



Assessment of phosphorus dynamics in Danish streams from intensive daily time series

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Historically, daily measurements of phosphorus (P) concentrations have been conducted in eight different Danish streams covering a range of hydrological regimes and catchment properties. Daily phosphorus concentration data exists from six smaller streams draining agricultural catchments and from two larger rivers both being impacted from diffuse and point sources. One of these rivers – the River Odense have a 20 years long time-series including for most of the period data for two P –forms - total P and dissolved inorganic P. Gauging stations were established in all the streams given access to calculated daily data for mean daily discharge from stage/discharge relationships. Data from all streams are analysed statistically for establishing relationships between P-concentrations and discharge – especially looking for seasonal changes in these relationships that might show either mobilization or retention processes for P. Moreover, a Monte-Carlo assessment of the importance of discrete sampling for P load estimation is conducted for all individual streams and the outcome linked to catchment properties such as size, point sources, land use, etc.

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