

N cycle in CLM5+

Can / should we meet new research demands for CLM?



CLM5 Revised Plant N dynamics

- FlexCN, LUNA, FUN



Integration with Chemistry Climate Working Group?

CLM5+ gaseous N losses

- NH₃ volatilization
 - FAN, Julius Vira & Peter Hess, [Cornell]
 - DNDC, Victor Fung & Amos Tai [Chinese Univ. Hong Kong]
- NO_x emissions Maria Val Martin [Shieffield]
- N₂O emissions? Eri Sakawa [Emory]

CLM5 Revised Plant N dynamics

- FlexCN, LUNA, FUN



CLM5+ aqueous N losses

- Riverine transport and transformations
Cindy Nevison w/ RTM (**NOT** in **MOSART**)

Integration with Ocean BGC?

- NH₃ volatilization
 - FAN, Julius Vira & Peter Hess, [Cornell]
 - DNDC (soil N competition) Victor Fung & Amos Tai [Chinese Univ. Hong Kong]
- NO_x emissions Maria Val Martin [Shieffield]
- N₂O emissions? Eri Sakawa [Emory]

CLM5 Revised Plant N dynamics

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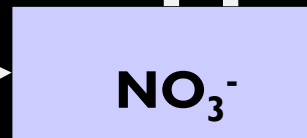
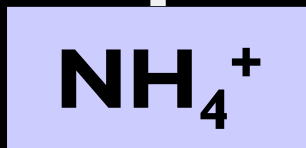
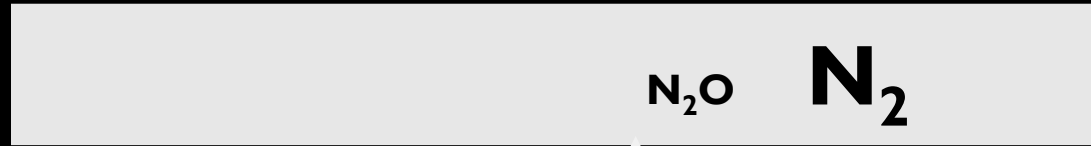


Soil BGC!

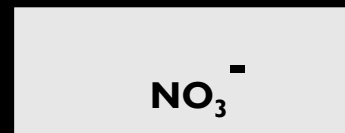


Soil N competition in CLM5

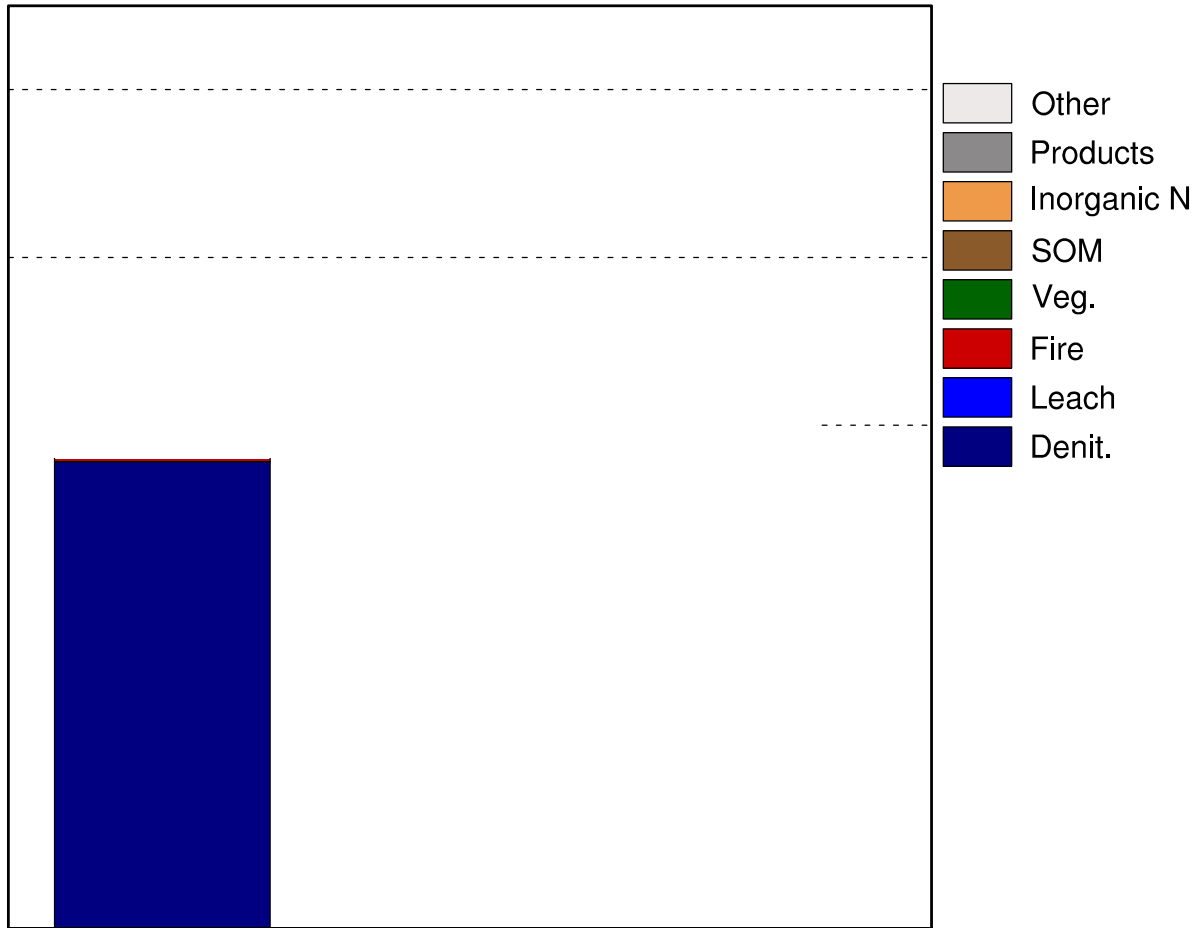
Gaseous losses



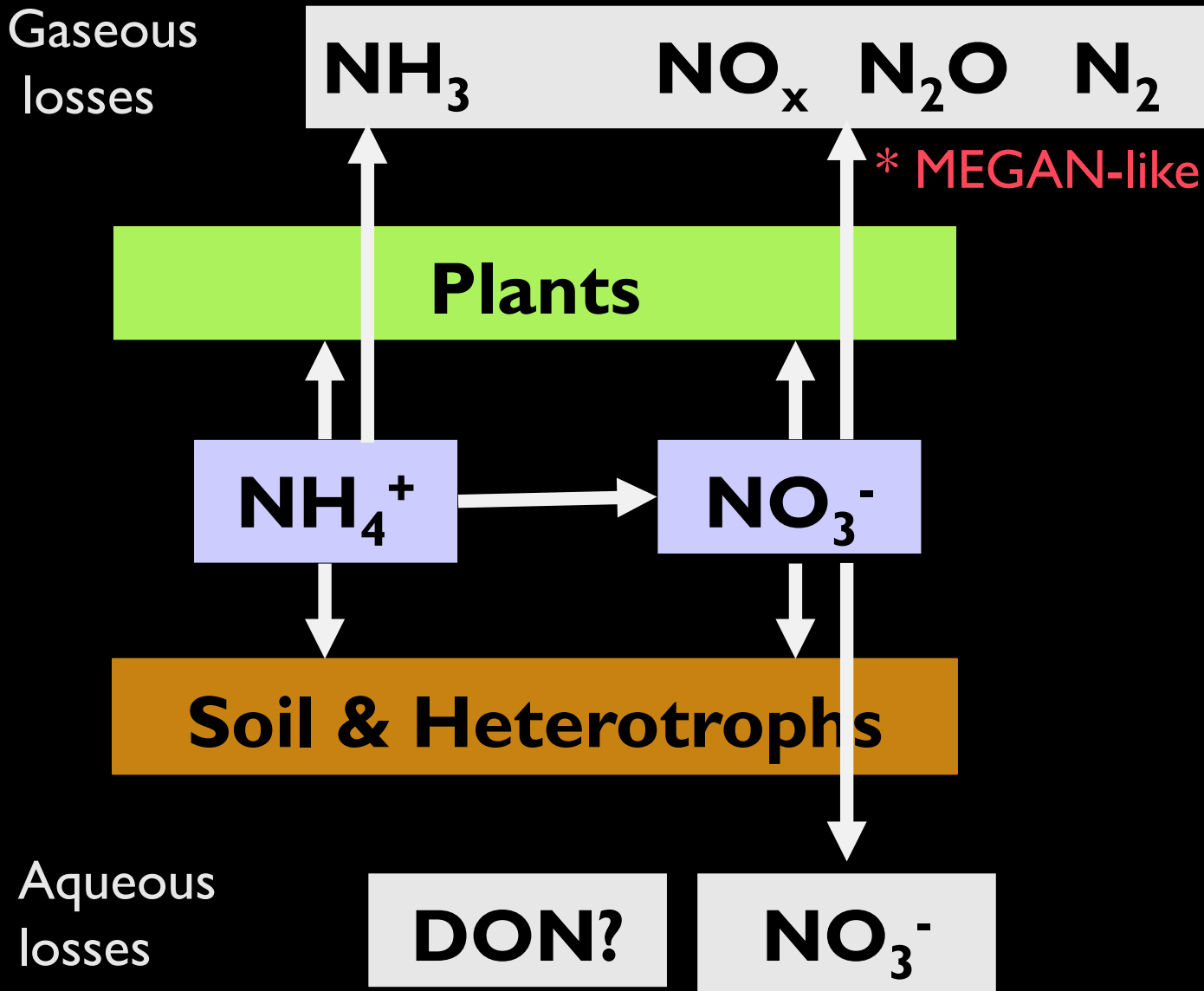
Aqueous losses



Soil N competition in CLM5



Soil N competition in CLM5+ ECA?



N cycle in CLM5+

- * Closing the '*University Loop*'
- * Improving basic ecology of CLM5
 - FUN costs & assumptions
 - Soil N competition
 - Connections w/ soil hydrology
 - Crop fertilization
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- * Interactions across Working Groups
- * Engaging new stakeholders?
- * Funding opportunities?

