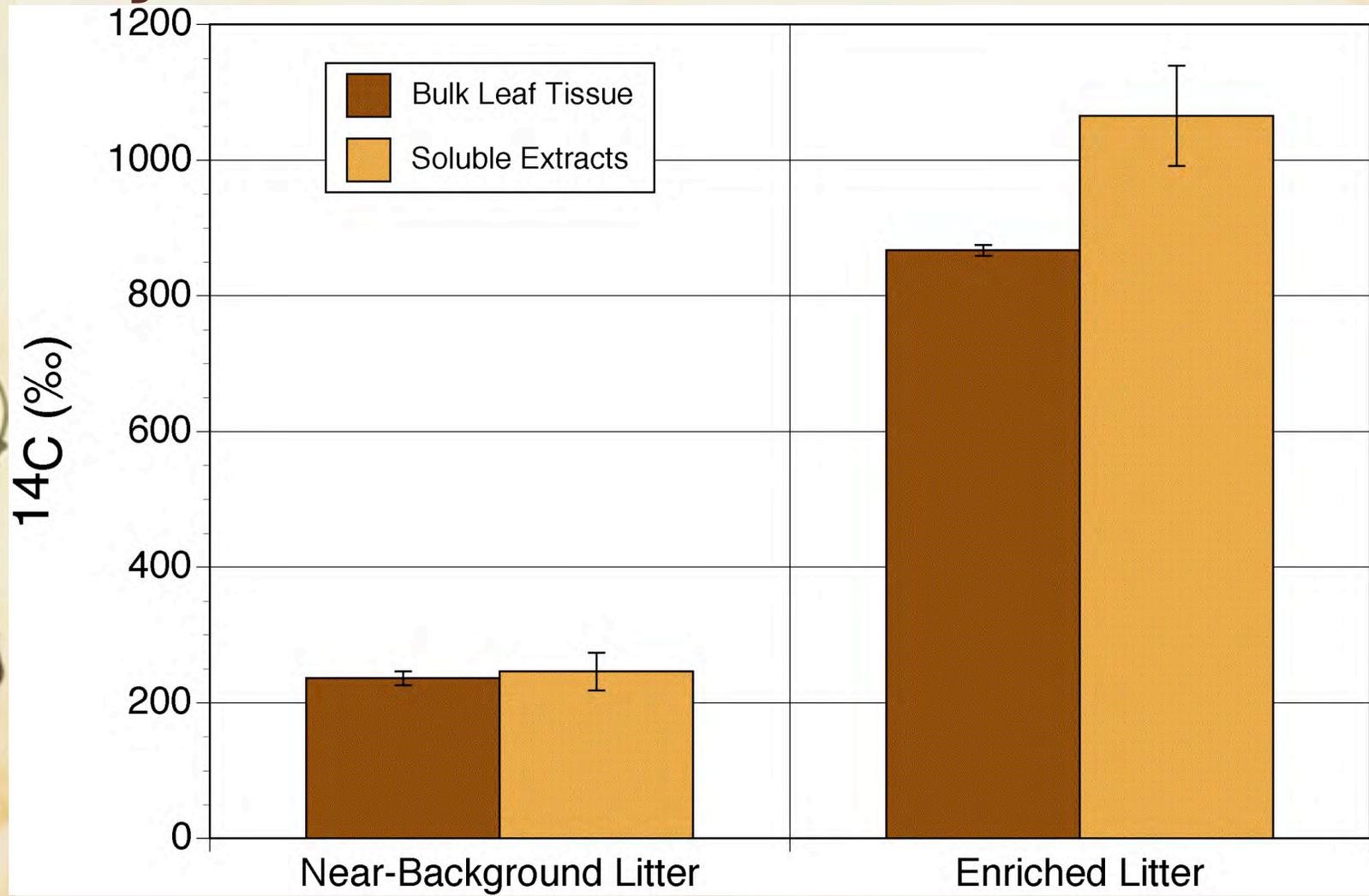


^{14}C in Leaf Litter Fractions

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Preliminary leaching experiments by Hanson and Swanston





Rational for this study

- Preliminary data indicate that the ^{14}C label is not uniformly distributed in the leaf litter.
- This can influence how and when the label shows up in the soil fractions.



Methods for isolating leaf litter fractions.

- Literature sources include agriculture, pulp and paper, forest science, paleoclimatology etc...
- Identified four fractions of primary interest: simple carbohydrates, phenolic acids, structural carbohydrates and lignin.

Bulk leaf tissue
(ball milled)

Soluble
Extract

Insoluble
Residue

Simple sugars
phenolic acids
and amino acids

α -cellulose

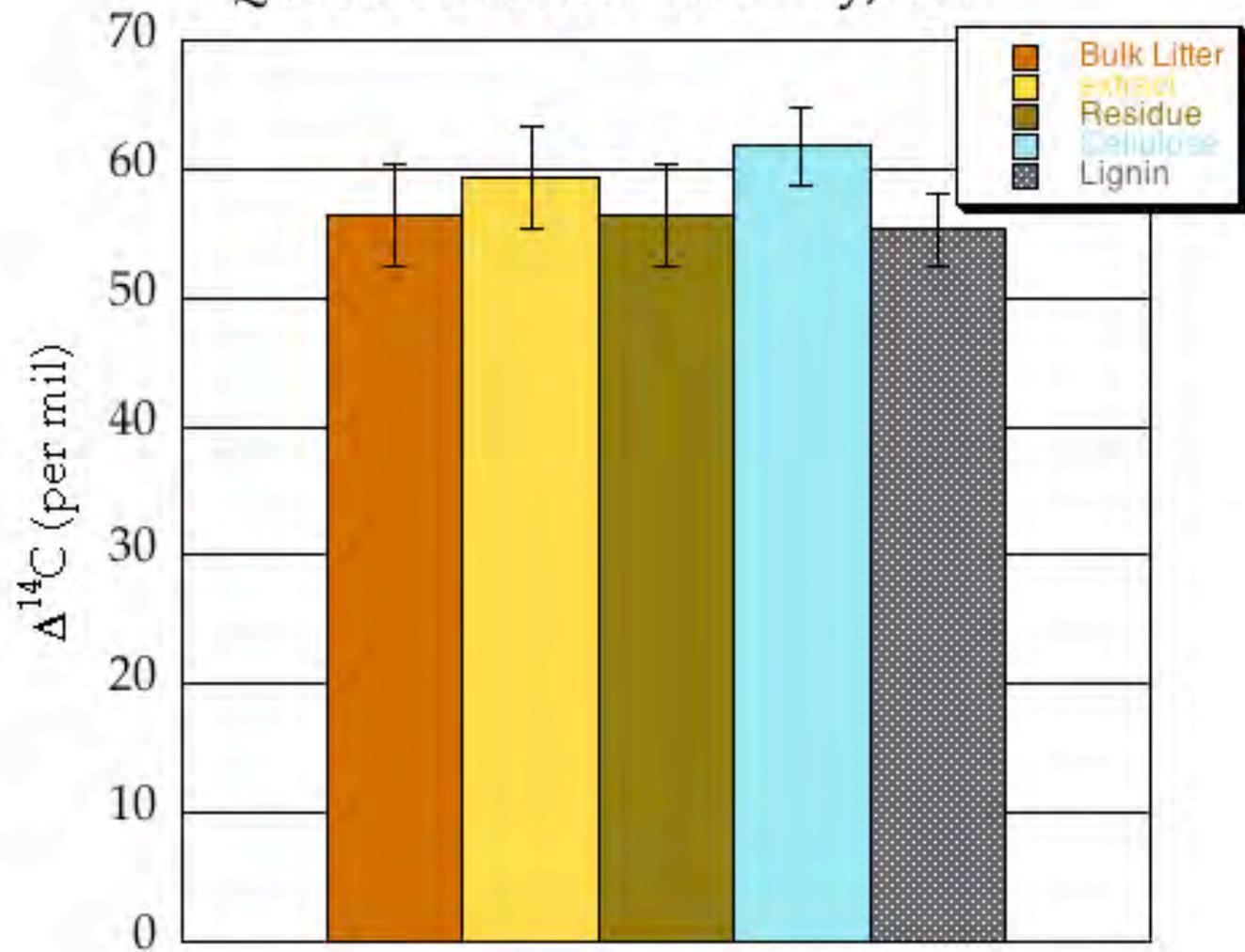
Klason
lignin (and
cutin)

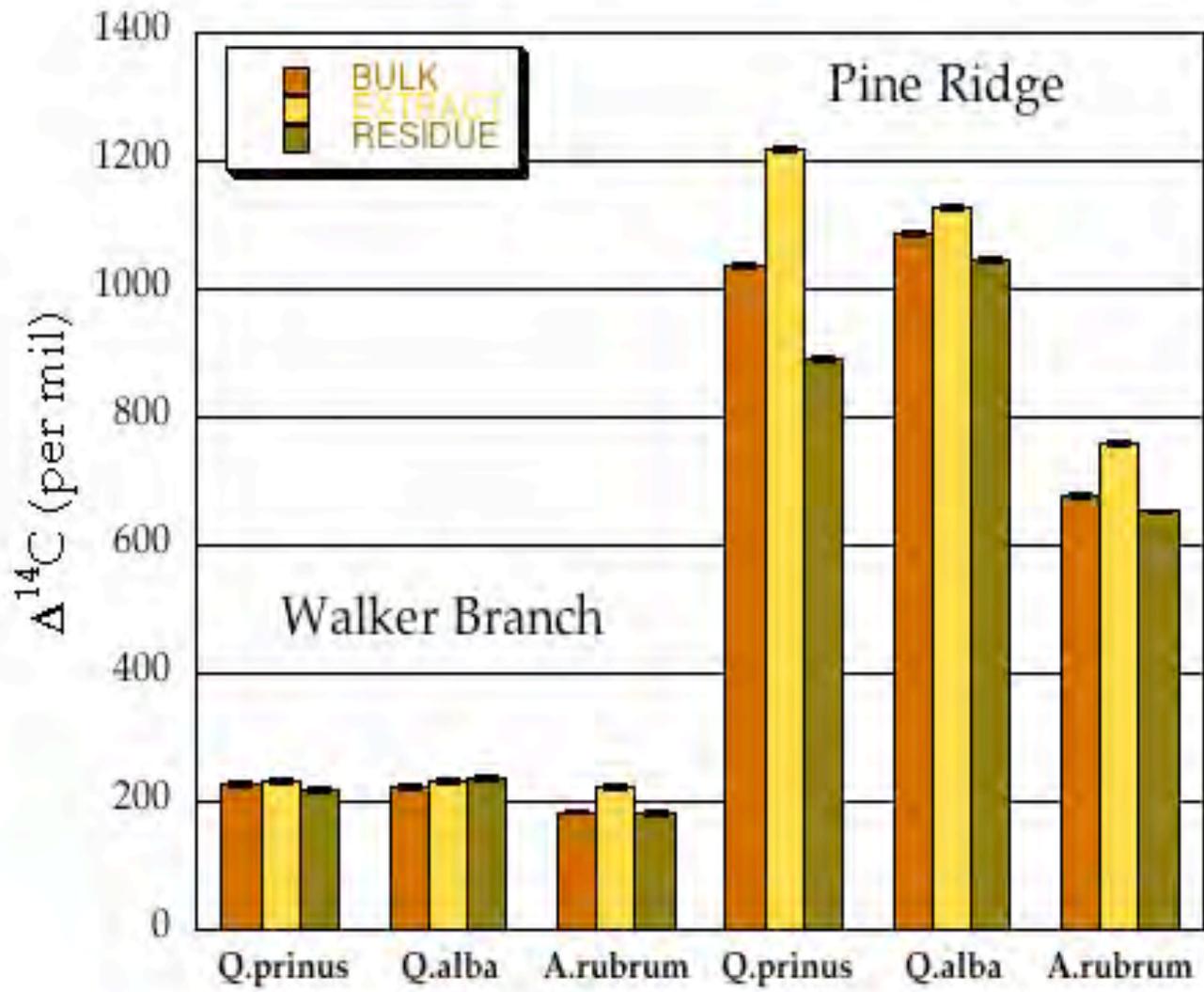
Simple sugars
and amino acids





Q. alba collected in Emory, VA







Still to do....

- Finish lignin and cellulose isolations.
- Solve the difficulty with pvpp leaching into the aqueous extracts.
- Mass balances
- Isolation of any additional fractions of interest (lipids, etc..)