

# Peatland Conservation and Wise Use in the Context of Climate Change

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## Research and major gaps

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# Background?



Natural Peatland



Drained Peatland



Rewetted and revitalised peatland?

**This revitalisation  
needs a lot of time;  
often far away from  
the human  
perspective!**

# Research is highly benefiting from human weaknesses



[www.experto.de](http://www.experto.de)

**Impatience**  
(„Thinking in legislative periods“)



**Dissatisfaction**  
(„We do not get what we want“ )



**Conflicts of interests**  
(„We are not accepting other ideas“)

# “The methane obstacle”

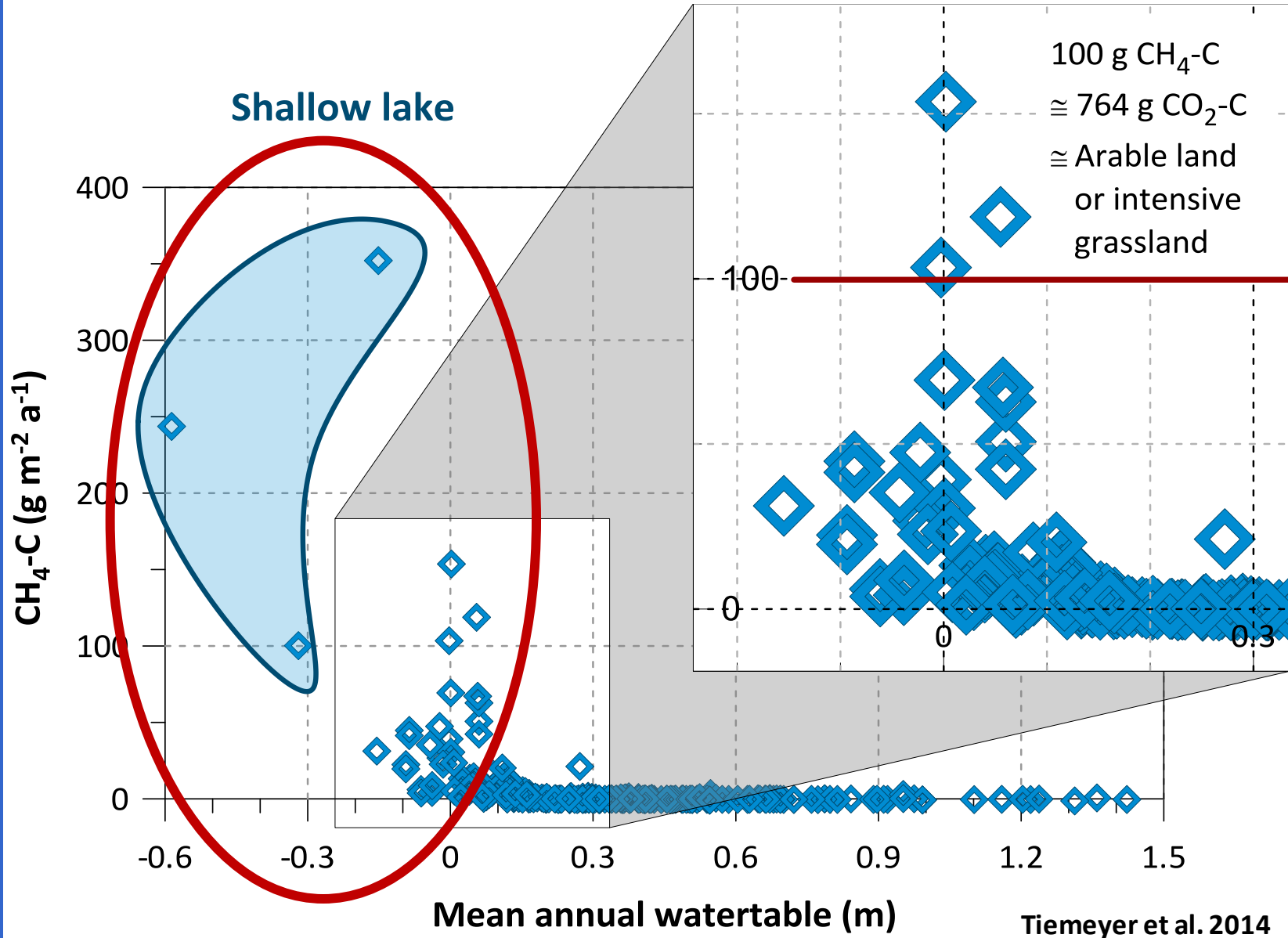
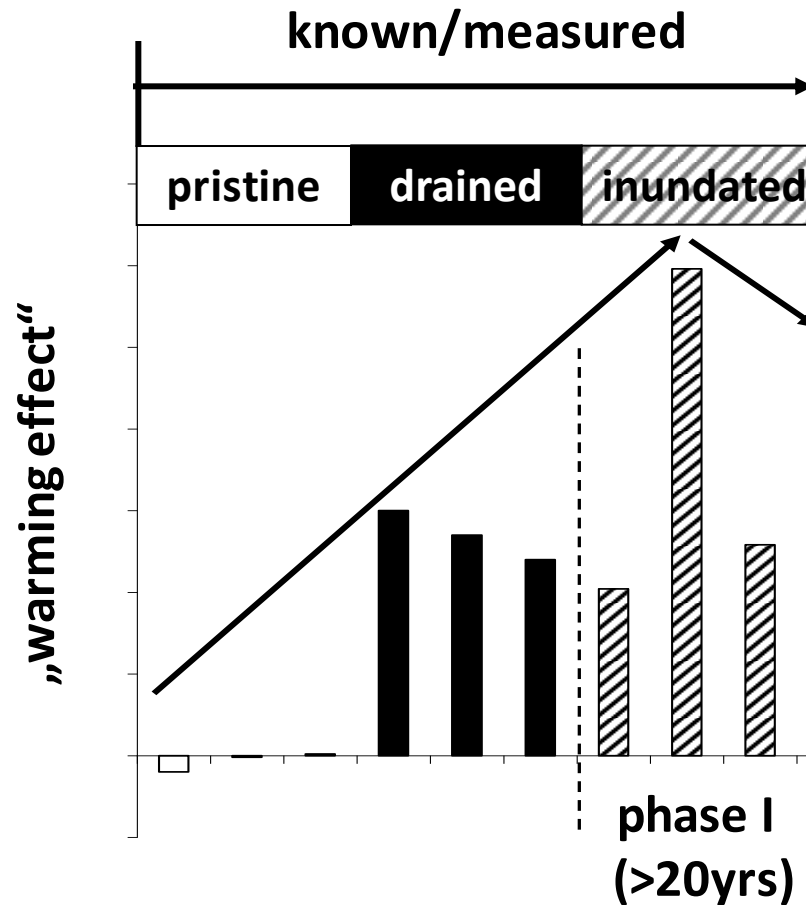


Figure: Groundwater levels and annual  $\text{CH}_4\text{-C}$  emissions

# How long we have to expect “warming sites”?



A „late“ inundated phase with „neutrality“ or „cooling effect“ only if rewetted sites become terrestrialised???

In case of detailed interest on our findings please check our recent publication in Biogeosciences (Zak et al. 2015).

# How to kill three flies with one stone?

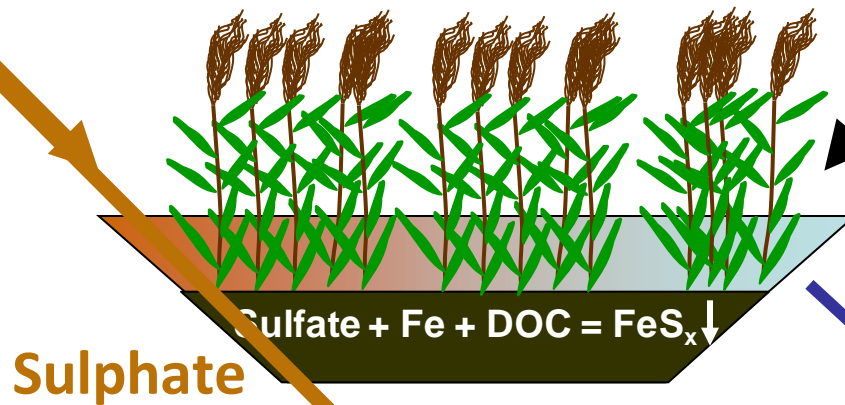
Methane



Sulfate removal by reed bed using highly degraded peat at lake outflows???



Top soil removal drops down matter fluxes by factor 10 to 100 (Zak et al. in prep.)



Phosphate and DOC

What else can we do with degraded peat?

River

Spree

Research for the future of our freshwaters



# From ,either‘ conservation ,or‘ profit towards ,and‘

(V. Luthardt 2015)

Find opportunities to harmonize restoration and economy, however be careful with the „Big Market“!



Water buffaloes in rewetted mires  
(Mowing and Mozzarella)



Usage of Alnus wood for furniture