






Fire

Konza researchers + Kaw (Kaáⁿze) language
Joint perspectives on People & Land discussion part 6, 231103



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Introduce Lydia, Charlee, Rissa

Participants please write your name, email, location, and primary interests in the Chat

Questions: will have open discussion at the end, please post questions in the Chat as we go

Land and Name Acknowledgement


The grasslands on which Konza Prairie LTER research is focused have been a home to people for thousands of years, including many named and unnamed peoples who lived and hunted here prior to European settlement. Indigenous people of the Kaw (Kanza) Nation inhabited and stewarded this area until their forced removal between 1846 and 1872, when they were relocated to a small reservation in what is now Oklahoma. The depopulated Kaw land was subsequently used to finance the Land-Grant University system under the Morrill Act of 1862, including Kansas State University, which administers the Konza Prairie LTER Program. Our LTER research program operates under a name, “Konza”, that is derived from the name of the Kaw, or “Kaáⁿze”, People.

The Konza Prairie LTER acknowledges the immemorial connection of Indigenous peoples with these lands, and we pledge to respect and honor the past and current legacy, cultural history, and knowledge of the Kaw Nation. Through our professional capacity as scientists and educators, we will work to increase our knowledge of the human legacy of these lands, and in turn, will teach this history to others. The beauty of this land inspires our work to understand the tallgrass prairie and support conservation of this ecosystem. However, this inspiration also serves as a reminder of the Indigenous human history that has shaped the modern landscape, and the influence that our current actions will have on the prairie of the future.

<http://lter.konza.ksu.edu/konza-prairie-lter-land-and-name-acknowledgement>

Perspectives & Methodologies

- Understand scientific method and Indigenous perspective on prairie knowledge
- Consider humans' relationship with the Land in North America:
 - This was not "*Terra nullius*" (nobody's land) when Europeans arrived
- Establish a forward-thinking mindset, with an honest vision of the past and present



Nov 3: Fire

- Fire (*péje*) is alive
- Fire is useful: Sustains prairie life – human and non-human
- Must fire be scary?

Agenda:

- 13:30-13:35 Introduction / Review
- 13:35-13:40 What is fire? (Lydia)
- 13:40-13:45 Fire is alive (Charlee)
- 13:45-13:55 Fire is useful: Prairie needs fire (Lydia)
- 13:55-14:05 Fire is useful: Humans need fire (Charlee)
- 14:05-14:15 Must fire be scary? (Lydia & Charlee)
- 14:15-14:30+ Questions





Picture: Eva Horne



Picture: Barb Van Slyke



Picture: Eva Horne

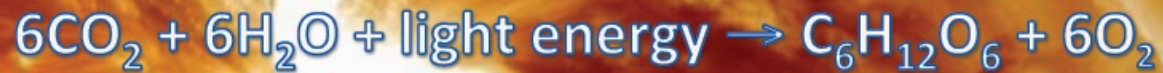
Cellular Energetics

The ultimate source of nearly all energy for ecosystems is the...

SUN!!!

PHOTOSYNTHESIS

carbon dioxide + water + energy (kinetic) → sugar + oxygen



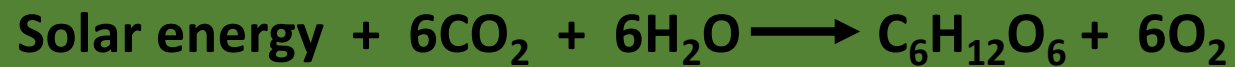
RESPIRATION

sugar + oxygen → carbon dioxide + water + energy (potential)



Photosynthesis:

Light + Carbon Dioxide + Water \longrightarrow Glucose + Oxygen



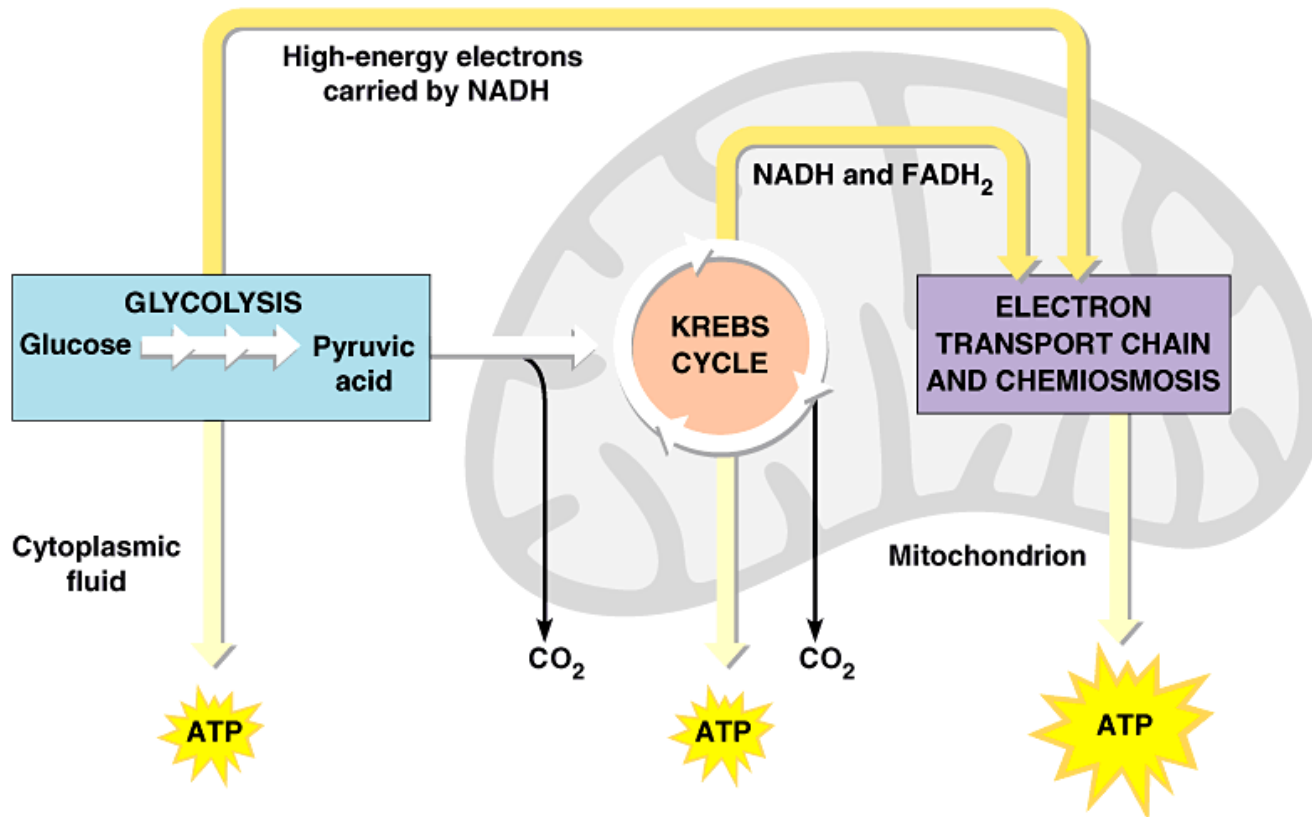
Respiration:

Glucose + Oxygen \longrightarrow Carbon Dioxide + Water



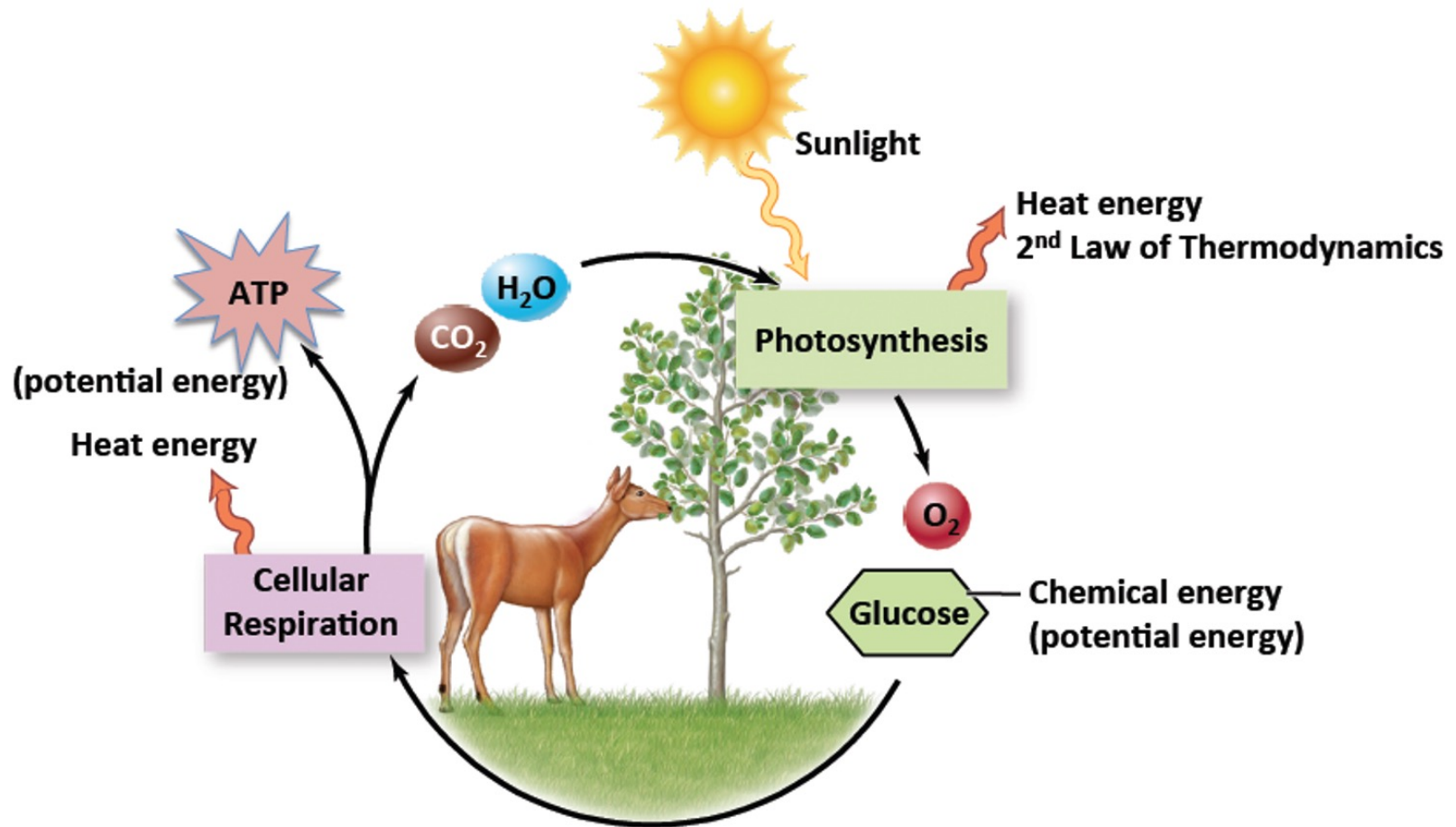


How many times must this process occur for you to move 4 miles in 1 hour?





Photosynthesis & Respiration





Fire is alive

péje (che) [pé-je] n fire



Fire is alive

péje (*che*) [*pé-je*] n fire

pézhe blàska [*pé-zhe blà-ska*] n flat grass, the seeds of which made a perfume used by the Kansa

pézhe blaⁿ yâli [*pé-zhe blaⁿ yâ-li*] n grass, a sweet grass used as a perfume

maⁿhiⁿ n grass

Fire is useful

Sustains prairie life – human and non-human



Picture: Eva Horne

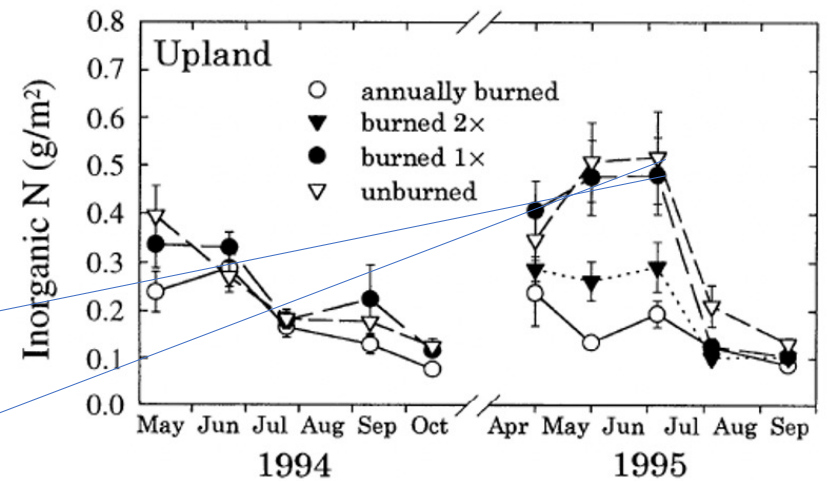
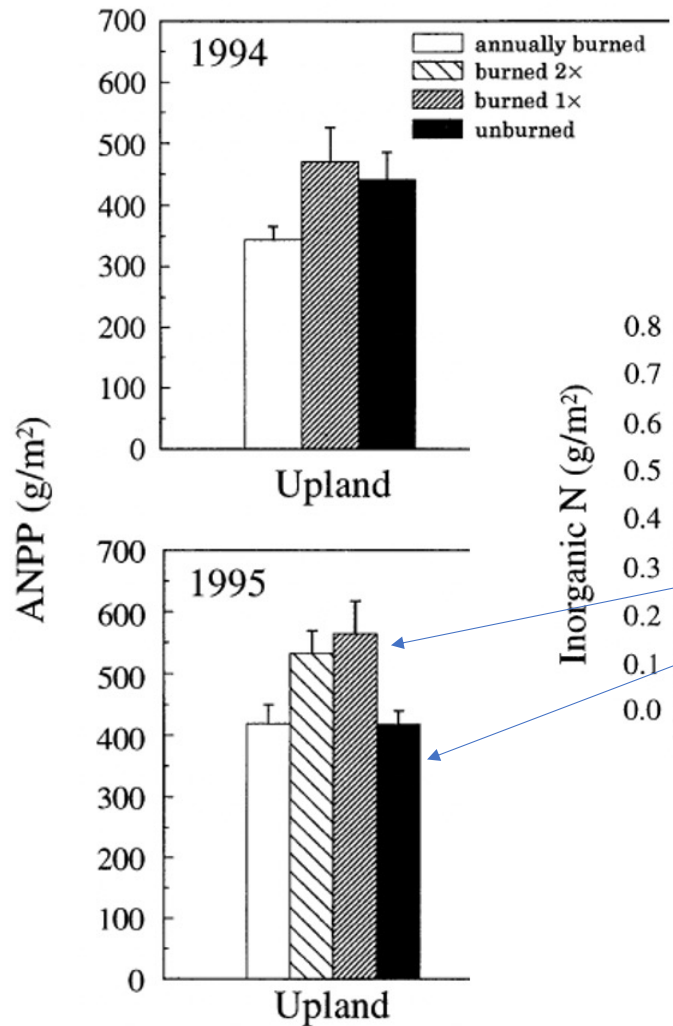
Grass grows more after fire

Light!

Nitrogen demand & availability

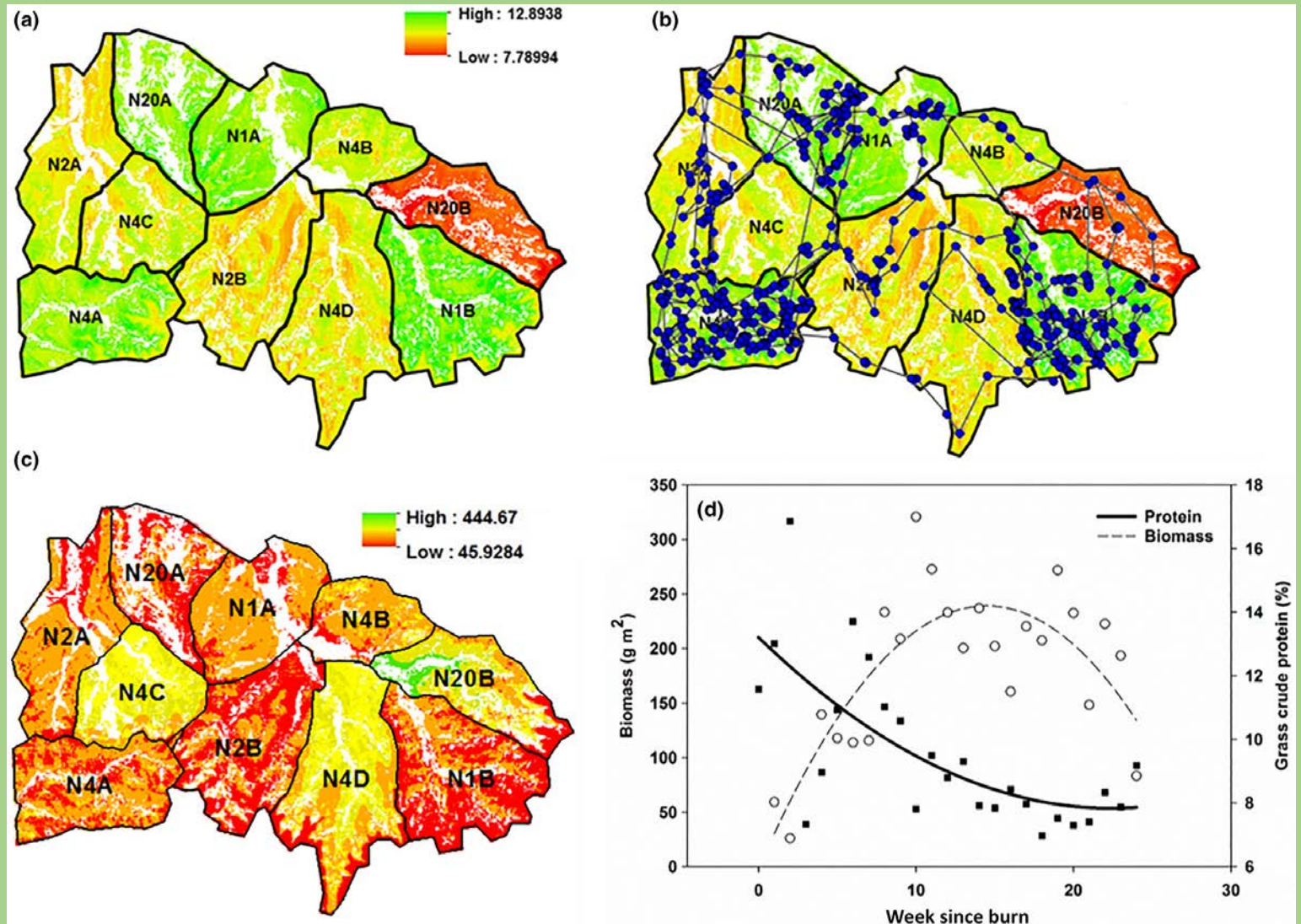
Temperature, minor influence

Nutrient return in ash, less important



Hulbert et al. 1998;
Seastedt & Knapp 1993;
Blair et al. 1997

Bison follow fire (forage quality)



Fire sustains the prairie -
grass, bison, and all else

Sean Reichard, Bison and fire 1988, yellowstoneinsider.com



Fire sustains human life

Cooking
Cultivation
Hunting...

péje n fire



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Fire sustains human life

Cooking
Cultivation

The place for the fire was a hole in the earth under the ridgepole of the roof, where an opening was left for the smoke to pass. All the larger lodges had two to sometimes three fireplaces, one for each family dwelling in it (Pike, 1810).

<https://www.kawnation.gov/cultural-history-part-1/>

péje n fire



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Fire sustains human life

je vi (impers) kindled, burn, as a fire

gapúwe vi build a fire

ijéye v kindle, build a fire at/in a place

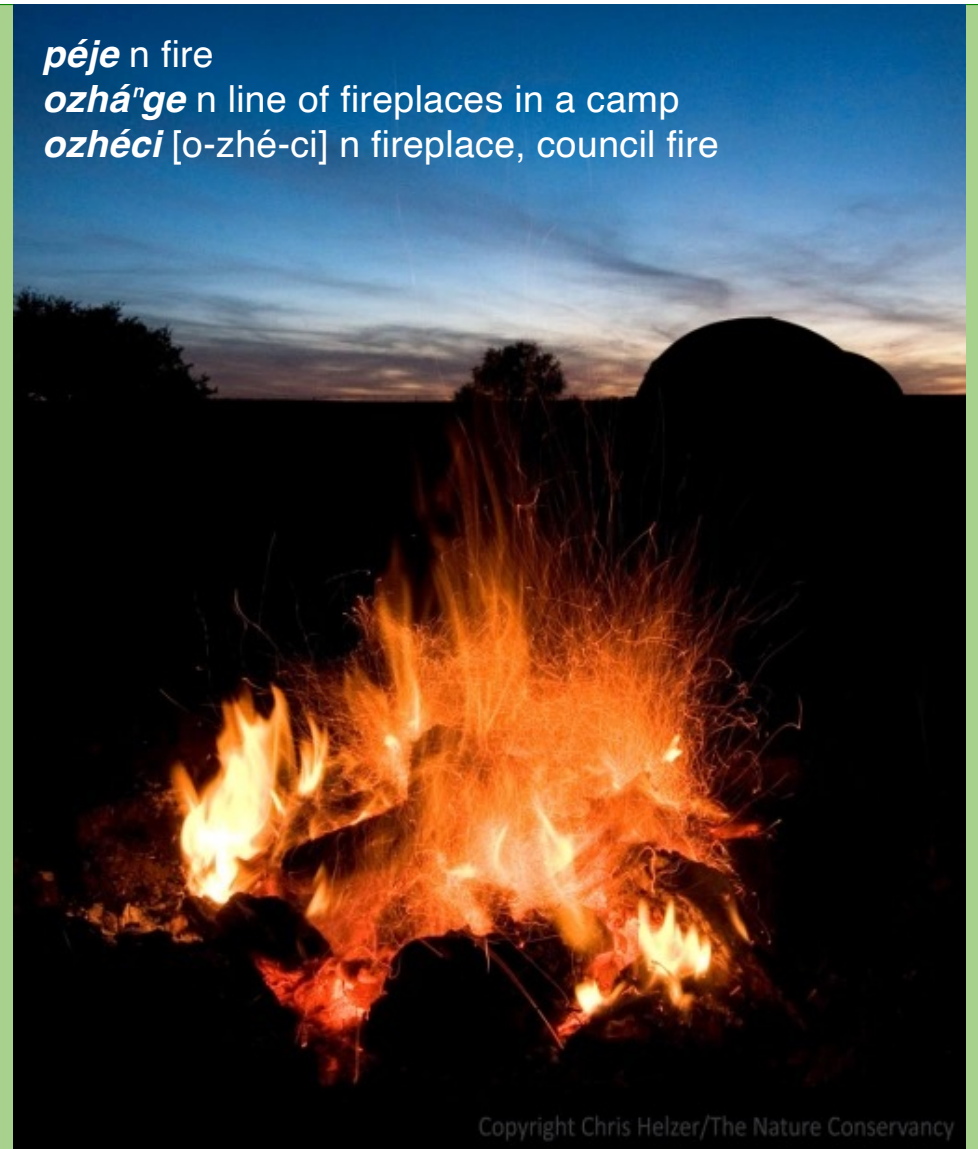
ijíle vt hang over the fire, hang a kettle

Ozháⁿge Wakíghe [O-zháⁿ-ge Wa-kí-ghe]
n Makers of the Road, a name of the
Maⁿyíⁿka Gaghe clan of the Kaw tribe,
given to them because they made the
first fireplaces in a new village

péje n fire

ozháⁿge n line of fireplaces in a camp

ozhéci [o-zhé-ci] n fireplace, council fire



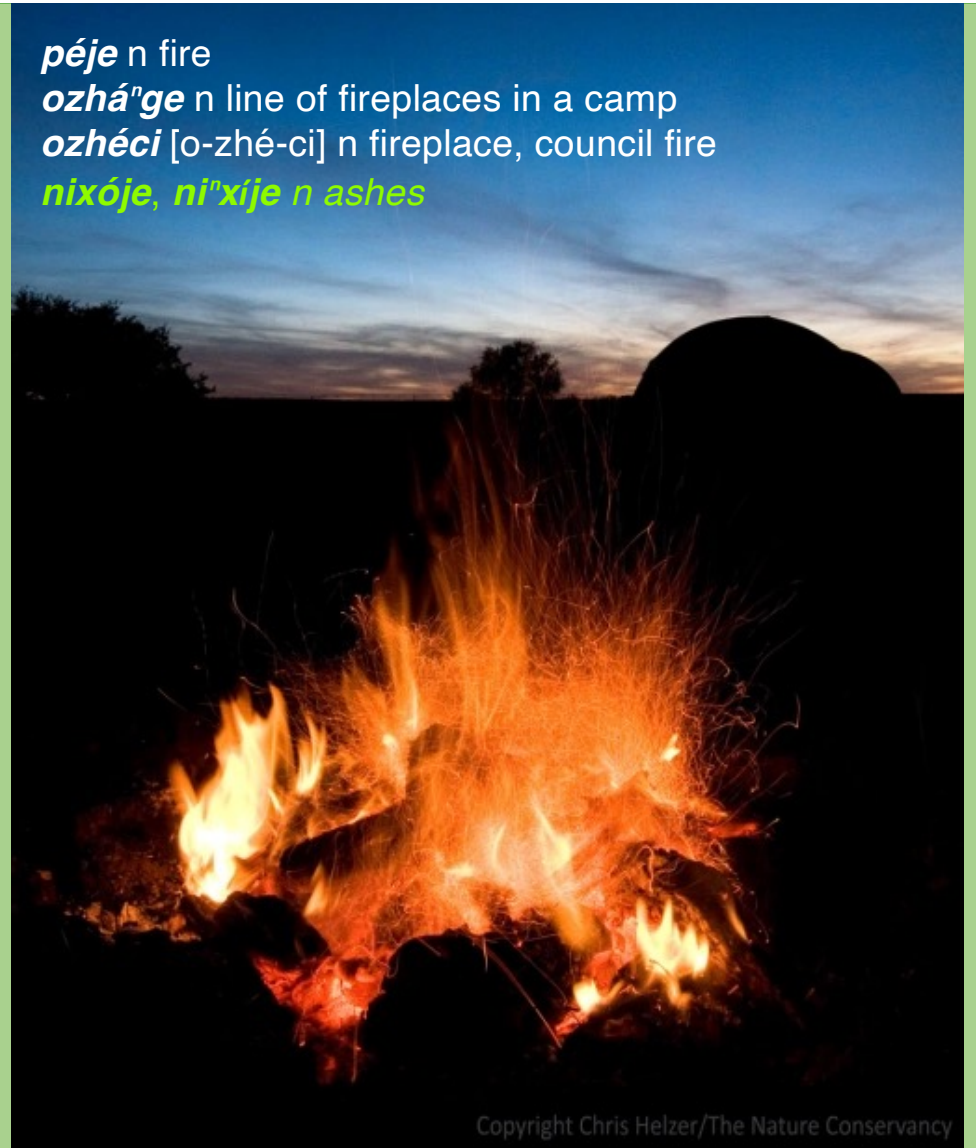
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Fire sustains human life

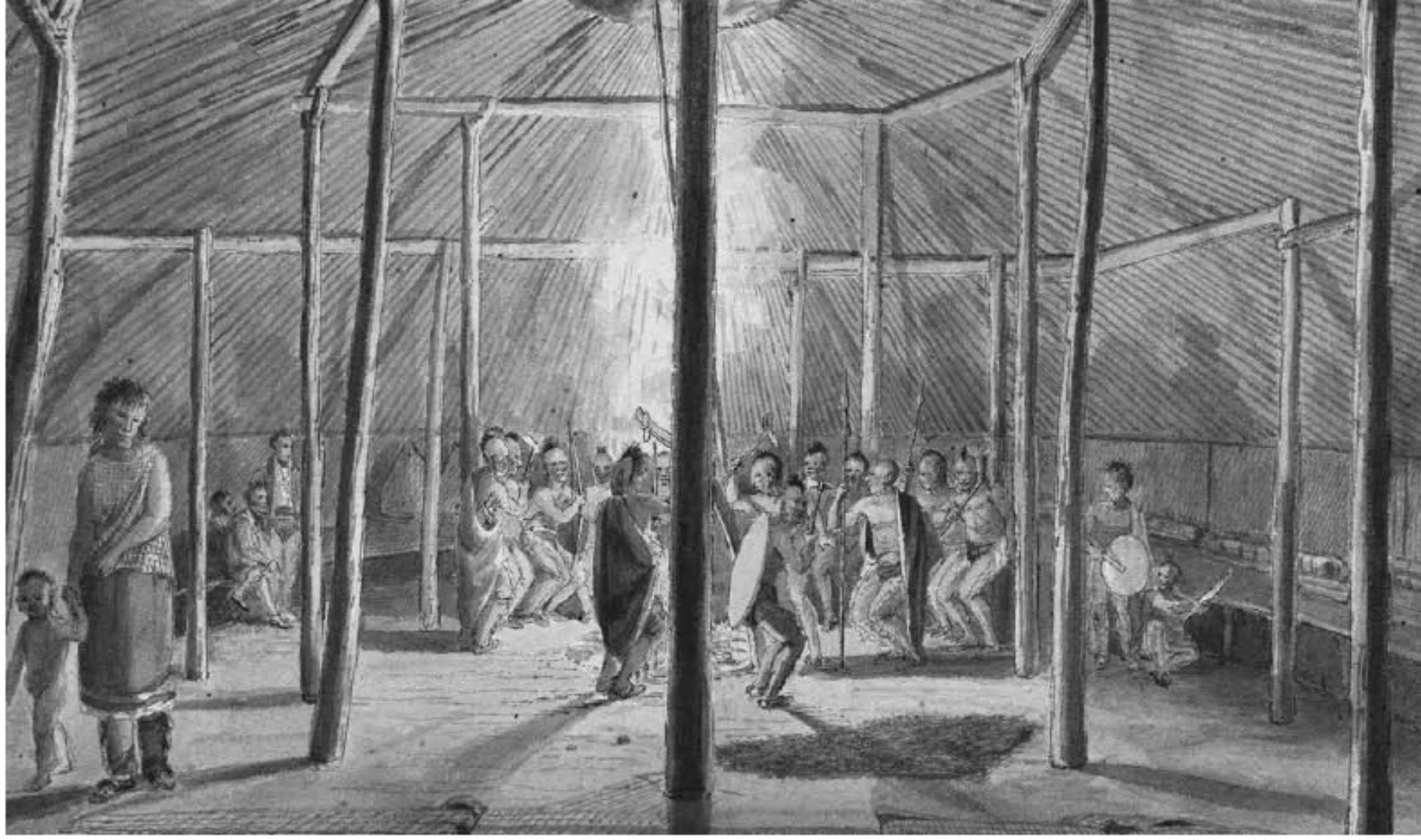


<https://www.kawmission.org/places/kawmission/kansaeverdaylife.htm>

péje n fire
ozhá'ge n line of fireplaces in a camp
ozhéci [o-zhé-ci] n fireplace, council fire
nixóje, ni'xije n ashes



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Samuel Seymour sketched this interior of a Kanza lodge at Blue Earth village in late August 1819, while Kanza warriors performed the Dog Dance. Note the post, beam and rafter framework; floor mats in the foreground; a bison robe on the floor; and the Kanza warriors or dancers, musicians, women, and child, with the American visitors in the background. Samuel Seymour, War Dance in the Interior of a Kanza Lodge, from The Original Views: Drawn by the Artist S. Seymour during the Expedition from Pittsburgh to the Rocky Mountains under the Command of Major Stephen A. Long. Courtesy of the Yale Collection of Western Americana, Beinecke Rare Book and Manuscript Library.

Fire sustains human life

Hunting...

péje n fire



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National Museum of Wildlife Art: Prairie Fire and Buffalo Stampede by William Jacob Hays, 1869

péje fire





péje fire

dáyi'geye vt burn and destroy accidentally

dásuhuye vt cause a prairie fire accidentally, as by dropping a spark from a pipe

odáphe vi to set a fire accidentally, to be burned, as grass or other inanimate objects by a prairie fire, or any fire



péje fire

dásuhukìye vt to deliberately cause a piece of ground to be burned clean, as by a prairie fire



péje fire

dásuhukìye vt to deliberately cause a piece of ground to be burned clean, as by a prairie fire

dáwazo vi to burn in a straight line, as a fire might

dáxli"xli" vi burned repeatedly

oláge vi to set a prairie fire on purpose

dáyi"gekiye vt to deliberately destroy something by burning

ówase vi to set fire to them; to burn them (alive)



Must fire be scary?







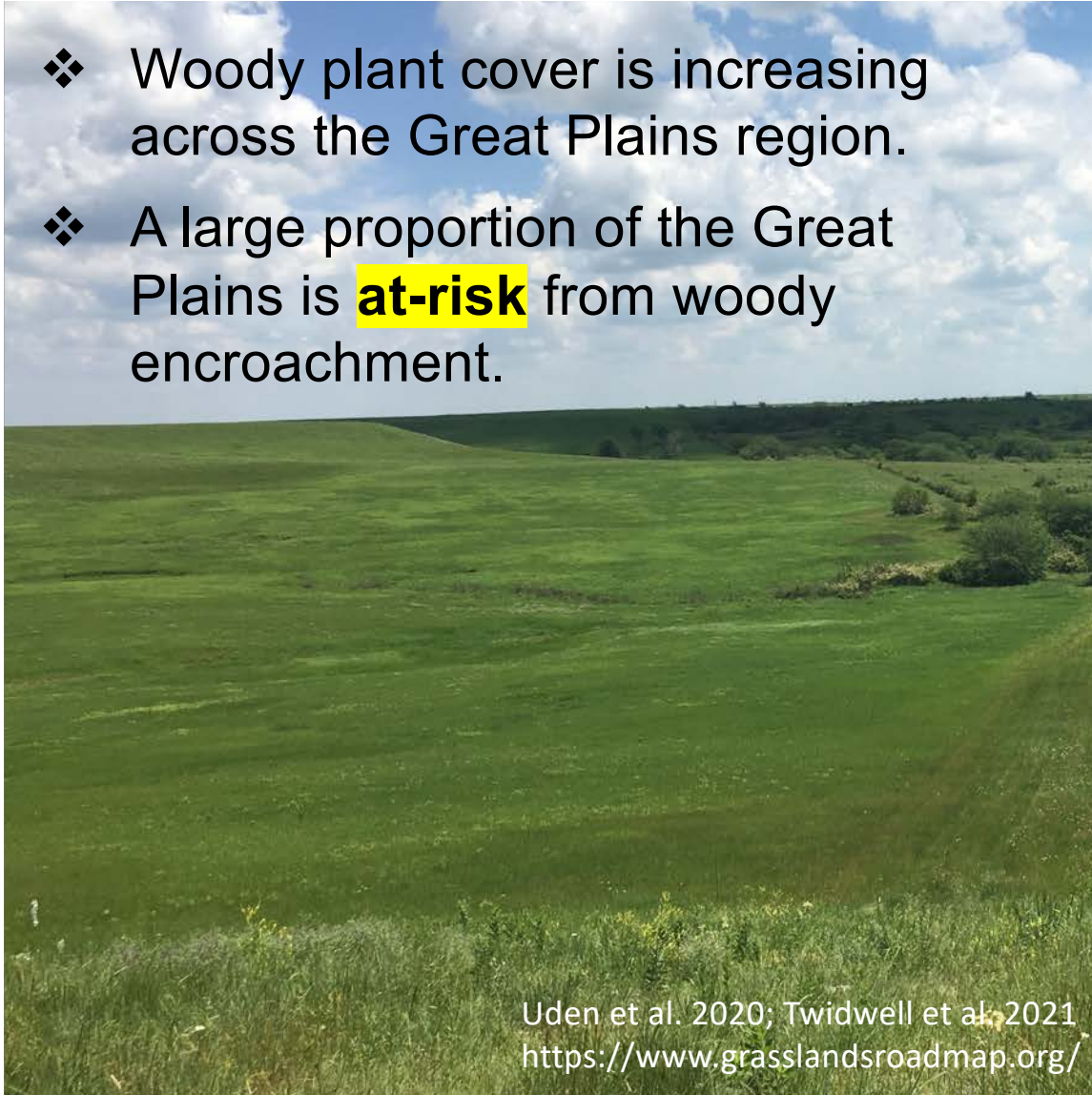


Pictures by: Eva Horne and Barb Van Slyke

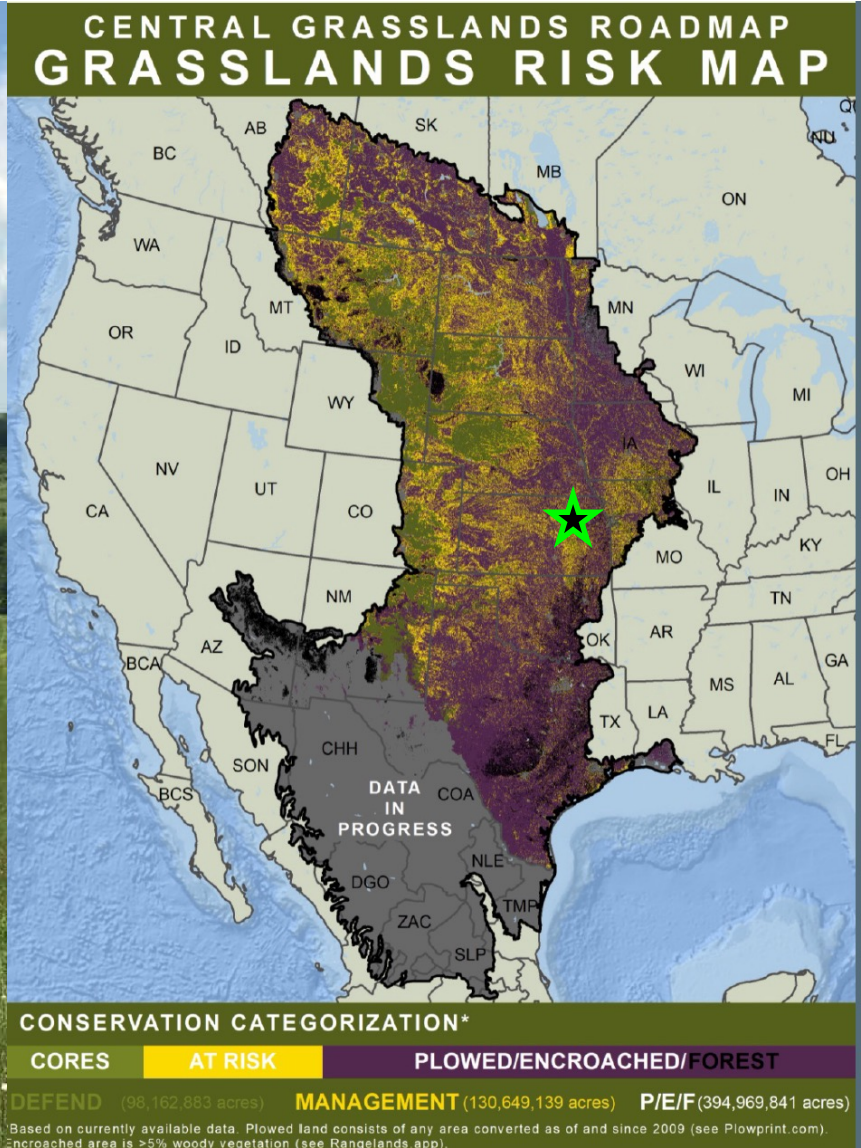




- ❖ Woody plant cover is increasing across the Great Plains region.
- ❖ A large proportion of the Great Plains is **at-risk** from woody encroachment.



Uden et al. 2020; Twidwell et al. 2021
<https://www.grasslandsroadmap.org/>

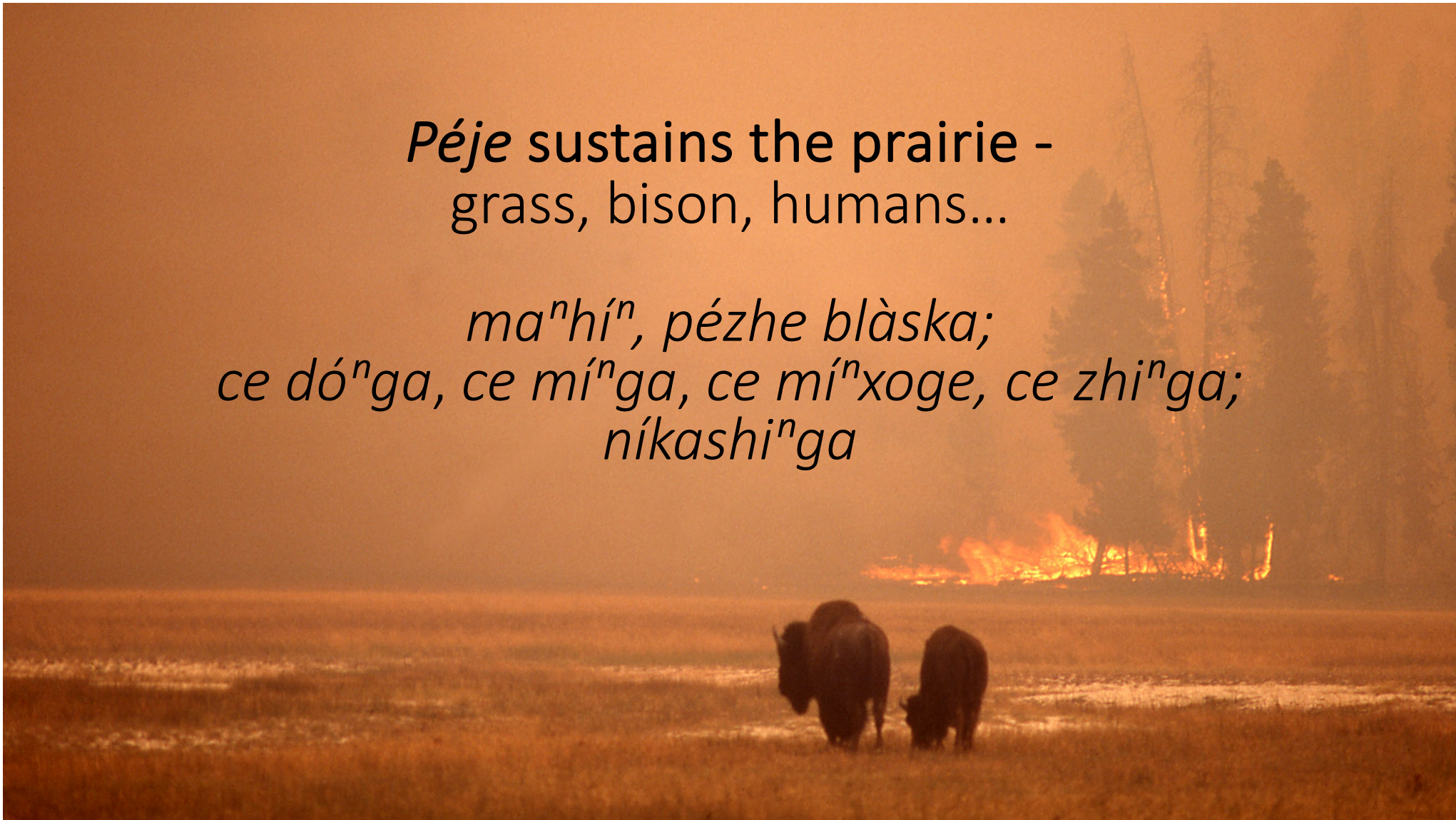




Picture by: Barb Van Slyke

Péje sustains the prairie -
grass, bison, humans...

*maⁿhiⁿ, pézhe blàska;
ce dóⁿga, ce míⁿga, ce míⁿxoge, ce zhiⁿga;
níkashiⁿga*





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