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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 6. Regression coefficients and R² values for nitrogen (as nitrate) 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	0.003	0.001	0.4
LVW	Precipitation (concentration)	0.002	0.15	0.2
	Stream	0.009	0.20	0.5
NWT	Lake	0.005	0.15	0.4
	Precipitation (concentration)	0.003	0.17	0.2
	Wet deposition	0.103	2.35	0.3
Coastal				
FCE	Coastal water	0.055	0.12	0.8
	Wet deposition	0.026	1.31	0.3
PIE	Precipitation (concentration)	-0.002	0.27	0.2
Eastern forests				
CWT	Precipitation (concentration)	-0.001	0.17	0.2
	Wet deposition	-0.028	3.07	0.3
FER	Precipitation (concentration)	-0.006	0.43	0.6
FER	Stream	-0.006	0.87	0.2
	Wet deposition	-0.086	5.58	0.6
HBR	Precipitation (concentration)	-0.005	0.36	0.5
	Stream	-0.007	0.31	0.4
	Wet deposition	-0.048	4.14	0.5
HFR	Precipitation (concentration)	-0.006	0.37	0.5
MAR	Precipitation (concentration)	-0.002	0.26	0.2
	Wet deposition	-0.017	2.04	0.3
NTL	Precipitation (concentration)	-0.003	0.29	0.4
	Wet deposition	-0.032	2.47	0.3
WBW	Precipitation (concentration)	-0.002	0.26	0.3
Temperate grasslands and savannas				
KBS	Precipitation (concentration)	-0.005	0.48	0.5
	Wet deposition	-0.062	4.62	0.6
KNZ	Stream	0.0001	0.001	0.3
Urban				
BES	Precipitation (concentration)	-0.007	0.38	0.7
	Stream	-0.073	2.39	0.7
	Wet deposition	-0.084	4.13	0.5
CAP	Stream	0.005	-0.02	0.4

Long-Term Trends in Ecological Systems:

Appendix 6. Regression coefficients and R² values for nitrogen (as nitrate) from various sources for which linear regression against time is significant (p < 0.05)—Continued

Site code	Source	Slope	Y-intercept ¹	R ²
Western forests				
BLA	Precipitation (concentration)	-0.007	0.10	0.5
CSP	Precipitation (concentration)	-0.001	0.06	0.2
FRA	Precipitation (concentration)	0.003	0.17	0.2
	Wet deposition	0.103	2.35	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.