebastian Nature Reserve
4. Denel Overberg Test Range
5. Bredasdorp Shipwreck Museum

C. GEOLOGY

1. Overview
2. Table Mountain Group
 - a. Overview
 - b. Agulhas Outcrops
 - c. Bredasdorp Outcrops
 1. Heuninberg Mountain
 2. Zandfontein Quarries
 3. Muurkraal Farm
 - d. Arniston Outcrops
 1. Meulvlei Ridge
 2. Srrtruis Point

- e. Potberg Outcrops
 1. Potberg Mountain
 2. Cape Infanta
 3. Potberg Estates
 3. Bokkeveld Group (see Chapter S)
 4. Quartz veins (see Chapter S)
 5. Clays (see Chapter S)
 6. Enon Formation
 - a. Soutpansvlakte Basin
 - b. Salt River and De Hoop Vlei Gorges
 - c. Deposits
 - d. Subsurface geology
 - e. Clasts
 7. Gravel terraces
 - a. North of the Hard Dunes
 - b. Along the Breede River
 - c. Other gravel terraces
 8. Grahamstown Formation (see also Chapter D)
 - a. Silcretes and ferricretes
 - b. Hilltop silcretes
 - c. Hilltop silcretes spatial distribution
 9. Bredasdorp Group
 - a. Overview
 - b. De Hoop Formation
 - c. Wankoe Formation
 - d. Klein Brak Formation
 - e. Waenhuiskrans Formation
 1. Overview
 2. Ridges
 - a. Cape Agulhas
 - b. Struis Bay to Arniston
 - c. Arniston
 - d. OTR
 - e. De Hoop Nature Reserve
 3. Calcrete-capped dunes
 4. Klipfontein Depression
 - f. Strandveld Formation
- D. DURICRUSTS
1. Pedocretes - Overview
 2. Calcretes - Overview
 - a. Calcrete on the Bokkeveld Formations
 - b. Calcrete on the Enon Formation
 - c. Calcrete on the Bredasdorp Group Formations
 - d. Calcrete on the Bredasdorp Plain
 - e. Calcrete in the Ou Werf Valley
 - f. Calcrete around roots
 - g. Calcrete as conglomerate cement
 - h. Calcrete dissolution features
 - i. Calcrete spatial distribution
 3. Silcretes and ferricretes – Overview
 4. Silcretes
 - a. Pedogenic silcretes – A. Hilltops
 - b. Pedogenic silcretes – B. Hill slopes
 - c. Hilltop silcretes spatial distribution
 - d. Use of silcretes in prehistoric time
 - e. Non pedogenic silcretes – A. Ground water



- f. Non pedogenic silcretes – B. Drainage-lines and rivers
- g. Non pedogenic silcretes – C. Lakes and pan
- 5. Ferricretes
 - a. Pedogenic and non-pedogenic ferricretes
 - b. Ferruginised silcretes
 - c. Ferruginised shales and sandstones
 - d. Heavily ferruginised shales - hilltops
 - e. Heavily ferruginised shales – hillslopes
 - f. Fault zone ferruginised shales
 - g. Manganese in ferruginised shales
 - h. Ferricrete spatial distribution
- 6. Adjacent areas
 - a. Elim silcretes and ferricretes
 - b. Napier silcretes and ferricretes
 - c. Breede River gravel terraces ferricretes
- 7. Pedocretes landscape field guides
 - a. Calcretised landscape – a field guide
 - b. Silcretised and ferricretised landscape – a field guide

- E. KARST LANDFORMS
 - 1. Overview
 - 2. Dry valleys
 - 3. Doline provinces
 - a. Northwest province
 - b. Southwest province
 - c. Southeast province
 - d. Northeast province
 - 4. Caves and overhangs

- F. TECTONICS
 - 1. Overview
 - 2. Morpho-tectonic evidence

- G. CAPE AGULHAS AND STRUIS BAY
 - 1. Geography
 - 2. Morphology
 - 3. Geology
 - 4. Archaeology - see Chapter U (fish traps)

- H. BREDASDORP PLAIN
 - 1. Geography
 - 2. Morphology
 - 3. Geology
 - 4. Hydrology
 - a. Rivers and lakes
 - b. Floods
 - c. Flood control

- I. HEUNINGS AND KARS RIVERS
 - 1. Geography
 - 2. Heunings River
 - 3. Heunings River Estuary
 - 4. Kars River
 - 5. Kars River Gorge



- a. Morphology
- b. Geology
- c. Tectonics
- d. Archaeology

J. WEST HARD DUNES

- 1. Outer Hard Dunes
 - a. Morphology
 - b. Geology
 - c. Karst landforms
- 2. Inner Hard Dunes
 - a. Morphology
 - b. Geology
 - c. Karst landforms

K. WEST VALLEYS

- 1. Overview
- 2. West Renoster Valley
- 3. East Renoster Valley
- 4. Rietfontein Valley
- 5. Matjesfontein Valley
- 6. Ou Werf Valley
 - a. Geology
 - b. Morphology
 - c. Geology – Overview
 - d. Geology – Calcrete
 - e. Geology – Fossils
 - f. Geology – Stone heaps
 - g. Hydrology
 - h. Archaeology – Ou Werf
- 7. Hooge Krans Valley
- 8. Patryze Valley

L. SALT AND POTBERG RIVERS

- 1. Geography
- 2. Geology and tectonics
- 3. Morphology
 - a. Salt River
 - b. Potberg River
 - 1. Upper Potbreg River Valley
- 4. Hydrology

M. SALT RIVER GORGE

- 1. Overview
- 2. Roads and causeways
- 3. Geology
- 4. Morphology
 - a. Overview
 - b. Cliffs
 - c. Koleskloof
 - d. Ravines
 - e. The Island
- 5. Tectonics
- 6. Hydrology
 - a. Salt River Marsh

- b. Fountains
- 7. Archaeology
- N. DE HOOP VLEI GORGE
 - 1. Overview
 - 2. Morphology
 - 3. Bathymetry
 - 4. Die Mond
 - 5. Geology
 - 6. Evidence of tectonics
 - 7. Karst landforms
 - a. Overview
 - b. Guano Cave
 - 8. De Hoop Vlei hydrology
 - a. Overview
 - b. Water levels - 19th century
 - c. Water levels - 1900 to 1960
 - 1. Flash flood of 1957
 - d. Water levels - 1960 to 2020
 - 1. Floods of 2007 and 2014
 - 2. Flash flood of 2021
 - e. Fountains
 - f. Disappearing vlei
 - 9. Archaeology
 - a. Dams
 - b. Ruins
 - c. Roads and stone-walls
 - 10. Fauna and flora
- O. EAST HARD DUNES
 - 1. Geography
 - 2. Morphology
 - 3. Geology
 - 4. Karst landforms
- P. EAST VALLEYS
 - 1. Red sand valleys
 - 2. Vleis
 - 3. Karst landforms
- Q. POTBERG
 - 1. Overview
 - 2. Geology
 - 3. Morphology
 - a. Buffelsfontein Valley
 - b. Other features
 - 4. Archaeology - salt mines
- R. CAPE INFANTA
 - 1. Geography
 - 2. Morphology
 - 3. Geology
 - 4. Breede River Estuary

S. SHALE HILLS

1. Overview
2. Geology
 - a. Overview
 - b. Bokkeveld Group
 1. Overview
 2. Shale and sandstone formations
 3. Western sandstone lenses
 4. Eastern sandstone lenses
 5. Ferruginised shales; manganese (See Chapter D)
 - c. Quartz outcrops
 1. Quartz veins
 2. Hilltops and hillslopes
 3. Fault zone
 - d. Grahamstown Formation
 1. Hilltop silcretes spatial distribution (See Chapter D)
 2. Ferricretes spatial distribution
 3. Sonderkoskop - silcretes and ferricretes
 4. Rooikop – silicification, ferrugination and mineralisation
 - e. Clay
3. Morphology
 - a. African Surfaces
 - b. Post African Surfaces erosion
 - c. 'Separating Valley'
 - d. Drainage patterns
4. Tectonics
 - a. Overview
 - b. Compression
 - c. Faults
5. Mines
 - a. Sonderkoskop
 - b. Grootkop and Hill 288
 - c. Hill 254
 - d. Verfheuwel
 - e. Potteberg
 - f. Breede River
 - g. Witdam

T. COASTAL DUNES

1. Overview
 - a. Dune formation and types
 - b. Dunes of the Study Area
2. Struis Bay - Arniston Dune Strip
3. Arniston Dunes (Waenhuiskrans Nature Reserve)
4. OTR Dune Strip
5. De Hoop Dune Field
6. Dune geometry
7. Dune stabilisation
8. Buried ridges

U. SHORES

1. Geography
2. Geology
3. Agulhas to Struis Bay
4. Struis Bay
5. Heunings River Estuary
6. Struis Point



7. Arniston
8. Arniston Caves
9. De Hoop Nature Reserve sandy shores
10. De Hoop Nature Reserve rocky shores
11. Shore and beach features and processes
12. Archaeology
 - a. Fish traps
 1. Overview
 2. Suiderstrand
 3. Rasperpunt
 4. Cape Agulhas
 5. Struis Bay
 6. Struis Point
 7. Ryspunt
 8. Skipskop
 9. Breede River
 - b. Stone Age shelters

V. OFFSHORE

1. Geology
2. Bathymetry
3. Sea-level changes
4. Currents, tides and upwelling
5. Archaeology - Shipwrecks

W. DISCUSSIONS

Geology maps discrepancies
Palaeo Agulhas Plain
Offshore river channels
Enon Formation
Bredasdorp Group Formations

- a. De Hoop Vlei
- b. Wankoe
- c. Klein Brak
- d. Waenhuiskrans
- e. Strandveld

Kars River Gorge
Salt River Gorge
De Hoop Vlei Gorge
De Hoop Vlei hydrology
Drainage of the De Hoop Vlei
West Valleys
Fossils in the Ou Werf Valley
Karst landforms
Dry valleys and red sand valleys
Erosional African Surfaces
Morpho-tectonic lineaments
Hard Dune crest morphology

X. APPENDICES – FAUNA and FLORA

- a. By the author
 1. Salt River Marsh vegetation
 2. Tree - rock associations
 3. Ancient milkwood trees
 4. Bushfires
 - a. West of De Hoop Vlei
 - b. East of De Hoop Vlei



b. By others

1. Ramsar Convention (archival)
2. De Hoop Nature Reserve (a) (archival)
3. De Hoop Nature Reserve (b) (archival)
4. Fynbos habitat of De Hoop Vlei (archival)
5. Limestone fynbos (archival)
6. Renosterveld vegetation
 - a. Introduction
7. De Hoop bats (archival)
8. Cape Horseshoe Bat (archival)
9. Potberg vultures (archival, a)
10. Potberg vultures (archival, b)

Y. APPENDICES – OTHER SUBJECTS

a. By the author

1. Salt River Marsh - Floods and droughts
2. Skipskop fishing community

b. By others

1. De Hoop Vlei – Floods and droughts
2. The People of De Hoop Nature Reserve
3. Catastrophic earthquakes 70,000 years ago

Z. BIBLIOGRAPHY (partial lists)

1. Geography
2. Morphology
3. Geology
4. Hydrology
5. Archaeology
6. Fauna and flora