



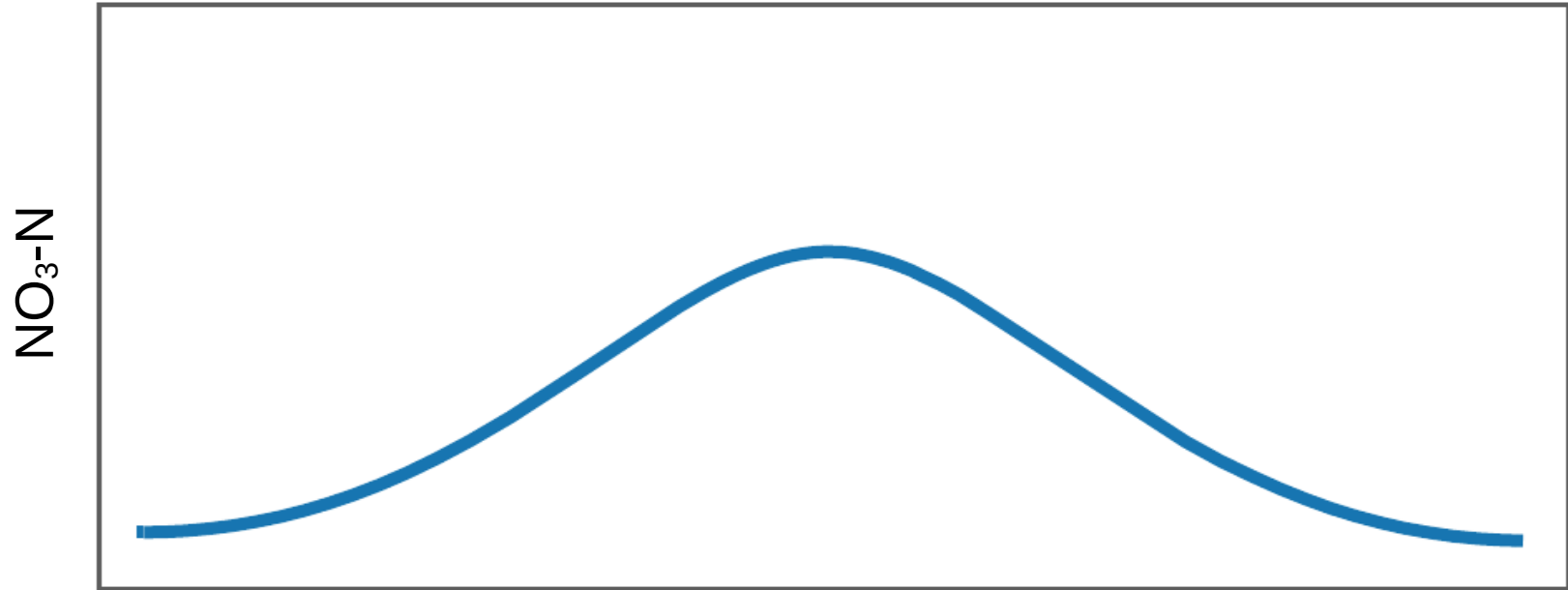
Drivers of multi-decadal nitrate regime shifts in a large European catchment

Alexander Wachholz, James W Jawitz,
Olaf Büttner, Seifeddine Jomaa,
Ralf Merz, Soohyun Yang,
Dietrich Borchardt

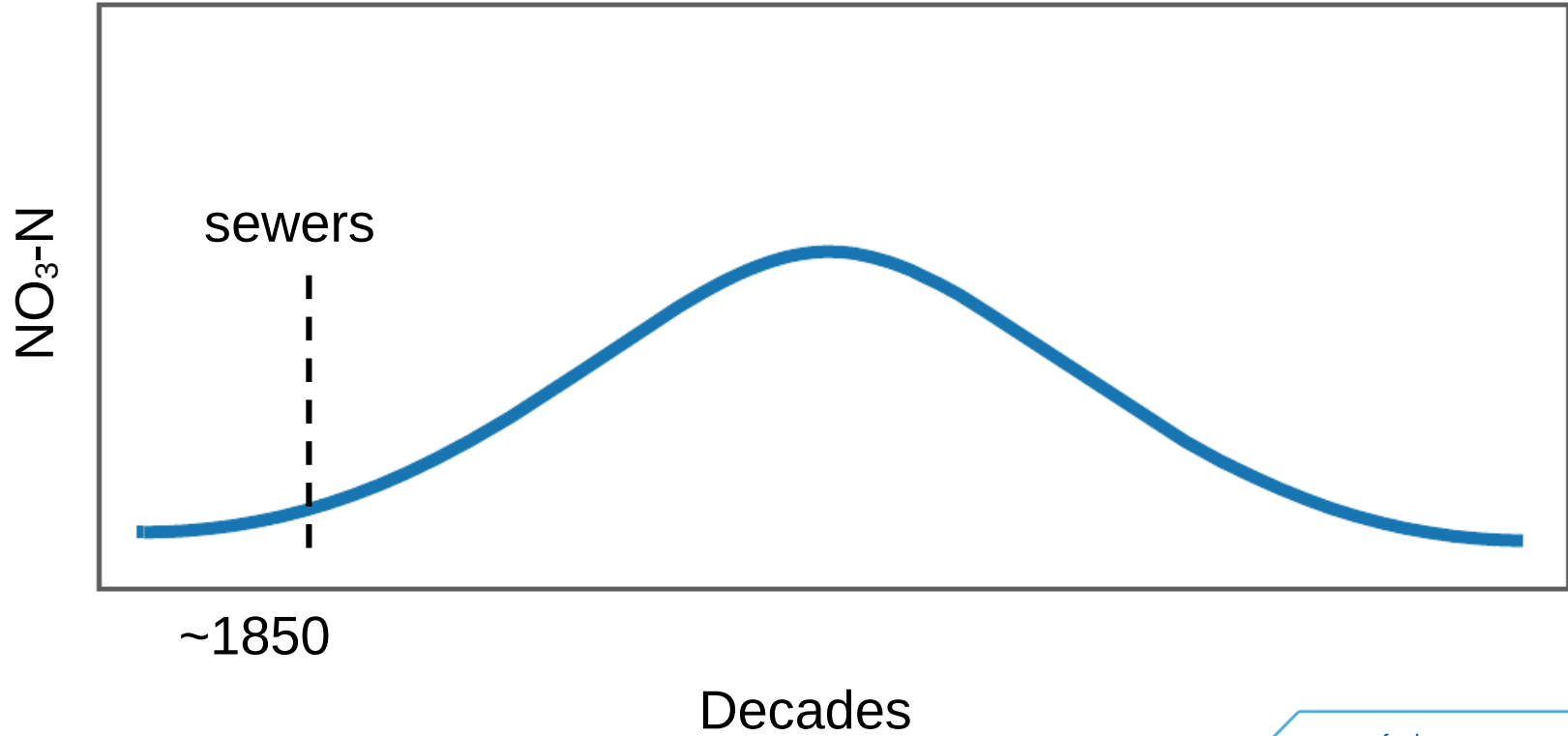
alexander.wachholz@ufz.de

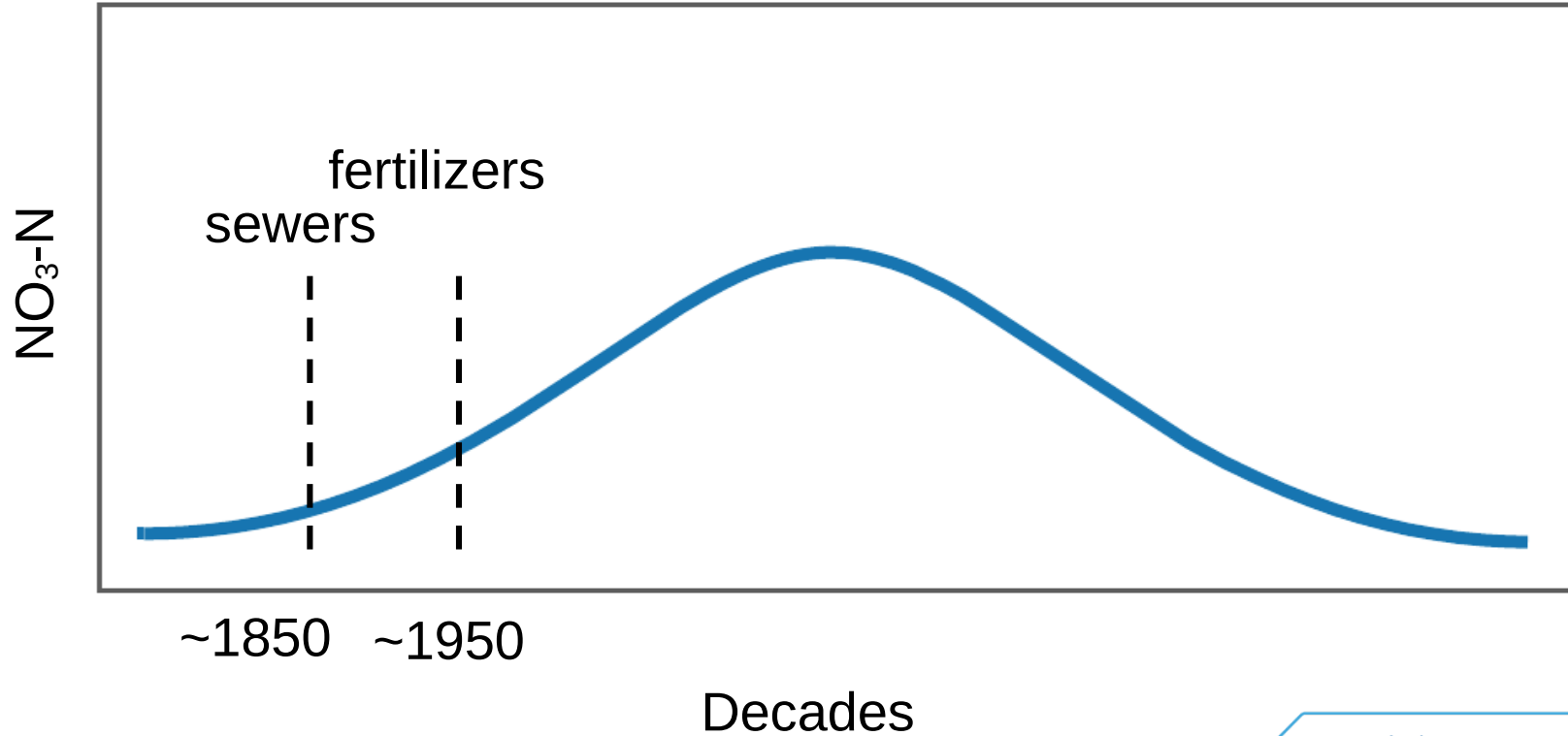
Link to ERL paper

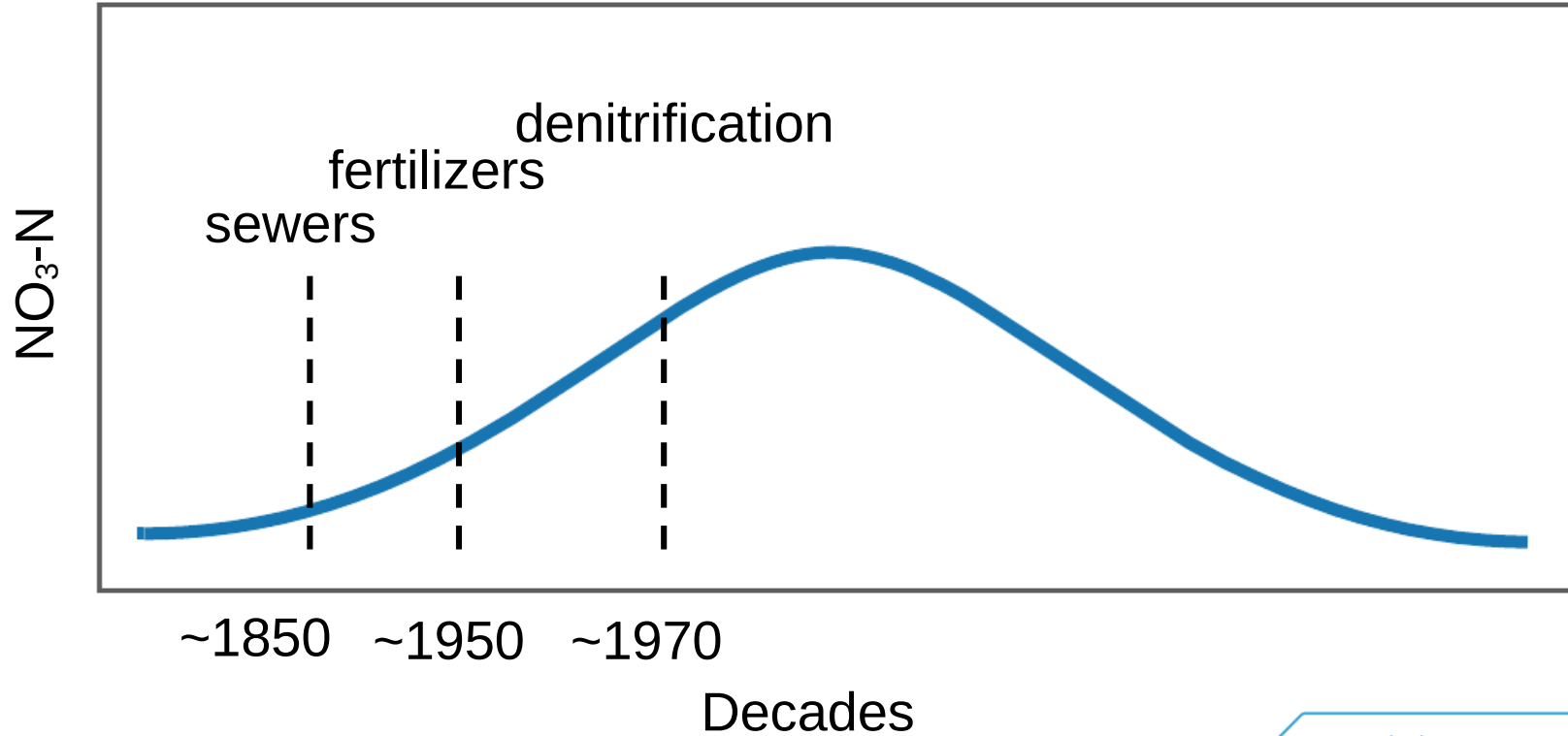




Decades

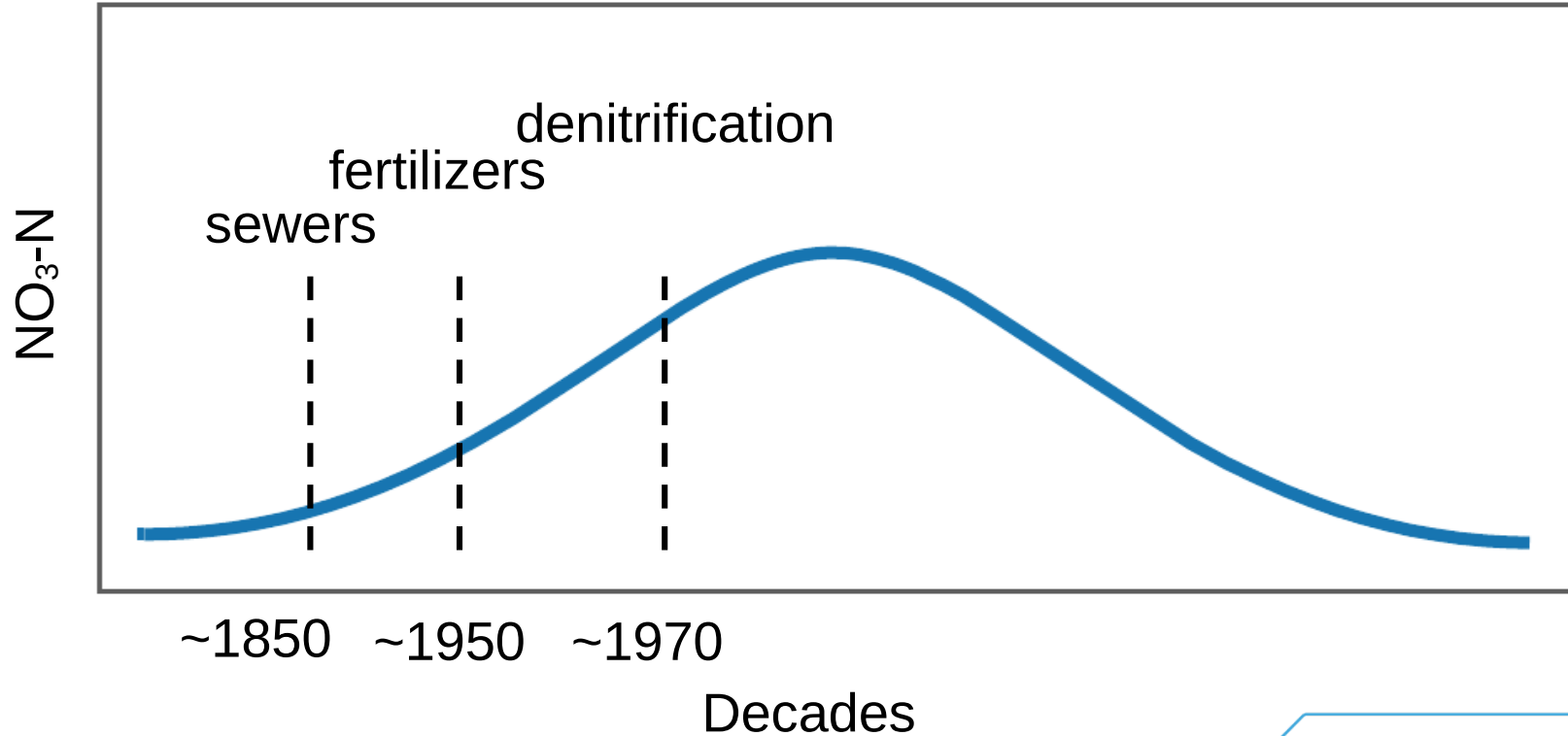






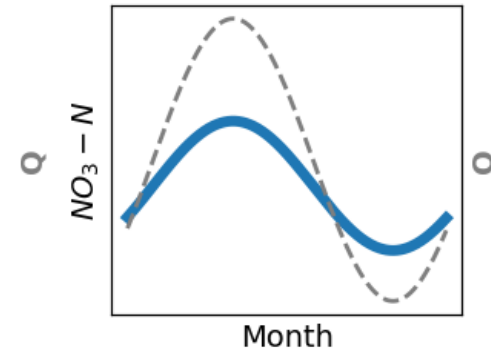
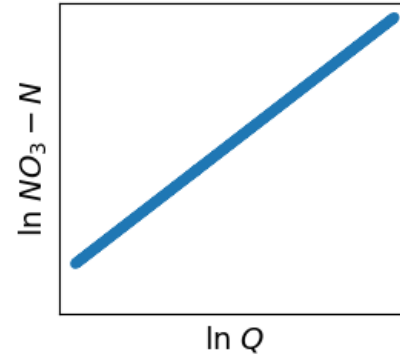
Point source

Diffuse source



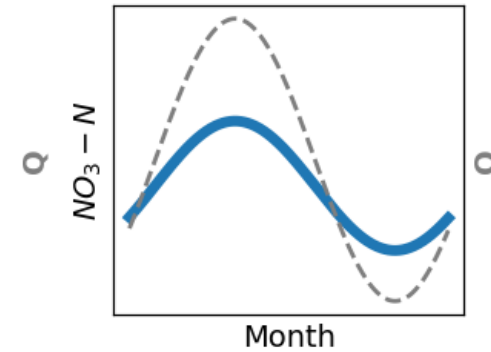
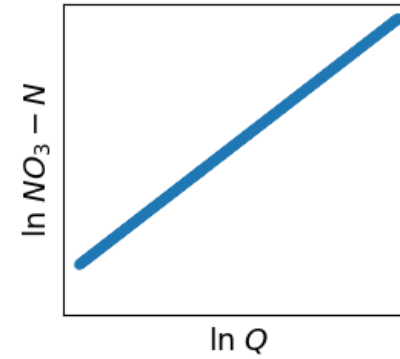
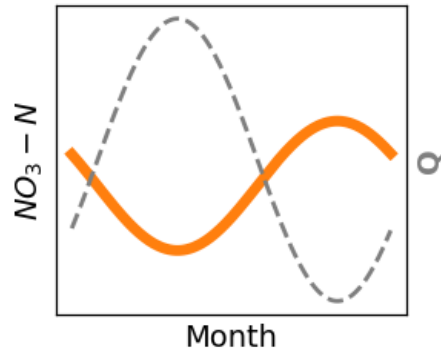
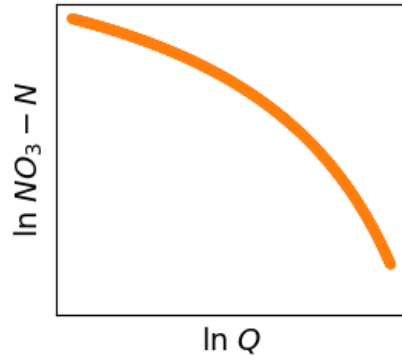
100 % Point source

Diffuse source 100 %



100 % Point source

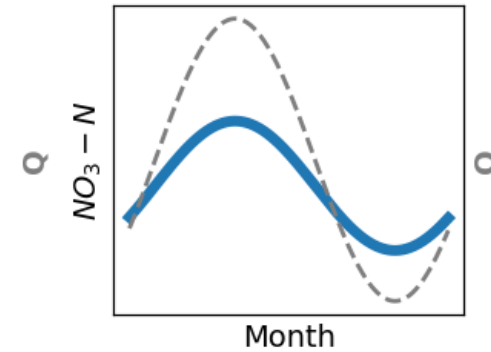
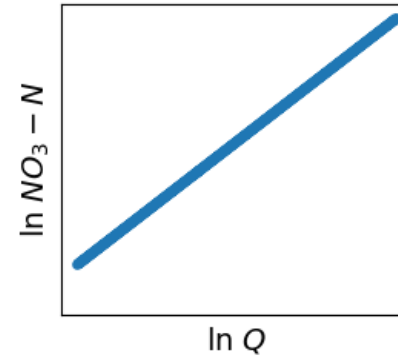
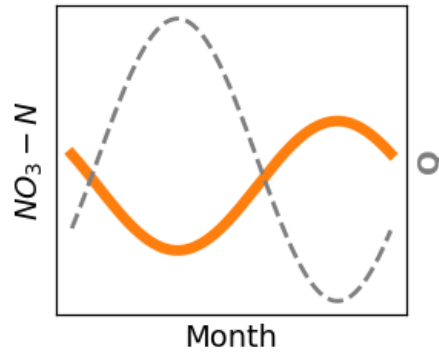
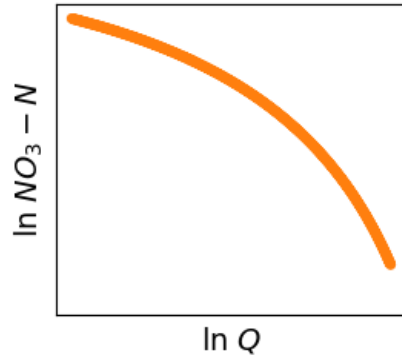
Diffuse source 100 %



100 % Point source

50:50

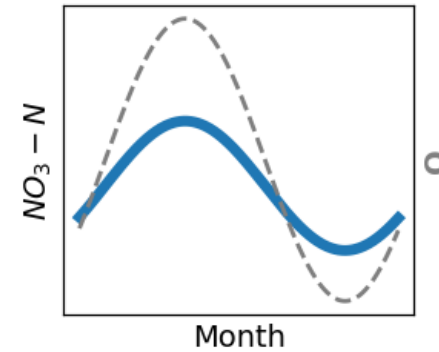
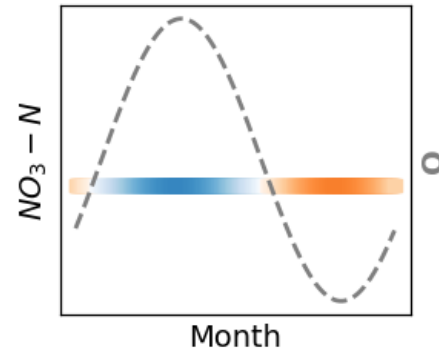
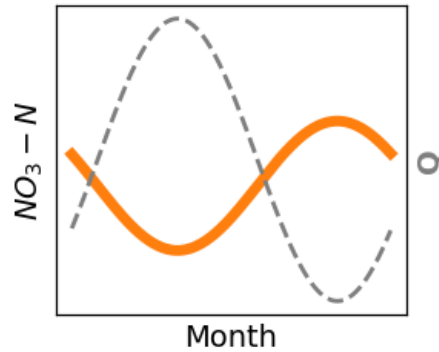
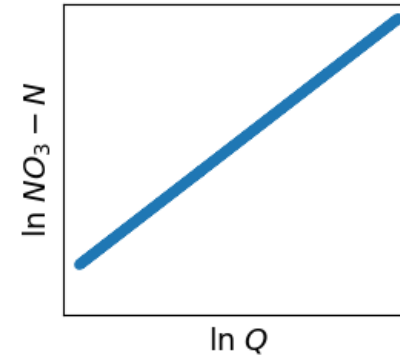
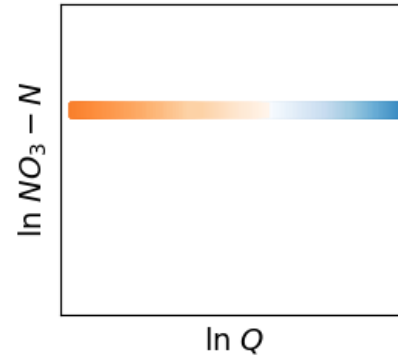
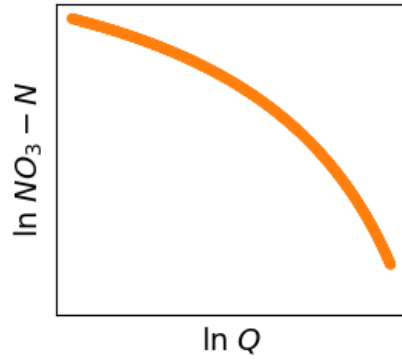
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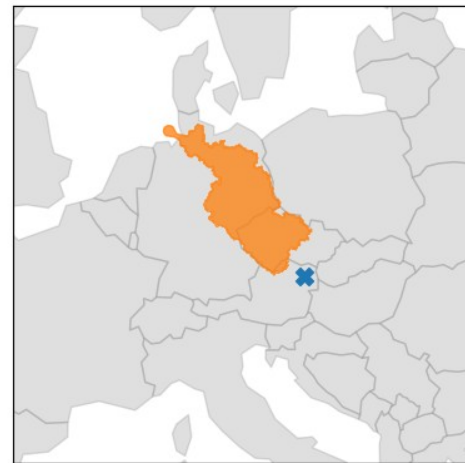


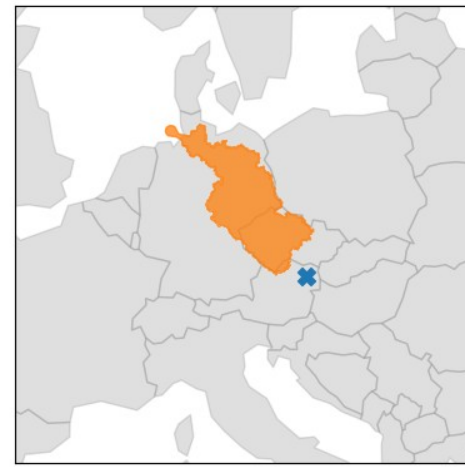
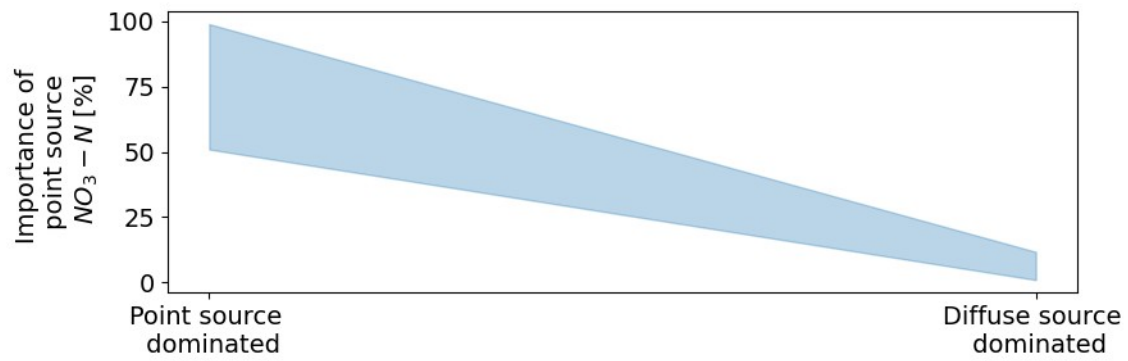
100 % Point source

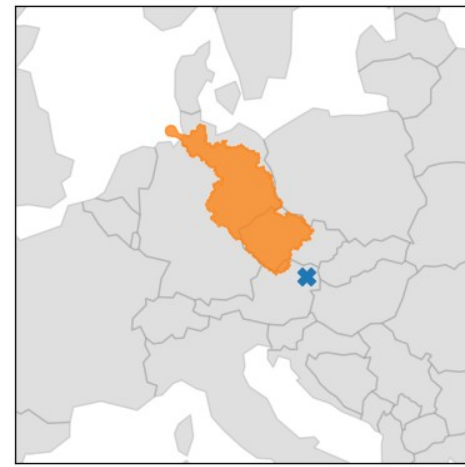
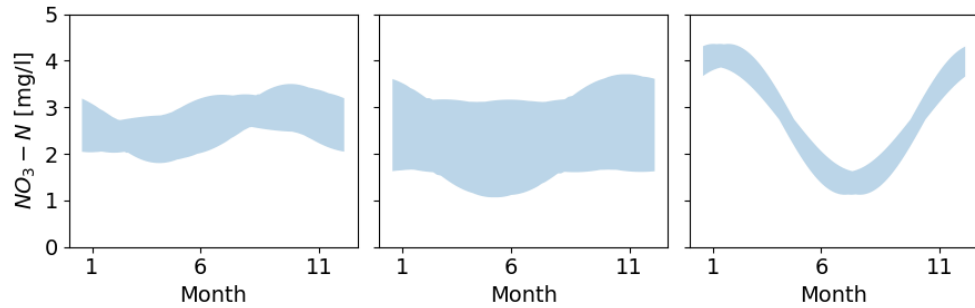
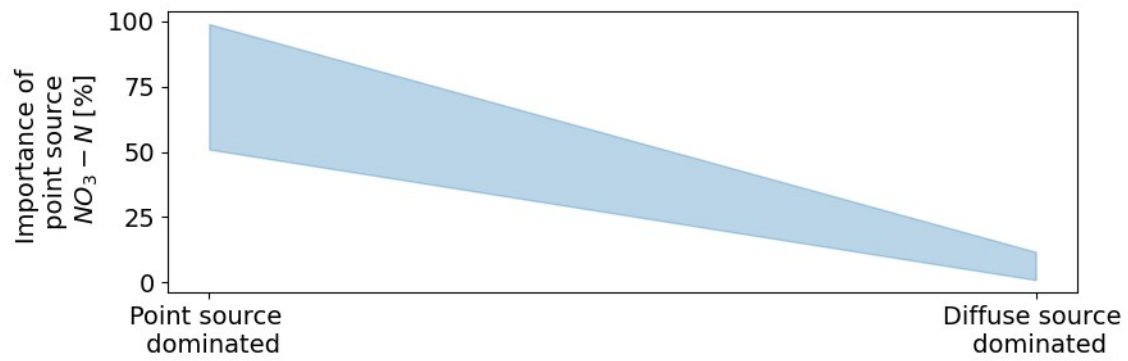
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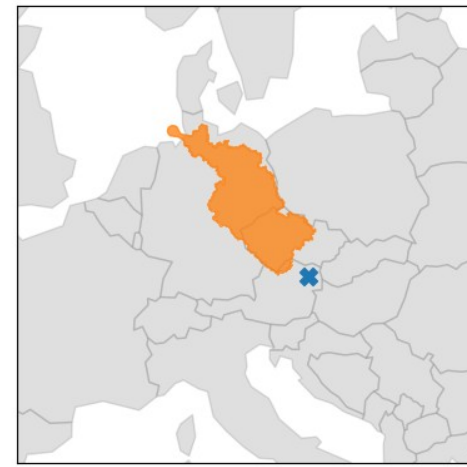
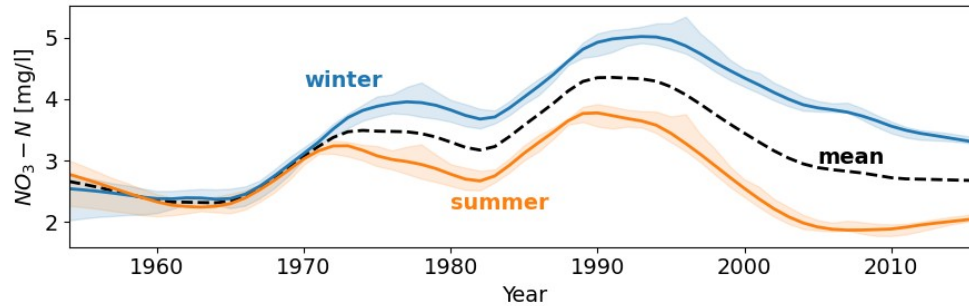
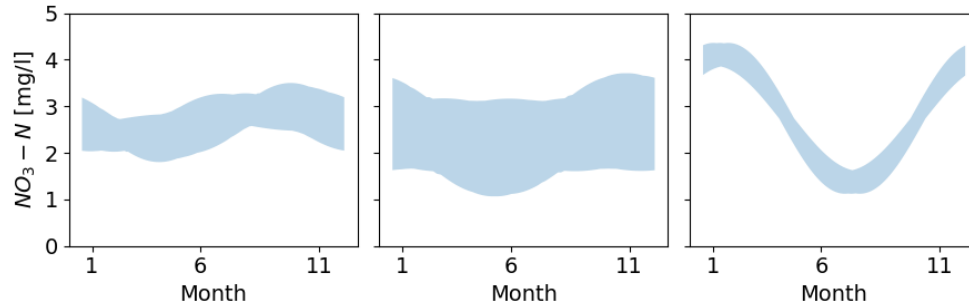
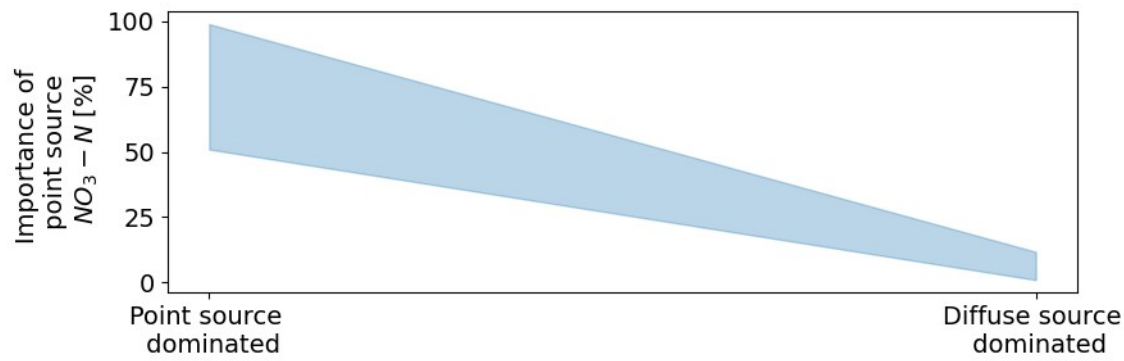
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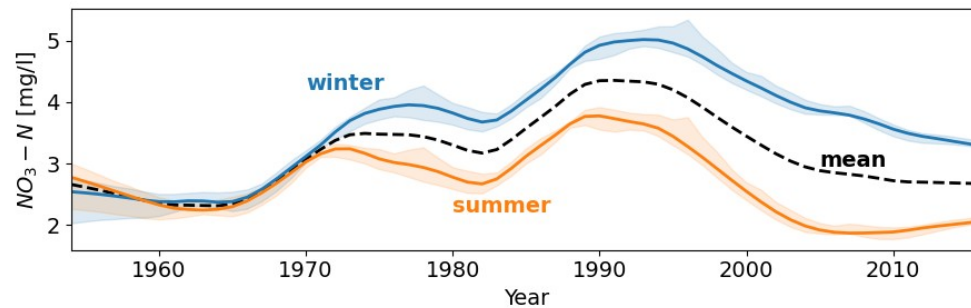
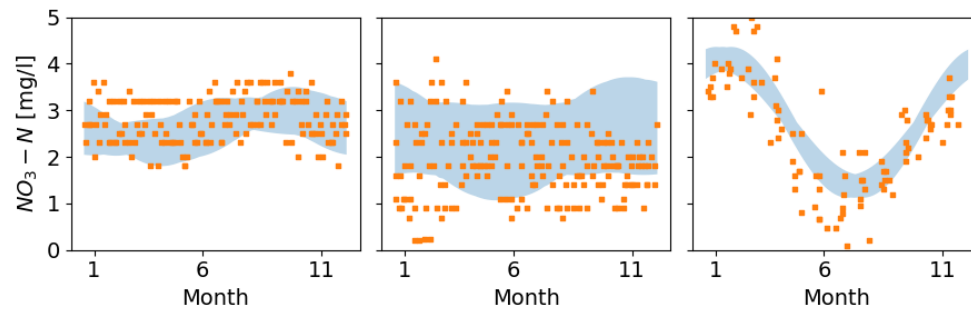
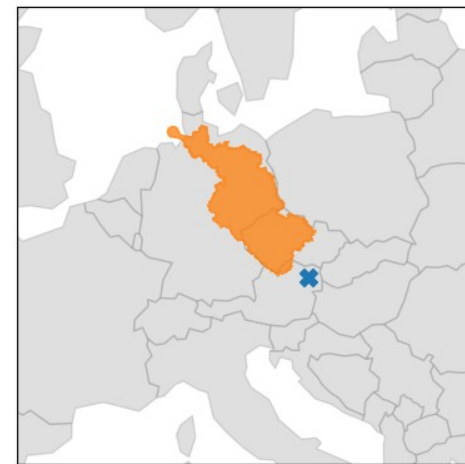
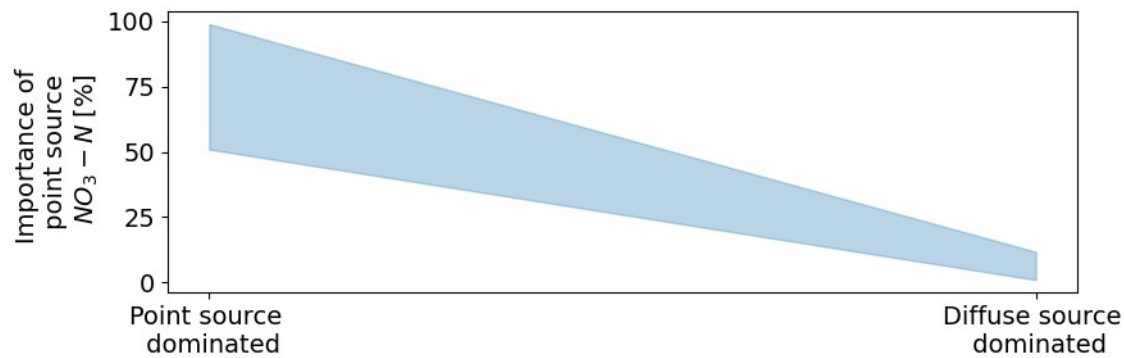












Take home messages



- $\text{NO}_3\text{-N}$ seasonality in the Elbe changed completely
- Decoupling of annual and seasonal trends
- Theory: changes in point- and diffuse source mixing ratios

Link to ERL paper

