





Bison / Buffalo

Konza researchers + Kaw (Kaá'ze) language
Joint perspectives on People & Land discussion part 4, 230818



Introduce Lydia, Charlee, Rissa, Nico

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 “Kaá”ze”, 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



Aug 18: Bison...

- Extermination of the American Bison, and consequences
- Kaw words for buffalo: *ce dóⁿga*, *ce míⁿga*, *ce míⁿxoge*, *ce zhiⁿga*
- Bison have cascading effects on the ecosystem, including people

Agenda:

13:30-13:35 Introduction / Review

13:35-13:50 Extermination of the American Bison, and consequences

13:50-14:00 Kaw words for buffalo

14:00-14:15 Bison have cascading effects on the ecosystem, including people

14:15-14:30+ Questions...



* Be warned: discussion of death and dead bison pictures follow





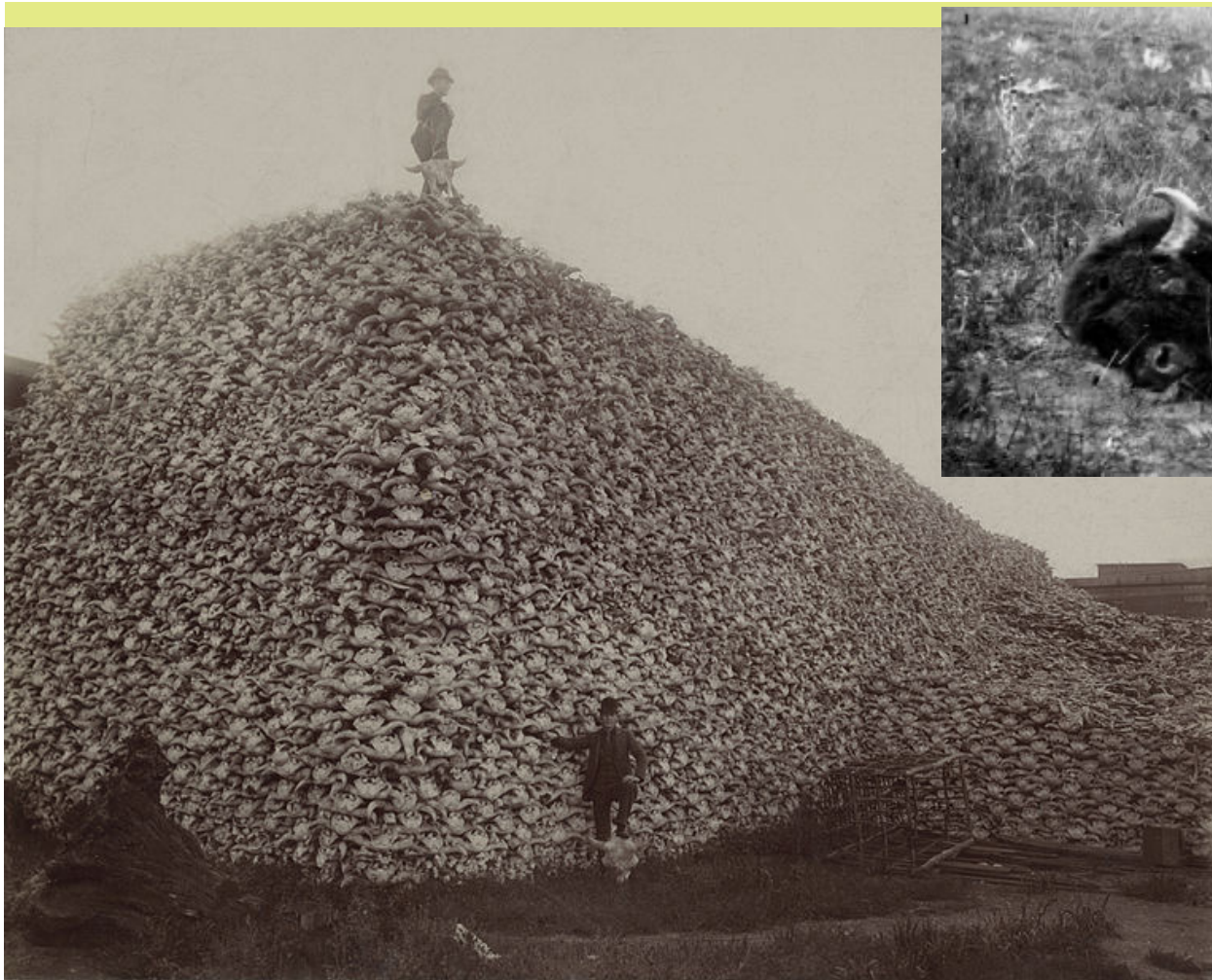
As documented by Hornaday:

“Desultory Destruction”
 (restriction of eastern populations)

followed by
 “Systematic Slaughter” of Great Plains buffalo

William Temple Hornaday:
 Chief Taxidermist, US National Museum





Tens of millions of bison
pre-colonialization;
Reduced to ~1000 in 1889

99.99% destruction
Primarily by intentional hunting

Consequences: Native Americans
dependent on the U.S. Government

A pile of American bison skulls in the mid-1870s. Photo: Wikipedia; dead buffalo ca. 1872, National Archives

Unquestionably a great many thousand buffaloes were killed annually by the settlers of Kansas, Nebraska, Texas, New Mexico, and Colorado, and the mountain Indians living west of the great range. The number so slain can only be guessed at, for there is absolutely no data on which to found an estimate. Judging merely from the number of people within reach of the range, it may safely be estimated that the total number of buffaloes slaughtered annually to satisfy the wants of this heterogeneous element could not have been less than fifty thousand, and probably was a much higher number. This, for the three years, would make one hundred and fifty thousand, and the grand total would therefore be about as follows:

The slaughter of the southern herd.

Killed by "professional" white hunters in 1872, 1873, and 1874	3, 158, 730
Killed by Indians, same period	390, 000
Killed by settlers and mountain Indians	150, 000
Total slaughter in three years	3, 698, 730

These figures seem incredible, but unfortunately there is not the slightest reason for believing they are too high. There are many men now living who declare that during the great slaughter they each killed from twenty-five hundred to three thousand buffaloes every year. With thousands of hunters on the range, and such possibilities of slaughter before each, it is, after all, no wonder that an average of nearly a million and a quarter of buffaloes fell each year during that bloody period.

By the close of the hunting season of 1875 the great southern herd had ceased to exist. As a body, it had been utterly annihilated. The main body of the survivors, numbering about ten thousand head, fled southwest, and dispersed through that great tract of wild, desolate, and inhospitable country stretching southward from the Cimarron country across the "Public Land Strip," the Pan-handle of Texas, and the Llano Estacado, or Staked Plain, to the Pecos River. A few small





SLAUGHTER OF BUFFALO ON THE KANSAS PACIFIC RAILROAD.
Reproduced from "*The Plains of the Great West*," by permission of the author, Col. R. I. Dodge.





HEAD OF BUFFALO BULL.

From specimen in the National Museum Group.

Reproduced from the *Cosmopolitan Magazine*, by permission of the publishers.

Number of American bison running wild and unprotected on January 1, 1889.

In the Pan-handle of Texas.....	25
In Colorado.....	20
In southern Wyoming.....	26
In the Musselshell country, Montana.....	10
In western Dakota.....	4
	<hr/>
Total number in the United States.....	85
In Athabasca, Northwest Territory (estimated).....	550
	<hr/>
Total in all North America.....	635

Add to the above the total number already recorded in captivity (256) and those under Government protection in the Yellowstone Park (200), and the whole number of individuals of *Bison americanus* now living is 1,091.

In these days of railroads and numberless hunting parties, there is not the remotest possibility of there being anywhere in the United States a herd of a hundred, or even fifty, buffaloes which has escaped observation. Of the eighty-five head still existing in a wild state it may safely be predicted that not even one will remain alive five years hence. A buffalo is now so great a prize, and by the ignorant it is considered so great an honor (?) to kill one, that extraordinary exertions will be made to find and shoot down without mercy the "last buffalo."

There is no possible chance for the race to be perpetuated in a wild state, and in a few years more hardly a bone will remain above ground to mark the existence of the most prolific mammalian species that ever existed, so far as we know.

VII. EFFECTS OF THE EXTERMINATION.

The buffalo supplied the Indian with food, clothing, shelter, bedding, saddles, ropes, shields, and innumerable smaller articles of use and ornament. In the United States a paternal government takes the place

Hornaday, 1889

of the buffalo in supplying all these wants of the red man, and it costs several millions of dollars annually to accomplish the task.

The following are the tribes which depended very largely—some almost wholly—upon the buffalo for the necessities, and many of the luxuries, of their savage life until the Government began to support them :

Sioux	30,561	Kiowas and Comanches.....	2,756
Crow	3,226	Arapahoes	1,217
Piegan, Blood, and Blackfeet ...	2,026	Apache	332
Cheyenne	3,477	Ute	978
Gros Ventres	856	Omaha	1,160
Arickaree	517	Pawnee	998
Mandan	283	Winnebago	1,222
Bannack and Shoshone	2,001		
Nez Percé	1,460	Total	54,758
Assinniboine	1,688		

This enumeration (from the census of 1886) leaves entirely out of consideration many thousands of Indians living in the Indian Territory and other portions of the Southwest, who drew an annual supply of meat and robes from the chase of the buffalo, notwithstanding the fact that their chief dependence was upon agriculture.

The Indians of what was once the buffalo country are not starving and freezing, for the reason that the United States Government supplies them regularly with beef and blankets in lieu of buffalo. Does any one imagine that the Government could not have regulated the killing of buffaloes, and thus maintained the supply, for far less money than it now costs to feed and clothe those 54,758 Indians ?



THE SURROUND.

From a painting in the National Museum by George Catlin.

Kaáⁿze Íe words for “hunt”

dáble vi hunt, go on a hunt

gaxláⁿ vi migrate, go an on extensive hunting expedition with many or all of the tribe; to go with a large party, each man taking his household

Gaxlá ayábe. They went; they picked up everything and went. *MR on JOD*

Many words about movement, travel, or orientation to large spaces include buffalo in the example sentences



Kaáⁿze Íe words for buffalo

ce dóⁿga

ce míⁿga

ce míⁿxoge

ce zhiⁿga



Kaáⁿze Íe words for buffalo

ce dóⁿga buffalo bull

ce míⁿga buffalo cow

ce míⁿxoge a hermaphrodite buffalo

ce zhiⁿga buffalo calf



Translation: Always consider context

miⁿxóge

1) *catamite, male or female*

MR: "*''Miⁿxóge' is, you know, between a man and a woman.*"

2) *homosexual, gay, lesbian; hermaphrodite*

Most likely based on scientific understanding & literature:

Mate competition; dominance behavior

Vervaecke, H., Roden, C. 2006. Going with the herd: same-sex interaction and competition in American bison.
In: Homosexual Behaviour in Animals. An Evolutionary Perspective. Ed. V. Sommer., P. Vasey. Cambridge University Press.

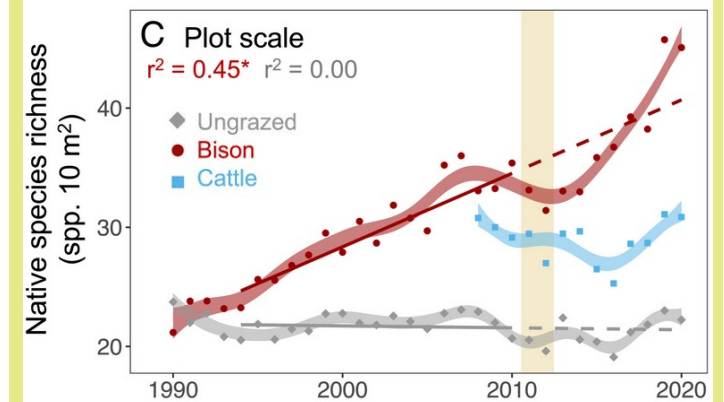
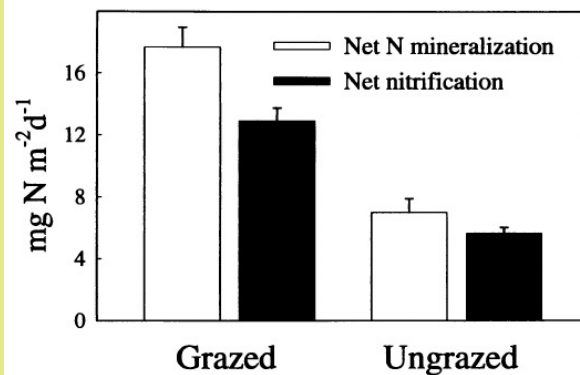
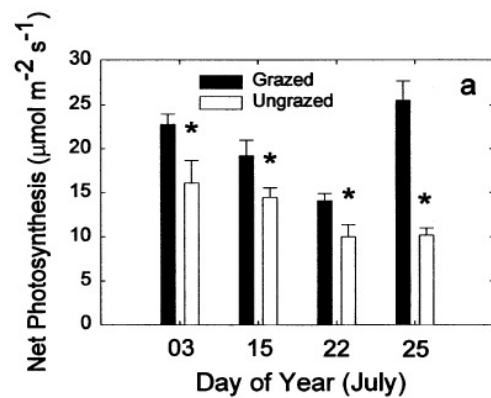


Bison =
Greater
Fertility &
Biodiversity

The Keystone Role of Bison in North American Tallgrass Prairie

Bison increase habitat heterogeneity and alter a broad array of plant, community, and ecosystem processes

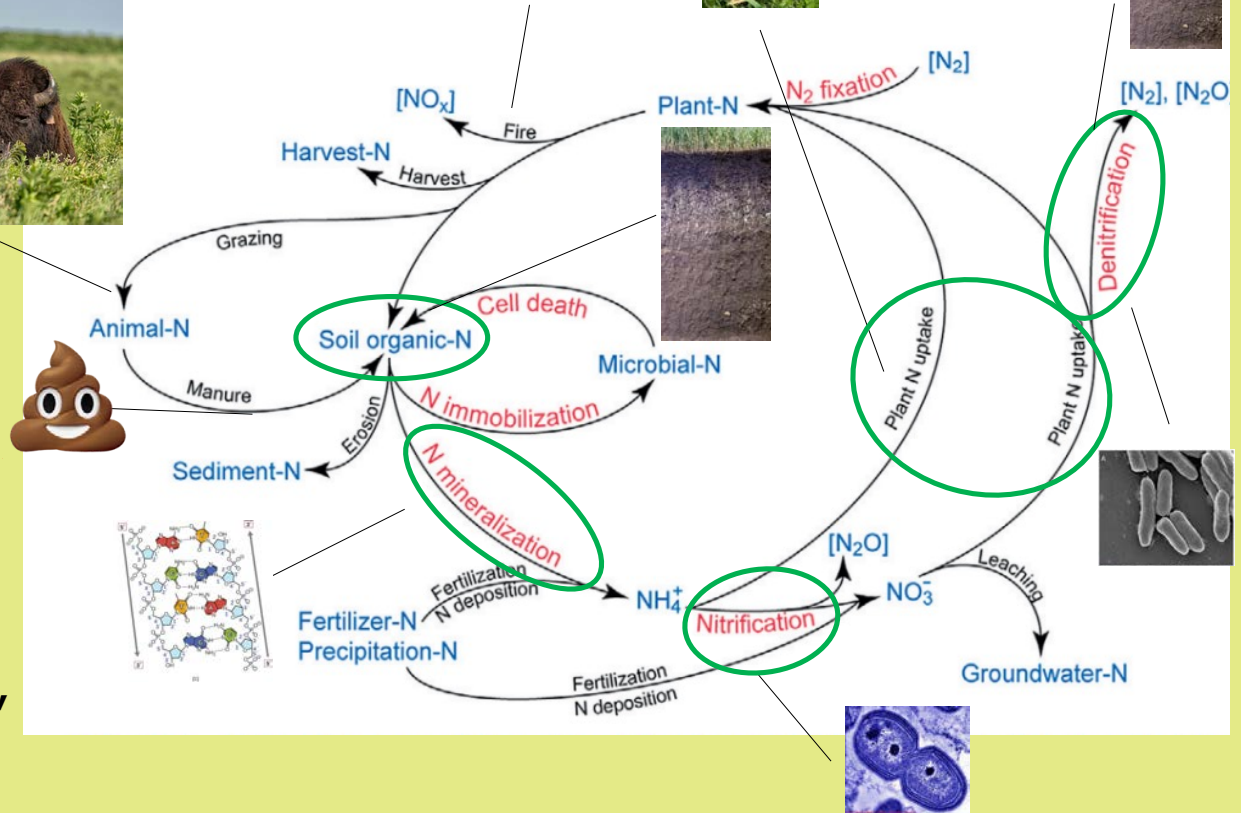
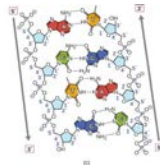
Alan K. Knapp, John M. Blair, John M. Briggs, Scott L. Collins, David C. Hartnett, Loretta C. Johnson, and E. Gene Towne



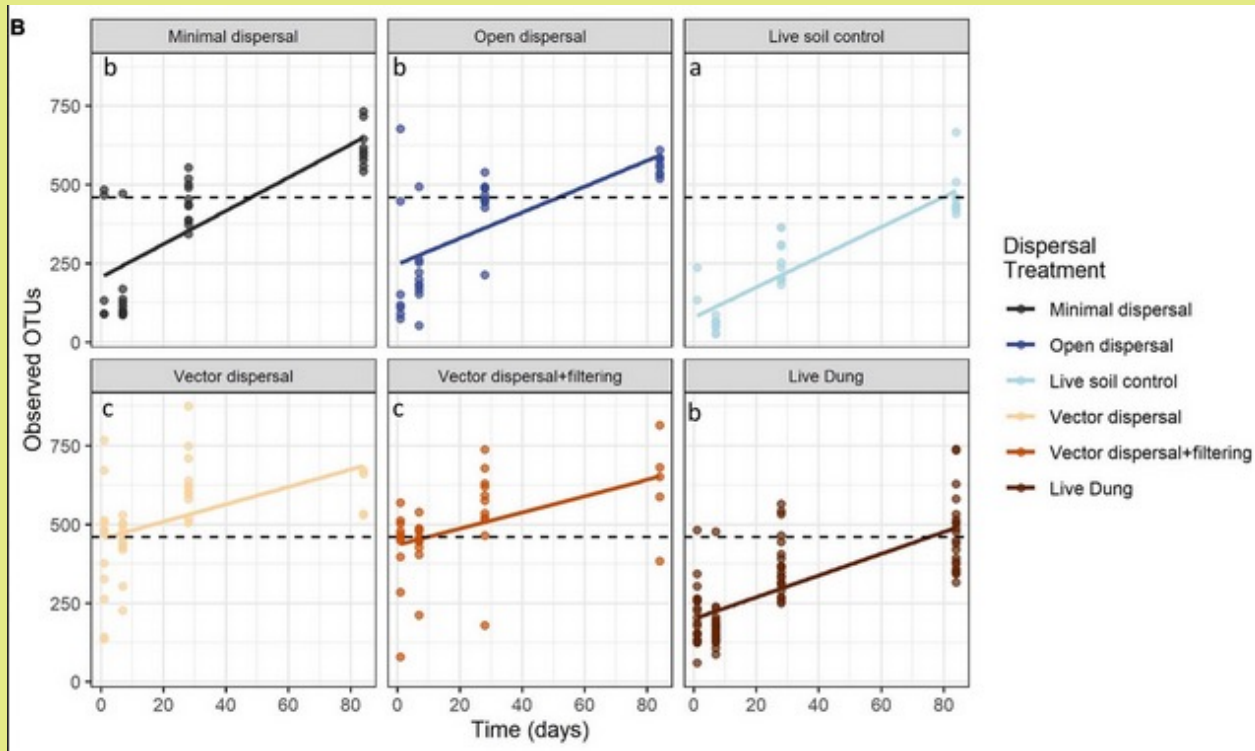
Knapp et al. 1998; also McNaughton et al. 1988, Ratajczak et al. 2022, many others...

The Nitrogen Cycle

- N is a necessary life
- N is a building block of protein
- Soil microbes and grazing animals transform N
- Transformations include mineralization, nitrification, and denitrification



Soil microorganisms: More diverse with dung!



Hawkins & Zeglin 2022 & citations thereof

Conclusion... we're all connected





