Table 1. Summary of regression relationships (for $P < 0.01$) between area and weight-based gas exchange rates and nitrogen concentrations and leaf mass per area for leaf age/season classes in northern pin oak, red maple, and sugar maple. The coefficient of determination (r^2), intercept and slope are given for linear regression between the dependent and independent variables. Abbreviations and units: A/area, net photosynthesis/area, $\mu mol\ m^{-2}\ s^{-1}$; A/mass, net photosynthesis/mass, $nmol\ g^{-1}\ s^{-1}$; N/area, leaf N/area, $g\ m^{-2}$; N/mass, leaf N/mass, $cg\ g^{-1}$ (i.e. %); g, leaf diffusive conductance, $mmol\ m^{-2}\ s^{-1}$; LMA, leaf mass/area, $g\ m^{-2}$.

Dependent variable	Independent variable	Parameter	Northern pin oak					Red maple					Sugar maple				
			Spring	Summer	Autumn	Summer & Autumn	All	Spring	Summer	Autumn	Summer & Autumn	All	Spring	Summer	Autumn	Summer & Autumn	All
A/area	N/area	r^2	0.68	NS	0.77	0.76	0.69	NS	0.42	0.87	0.88	0.82	0.64	0.34	0.79	0.87	0.73
		Intercept	−13.86	−	−4.17	−4.86	−5.70	−	−3.0	−1.50	−1.62	−1.57	−0.50	0.24	−1.87	−1.60	−1.01
		Slope	10.48	−	6.09	6.70	8.70	−	6.21	5.39	5.60	5.65	3.36	2.71	6.02	5.62	4.68
A/mass	N/mass	r^2	0.39[1]	NS	0.78	0.77	0.34	0.25	0.46	0.91	0.90	0.84	0.55[2]	0.30	0.81	0.81	0.65
		Intercept	295.4	−	−75.3	−87.6	−31.6	−26.0	−49.6	−36.0	−35.4	−32.2	13.3	18.5	−55.9	−49.5	−16.4
		Slope	91.8	−	79.2	88.3	54.9	58.5	74.6	66.8	66.3	62.7	25.6	55.4	74.7	69.2	44.8
N/area	LMA	r^2	0.88	0.69	0.71	0.72	0.50	0.48	0.48	0.58	0.55	0.26	0.27	0.40	0.48	0.50	0.27
		Intercept	0.59	−0.52	−2.00	−1.93	−0.37	0.69	0.66	−0.82	−0.80	−1.07	0.70	0.36	−0.35	−0.48	−0.14
		Slope	0.016	0.026	0.039	0.038	0.024	0.009	0.009	0.023	0.024	0.016	0.015	0.015	0.021	0.024	0.020
A/area	LMA	r^2	0.81	NS	0.49	0.43	0.56	0.29	NS	0.31	0.29	NS	0.33	NS	0.25	0.30	0.24
		Intercept	−9.7	−	−15.3	−13.5	−9.2	2.0	−	−4.0	−4.5	−	−0.5	−	−2.8	−3.3	2.0
		Slope	0.20	−	0.22	0.21	0.18	0.06	−	0.10	0.11	−	0.08	−	0.10	0.12	0.10
N/mass[3]	LMA	r^2	NS	NS	0.47	NS	NS	0.47	NS	0.31	0.24	NS	NS	NS	NS	NS	NS
A/mass[3]	LMA	r^2	0.37	NS	0.31	0.30	0.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

[1] This relationship has a greater correlation using a non-linear regression. $r^2 = 0.52$. A/mass $= 2762 * 10^{-0.679 * N/mass}$.

[2] This relationship is weakly significant and with a negative slope if three values from late spring (with lowest N/mass) are omitted. $r^2 = 0.19$. A/mass $= 150 − 15.9$ (N/mass).

[3] Since these relationships are generally insignificant or weak, slopes and intercepts are not shown.