What’s so special about the Burnt Lands Alvar?

Ken Allison
Mississippi Valley Field Naturalists
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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?

Ontario Parks. 2001
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.
FLORA

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
Dropseed meadow
FLORA

Rock Sandwort

Narrow-leaved New Jersey Tea
FLORA

Hairy Beardtongue
Small Skullcap
Seneca Snakeroot
FLORA

Red Bearberry

Bastard-toadflax

Fringed Polygala
FLORA

Upright Bindweed

Yellow Lady’s-slipper in burned area
FAUNA

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.
FAUNA

Butterflies

Hoary Elfin  Columbine Duskywing  Common Roadside Skipper
FAUNA  Other animals

Citrine Forktail

Brush-tailed Emerald  Common Claybank Tiger Beetle  Frog spawn
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
- [Swainson’s Thrush]
- Ruby-thr. Hummingbird
- Yellow-rumped Warbler
- E. Wood-Pewee
- Black-thr. Green Warbler
- Alder Flycatcher
- Pine Warbler
Bibliography


• White, D.J. 2013. Plants of Lanark County, Ontario. Online annotated checklist. Available at: http://www.lanarkflora.com