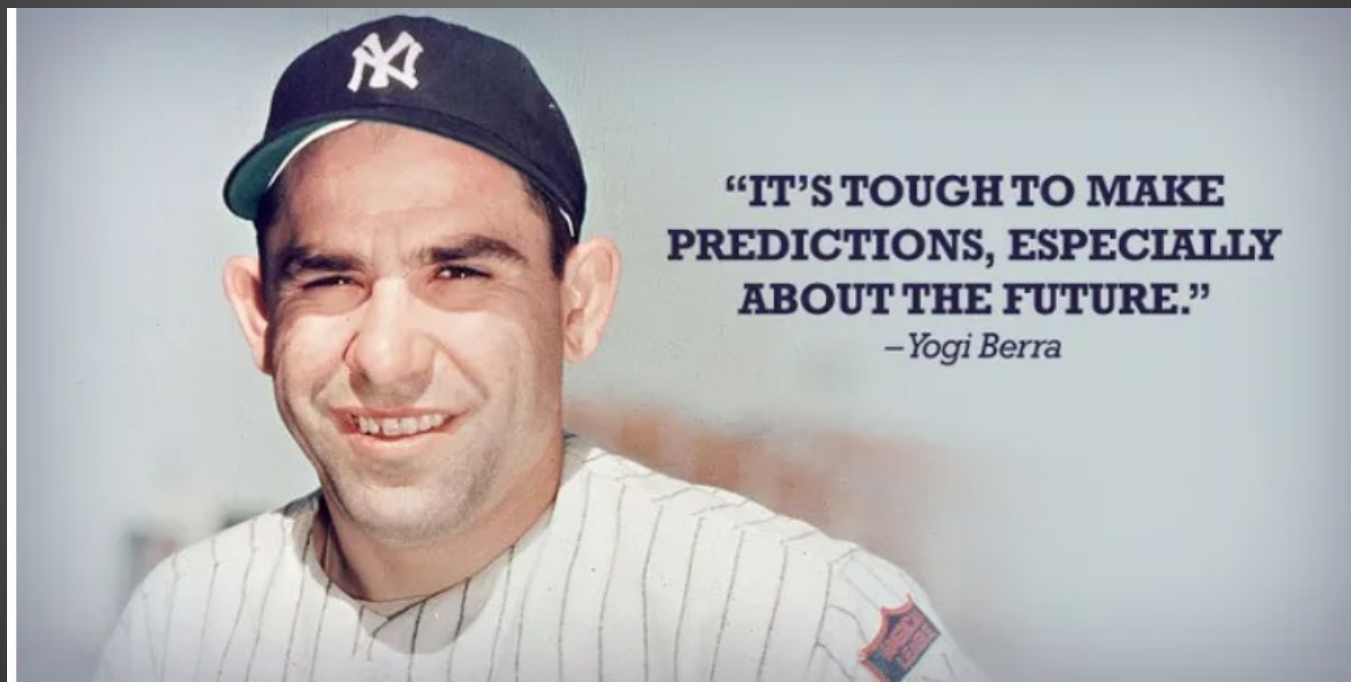


Are iron
concentrations
indicative of soil
saturation?

Indicators of
recurring seasonal
satiation in soil
horizons. Iron and
such.





1987 Dover Foxcroft, ME



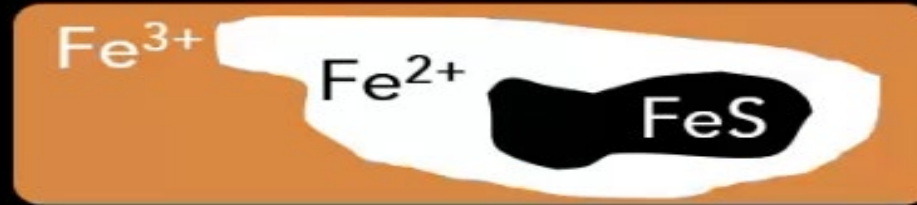
2024



SOIL SCIENTISTS ARE NORMAL!!!



IRON TRANSFORMATIONS AND TRANSLOCATIONS



UPLAND



WETLAND



AQUIC CONDITIONS

Iron
mobilization:
what is it and
how does it
happen?

Fe³
Fe²



Low Eh (O₂
depletion).
Substrate.
Thiobacillus
Ferroreductans.

AQUIC CONDITIONS?
HYDRIC SOIL?





AQUIC CONDITIONS?



AQUIC CONDITIONS?



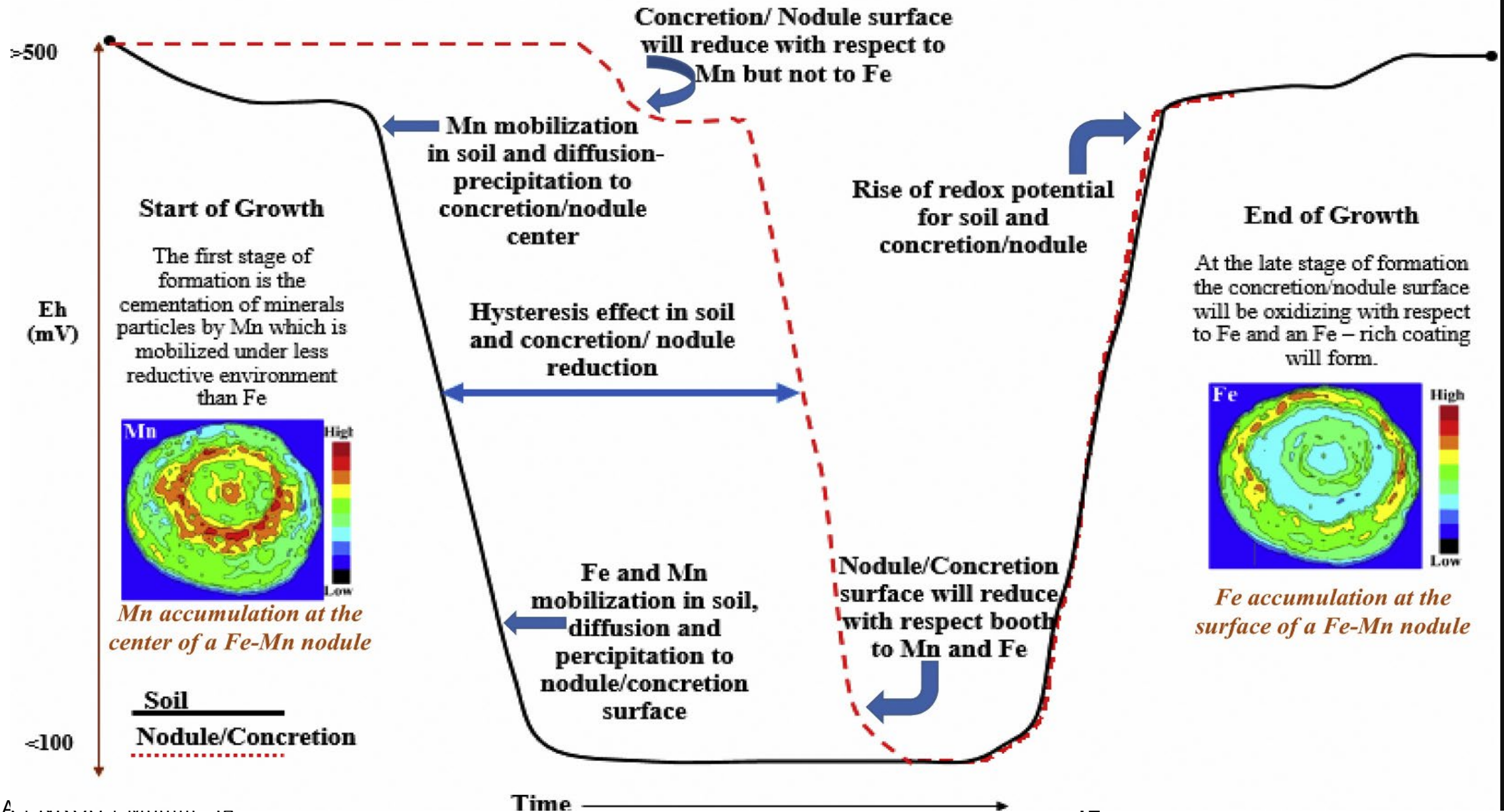
AQUIC CONDITIONS?



AQUIC CONDITIONS?

**Why not Manganese
concentrations/nodules
/concretions??**









CATENA

Volume 182, November 2019, 104106



Fe-Mn concretions and nodules formation in redoximorphic soils and their role on soil phosphorus dynamics: Current knowledge and gaps

[Dionisios Gasparatos](#)^a  , [Ioannis Massas](#)^b, [Athanasios Godelitsas](#)^c

SPODIC PROCESSES:

**Iron
mobilization:
what is it and
how does it
happen?**

**Fe³
Fe²**



**High Eh.
Acid conditions.
LMW organic
acid chelation,
translocation,
and
reprecipitation.**

LETS PLAY A GAME:
AQUIC or SPODIC?

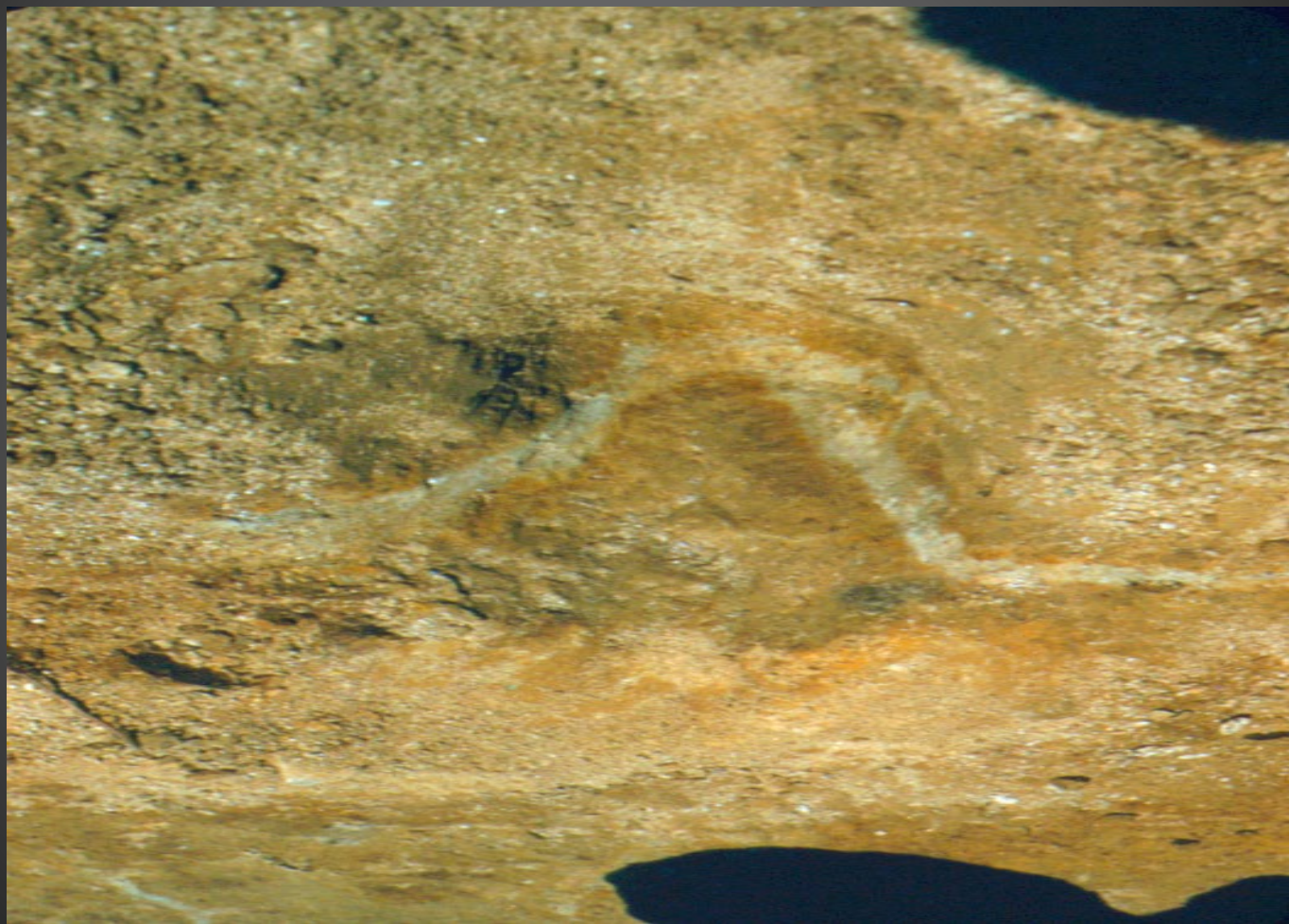














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40

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60

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80



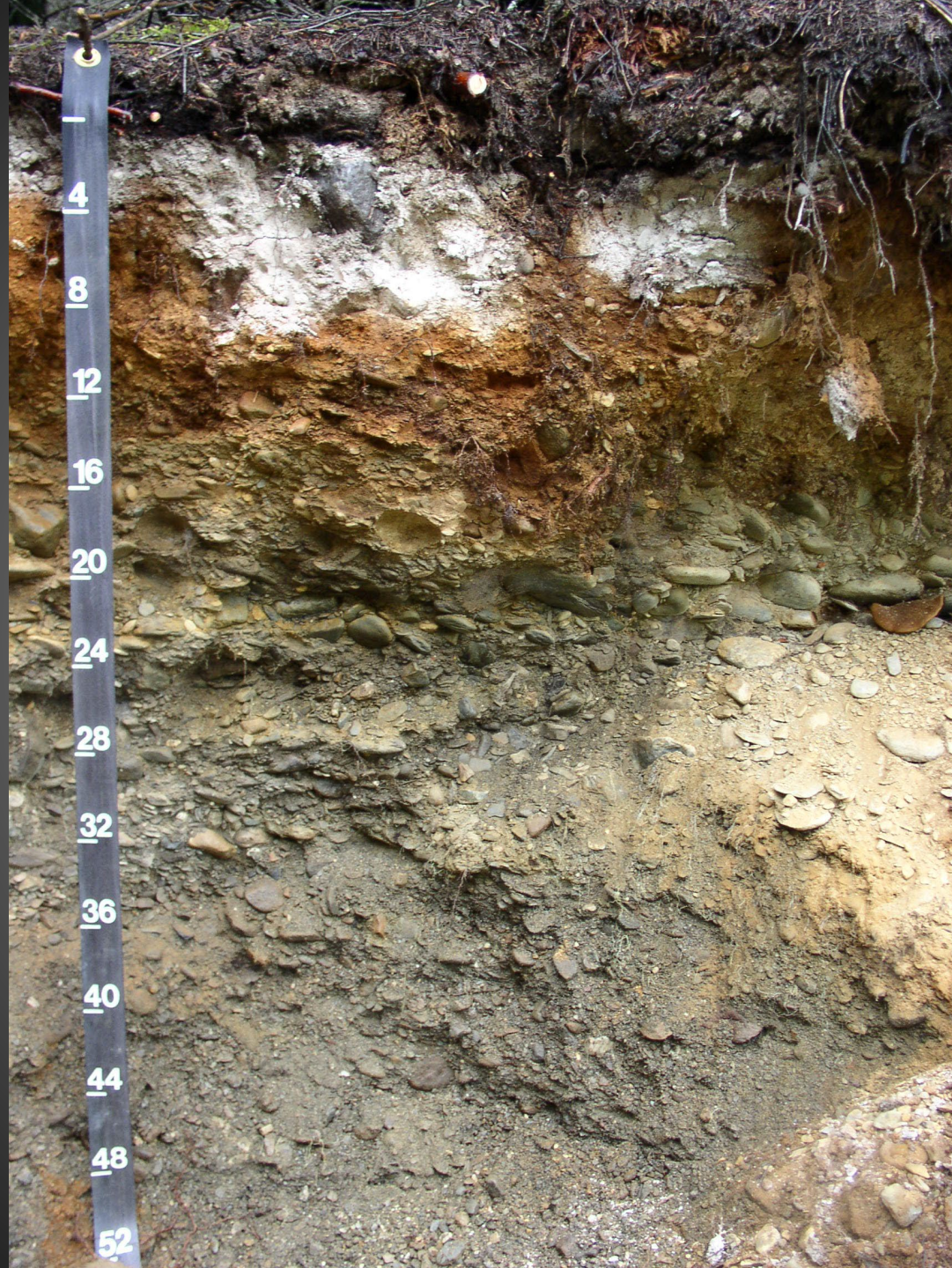




















08/23/2007

36



QUESTIONS AND
DISCUSSION AND KNOCK
DOWN DRAG OUT
ARGUMENTS



RETURN TO ISSUE | < PREV BIOGEOCHEMICAL CYCLI... NEXT >

Distribution of Mn Oxidation States in Grassland Soils and Their Relationships with Soil Pores

Alexandra N. Kravchenko*, Jocelyn A. Richardson, Jin Ho Lee, and Andrey K. Guber

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