

## The origins of the Visingsö Group

For people living in Sweden today, the landscape around them seems calm and static. There are no active volcanoes and you would consider yourself lucky to experience the faint rumblings of an earthquake. This peaceful co-existence with Earth is however far from the norm, as the many scars in the rock record bear witness to. When what is now western Sweden formed it did so in a suitable dramatic fashion.

The rocks found there today were once the roots of a Himalaya-sized mountains, called the Sveconorwegian mountains. Southern Sweden is split into two parts, a western part affected by the creation of the mountains and an eastern relatively unscathed. The border between these two zones can be drawn through where Lake Vättern is today. Anyone who have been to western Sweden can testify, there are no signs of any Himalaya-like mountains there today. As is the fate of all mountains, with enough time, inevitably the forces of wind and water will break them. When you take into consideration that the Sveconorwegian mountains were created a billion years ago, it might seem more plausible.

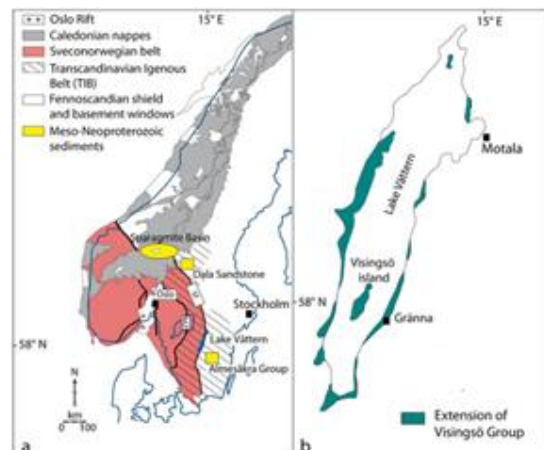
So where are the remnants of these mountains today?

When the mountains inevitably were chiselled into sand and gravel, these tiny mountain-pieces were transported to what is now the eastern part of southern Sweden. This area consisted of a so called foreland basin, a sort of trench in front of the mountains. In this basin large successions of sand and clay piled up to form thick deposits. Very few of these are found today since they as well are eroded away over the millennia, but luckily a few bits and pieces remain.

The lake itself holds the key to why we find the rocks of the Visingsö-group where we do. It formed in an old rift, a huge scar in Earth's surface formed by immense tensions that ripped the ground apart. When the rift opened, the rocks above fell down into the depression. Here they were protected from



*Outcrop of the Visingsö Group on the island of Visingsö.*



A: Simplified geological map of S. Scandinavia  
B: Lake Vättern and the Visingsö group

the erosional forces of nature and could be preserved. Now we can study these rocks around Lake Vättern and use them as a window into the past, through which we can catch glimpses of a time when Sweden was very different. A time when the Earth itself was being twisted and altered by the violent powers of our planet.