



SPECIAL FEATURES IN THE NORTHWEST TERRITORIES

ALVARs



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What are alvars?

Alvars, also known as limestone pavements, are a karst formation. They are areas of flat, karstic limestone with limited soil production and support sparse, prairie-like vegetation with little to no trees.

Globally, alvars are found in very few places. They exist in the Interlake region of Manitoba, the Great Lakes region of North America, the eastern United States (as “Cedar Glades”) and in northern Eurasia, particularly Sweden and Estonia. These alvars often contain communities of plant and animal species not found anywhere else, including rare and threatened species, endemic species and species that survived the last glaciation. The types of plant species living in alvars depend on soil depth, soil moisture, drainage, overall biomass, and climate and drought tolerance. In areas with deeper soil, there are taller perennials and trees. Smaller annuals and stress-tolerant perennials are found in shallower soil.

Alvars in the NWT

Alvars in the Northwest Territories (NWT) are likely the most northerly alvars in North America. A survey found NWT alvars to have relatively high biodiversity for such a northern habitat. NWT alvars have a higher percentage of species originating from glacial refugia, or areas that remained uncovered by glaciers during the last Ice Age. They also have a higher number of species from the boreal, Arctic and cordillera ecozones than their counterparts in the Great Lakes region, which contain more species from the prairies and eastern temperate forest.

Alvars require special protection, monitoring and management. They are sensitive to disturbances and have thin soil that is easily removed or trampled. There are 11 alvars confirmed in the NWT, but satellite imagery indicates others exist in the region southwest of Great Slave Lake. Mapped alvars are described in *Mapping Known and Potential Karst Areas in the Northwest Territories, Canada* (Ford 2012).

How can we protect alvars?

Practice “**Leave No Trace**” principles in the backcountry.

If you think you see an alvar, take a picture of it and send it to Environment and Natural Resources at nwtsoer@gov.nt.ca to help us develop and maintain a comprehensive database on alvars.

To minimize impacts on alvars and associated features, developers are asked to observe the following recommended best practices:

- If you are conducting land use activities, make sure you obtain current information and surveys for alvars in your area of interest.
- Identify any impacts of your proposed activities and determine appropriate mitigation measures to minimize impacts on alvars.
- Monitor your land use activities and mitigation efforts to make sure there are minimal impacts on alvars.
- If you are conducting land use activities within the vicinity of a known alvar, make sure you do a general biophysical survey, including a rare plant survey.

Where can I get more information?

Visit the Conservation Network Planning **webpage** for other information sheets, reports and most recent maps.

Email Conservation Network Planning at conservationplanning@gov.nt.ca

