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Long-Term Trends in Ecological Systems: A Basis for Understanding Responses to Global Change



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A Basis for Understanding Responses to Global Change

Appendix 8. Regression coefficients and R² values for nitrogen (as ammonium) from various sources for which linear regression against time is significant (p < 0.05)

(Sites are grouped by ecosystem type. See Appendix 27 for length of record for each station at a site.)

| Site code | Source | Slope | Y-intercept ¹ | R ² |
|--|-------------------------------|---------|--------------------------|----------------|
| Alpine and arctic | | | | |
| ARC | Stream | -0.001 | 0.01 | 0.3 |
| GLA | Precipitation (concentration) | 0.003 | 0.07 | 0.4 |
| | Wet deposition | 0.037 | 0.75 | 0.5 |
| LVW | Precipitation (concentration) | 0.004 | 0.07 | 0.6 |
| | Stream | -0.001 | 0.02 | 0.4 |
| | Wet deposition | 0.027 | 0.83 | 0.4 |
| NWT | Precipitation (concentration) | 0.003 | 0.07 | 0.2 |
| | Wet deposition | 0.075 | 1.02 | 0.3 |
| Aridlands | | | | |
| JRN | Precipitation (concentration) | 0.020 | 0.25 | 0.7 |
| RCE | Precipitation (concentration) | 0.004 | 0.10 | 0.2 |
| | Wet deposition | 0.010 | 0.25 | 0.2 |
| Coastal | | | | |
| FCE | Coastal water | 1.325 | 0.60 | 0.7 |
| | Wet deposition | 0.032 | 0.70 | 0.3 |
| PIE | Precipitation (concentration) | 0.002 | 0.09 | 0.3 |
| | Wet deposition | 0.025 | 0.94 | 0.5 |
| Eastern forests | | | | |
| BEN | Precipitation (concentration) | 0.002 | 0.08 | 0.3 |
| | Wet deposition | 0.055 | 1.15 | 0.2 |
| HBR | Stream | -0.0004 | 0.02 | 0.4 |
| LUQ | Stream | -0.002 | 0.04 | 0.3 |
| SAN | Precipitation (concentration) | 0.003 | 0.06 | 0.6 |
| | Wet deposition | 0.032 | 0.76 | 0.5 |
| Temperate grasslands and savannas | | | | |
| GRL | Precipitation (concentration) | 0.003 | 0.18 | 0.2 |
| KNZ | Precipitation (concentration) | 0.005 | 0.24 | 0.4 |
| | Stream | 0.002 | -0.01 | 0.6 |
| | Wet deposition | 0.051 | 1.85 | 0.4 |
| SGS | Precipitation (concentration) | 0.008 | 0.35 | 0.3 |
| Western forests | | | | |
| FRA | Precipitation (concentration) | 0.003 | 0.07 | 0.2 |
| | Wet deposition | 0.075 | 1.02 | 0.3 |

¹ Y-intercept was calculated for the first year of a dataset, which contains records of one variable over time for one site.