



# Trollegater



## .. or more directly related to the ice

Another theory about the origin of the caves is that the ice is what dragged along the boulders a bit. In that case this would have taken place during the final stages of glaciation, which would explain why the ice has not rounded off the exposed fractured surfaces.

The fact that the system of cracks extends down a long way and that displacement of the boulders is so complex appears to validate the earthquake theory. The displacement of the upper layer of bedrock that resulted in the surface clefts corresponds very well with the final movements of the ice, which supports the inland ice sheet theory. It is even conceivable that both processes have played an active role. A comprehensive mapping of the system of cracks and the boulders' displacement has not been done.

## A visit to the "Stora Grottan" (Big Cave)

The main cave is easy enough for beginners to move around in. At the same time, it's long and has a couple more difficult passages, making it exciting and definitely something out of the ordinary. Bring a flashlight and follow along down to the underworld!

The entrance is inconspicuously located between some boulders at the end of a long and wide cleft. The entrance is narrow, and the first passage can seem to be awkward. However, the narrow part is short and not at all representative of the cave awaiting down below. In just a moment you are in the "large banquet hall". Although you can't stand up straight, there is plenty of room. A boulder forms a natural table in the hall's far end.

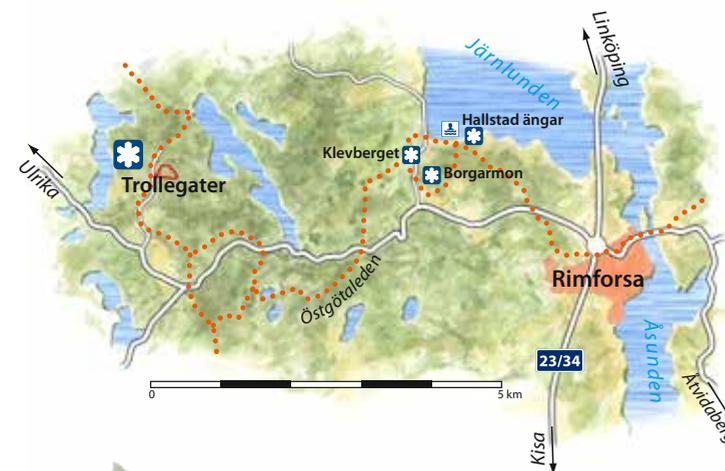
On both sides of the table, the cave continues in two different passages. Further along these are connected with each other by a narrow crossover passage. So it's possible to make a round trip. The passages are one metre wide and sometimes you can walk erect.

Choose the left passage from the large assembly hall. The passage leads to a dead end, but just before that you find the cross-connection on the right side. At the end of the crossover passage, you come to the most difficult passage, an eye of a needle that leads into the second main passage. Here adults have to crawl on their stomachs, so durable clothing is recommended. But an eye of a needle is not only narrow but also short, so you're through it quickly.

## Ox blood and antique tomb

The walls and ceilings are often straight and smooth, which led Leander Tell, the pioneer cave researcher, to compare the passages to the "entrance to an Egyptian tomb". On some of the cave walls, you can see a unique wave pattern that has a red colour, "ox blood", particularly in damp conditions. Imaginative visitors have been predisposed to link this to the "bloody parties of trolls". In actual fact, the wave pattern has been formed by humus that has been deposited by water that trickled down the cave walls. The deposits also contain iron oxide, which provides the red colour.

If you're not content with the large cave, there are several smaller caves to explore. The easiest is Hästskon (Horseshoe) with its three entrances, Grytet (Burrow) and Jojes Hål (Joje's Hole).

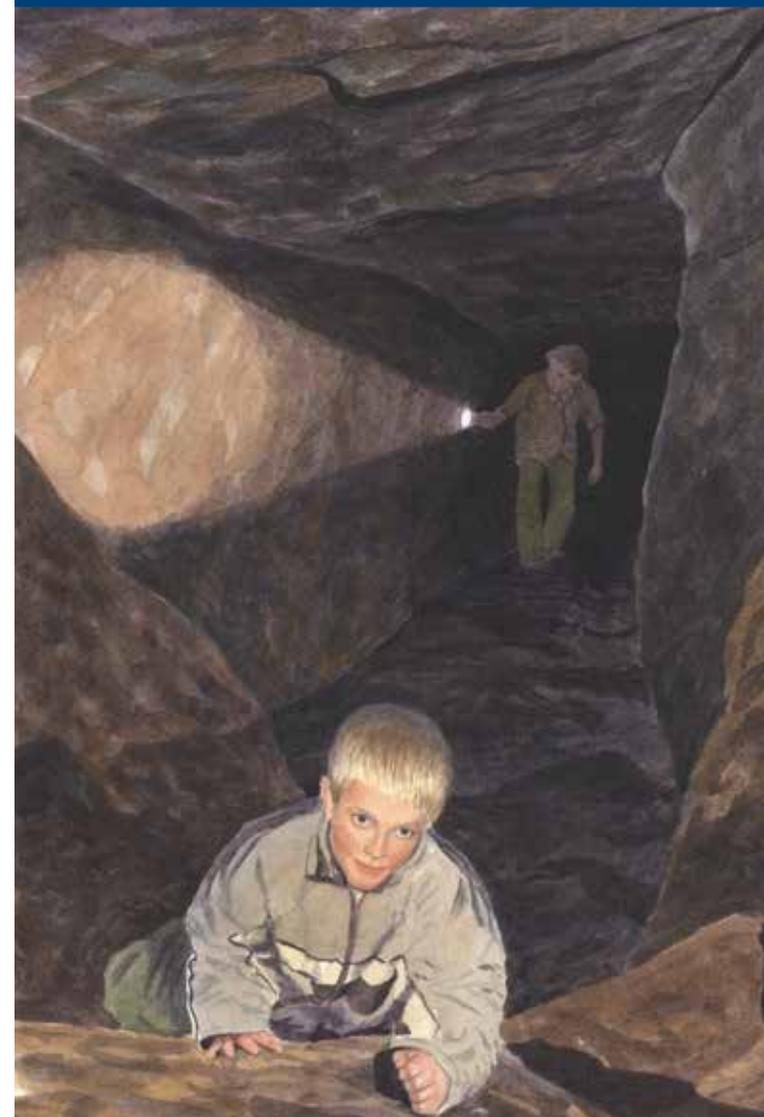


## Exciting primary rock caves

Trollegater – a remarkable system of cracks and caves in the bedrock. The caves are a very popular destination. A great many people crouch, shuffle and crawl through the underground passages. In the main cave you can get around in a loop more than 100 metres long! Trollegater is worth visiting year-round. The weary cave crawler can rest afterwards in the windbreak at the car-park, where there is also a fireplace for warmth and grilling. The surrounding coniferous forest invites you to ramble with berry and mushroom picking.

## Nature experiences in the vicinity

Not far from Trollegater, there are three other highly recommended nature reserves. Hallstad Ångar is a flower-bedecked meadow with a large number of pollarded lime trees. You can also go for a swim here in Lake Järnlunden. From the top of Klevberget, you have panoramic views of the countryside. Borgarmon nature reserve contains a rocky hill with oak groves and the remnants of an ancient hillfort. The nature reserves are linked together by the Östgötaleden hiking trail.



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Nature reserves have been set aside to preserve and look after valuable nature and to safeguard the availability of land for outdoor life. Regulations are posted at the reserves; be sure to follow them. The maintenance and information are paid for mainly with government funds. The Trollegater nature reserve is managed by the Östergötland County Administrative Board.

Production: Östergötland County Administrative Board and Kinda Municipality  
Text and layout: Jan Måreby/Nardus - Ecological Consulting  
Artwork: Niklas Johansson  
Printing: DanagårdLITHO  
First edition, 2003, revised in 2013. English version, 2018.



County Administrative Board  
Kinda Municipality

# Welcome to Trollegater

Concealed behind this somewhat mythical sounding name is a remarkable and exciting system of cracks and caves in the bedrock. Several caves are relatively easy to navigate and suitable for you to explore on your own. In the main cave, you can get around in a 100-metre-long loop! The peculiar formation is the work of the inland ice sheet, but there are differing opinions about how it really became the way it is.

## The dwelling of trolls

According to people in the area, trolls used to live in the caves. The clefts in the rock were said to be the trolls' streets. Hence, the name Trollegater (Troll Streets).

Not even the locals had further insight into the life of the trolls. It is said that you had better be on your guard if you go too close to the rocks after sunset. And if some cattle in the forest grazing land disappeared, it was feared that the trolls had taken them. Then a person knowledgeable

about trolls could be enlisted to read some incantations, so that the animals would come back.

The caves attracted more widespread attention during the 1960s. Cave enthusiasts, speleologists in technical terminology, began then to systematically explore the caves, although some locals advised against this, considering what could be down there. Early visitors have described the forest landscape surrounding the cave as deserted, something that hardly applies today. Trollegater is a very popular destination. A great many people crouch, shuffle and crawl through the underground passages.

## More than a cave

The reserve is not only a cave, but a major formation of cracks in the bedrock. The bedrock of granite has cracked into enormous "boulders" that have shifted in relation to each other. The resulting clefts crisscross and are of varying size. Some are several metres deep and a couple metres wide. The system of cracks extends down a long way and has created numerous caves, several of which have been named. "Stora Grottan" (Big Cave) is by far the largest and the one that most people are content to explore. The system of passages has been measured at 143 metres, which places Trollegater among Sweden's largest primary rock caves.

### Advice for visitors

Although the main cave is easily accessible, it is wise to take some precautions.

- Bring along a reliable flashlight.
- Don't go down in the caves alone.
- It's good to have a helmet. It's easy to hit your head on the ceiling in the dark.

Red crossbill  
(*Loxia curvirostra*)

## 13,000- year-young caves

Ever since the caves were discovered, several theories about their age and origin have been put forward. Today most agree that the caves are young in geological terms. They formed during the final stages of the last glaciation or shortly after the ice melted away. Cracks and weak zones may have existed in the past, but the displacements we see of boulders must be "new". Otherwise the last inland ice sheet would have rounded off the sharp shapes.

## Earthquake ...

According to the theory that seems to have the most adherents today, the caves formed as a result of earthquakes in connection with the melting away of the inland ice sheet. The ice sheet, which was a few kilometres thick, compressed the bedrock several hundred metres with its weight. When the ice melted, the land started to rise again. The ice left this area about 13,000 years ago, but the uplift began even before then. At Trollegater the uplift is estimated to have amounted to between 200 and 300 metres. The land is still rising at a rate of a couple of millimetres per year, but in conjunction with the ice melting, it went much faster. The rapid movement of the bedrock triggered earthquakes when the built-in tension was released.

The crack formations, the system of "troll streets", are remarkable and an attraction in themselves. So even if being underground doesn't appeal to you, Trollegater is worth a visit. However, don't expect to see any trolls. Maybe they got tired of everyone running in their "streets", and moved. In any case, we don't hear anything from them nowadays.