**ALMv1-CaNDy: A Multi-Nutrient BGC Representation for ALMv1**

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**ALMv1-CaNDy**

- Based on Equilibrium Chemistry Approximation
- Multiple time scales with different dominant processes are represented
- Relevant observations being integrated in ILAMB
- Poster reviews several ALM publications on this topic over the past year

- The ACME BGC Experiment is motivated by the inclusion of Nitrogen and Phosphorus constraints on terrestrial C cycling
- We show here that the ECA approach quantitatively and qualitatively matches the $^{15}$N observations

**Global ALMv1-CaNDy simulations and evaluation underway**

- In ALMv0, CLM4CN, and CLM4.5
  - GPP is predicted to have an unrealistic dip in the diurnal cycle
  - Problem has been rectified in ALMv1-CaNDy
  - Motivated our integration of root and leaf traits