

What's so special about the Burnt Lands Alvar?



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What is an alvar?

An alvar is a biological environment based on a limestone plain with thin or no soil and, as a result, sparse grassland vegetation. Often flooded in the spring, and affected by drought in midsummer, most alvars occur either in northern Europe or around the Great Lakes in North America. This stressed habitat supports a community of rare plants and animals, including species more commonly found on prairie grasslands. Lichen and mosses are common components. Trees and bushes, when present, tend to be stunted.

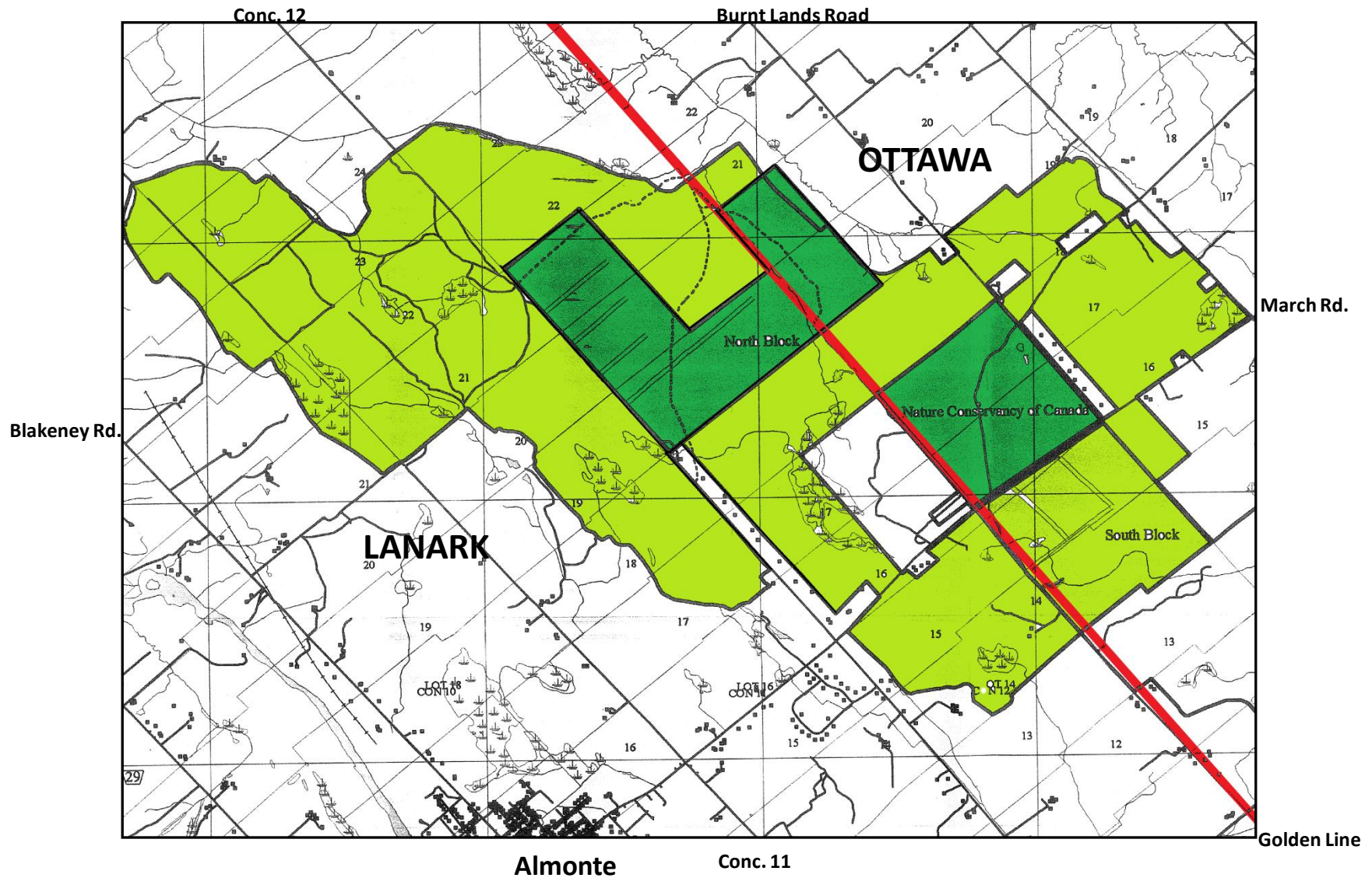
(Wikipedia)



What is the Burnt Lands Alvar?

- The Burnt Lands is susceptible to forest fires in dry summers. An extensive forest fire swept through the area in 1870. A smaller but much more recent fire occurred along Golden Line Road in 1999. Forests in the Burnt Lands are severely damaged by fire due to the dry, thin soil and the trees are very slow to regenerate compared to those in areas with deeper, moister soil (White, 2013).
- The Burnt lands alvar consists of a complex mosaic of bare exposed limestone flats, herbaceous alvar vegetation, and mixed and coniferous forest. Wetland areas that are found here tend to be ephemeral and irregular in occurrence.
- The vegetation of the Burnt lands is complex, comprised of over a dozen major elements that tend to be early successional and blend into one another. The alvar grassland meadows are extensive, and dominated by a variety of associations. Although numerous prairie species are present, it is not considered to be prairie (Ont. Parks 2001)

Where is the Burnt Lands Alvar?



What's special about alvars?

- Alvar communities command interest because of their rarity, distinctive character and their large number of rare species (Ontario Parks 2001).
- Alvars comprise a small percentage of the Earth's ecosystems by land extent. Although some 120 exist in the Great Lakes region, in total there are only about 112 square kilometres left across the entire Great Lakes basin, and many of these have been degraded by agriculture and other human uses. More than half of all remaining alvars occur in Ontario. There are smaller areas in New York, Michigan, Ohio, Wisconsin and Quebec (Wikipedia).

What's so special about the Burnt Lands Alvar?

- This is a question that is particularly likely to be asked this time of year!



What's so special about the Burnt Lands Alvar?

- The Burnt Lands alvar is a provincially significant Area of Natural and Scientific Interest (ANSI).
- The Crown Land portion of the alvar is regulated as a Nature Reserve Class provincial park.



- The Burnt lands Alvar is the largest, most diverse, and therefore most significant alvar of the Smiths Falls limestone plain within Ecodistrict 6E-11 (OMNR 1991).

What's so special about the Burnt Lands Alvar?

- Brunton (1986) recorded 11 vegetation community types within the protected area, defined in terms of elevation, shade tolerance, and vegetation type:
 - developed land;
 - abandoned agricultural land;
 - intolerant mixed forest;
 - intolerant deciduous forest;
 - intolerant coniferous forest;
 - **rock flats** (provincially significant);
 - **alvar meadows** (provincially significant);
 - upland thickets;
 - tolerant coniferous forest (has regionally important plant species);
 - Lowland intolerant deciduous forest; and
 - wet meadow.

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There is an interesting mix of plant communities in the Burnt Lands:

- Prairie
- Boreal (coniferous) forest
- Sedge meadows
- “bare rock” with lichen and moss communities



Ram's-head Lady's-slipper



Dropseed meadow



Kalm's Bromegrass

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Rock Sandwort



Narrow-leaved New Jersey Tea

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Hairy Beardtongue



Small Skullcap



Seneca Snakeroot

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Red Bearberry



Bastard-toadflax



Fringed Polygala

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Upright Bindweed



Yellow Lady's-slipper in burned area

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Because of the mix of plant communities, the Burnt Lands Alvar also has a mix of prairie, boreal and southern animal species, particularly birds and insects.



Satyr Anglewing

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Butterflies



Hoary Elf



Columbine Duskywing



Common Roadside Skipper

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Other animals

Citrine Forktail



Brush-tailed Emerald



Common Claybank Tiger Beetle



Frog spawn

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Birds

During the second Ontario Breeding Bird Atlas, 94 species were reported in the square that includes the Lanark County portion of the alvar.

These included:

Ruffed Grouse	Least Flycatcher	Black & White Warbler
Wild Turkey	Gr. Crested Flycatcher	Ovenbird
American Bittern	Common Raven	Northern Waterthrush
Green Heron	Horned Lark	Mourning Warbler
Northern Harrier	Red-breasted Nuthatch	Common Yellowthroat
American Kestrel	House Wren	Eastern Towhee
Upland Sandpiper	Eastern Bluebird	Clay-colored Sparrow
Common Snipe	Veery	Field Sparrow
American Woodcock	Hermit Thrush	Vesper Sparrow
Black-billed Cuckoo	Brown Thrasher	Grasshopper Sparrow
Great Horned Owl	Nashville Warbler	Indigo Bunting
Short-eared Owl	Yellow Warbler	Bobolink
Northern Saw-whet Owl	Magnolia Warbler	Evening Grosbeak
Whip-poor-will	Black-thr. Blue Warbler	
Ruby-thr. Hummingbird	Yellow-rumped Warbler	[Swainson's Thrush]
E. Wood-Pewee	Black-thr. Green Warbler	
Alder Flycatcher	Pine Warbler	

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THANK YOU!