



Supplement of

Bending of the concentration discharge relationship can inform about in-stream nitrate removal

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Supporting Information

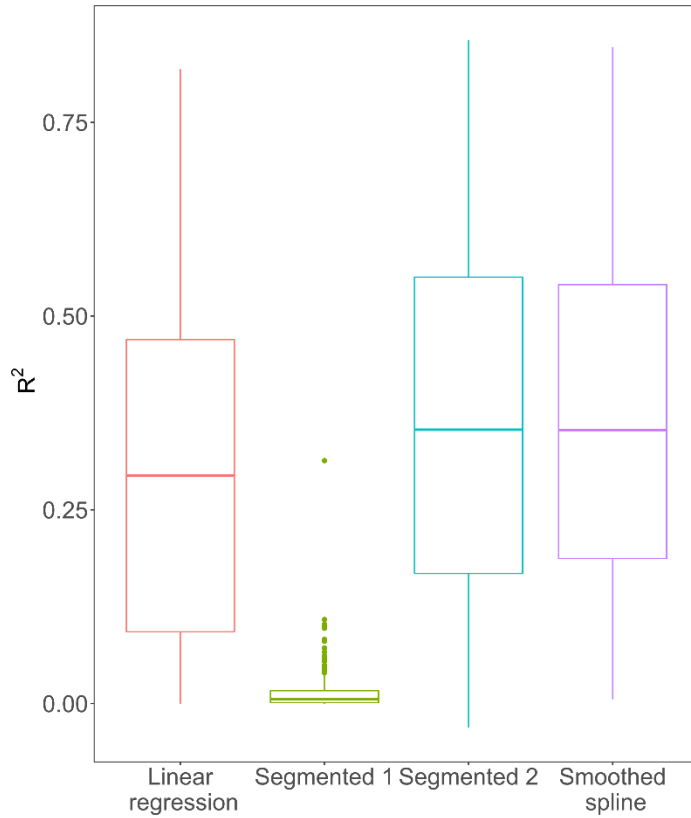


Figure S1: R² for four models fit to log(C)-log(Q) data of 444 French stations (Dupas et al., 2019). The smoothed spline method used for calculating $Curv_{max}$ is compared to a simple linear regression fit, a segmented linear regression (Segmented 1) with a fixed breakpoint at the median Q (Meybeck and Moatar, 2012) and a segmented regression without a fixed breakpoint as described in Marinos et al. (2020).

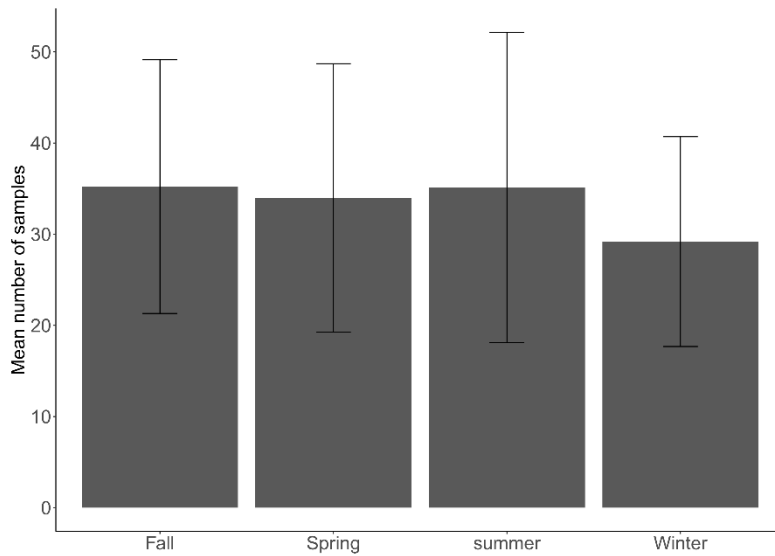


Figure S2: Mean number of coupled French C-Q samples (Dupas et al., 2019) in each season with their corresponding standard deviation.

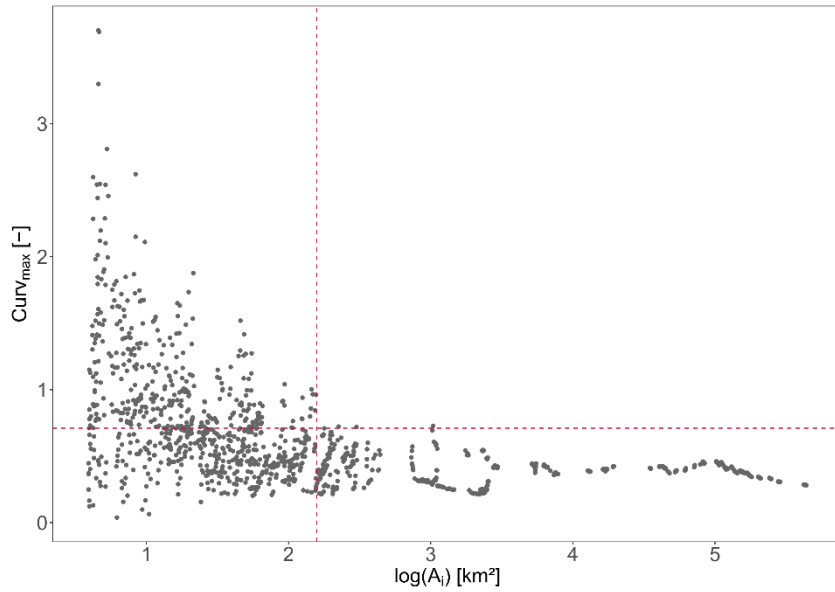


Figure S2: $Curv_{max}$ as a function of total drainage area A_i (Eq. (2)) for each gridcell of the Selke Meisdorf validation run with one uniform and constant parameter set (Table C1).

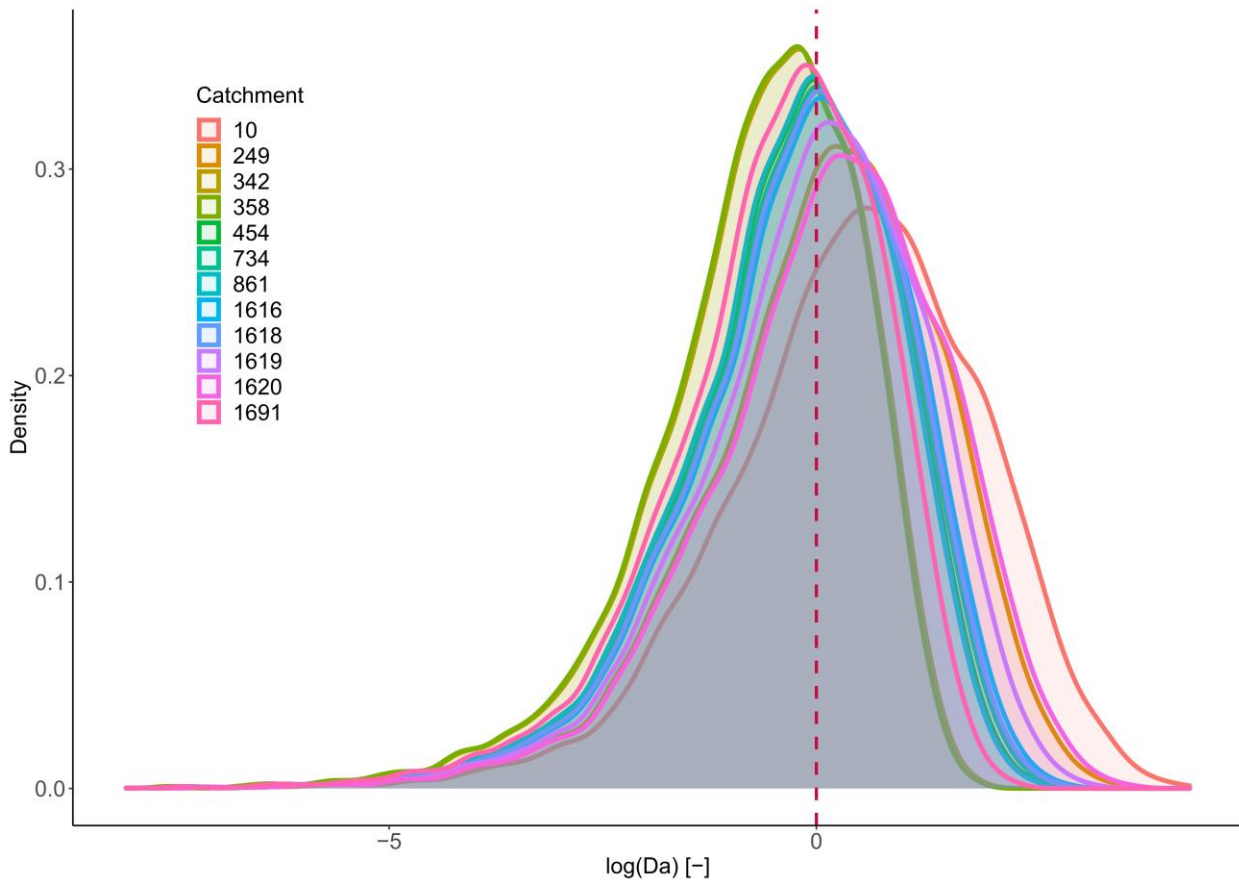


Figure S3: Monte Carlo output $\log(Da)$ as a density plot for each simulated catchment.

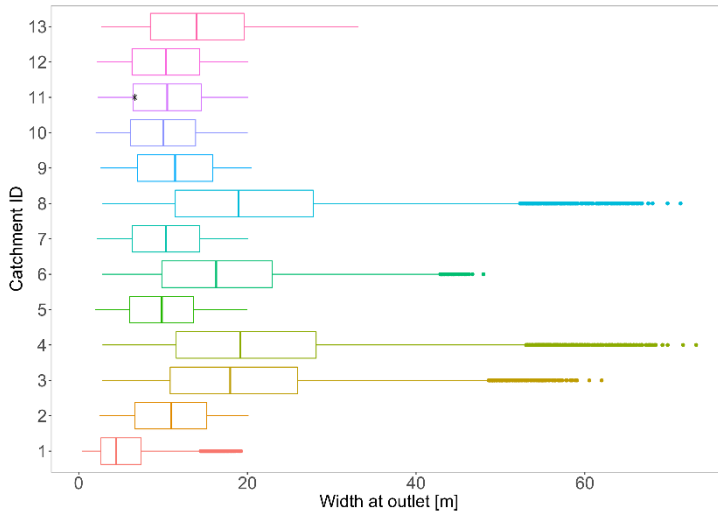


Figure S4: Distributions of the mean river width at the catchment outlet as a result of the 11107 Monte Carlo simulations that were run for each of the 13 catchments. The star indicates the observed width for the Selke Meisdorf catchment, which falls well within the simulated model range.