

# **Long-Term Effects of Liming on Soils in the Woods Lake Watershed**

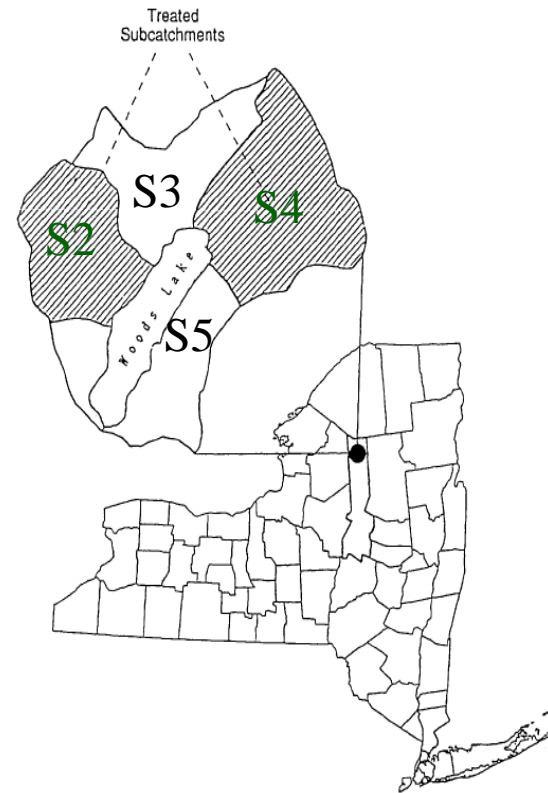
**April Melvin and Christine Goodale  
Dept. of Ecology and Evolutionary Biology, Cornell University  
March 11, 2009**



Cornell University



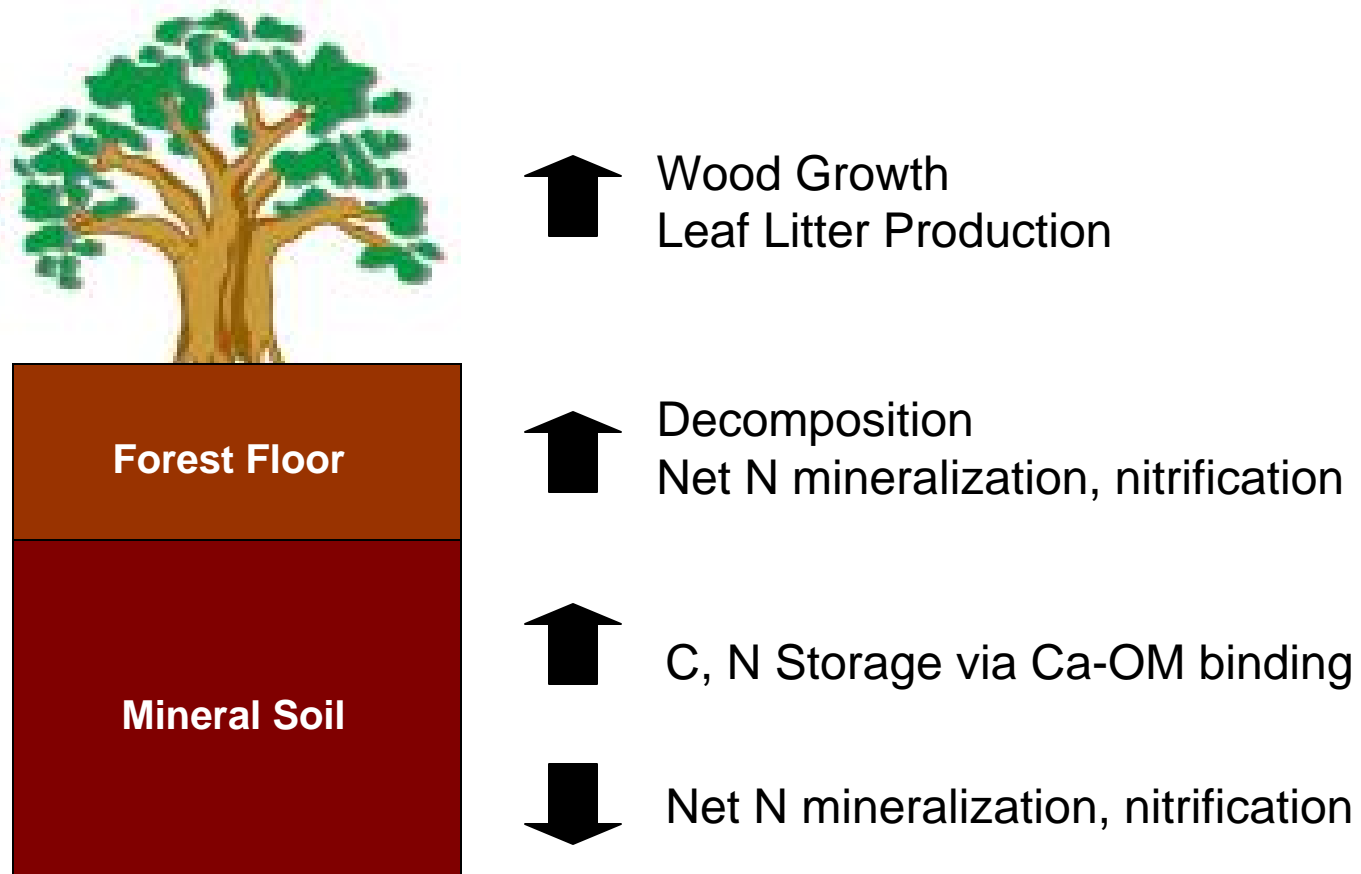
# Woods Lake Watershed Adirondack Park



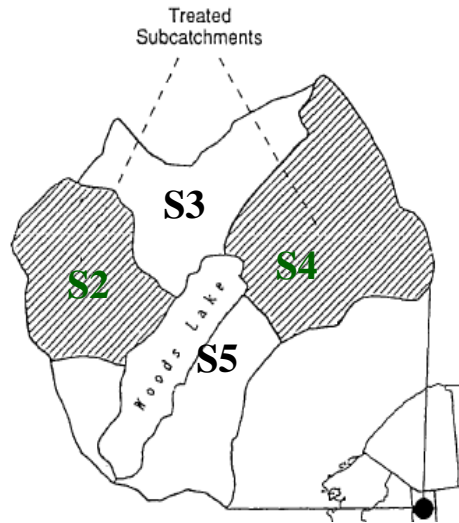
Modification of Smallidge and Leopold 1994

# Linking C, N, and Ca

How does increased Ca availability affect C and N cycling?

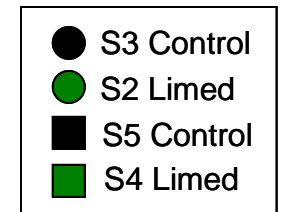
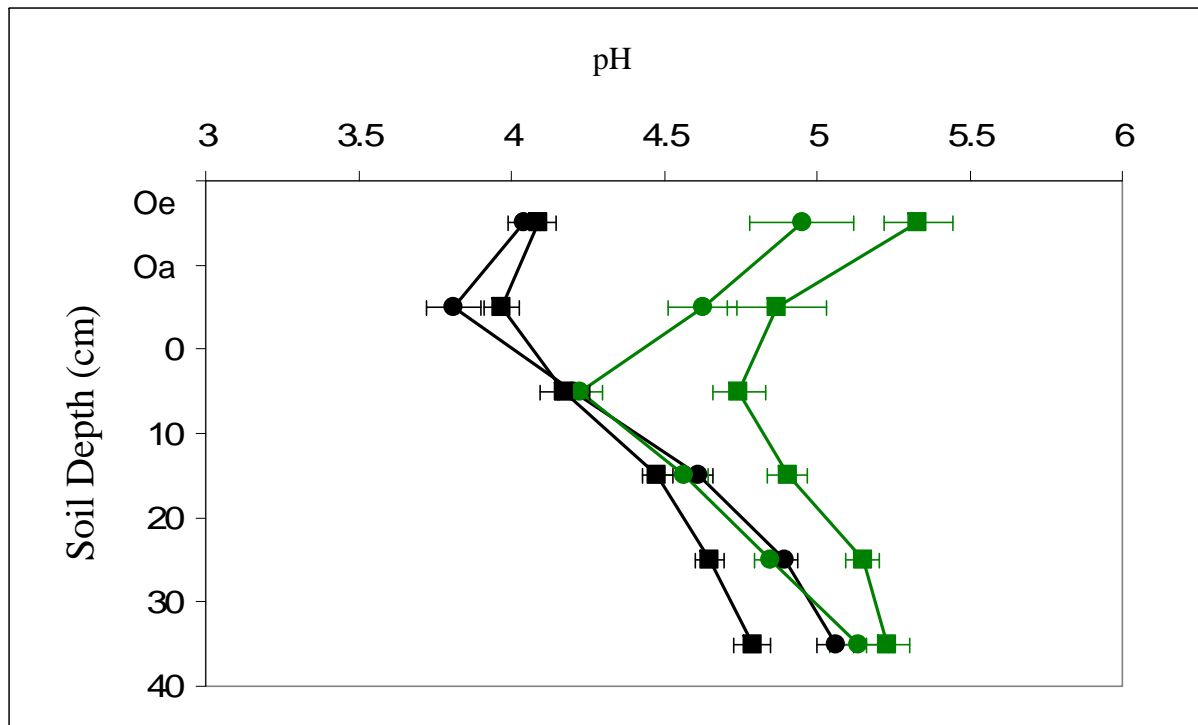


# Soil and Forest Floor Sampling

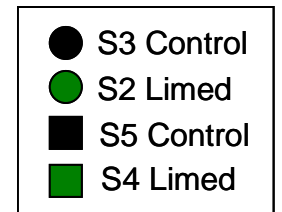
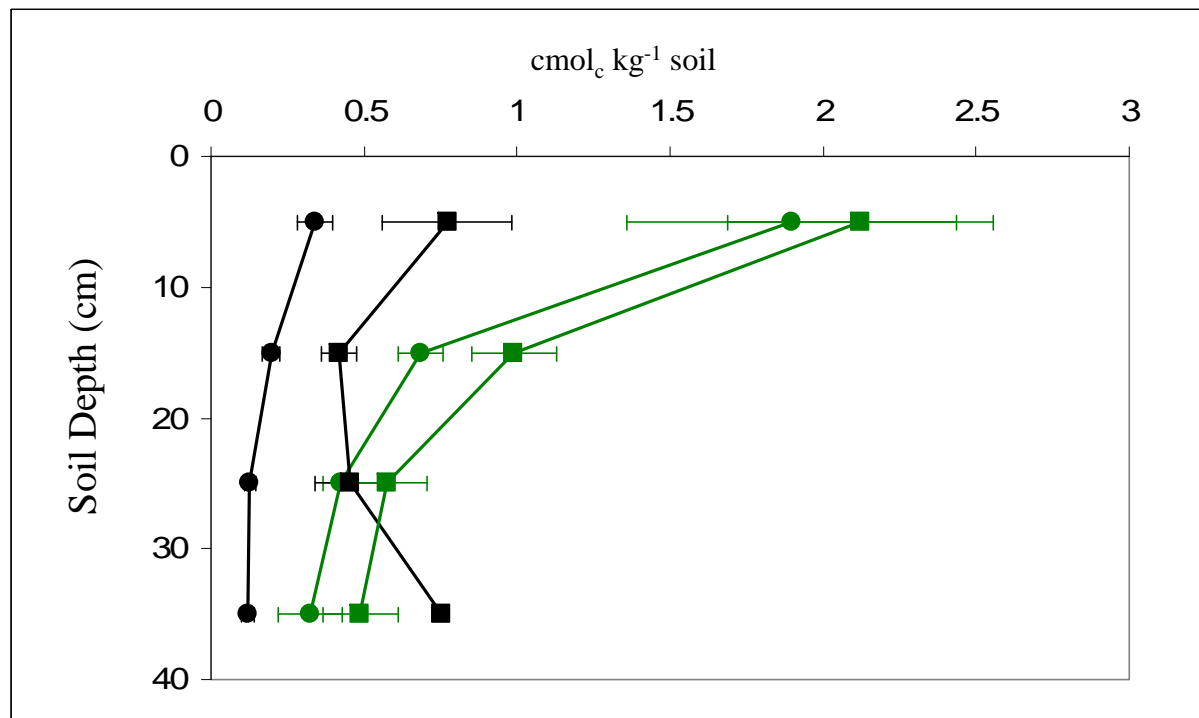


# Preliminary Data

pH

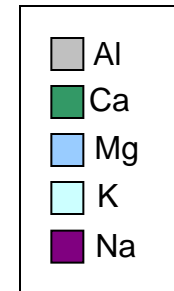
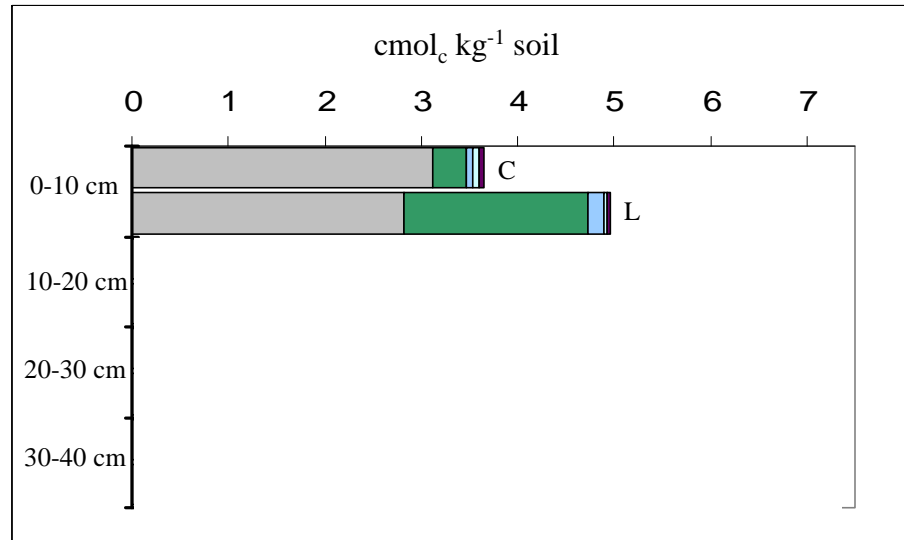


# Exchangeable Ca

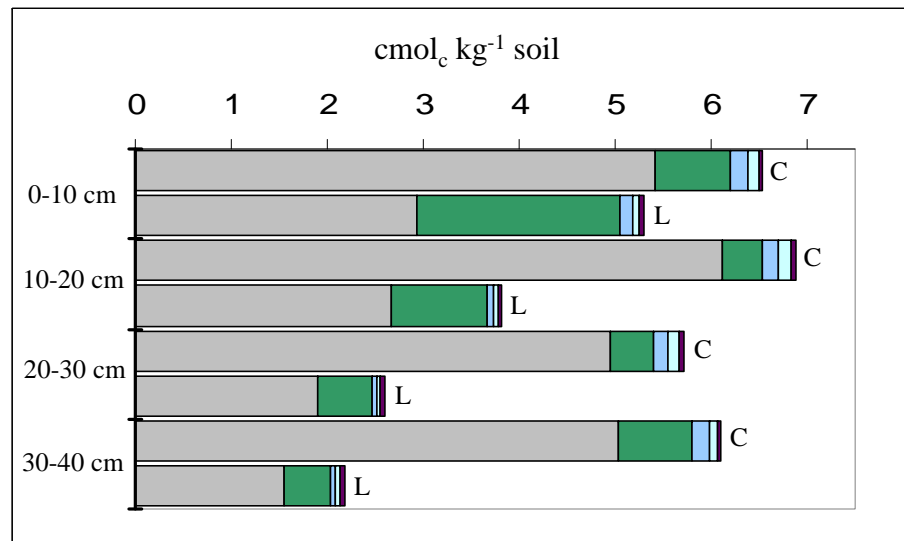


# Soil Exchange Complex

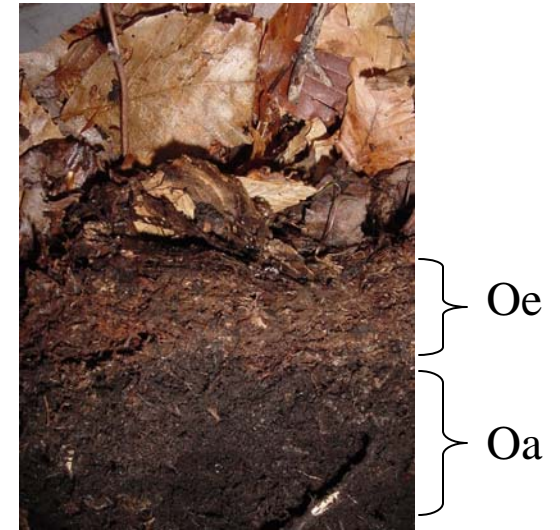
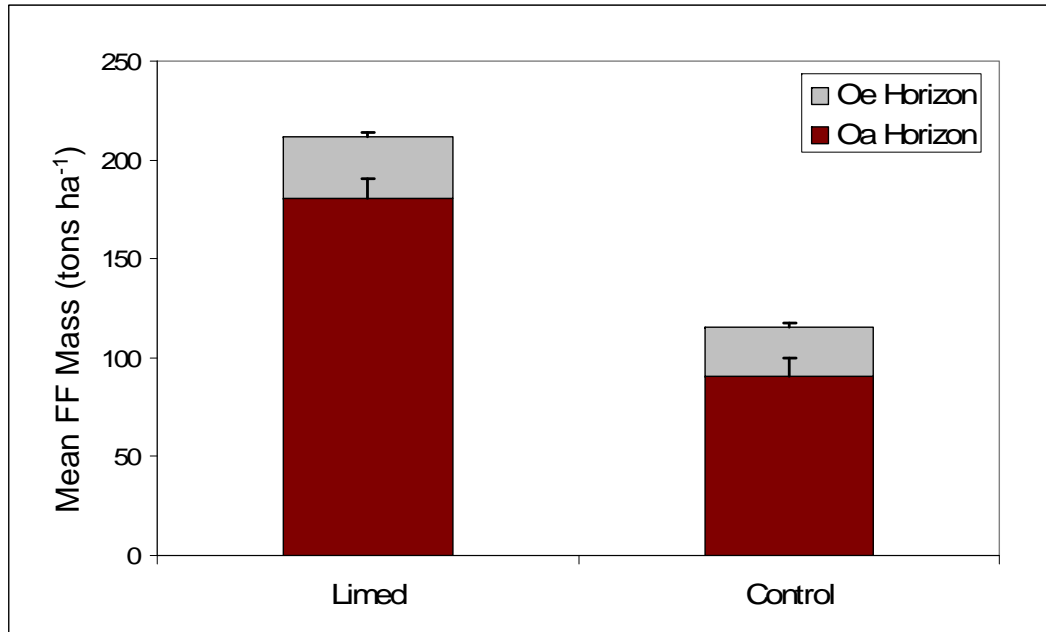
S2 & S3



S4 & S5



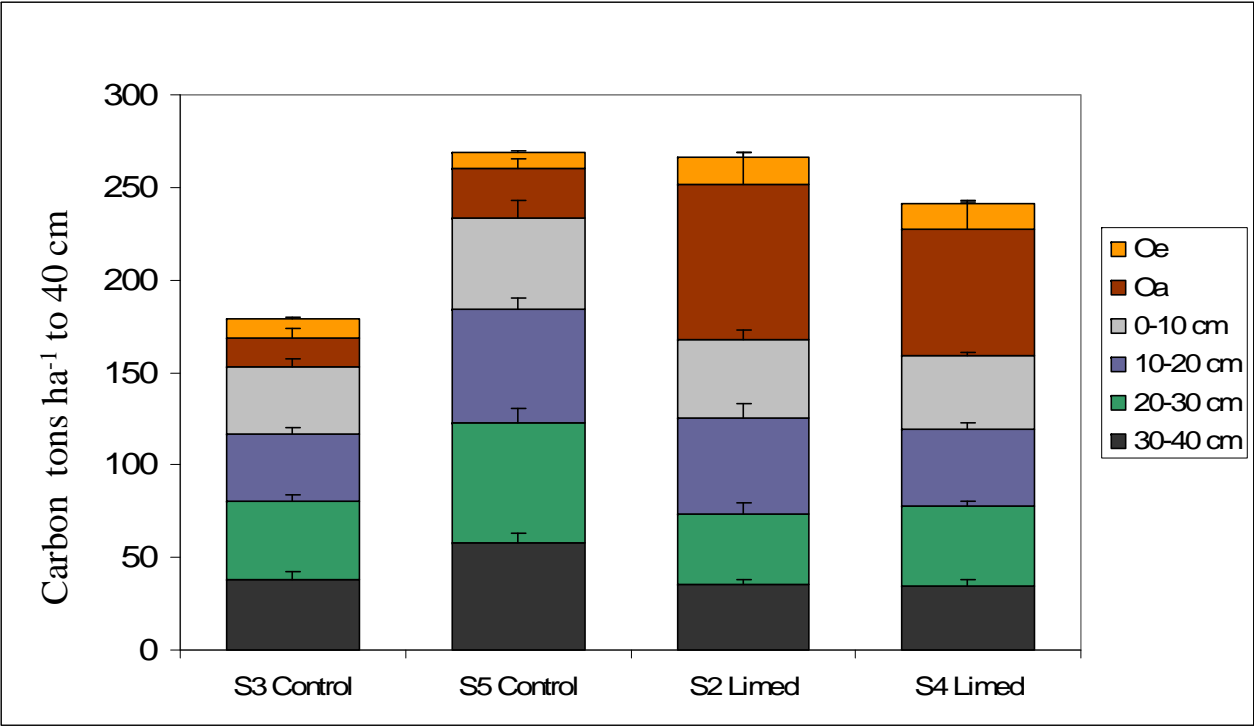
# Forest Floor Mass



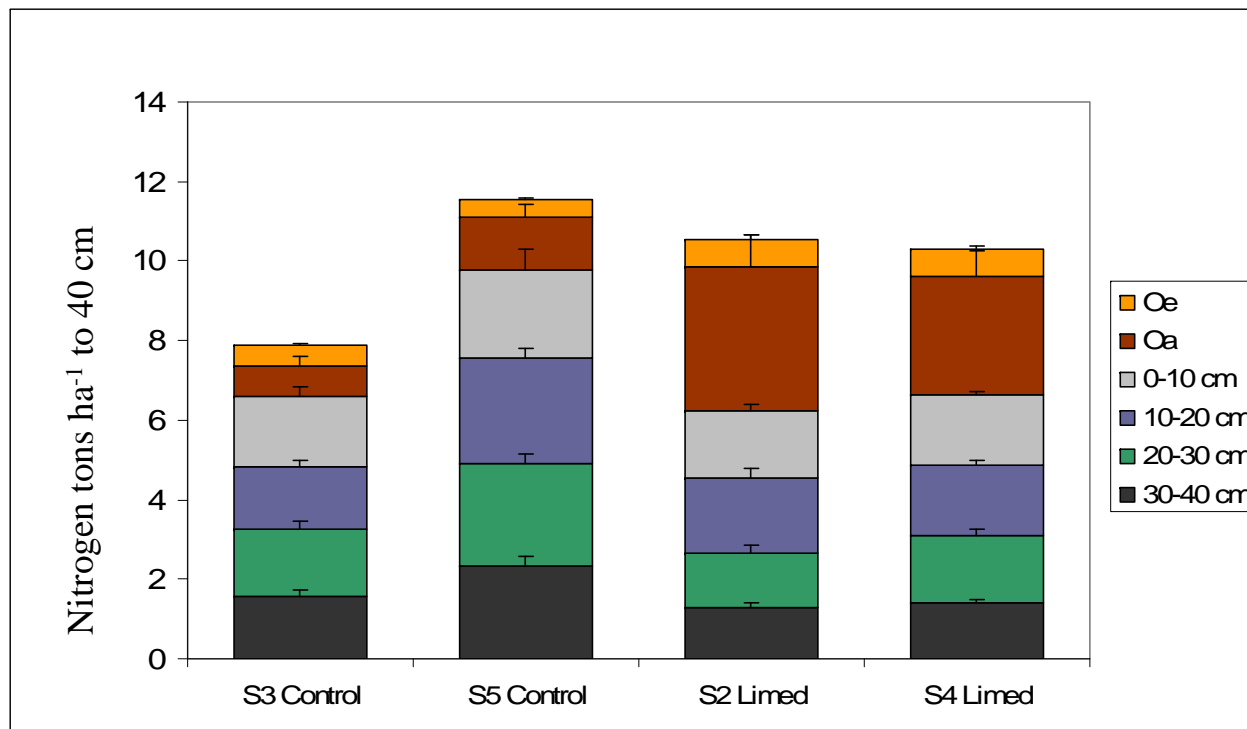
Mean Forest Floor Depth:  
Limed: 18 cm  
Control: 11 cm



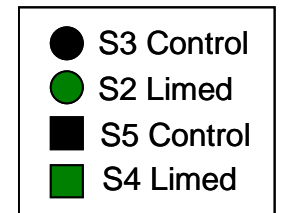
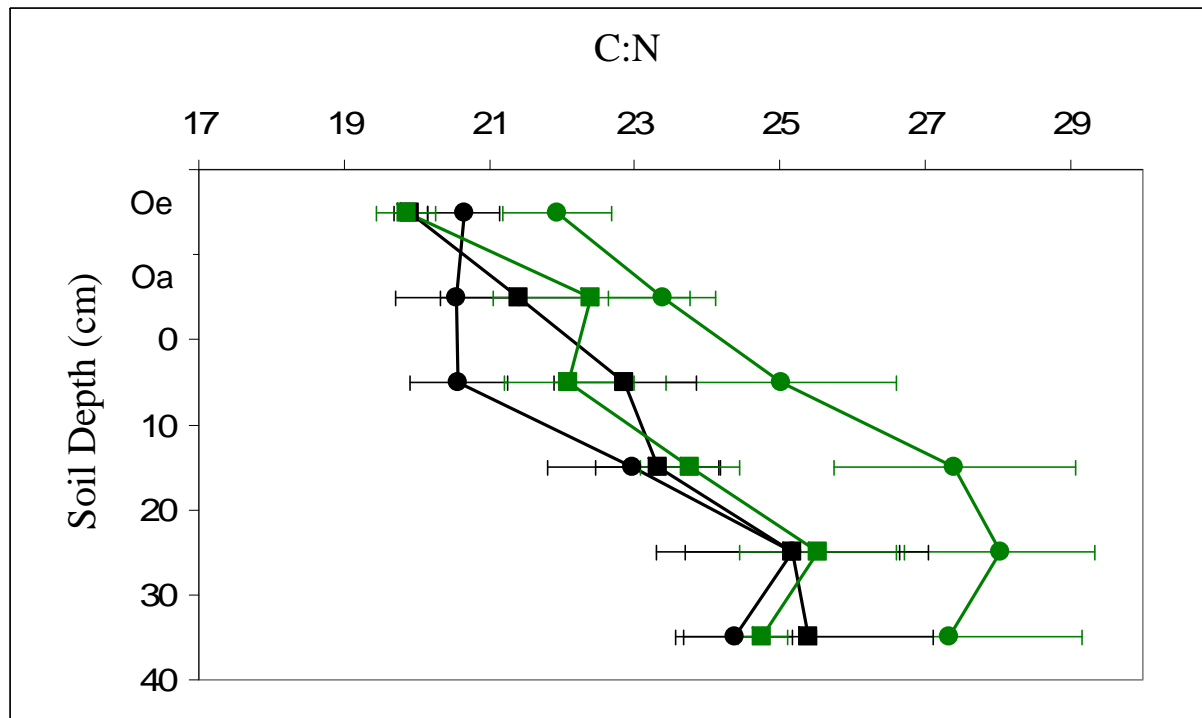
# Soil Carbon



# Soil Nitrogen



# C:N



# Continuing Research

- Quantifying Aboveground Production
- Investigating N cycling rates
- Decomposition of Oa horizon
- DOC sorption experiment



# Acknowledgements

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# Engine Driven Diamond Bit Soil Corer



# Engine Driven Diamond Bit Soil Corer

- 2-person auger engine
- Diamond bit corer - internal diameter 9.5 cm, ~60 cm in length