

Plant tissue nutrient status
across complex riparian habitats
in the Shingwedzi drainage

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Relationship between
heterogeneity and soil and plant
chemistry?



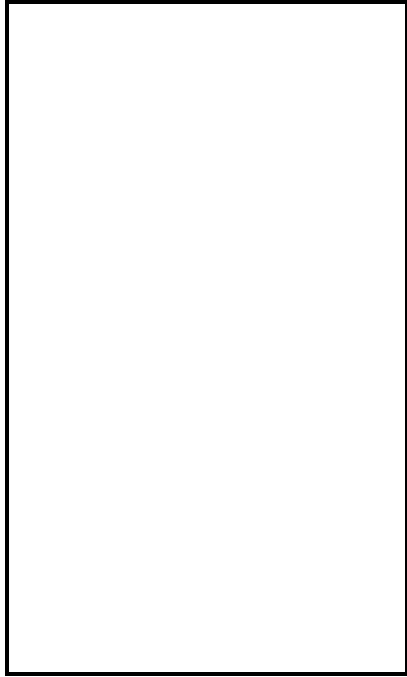
RIVER



RIPARIAN



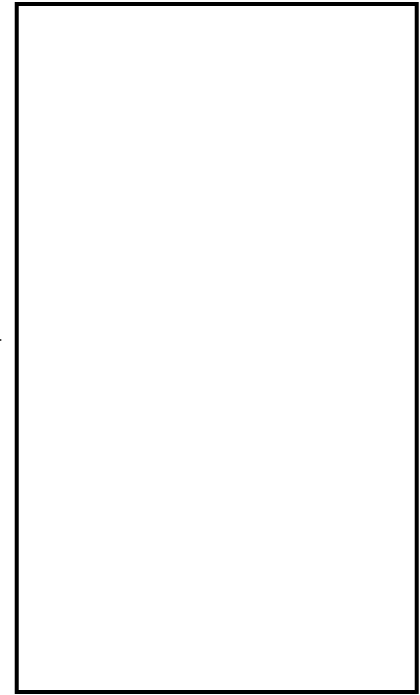
UPLAND



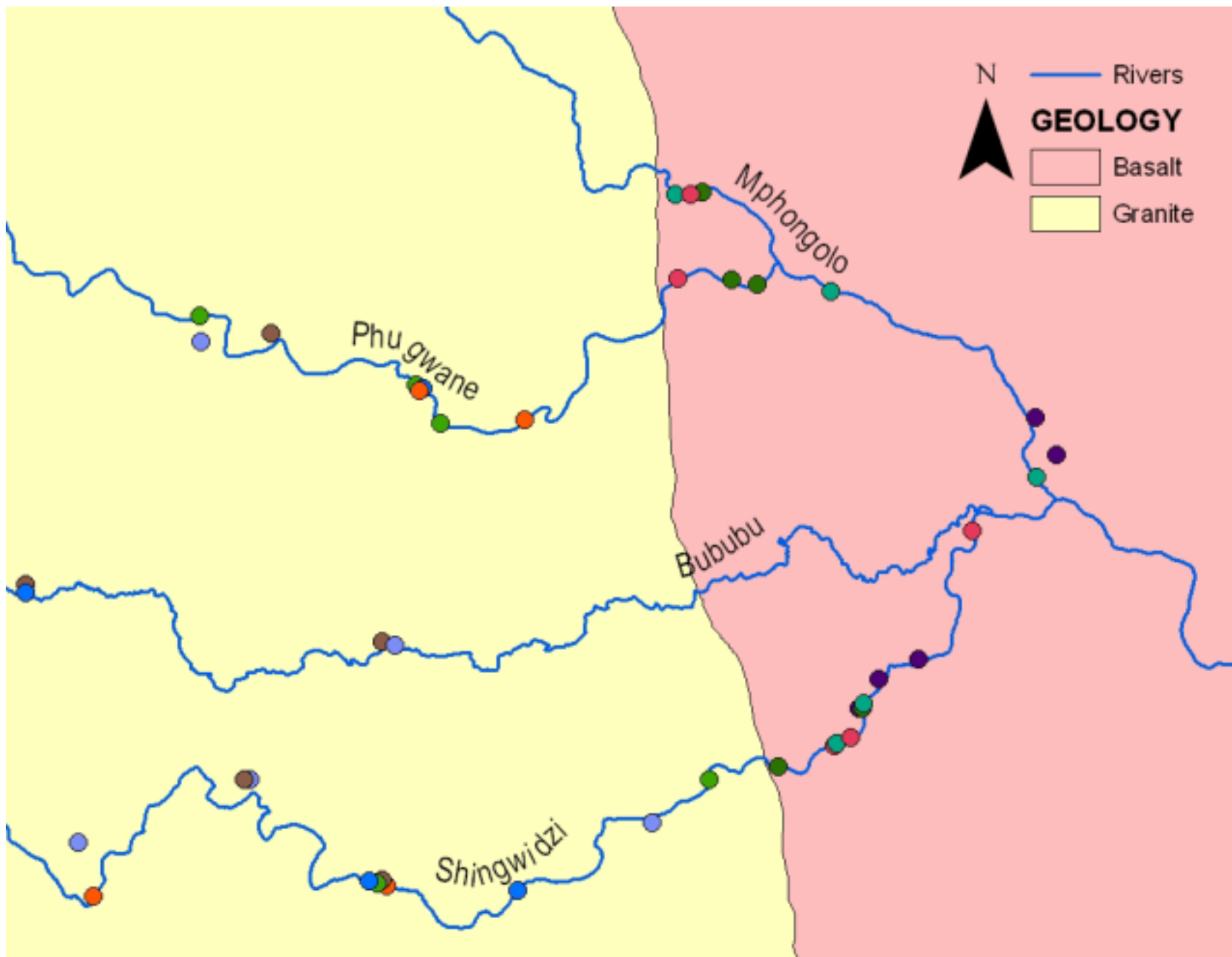
RIVER



RIPARIAN



UPLAND



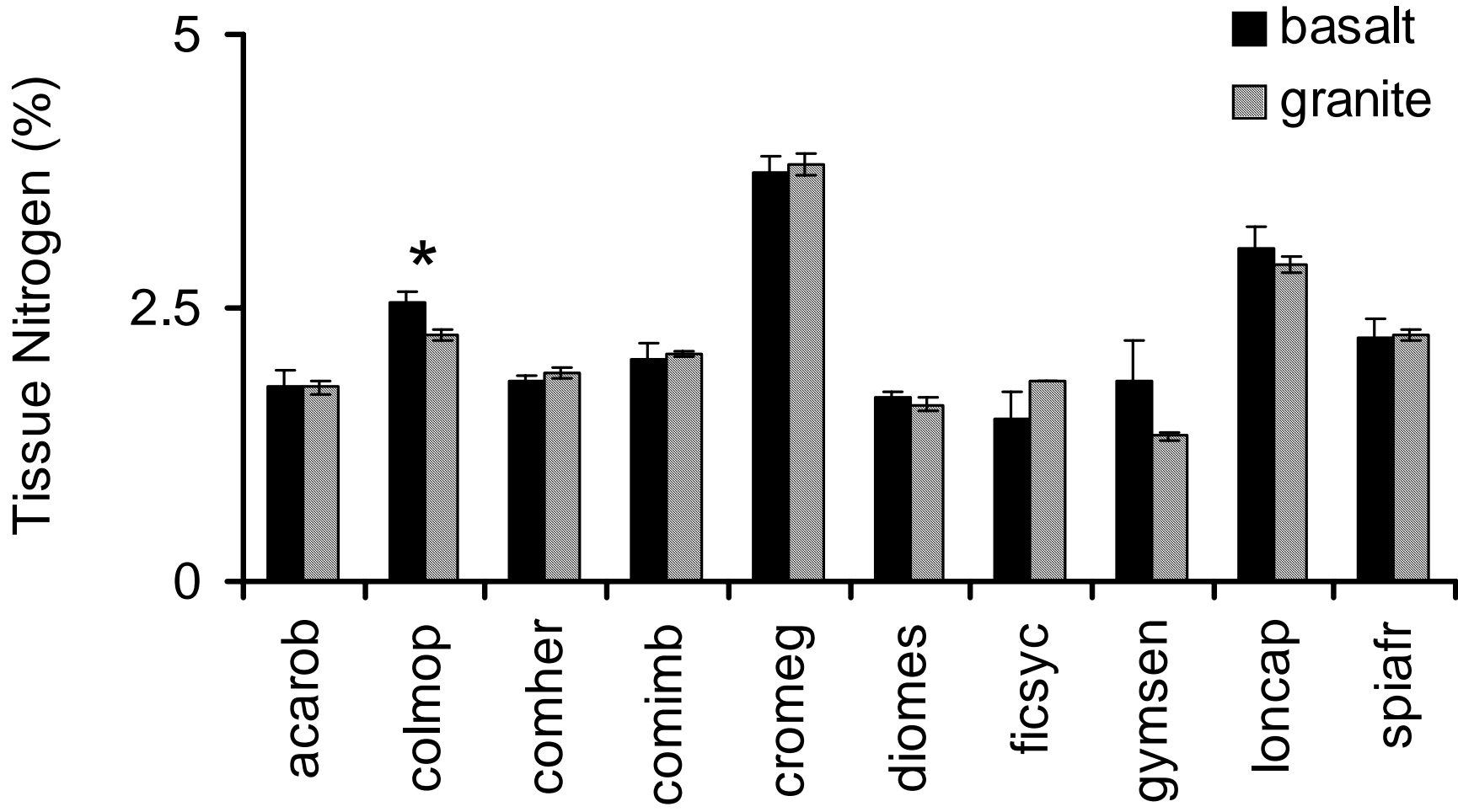
Specifying the boundary template

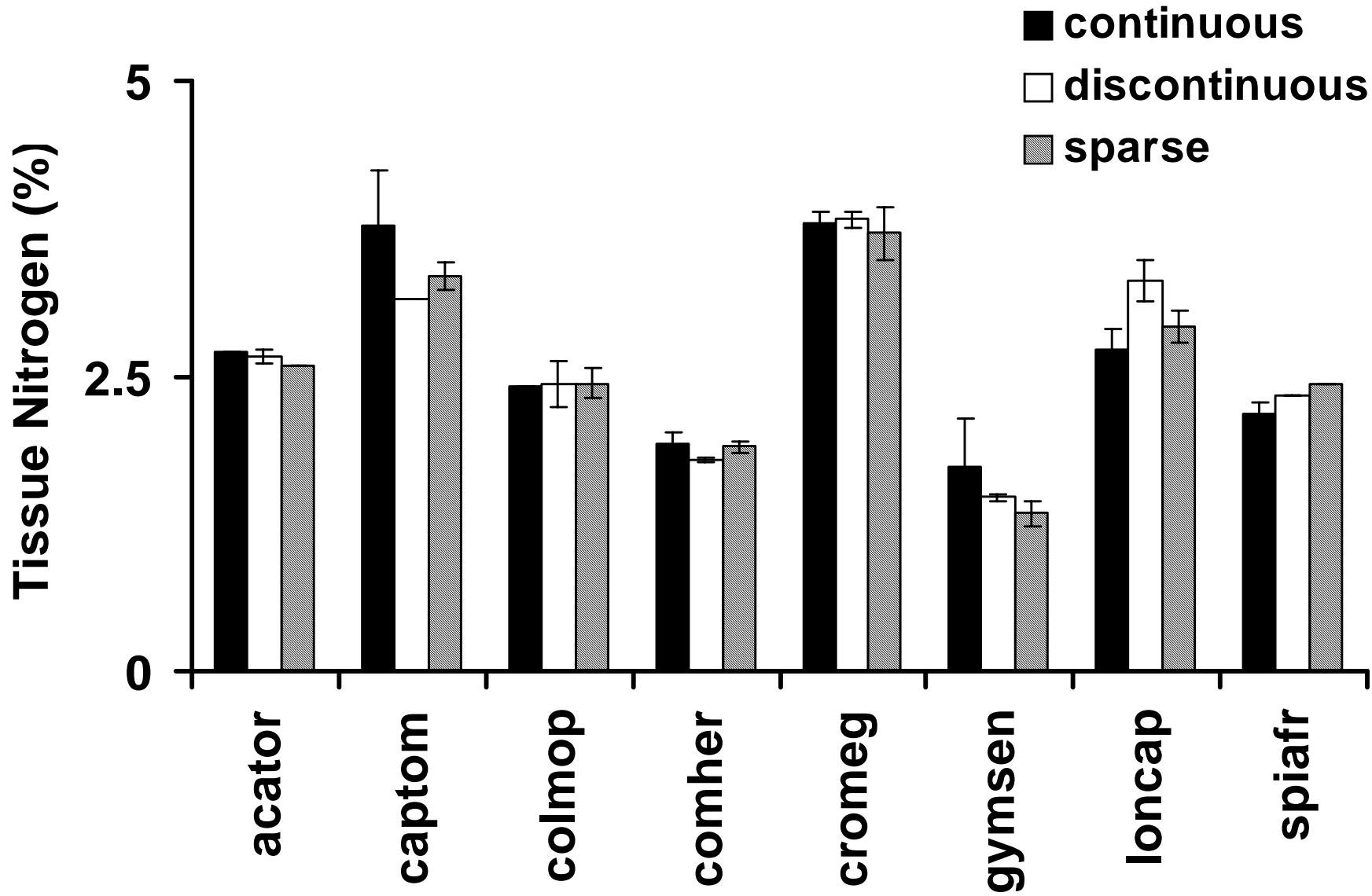
- Flow: Nutrients
- Boundary structure:
 - Continuous
 - Discontinuous
 - Sparse
- Patches: River vs. upland

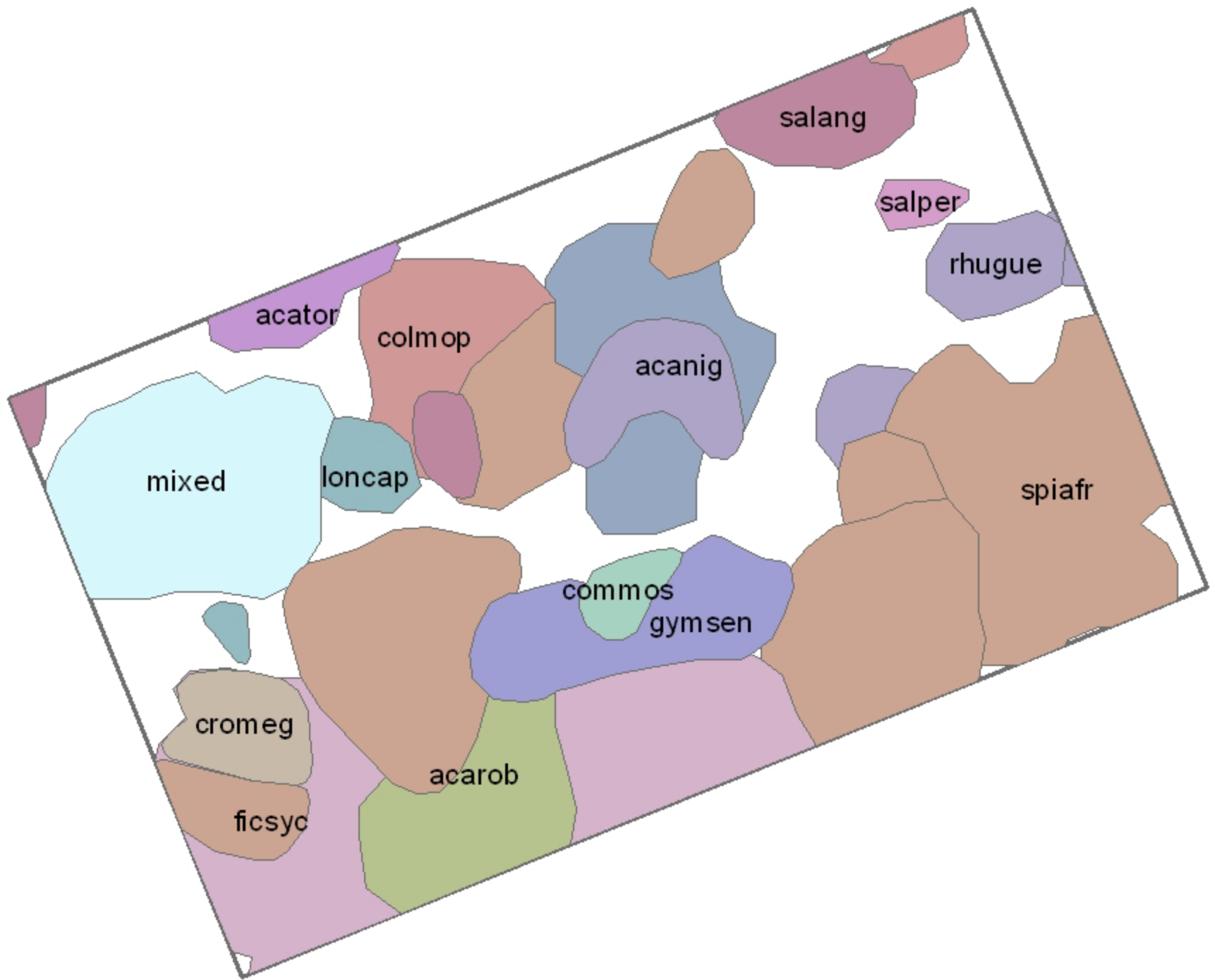
Plant tissue hypotheses

- Geology
 - Higher nutrient status on basalt
- Landscape position
 - Higher in riparian zones
- Riparian canopy structure
 - Higher in continuous



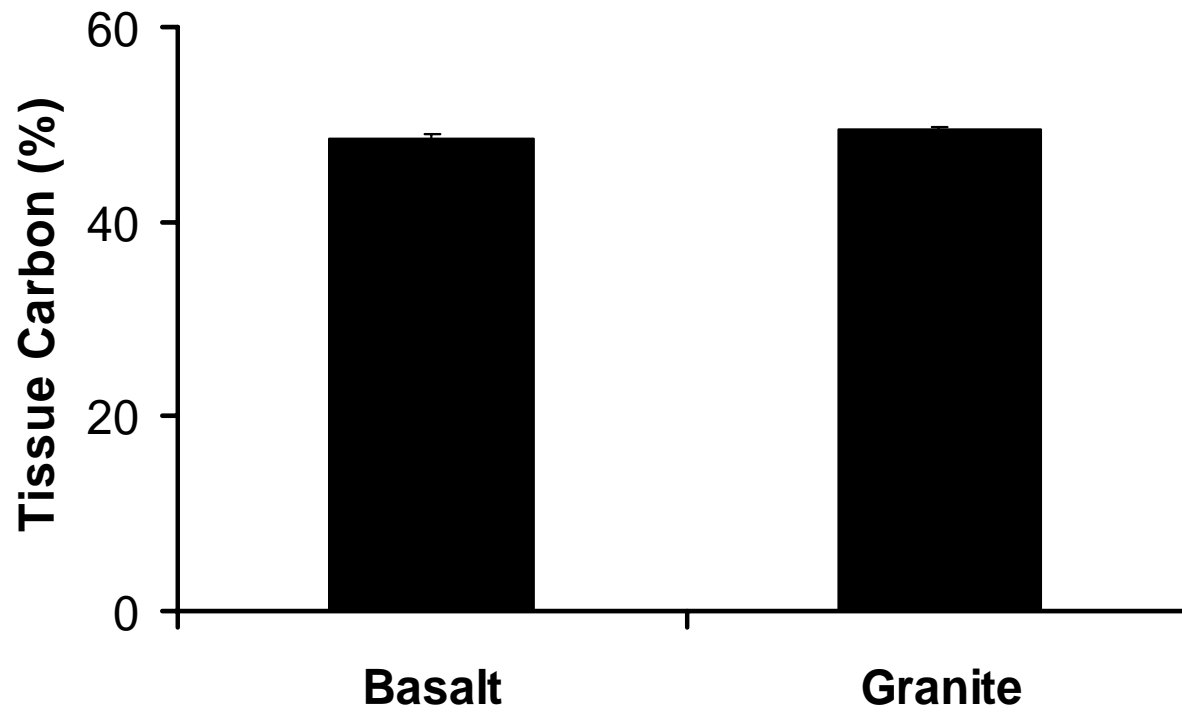
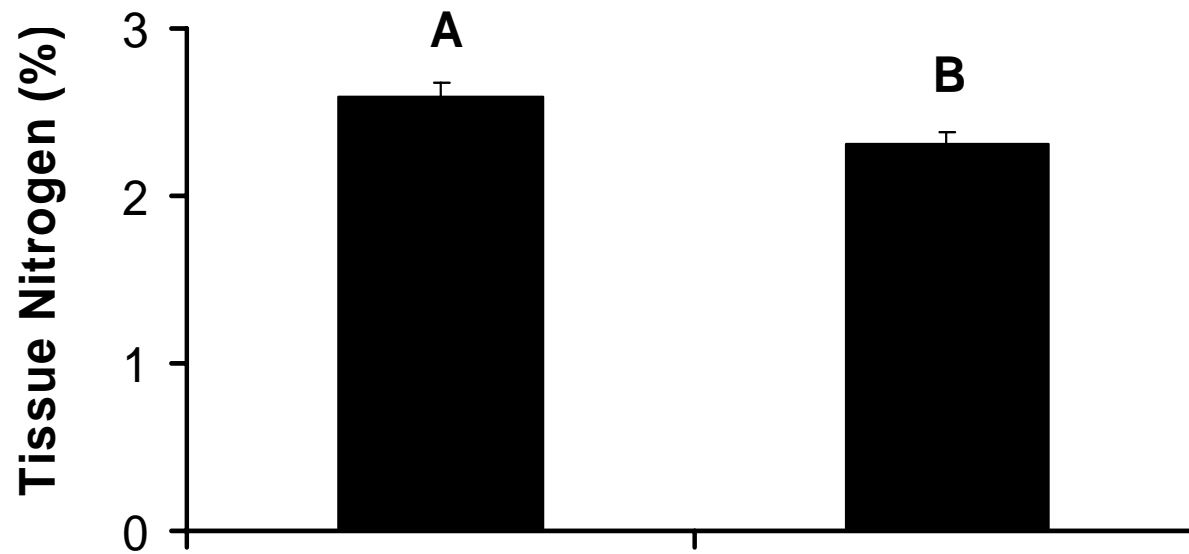






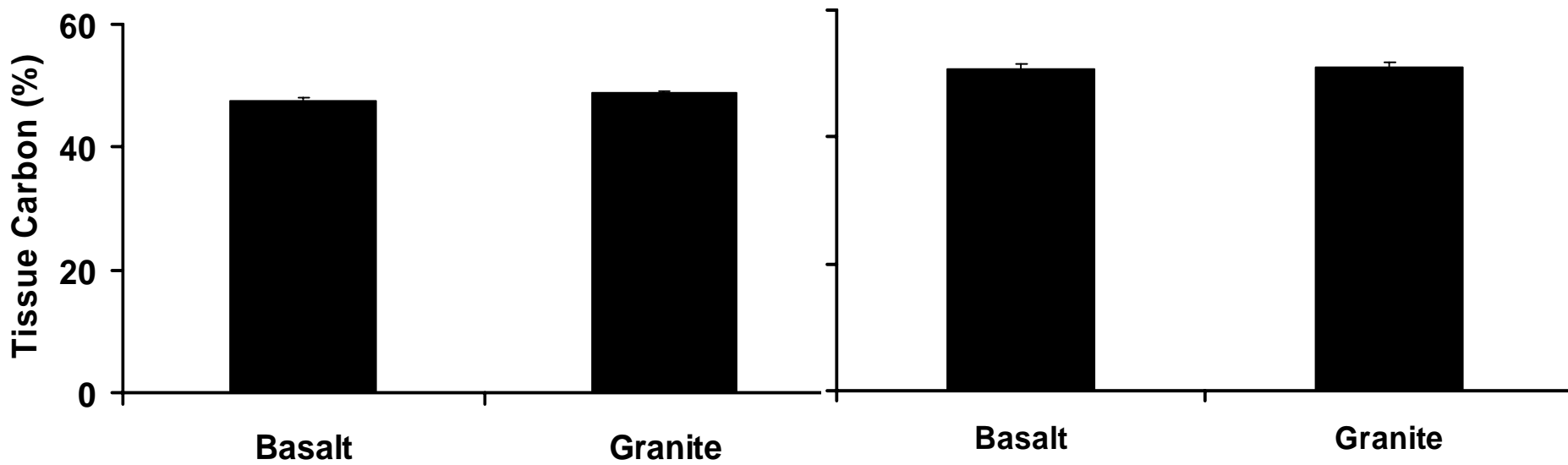
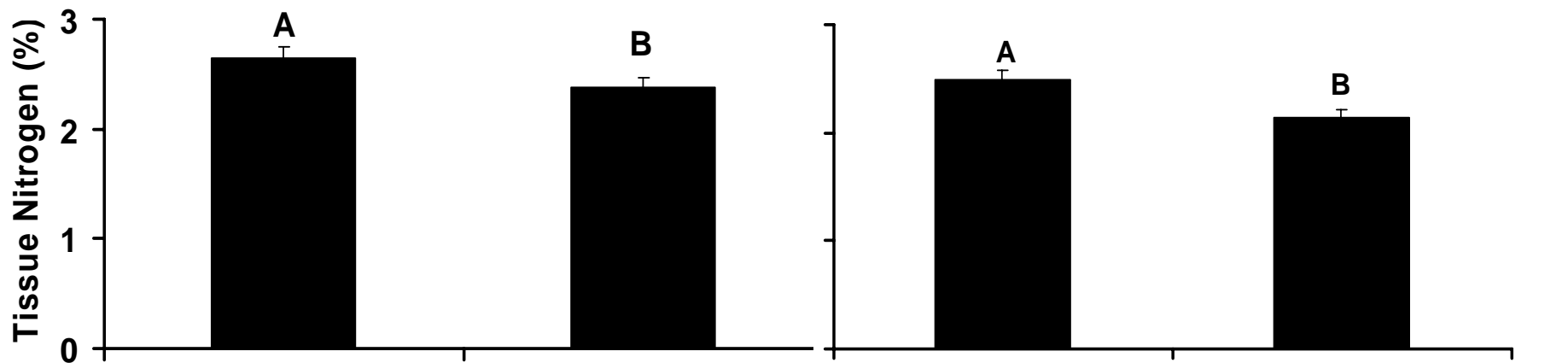
Do plant communities on basalt and granite soils have different concentrations of N and C in tissues?

If so, does this differ among riparian and upland communities?



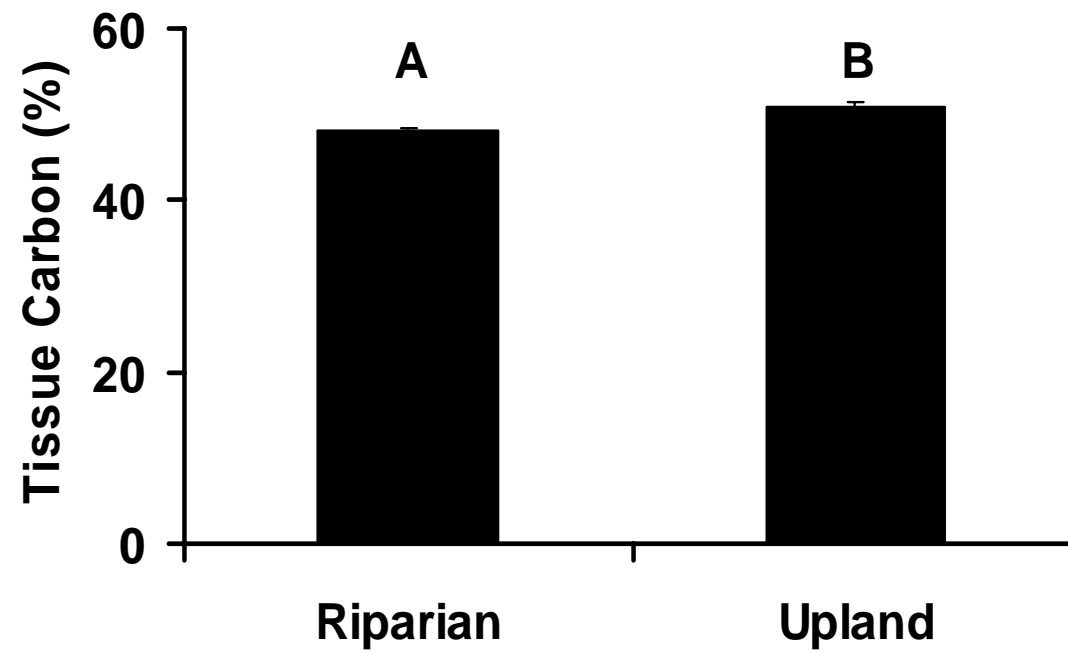
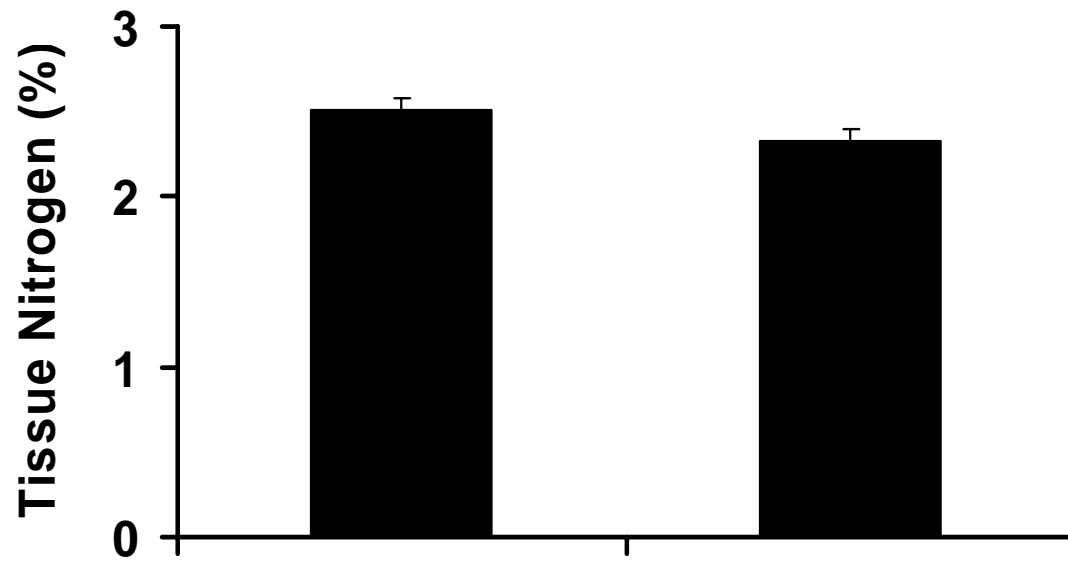
Riparian

Upland

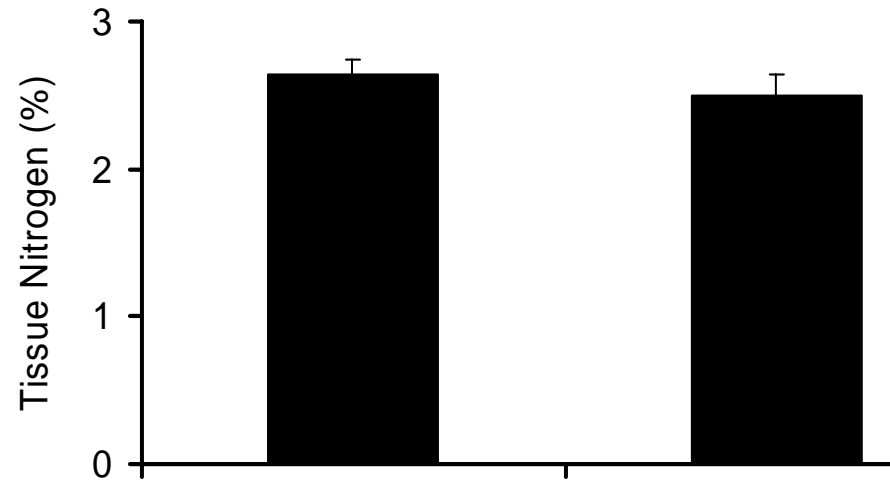


Do riparian and upland plant communities differ in N and C tissue concentration?

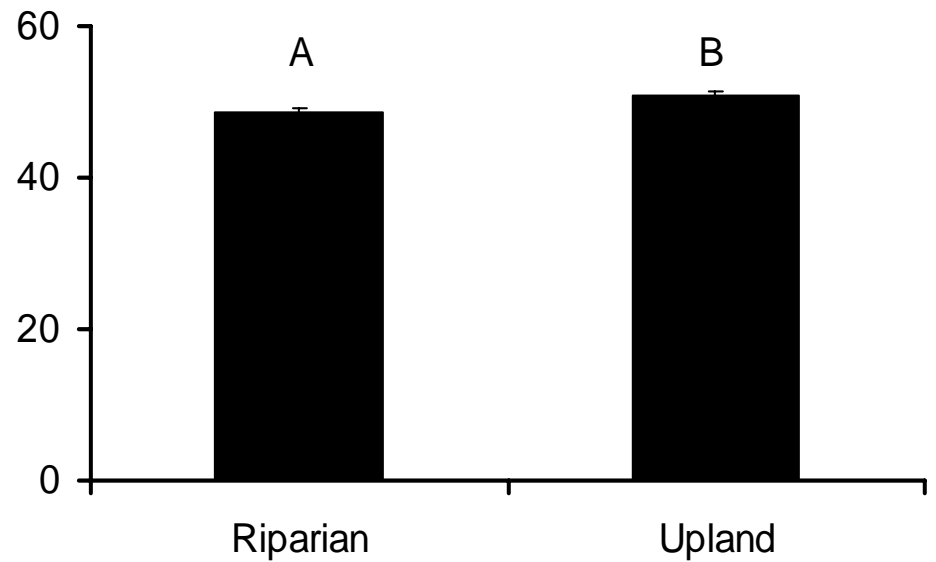
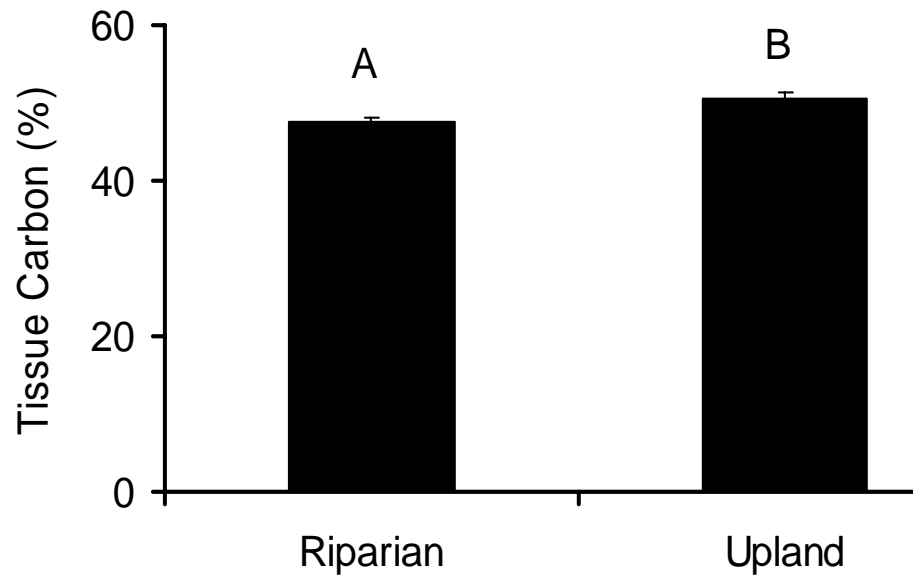
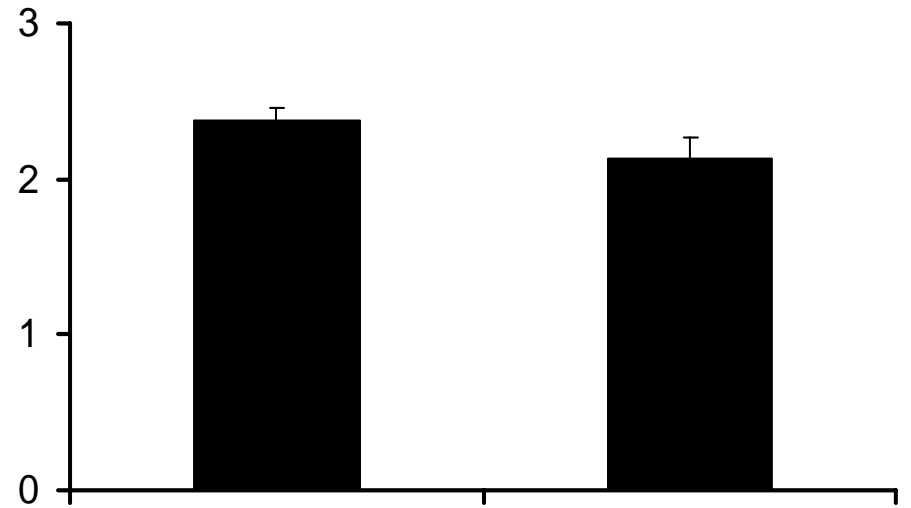
If so, does this differ between basalt and granite soils?



BASALT

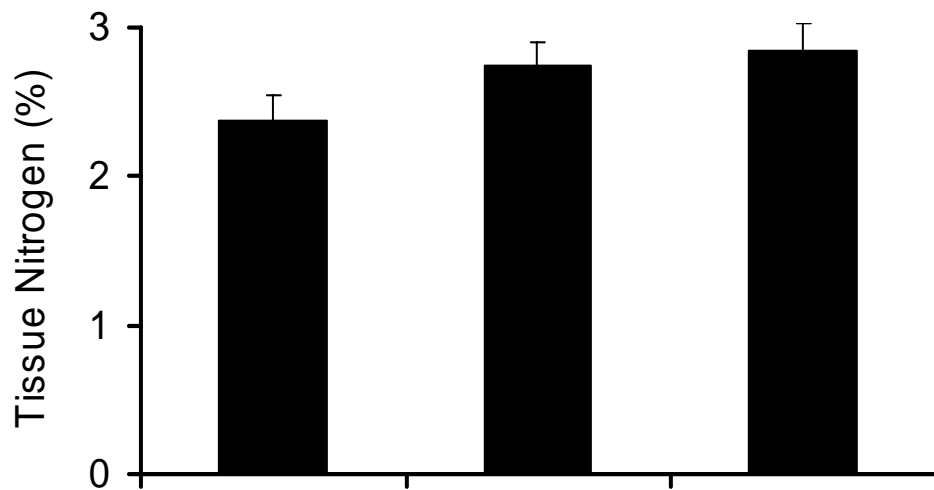


GRANITE

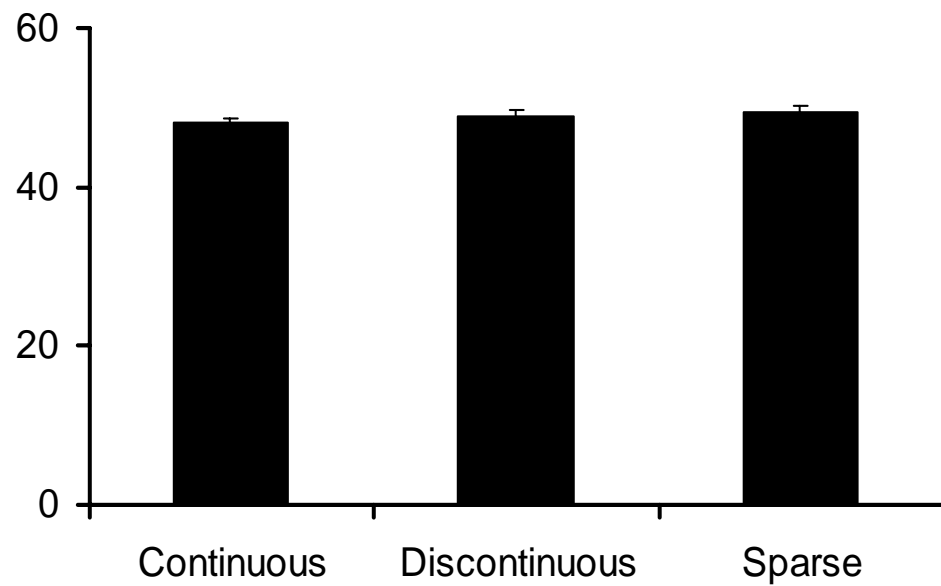
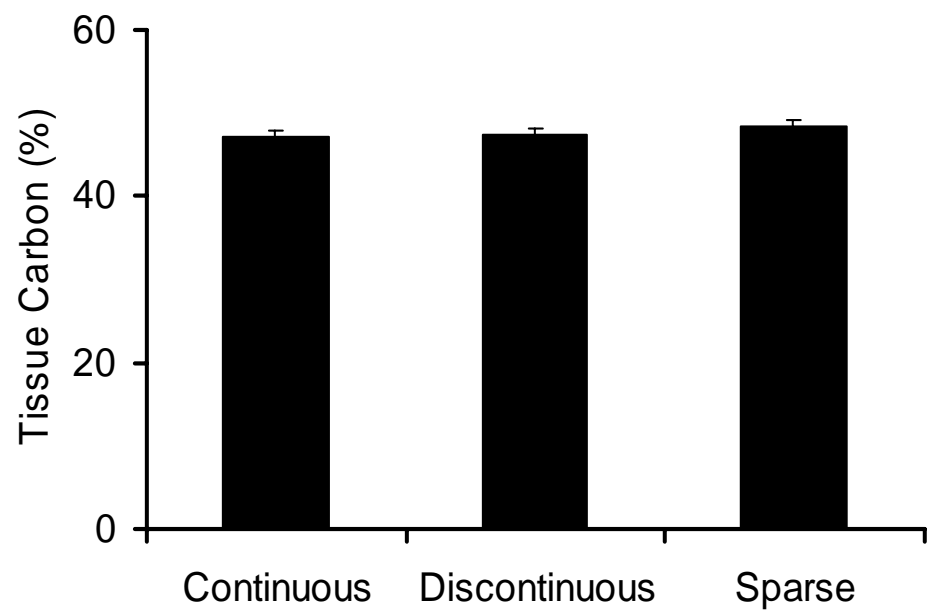
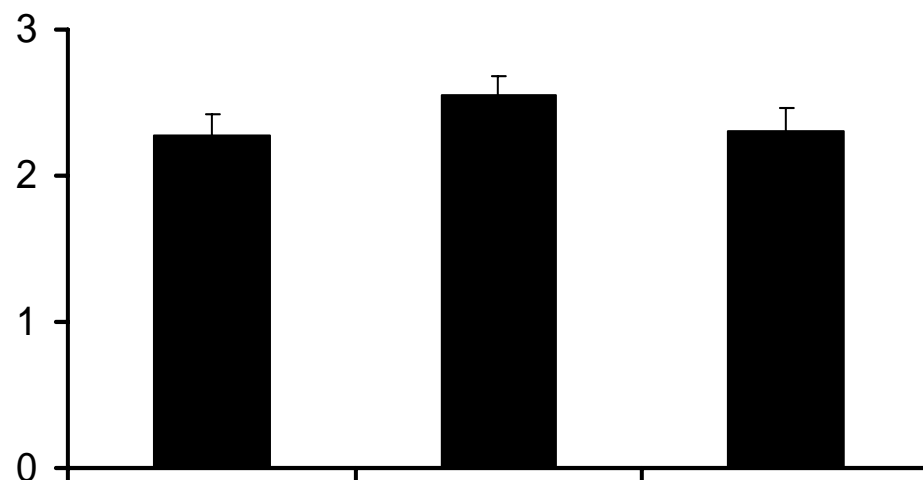


Within the granite and basalt riparian zone, does plant community tissue concentration vary with canopy structure?

BASALT



GRANITE



Conclusion

- Parent material: N
- Landscape position: C
- Canopy structure: ns

Context and future

- Macronutrients: Ca, Mg, Na, K, P
- Trails
- Dung
- Understory vegetation
- Future
 - Persistent water in river
 - Morphology of stream bank