

# Peatlands and permafrost in LPJ-WHy

How JULES can do an even better job

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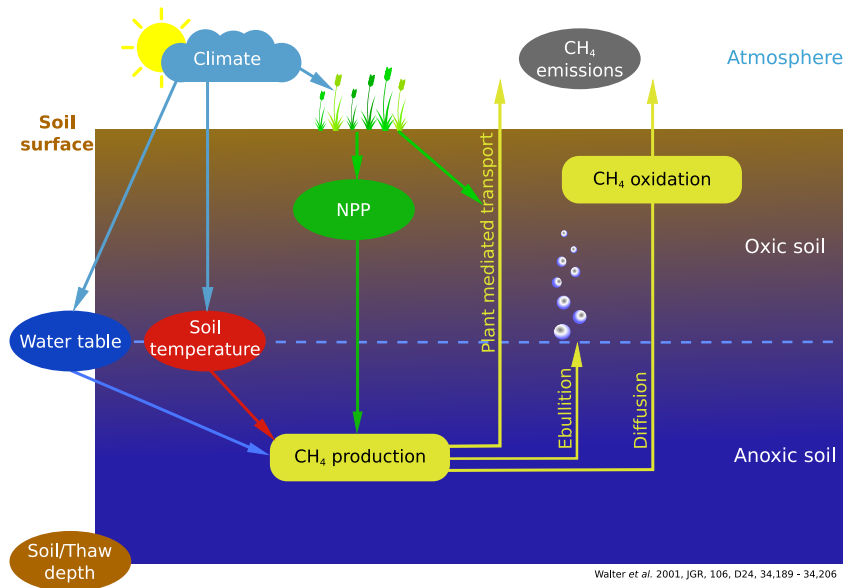


**Quantifying and  
Understanding  
the Earth System**

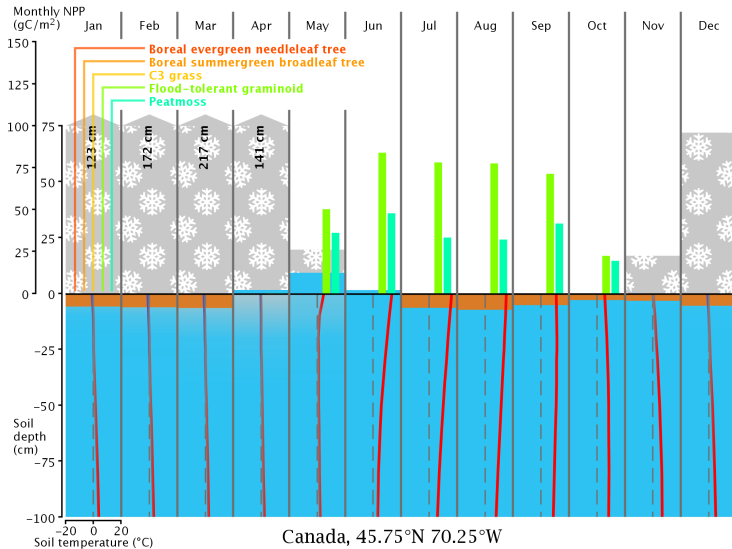


University of  
**BRISTOL**

# Methane emissions

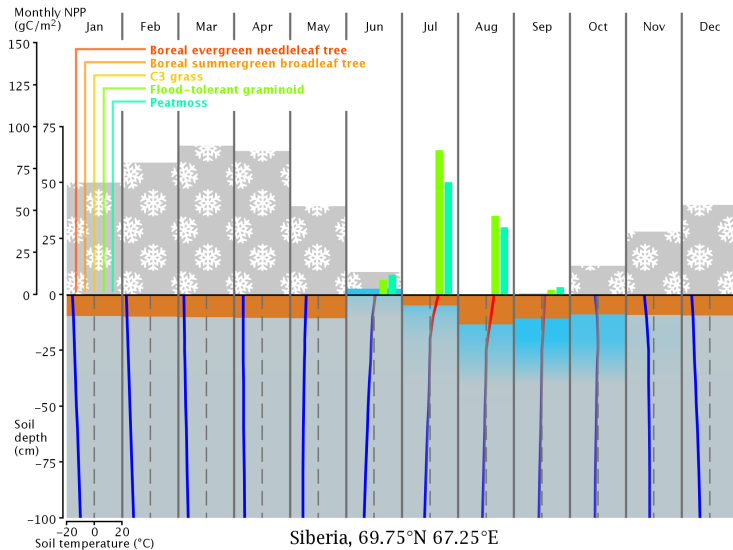


# LPJ-WHy



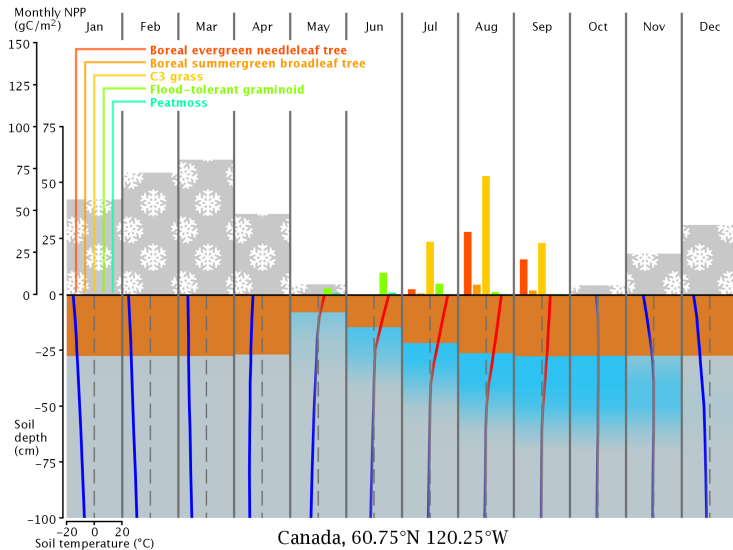
Wania et al. (in prep.)

# LPJ-WHy



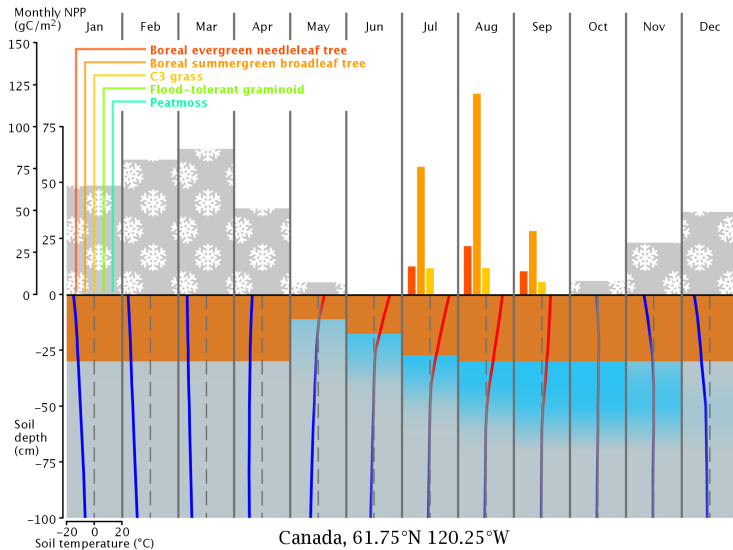
Wania et al. (in prep.)

# LPJ-WHy



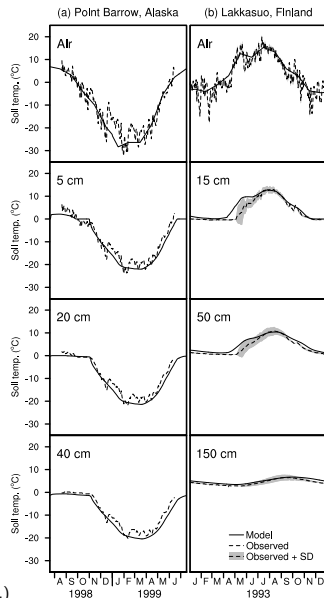
Wania et al. (in prep.)

# LPJ-WHy



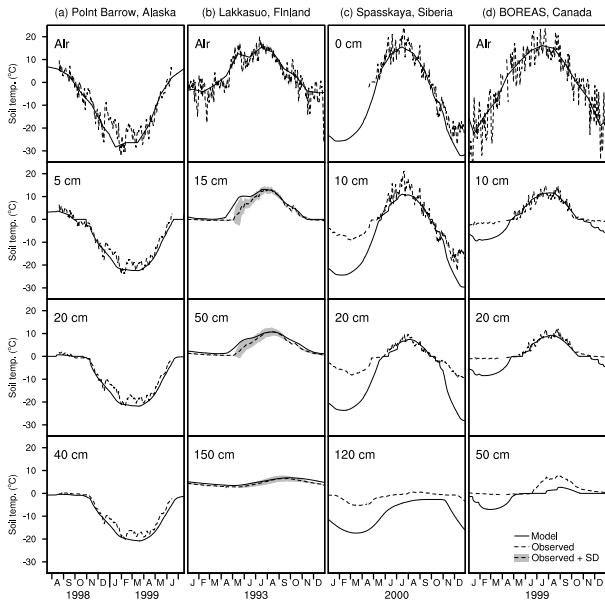
Wania et al. (in prep.)

# Soil temperature



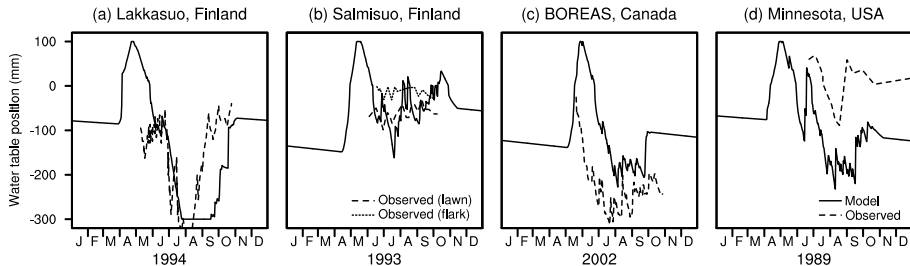
Wania *et al.* (in prep.)

# Soil temperature

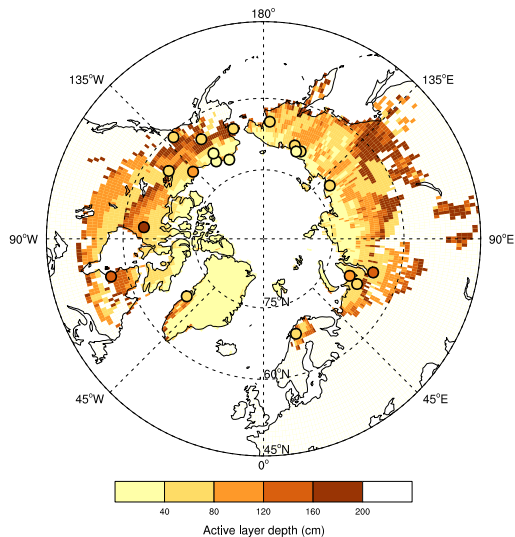




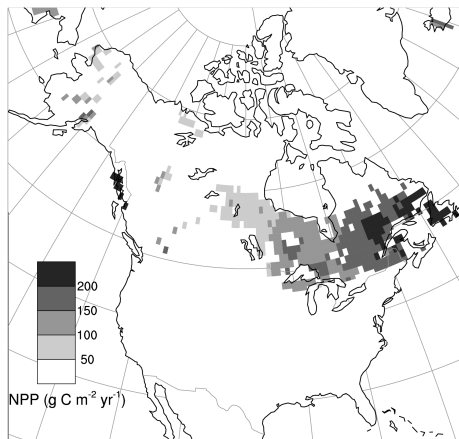
# Water table position



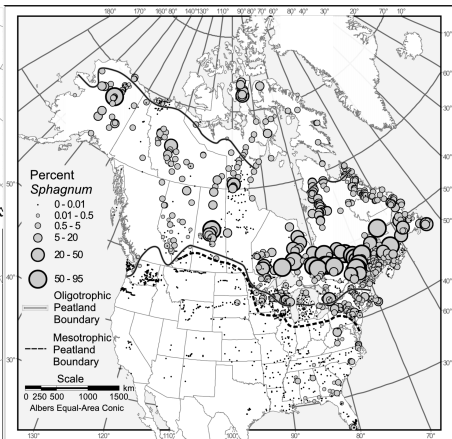
# Active layer depth



# Peatmoss distribution



Wania *et al.* (in prep.)



Gajewski *et al.* (2001)

# Improvements

## Things JULES could help with

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## Remaining issues

- ▶ Peat depth
- ▶ Heterogeneity of peatlands
- ▶ Permafrost melting and drainage