



The 7th International Palaeontological Congress

FIELDTRIP

The Lower-Middle Palaeozoic of the Cederberg

PRE002

The Lower-Middle Palaeozoic of the Cederberg

Fieldtrip leader: Cameron Penn-Clarke

Dates: 25 November to 28 November 2026 (3 nights, 4 days)

Approximate cost: R13,500 per person

Minimum pax: 15 plus drivers (20)

Maximum pax: 15

What to bring: Please dress sensibly, covering up as much as possible to avoid the risk of being sunburned or getting sunstroke. Sunscreen (spf 50+ recommended), a hat and comfortable hiking boots are a minimum requirement to be worn at all times during the day. Summer rainfall is rare but not totally unexpected. Be certain to pack in a raincoat in case of rainfall. Water will be provided at all times on the trip but please bring water bottles to fill up when needed. Whilst most of the trip will be spent at roadside stops there will be some sites that require walking over loose and rocky ground (easy-medium grade) requiring the use of a hiking stick.

Tour includes: Transport, refreshments, accommodation as indicated, guides

Tour excludes: Items of a personal nature, additional beverages, etc

Precautionary notes: The Cederberg is a protected Wilderness area, forming part of the Cape Floristic Region World Heritage Site. As such it is largely untouched and underdeveloped. At all times, please be respectful and mindful of your surroundings and the wildlife that you will encounter (both extant and extinct). We ask that you only take photographs and leave behind footprints. The collection of biological and palaeontological material is protected by law with serious fines imposed for transgressors. The sun and heat in the Cederberg can be intense over summer months, reaching in excess of 40° C (av. ~ 30° C) with mild-warm (~ 14-20° C) nighttime temperatures. Guests are to regularly hydrate, apply sunscreen and dress sensibly to avoid the risk of being sunburnt or getting sunstroke. As the area is prone to bushfires, smoking is permitted only within designated areas. Snakes and scorpions are particularly active during summer months, be careful when turning rocks over and regularly check boots and bags.

Brief description and overview of the trip

The Cape Supergroup provides an unparalleled and near-unbroken 110-140 million yearlong testament of environmental and biodiversity change as southwestern Gondwana migrated from low-subtropical to high-polar latitudes during the Ordovician-Carboniferous. Set within the Cape Fold Belt, the Cederberg is a rugged and untamed landscape that is arguably one of the best locales in West Gondwana to study the Middle-Late Palaeozoic given its stratigraphic completeness, particularly of the Ordovician-Devonian. These mountains lay witness to several important bioevents and biocrises, let alone being a point of origin for several important type specimens that would later characterise the Hirnantia and Malvinohosan biotas in South Africa. Lowermost strata of the Table Mountain Group, particularly the Graafwater and Peninsula formations, have provided tantalising evidence for life's earliest movements onto the African continent as well as early paralic-shallow marine ecosystems during the Middle-Late Ordovician. Uppermost Ordovician glaciogene strata of the Pakhuis Formation suggest a shift towards colder climates during the Hirnantian glaciation. Postglacial shales of the Cedarberg Formation, particularly the world-famous Soom Shale Lagerstätte, show that South Africa became a refugium for scatterlings of the Hirnantia fauna. In the Cederberg area, several Soom Shale lagerstätten are known with exceptional preservation of low-diversity, cold water communities of vertebrates, arthropods, annelids, molluscs and brachiopods in addition to several enigmatic taxa. Whilst much of the Nardouw Subgroup (uppermost Table Mountain Group: Silurian-lowermost Devonian) has not proven to be fossiliferous in the Cederberg area, its sandstone rich lithologies are host to several dramatic geomorphic landforms that dot the landscape, of which Stadsaal Cave and the Wolfberg Arch best known. Overlying the Table Mountain Group are shales of the Bokkeveld Group that record a large-scale deepening of polar Gondwanan seaways during global hothouse conditions of the Early Devonian. These rocks host the truly West Gondwanan endemic Malvinohosan biota. Their rise and demise are closely linked to changes in environment that are recorded in these strata as well as the overlying Witteberg Group.

Arguably as important as the geology and palaeontology of the Cederberg is its deep-seated natural and cultural history. Lying at the heart of the Cape Floristic Region (a Protected Areas Serial World Heritage Site), it is home to an estimated 9000 plant species of which 69% are endemic. Of these endemic plants, the endemic, but critically threatened, Clanwilliam Cedar (*Widdringtonia wallichii*) owes its name to the area. Evidence for human habitation in the Cederberg is extensive, with evidence being drawn from Stone Age artefacts and rock shelter paintings going back to at least 100,000 years. An important site in the Cederberg is Stadsaal Cave which is renowned for its cave paintings depicting elephants and large game that precolonial San societies came into contact with. Settler communities and missionaries that moved into the area from the early 18th century onwards displaced much of the original San and Khoekhoe communities in the Cederberg, absorbing much of these peoples into the distinctive Rhenish-Moravian missionary settlements of Wuppertal and Langkloof among others. Other than agriculture, conservation and tourism feature greatly in the Cederberg catering to those who enjoy the outdoors.

DAY 1 – 25 November 2026 (Cape Town-Cederberg via N7 to Clanwilliam)

08:00: Depart from Rondebosch, travel North to Clanwilliam along N7. Along the way you will see:

- 1) Basal contact of Cape Supergroup at Piketberg
- 2) Travel up type section of Table Mountain Group along Piekenierskloof pass
- 3) Have traditional roosterkoek brunch at the top of Piekenierskloof pass whilst viewing Citrusdal syncline (home of citrus agriculture in the Western Cape)
- 4) Arrive at Clanwilliam, see Clanwilliam Dam
- 5) Scenic drive from Clanwilliam to accommodation via Algeria. Stops along the way to familiarise guests with local geology inclusive of visits to gravel pits to look for fossils.

17:00: Arrive at accommodation at Keurbosfontein, Rooi Cederberg.

18:00: Welcome braai

DAY 2 – 26 November 2026 (northern Cederberg loop via Wuppertal)

08:30: Breakfast at Keurbosfontein, Rooi Cederberg.

09:30: Depart from Keurbosfontein to Wuppertal via Langkloof. Along the way see:

- 1) Moordenaarskloof: Contact between Table Mountain and Bokkeveld groups
- 2) Rooibos plantations at Langkloof and Eselbank
- 3) Moravian settlement at Wuppertal with lunch
- 4) Bokkeveld Group in the Bidouw valley
- 5) Pakhuis Pass and striated glacial pavements

17:00: Arrival back at accommodation at Keurbosfontein.

18:00: Dinner with evening entertainment

DAY 3 – 27 November 2026 (Cederberg-Heerenlogenmentsberg via N7 and R364)

07:30: Breakfast at Keurbobosfontein, Rooi Cederberg.

08:30: Depart from Keurbosfontein to Stadsaal Cave to see cave paintings.

10:00: Depart from Stadsaal Caves to Heerenlogenmentsberg. Along the way see:

1) Soom Shale Lagerstätte at Keurbos

2) Ordovician trace fossil assemblages in Peninsula and Graafwater formations.

13:00: Lunch at Tierhoek, Skimmelberg, or Graafwater (venue TBA)

15:00: Depart for Keurbosfontein

18:00: Dinner with evening entertainment

DAY 4 – 28 November 2026 (Cederberg-Cape Town via R303 to Ceres and R46)

08:30: Breakfast at Keurbosfontein, Rooi Cederberg.

09:30: Depart from Keurbosfontein, south towards Ceres via R303. Along the way see:

1) Bokkeveld type section at Grootrivierhoogte

2) Tra-Tra Formation shellbeds

3) Witzenberg valley: Fold interference at Ceres syntaxial domain

4) Gydo Pass: Bokkeveld shales and fossils

13h00: Lunch in Ceres

14h00: Ceres to Cape Town via Touws River and Worcester on N1. Along the way, see:

1) Ostrution shell beds in Voorstehoek Formation at De Doorns

2) Worcester fault

3) Drive over Du Toitskloof Pass, or through Huguenot Tunnel

18h00: Arrive back at Rondebosch, Cape Town. Dinner and further arrangements are for your own account. We suggest you arrange your congress accommodation from this date.