



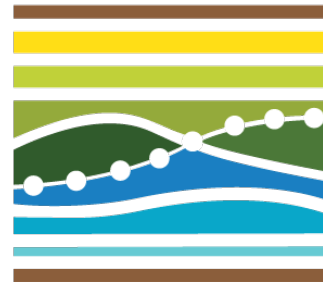
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LTER SCIENCE COUNCIL MEETING 2018

MADISON, WI



NATIONAL SCIENCE FOUNDATION

LTER NETWORK

LONG TERM ECOLOGICAL RESEARCH

Konza News

Photos by B. Van Slyke and D. Mayes

- Successful site review
- Altered fire regimes
- L-T experiment reversals
- Consumer studies
- Art initiatives
- PI change



Organic Matter - Who/How

BACKGROUND

Bulk of SOM derived from roots / rhizomes. Highest concentrations in surface soils corresponding with C4 grass fine root biomass.

Tallgrass prairie has a net neutral C balance (slight sink or source based on climate history)

DOC cycling in open-canopy grassland streams is fundamentally different than in forest streams. [DOC] is low, with considerable in-stream processing.

DATASETS

SOM: NCO01 (1982-present); RSC01 (2013-present); WAT016: (1992-present)

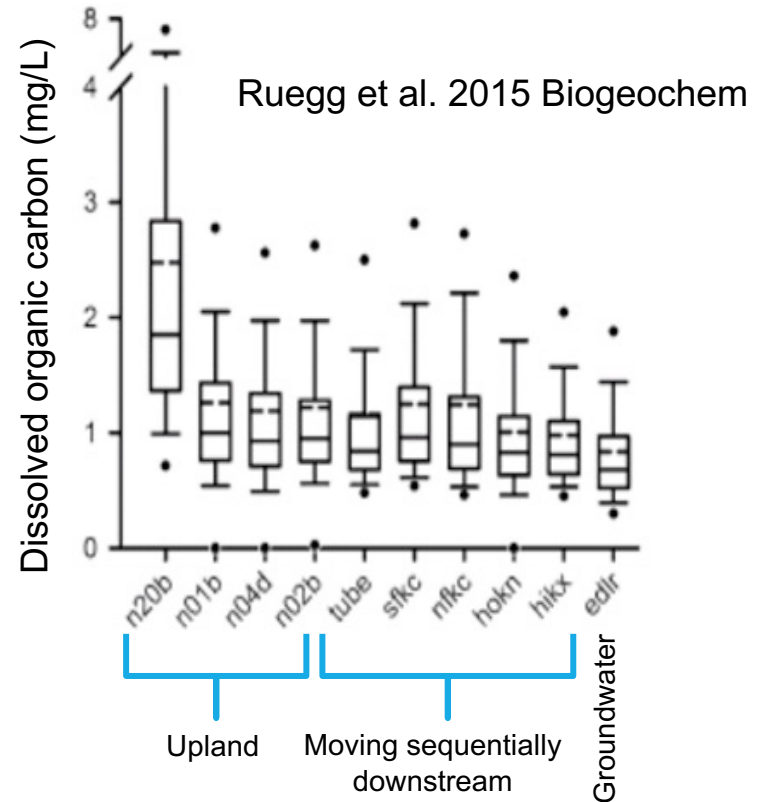
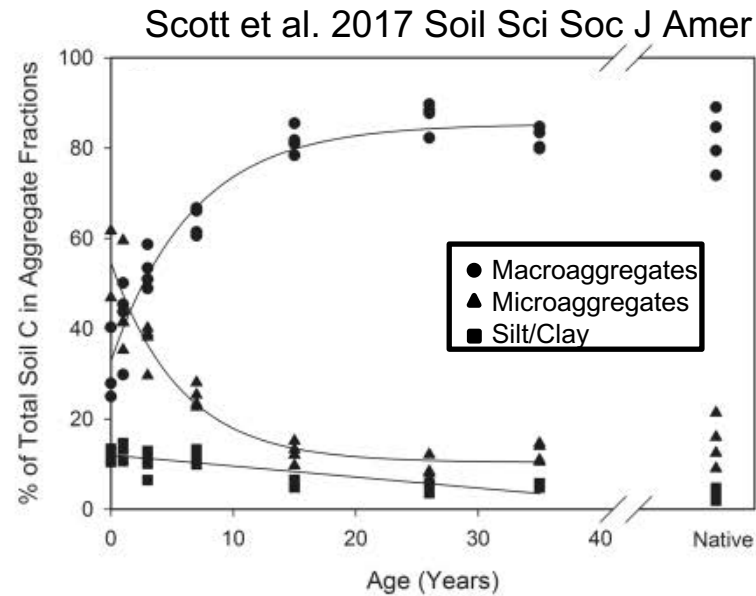
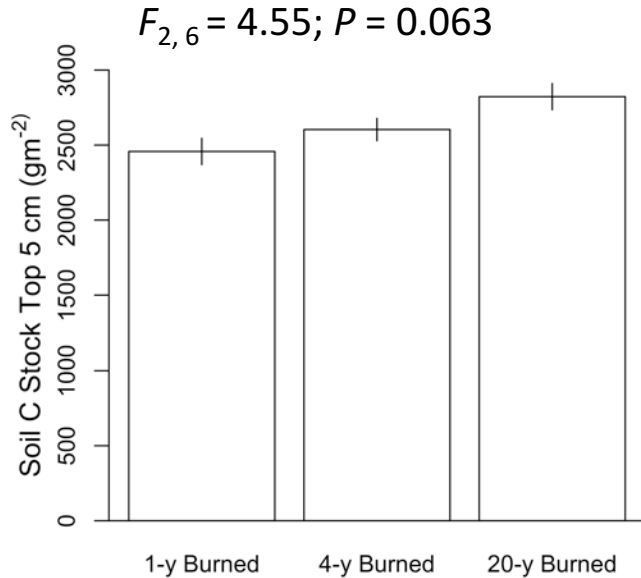
DOC: NWC01 (1995-present); AGWO2 (2009-present)

QUESTIONS

How do landscape legacies of fire and grazing impact OM (SOM & DOC) in tallgrass prairie?

How do agricultural legacies, and restoration strategies impact OM recovery?

Organic Matter - Results



FUTURE QUESTIONS

How does woody encroachment impact [SOM] & [DOC] as woody plants have altered rooting depths, root types, and dynamics?

What are the climate change impacts (warmer, greater precip variability) on KNZ OM/DOC?