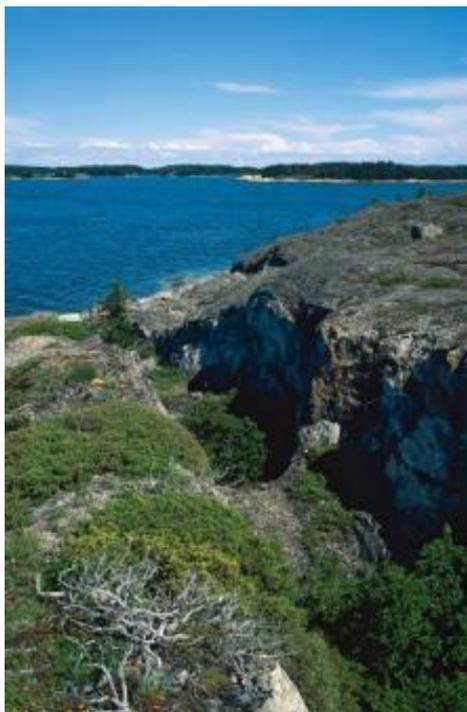


## Preservation of the most threatened rocky habitats would not require large protection areas

***The second threat assessment of Finnish habitat types highlights calcareous and serpentine rock outcrops as the most threatened rocky habitat types. Protecting these most threatened yet highly important habitats for rock species from the effects of land use would not require large protection areas. Preserving the calcareous and serpentine rock outcrops would not require more than under ten square kilometres of additional protection areas. This could also be partly achieved by means of voluntary protection.***



The calcareous rock outcrops on seashores were categorized as an Endangered habitat type, the amount and quality of which has been reduced by lime quarrying, construction on the seashores and the overgrowing caused by eutrophication fallout and eutrophication of the Baltic Sea. Photo Kimmo Syrjänen.

The rock outcrops and scree have not become threatened in the same degree as most other habitat types: of the 44 rocky habitat types assessed, about one fourth is threatened. The threatened rocky habitat types are very small in size and cover less than one percent of the overall area of outcrops and scree.

About 30% of the number of rocky habitat types are Near Threatened, and they account for less than 10% of the total area of rocky habitats. In Southern Finland, rocky habitats have become more threatened than in Northern Finland.

### Small-area treasures of rocky habitats

Considering the small land area of rocky habitats, they have a relatively rich biota. The calcareous and serpentine rock outcrops that represent the most seriously threatened habitat types are diverse, small-area habitats with rare types of rock sustaining a specialised and threatened biota. In Finland, calcareous rock outcrops have been quarried for hundreds of years; in Southern Finland to the extent that most of their original area has been quarried. Calcareous rock outcrops have also disappeared as a result of construction, and their quality has deteriorated due to overgrowing.

Serpentine rock outcrops, or ultrabasic outcrops, where 'serpentine plants' grow, have not been destroyed in the same degree as calcareous rock outcrops. Serpentine rock outcrops are often located in bedrock zones with potential ore deposits, often near soapstone and talc deposits, so the threat of their disappearance does exist, when the ore and raw material resources are being quarried.

### Over 99% of the area of rock outcrop habitats are non-threatened

Most of the rock outcrop habitats belong to acidic and intermediate-basic rock outcrops with habitats assessed as non-threatened. However, among acidic and intermediate-basic rock habitat types there are several types assessed as Near Threatened. Their deterioration is caused by such factors as clearcutting of forests, construction, atmospheric deposition of nitrogen and sulphur, and water regulation as regards shoreline rock outcrops.

### Rock outcrops threatened with overgrowing benefit from habitat management

Compared to human life, rock outcrops may seem eternal, but there are rocky areas that are not preserved without special attention or habitat management. Calcareous rock outcrops are often so small that even minor construction or even yard renewal may cover or destroy them. Landowners

and other operators should be informed about the remaining occurrences as soon as possible to prevent valuable rocky habitats from being destroyed by accident.

Protection from changes in land use alone is not enough to save all calcareous and intermediate-basic rock outcrops, since their biotic communities are also threatened by overgrowing, accelerated by such phenomena as prevention of forest fires, thickening of forest tree stands and nitrogen fallout. Many open environments, including rock outcrops, are losing their natural value due to overgrowth by trees and other strongly spreading plants. Preservation of such habitats requires habitat management, such as systematic removal of trees and shrubbery.

### **Further information**

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