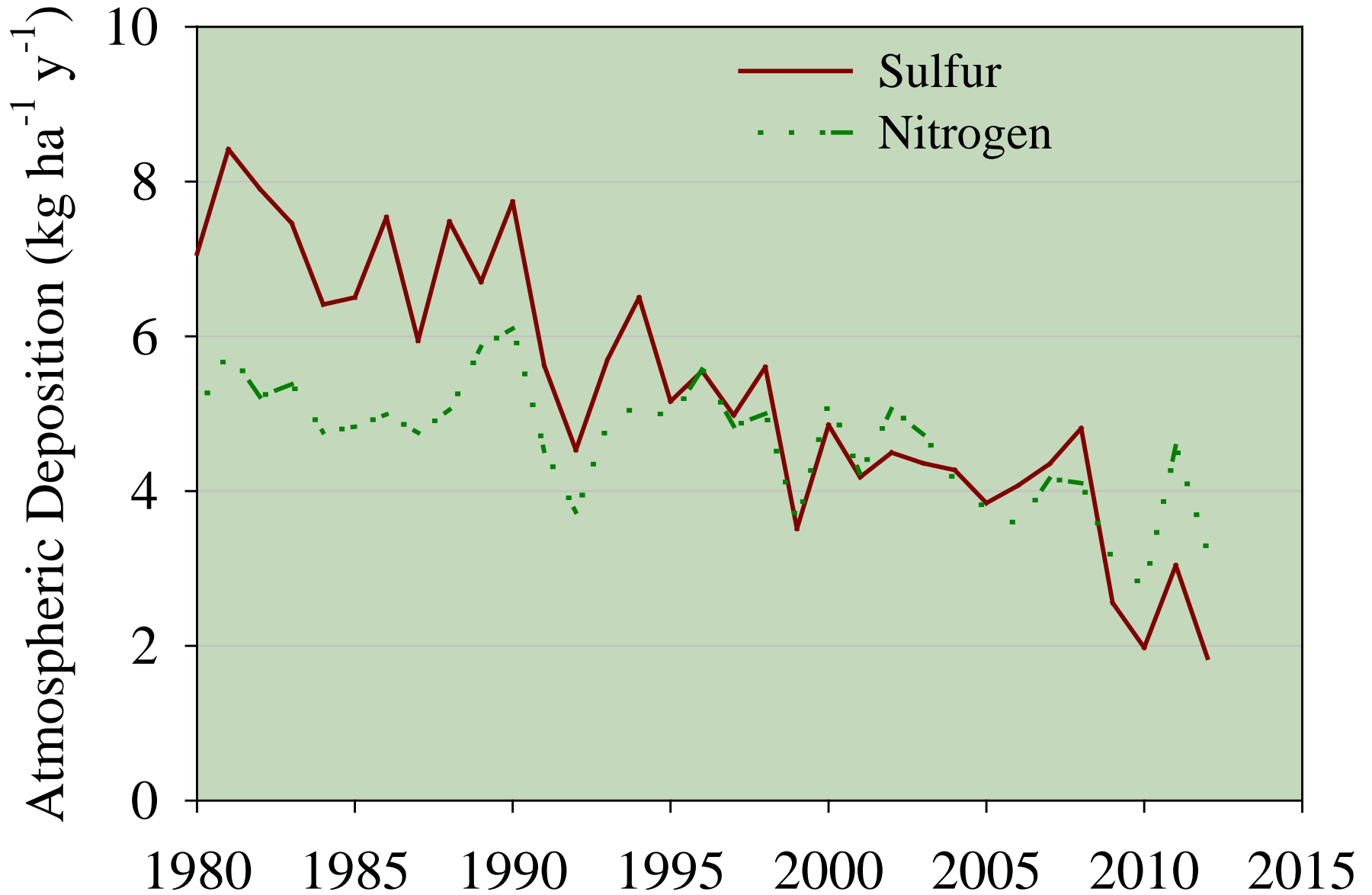


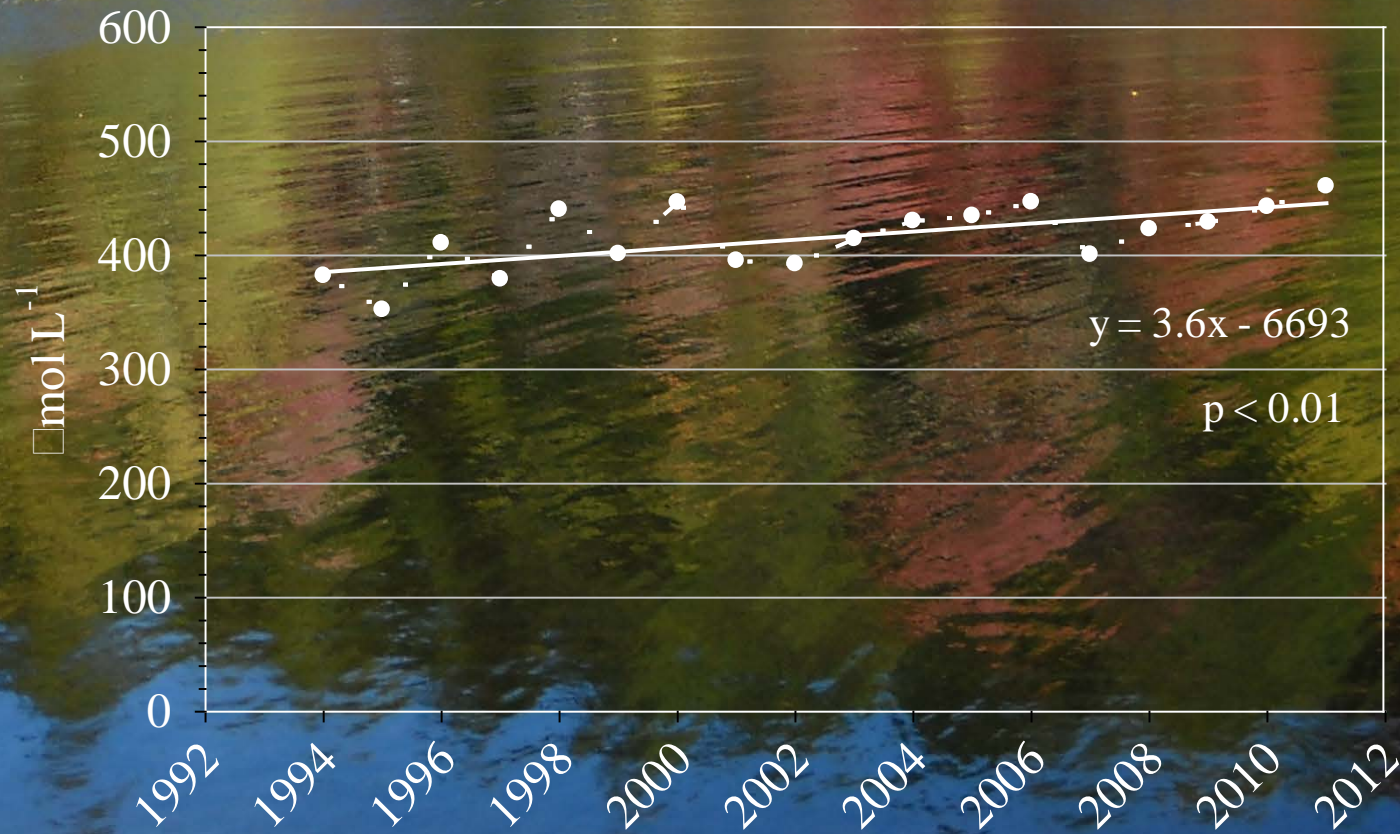
Changes in Aluminum Cycling in Soils and Surface Waters of Buck Creek



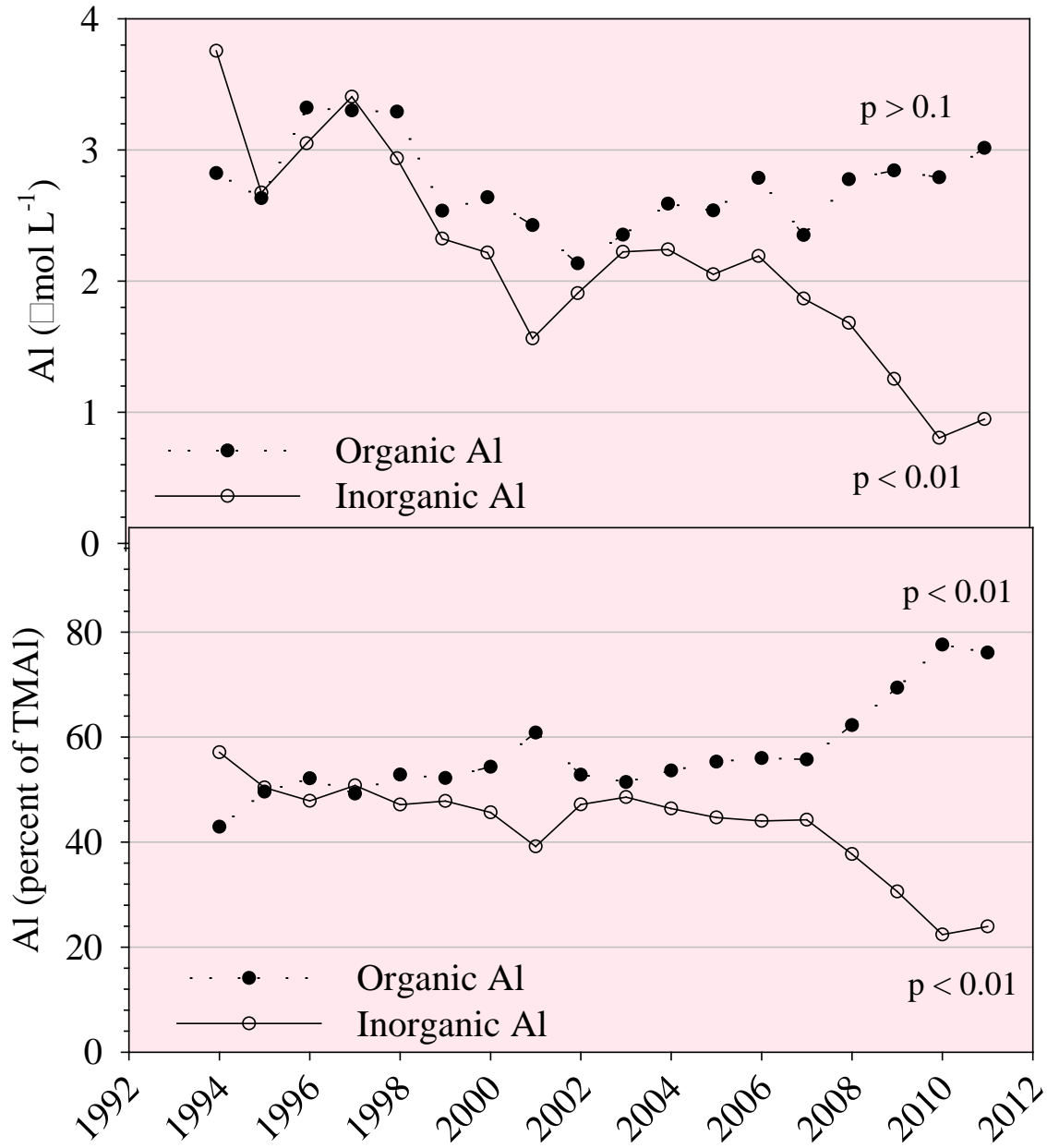
NADP Station - Huntington Wildlife Forest



Dissolved Organic Carbon in Lakes



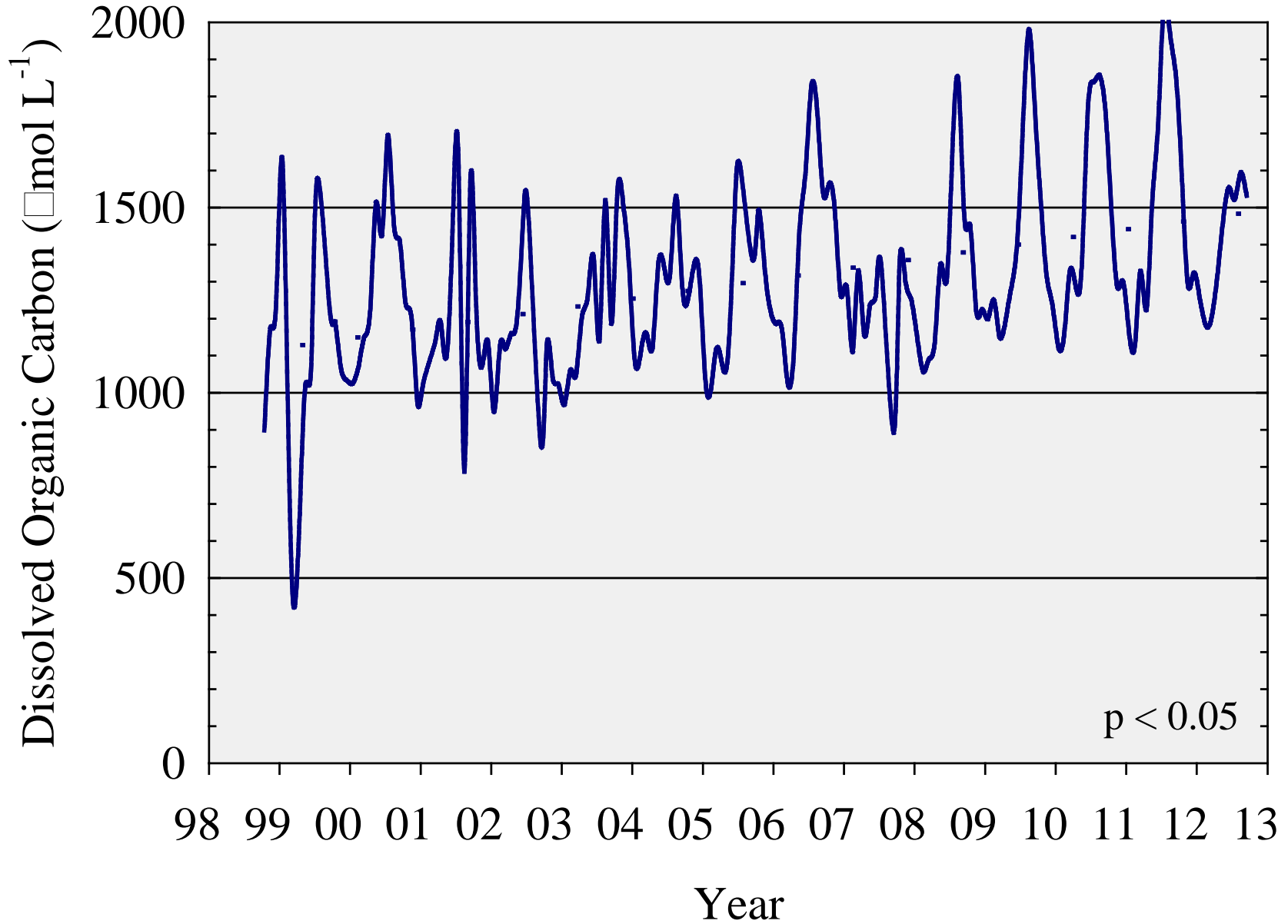
Monomeric Al in Lakes



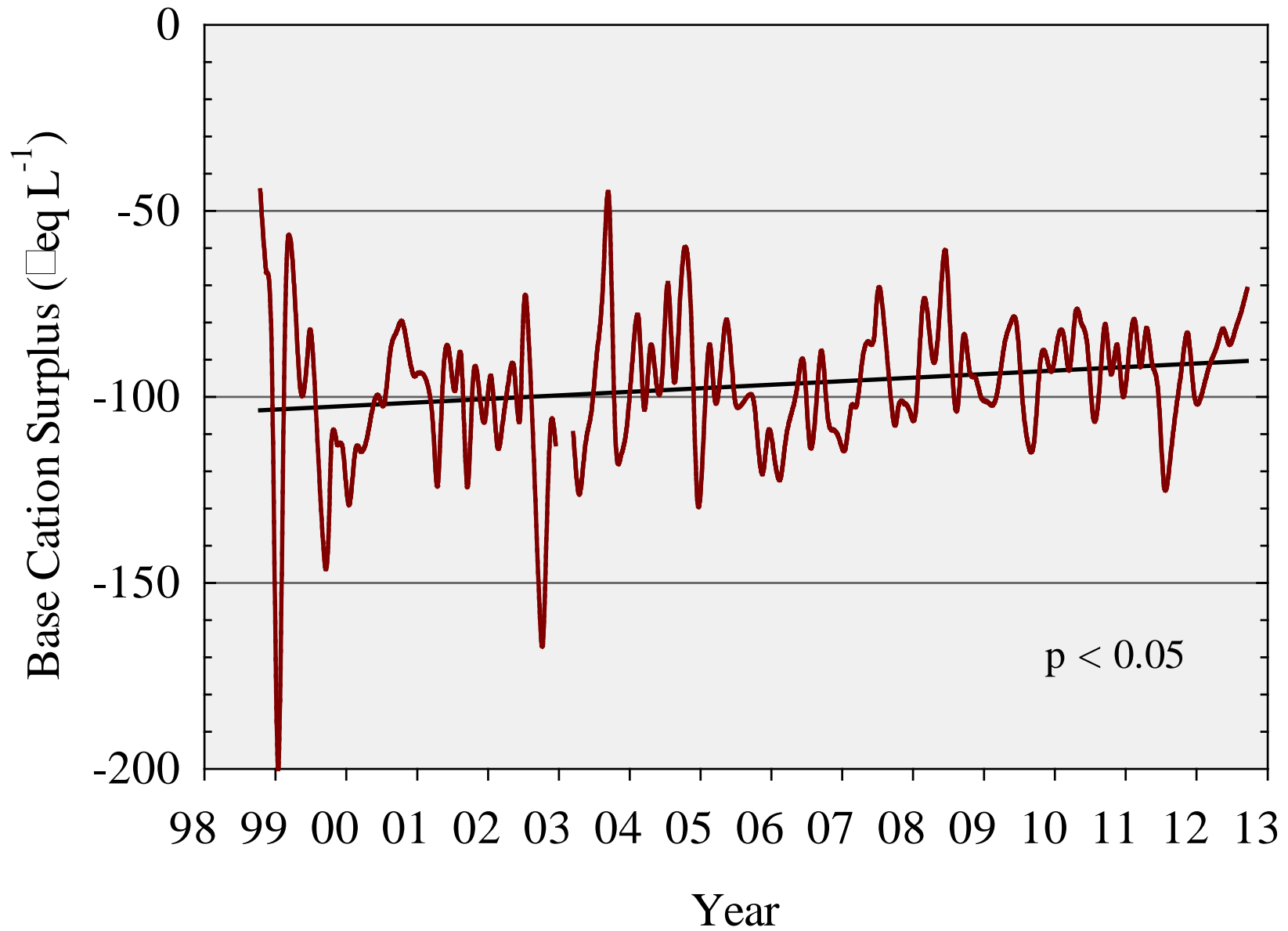
North Tributary of Buck Creek



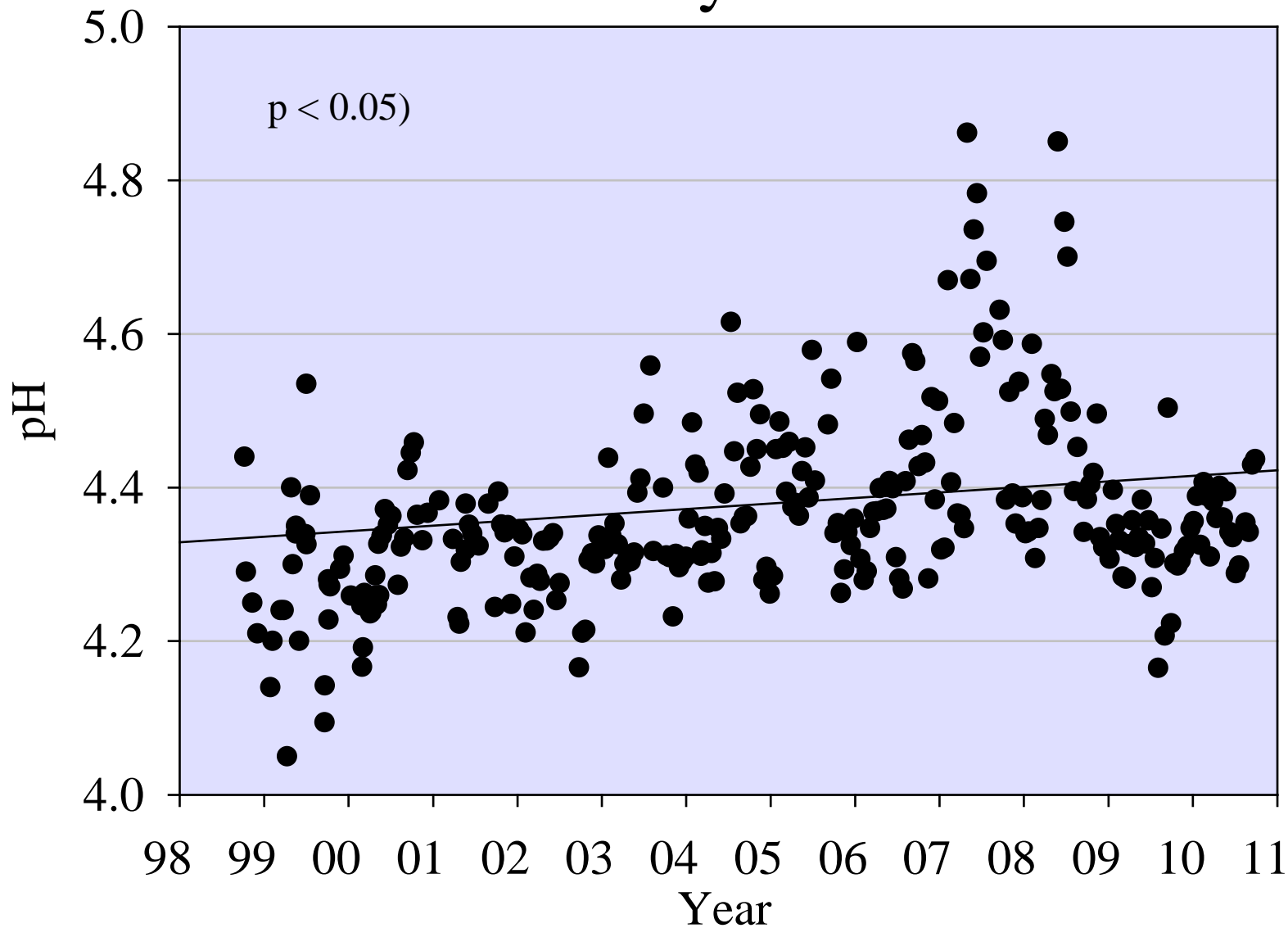
North Tributary Buck Creek



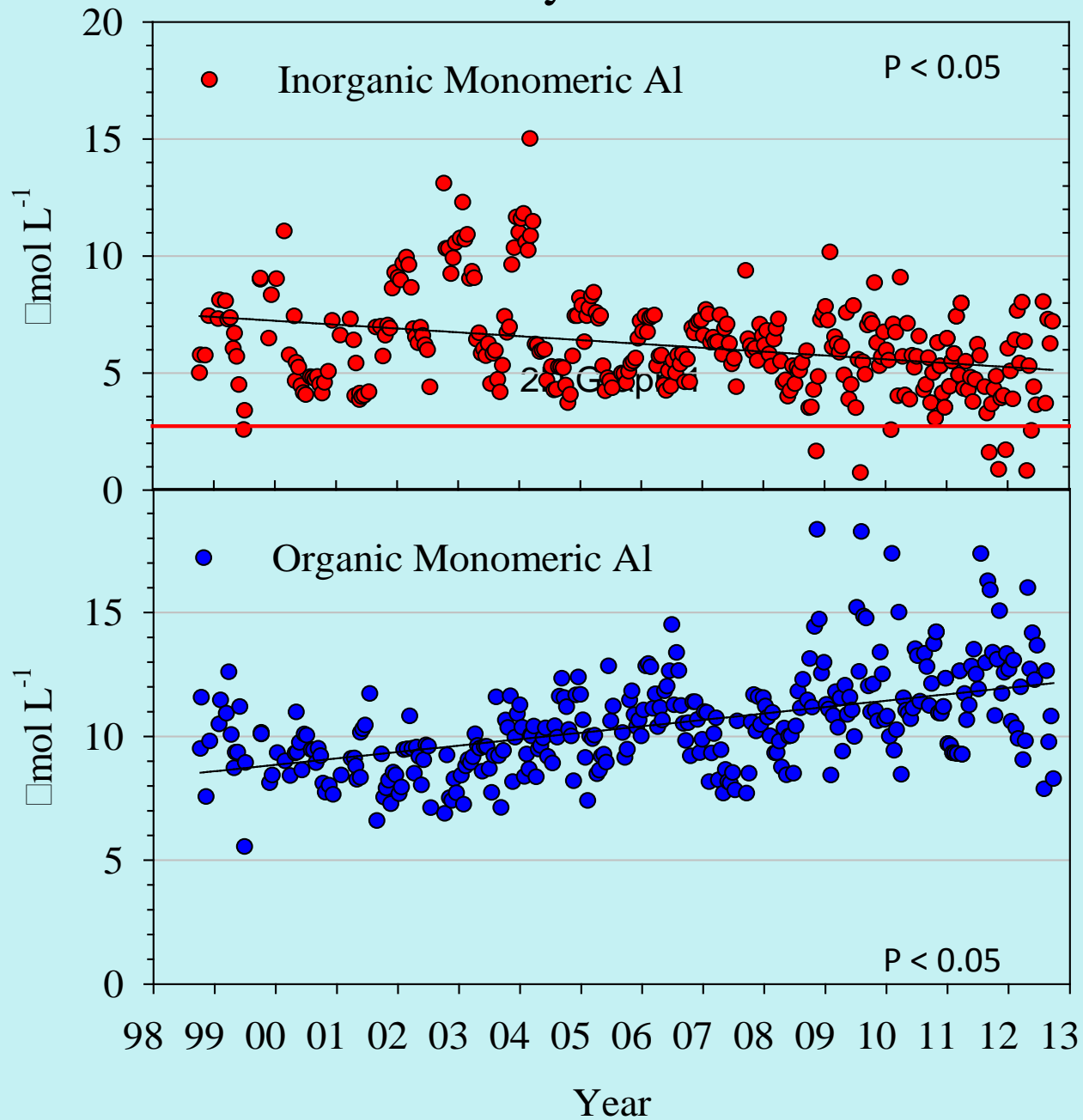
North Tributary of Buck Creek



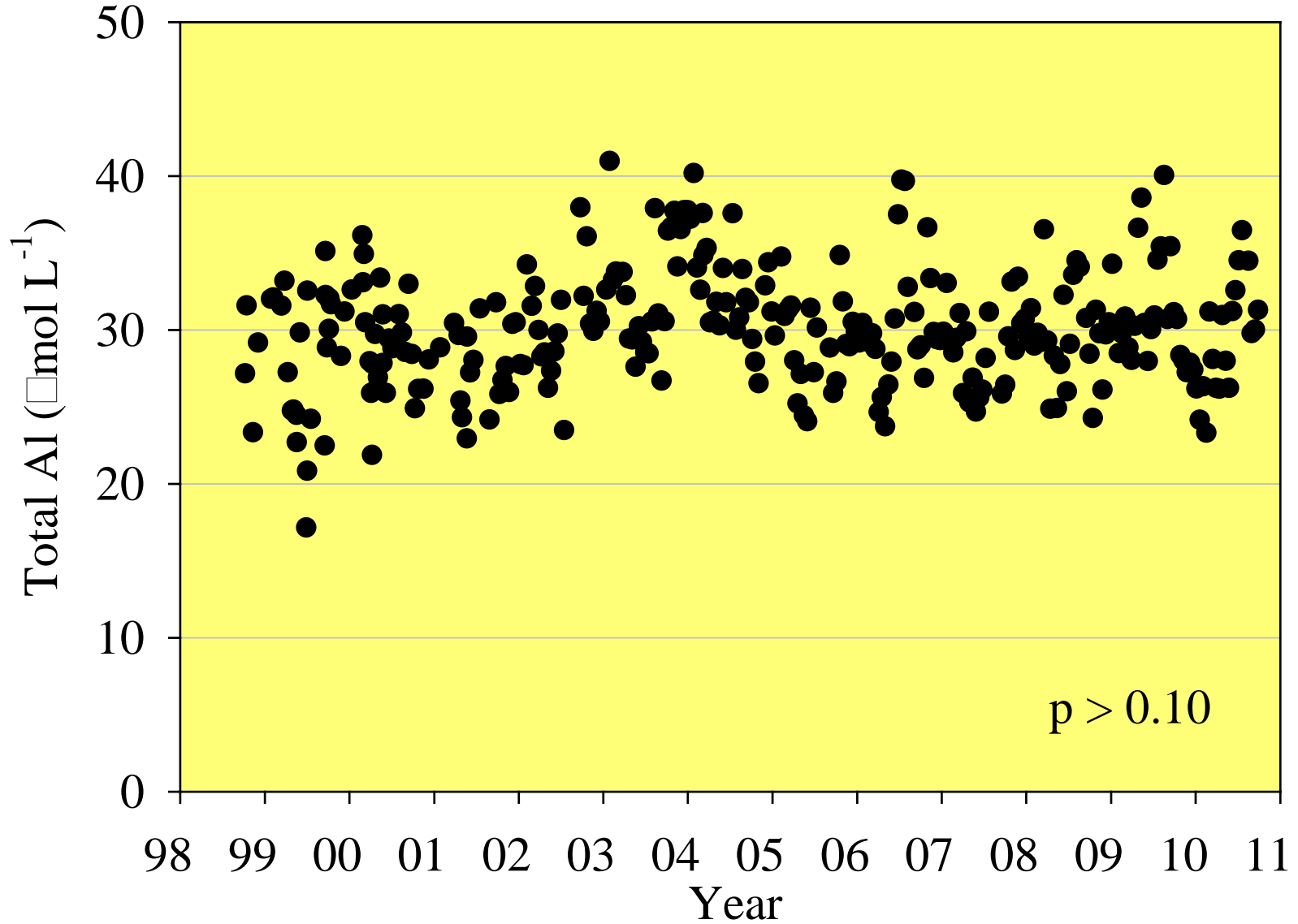
North Tributary of Buck Creek



North Tributary of Buck Creek



North Tributary of Buck Creek



Acid Rain Effect

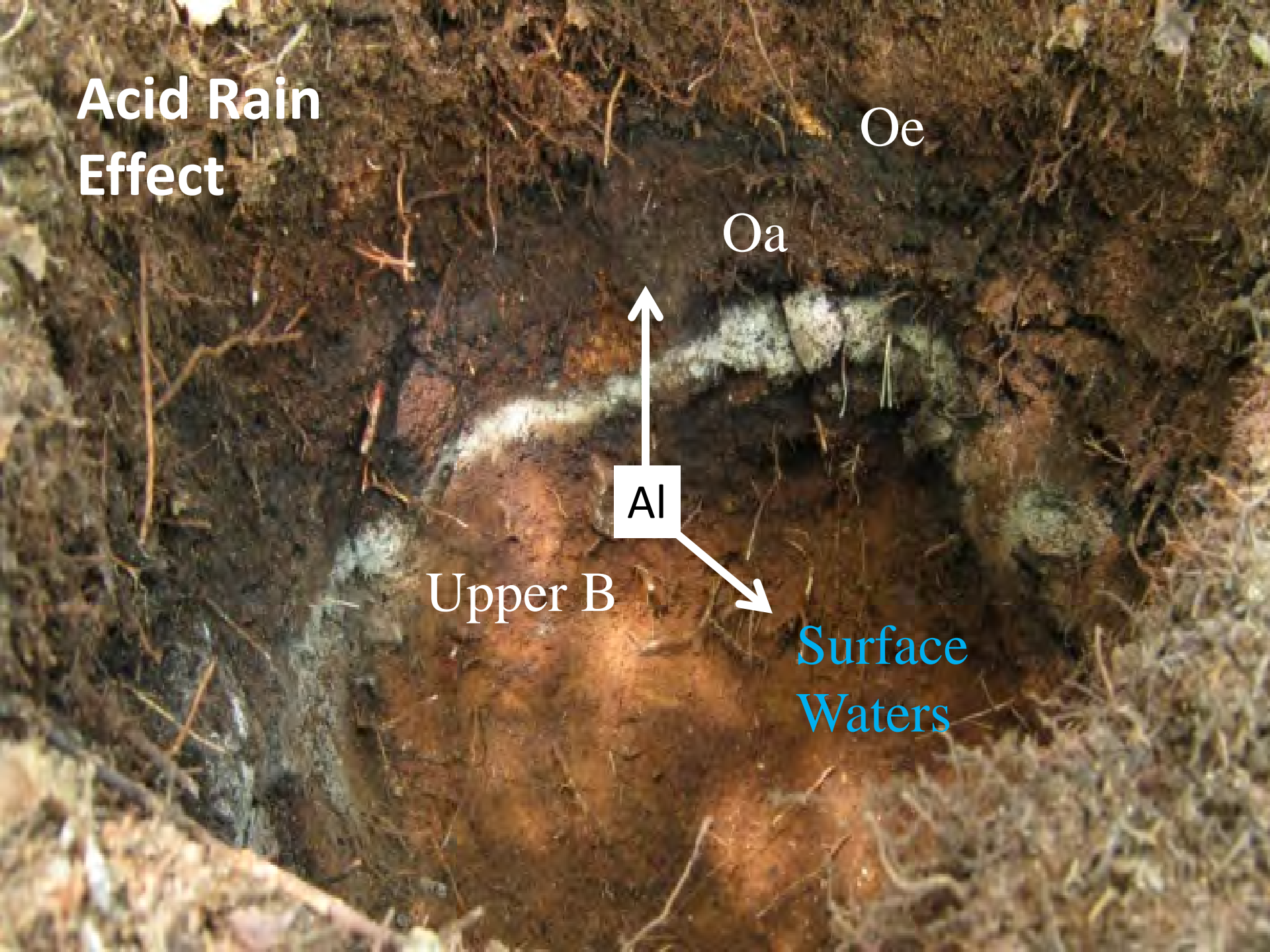
Oe

Oa

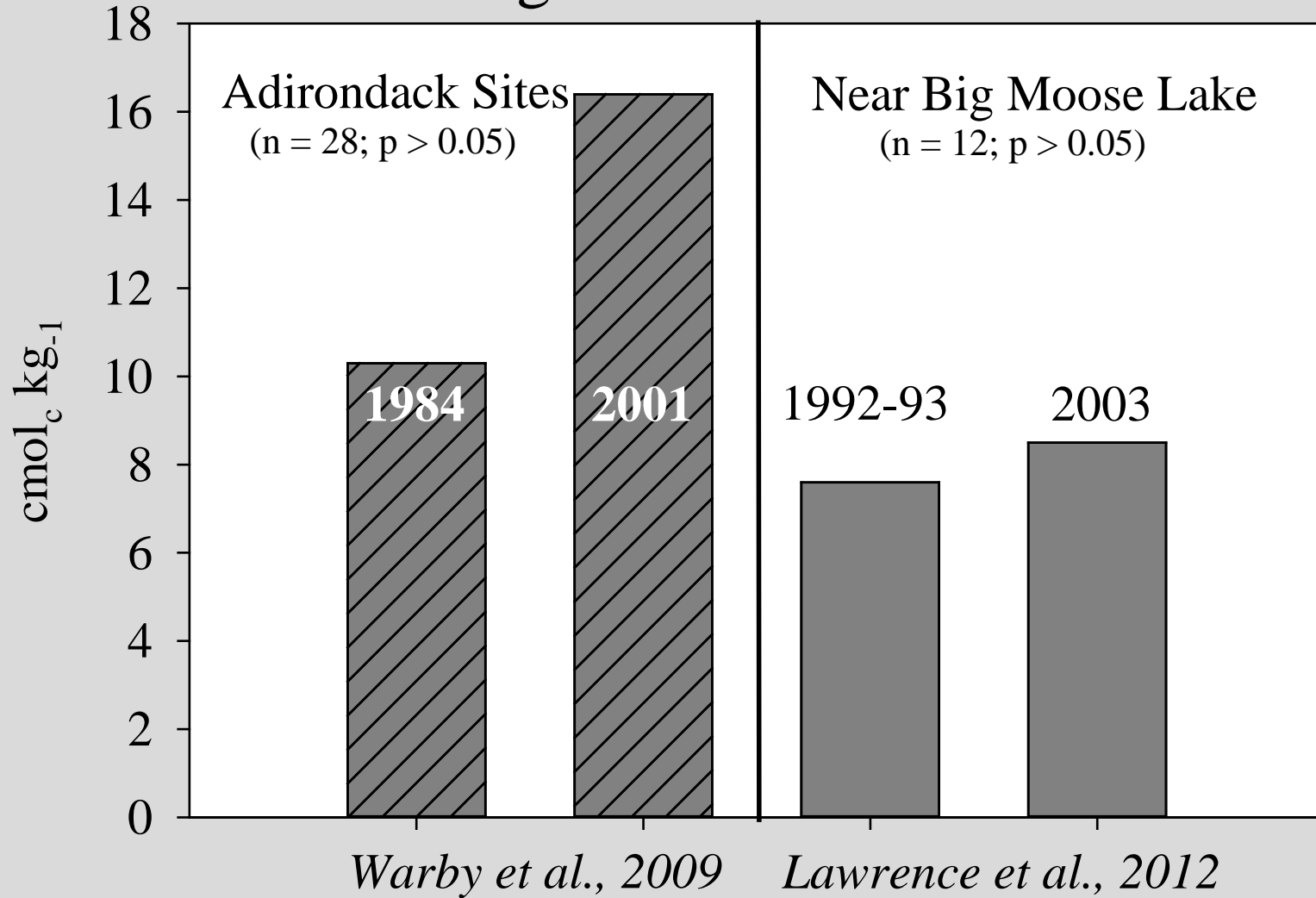
Al

Upper B

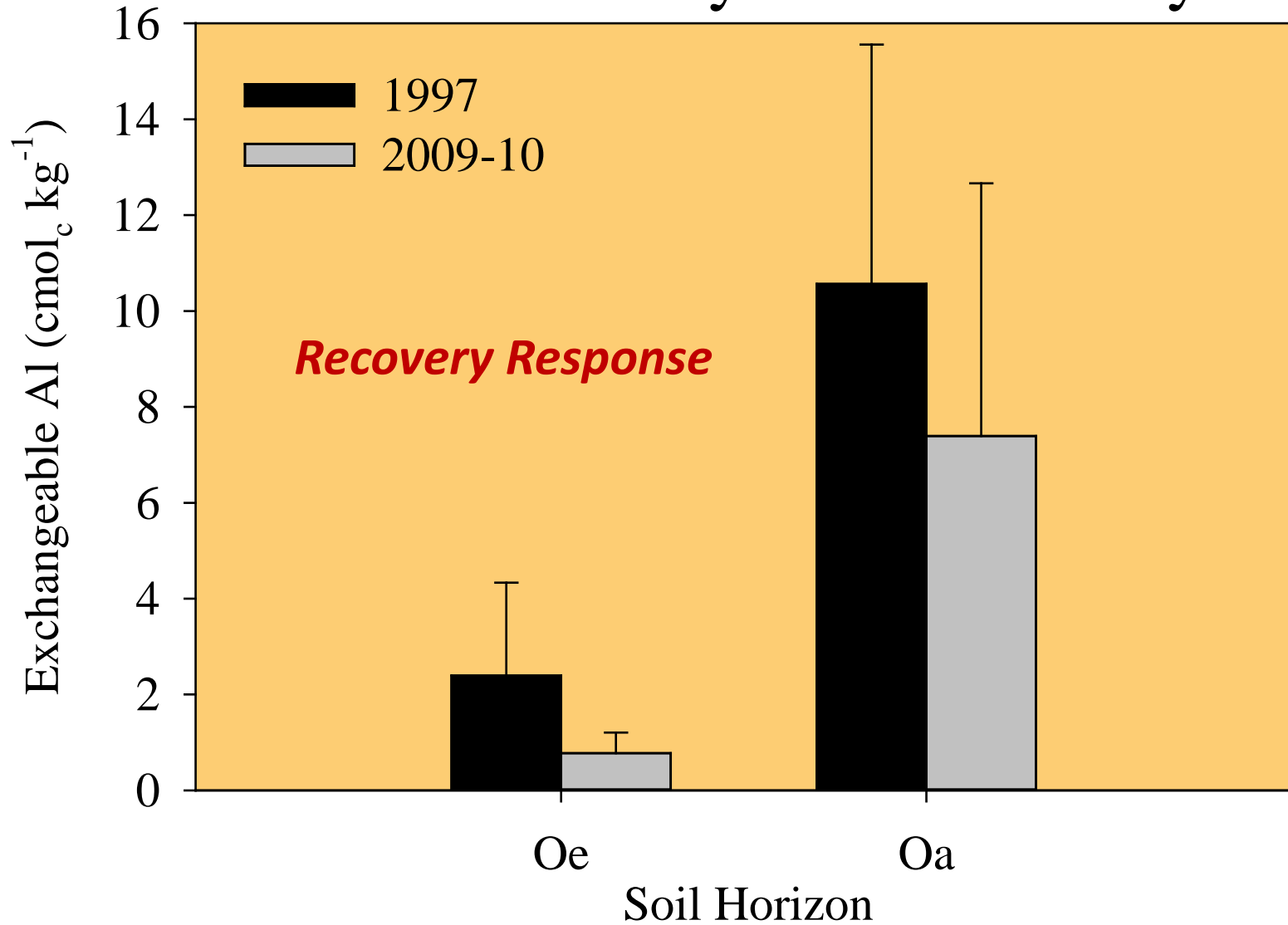
Surface Waters



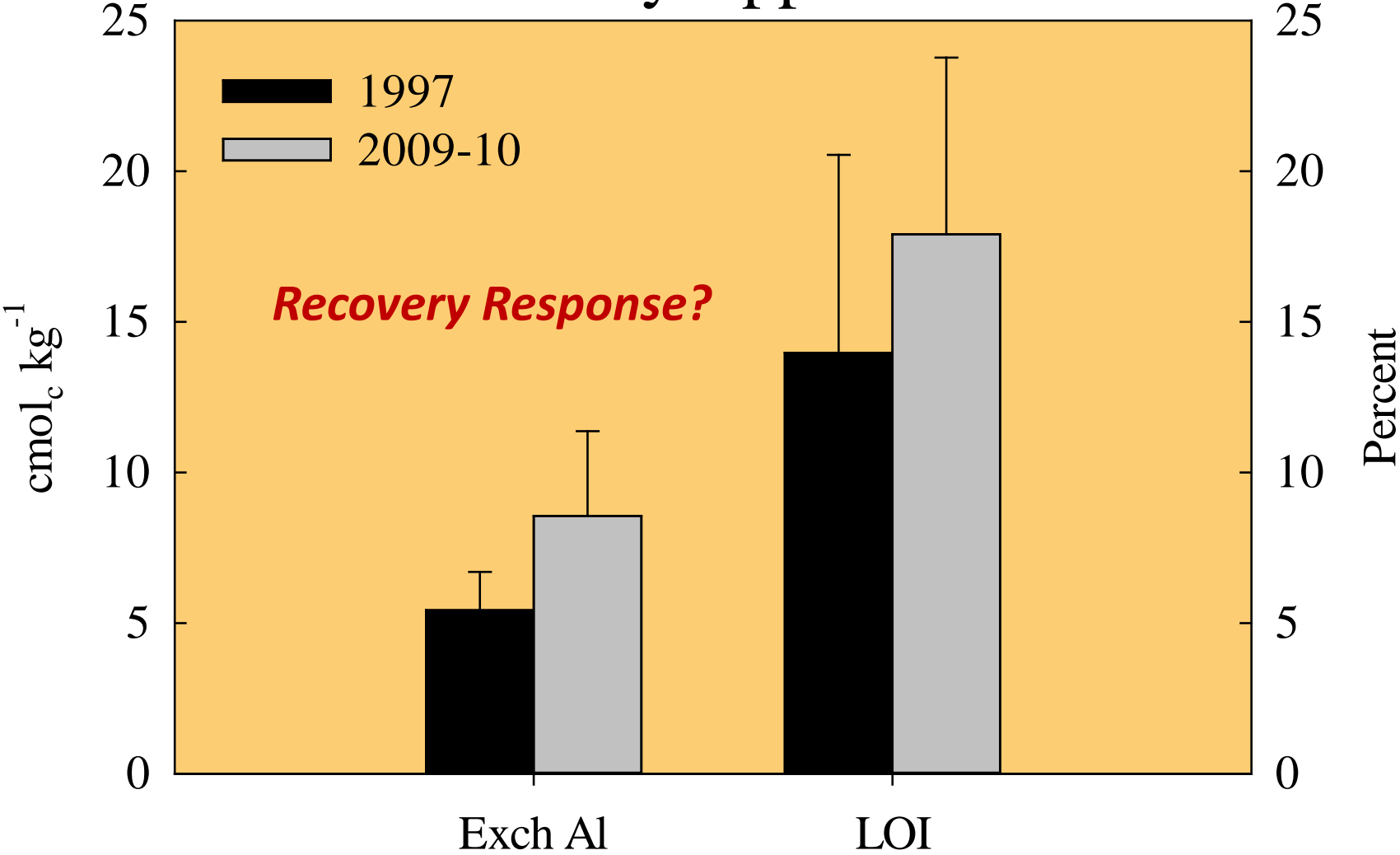
Exchangeable Al in Oa Horizons



North Tributary Soil Chemistry



North Tributary Upper B Horizon

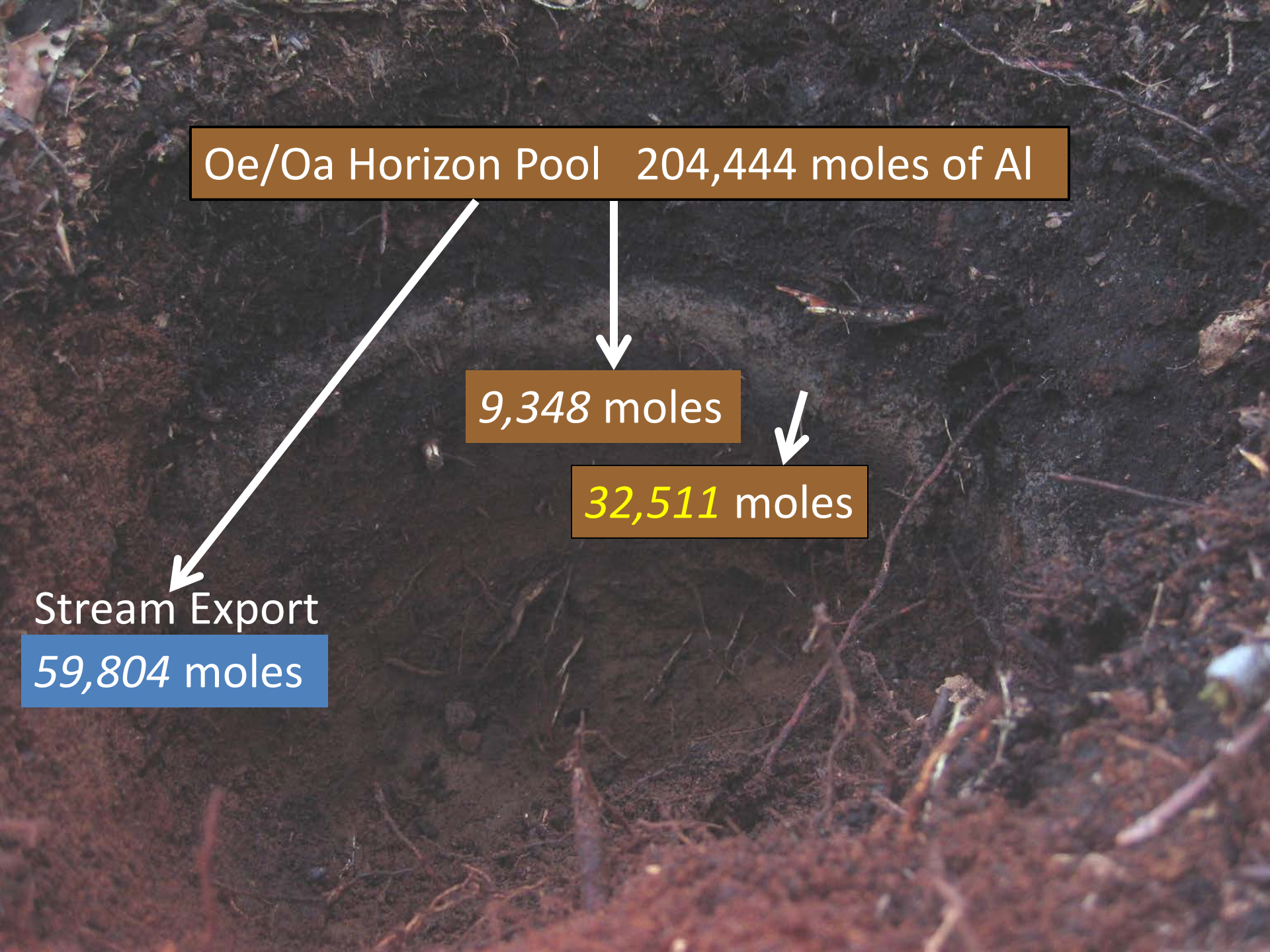


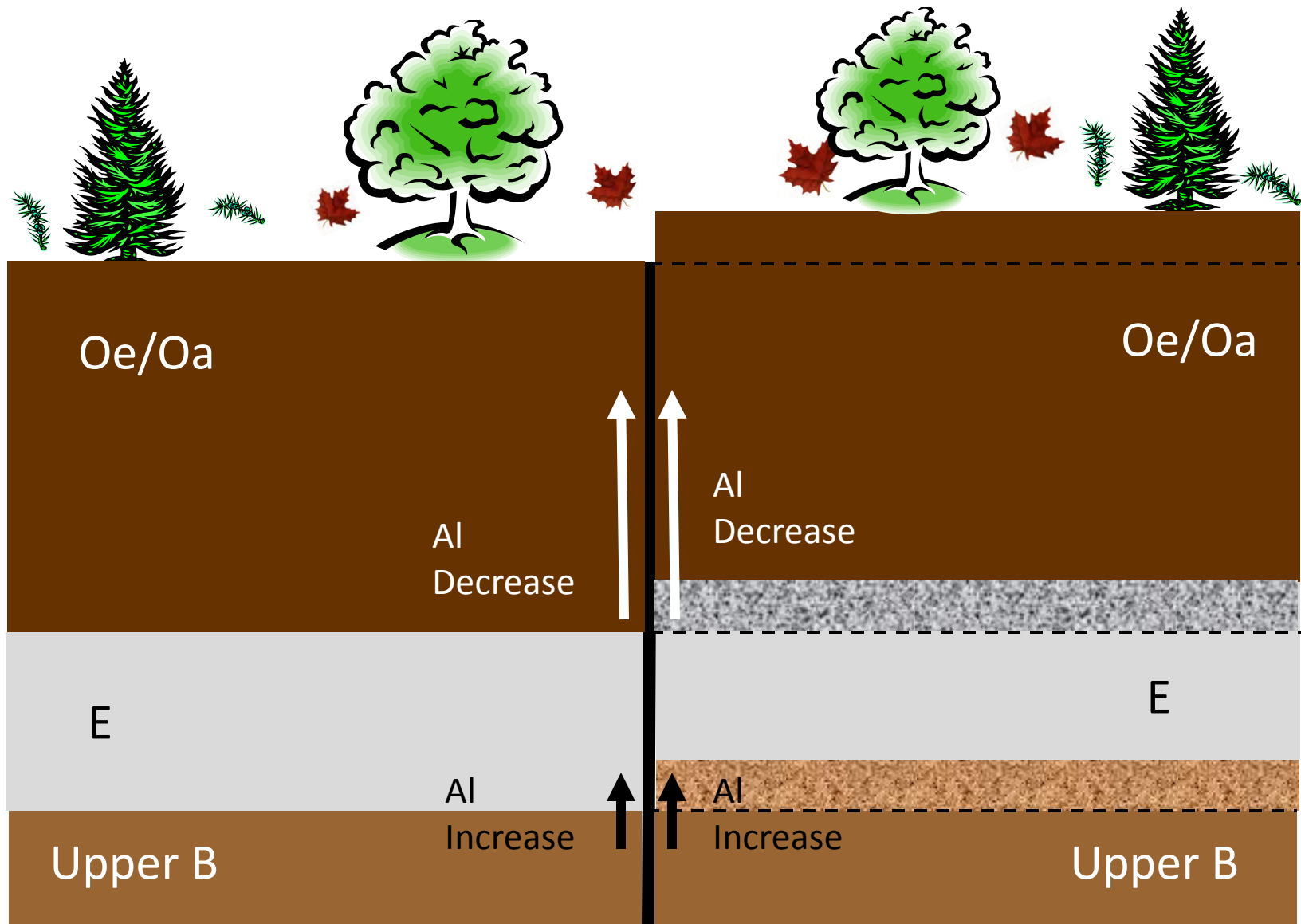
Oe/Oa Horizon Pool 204,444 moles of Al

9,348 moles

32,511 moles

Stream Export
59,804 moles



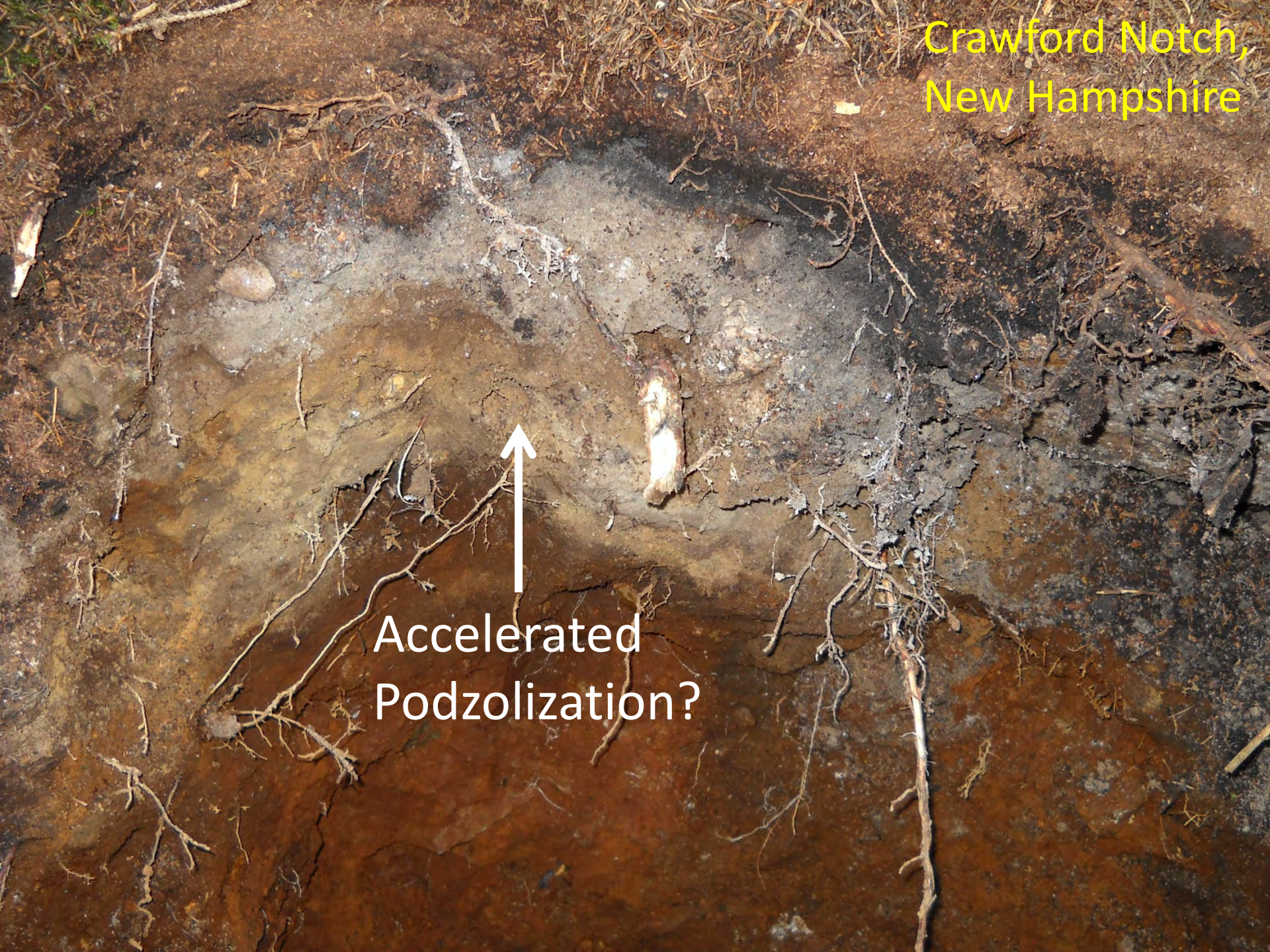


Original Sampling

Re Sampling

Crawford Notch,
New Hampshire

Accelerated
Podzolization?



SUMMARY

- Total Al concentrations in surface waters have remained elevated as part of the recovery response of soils;

- Al speciation is shifting to non-harmful forms;

- Increased organic matter mobility suggests accelerated podzolization;

- As soils continue to recover, exchangeable Al concentrations may continue to increase in the upper B horizon.

- Much will depend on dynamics of organic carbon in soils.