

## Stop 11: Panga cliff

**Peep Männik**

**Location:** Coordinates of the terminal points: west: 58°33'09"N, 22°17'10"E; east: 58°34'12" N, 22°17'49"E; Saare County, Estonia.

**Stratigraphy:** Telychian (underwater escarpment) and Sheinwoodian, Adavere, Jaani and Jaagarahu RSs.

**Status:** Cliff is under protection; no hammering, but loose material may be collected.

**More information:** <https://geoloogia.info/en/locality/10235>

The Panga cliff is located east of the Küdema Bay, close to the Võhma village in northern Saaremaa (coordinates of its eastern end). It is the highest cliff in Western Estonia, in the Silurian outcrop area (Fig. 11.1). The Silurian cliff is an extensive escarpment. It starts on Gotland in Sweden, continues below the Baltic Sea, and rises again above the sea level on the western coast of Saaremaa. The Panga cliff has two main escarpments, one below and the other above sea level. These escarpments are separated by a shallow-water plateau several hundred meters wide. A surf zone marks the edge of the plateau (Fig. 11.2). The underwater part of the cliff is up to 12 m high. The maximum height of the cliff above sea level is 21.3 m. The cliff ranges arch-shapely along the western coast of the Panga Peninsula, about 3 km from north to south.

The escarpment below sea level consists of dolomitized marlstone and dolomitic argillaceous limestone of Telychian age (upper Adavere and lower Jaani stages). In the cliff above sea level, dolomitised marlstone and argillaceous dolomitic limestone of the Jaani Formation (Jaani Stage) and porous dolostone of the Vilsandi Beds (Jaagarahu Stage) containing small bioherms are exposed. For a detailed description, see Männik & Nestor (2014).

As a prominent landform and scientifically important natural object, the Panga cliff (also known as the Mustjala cliff) is protected by the state. It is also one of the main tourist attractions in Saaremaa.



**Fig. 11.1.** The main escarpment of the Panga cliff. Photo: Peep Männik.



**Fig. 11.2.** A surf zone is marking the edge of the lower escarpment at the Panga cliff. Photo: Peep Männik.

### References

Männik, P., Nestor, V., 2014. Stop B5: Panga cliff. In *4th Annual Meeting of IGCP 591, Estonia, 10-19 June 2014. Abstracts*

*and Field Guide*. (Bauert, H., Hints, O., Meidla, T., Männik, P. eds), University of Tartu, Tartu. p. 185–187.