

Inventory of geosites in Finland

Criteria for classification and overview of registered sites

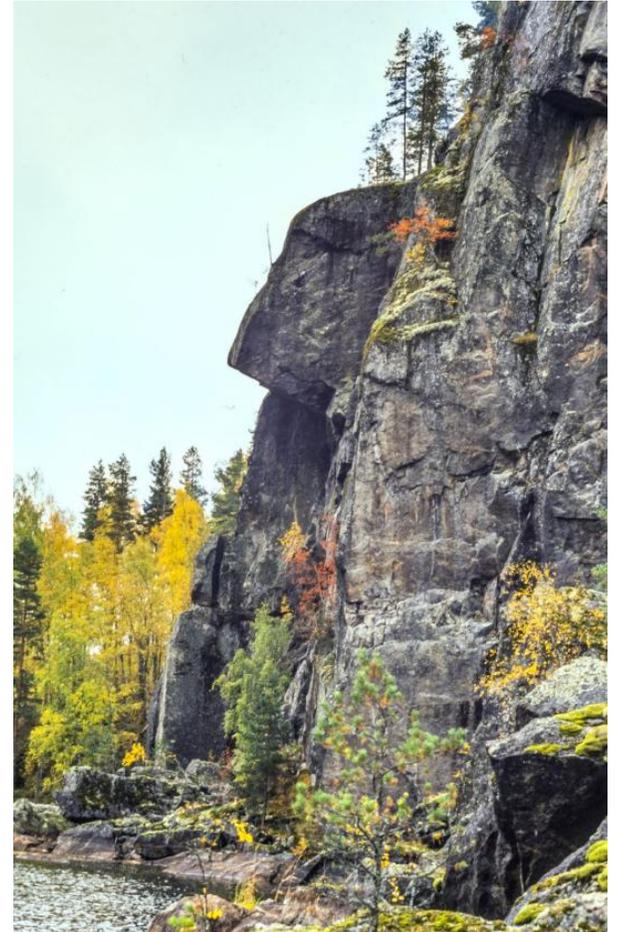
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Inventory of geosites in Finland

- The national esker protection programme and inventories 1972-1980 (1984)
 - *159 eskers, 96 000 hectares, approx. 6 percent of the total area of eskers*
 - *most of the protected eskers are located in southern Finland*
- The national mire protection programme 1979
 - *preparation of the program in the 1960s and 1970s*
 - *The assessment was based on data already available, the most representative mires were selected*
 - *new mapping for conservation purposes in 2014*



- The assessment of geologically and geomorphologically valuable bedrock sites 1989-2008
 - *>1 000 sites checked in the field, 160 internationally or nationally valuable*
 - *new sites for protection and education*
- Rock outcrop areas of national value 1989-2015,
 - *1 286 sites of national value, field inventory 1992-2004*
 - *geological, biological or landscape value*
- Inventory of nationally valuable moraine formations 1999-2007
 - *1 400 sites checked in the field, 584 nationally and 23 internationally valuable*
 - *57 300 hectares, 1,2 percent of the total area of moraine formations*



- Nationally valuable aeolian sand and littoral deposits 2005-2011
 - *697 sites checked in the field, 417 of which are nationally valuable*
 - *geological, biological and landscape values; slightly different classification*
- Blockfield sites of national value 2010-2017
 - *1 000 sites checked in the field, 640 were nationally valuable*
 - *Geological, biological and landscape values*
- Finnish inventory programme for underwater marine diversity 2009-2015, 2017-
 - *to map underwater marine nature, biodiversity, geodiversity*
 - *biological and geological mapping methods and remote sensing*

Classification and criteria for geosites

- Initially, the selection criteria were quite informal and precise classification by value was not used always
 - *for example, the esker protection program aimed to protect representative, natural, and rare esker formations. The main focus was on geological and landscape values*



- The national mire protection programme
 - *The sites included in the mire conservation program have been selected to cover all mire types and they must be in a natural state.*
 - *The protected area covers 13 percent of Finland's total mire area and a focus is on Northern Finland.*
 - *Both esker protection and mire protection programs are included in Finland's seven nature protection programs.*



- In the 1980s and thereafter, several inventories of geological sites were initiated.
- The difference from previous conservation programs was that these new inventories did not have any conservation status.
- Another difference from previous inventories was the four-stage rating scale.
 - *international, national, regional and local value*
 - *The main factors in classification are geological, biological and landscape factors. Geology is the most important.*
 - *how geosites are classified into different categories according to their value?*
 - *a scoring system was developed, and various calculations were performed to obtain an accurate score for each target.*
 - *The final category for the site can be seen from the table.*
 - *Currently in use in many countries with minor modifications.*

<u>Geological points</u>	<u>Value class</u>
1,00–1,50	1
1,75–2,25	2
2,50–2,75	3
3,00–3,50	4
3,75–4,00	5

- **Geological value** (example: Blockfield sites)
 - *History of the formation and other geological features*
 - *type of the blockfield*
 - *stone size, roundness, orientation and stone density*
 - *rock type and its migration*
 - *Geomorphology*
 - *size and shape of the blockfield*
 - *the height of the stratum, slopes, and their steepness*
- **Biological value**
 - *Rarity and diversity of habitat types*
 - *Rarity and endangerment of species*
 - *Naturalness*



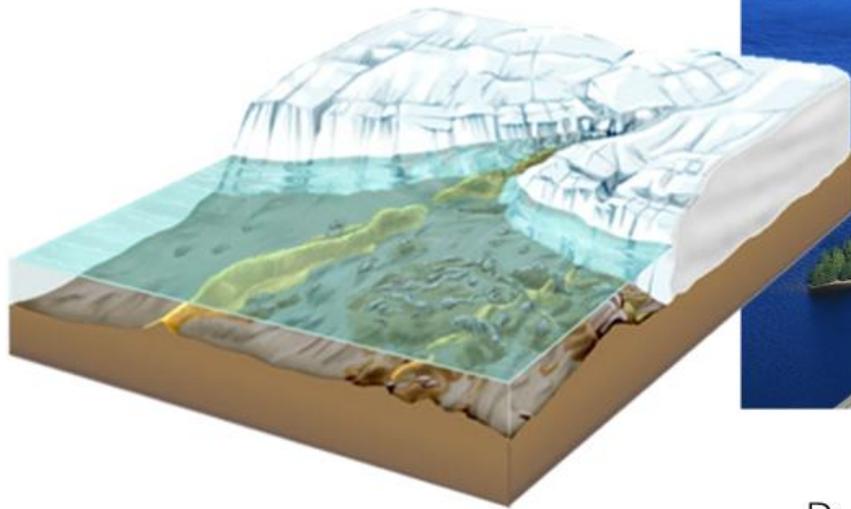
- **Landscape**
 - *Perception of the environment*
 - *Landscape opening up to the environment*
 - *Internal landscape*
- **Other values**
 - *Recreational use*
 - *Cultural history and archaeology*
 - *Groundwater*
 - *Naturalness*
 - *Surrounding area*



The national esker protection programme and inventories



- Päijänteen kansallispuisto
 - 14 km² >50 asumatonta saarta
 - Kelvenne on yksi Suomen suurimpia harjusaaria



- Pulkkilanharju on äänestetty Suomen kauneimmaksi maisemareitiksi

The national mire protection programme







The assessment of geologically and geomorphologically valuable bedrock sites







Rock outcrop areas of national value

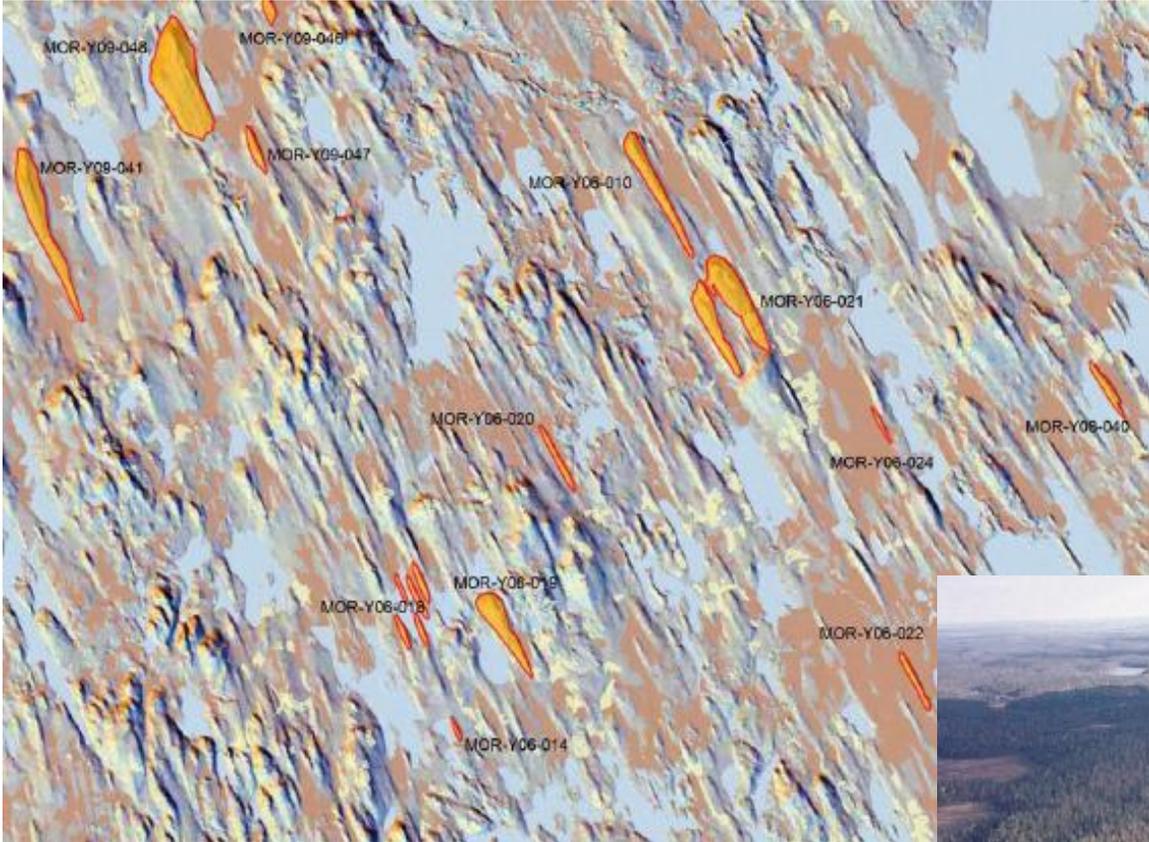






Inventory of nationally valuable moraine formations





Nationally valuable aeolian sand and littoral deposits







Blockfield sites of national value









"rocking the stone"

Thank you!