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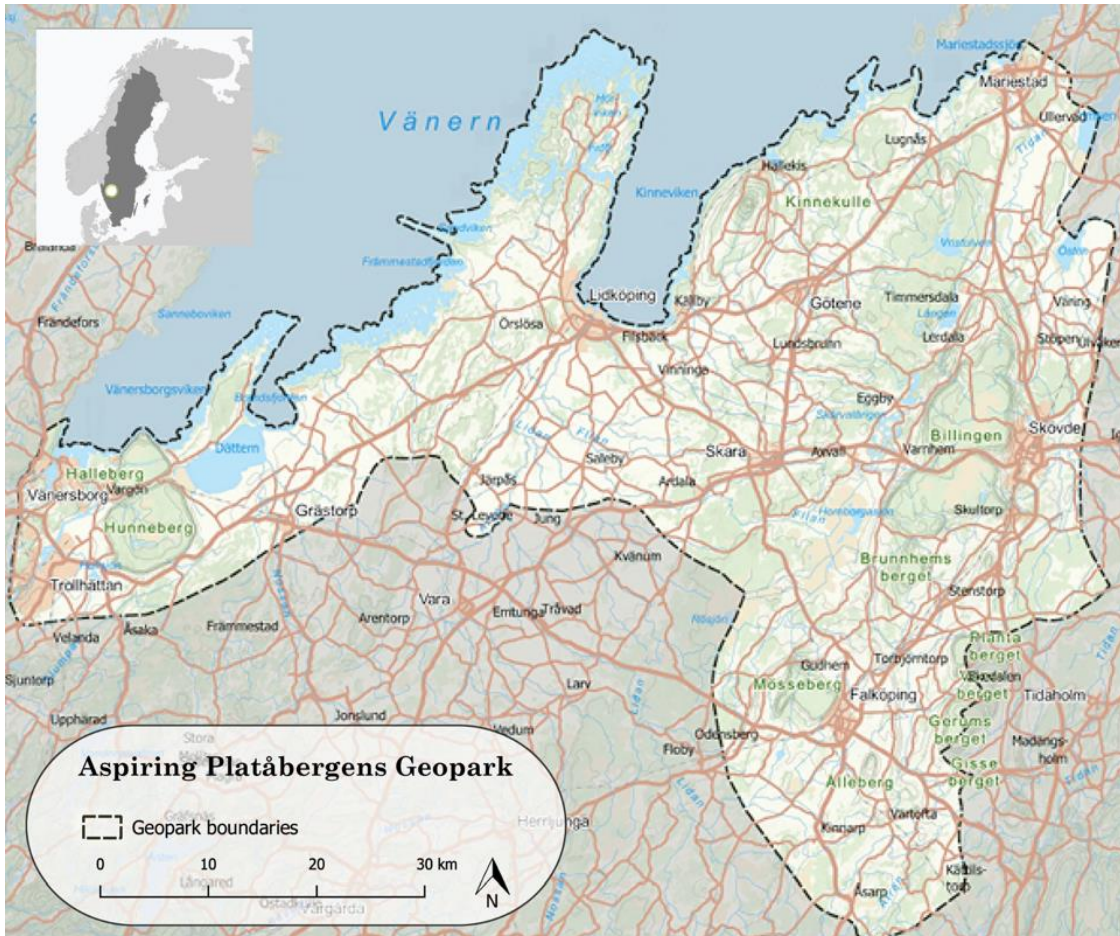


Géoparc
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UNESCO

Applicant UNESCO Global Geopark

Platåbergens Geopark, Sweden

Geographical and geological summary



1. Physical and human geography

Platåbergens Geopark is located in west Sweden, the region of Västergötland and is a collaboration between nine municipalities (Trollhättan, Vänersborg, Grästorps, Lidköping, Götene,

Mariestad, Skara, Skövde and Falköping). The surface of the Geopark is 3,690 km² and it has 289,198 inhabitants. The population is estimated to increase by an average of 11,200 annually until 2040. Business turnover and new enterprises have continued to increase in 2019.

The mid point of the geopark is approx. 58°23'09.3"N 13°26'21.9"E. The highest point is Ålleberg, 330 metres above sea level. There are three distinct landscape types within the geopark: plains, table mountains and coastal areas. Platåbergens Geopark is located within a temperate climate zone with four distinct seasons. The county's climate is strongly affected by the Gulf Stream and the moist air currents which produce a maritime climate, i.e. humid and with relatively minor variations in temperature. The area is very rich in precipitation with an annual rainfall of up to 1,000 mm. The average temperature in Jan–Feb is ca –4°C, the average temperature in July is ca 15°C. The highest measured temperature is 36°C and the lowest measured temperature is –37°C.

The area is easily accessible and you can get here by air travel, train, bus, car, boat and bike, or by hiking. A regional airport is located in Trollhättan. Three major railroad lines and several highways, such as the E45 and E20, run through the geopark.

The table mountains of Västergötland have provided the conditions for completely unique natural environments. The variation in rocks and composition of the bedrock make for an unusually large variation in ecosystems. The entire area is characterised by the remains of the last Ice Age.

2. Geological features and geology of international significance

Platåbergens Geopark is situated in the southwest Swedish gneiss terrane of the Fennoscandian shield, covering the Swedish table mountain landscape. Several remarkable and unique geological features are easily accessible in the geopark, together representing a time span of around 1.7 billion years. The significant features of the geopark are:

1. The Paleoproterozoic and Neoproterozoic Gothian and Sveconorwegian orogenies (ca 1650–950 Ma).
2. Deep denudation and stripping of bedrock forming the widespread sub-Cambrian peneplain (ca 600–550 Ma). The peneplain is easily accessible in the geopark, including at localities where the transition from gneiss to the first Cambrian strata can be studied in cross-section, an option that is unique in its availability for scientists and the public.
3. The table mountains that are built by layers of sedimentary rocks spanning the Cambrian through the lower Silurian time periods (ca 540–400 Ma). The rocks yield a great diversity of well-preserved marine fossils as well as fossil meteorites from the break-up of a major asteroid in Ordovician time and volcanic ash from the collision between Baltica and the Avalonia microcontinent.
4. Late Palaeozoic rifting and intrusion of late Carboniferous to Permian dolerite sills (ca 300 Ma). It is due to the erosional resistance of this sill that the table mountains have been able to survive Cenozoic erosion.
5. The Quaternary deposits illustrating the last Ice Age, formed during the retreat of the last continental ice sheet and including prominent moraines of the Younger Dryas re-advance and spectacular deposits of the catastrophic drainage of the Baltic Ice Lake at around 11,600 YBP.