Spatial pattern and temporal changes in the NH4+/NO$_3$- ratio in atmospheric deposition in Czech forests

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The ratio between NH4+ and NO$_3$- in wet atmospheric deposition is an essential indicator of atmospheric chemistry, reflects the share of emission sources (Du et al., 2014), and is also important regarding the nitrogen deposition environmental impacts. There are evidences for differential effects of reduced and oxidised nitrogen deposition on vegetation independent of nitrogen load (van den Berg et al., 2016). NH4+ deposition appears to be more effective than NO$_3$- deposition in decreasing biodiversity and is more harmful to vegetation (Erisman et al., 2007).

We present temporal trends and spatial patterns for NH4+/NO$_3$- ratio on one-country scale based on long-term monitoring precipitation chemistry in Central European forests. We discuss the indicated changes within the changing emission patterns.

References:
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